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CHARLES F. MARVIN, Chief

MONTHLY WEATHER REVIEW

SUPPLEMENT No. 14

AEROLOGY No. 9

I. FREE-AIR DATA AT BROKEN ARROW, OKLA., DREXEL, NEBR., ELLENDALE, N. DAK., AND ROYAL CENTER, IND., AEROLOGICAL STATIONS. JULY, AUGUST, AND SEPTEMBER, 1918, INCLUSIVE.

By The Aerological Division, Willis Ray Gregg, In Charge.

II. BROKEN ARROW AEROLOGICAL STATION.

By John A. Reihle.

III. ROYAL CENTER AEROLOGICAL STATION.

By Homer W. Ball.

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SUPPLEMENTS TO THE MONTHLY WEATHER REVIEW.

During the summer of 1913 the issue of the system of publications of the Department of Agriculture was changed and simplified so as to eliminate numerous independent series of Bureau bulletins. In accordance with this plan among other changes, the series of quarto bulletins—lettered from A to Z—and the octavo bulletins—numbered from 1 to 44—formerly issued by the U. S. Weather Bureau have come to their close.

Contributions to meteorology such as would have formed bulletins are authorized to appear hereafter as Supplements of the MONTHLY WEATHER REVIEW. (Memorandum from the Office of the Assistant Secretary, May 18, 1914.)

These Supplements comprise those more voluminous studies which appear to form permanent contributions to the science of meteorology and of weather forecasting, as well as important communications relating to the other activities of the U. S. Weather Bureau. They appear at irregular intervals as occasion may demand, and contain approximately 100 pages of text, charts, and other illustrations. Subscribers to the MONTHLY WEATHER REVIEW receive the SUPPLEMENTS without extra charge. Copies may be procured at the prices indicated below by addressing the Superintendent of Documents, Government Printing Office, Washington, D. C.

SUPPLEMENTS PUBLISHED.

No. 1. Types of storms of the United States and their average movements. By E. H. Bowie and R. H. Weightman, Washington, 1914. 37 p. 114 ch. 4°. Price 25 cents. (W. B. No. 538.)

No. 2. I. Calendar of the leafing, etc., of the common trees of the eastern United States. By G. N. Lamb. 19 p. 4 figs. II. Phenological dates, etc., recorded by T. Mikesell at Wauseon, Ohio. By J. Warren Smith. 73 p. 2 figs. Washington, 1915. 4°. Price 25 cents. (W. B. No. 558.)

No. 3. (*Aerology No. 1.*) Sounding balloon ascensions at Fort Omaha, Nebr., May 8, 1915, etc. By W. R. Blair and others. 67 p. 23 figs. Washington, 1916. 4°. Price 25 cents. (W. B. No. 592.)

No. 4. Types of anticyclones of the United States and their average movements. By E. H. Bowie and R. H. Weightman. Washington, 1917. 25 p. 7 figs. 73 ch. 4°. Price 25 cents. (W. B. No. 600.)

No. 5. (*Aerology No. 2.*) Free-air data at Drexel Aerological Station: January, February, and March, 1916. By W. R. Blair and others. Washington, 1917. 59 p. 6 figs. 4°. Price 25 cents. (W. B. No. 603.)

No. 6. Relative humidities and vapor pressures over the United States, including a discussion of data from recording hair hygrometers for a period of about 5 years. By P. C. Day. Washington, 1917. 61 p. 7 figs. 34 charts. 4°. Price 25 cents. (W. B. No. 609.)

No. 7. (*Aerology No. 3.*) Free-air data at Drexel Aerological Station: April, May, and June, 1916. By W. R. Blair and others. Washington, 1917. 51 p. 4 figs. 4°. Price 25 cents. (W. B. No. 619.)

No. 8. (*Aerology No. 4.*) Free-air data at Drexel Aerological Station: July, August, September, October, November, and December, 1916. By W. R. Gregg and others. Washington, 1918. 111 p. 12 figs. 4°. Price 25 cents. (W. B. No. 642.)

No. 9. Periodical events and Natural Law as guides to agricultural research and practice. By A. D. Hopkins. Washington, 1918. 42 p. 22 figs. 4°. Price 25 cents. (W. B. No. 643.)

No. 10. (*Aerology No. 5.*) Free-air data at Drexel Aerological Station: January, February, March, April, May, and June, 1917. By W. R. Gregg and others. Washington, 1918. 101 p. 11 figs. 4°. Price 25 cents. (W. B. No. 651.)

No. 11. (*Aerology No. 6.*) Free-air data at Drexel Aerological Station: July, August, September, October, November, and December, 1917. By W. R. Gregg and others. Washington, 1918. 108 p. 11 figs. 4°. Price 25 cents. (W. B. No. 658.)

No. 12. (*Aerology No. 7.*) Free-air data at Drexel and Ellendale Aerological Stations: January, February, and March, 1918. By W. R. Gregg and others; Cold winter of 1917-18. By W. R. Gregg. Description of the Ellendale Aerological Station. By V. E. Jakl. Washington, 1918. 82 p. 10 figs. 4°. Price 25 cents. (W. B. No. 660.)

No. 13. (*Aerology No. 8.*) I. Free-air data at Drexel and Ellendale Aerological Stations: April, May, and June, 1918. By W. R. Gregg and others. II. Notes on kite flying. By V. E. Jakl. Washington, 1918. 81 p. 1 fig. 4°. Price 25 cents. (W. B. No. 663.)

No. 14. (*Aerology No. 9.*) I. Free-air data at Broken Arrow, Drexel, Ellendale and Royal Center Aerological Stations, July, August, and September, 1918. By W. R. Gregg and others. II. Broken Arrrow Aerological Station. By John A. Reihle. III. Royal Center Aerological Station. By Homer W. Ball, Washington, 1919. 132 p. 22 figs. 4°. Price, 25 cents. (W. B. No. 672.)

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FREE-AIR DATA AT BROKEN ARROW, OKLA., DREXEL, NEBR., ELLENDALE, N. DAK., AND ROYAL CENTER, IND., AEROLOGICAL STATIONS, JULY TO SEPTEMBER, 1918, INCLUSIVE.

By the AEROLOGICAL DIVISION, WILLIS RAY GREGG, Meteorologist, In Charge.

GENERAL STATEMENT.

During the three months July to September, 1918, inclusive, kite flights were made on all but 6 days at Drexel and on all but 5 days at Ellendale, failures on these days being due to light winds. Free-air observations were begun during this period at Broken Arrow, Okla., and Royal Center, Ind.[1] The records obtained at Broken Arrow were to low altitudes only, owing to delay in the receipt of suitable power equipment. The number of flights and their mean altitudes at the four stations are given in Table 1.

TABLE 1.—*Distribution and mean altitudes of kite flights at Broken Arrow, Okla., Drexel, Nebr., Ellendale, N. Dak., and Royal Center, Ind., during the period July to September, 1918.*

	July.	August.	September.	Total.	July.	August.	September.	Total.
	Broken Arrow.				Drexel.			
Number of flights	.....	8	10	18	38	47	42	127
Mean altitude, meters	.....	1,139	1,321	1,240	2,858	2,799	3,104	2,917
	Ellendale.				Royal Center.			
Number of flights	38	45	44	127	15	32	24	71
Mean altitude, meters	2,129	2,824	2,687	2,569	1,965	2,457	3,087	2,566

SPECIAL NOTES ON KITE FLIGHTS.

Broken Arrow, Okla., September 19.—"During the flight on this date the sky was overcast with stratus clouds at an altitude of about 400 meters above the surface. Thunder was heard at intervals and at 9:56 a. m. with 3 kites and 1,800 meters of wire out lightning struck the head kite and completely destroyed the wire from this kite to the reel house, leaving along the path of the discharge a streak of thick, yellowish brown smoke; this smoke appeared to move first in the direction of the reel house and then in the reverse direction. A sharp shower of large raindrops began about two minutes after the discharge, lasting but a short time.

"The lightning flash was accompanied by a sound more resembling an explosion than ordinary thunder. The reel house was filled with smoke and a peculiar odor was noticeable. Two men were reeling in the kites by hand at the time and were temporarily blinded and deafened, but suffered no permanent injury. The wire on the reel was not damaged, but the copper wire connecting the reel with the earth was burned off. One of the galvanized iron wires by means of which secondary kites are attached to the main wire was later found to be fused at both ends; the steel 'piano' wire was still wound around this heavy wire but was burned through at the loop.

"On September 23d, the head kite was found about 5 kilometers southwest of the station. Its brace wires were nearly all destroyed, and there were several small holes burned in the sails where pieces of hot wire had dropped on them. The meteorograph was not injured, although the case was covered with soot."—*J. A. R.*

For descriptions of similar occurrences, see Bulletin of the Mount Weather Observatory, volume 6, page 247; MONTHLY WEATHER REVIEW SUPPLEMENT No. 10, page 5, 6; SUPPLEMENT No. 11, page 5; and SUPPLEMENT No. 13, page 5.

Free-Air Temperatures.

Table 2 contains mean monthly temperatures at different levels, as observed at Drexel, Ellendale and Royal Center during the period July to September, 1918, inclusive. Means for July at Royal Center are based on records from the 12th to the end of the month only. Means for September at this station are not given, as the temperature element of the meteorograph used was later found to be defective. The records for Broken Arrow were too few in number to enable mean values to be computed. For purposes of comparison, three-year means for Drexel and five-year means for Mount Weather, Va., are also presented in this table. Temperatures at Drexel were generally above normal in August, below in September and very close to normal in July.

[1] For descriptions of these stations see p. 8 and p. 10, respectively, this Supplement.

TABLE 2.—*Mean monthly temperatures at Drexel, Ellendale, and Royal Center; also 3-year means at Drexel and 5-year means at Mount Weather, Va.*

Altitude, sea level (meters).	JULY.					AUGUST.					SEPTEMBER.			
	Drexel.		Ellendale, 1918.	Royal Center, 1918.	Mount Weather, 5-year mean.	Drexel.		Ellendale, 1918.	Royal Center, 1918.	Mount Weather, 5-year mean.	Drexel.		Ellendale, 1918.	Mount Weather 5-year mean.
	1918.	3-year mean.				1918.	3-year mean.				1918.	3-year mean.		
	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	C°.	°C.	°C.	°C.	°C.
225				[a] 24.0					[b] 26.0					
250				24.0					25.9					
396	[c] 24.8	26.7				[d] 25.8	23.8				[e] 15.2	17.7		
444			[f] 21.0					[g] 21.4					[h] 11.0	
500	24.0	25.9	20.6	23.1	[i] 22.8	25.4	23.3	21.0	24.3	[i] 21.5	15.2	17.3	11.0	[i] 19.0
750	22.1	24.2	18.7	21.5	21.1	24.1	22.0	19.9	23.0	19.9	14.1	15.8	10.9	17.5
1,000	21.0	22.5	17.3	19.8	19.3	23.1	20.9	18.5	21.7	18.3	12.9	14.5	9.9	16.1
1,250	19.7	20.8	15.8	18.2	17.6	21.8	19.7	16.9	20.4	16.8	11.5	13.3	8.6	14.8
1,500	18.4	19.2	14.9	16.7	15.9	20.3	18.3	15.1	19.0	15.3	10.1	12.1	7.4	13.5
1,750	17.0	17.5	13.6	15.3	14.3	18.6	16.6	13.6	17.7	13.9	8.6	10.8	6.2	12.5
2,000	15.4	15.8	12.2	13.9	12.7	16.9	15.0	12.0	16.3	12.5	7.1	9.3	5.0	11.4
2,250	13.7	14.0	10.9	12.7	11.2	15.0	13.3	10.5	15.0	11.2	5.6	7.8	3.9	10.3
2,500	11.9	12.2	9.4	11.8	9.7	13.1	11.4	8.9	13.7	9.8	4.2	6.4	2.5	9.0
2,750	10.2	10.4	8.1	11.6	8.3	11.1	9.6	7.4	12.4	8.4	2.9	5.0	1.1	7.6
3,000	8.4	8.6	6.8		6.8	9.2	7.7	6.1	10.9	6.8	1.5	3.6	−0.3	6.2
3,250	6.7	6.8	5.1		5.1	7.3	5.9	4.8	9.8	5.2	0.0	2.2	−1.8	4.6
3,500	5.0	5.1	3.3		3.5	5.5	4.1	3.3	8.6	3.8	− 1.4	0.9	−3.3	3.1
3,750	3.3	3.4	1.7		1.8	3.7	2.3	1.7	7.4	2.3	− 3.0	− 0.5	−4.9	1.5
4,000	1.8	1.8	0.4		0.1	1.8	0.7	0.2	6.1	0.7	− 4.4	− 2.0	−6.6	−0.2
4,250	0.9	0.2	−0.9		−1.6	−0.1	−0.9	−1.4	4.5	−0.9	− 6.0	− 3.5	−7.8	−1.9
4,500	−0.6	−1.5	−2.1		−3.2		−2.8	−3.1	2.8	−2.7	− 7.6	− 5.1	−8.8	−3.7
4,750		−3.1			−4.8		−4.7	−4.7		−4.8	− 9.2	− 6.6	−9.8	−5.8
5,000								−6.0		−6.8	−10.8	− 7.9		−6.6
5,250								−7.2		−9.0		− 9.2		−7.2
5,500												−10.4		−8.1
5,750												−11.7		−8.9

[a] Actual 24-hour mean temperature, 21.2° C.
[b] Actual 24-hour mean temperature, 24.3° C.
[c] Actual 24-hour mean temperature, 24.0° C.
[d] Actual 24-hour mean temperature, 26.1° C.
[e] Actual 24-hour mean temperature, 15.9° C.
[f] Actual 24-hour mean temperature, 19.0° C.
[g] Actual 24-hour mean temperature, 19.8° C.
[h] Actual 24-hour mean temperature, 11.4° C.
[i] At surface, 526 meters above sea level.

Diurnal Series Observations.

During the three months six series of observations of diurnal variations were made at Drexel; four at Ellendale; and three at Royal Center. The number of observations and the average altitudes reached in each series are shown in Table 3.

TABLE 3.—*Number of observations and average altitudes reached in diurnal series at Drexel, Nebr., Ellendale, N. Dak., and Royal Center, Ind., July to September, 1918, inclusive.*

Station.	Dates.	Number of flights.	Mean altitude.
			Meters.
Drexel	July 1–2	8	3,545
	July 31–Aug. 1	6	2,141
	Aug. 5–6	9	3,139
	Aug. 21–22	9	2,832
	Sept. 11–12	6	3,382
	Sept. 23–24	9	3,203
Ellendale	July 30–31	8	1,909
	Aug. 9–10	8	3,116
	Aug. 22–23	7	3,780
	Sept. 24–25	8	3,562
Royal Center	Aug. 7–8	6	3,604
	Aug. 22–23	6	2,580
	Sept. 12–13	5	3,852

As already stated, the temperature element in the meteorograph used at Royal Center became defective about the 1st of September, and no isothermal chart can, therefore, be made for the last series at that station. The duration of all other series and the temperatures observed in each are shown in figures 1 to 12. Weather conditions, except pressure distribution, and all other observed data may be found in Tables 5 to 15.

Pressures and winds during the series flights.

Drexel, Nebr.

July 1–2.—Relatively high pressure (1,022 mb.), central over Kansas, Missouri, Oklahoma and Arkansas on the morning of the first, moved eastward during the series to the middle Atlantic Coast States and diminished somewhat in energy (1,019 mb.). In the meantime a well-developed LOW (994 mb.) passed from the upper Lake region northeastward and a moderate LOW (998 mb.) appeared over the region just north of Montana. Surface winds veered from southerly to west-southwesterly with the eastward movement of the HIGH. Winds at higher levels were northwesterly under the influence of the northeastern LOW, this influence being apparent at the greatest altitudes reached, about 4,300 meters. Later, with the approach of the northwestern LOW, the upper winds backed to westerly.

July 31–August 1.—During this series barometric gradients were weak over the entire country. Relatively high pressure (about 1,019 mb.) covered the Lake region and Ohio Valley and low pressure (about 1,005 mb.) was central north of Montana and the Dakotas. Surface winds were southerly to southwesterly; those aloft, southwesterly to westerly. The upper winds were too light to sustain the kites from 11:00 p. m. of July 31 to 7 a. m. of August 1, and throughout the series comparatively low altitudes could be reached.

August 5–6.—A trough of relatively low pressure (about 1,005 mb.) extended from the upper Lake region

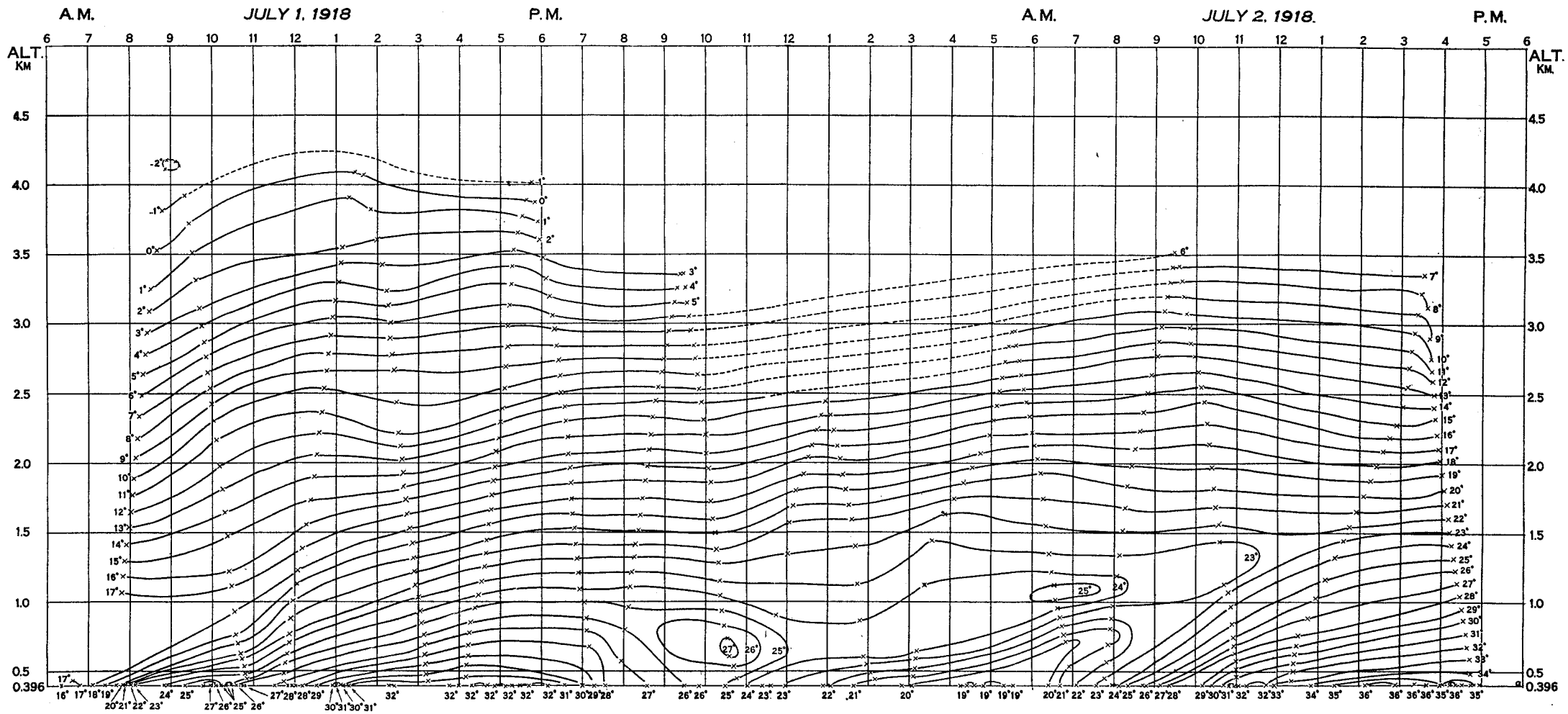

FIG. 1. Free-air temperatures, °C., above Drexel Aerological Station; observed July 1–2, 1918.

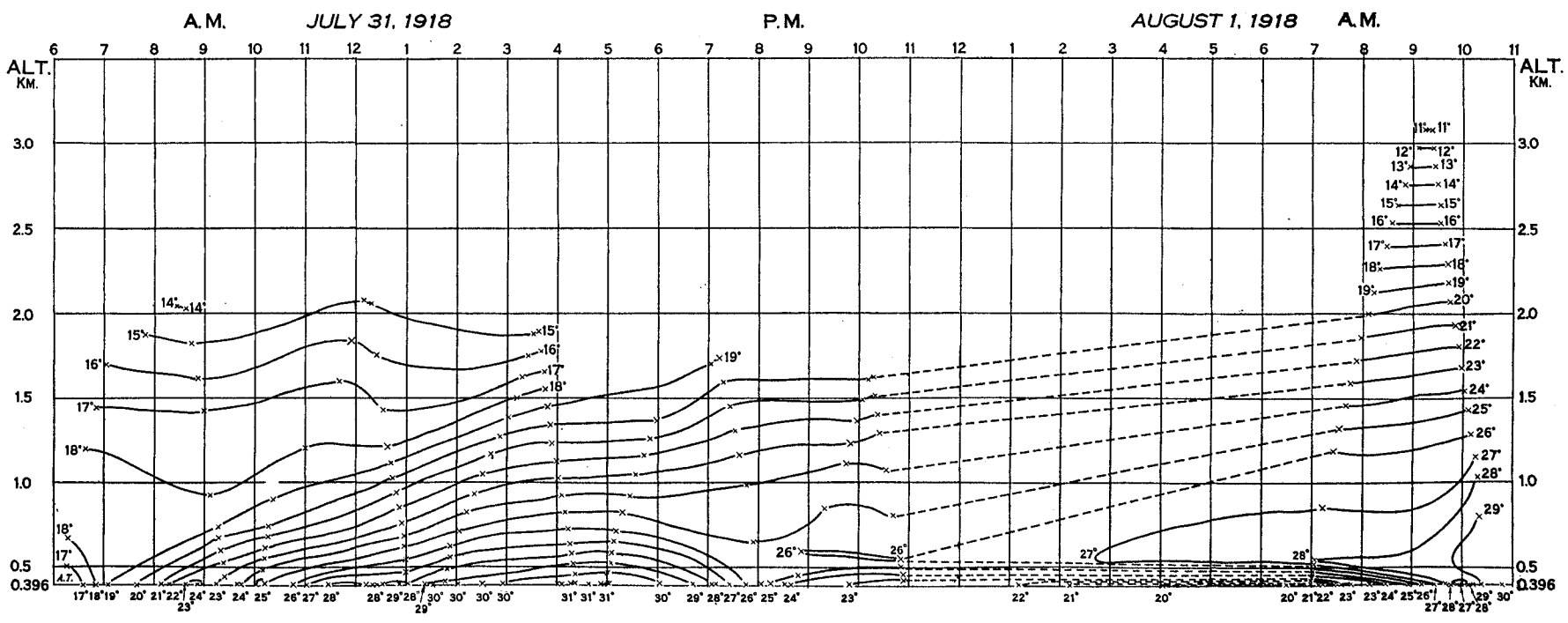

FIG. 2. Free-air temperatures, °C., above Drexel Aerological Station; observed July 31–August 1, 1918.

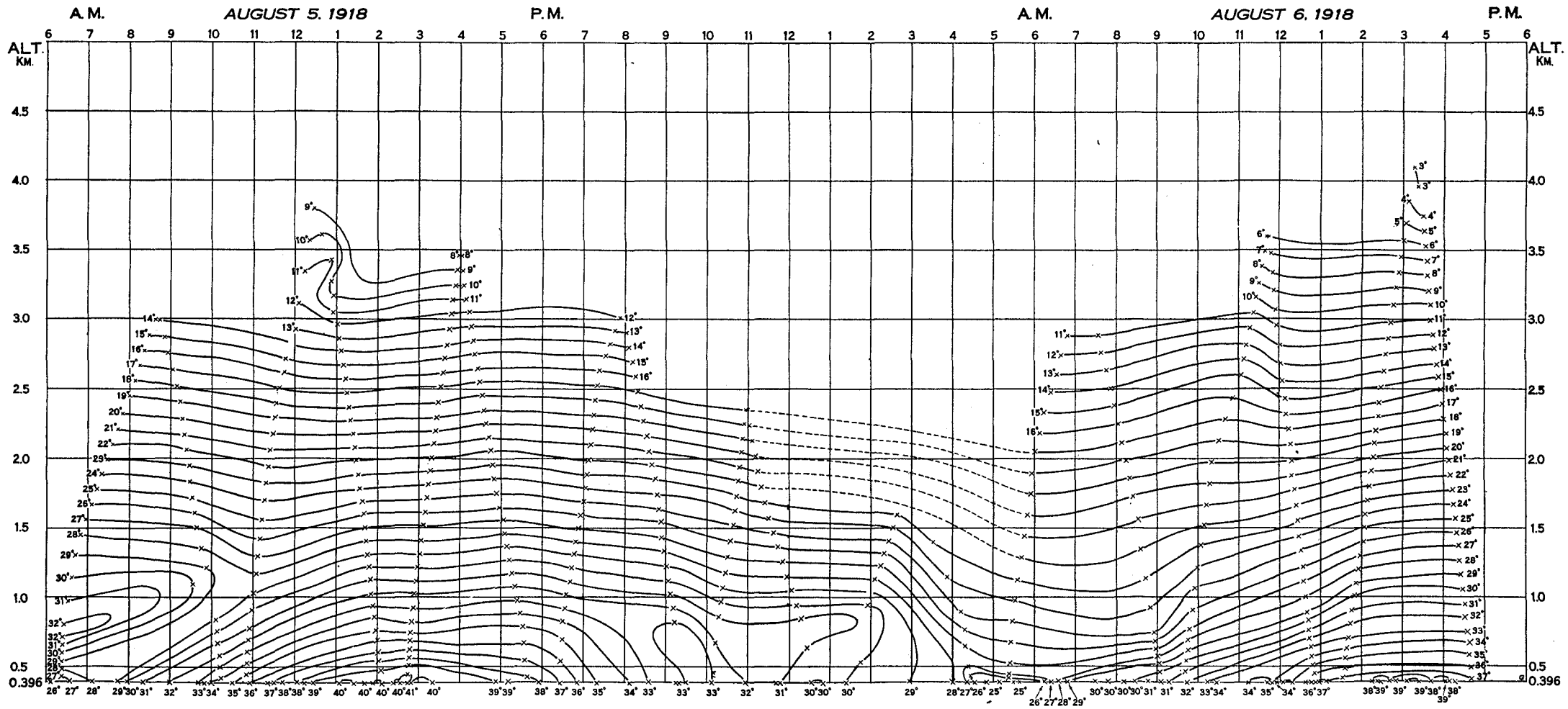

FIG. 3. Free-air temperatures, °C., above Drexel Aerological Station; observed August 5–6, 1918.

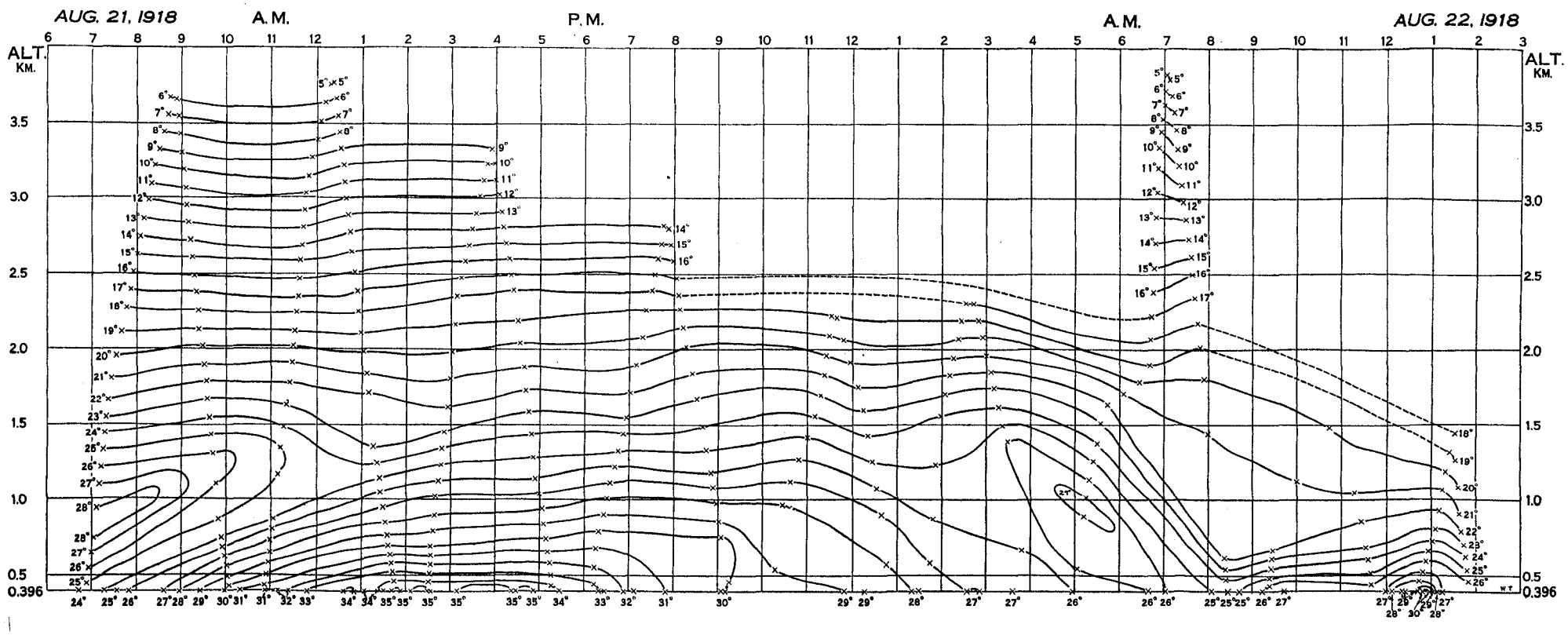

FIG. 4. Free-air temperatures, °C., above Drexel Aerological Station; observed August 21–22, 1918.

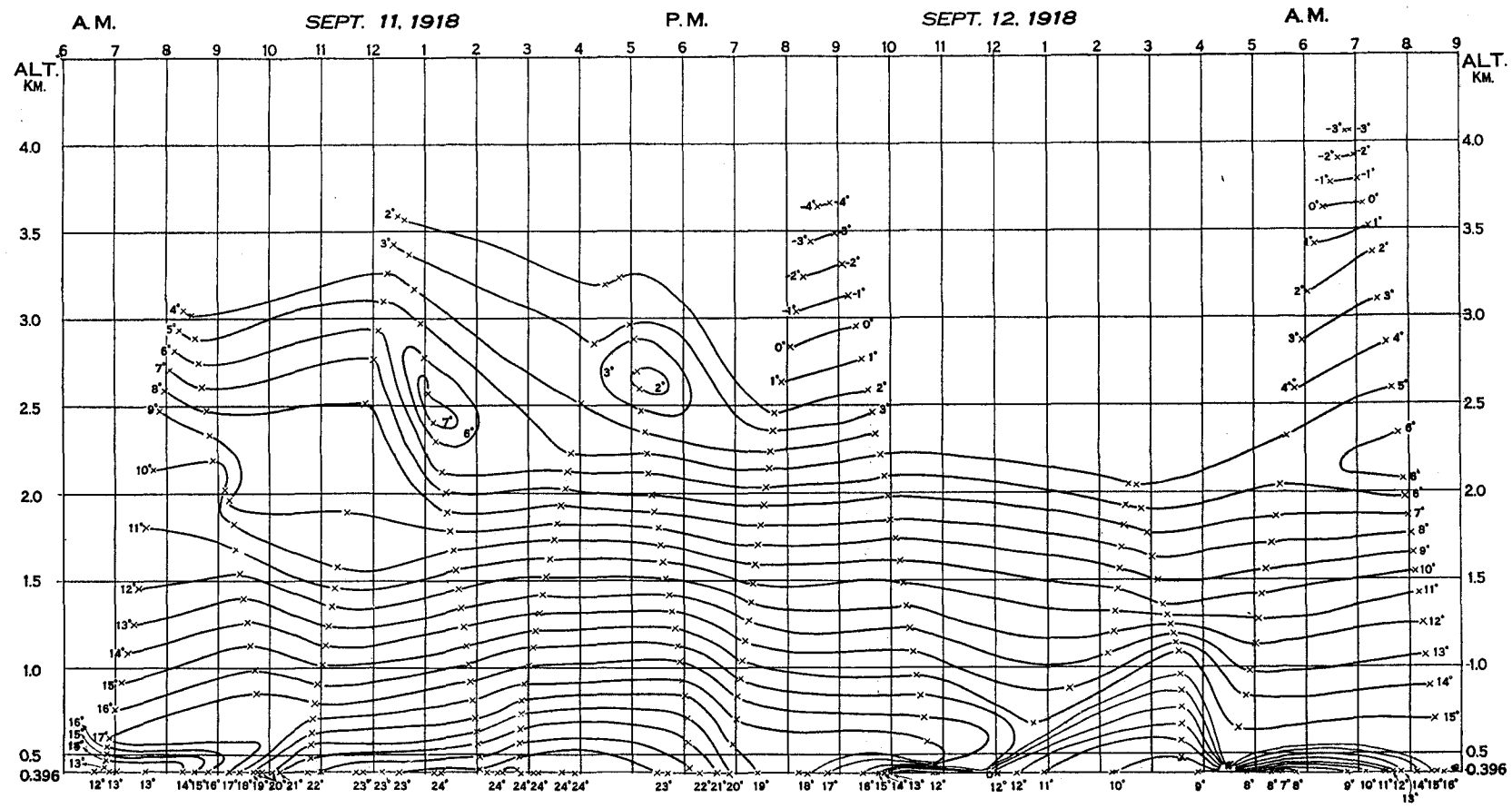

FIG. 5. Free-air temperatures, °C., above Drexel Aerological Station; observed September 11-12, 1918.

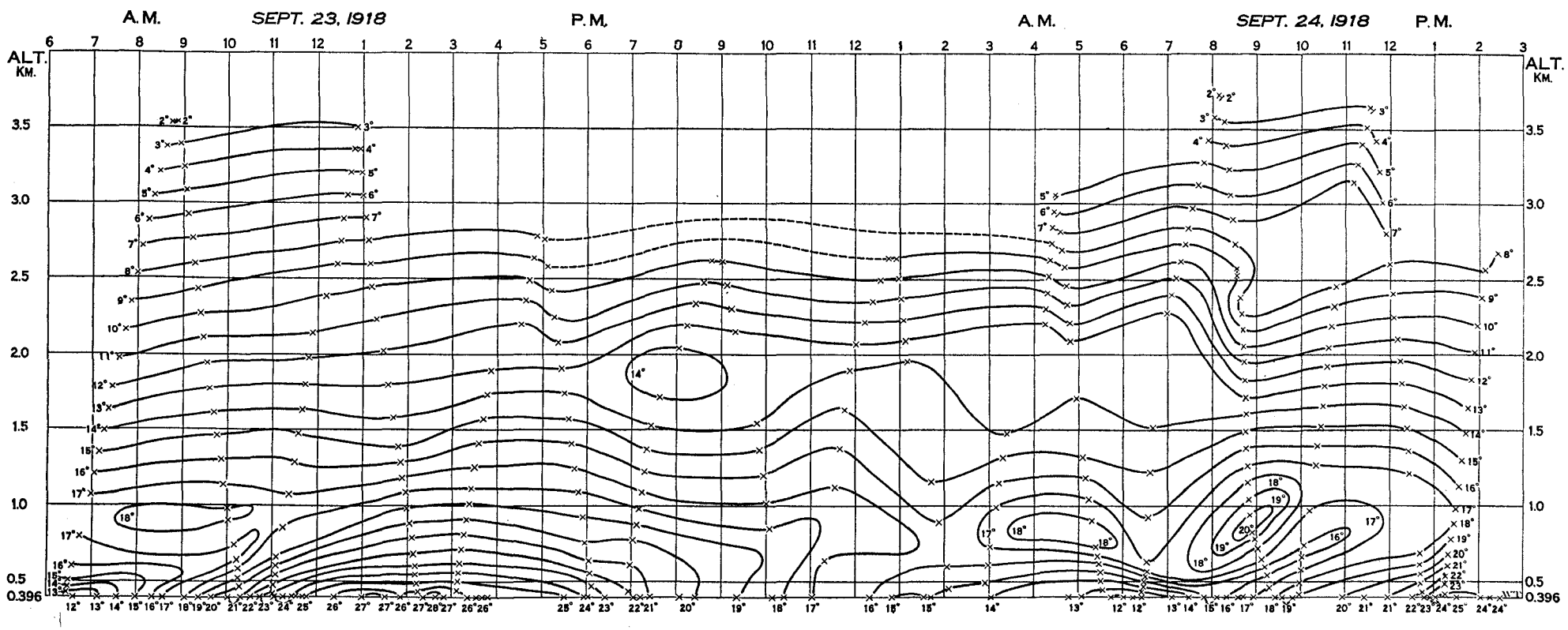

FIG. 6. Free-air temperatures, °C., above Drexel Aerological Station; observed September 23-24, 1918.

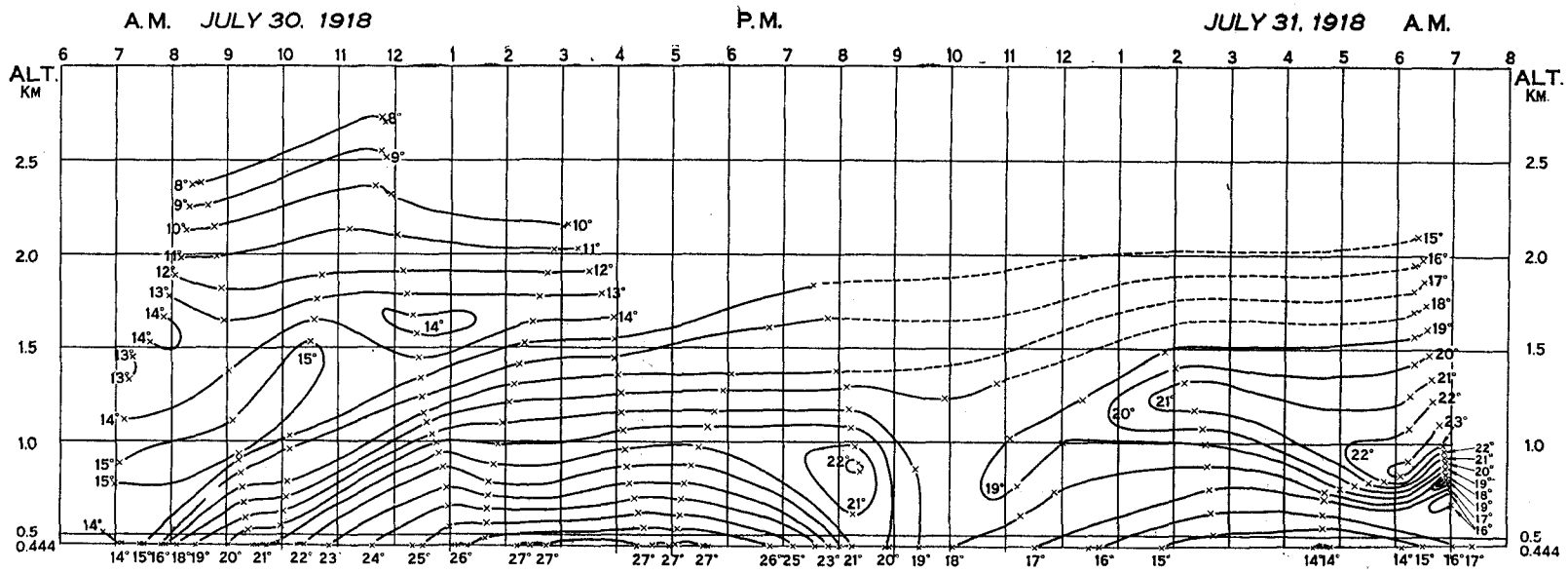

FIG. 7. Free-air temperatures, °C., above Ellendale Aerological Station; observed July 30-31, 1918.

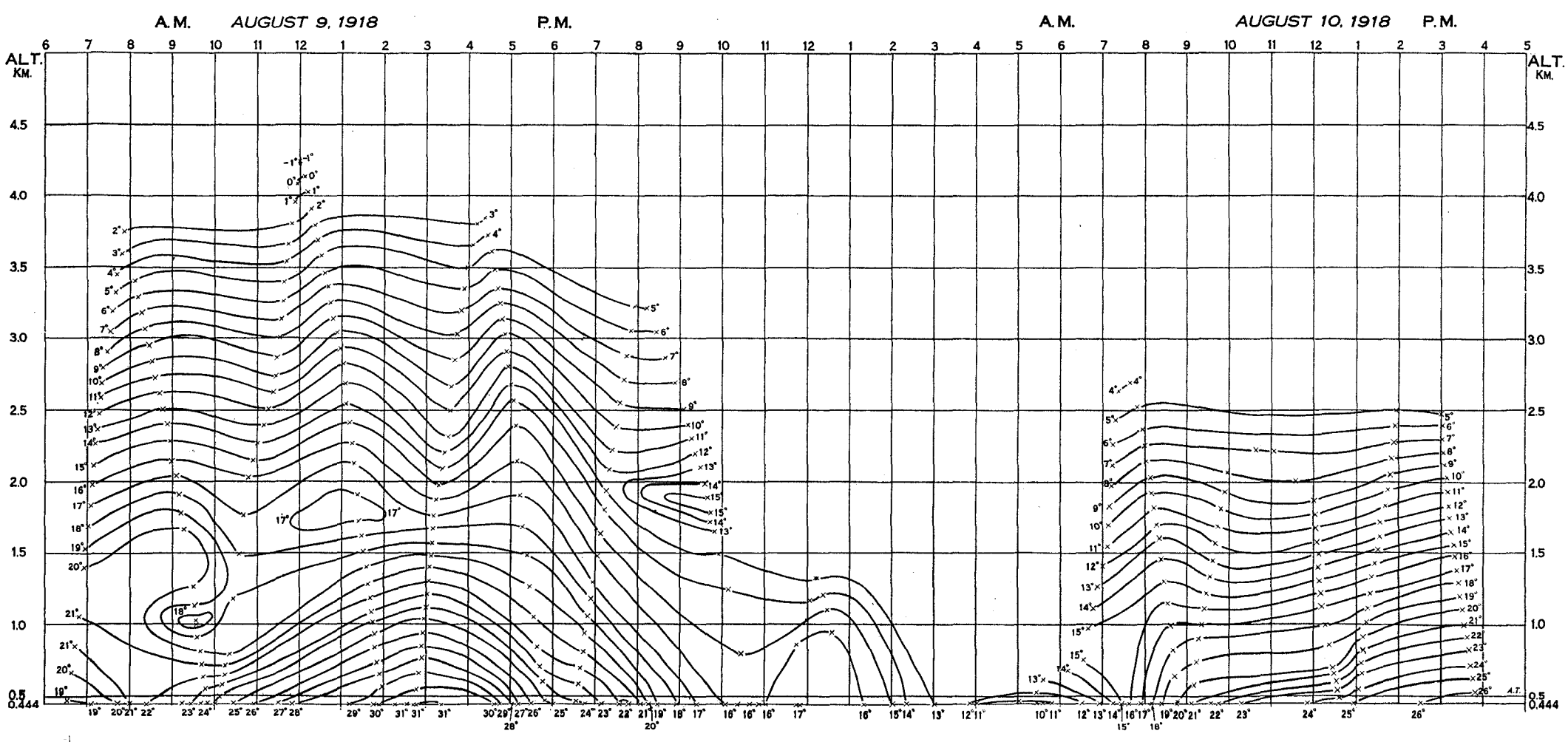

FIG. 8. Free-air temperatures, °C., above Ellendale Aerological Station; observed August 9-10, 1918.

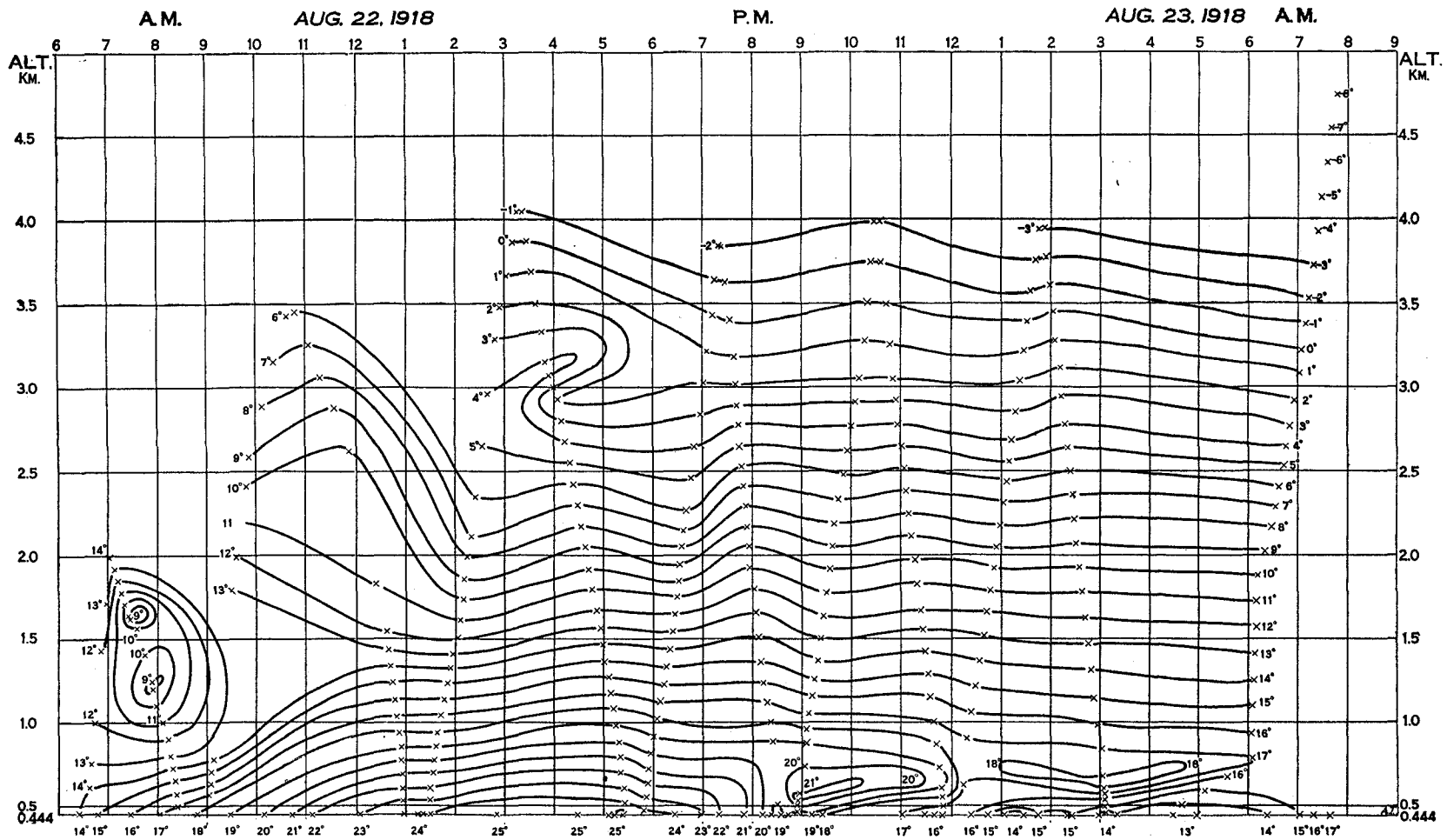

FIG. 9. Free-air temperatures, °C., above Ellendale Aerological Station; observed August 22–23, 1918.

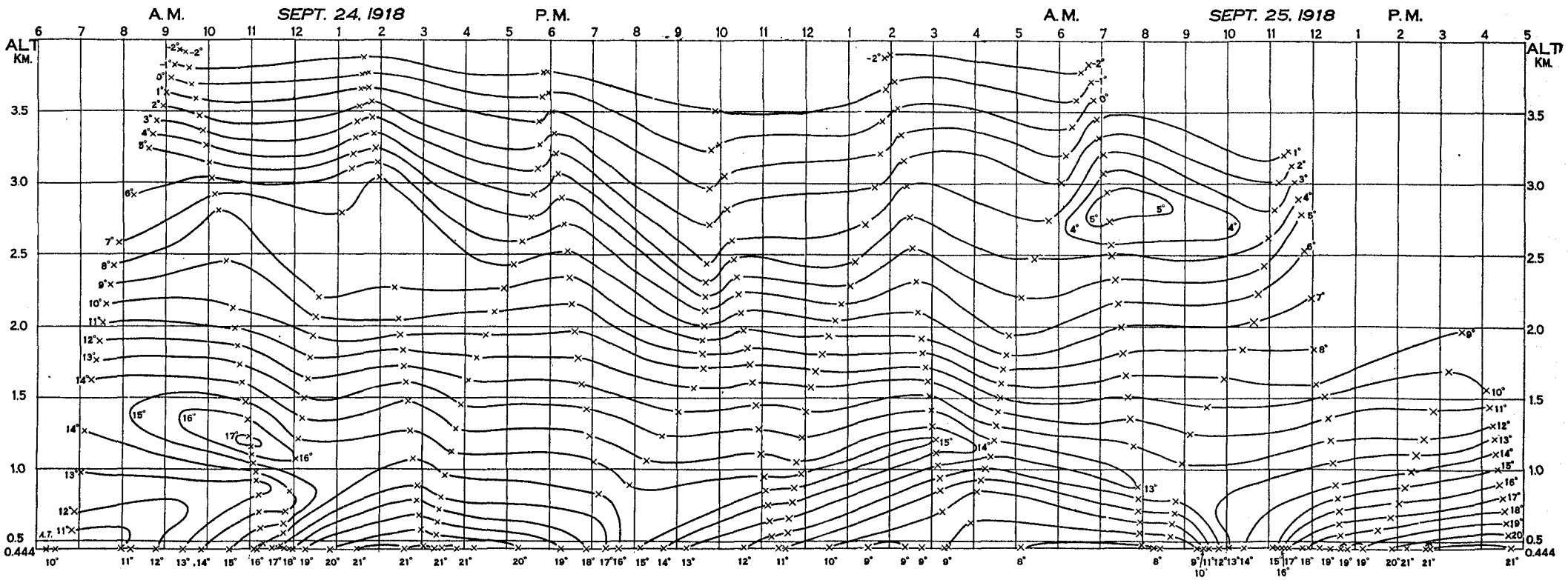

FIG. 10. Free-air temperatures, °C., above Ellendale Aerological Station; observed September 24–25, 1918.

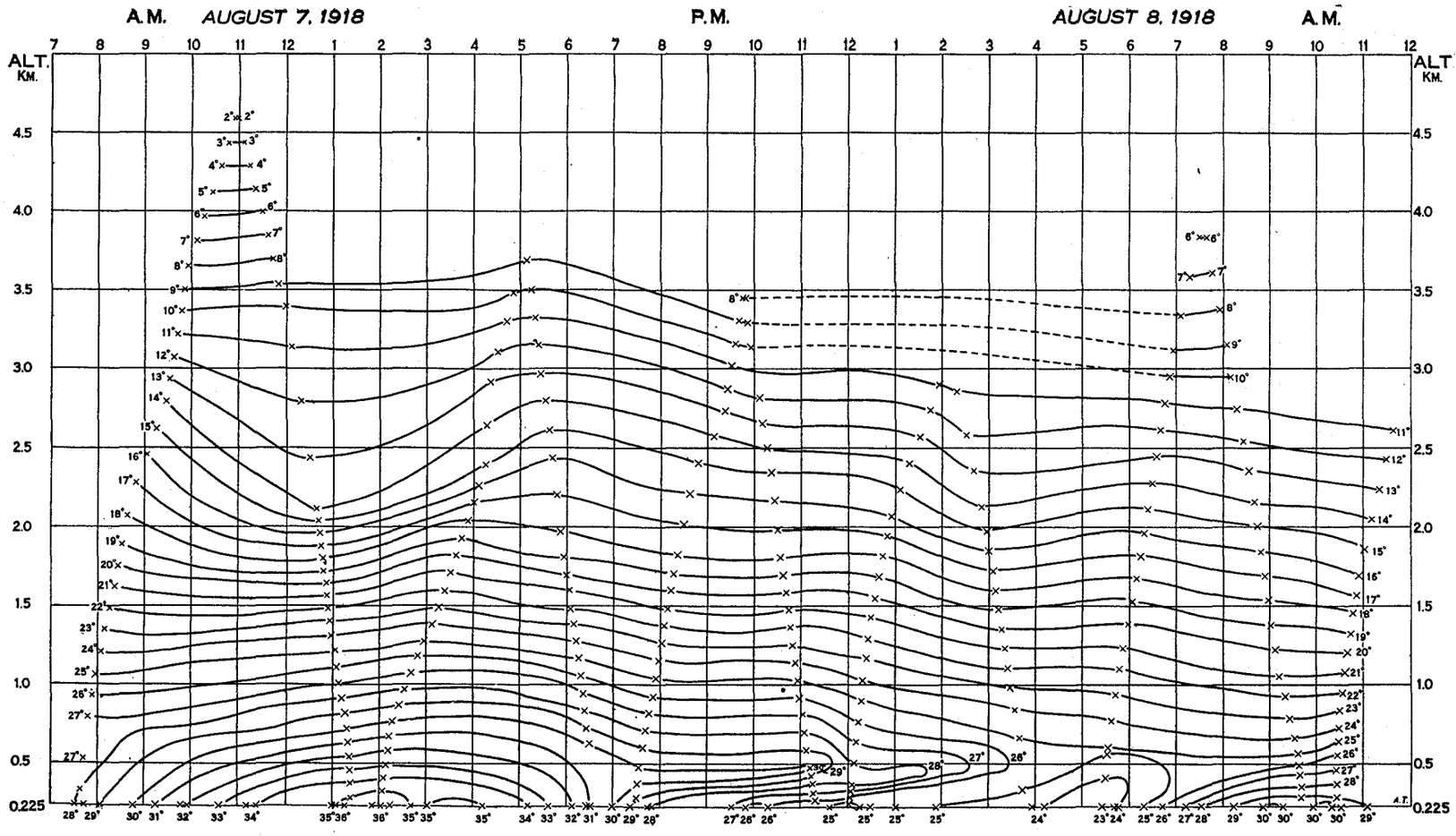

FIG. 11. Free-air temperatures, °C., above Royal Center Aerological Station; observed August 7-8, 1918.

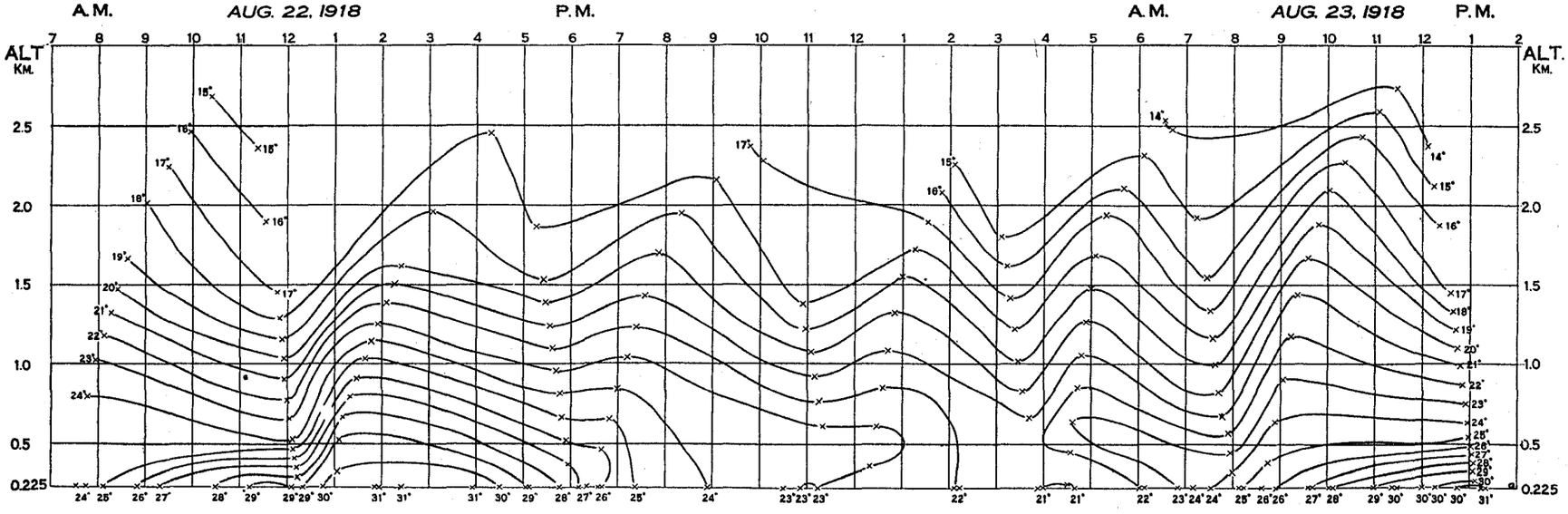

FIG. 12. Free-air temperatures, °C., above Royal Center Aerological Station; observed August 22-23, 1918.

southwestward to New Mexico, Drexel being very nearly in the center of it. High pressure (about 1,019 mb.) covered the southeastern States. Under the influence of this pressure distribution, winds, both at the surface and at higher levels, were south-southwesterly and southwesterly.

August 21–22.—Pressure conditions were somewhat similar during this series to those during the series of August 5–6, viz: high pressure over the eastern and southeastern States, diminishing from 1,026 to 1,019 mb., and a trough of low pressure (about 1,010 mb.) extending from the upper Lakes southwestward to New Mexico. In this case the low pressure passed to the east of the station during the latter part of the series. Hence, the winds, both surface and aloft, were southerly to southwesterly, changing with the eastward movement of the low pressure, to north-northwesterly and north-northeasterly.

September 11–12.—A fairly well-developed LOW moved from Minnesota eastward to Lake Huron, the pressure diminishing from 1,012 to 1,006 mb. A moderate HIGH (about 1,025 mb.) covered the central Rocky Mountain States. Under the influence of this pressure distribution surface winds were northerly to northwesterly; those at higher levels, northwesterly and strong. The northerly component in the upper winds, due to the northeastern LOW, was observed to the greatest height reached by the kites, viz: 4,000 meters.

September 23–24.—Throughout this series high pressure overlay the portion of the country east of the Mississippi Valley but diminished in intensity from 1,030 to 1,022 mb. A fairly well-developed LOW (about 1,005 mb.) moved from Wyoming southeastward to northern Texas. With the approach of this LOW surface winds backed from southerly to south-southeasterly; at higher levels, from southwesterly to south-southwesterly.

Ellendale, N. Dak.

July 30–31.—Relatively high pressure (about 1,023 mb.) was central over the upper Lakes and low pressure (about 1,008 mb.) north of Montana. There was practically no movement of these centers and the barometric gradient between them was small. Surface winds were southerly, veering with altitude to southwesterly. Upper winds were of low velocity.

August 9–10.—Low pressure (about 990 mb.), central north of Montana at the beginning of this series, passed eastward to western Ontario and considerably diminished in intensity (1,004 mb.). Near the end of the series another moderate LOW (1,006 mb.) appeared north of Montana, pressure between the two being relatively high (1,013 mb.). Surface winds veered from southerly to northwesterly, later backing to westerly. At higher levels they were south-southwesterly, veering to westerly. The southerly component in the upper winds persisted for some time after the change to northwesterly occurred at the surface.

August 22–23.—High pressure (1,026 mb.) was central over the northwestern States and a well-developed LOW (1,000 mb.) moved from north of the Dakotas to central Ontario. Early in the series surface winds were southwesterly veering with altitude to west-northwesterly. With the eastward movement of the LOW surface winds shifted to west-northwesterly; those at higher levels to westerly.

September 24–25.—During this series a well-developed LOW (1,005 mb.) moved from eastern Colorado to eastern Texas. Pressure was relatively high (1,026 mb.) over the upper Lakes and over Washington. These HIGHS moved eastward to New England and Montana respectively, the latter increasing in energy to 1,030 mb. Surface winds backed from easterly to north-northeasterly; those at higher levels from south-southeasterly to northeasterly. This series is of special interest in that it shows an easterly component in the winds up to the greatest height reached, viz: 4,000 meters. In general these winds diminished in strength with altitude and at still higher levels, as indicated by alto-cumulus and alto-stratus clouds, winds with a westerly component prevailed.

Royal Center, Ind.

August 7–8.—High pressure (about 1,019 mb.) covered the southeastern States and a trough of relatively low pressure (about 1,008 mb.) extended from Texas northeastward to the lower Lake region. Under the influence of this distribution surface winds were generally south-southwesterly; those at higher levels, southwesterly.

August 22–23.—Relatively high pressure (about 1,020 mb.) covered the middle Atlantic Coast States. A well-developed LOW (1,000 mb.) moved from north of the Dakotas to central Ontario. Winds at the surface and at higher levels were southerly to west-southwesterly and of low velocity.

September 12–13.—Low pressure (1,008 mb.) moved from Lake Huron to eastern Ontario, and high pressure from Colorado to Kentucky, the latter diminishing in intensity from 1,024 to 1,017 mb. Under the influence of this HIGH surface winds backed from west-northwesterly to southwesterly; winds at higher levels were westerly to northwesterly and of low velocity.

Gravity potential.

Table 4 contains values of gravity potential for standard gravity, 980.665 dynes, and for each of the four aerological stations. The method used in determining these values is discussed in SUPPLEMENT No. 12 (*Aerology No. 7*) pages 8, 9. The "sea-level" values of gravity at the two new stations have been computed by introducing into formula (2) on page 9 the proper values of g_s and z_g, viz:

	g_s	z_g
Broken Arrow	979.742 dynes	233 meters.
Royal Center	980.187 dynes	225 meters.

This result gives for g at Broken Arrow 979.742 and at Royal Center, 980.257.

TABLE 4.—*Values of gravity potential, gv. for standard gravity and for Broken Arrow, Okla., Drexel, Nebr., Ellendale, N. Dak., and Royal Center, Ind.*

Altitude, sea level (meters).	0	100	200	300	400	500	600	700	800	900
	Standard gravity, g=980.665.									
	gv.	*gv.*	*gv.*	*gv.*	*gv.*	*gv.*	*gv.*	*gv.*	*gv.*	*gv.*
0	0	98	196	294	392	490	588	686	784	882
1,000	981	1,079	1,177	1,275	1,373	1,471	1,569	1,667	1,765	1,863
2,000	1,961	2,059	2,157	2,255	2,353	2,451	2,549	2,647	2,745	2,843
3,000	2,941	3,039	3,137	3,235	3,332	3,430	3,528	3,626	3,724	3,822
4,000	3,920	4,018	4,116	4,214	4,312	4,410	4,508	4,606	4,704	4,802
5,000	4,899	4,997	5,095	5,193	5,291	5,389	5,487	5,585	5,683	5,781
6,000	5,878	5,976	6,074	6,172	6,270	6,368	6,466	6,564	6,661	6,759
	Broken Arrow, Okla., g=979.814.									
0	0	98	196	294	392	490	588	686	784	882
1,000	980	1,078	1,176	1,273	1,371	1,469	1,567	1,665	1,763	1,861
2,000	1,959	2,057	2,155	2,253	2,351	2,449	2,546	2,644	2,742	2,840
3,000	2,938	3,036	3,134	3,232	3,330	3,427	3,525	3,623	3,721	3,819
4,000	3,917	4,015	4,112	4,210	4,308	4,406	4,504	4,602	4,700	4,797
5,000	4,895	4,993	5,091	5,189	5,286	5,384	5,482	5,580	5,678	5,776
6,000	5,873	5,971	6,069	6,167	6,264	6,362	6,460	6,558	6,656	6,753
	Drexel, Nebr., g=980.296.									
0	0	98	196	294	392	490	588	686	784	882
1,000	980	1,078	1,176	1,274	1,372	1,470	1,568	1,666	1,764	1,862
2,000	1,960	2,058	2,156	2,254	2,352	2,450	2,548	2,646	2,744	2,842
3,000	2,940	3,037	3,135	3,233	3,331	3,429	3,527	3,625	3,723	3,821
4,000	3,919	4,017	4,115	4,212	4,310	4,408	4,506	4,604	4,702	4,800
5,000	4,898	4,996	5,093	5,191	5,289	5,387	5,485	5,583	5,681	5,778
6,000	5,876	5,974	6,072	6,170	6,268	6,365	6,463	6,561	6,659	6,757
	Ellendale, N. Dak., g=980.719.									
0	0	98	196	294	392	490	588	686	784	883
1,000	981	1,079	1,177	1,275	1,373	1,471	1,569	1,667	1,765	1,863
2,000	1,961	2,059	2,157	2,255	2,353	2,451	2,549	2,647	2,745	2,843
3,000	2,941	3,039	3,137	3,235	3,333	3,431	3,529	3,627	3,724	3,822
4,000	3,920	4,018	4,116	4,214	4,312	4,410	4,508	4,606	4,704	4,802
5,000	4,900	4,998	5,096	5,193	5,291	5,389	5,487	5,585	5,683	5,781
6,000	5,879	5,977	6,075	6,172	6,270	6,368	6,466	6,564	6,662	6,760

TABLE 4.—*Values of gravity potential, gr. for standard gravity and for Broken Arrow, Okla., Drexel, Nebr., Ellendale, N. Dak., and Royal Center, Ind.*—Continued.

	0	98	196	294	392	490	588	686	784	882
	Royal Center, Ind., g=980.257.									
0	0	98	196	294	392	490	588	686	784	882
1,000	980	1,078	1,176	1,274	1,372	1,470	1,568	1,666	1,764	1,862
2,000	1,960	2,058	2,156	2,254	2,352	2,450	2,548	2,646	2,744	2,841
3,000	2,939	3,037	3,135	3,233	3,331	3,429	3,527	3,625	3,723	3,821
4,000	3,919	4,016	4,114	4,212	4,310	4,408	4,506	4,604	4,702	4,800
5,000	4,897	4,995	5,093	5,191	5,289	5,387	5,485	5,582	5,680	5,778
6,000	5,876	5,974	6,072	6,169	6,267	6,365	6,463	6,561	6,659	6,756

Proportional parts.

	0	1	2	3	4	5	6	7	8	9
	97									
0	0	1	2	3	4	5	6	7	8	9
10	10	11	12	13	14	15	16	16	17	18
20	19	20	21	22	23	24	25	26	27	28
30	29	30	31	32	33	34	35	36	37	38
40	39	40	41	42	43	44	45	46	47	48
50	48	49	50	51	52	53	54	55	56	57
60	58	59	60	61	62	63	64	65	66	67
70	68	69	70	71	72	73	74	75	76	77
80	78	79	80	81	81	82	83	84	85	86
90	87	88	89	90	91	92	93	94	95	96
	98									
0	0	1	2	3	4	5	6	7	8	9
10	10	11	12	13	14	15	16	17	18	19
20	20	21	22	23	24	24	25	26	27	28
30	29	30	31	32	33	34	35	36	37	38
40	39	40	41	42	43	44	45	46	47	48
50	49	50	51	52	53	54	55	56	57	58
60	59	60	61	62	63	64	65	66	67	68
70	69	70	71	72	73	74	74	75	76	77
80	78	79	80	81	82	83	84	85	86	87
90	88	89	90	91	92	93	94	95	96	97

BROKEN ARROW AEROLOGICAL STATION.

By JOHN A. REIHLE, Observer.

The Broken Arrow Aerological Station is located in northeastern Oklahoma, 38° 02′ north latitude and 95° 49′ west longitude, and is 233 meters above sea level. The station is 1½ kilometers east of Broken Arrow, a city of nearly 2,000 population, on the Missouri, Kansas & Texas Railway, between Tulsa and Muskogee. The kite-reel house is situated on a slight elevation commanding a good view in all directions except for some low hills a kilometer away to the northwest. The surrounding country is a gently-rolling or nearly level treeless prairie, a matter that should facilitate the recovery of kites that break away.

The lease for the property went into effect March 1, 1918. All buildings for use of the station were built specially for the purpose. The office building consists of three rooms, namely, office, shop, and storage room, with a second floor for kite storage. The shop is equipped for the building and repair of kites and the testing of meteorographs. Other buildings consist of reel house, garage, and coal house. The reel house is equipped with the standard automatic kite reel, the drum of which holds about 14 kilometers of steel piano wire. Power for reeling is furnished by a 5-horsepower motor, operating on single phase, 220-volt current furnished by the power plant at Broken Arrow. An aircraft theodolite is used to determine the angle of elevation of the kites.

The wind tower, instrument shelter, rain and snow gages, and all instrumental equipment for surface meteorological observations were installed; and observations were begun on May 12, 1918. The first free-air data were obtained August 16, 1918, by means of hand flights. Flights to low altitudes were continued as often as practicable until the arrival of the motor, when daily flights were begun.

The aerological work at this station includes, besides kite flying, pilot-balloon work by the Signal Corps, in cooperation with the Weather Bureau. Two Signal Corps men were detailed for this work; and balloon observations were begun October 19, 1918. The station is equipped for both single and two-theodolite work. Ascensions are made daily at 7 a. m. and 2 p. m.

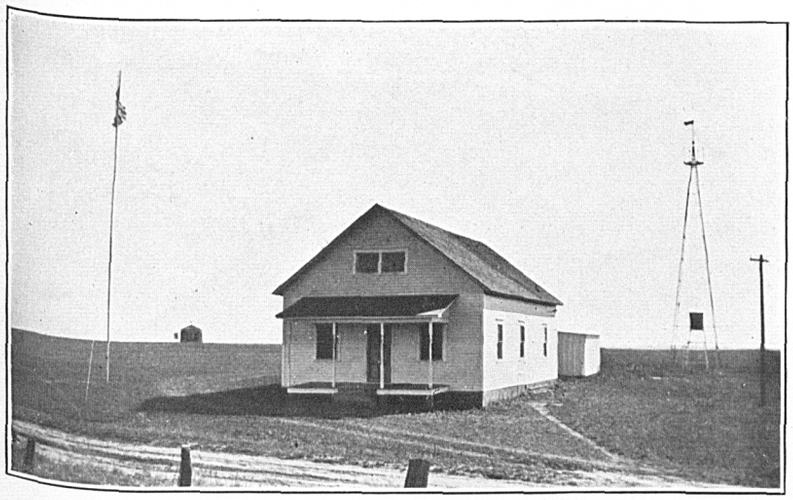

FIG. 14. Front view of office building (Broken Arrow).

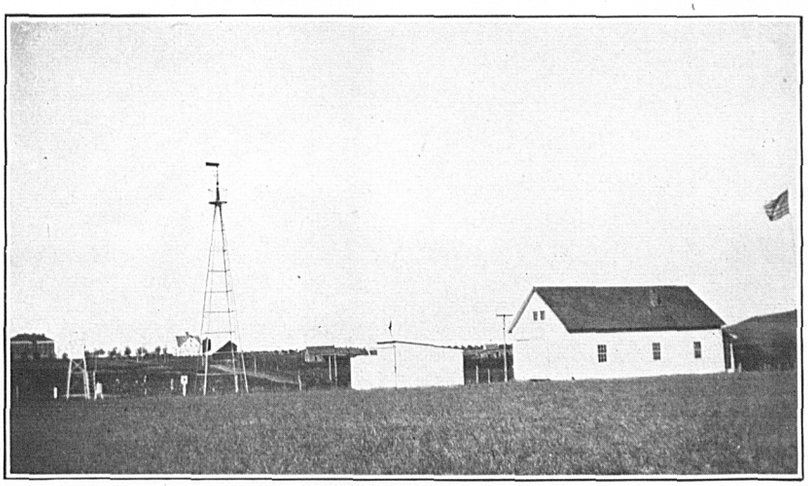

FIG. 15. General view of buildings and instrumental equipment (Broken Arrow).

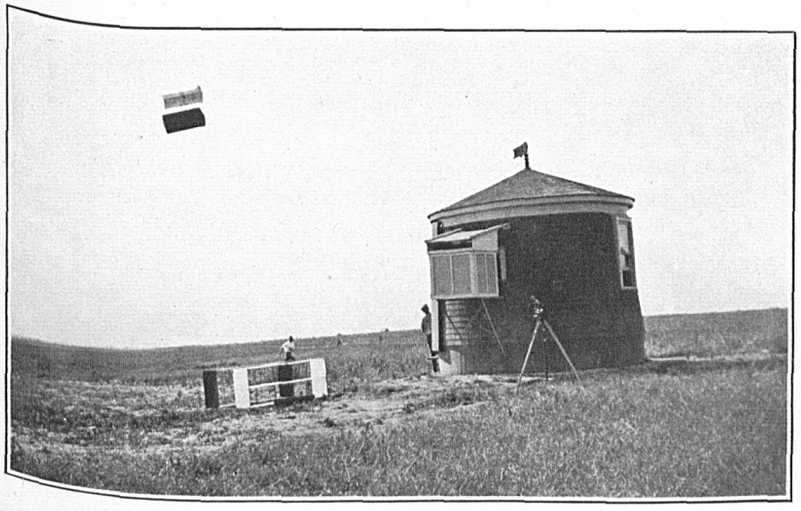

FIG. 16. The beginning of a kite flight (Broken Arrow).

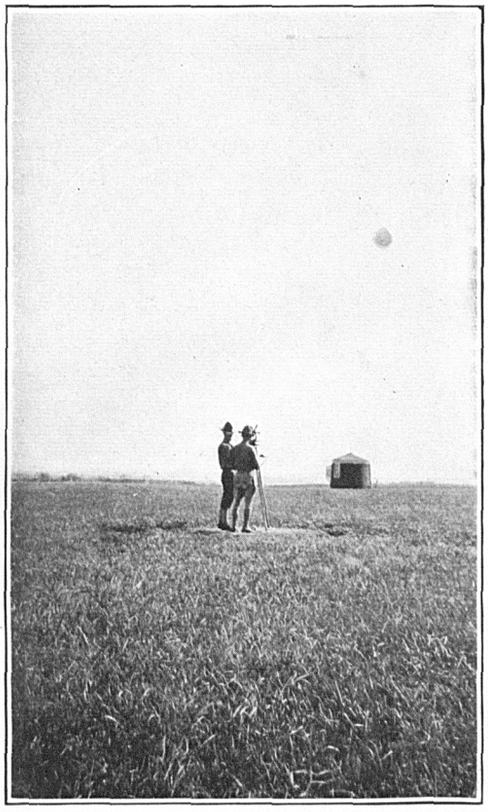

FIG. 17. The beginning of a pilot-balloon ascension (Broken Arrow).

A plot showing the kite field and the relative location of the buildings and instruments is shown in figure 13.

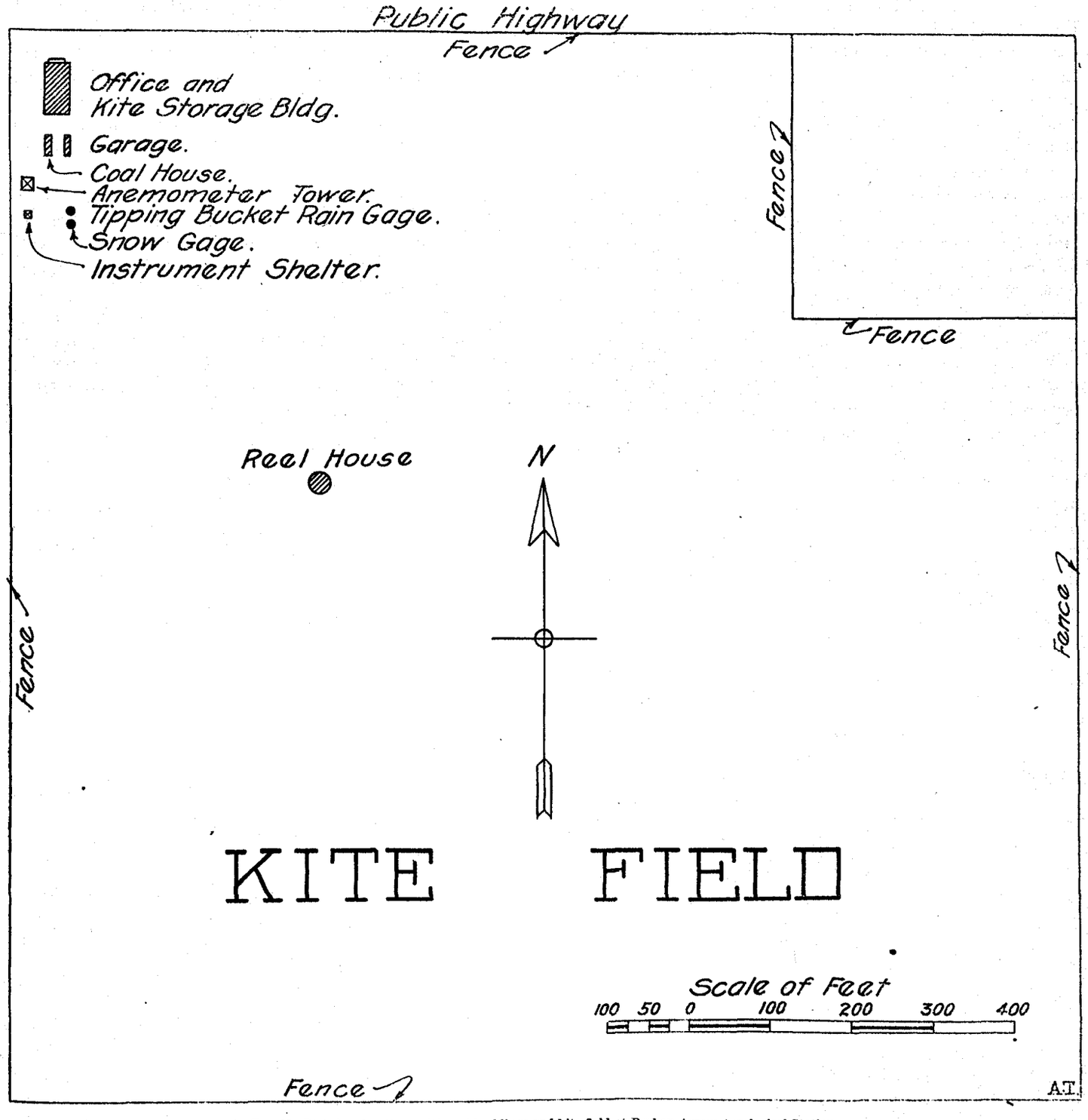

FIG. 13. Plot showing the position of buildings and kite field at Broken Arrow Aerological Station.

Figure 14 is a front view of the office building; figure 15, a general view of the buildings and instrumental equipment; figure 16 shows the beginning of a kite flight; and figure 17, the beginning of a pilot-balloon ascension. The reel house is of the same type as that at Royal Center. (Fig. 21.)

ROYAL CENTER AEROLOGICAL STATION.

By Homer W. Ball, Meteorologist.

The aerological station in Indiana, conducted by the United States Weather Bureau, is located at Royal Center, a town of 800 people, 16 kilometers northwest of Logansport, the nearest large town, and about 170 kilometers southeast of Chicago, Ill. The latitude of the station is 40° 53′ north, longitude 86° 29′ west, and elevation above sea level, 225 meters.

The country surrounding the place is of a rolling nature and is arranged in farms of very fertile land. There is considerable timber land, consisting of wood lots of several acres on each of the farms. This feature, of course, makes it rather difficult to recover kites whenever they break away. The roads are, as a rule, macadamized or graveled, and consequently traveling is easy.

The lease for the property in use by the Government became effective March 1, 1918, and immediate preparation was made to occupy the buildings. The office building is separated from the others and is located across the street from the shop and kite storage room. Two rooms are required for the office force, one for the meteorological instruments and "forms" desk and the other for the use of the official in charge and the pilot-balloon observers. The other buildings in use are the shop, kite-storage room, and engine room, under one roof; garage; coal shed; and a reel house on a knoll in the center of the kite field. The general arrangement of these buildings is shown in figures 18, 19, and 20.

Observations of precipitation were begun April 1, 1918; and observations of temperature, pressure, wind, clouds, and automatic records of rainfall and sunshine on April 9. Complete automatic records were not made until May 17, due to the delay in receiving the anemometer tower.

The first kite flight was made July 12, and flights have been continued every day since then when practicable. The first diurnal series was made August 7 and 8 and consisted of six flights, averaging about 3,600 meters above sea level.

Electricity for power and lights is furnished by a direct-current, 220-volt generating plant of 4-kilowatt capacity, installed in one of the buildings. Kites are reeled in by means of a reel of standard type connected to a 5-horsepower, variable-speed motor.

Cooperative work with the Meteorological Section of the Signal Corps of the Army began October 2, 1918. The first pilot-balloon ascension was made at that time, and this work is being continued at the present time. Figure 21 shows the kite reel house, with instrument shelter, power reel, and theodolite; and figure 22, the beginning of a pilot-balloon ascension.

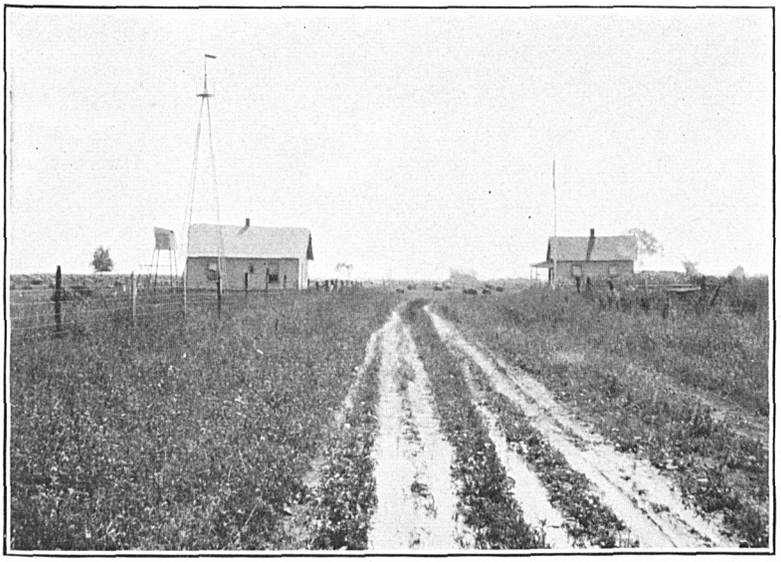

FIG. 19. View of office building on right; shop and kite storage building on left (Royal Center).

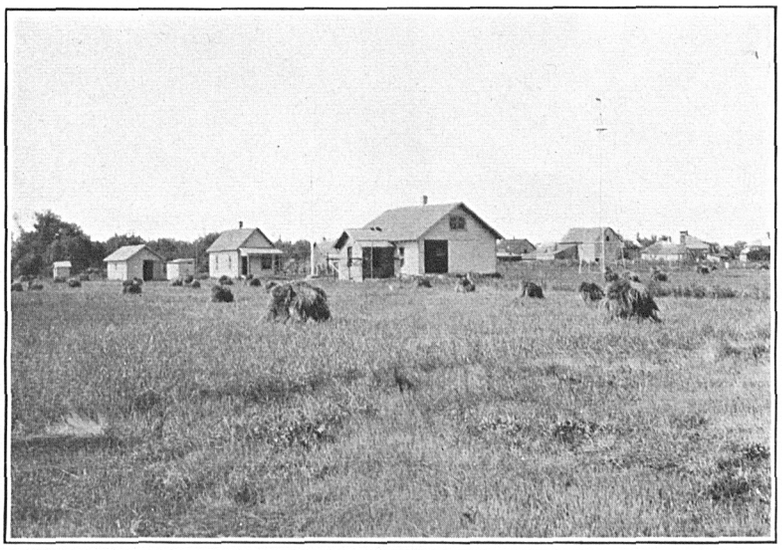

FIG. 20. General view of building and instrumental equipment (Royal Center).

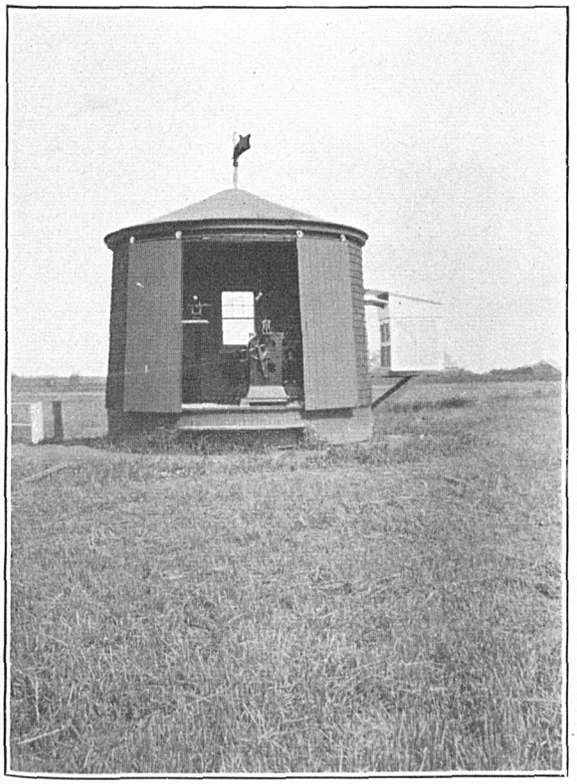

FIG. 21. Close view of kite reel house (Royal Center).

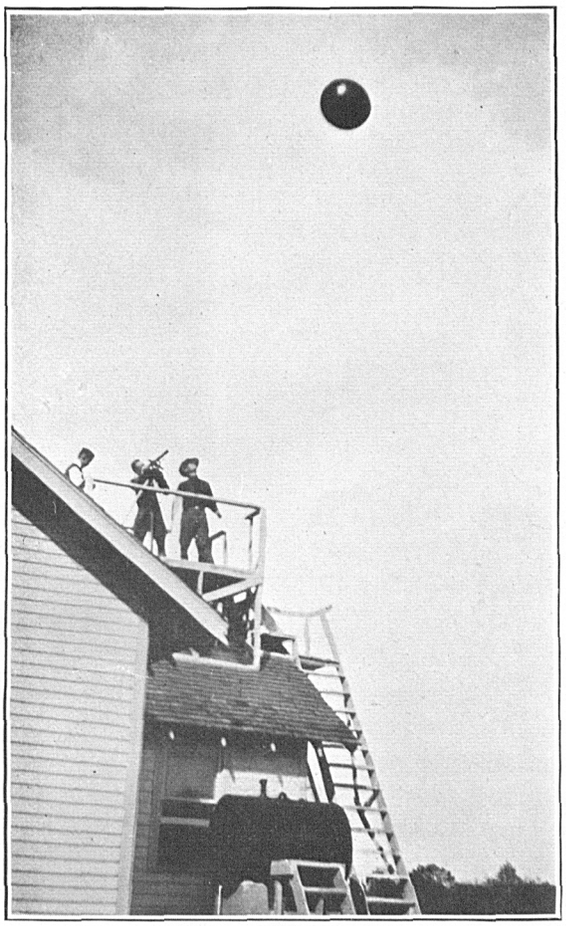

FIG. 22. Beginning of a pilot-balloon ascension (Royal Center).

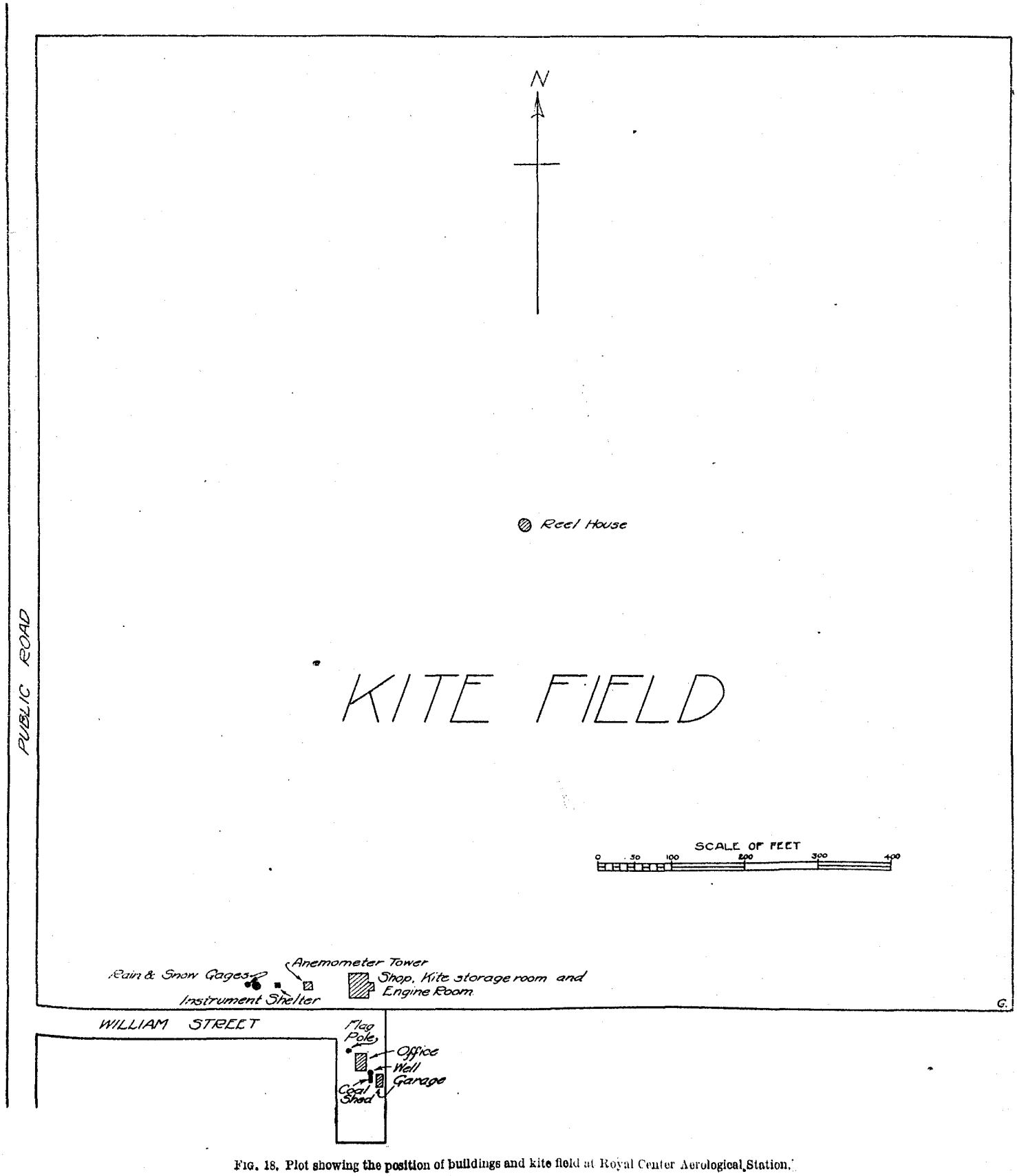

FIG. 18. Plot showing the position of buildings and kite field at Royal Center Aerological Station.

TABLE 5.—*Free-air data from kite flights at Broken Arrow Aerological Station, August, 1918.*

August 16, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	
8:24	989.4	29.2	54	ssw.	6.3	233	989.4	29.2	.....	54	21.89	ssw.	6.3	2/10 A.Cu., w.
						250	987.4	29.0	.....	54	21.64	ssw.	6.5	
8:35	989.4	29.8	56	ssw.	8.0	502	959.9	26.7	0.93	62	21.72	sw.	9.1	
						750	933.1	26.0	.....	59	19.84	sw.	9.5	Few Ci., w.; 1/10 A.Cu., w.
						1,000	907.3	25.4	.....	57	18.50	sw.	9.9	1/10 Ci.Cu., w.
9:37	989.2	31.4	51	ssw.	5.8	1,061	901.2	25.2	0.60	56	17.95	sw.	10.0	Few Ci.Cu., w.; few A.Cu., wsw.
						1,000	907.3	25.8	.....	56	18.61	sw.	9.6	
						750	933.1	28.1	.....	53	20.16	sw.	7.7	
						500	960.0	30.4	.....	51	22.15	sw.	5.8	
10:25	989.1	34.2	48	sw.	6.7	332	978.3	31.9	2.42	49	23.18	sw.	4.6	
						250	987.4	33.9	.....	48	25.40	sw.	6.3	
10:29	989.1	34.3	48	sw.	6.7	233	989.1	34.3	.....	48	25.97	sw.	6.7	Few Ci.Cu., w.

August 21, 1918.

A. M.														
7:52	990.5	25.0	84	sse.	1.3	233	990.5	25.0	.....	84	26.61	sse.	1.3	1/10 A.Cu., n.; 3/10 St. Cu., n.
						250	988.9	24.9	.....	84	26.46	sse.	1.6	
						500	960.5	22.8	.....	85	23.60	sse.	6.4	
8:01	990.6	25.0	82	sse.	1.3	612	948.6	21.9	0.82	86	22.60	sse.	8.5	
						750	933.7	22.6	.....	82	22.49	s.	7.7	5/10 St.Cu., n.
						1,000	907.4	24.0	.....	74	22.08	sw.	6.3	
8:55	990.2	26.8	74	se.	2.7	1,026	904.8	24.1	−0.37	73	21.91	sw.	6.2	
						1,000	907.4	24.1	.....	73	21.91	sw.	6.2	
						750	933.7	24.7	.....	75	23.34	s.	6.7	
						500	960.5	25.2	.....	76	24.37	sse.	7.1	
9:30	990.0	27.0	74	se.	3.6	412	970.1	25.4	0.78	77	24.94	se.	7.3	
						250	987.9	26.7	.....	76	25.88	se.	4.3	
9:33	999.0	26.8	76	se.	4.0	233	990.0	26.8	.....	76	26.78	se.	4.0	3/10 St.Cu., n.

August 22, 1918.

A. M.														
7:44	988.9	25.2	80	sse.	6.3	233	988.9	25.2	.....	80	25.65	sse.	6.3	Few St.Cu., ssw.
						250	987.0	25.0	.....	80	25.34	sse.	6.3	
						500	959.0	22.4	.....	84	22.76	sse.	6.4	
8:01	988.9	25.6	78	sse.	7.2	542	954.6	22.0	1.04	85	22.47	sse.	6.4	
						750	932.0	21.7	.....	83	21.55	s.	7.0	
						1,000	905.9	21.4	.....	81	20.65	s.	7.7	
8:57	988.9	27.2	71	sse.	5.8	1,172	888.3	21.2	0.28	79	19.89	ssw.	8.2	
						1,000	905.9	21.9	.....	80	21.02	s.	7.3	
						750	932.0	23.0	.....	83	23.32	sse.	6.1	
9:13	988.9	27.4	70	sse.	6.3	697	938.2	23.2	1.01	83	23.61	sse.	5.8	
						500	959.0	25.2	.....	78	25.01	sse.	5.8	
						250	987.0	27.8	.....	71	26.53	sse.	5.8	
9:25	988.9	28.0	71	sse.	5.8	233	988.9	28.0	.....	71	26.85	sse.	5.8	Cloudless.

August 23, 1918.

A. M.														
7:53	988.9	24.0	85	ssw.	4.5	233	988.9	24.0	.....	85	25.36	ssw.	4.5	1/10 St.Cu., ssw.; 8/10 St., ssw.
						250	987.4	23.9	.....	85	25.21	ssw.	4.6	
						500	959.3	22.1	.....	86	22.88	sw.	6.5	
8:06	988.9	24.4	82	s.	6.3	561	952.5	21.7	0.70	86	22.23	sw.	7.0	
						750	932.4	20.6	.....	84	20.39	sw.	7.5	1/10 A.St., sw.; 1/10 St.Cu., ssw. 7/10 St., ssw.
8:31	989.1	24.6	79	ssw.	6.3	759	931.2	20.5	0.61	84	20.26	sw.	7.5	
						1,000	906.0	20.5	.....	77	18.57	wsw.	6.3	Light sprinkling of rain at 8:34 a. m.
9:05	989.2	24.8	79	ssw.	4.0	1,066	899.0	20.5	0.19	75	18.09	wsw.	5.9	
						1,000	906.0	20.7	.....	76	18.56	wsw.	6.0	
9:24	989.2	23.8	85	ssw.	3.1	777	929.6	21.6	0.44	79	20.38	wsw.	6.3	
						750	932.4	21.7	.....	79	20.51	wsw.	6.2	
						500	959.3	22.8	.....	82	22.76	ssw.	4.7	
						250	987.4	23.9	.....	85	25.21	s.	3.2	
9:35	989.2	24.0	85	s.	3.1	233	989.2	24.0	.....	85	25.36	s.	3.1	1/10 A.St., sw.; 8/10 St., ssw.

August 27, 1918.

A. M.														
7:43	988.2	25.0	60	sw.	3.6	233	988.2	25.0	.....	60	19.01	sw.	3.6	Few A.Cu., nw.
						250	987.0	25.0	.....	59	18.69	sw.	3.9	
						500	959.0	25.7	.....	50	16.52	wsw.	7.9	
7:51	988.2	25.5	57	sw.	4.5	596	948.2	26.0	− 0.28	46	15.47	wsw.	9.4	
						750	932.0	25.3	.....	48	15.48	wsw.	7.1	Cloudless.
						1,000	906.1	24.3	.....	51	15.50	wsw.	3.4	
9:12	988.8	29.0	47	sw.	4.9	1,037	902.6	24.1	0.39	51	15.31	wsw.	2.8	
						1,000	906.1	24.2	.....	51	15.40	wsw.	3.0	
						750	932.0	25.1	.....	51	16.25	sw.	4.7	
9:50	988.6	30.6	41	sw.	5.8	496	959.8	26.0	1.75	51	17.15	sw.	6.3	
						250	987.2	30.3	.....	40	17.27	sw.	5.5	
10:01	988.5	30.6	39	sw.	5.4	233	988.5	30.6	.....	39	17.13	sw.	5.4	Few Ci., sw.

TABLE 5.—*Free-air data from kite flights at Broken Arrow Aerological Station, August, 1918.*

August 28, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	
7:55	988.2	26.3	67	ssw.	7.6	233	988.2	26.3	.....	67	22.93	ssw.	7.6	1/10 Ci., n.
.....	.....	.....	.....	.....	.....	250	986.9	26.2	.....	67	22.79	ssw.	7.9	
.....	.....	.....	.....	.....	.....	500	958.7	24.8	.....	66	20.66	sw.	11.7	
8:01	988.2	26.2	70	ssw.	6.7	604	947.5	24.1	0.59	65	19.51	sw.	13.3	
.....	.....	.....	.....	.....	.....	750	932.0	23.6	.....	60	17.48	sw.	13.0	Few Ci., n
.....	.....	.....	.....	.....	.....	1,000	905.5	22.8	.....	51	14.16	sw.	12.4	
.....	.....	.....	.....	.....	.....	1,250	880.0	21.9	.....	41	10.77	ssw.	11.8	
8:52	988.5	28.2	60	ssw.	7.2	1,412	864.0	21.4	0.42	35	8.92	ssw.	11.4	
.....	.....	.....	.....	.....	.....	1,250	880.0	22.2	.....	41	10.98	ssw.	11.0	1/10 Ci., n.
.....	.....	.....	.....	.....	.....	1,000	905.5	23.5	.....	51	14.77	ssw.	10.3	
.....	.....	.....	.....	.....	.....	750	932.0	24.8	.....	60	18.79	ssw.	9.7	
9:33	988.5	29.9	53	ssw.	8.9	563	952.5	25.8	1.27	67	22.26	ssw.	9.2	
.....	.....	.....	.....	.....	.....	500	958.7	26.6	.....	64	22.29	ssw.	9.1	
.....	.....	.....	.....	.....	.....	250	986.9	29.8	.....	54	22.66	ssw.	8.9	
9:42	988.5	30.0	53	ssw.	8.9	233	988.5	30.0	.....	53	22.49	ssw.	8.9	1/10 Ci., n.

August 30, 1918.

A. M.														
9:15	986.9	22.8	82	se.	8.9	233	986.9	22.8	.....	82	22.76	se.	8.9	8/10 St., e.
.....	.....	.....	.....	.....	.....	250	984.8	22.7	.....	82	22.62	se.	9.1	
.....	.....	.....	.....	.....	.....	500	956.9	21.8	.....	83	21.68	se.	11.4	
9:19	986.9	23.0	82	se.	8.9	576	948.8	21.5	0.38	83	21.29	se.	12.1	
.....	.....	.....	.....	.....	.....	750	930.0	21.8	.....	77	20.11	sse.	9.8	9/10 St.Cu., sw.
10:24	986.7	25.4	73	se.	9.8	977	906.4	22.3	0.88	70	18.85	ssw.	6.8	
.....	.....	.....	.....	.....	.....	750	930.0	22.7	.....	73	20.14	ssw.	9.9	
10:52	986.6	25.0	74	sse.	8.9	561	950.5	23.3	0.52	77	22.03	s.	13.7	
.....	.....	.....	.....	.....	.....	500	956.9	23.6	.....	77	22.43	s.	12.9	
.....	.....	.....	.....	.....	.....	250	984.8	24.9	.....	77.	24.26	sse.	9.6	
11:02	986.5	25.0	77	sse.	9.4	233	986.5	25.0	.....	77	24.39	sse.	9.4	8/10 St., Cu., sw.

August 31, 1918.

A. M.														
7:46	992.1	18.2	80	nne.	4.9	233	992.1	18.2	.....	80	16.72	nne.	4.9	Cloudless.
.....	.....	.....	.....	.....	.....	250	990.4	18.0	.....	80	16.51	nne.	5.1	
8:00	992.3	18.4	78	ne.	5.4	465	965.6	15.6	1.12	77	13.64	e.	7.2	
.....	.....	.....	.....	.....	.....	500	961.6	15.7	.....	73	13.02	e.	7.2	
.....	.....	.....	.....	.....	.....	750	933.9	16.6	.....	44	8.31	ene.	6.9	
9:01	992.6	21.0	67	ne.	4.0	978	909.8	17.4	− 0.35	18	3.58	ne.	6.6	
.....	.....	.....	.....	.....	.....	1,000	907.1	17.3	.....	18	3.56	ne.	6.6	
.....	.....	.....	.....	.....	.....	1,250	881.5	16.3	.....	18	3.34	ene.	6.2	
9:10	992.7	21.4	65	ene.	4.9	1,360	870.0	15.9	0.42	18	3.25	ene.	6.1	
.....	.....	.....	.....	.....	.....	1,250	881.5	16.4	.....	23	4.29	ene.	6.4	
.....	.....	.....	.....	.....	.....	1,000	907.9	17.5	.....	34	6.80	ene.	7.1	
9:38	992.9	22.0	61	ene.	5.4	876	921.1	18.1	− 1.16	39	8.10	ene.	7.5	
9:40	992.9	22.0	61	ene.	5.8	755	934.2	16.7	0.50	43	8.17	ene.	7.5	
.....	.....	.....	.....	.....	.....	500	962.3	18.0	.....	62	12.80	ene.	5.5	
9:47	992.9	22.2	60	ene.	4.5	473	965.6	18.1	1.62	64	13.29	ene.	5.3	
.....	.....	.....	.....	.....	.....	250	990.8	21.7	.....	62	16.10	ene.	5.4	
10:00	993.0	22.0	62	ene.	5.4	233	993.0	22.0	.....	62	16.39	ene.	5.4	Cloudless.

TABLE 6.—*Free-air data from kite flights at Broken Arrow Aerological Station, September, 1918.*

September 4, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	
8:49	987.3	16.0	94	n.	8.0	233	987.3	16.0	.....	94	17.09	n.	8.0	10/10 St., n.
						250	984.7	15.9	.....	94	16.99	n.	8.0	Altitude of St. base about 450 m.
						500	956.8	14.5	.....	97	16.01	n.	8.1	
8:55	987.6	16.0	94	n.	8.9	573	948.9	14.1	0.56	98	15.77	n.	8.1	
						750	929.5	12.7	.....	98	14.40	nnw.	8.8	
9:34	988.1	15.6	94	n.	9.4	857	917.9	12.0	0.65	98	13.75	nnw.	9.2	
						750	929.5	12.6	.....	97	14.15	nnw.	9.0	
						500	957.1	14.0	.....	94	15.02	n.	8.5	Altitude of St. base about 700 m.
						250	986.0	15.4	.....	91	15.92	n.	8.0	
10:14	988.6	15.5	91	n.	8.0	233	988.6	15.5	.....	91	16.03	n.	8.0	10/10 St., n.

September 5, 1918.

A. M.														
7:42	993.3	15.8	83	ne.	4.9	233	993.3	15.8	.....	83	14.90	nne.	4.9	5/10 A.Cu., nw.; 4/10 St., ne.
						250	991.3	15.6	.....	83	14.71	nne.	5.1	
7:59	993.5	15.6	84	n.	7.6	468	966.1	12.2	1.53	99	14.07	nne.	7.0	1/10 A.St., sw.; 8/10 St., ne.
						500	962.7	12.1	.....	99	13.98	nne.	7.1	
						750	934.5	11.4	.....	100	13.48	nne.	8.0	Altitude of St. base about 650 m.
8:14	993.5	15.7	83	ne.	5.4	877	920.2	11.0	0.29	100	13.13	nne.	8.4	
8:35	993.5	15.9	82	nne.	6.3	980	909.0	12.6	−1.55	72	10.50	nne.	8.9	Altitude of St. base about 950 m.
						1,000	907.6	12.5	.....	73	10.58	nne.	8.8	
						1,250	880.8	11.5	.....	86	11.67	nne.	7.0	Few A.St., sw.; 9/10 St., ne.
9:41	994.0	15.9	82	nne.	6.7	1,327	872.6	11.2	0.36	90	11.97	nne.	6.4	
						1,250	880.8	11.4	.....	79	10.65	nne.	6.9	
9:58	994.2	16.7	80	nne.	6.3	1,017	905.8	12.2	0.21	45	6.39	nne.	8.6	Few A.St., 8/10 St.
						1,000	907.9	12.2	.....	47	6.68	nne.	8.5	
						750	935.4	12.8	.....	72	10.64	nne.	7.1	
10:20	994.2	18.0	73	n.	7.2	536	959.4	13.2	1.55	94	14.26	nne.	5.9	
						500	963.6	13.8	.....	92	14.52	nne.	5.9	
						250	992.4	17.6	.....	75	15.10	n.	5.8	
10:32	994.2	17.9	74	n.	5.8	233	994.2	17.9	.....	74	15.18	n.	5.8	1/10 Ci., sw.; 5/10 A.Cu., sw.; 3/10 St.Cu., ne.

September 11, 1918.

A. M.														
7:43	991.6	18.5	78	sw.	4.9	233	991.6	18.5	.....	78	16.61	sw.	4.9	9/10 St.Cu., wnw.
						250	989.6	18.7	.....	76	16.39	sw.	5.6	
						500	961.5	21.4	.....	52	13.25	sw.	15.4	
7:50	991.6	19.7	72	sw.	4.9	577	953.0	22.2	−1.08	44	11.78	sw.	18.4	
						750	934.0	21.4	.....	44	11.22	sw.	17.2	
						1,000	907.1	20.3	.....	44	10.48	wsw.	15.6	
						1,250	881.1	19.1	.....	43	9.51	wsw.	13.9	
						1,500	856.2	18.0	.....	43	8.88	w.	12.3	
9:06	991.2	22.5	56	sw.	5.4	1,625	843.9	17.4	0.58	43	8.54	w.	11.4	5/10 A.St., nw.; 5/10 St.Cu., nw.
						1,500	856.2	18.3	.....	42	8.83	w.	11.8	
						1,250	881.1	20.0	.....	40	9.35	w.	12.7	
						1,000	906.9	21.8	.....	38	9.93	wsw.	13.6	
						750	933.0	23.5	.....	36	10.43	wsw.	14.5	
11:01	989.9	26.0	59	sw.	7.2	657	943.1	24.2	−1.08	35	10.57	wsw.	14.8	
11:20	989.8	26.3	60	sw.	7.2	518	958.0	22.7	1.16	44	12.14	wsw.	13.2	
						500	960.2	22.9	.....	44	12.29	wsw.	12.8	
						250	988.0	25.8	.....	50	16.62	sw.	8.0	
11:27	989.8	26.0	50	sw.	7.6	233	989.8	26.0	.....	50	16.81	sw.	7.6	10/10 A.St., nw.

September 13, 1918.

A. M.														
8:43	988.9	23.2	47	ssw.	5.4	233	988.9	23.2	.....	47	13.37	ssw.	5.4	2/10 Ci.St., n.; few A.St., n.
						250	987.4	23.1	.....	47	13.29	ssw.	5.5	
						500	959.0	21.0	.....	50	12.44	sw.	7.3	
8:47	988.9	23.5	45	ssw.	5.4	533	955.3	20.7	0.83	50	12.21	sw.	7.5	
						750	932.0	22.3	.....	39	10.50	sw.	6.4	
9:47	988.9	25.8	40	ssw.	7.6	839	922.5	22.9	−0.78	34	9.50	sw.	6.0	8/10 Ci.St., n.; 2/10 A.St., nw.
						750	932.0	22.1	.....	39	10.37	sw.	7.2	
10:08	988.8	26.0	40	ssw.	7.2	640	943.8	21.2	1.33	46	11.58	sw.	8.6	
						500	959.0	23.1	.....	44	12.44	sw.	8.1	
						250	987.2	26.4	.....	41	14.12	ssw.	7.3	
10:15	988.7	26.6	41	ssw.	7.2	233	988.7	26.6	.....	41	14.28	ssw.	7.2	5/10 Ci.St., n.; 4/10 A. St., n.

TABLE 6.—*Free-air data from kite flights at Broken Arrow Aerological Station, September, 1918*—Continued.

September 14, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C*		%	*mb.*		*m. p. s.*	
7:33	983.4	21.7	68	s.	7.6	233	983.4	21.7	.....	68	17.65	s.	7.6	Few Cl.,nw.; 1/10 St.Cu., se.
						250	981.5	21.9	.....	67	17.61	s.	8.0	
						500	953.6	25.0	.....	48	15.21	ssw.	14.3	
7:46	983.3	22.1	67	s.	17.9	698	943.1	26.2	−1.23	40	13.61	sw.	16.8	
						750	926.9	26.2	.....	35	11.91	sw.	17.0	
8:01	983.1	22.6	64	s.	8.9	906	910.5	26.2	0.00	29	9.87	sw.	17.3	
						1,000	900.6	25.7	.....	29	9.58	sw.	16.6	
8:47	982.9	25.0	50	sse.	8.9	1,234	876.9	24.4	0.52	29	8.87	sw.	14.9	
						1,000	900.6	25.6	.....	31	10.18	sw.	15.5	
						750	926.9	26.8	.....	33	11.63	sw.	16.1	
9:37	982.6	27.4	48	sse.	8.9	671	934.9	27.2	−4.84	34	12.27	sw.	16.3	
9:45	982.6	27.8	48	sse.	10.3	609	941.4	24.2	0.48	49	14.80	sw.	15.9	
						500	953.3	24.7	.....	50	15.56	ssw.	14.6	
9:58	982.5	28.5	44	s.	10.3	380	966.3	25.3	2.45	52	16.78	s.	13.2	
						250	980.5	28.5	.....	44	17.12	s.	9.4	
10:02	982.5	28.7	43	s.	8.9	233	982.5	28.9	.....	43	17.13	s.	8.9	Few Cl.,nw.

September 16, 1918.

P. M.														
12:04	991.3	15.7	64	n.	9.4	233	991.3	15.7	.....	64	11.42	n.	9.4	3/10 St.Cu., n.; 6/10 St., s.
						250	989.7	15.4	.....	65	11.38	n.	9.5	
						500	960.5	11.6	.....	79	10.79	nne.	10.3	1/10 A.St., sw.; 1/10 A.Cu., wsw.; 7/10 St.Cu., ne.
12:18	991.2	16.1	62	n.	8.9	657	942.5	9.2	1.53	88	10.24	nne.	11.1	
						750	931.9	8.7	.....	84	9.45	nne.	11.3	
						1,000	904.0	7.4	.....	74	7.62	nne.	12.0	
						1,250	877.0	6.1	.....	64	6.03	nne.	12.7	Altitude of St.Cu. base about 1,150 m.
1:00	990.9	16.7	58	n.	8.9	1,324	869.0	5.7	0.52	61	5.59	nne.	12.9	
						1,500	850.9	5.8	.....	63	5.81	nne.	12.8	
						1,750	825.5	6.0	.....	66	6.17	n.	12.7	Altitude of Ct.Cu. base about 1,250 m.
1:46	990.7	18.0	51	n.	8.0	1,855	814.9	6.1	0.13	67	6.31	n.	12.6	
						1,750	825.5	7.8	.....	63	6.67	n.	12.2	
1:58	990.6	17.2	59	nne.	8.9	1,550	845.7	7.1	−4.24	54	5.45	nne.	11.3	
						1,500	850.9	5.0	.....	87	7.47	nne.	10.6	
2:06	990.6	18.0	49	n.	8.9	1,491	851.9	4.6	0.73	93	7.89	nne.	10.5	1/10 a.St., sw.; 8/10 St.Cu., ne.
2:36	990.4	17.6	56	n.	8.9	1,326	869.0	5.8	0.94	90	8.30	nne.	9.8	
						1,250	877.0	6.5	.....	87	8.42	nne.	9.9	
						1,000	904.0	8.9	.....	77	8.78	nne.	10.1	
						750	931.7	11.2	.....	67	8.91	n.	10.3	
3:11	990.2	17.6	54	n.	7.6	636	944.2	12.3	1.24	62	8.87	n.	10.4	
						500	959.6	14.0	.....	59	9.43	n.	9.6	
						250	988.5	17.1	.....	54	10.53	n.	8.1	
3:21	990.2	17.3	54	n.	8.0	233	990.2	17.3	.....	54	10.66	n.	8.0	91/0 St.Cu., ne.

September 19, 1918.

A. M.														
7:56	982.8	18.0	89	n.	6.3	233	982.8	18.0	.....	89	18.37	n.	6.3	10/10 St.Cu., wnw.
						250	981.0	17.9	.....	89	18.25	n.	6.4	Altitude of St. base about 600 m.
						500	952.7	15.7	.....	96	17.13	nne.	7.4	
8:09	983.0	18.0	88	n.	7.6	620	939.2	14.7	0.85	99	16.56	nne.	7.9	1/10 St.Cu., wnw.; 9/10 St., ne.
						750	925.0	14.4	.....	98	16.07	nne.	7.5	
						1,000	898.5	13.9	.....	95	15.09	ne.	6.7	
8:57	983.8	17.7	89	nne.	8.9	1,233	874.5	13.4	−0.08	92	14.14	ene.	6.0	
9:50	985.2	14.9	90	nne.	10.3	1,043	895.2	12.7	.....	98	14.40	ene.	5.6	Rain began about 9:25 a. m. Altitude of St. base about 550 m. Thunderstorm approaching. Kite broke away at 9:56 a. m.

September 24, 1918.

A. M.														
7:53	988.9	15.4	64	sse.	8.9	233	988.9	15.4	.....	64	11.20	sse.	8.9	Cloudless.
						250	987.0	15.6	.....	62	10.99	sse.	9.5	
						500	958.0	18.4	.....	40	8.46	ssw.	18.0	
8:02	988.9	15.9	64	sse.	8.0	514	956.9	18.6	−1.41	39	8.36	ssw.	18.5	
						750	930.8	17.4	.....	35	6.95	ssw.	17.1	
8:11	988.8	16.4	61	sse.	8.9	886	916.0	16.7	0.51	32	6.08	ssw.	16.3	
						1,000	903.7	16.1	.....	37	6.77	ssw.	16.1	
						1,250	877.8	14.9	.....	47	7.96	ssw.	15.7	
8:58	988.5	18.2	55	sse.	10.3	1,353	866.8	14.4	0.52	51	8.36	ssw.	15.5	
						1,250	877.8	15.0	.....	47	8.01	ssw.	15.6	
						1,000	903.7	16.4	.....	37	6.90	ssw.	15.9	
9:39	988.4	20.1	55	sse.	9.8	928	911.2	16.8	0.28	34	6.50	ssw.	16.0	
						750	930.8	17.3	.....	40	7.90	ssw.	14.4	
						500	957.9	18.0	.....	49	10.11	ssw.	12.1	
10:14	988.2	21.5	46	s.	8.9	435	965.2	18.2	1.96	51	10.66	ssw.	11.5	
						250	986.0	21.9	.....	47	12.35	s.	10.4	
10:27	988.2	22.2	46	s.	10.3	233	988.2	22.2	.....	46	12.31	s.	10.3	Few Ci.Cu. near horizon.

TABLE 6.—*Free-air data from kite flights at Broken Arrow Aerological Station, September, 1918.*—Continued.

September 26, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	
7:46	988.7	16.2	91	nne	4.9	233	988.7	16.2	.....	91	16.76	nne.	4.9	10/10 St., nne.
						250	987.0	16.1	.....	91	16.65	nne.	5.3	Altitude of St. base about 450 m.
						500	958.4	14.4	.....	82	13.45	ne.	10.7	
8:01	988.9	16.0	94	nne.	5.4	632	943.4	13.5	0.68	78	12.07	ne.	13.6	
8:07	988.9	16.2	94	nne.	5.4	677	938.5	16.2	−6.00	72	13.26	ene.	12.6	
						750	930.8	15.8	.....	76	13.64	ene.	12.2	
						1,000	903.8	14.2	.....	89	14.41	ene.	11.0	3/10 Ci.St., w.; 5/10 St., nne.
8:26	989.0	16.5	91	nne.	6.3	1,022	901.2	14.1	0.61	90	14.48	ene.	10.9	
						1,250	877.5	13.0	.....	81	12.13	ene.	10.9	Few Ci.St., w.; 8/10 St.Cu., nne.
9:12	989.3	17.8	88	nne.	7.2	1,480	853.8	11.8	0.53	71	9.83	ene.	10.9	
						1,250	877.5	13.1	.....	76	11.46	ene.	10.9	
						1,000	903.8	14.5	.....	81	13.37	ene.	10.8	
10:03	989.6	18.5	85	ne.	8.0	907	914.1	15.0	−0.85	83	14.15	ene.	10.8	3/10 Ci.St., w.; 4/10 St.Cu., nne.
						750	931.2	13.7	.....	94	14.74	ene.	10.8	
10:07	989.6	18.6	84	ne.	8.9	730	933.5	13.5	0.71	96	14.85	ene.	10.8	
						500	959.5	15.1	.....	93	15.96	ne.	10.7	
10:41	989.8	19.2	81	ne.	8.0	450	964.9	15.5	1.61	92	16.20	ne.	10.7	
						250	988.0	18.7	.....	84	18.12	ne.	9.1	
10:50	989.8	19.0	83	ne.	8.9	233	989.8	19.0	.....	83	18.24	ne.	8.9	10/10 St., ne.

September 27, 1918.

A. M.														
8:22	997.1	11.4	74	nne.	6.3	233	997.1	11.4	.....	74	9.98	nne.	6.3	1/10 Ci.St., nne.; 2/10 A.St., w.
						250	995.3	11.3	.....	73	9.77	nne.	6.7	
						500	966.0	9.9	.....	56	6.83	ne.	12.8	
8:32	997.2	11.7	70	ne.	6.3	598	954.5	9.4	0.55	50	5.90	ene.	15.2	
						750	937.1	9.1	.....	36	4.16	ene.	16.0	
8:50	997.3	12.3	66	ne.	4.9	946	915.3	8.8	0.17	*17	1.93	ne.	17.0	
						1,000	909.5	9.0	.....	*17	1.95	ne.	17.0	
						1,250	882.6	9.7	.....	*17	2.05	ne.	17.1	
9:22	997.4	15.0	53	ne.	8.0	1,407	866.0	10.2	−0.33	*17	2.12	ne.	17.2	
						1,250	882.6	9.7	.....	*17	2.05	ne.	15.7	
						1,000	909.5	8.8	.....	*17	1.93	ne.	13.3	3/10 Ci.St., ne.
10:00	997.4	15.7	44	ne.	7.6	890	921.7	8.4	0.72	*17	1.87	ne.	12.2	
						750	937.1	9.4	.....	*17	2.00	ne.	10.7	
10:15	997.3	16.5	45	ne.	6.7	571	957.8	10.7	1.60	*17	2.19	ne.	8.8	
						500	966.0	11.8	.....	22	3.04	ne.	8.6	
						250	995.3	15.8	.....	39	7.00	ne.	8.0	
10:26	997.2	16.1	40	ne.	8.0	233	997.2	16.1	.....	40	7.32	ne.	8.0	3/10 Ci.St., ne.

* Humidity less than 17 per cent.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, July, 1918.*

July 1, 1918, series (No. 1).

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
6:29	973.3	16.7	72	s.	2.7	396	973.3	16.7	.....	72	13.69	s.	2.7	.....	Cloudless.
						500	961.5	17.4	.....	55	10.93	s.	5.3	.....	
6:47	973.3	17.1	66	s.	2.2	536	957.4	17.5	−0.64	49	9.86	s.	6.2	.....	
						750	934.2	17.6	.....	46	9.26	s.	7.4	.....	
7:43	973.3	20.0	52	s.	3.1	987	908.4	17.7	−0.02	43	8.71	sw.	8.8	0	
						1,000	907.0	17.6	.....	43	8.66	sw.	8.9	.....	
						1,250	880.1	15.5	.....	44	7.75	wsw.	10.5	.....	
						1,500	854.7	13.3	.....	45	6.87	w.	12.2	640	
						1,750	829.8	11.2	.....	45	5.98	w.	13.8	.....	
8:04	973.3	23.4	41	s.	3.6	1,909	814.7	9.8	0.86	46	5.58	wnw.	14.8	.....	
						2,000	805.7	9.2	.....	47	5.47	wnw.	15.2	.....	
						2,250	781.8	7.6	.....	50	5.22	wnw.	16.4	.....	
						2,500	758.2	5.9	.....	53	4.92	wnw.	17.5	1,700	
						2,750	735.0	4.3	.....	56	4.65	nw.	18.7	.....	
						3,000	712.8	2.6	.....	59	4.35	nw.	19.8	2,600	
						3,250	691.2	1.0	.....	62	4.07	nw.	21.0	.....	
8:30	973.1	23.4	41	s.	4.0	3,276	689.2	0.8	0.66	62	4.01	nw.	21.1	.....	
						3,500	670.8	0.1	.....	53	3.31	nw.	20.1	.....	
						3,750	650.6	−0.7	.....	42	2.42	nw.	19.0	4,100	
						4,000	630.9	−1.6	.....	32	1.71	nw.	17.9	.....	
8:55	973.0	24.6	40	s.	4.5	4,167	616.5	−2.1	0.33	25	1.28	nw.	17.1	.....	
						4,250	611.1	−1.6	.....	21	1.12	nw.	18.0	4,800	
9:02	973.0	24.6	40	s.	4.5	4,290	608.0	−1.3	−0.62	19	1.04	nw.	18.5	.....	
						4,250	611.1	−1.5	.....	19	1.02	nw.	18.5	.....	
9:09	972.9	24.7	39	s.	4.9	4,157	618.6	−2.1	0.49	18	0.92	nw.	18.6	.....	
						4,000	630.9	−1.3	.....	22	1.21	nw.	18.6	.....	
						3,750	650.7	−0.1	.....	29	1.76	nw.	18.5	.....	
						3,500	671.2	1.1	.....	36	2.38	nw.	18.5	.....	
						3,250	692.2	2.3	.....	43	3.10	nw.	18.4	.....	
9:39	972.5	25.5	37	s.	6.3	3,106	704.9	3.0	0.88	47	3.56	nw.	18.4	2,600	
						3,000	713.7	3.9	.....	47	3.80	nw.	17.4	.....	
						2,750	735.5	6.2	.....	47	4.46	wnw.	14.9	.....	
						2,500	758.3	8.4	.....	46	5.07	wnw.	12.5	1,600	
10:03	972.3	26.2	35	sw.	4.5	2,258	781.2	10.5	0.58	46	5.85	w.	10.1	.....	
						2,250	781.8	11.0	.....	46	6.04	w.	10.7	.....	
						2,000	805.7	12.0	.....	44	6.17	w.	11.9	.....	
						1,750	829.8	13.4	.....	41	6.30	w.	13.7	1,040	
						1,500	854.7	14.9	.....	39	6.61	w.	15.5	.....	
10:22	972.2	25.1	37	ssw.	5.4	1,269	878.4	16.2	0.54	37	6.82	w.	17.2	260	
						1,250	880.1	16.3	.....	37	6.86	w.	16.9	.....	
						1,000	906.5	17.6	.....	40	8.05	sw.	12.6	.....	
10:33	972.1	25.5	39	sw.	5.4	767	931.4	18.9	1.75	47	10.26	sw.	8.6	0	
						750	934.0	19.2	.....	47	10.46	sw.	8.6	.....	
10:42	972.1	25.3	35	ssw.	6.3	601	949.6	21.8	1.86	44	11.49	sw.	8.2	.....	
						500	961.5	23.7	.....	40	11.72	sw.	7.3	.....	
10:47	972.1	25.6	35	wsw.	6.3	396	972.1	25.6	.....	35	11.49	wsw.	6.3	.....	Cloudless.

July 1, 1918, series (No. 2).

A. M.															
11:40	971.3	27.4	34	sw.	6.7	396	971.3	27.4	.....	34	12.41	sw.	6.7	.....	Cloudless.
						500	960.0	25.9	.....	36	12.03	sw.	7.0	.....	
11:50	971.1	27.8	34	sw.	5.4	747	933.0	22.3	1.45	41	11.04	sw.	7.8	0	
						1,000	905.0	20.1	.....	43	10.12	sw.	8.8	.....	
						1,250	879.4	17.9	.....	45	9.23	wsw.	9.8	.....	
P. M.															
12:04	970.9	27.8	34	sw.	6.7	1,285	876.4	17.6	0.87	45	9.06	wsw.	10.0	520	
						1,500	854.4	16.4	.....	41	7.65	wsw.	11.0	.....	
12:21	970.9	28.4	32	sw.	5.4	1,751	829.8	14.9	0.58	37	6.27	w.	12.1	1,170	
						2,000	806.6	13.3	.....	37	5.65	w.	11.8	.....	
						2,250	782.2	11.8	.....	38	5.26	w.	11.4	.....	
						2,500	759.6	10.2	.....	38	4.73	w.	11.1	.....	
12:42	970.9	29.2	27	sw.	8.5	2,533	756.2	10.0	0.63	38	4.67	w.	11.0	1,800	
						2,750	737.0	8.3	.....	39	4.27	w.	12.2	.....	
						3,000	714.8	6.3	.....	40	3.82	wnw.	13.5	.....	
						3,250	693.0	4.4	.....	41	3.43	wnw.	14.9	2,700	
						3,500	672.1	2.4	.....	42	3.05	nw.	16.3	.....	
1:10	970.8	30.3	26	sw.	8.0	3,669	658.2	1.1	0.78	43	2.85	nw.	17.2	.....	
						3,750	651.8	1.6	.....	39	2.68	nw.	17.8	.....	
1:11	970.8	30.4	26	sw.	8.0	3,775	649.4	1.8	−0.66	38	2.64	nw.	18.0	3,800	
						4,000	632.0	0.6	.....	29	1.85	nw.	18.1	.....	
1:32	970.6	31.3	25	sw.	7.2	4,208	615.4	−0.6	0.48	21	1.22	nw.	18.2	4,500	
						4,000	632.0	0.2	.....	20	1.24	nw.	18.7	.....	
1:54	970.4	31.5	25	sw.	7.2	3,772	649.4	1.2	0.51	18	1.20	nw.	19.2	.....	
						3,750	651.8	1.3	.....	19	1.27	nw.	19.1	.....	
						3,500	672.1	2.6	.....	30	2.21	wnw.	17.4	.....	
						3,250	692.8	3.9	.....	41	3.31	wnw.	15.7	2,600	
2:12	970.2	31.8	24	ssw.	8.9	3,244	693.4	3.9	0.88	41	3.31	wnw	15.7	.....	
						3,000	714.0	6.0	.....	42	3.93	wnw.	13.3	.....	
						2,750	736.1	8.2	.....	43	4.67	w.	10.8	.....	
2:24	970.0	31.9	24	sw.	7.6	2,606	749.2	9.5	0.29	44	5.22	w.	9.4	1,500	
						2,500	759.0	9.8	.....	47	5.70	w.	9.5	.....	
2:29	970.0	31.6	23	sw.	8.5	2,260	780.7	10.5	1.03	54	6.86	w.	9.8	.....	
						2,250	781.3	10.6	.....	54	6.90	w.	9.8	.....	
						2,000	804.6	13.2	.....	52	7.89	wsw.	10.4	.....	
2:40	969.8	31.8	24	wsw.	8.0	1,746	829.8	15.8	0.95	51	9.15	wsw.	11.1	500	
						1,500	853.2	18.1	.....	47	9.76	wsw.	11.0	.....	
						1,250	878.8	20.5	.....	43	10.37	wsw.	10.8	.....	
2:52	969.7	31.4	25	sw.	8.5	1,218	882.6	20.8	1.08	42	10.32	wsw.	10.8	0	
						1,000	904.2	23.2	.....	39	11.09	wsw.	10.5	.....	
3:04	969.5	31.4	25	sw.	8.9	755	930.5	25.8	1.50	35	11.63	sw.	10.2	.....	
						500	957.9	29.6	.....	28	11.61	sw.	9.3	.....	
3:12	969.3	31.2	25	sw.	8.9	396	969.3	31.2	.....	25	11.36	sw.	8.9	.....	Cloudless.

+ 431
− 66
6) 365
up 0.61

8) 672
0.84 down

TABLE 7.—*Free-air date drom kite flights at Drexel Aerological Station, July, 1918*—Continued.

July 1, 1918, series (No. 3).

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	
P. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
4:06	968.1	31.7	24	sw.	8.5	396	968.1	31.7		24	11.22	sw.	4.9		Cloudless.
						500	957.8	30.4		24	10.42	sw.	6.3		
						750	930.8	27.2		26	9.38	sw.	9.6		
4:14	968.1	31.9	25	sw.	8.0	832	921.7	26.1	1.29	26	8.79	sw.	10.7		
						1,000	903.0	24.4		29	8.87	sw.	11.4		
4:33	967.9	32.1	24	sw.	7.6	1,198	883.8	22.4	1.01	32	8.67	sw.	12.2		
						1,250	877.5	21.9		33	8.67	sw.	12.2	0	
						1,500	852.2	19.5		37	8.39	sw.	12.0		
						1,750	828.0	17.1		41	8.00	wsw.	11.8		
4:49	967.7	32.0	25	sw.	8.5	1,951	809.1	15.2	0.96	44	7.60	wsw.	11.6	980	
						2,000	804.0	14.7		45	7.53	wsw.	11.8		
						2,250	780.5	12.4		51	7.34	w.	13.1		
5:03	967.6	32.1	25	sw.	5.8	2,448	762.8	10.5	0.95	55	6.98	w.	14.1	1,500	
						2,500	757.5	10.2		55	6.85	w.	14.2		
						2,750	735.0	8.5		55	6.10	w.	14.9		
						3,000	713.0	6.8		55	5.43	wnw.	15.0	2,200	
						3,250	692.0	5.2		55	4.87	wnw.	16.2		
5:26	967.4	32.0	26	sw.	7.2	3,337	685.0	4.6	0.66	55	4.66	wnw.	16.4	2,800	
						3,500	671.7	3.2		58	4.46	wnw.	16.9		
						3,750	651.5	1.2		62	4.13	nw.	17.6		
						4,000	631.6	—0.9		66	3.74	nw.	18.4	3,400	
5:44	967.3	32.0	26	sw.	7.6	4,037	628.3	—1.2	0.78	67	3.71	nw.	18.5		Few Ci.St., and St.Cu. low on nw. horizon.
						4,000	631.6	—0.9		67	3.80	nw.	18.5		
						3,750	651.5	0.9		67	4.37	wnw.	18.5		
						3,500	671.7	2.8		68	5.08	wnw.	18.5		
						3,250	692.0	4.6		68	5.77	w.	18.5	2,200	
6:13	967.0	31.7	28	sw.	4.9	3,086	706.3	5.8	0.89	68	6.27	w.	18.5		
						3,000	713.0	6.6		67	6.53	w.	18.1		
						2,750	734.9	8.6		65	7.26	w.	16.8		
						2,500	757.5	11.0		62	8.14	wsw.	15.6	1,320	
						2,250	780.5	13.3		60	9.16	wsw.	14.3		
6:35	966.8	30.8	30	ssw.	6.7	2,101	794.7	14.6	0.93	58	9.64	wsw.	13.6		
						2,000	804.0	15.5		56	9.86	wsw.	13.6	700	
						1,750	828.0	17.9		50	10.26	wsw.	13.4		
						1,500	852.2	20.2		44	10.42	sw.	13.3		
6:54	966.6	30.4	32	s.	4.9	1,284	873.9	22.2	0.95	39	10.44	sw.	13.2	0	
						1,250	876.8	22.5		39	10.63	sw.	12.4		
						1,000	901.8	24.9		36	11.34	sw.	12.6		
						750	928.3	27.3		33	11.98	ssw.	12.0		
7:10	966.5	29.3	34	s.	4.9	632	941.1	28.4	0.24	32	12.38	ssw.	11.7		
						500	955.3	28.7		33	13.00	s.	7.9		
7:14	966.4	29.0	34	s.	4.9	396	966.4	29.0		34	13.62	s.	4.9		2/10 Ci.St., nw.; few Cu., w.

July 1, 1918, series (No. 4).

P. M.															
7:54	966.2	27.7	37	s.	6.7	396	966.2	27.7		37	13.74	s.	6.7		3/10 Ci.St., nw.; few Cu., w.
						500	955.0	27.3		35	12.70	s.	9.3		
8:00	966.2	27.6	37	s.	6.3	751	928.1	26.2	0.42	30	10.21	ssw.	15.6	0	
						1,000	901.0	24.7		30	9.34	sw.	17.0		
8:07	966.2	27.7	36	ssw.	6.7	1,094	892.6	24.1	0.61	30	9.01	sw.	17.6		
						1,250	875.4	22.6		32	8.78	sw.	16.4	260	
						1,500	851.0	20.2		35	8.29	wsw.	14.5		
8:23	966.2	27.1	36	ssw.	6.7	1,598	842.1	19.2	0.97	36	8.01	wsw.	13.7	380	4/10 Ci.St., nw.; 1/10 Cu., w.
						1,750	827.3	17.9		38	7.79	wsw.	13.8		
						2,000	803.6	15.8		40	7.18	w.	14.1		
						2,250	780.0	13.7		43	6.74	w.	14.3		
8:43	966.2	26.7	39	ssw.	5.8	2,397	766.6	12.4	0.85	45	6.48	w.	14.4	1,010	
						2,500	756.8	11.4		48	6.47	w.	14.4		
						2,750	734.2	9.0		58	6.66	w.	14.5		5/10 Ci.St., nw.; 1/10 Cu., w.
						3,000	712.8	6.5		63	6.10	wnw.	14.6	2,000	
						3,250	691.5	4.1		70	5.73	wnw.	14.7	2,200	
9:24	966.3	26.2	39	ssw.	5.8	3,425	676.7	2.4	0.96	75	5.44	wnw.	14.8		5/10 Ci.St., nw; 1/10 St.Cu., wnw.
						3,250	691.5	4.1		71	5.81	wnw.	14.4		
						3,000	712.8	6.5		66	6.39	wnw.	13.8	1,900	
						2,750	734.2	8.9		61	6.95	w.	13.1		
						2,500	756.8	11.3		56	7.50	w.	12.5		
9:53	966.5	26.0	37	s.	7.2	2,408	765.5	12.2	0.85	54	7.67	w.	12.3		3/10 Ci.St., nw.; few St.Cu., wnw.
						2,250	780.0	13.5		51	7.89	w.	12.9	1,140	
						2,000	803.6	15.7		46	8.21	w.	13.7		
						1,750	827.3	17.7		41	8.30	w.	14.6		
10:10	966.5	25.7	39	s.	8.0	1,550	847.0	19.5	0.88	37	8.39	w.	15.3		
						1,500	851.0	19.9		37	8.60	w.	15.5	380	
						1,250	875.0	22.1		35	9.31	w.	16.6		
						1,000	900.0	24.3		33	10.03	wsw.	17.8	0	
						750	927.0	26.6		31	10.80	wsw.	18.9		
10:30	966.5	25.0	38	s.	7.2	655	938.4	27.4	—1.12	30	10.95	wsw.	19.3		
						500	955.0	25.7		35	11.56	sw.	11.2		
10:48	966.5	24.5	39	ssw.	5.8	396	966.5	24.5		39	12.00	ssw.	5.8		2/10 Ci.St., nw.; few St.Cu., wnw.

July 1, 2, 1918, series (No. 5).

P. M.															
11:34	966.5	23.0	44	ssw.	7.6	396	966.5	23.0		44	12.36	ssw.	7.6		Few Ci.St., nw.
						500	954.6	24.4		38	11.62	sw.	14.6		
11:49	966.5	22.9	45	ssw.	7.6	638	940.1	26.2	—1.32	31	10.55	wsw.	23.8	0	
						750	926.7	25.6		31	10.18	wsw.	22.4		
						1,000	899.7	24.2		31	9.36	wsw.	19.3		
						1,250	874.8	22.8		31	8.61	wsw.	16.2	320	
						1,500	850.9	21.4		31	7.90	wsw.	13.0		

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, July, 1918*—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
12:02	966.5	22.8	46	ssw.	7.2	1,598	842.1	20.8	0.56	31	7.62	wsw.	11.8		
						1,750	827.0	19.5		31	7.03	wsw.	10.2	860	
12:26	966.4	22.4	44	ssw.	5.4	1,951	807.9	17.7	0.88	31	6.28	wsw.	8.2	980	
						2,000	803.2	17.2		31	6.11	wsw.	8.0		
						2,250	780.0	14.9		31	5.25	wsw.	7.2		
12:57	966.2	21.8	46	sw.	5.8	2,477	759.2	12.7	0.94	31	4.55	wsw.	6.5		
						2,250	780.0	14.8		30	5.05	wsw.	7.4		
						2,000	803.2	17.2		29	5.69	wsw.	7.7		
						1,750	827.0	19.6		29	6.61	wsw.	8.5	890	Cloudless.
1:35	966.2	20.8	51	sw.	4.0	1,556	845.8	21.4	0.37	28	7.14	wsw.	9.0	920	
						1,500	850.9	21.6		28	7.22	wsw.	9.9		
						1,250	874.8	22.5		29	7.91	wsw.	13.8		
						1,000	899.7	23.4		30	8.63	sw.	17.7		
						750	926.7	24.4		31	9.48	sw.	21.6		
1:48	966.2	20.6	50	sw.	4.0	634	940.1	24.8	—1.85	32	10.02	sw.	23.4	0	
						500	954.6	22.2		44	11.78	ssw.	13.8		
2:09	966.2	20.4	51	ssw.	6.3	396	966.2	20.4		51	12.22	ssw.	6.3		Cloudless.
July 2, 1918, series (No. 6).															
A. M.															
3:01	966.2	20.0	52	ssw.	6.7	396	966.2	20.0		52	12.16	ssw.	6.7		1/10 Ci.St., nw.
						500	955.0	21.7		47	12.20	ssw.	13.0		
3:10	966.2	19.6	54	ssw.	6.3	692	933.8	24.9	—1.66	37	11.66	ssw.	24.7	0	
						750	928.3	24.8		37	11.58	ssw.	23.9		
						1,000	901.0	24.2		36	10.87	sw.	20.6		
						1,250	875.2	23.7		34	9.97	wsw.	16.9	1,040	
3:23	966.2	19.8	53	sw.	7.2	1,353	865.9	23.5	0.21	34	9.85	wsw.	15.5		
						1,500	850.7	22.7		35	9.66	wsw.	12.9		
3:51	966.2	19.3	55	sw.	7.6	1,628	838.9	22.0	0.55	35	9.25	wsw.	10.7		2/10 Ci.St., nw.
						1,750	826.8	20.9		35	8.65	wsw.	10.4	780	
						2,000	803.3	18.7		36	7.77	wsw.	9.9	760	2/10 Ci.St., nw.; few St.Cu., wnw.
5:02	966.2	18.9	57	sw.	6.3	2,241	781.0	16.5	0.90	37	6.94	wsw.	9.4	1,100	
						2,250	780.2	16.4		37	6.90	wsw.	9.4		
						2,500	757.7	14.1		40	6.44	wsw.	10.2		
						2,750	735.3	11.8		42	5.81	wsw.	11.0		
5:29	966.2	19.0	58	sw.	6.3	2,983	714.9	9.6	0.95	45	5.38	wsw.	11.8		
						2,750	735.3	11.9		44	6.13	wsw.	13.2	2,000	
						2,500	757.7	14.3		42	6.85	wsw.	14.7		3/10 Ci.St., nw.; few St.Cu., wnw.
						2,250	780.2	16.7		40	7.60	wsw.	16.2		
						2,000	803.3	19.1		39	8.62	wsw.	17.7		
6:09	966.2	19.6	58	sw.	5.4	1,891	813.3	20.2	0.51	38	9.00	wsw.	18.4	950	
						1,750	826.8	20.9		42	10.38	wsw.	18.9		
						1,500	850.7	22.2		49	13.12	sw.	19.8		
6:24	966.3	20.3	55	sw.	6.3	1,301	870.8	23.2	0.94	54	15.36	sw.	20.5	380	Few Ci.St., nw.
						1,250	875.2	23.7		52	15.24	sw.	21.1		
6:31	966.4	20.6	54	sw.	6.7	1,056	895.6	25.5	—1.54	46	15.01	sw.	23.3		
						1,000	901.0	24.6		47	14.54	sw.	23.4		
						750	928.3	20.8		49	12.04	sw.	23.7		
6:47	966.4	21.3	52	sw.	4.9	692	933.8	19.9	0.68	50	11.62	sw.	23.8	0	
						500	955.0	21.2		51	12.84	sw.	12.1		
6:55	966.5	21.9	51	sw.	5.8	396	966.5	21.9		51	13.40	sw.	5.8		Few Ci.St., nw.
July 2, 1918, series (No. 7).															
A. M.															
7:42	966.8	23.3	48	wsw.	7.6	396	966.8	23.3		48	13.73	wsw.	7.0		Few Ci., nw.
						500	955.2	22.5		48	13.08	wsw.	9.8		
7:52	966.8	23.7	47	wsw.	6.7	752	927.9	20.5	0.79	48	11.58	wsw.	16.4		
						1,000	901.7	23.6		50	14.56	w.	17.0		
8:00	966.9	24.2	45	wsw.	8.9	1,085	893.2	24.6	—1.23	51	15.78	w.	17.2		
						1,250	876.0	23.6		48	13.98	w.	16.8	0	
						1,500	851.2	22.0		43	11.37	wsw.	16.1		
						1,750	827.1	20.5		38	9.17	wsw.	15.5	760	Few Ci., nw.
8:19	966.7	25.1	44	sw.	7.2	1,864	816.6	19.8	0.62	36	8.32	wsw.	15.2		
						2,000	803.7	18.8		36	7.81	wsw.	14.2		
						2,250	780.4	16.9		35	7.61	w.	12.2	1,040	
						2,500	757.8	15.0		35	5.97	w.	10.3	1,240	
						2,750	735.7	13.1		34	5.13	wnw.	8.4		
9:01	966.2	26.8	41	wsw.	8.0	2,761	734.6	13.0	0.76	34	5.09	wnw.	8.3	1,600	
						3,000	714.1	10.8		35	4.53	wnw.	8.1		Few Ci.St., nw.
						3,250	693.0	8.5		37	4.11	wnw.	7.8	2,000	
						3,500	672.1	6.2		38	3.60	wnw.	7.6		
9:30	965.8	28.3	40	w.	9.8	3,584	665.4	5.4	0.92	39	3.50	wnw.	7.5		
						3,500	672.1	6.2		39	3.70	wnw.	7.9		
						3,250	693.0	8.4		38	4.19	wnw.	9.1	1,500	
9:45	965.7	28.6	40	w.	8.9	3,111	704.6	9.7	0.94	38	4.57	wnw.	9.7		
						3,000	714.1	10.7		37	4.76	wnw.	9.9		
						2,750	735.7	13.1		35	5.28	w.	10.5	1,470	
						2,500	757.8	15.4		34	5.95	w.	11.0		
10:13	965.4	29.5	39	w.	8.9	2,417	765.0	16.2	0.62	33	6.08	w.	11.2	1,350	
						2,250	780.4	17.2		38	7.46	w.	12.1		
						2,000	803.7	18.8		45	9.76	w.	13.4		
10:25	965.4	30.1	39	w.	6.7	1,824	820.2	19.9	0.79	50	11.62	w.	14.4	890	
						1,750	827.1	20.5		49	11 82	w.	14.2		
						1,500	851.2	22.5		44	11.99	w.	13.3		
10:36	965.3	30.6	39	w.	8.0	1,316	869.5	23.9	—0.50	40	11.86	w.	12.7		
						1,250	876.0	23.6		43	12.53	w.	12.6	330	
10:45	965.3	31.0	38	w.	8.0	1,094	891.9	22.8	0.90	50	13.88	w.	12.4		
						1,000	901.0	23.6		49	14.27	w.	11.4		
10:54	965.2	31.0	38	w.	7.6	759	926.6	25.8	1.71	46	15.29	wsw.	8.7	0	
						750	927.0	26.1		46	15.56	wsw.	8.7		
						500	953.8	30.2		39	16.74	w.	7.3		
11:00	965.2	32.0	36	w.	6.7	396	965.2	32.0		36	17.12	w.	6.7		Few Ci.St., nw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, July, 1918*—Continued.

July 2, 1918, series (No. 8).

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
12:18	964.7	33.4	34	w.	5.8	396	964.7	33.4		34	17.50	w.	5.8		Few Ci.St., nw.
						500	953.6	31.8		35	16.46	w.	7.0		
						750	927.4	28.1		39	14.83	wsw.	10.0		
12:29	964.7	33.5	33	wsw.	5.8	767	925.5	27.8	1.51	39	14.57	wsw.	10.2		
						1,000	901.0	26.2		41	13.95	wsw.	9.8		
						1,250	876.4	24.4		44	13.45	wsw.	9.3		
1:31	964.1	35.2	28	w.	5.4	1,408	860.2	23.3	0.70	45	12.87	wsw.	9.0		
						1,500	852.0	22.4		48	13.00	wsw.	8.9		
						1,750	827.9	20.1		56	13.18	wsw.	8.8	0	2/10 Ci.St., wnw.; few Cu., w.
						2,000	803.8	17.7		63	12.76	w.	8.7		
						2,250	780.0	15.3		71	12.34	w.	8.6	890	
3:02	963.8	35.5	27	wsw.	6.7	2,379	768.3	14.2	0.94	75	12.14	w.	8.5		
						2,500	757.0	13.3		72	10.99	w.	8.9		
						2,750	734.6	11.5		67	9.09	w.	9.8		
						3,000	712.9	9.6		61	7.29	wnw.	10.7		
						3,250	691.7	7.8		55	5.82	wnw.	11.5		3/10 Ci.St., wnw.; 2/10 Cu., w.
3:34	963.6	35.8	27	ssw.	7.2	3,355	683.3	7.0	0.59	53	5.31	wnw.	11.9		
						3,250	691.7	7.5		59	6.12	wnw.	11.6		
						3,000	712.9	8.6		64	7.15	w.	11.0		
3:43	963.6	35.7	28	sw.	6.7	2,810	729.8	9.4	1.09	86	10.14	w.	10.5		
						2,750	734.6	10.1		84	10.38	w.	10.7		
						2,500	757.0	13.0		73	10.94	w.	11.4	560	
3:50	963.6	35.4	29	sw.	6.7	2,315	774.1	15.0	0.98	66	11.25	w.	12.0		
						2,250	780.0	15.6		64	11.34	w.	12.0		
						2,000	803.8	18.1		58	12.05	wsw.	11.9		
						1,750	827.9	20.5		52	12.54	wsw.	11.8	0	
						1,500	852.0	22.9		46	12.85	sw.	11.7		3/10 Ci.St., wnw.; 3/10 Cu., w.
4:15	963.4	36.2	28	wsw.	5.8	1,433	857.7	23.6	1.10	44	12.82	sw.	11.7		
						1,250	876.4	25.6		41	13.46	sw.	10.6		
						1,000	901.0	28.4		37	14.32	sw.	9.1		
						750	927.4	31.1		33	14.92	wsw.	7.6		
						500	951.7	33.9		30	15.88	wsw.	6.0		
4:45	963.2	35.0	28	wsw.	5.4	396	93.26	35.0		28	15.75	wsw.	5.4		Few Ci.St., wnw.; 3/10 Cu., w.

July 3, 1918.

A. M.															
5:45	964.5	23.5	72	ssw.	6.7	396	964.5	23.5		72	20.85	ssw.	6.7		2/10 Ci., nw.
						500	953.0	23.3		72	20.60	ssw.	10.3		
5:59	964.5	23.6	74	ssw.	5.4	722	929.1	22.8	0.21	71	19.71	ssw.	18.0		
						750	926.2	23.0		70	19.67	ssw.	18.1		
6:04	964.5	23.7	73	ssw.	6.7	1,004	899.6	25.3	−0.89	57	18.39	ssw.	19.2	0	
						1,250	874.8	24.5		46	14.14	ssw.	19.6	260	
						1,500	850.0	23.7		34	9.97	ssw.	19.9		
						1,750	825.8	22.9		22	6.14	ssw.	20.3		
						2,000	802.0	22.1		10	2.66	ssw.	20.7	1,040	
6:39	964.5	24.3	71	sw.	7.6	2,016	801.1	22.0	0.33	10	2.64	ssw.	20.7		
						2,250	779.8	20.1		10	2.35	ssw.	20.6		
						2,500	758.0	18.0		11	2.27	ssw.	20.4	1,400	
						2,750	735.8	15.9		11	1.99	ssw.	20.3		
7:01	964.5	24.7	69	ssw.	8.5	2,767	733.9	15.8	0.83	11	1.97	ssw.	20.3	1,800	
						3,000	713.8	14.0		11	1.76	ssw.	32.5	2,500	1/10 Ci., nw.
7:27	964.5	25.3	66	ssw.	8.0	3,015	713.0	13.9	0.83	11	1.75	ssw.	33.3		
						3,000	713.8	14.0		11	1.76	ssw.	32.8		
						2,750	735.8	16.3		11	2.04	ssw.	24.5		
						2,500	758.0	18.5		10	2.13	ssw.	16.3		
7:53	964.5	26.6	61	ssw.	9.8	2,465	760.7	18.8	0.72	10	2.17	ssw.	15.1		
						2,250	779.8	20.4		9	2.16	ssw.	17.1		
						2,000	802.0	22.2		8	2.14	ssw.	19.4		
						1,750	825.8	24.0		6	1.79	ssw.	21.7		
8:13	964.5	27.0	59	sw.	13 0	1,705	830.3	24.3	−0.34	6	1.82	ssw.	22.1	1,040	
						1,500	850.0	23.6		30	8.74	sw.	21.1	670	2/10 Ci., nw.; few A.Cu., sw.
8:36	964.5	28.1	54	sw.	11.6	1,317	868.4	23.0	0.62	52	14.61	sw.	20.2		
						1,250	874.8	23.4		52	14.97	sw.	22.4		
8:43	964.5	28.4	53	ssw.	10.7	1,157	884.5	24.0	−0.45	53	15.82	sw.	25.4	0	
						1,000	899.8	23.3		55	15.74	ssw.	21.7		
8:51	964.5	28.6	54	ssw.	11.6	935	907.2	23.0	0.88	56	15.74	ssw.	20.1		
8:58	964.5	28.8	54	ssw.	10.7	788	922.6	24.3	1.20	62	18.84	ssw.	15.8		
						750	926.2	24.8		61	19.10	ssw.	15.6		
						500	953.0	27.8		55	20.55	ssw.	14.0		
9:05	964.5	29.0	52	ssw.	13.4	396	964.5	29.0		52	20.84	ssw.	13.4		4/10 Ci.St., nw.

July 4, 1918.

A. M.															
8:48	967.9	25.8	64	ssw.	8.0	396	967.9	25.8		64	21.27	ssw.	8.0		8/10 A.St., w.; 2/10 St.Cu., sw.
						500	955.8	24.8		66	20.66	ssw.	9.4		
8:58	967.9	26.3	64	ssw.	8.9	740	930.8	22.5	0.96	72	19.63	ssw.	13.5		
						750	929.0	22.4		72	19.50	ssw.	13.5	0	
						1,000	902.6	20.7		76	18.56	ssw.	13.8		
						1,250	877.3	19.1		80	17.69	sw.	14.1		
9:15	968.0	27.6	58	ssw.	15.2	1,272	875.5	18.9	0.68	80	17.47	sw.	14.1	1,300	1/10 Ci., w.; 2/10 A.Cu., sw.; 6/10 St.Cu., sw.
						1,500	852.1	17.2		85	16.68	sw.	18.0		
						1,750	827.3	15.4		91	15.92	wsw.	22.3		
9:28	968.0	27.7	58	sw.	13.4	1,817	821.5	14.9	0.73	93.	15.75	wsw.	23.4	1,700	
						2,000	803.0	14.6		82	13.63	wsw.	23.1		
						2,250	779.9	14.3		70	11.41	sw.	22.7		
9:44	968.1	27.6	58	sw.	14.3	2,295	776.2	14.2	0.15	68	11.01	sw.	22.6	2,000	Altitude of St.Cu. base about 2,850 m.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, July, 1918*—Continued.

July 4, 1918—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
						2,500	757.6	12.9	.....	71	10.56	sw.	22.1	.....	
						2,750	735.3	11.4	.....	75	10.11	sw.	21.5	.....	
						3,000	713.3	9.9	.....	79	9.64	sw.	20.9	3,200	
						3,250	690.8	8.3	.....	83	9.09	sw.	20.3	.....	
						3,500	668.7	6.8	.....	88	8.69	sw.	19.8	4,200	
10:08	968.3	28.1	56	sw.	15.6	3,645	660.3	5.9	0.66	90	8.36	sw.	19.4	.....	
						3,500	668.7	6.9	.....	88	8.76	sw.	19.4	.....	9/10 St.Cu., sw.; 1/10 St., sw.
						3,250	690.8	8.8	.....	83	9.40	sw.	19.4	.....	Sprinkling rain from 10:22 to 10:35 a. m.
						3,000	713.3	10.6	.....	78	9.97	sw.	19.5	.....	
10:30	968.4	28.1	56	wsw.	16.1	2,748	735.4	12.4	0.14	74	10.66	sw.	19.5	.....	
						2,500	757.6	12.8	.....	82	12.12	sw.	16.8	.....	
						2,250	779.9	13.1	.....	89	13.42	wsw.	14.1	.....	
10:44	968.5	27.9	57	wsw.	17.0	2,041	799.9	13.4	0.33	96	14.76	wsw.	11.9	.....	
						2,000	803.0	13.5	.....	95	14.70	wsw.	12.1	.....	Altitude of St.Cu. base about 1,950 m.
						1,750	827.3	14.4	.....	86	14.10	wsw.	13.5	.....	
10:57	968.6	27.9	57	wsw.	13.0	1,704	832.5	14.5	0.76	85	14.03	wsw.	13.7	1,200	
						1,500	852.1	16.1	.....	84	15.37	w.	12.5	.....	
						1,250	877.3	18.0	.....	82	16.92	w.	11.1	.....	
						1,000	903.0	20.0	.....	80	18.70	wnw.	9.6	0	
						750	930.3	21.8	.....	78	20.37	nw.	8.3	.....	
11:15	968.8	25.8	72	nw.	4.9	722	933.4	22.0	1.23	78	20.62	nw.	8.1	.....	
						500	957.2	24.7	.....	73	22.72	nw.	5.4	.....	
11:21	969.0	26.0	70	nw.	4.0	396	969.0	26.0	.....	70	23.53	nw.	4.0	.....	10/10 St.Cu., sw.

July 5, 1918.

P. M.															
4:41	973.2	27.8	52	se.	5.4	396	973.2	27.8	.....	52	19.43	se.	5.4	.....	Cloudless.
						500	962.0	26.7	.....	53	18.46	se.	5.8	.....	
5:30	973.0	28.2	52	se.	3.6	716	938.3	24.3	1.09	56	17.02	se.	6.7	0	Few Ci.
						750	934.6	23.9	.....	57	16.91	se.	6.8	.....	
5:52	973.0	28.1	51	se.	4.5	969	911.4	21.3	1.08	62	15.70	se.	7.3	0	
						750	933.6	23.3	.....	60	17.17	se.	6.2	.....	
5:57	973.0	28.1	50	se.	7.6	584	952.6	24.9	1.22	58	18.27	se.	5.3	.....	
						500	960.2	25.9	.....	58	19.38	se.	4.5	.....	
6:22	972.9	27.2	57	se.	3.6	396	972.9	27.2	.....	57	20.57	se.	3.6	.....	Cloudless.

July 6, 1918.

A. M.															
6:40	970.4	21.2	93	se.	3.6	396	970.4	21.2	.....	93	23.42	se.	3.6	.....	1/10 Ci.St., wnw.; 3/10 A.Cu., wsw.
						500	958.2	21.3	.....	89	22.54	se.	7.6	.....	
						750	931.5	21.6	.....	72	18.58	sse.	9.0	.....	
6:50	970.4	21.0	93	se.	3.1	765	930.0	21.7	−0.14	68	17.65	sse.	10.1	0	
						1,000	904.0	20.9	.....	65	16.07	sse.	9.8	680	4/10 Ci.St., wnw.; 3/10 A.Cu., wsw.
						1,250	877.8	20.1	.....	62	14.59	s.	9.5	.....	
						1,500	853.0	19.3	.....	58	12.99	s.	9.2	1,100	
7:39	969.6	22.8	86	se.	5.4	1,676	836.4	18.7	0.33	56	12.08	s.	9.0	1,600	
						1,750	828.6	18.1	.....	58	12.05	s.	9.1	1,300	
						2,000	804.4	16.2	.....	66	12.16	s.	9.4	.....	7/10 A.Cu., wsw.; 2/10 St. Cu., wsw.
						2,250	781.5	14.3	.....	72	11.74	ssw.	9.7	.....	
8:22	969.1	24.3	76	se.	6.3	2,478	761.1	12.6	0.76	79	11.53	ssw.	10.0	.....	
						2,500	758.9	12.4	.....	78	11.23	ssw.	10.1	.....	
						2,750	736.4	10.7	.....	69	8.88	ssw.	11.4	.....	
						3,000	714.8	8.9	.....	59	6.73	sw.	12.8	.....	
8:27	969.1	24.4	75	se.	7.2	3,104	705.8	8.2	0.67	55	5.98	sw.	13.3	.....	
						3,000	714.8	8.7	.....	60	6.75	sw.	12.5	1,800	
						2,750	736.4	10.5	.....	73	9.27	sw.	10.6	.....	
8:41	969.0	25.1	70	sse.	5.4	2,541	755.2	11.8	0.77	84	11.63	sw.	9.0	.....	
						2,500	758.9	12.1	.....	83	11.72	sw.	9.0	.....	
						2,250	781.5	14.1	.....	75	12.07	ssw.	8.8	.....	
						2,000	804.4	16.0	.....	68	12.36	ssw.	8.6	1,170	
						1,750	828.6	17.9	.....	60	12.31	ssw.	8.4	.....	
						1,500	853.0	19.9	.....	53	12.32	s.	8.2	.....	Thunder in west at 9:01 a.m.
9:03	968.9	24.1	74	se.	5.4	1,481	854.9	20.0	0.27	52	12.16	s.	8.2	0	
						1,250	877.4	20.6	.....	55	13.35	s.	8.7	.....	
						1,000	902.9	21.3	.....	58	14.69	s.	9.3	.....	
9:11	969.0	24.0	76	sse.	4.5	935	910.8	21.5	−0.83	59	15.13	s.	9.5	.....	
9:14	969.1	24.0	76	sse.	5.4	767	928.7	20.1	1.00	80	18.82	s.	8.2	2,000	
						750	930.5	20.3	.....	80	19.06	s.	8.0	.....	
						500	957.4	22.8	.....	76	21.10	s.	5.5	.....	Thunder continuing in west.
9:20	969.1	23.8	74	s.	4.5	396	969.1	23.8	.....	74	21.82	s.	4.5	.....	10/10 St.Cu., wsw.

July 7, 1918.

A. M.															
6:31	965.0	19.4	93	ene.	12.1	396	965.0	19.4	.....	93	20.95	ene.	12.1	.....	10/10 St., ene.
						500	953.1	18.6	.....	94	20.14	ene.	13.2	.....	
						750	926.0	16.5	.....	97	18.21	ne.	15.9	.....	
6:54	965.4	19.7	92	ene.	10.7	779	923.2	16.3	0.81	97	17.97	ne.	16.2	0	Altitude of St. base about 600 m.
7:28	966.0	19.8	91	ene.	10.3	940	906.6	20.3	−2.48	69	16.44	ne.	9.4	560	
						1,000	899.7	20.1	.....	68	16.00	ne.	9.7	.....	
						1,250	874.2	19.4	.....	64	14.42	ne.	11.2	.....	
7:35	966.1	19.9	90	ene.	10.7	1,305	869.3	19.2	0.30	63	14.02	ne.	11.5	.....	
						1,500	850.0	19.0	.....	57	12.52	ne.	10.0	1,800	
						1,750	826.8	18.8	.....	50	10.85	ne.	8.1	1,500	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, July, 1918*—Continued.

July 7, 1918—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
						2,000	803.5	18.6		43	9.21	ne.	6.2	1,800	
7:42	966.2	20.0	89	ne.	7.2	2,047	799.9	18.6	0.08	42	9.00	ne.	5.8	2,200	
						2,250	780.8	17.1		50	9.75	ne.	6.3		
						2,500	758.2	15.2		61	10.53	ne.	6.9		
						2,750	735.3	13.3		71	10.84	ne.	7.6		10/10 St., ne.
8:49	966.8	19.8	90	ne.	5.8	2,766	734.2	13.2	0.69	72	10.72	ne.	7.6		
						2,750	735.3	13.3		72	10.99	ne.	7.6		
						2,500	758.2	14.9		68	11.52	ne.	7.8		
						2,250	780.8	16.4		64	11.94	ne.	8.0		
						2,000	803.0	18.0		60	12.38	ne.	8.2		
9:07	967.0	20.2	88	ne.	6.3	1,910	810.7	18.6	0.22	58	12.43	ne.	8.3	2,000	
						1,750	826.4	19.0		62	13.62	ne.	9.7		
						1,500	850.8	19.5		67	15.19	ne.	12.0		
						1,250	875.6	20.1		73	17.18	ne.	14.3	1,400	
9:30	967.3	20.2	89	ne.	4.9	1,191	881 7	20.2	−2.68	74	17.52	ne.	14.8	1,010	
9:34	967.3	20.1	88	ene.	4.9	1,034	897.9	16.0	0.27	93	16.91	ne.	14.8		Altitude of St. base about 600 m.
						1,000	901.4	16.1		93	17.02	ne.	14.4		
9:42	967.4	20.2	89	ene.	5.8	811	921.9	16.6	0.89	92	17.38	ne.	11.8	0	
						750	927.5	17.1		92	17.94	ne.	10.9		
						500	955.3	19.4		89	20.05	ene.	7.3		
9:50	967.5	20.3	88	ne.	5.8	396	967.5	20.3		88	20.96	ene.	5.8		10/10 St., ene.

July 9, 1918.

A. M.															
7:54	975.0	21.4	70	nne.	2.7	396	975.0	21.4		70	17.84	nne.	2.7		1/10 Ci.St., wnw.; 3/10 A.Cu., nw.; 2/10 St.Cu., nw.
						500	963.6	19.8		73	16.86	nne.	4.5		
8:05	975.0	22.0	62	nne.	4.0	708	940.2	16.6	1.54	78	14.73	n.	8.2	0	
						750	935.3	16.2		78	14.37	n.	8.4		
						1,000	907.8	14.1		80	12.87	n.	9.5		
8:24	975.0	21.6	61	n.	4.5	1,250	881.9	12.0	0.85	82	11.50	n.	10.6	420	
						1,500	855.5	11.7		59	8.11	nnw.	10.6		Altitude of St.Cu. base about 1800 m.
						1,750	830.4	11.4		36	4.85	nw.	10.5		
8:48	975.0	21.6	62	nne.	4.5	1,876	818.1	11.3	0.11	25	3.35	nw.	10.5	1,200	
						2,000	806.0	10.2		33	4.11	nw.	10.7		
9:08	975.0	21.7	61	nne.	4.5	2,039	802.5	9.8	0.52	35	4.24	nw.	10.7	1,040	
						2,000	806.0	9.8		39	4.73	nw.	10.7		5/10 St.Cu., nw.
						1,750	830.4	10.2		61	7.59	nnw.	10.4		
						1,500	855.5	10.5		84	10.67	nne.	10.1		
9:33	975.0	22.0	61	n.	4.5	1,395	867.1	10.6	1.11	93	11.89	nne.	10.0		
						1,250	881.9	12.2		83	11.79	nne.	10.3		
						1,000	909.0	15.0		66	11.25	nne.	10.8	0	
10:56	975.0	23.5	46	nne.	5.8	746	936.3	17.8	1.69	48	9.78	nne.	11.3		
						500	963.6	21.9		47	12.35	nne.	7.2		
11:03	975.0	23.7	47	nne.	5.4	396	975.0	23.7		47	13.76	nne.	5.4		5/10 St.Cu., nw.; 2/10 Cu., nw.

July 12, 1918 (No. 1).

A. M.															
8:02	976.0	21.2	57	se.	4.0	396	976.0	21.2		57	14.35	se.	4.0		10/10 St.Cu., wnw.
						500	964.4	21.0		55	13.68	se.	5.7		
						750	938.0	20.5		49	11.82	sse.	9.9		
8:12	976.0	21.5	56	se.	4.0	797	931.7	20.4	0.20	48	11.51	sse.	10.7		
						1,000	910.8	18.8		50	10.85	sse.	9.1	0	9/10 St.Cu., wnw.
						1,250	884.0	16.8		51	9.76	sse.	7.1	660	
9:11	976.0	23.8	49	sse.	3.1	1,456	862.8	15.2	0.80	53	9.15	sse.	5.4		
						1,250	883.2	16.9		53	10.20	sse.	5.6	0	
						1,000	909.0	18.9		53	11.58	s.	5.9		
						750	937.0	20.9		53	13.10	s.	6.2		
9:57	976.0	25.0	42	s.	4.0	704	942.0	21.3	1.40	53	13.42	s.	6.2		7/10 St.Cu., wnw.
						500	964.4	24.1		44	13.21	s.	4.5		
10:05	976.0	25.6	39	s.	3.6	396	976.0	25.6		39	12.81	s.	3.6		1/10 Ci.Cu., wnw.; 5/10 A.Cu., wnw.

July 12, 1918 (No. 2).

P. M.															
12:30	975.1	27.9	34	sse.	5.8	396	975.1	27.9		34	12.78	sse.	5.8		9/10 A.Cu., w.
						500	963.3	26.7		34	11.91	sse.	6.0		
						750	936.2	23.7		35	10.26	se.	6.5		
12:35	975.2	27.9	32	sse.	4.9	828	928.3	22.8	1.18	35	9.72	se.	6.6		
1:21	974.6	28.9	32	s.	4.9	943	915.6	21.5	1.13	42	10.77	sse.	6.6	0	
						1,000	909.3	20.9		42	10.38	sse.	6.9		
						1,250	883.0	18.3		45	9.46	sse.	8.3		
1:36	974.4	29.2	32	s.	3.6	1,372	870.8	17.0	1.05	46	8.91	sse.	9.0		
						1,500	857.7	15.8		48	8.62	sse.	8.6		
						1,750	833.0	13.6		52	8.10	sse.	7.8	1,010	
1:45	974.3	29.4	32	s.	4.5	1,886	819.5	12.3	0.91	54	7.73	sse.	7.4		8/10 A.Cu., w.

TABLE 7.—*Free-air date drom kite flights at Drexel Aerological Station, July, 1918*—Continued.

July 13, 1918.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
6:30	971.3	19.8	58	sse.	4.0	396	971.3	19.8	.....	58	13.40	sse.	4.0	.....	6/10 Ci.St., nw.; 3/10 A.St., nw.
						500	960.0	20.0	.....	57	13.33	sse.	7.5	.....	
6:35	971.3	19.9	58	sse.	4.5	650	943.2	20.3	− 0.20	56	13.34	s.	12.3	.....	
						750	932.2	20.9	.....	55	13.60	s.	12.0	.....	
6:57	971.3	20.3	57	sse.	4.9	952	910.8	22.0	− 0.56	54	14.28	ssw.	11.4	0	
						1,000	905.7	22.0	.....	55	14.54	ssw.	11.3	.....	
						1,250	878.9	19.7	.....	60	13.77	ssw.	10.6	620	
						1,500	853.7	18.0	.....	64	13.21	sw.	10.0	.....	
						1,750	829.2	15.9	.....	69	12.47	sw.	9.4	1,500	
7:43	971.3	22.0	53	s.	7.6	1,966	809.3	14.2	0.77	73	11.82	sw.	8.8	2,000	
						2,000	805.3	14.0	.....	74	11.83	sw.	8.5	2,100	
						2,250	782.1	12.2	.....	80	11.37	sw.	6.5	.....	
						2,500	759.4	10.5	.....	86	10.92	sw.	4.5	3,500	
8:23	971.1	23.7	48	s.	6.7	2,527	757.0	10.3	0.68	87	10.90	sw.	4.3	.....	2/10 Ci.St., nnw.; 4/10 A.St., nnw.; 2/10 A.Cu., nnw.
						2,500	759.4	10.5	.....	86	10.92	sw.	4.5	.....	
						2,250	782.1	12.2	.....	80	11.37	sw.	6.0	.....	
						2,000	805.3	13.9	.....	74	11.75	ssw.	7.5	1,800	
9:43	970.5	25.4	47	ssw.	7.2	1,847	820.2	14.9	0.69	70	11.86	ssw.	8.4	1,900	
						1,750	829.2	15.6	.....	68	12.05	ssw.	8.6	.....	
						1,500	853.7	17.3	.....	62	12.24	ssw.	9.2	1,280	
						1,250	878.9	19.0	.....	56	12.30	ssw.	9.5	.....	
10:15	970.3	26.4	47	ssw.	8.5	1,239	880.6	19.1	0.52	56	12.38	ssw.	9.5	730	
						1,000	904.4	20.4	.....	58	13.90	s.	9.9	0	
10:29	970.3	27.0	48	ssw.	8.5	765	930.2	21.6	1.54	59	15.22	s.	10.2	.....	
						750	931.9	21.8	.....	58	15.15	s.	10.1	.....	
						500	958.2	25.7	.....	50	16.52	ssw.	8.6	.....	
10:37	970.3	27.3	46	ssw.	8.0	396	970.3	27.3	.....	46	16.70	ssw.	8.0	.....	2/10 Ci.St., nnw.; 4/10 A.St., nnw.; 3/10 A.Cu., nnw.

July 14, 1918.

A. M.															
5:51	968.5	22.0	64	sse.	3.6	396	968.5	22.0	.....	64	16.92	sse.	3.6	.....	10/10 St.Cu., w.
						500	956.7	22.4	.....	63	17.07	sse.	6.5	.....	
						750	930.0	23.3	.....	60	17.17	ssw.	13.4	.....	
5:57	968.6	22.4	62	sse.	3.6	801	924.7	23.5	−0.37	59	17.09	ssw.	14.8	0	
						1,000	903.3	22.5	.....	59	16.08	ssw.	13.4	.....	
6:57	968.6	22.8	67	s.	4.0	1,202	883.2	21.5	0.50	60	15.39	ssw.	12.0	0	
						1,250	878.0	21.4	.....	60	15.29	ssw.	11.2	.....	
7:35	969.0	23.0	68	ssw.	3.1	1,438	859.8	20.8	0.30	61	14.99	ssw.	7.8	0	
						1,500	853.4	20.2	.....	63	14.92	ssw.	7.7	.....	10/10 St.Cu., w.
						1,750	829.5	18.0	.....	69	14.24	ssw.	7.5	.....	
8:01	969.2	23.2	68	ssw.	1.8	1,842	820.6	17.2	0.89	71	13.93	ssw.	7.4	0	Rain began 8:03 a. m. and continued at end of flight.
						2,000	805.8	16.0	.....	73	13.27	ssw.	7.1	.....	
						2,250	782.5	14.0	.....	78	12.46	ssw.	6.6	.....	Thunder heard at 8:05 a. m. in nw.
8:10	969.6	23.1	69	ssw.	1.8	2,272	780.0	13.8	0.74	78	12.31	ssw.	6.5	0	
						2,250	782.5	14.0	.....	78	12.46	ssw.	6.5	.....	
						2,000	805.8	15.7	.....	75	13.38	ssw.	7.0	.....	
						1,750	829.5	17.5	.....	73	14.60	ssw.	7.4	.....	
						1,500	853.4	19.2	.....	71	15.80	sw.	7.9	.....	
8:23	970.0	23.2	70	wsw.	1.8	1,331	870.8	20.4	−0.26	69	16.54	sw.	8.2	0	
						1,250	878.5	20.2	.....	72	17.05	sw.	8.5	.....	
						1,000	904.4	19.5	.....	82	18.59	wsw.	9.4	.....	
8:30	970.2	22.8	74	w.	8.0	873	918.3	19.2	0.67	87	19.36	wsw.	9.8	0	
						750	931.5	20.0	.....	85	19.87	wsw.	8.8	.....	
						500	958.4	21.7	.....	79	20.51	w.	6.7	.....	
8:37	970.3	22.4	77	w.	5.8	396	970.3	22.4	.....	77	20.86	w.	5.8	.....	10/10 St.Cu., w.; thunder in sw., w., and nw.

July 15, 1918.

A. M.															
6:28	967.4	21.5	89	w.	4.9	396	967.4	21.5	.....	89	22.83	w.	4.9	.....	6/10 Ci.St., w.; 4/10 A.St., w.
						500	955.6	21.8	.....	87	22.72	w.	7.1	.....	
6:35	967.4	21.6	89	wnw.	4.0	712	933.0	22.4	−0.28	82	22.21	nw.	11.5	0	
						750	928.0	22.2	.....	82	21.95	nw.	11.5	.....	
						1,000	901.5	20.9	.....	82	20.27	nw.	11.7	330	
						1,250	876.8	19.7	.....	83	19.05	nw.	11.9	.....	
						1,500	852.0	18.4	.....	83	17.56	wnw.	12.1	760	10/10 St., nw.
7:22	967.7	21.8	88	nw.	4.0	1,733	829.2	17.2	0.51	84	16.48	wnw.	12.3	.....	Altitude of St. base about 600 m.
						1,750	827.2	17.0	.....	84	16.28	wnw.	12.4	.....	
						2,000	803.1	14.8	.....	92	15.48	w.	14.1	.....	
7:57	967.9	22.2	92	nw.	3.1	2,207	784.5	13.0	0.89	98	14.68	w.	15.5	2,000	
						2,250	780.0	12.8	.....	95	14.04	w.	15.5	2,400	
						2,500	757.5	11.5	.....	76	10.31	w.	15.3	2,300	
8:05	967.9	22.5	91	nw.	2.7	2,749	735.3	10.2	0.30	57	7.10	w.	15.1	.....	
8:10	967.9	23.0	90	wnw.	2.7	2,500	757.5	10.4	0.92	96	12.11	w.	15.1	.....	
						2,250	780.0	12.7	.....	90	13.22	w.	14.2	1,200	Altitude of St. base about 600 m.
						2,000	803.1	15.0	.....	84	14.32	wnw.	13.2	.....	
						1,750	827.2	17.3	.....	79	15.60	wnw.	12.3	.....	
8:31	967.9	22.6	90	nw.	4.5	1,596	842.7	18.7	0.54	75	16.18	wnw.	11.7	860	
						1,500	852.0	19.1	.....	78	17.25	wnw.	11.9	.....	
8:40	967.9	23.2	87	nw.	3.6	1,249	877.2	20.2	0.00	85	20.13	nw.	12.3	560	
						1,000	901.5	20.2	.....	90	21.31	nw.	9.5	.....	
						750	928.0	20.2	.....	95	22.50	nw.	6.6	.....	
8:54	967.9	23.3	86	nnw.	3.1	583	947.3	20.2	1.60	98	23.21	nw.	4.7	.....	
						500	955.6	21.5	.....	93	23.85	nw.	4.0	.....	
8:59	967.9	23.2	86	nw.	3.1	396	967.9	23.2	.....	86	24.46	nw.	3.1	.....	10/10 St., nw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, July, 1918*—Continued.

July 16, 1918.

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
5:00	969.9	27.4	58	ne.	8.5	396	969.9	27.4	.....	58	21.18	ne.	8.5	.....	8/10 A.Cu., w.
						500	958.0	25.4	.....	60	19.47	nne.	8.6	.....	
5:14	969.9	27.4	58	nne.	7.6	532	955.1	24.8	1.91	61	19.10	nne.	8.8	0	
						750	931.5	22.8	.....	66	18.32	nne.	8.4	.....	
5:18	969.9	27.4	58	nne.	10.7	771	929.2	22.6	0.92	67	18.38	nne.	8.3	0	
						1,000	904.7	20.3	.....	75	17.86	nne.	7.3	.....	5/10 A.Cu., w.; 5/10 St. ,wnw.
6:00	969.9	26.0	64	nne.	8.9	1,250	879.1	17.8	1.00	84	17.12	nne.	6.2	0	
						1,500	853.7	16.3	.....	82	15.19	nne.	3.6	.....	
6:04	969.9	26.0	64	nne.	8.9	1,590	844.7	15.7	0.64	81	14.45	nne.	2.7	0	
						1,500	853.7	16.3	.....	81	15.01	nne.	3.4	.....	
6:12	970.0	25.8	65	ne.	8.9	1,252	879.1	17.9	0.73	82	16.82	ne.	5.4	0	
						1,000	904.7	19.7	.....	79	18.13	ne.	7.4	.....	
6:34	970.1	25.4	66	ne.	9.4	748	931.8	21.6	1.02	76	19.61	nne.	9.4	0	
						500	958.0	24.1	.....	69	20.71	ne.	9.4	.....	
6:41	970.2	25.2	66	ne.	9.4	396	970.2	25.2	.....	66	21.16	ne.	9.4	.....	1/10 A.St., w.; 9/10 St., wnw.

July 18, 1918.

A. M.															
6:43	970.5	18.4	94	wnw.	2.7	396	970.5	18.4	.....	94	19.89	wnw.	2.7	.....	Few Ci.St., w.; 1/10 A.Cu., w.
						500	958.0	19.2	.....	80	17.80	wnw.	6.3	.....	
6:47	970.5	18.7	92	wnw.	1.3	621	945.5	20.2	−0.80	63	14.92	nw.	10.4	.....	
						750	931.0	19.3	.....	64	14.33	nw.	10.2	.....	
						1,000	905.0	17.4	.....	65	12.92	nnw.	9.9	0	
						1,250	879.2	15.6	.....	67	11.87	n.	9.6	.....	
						1,500	853.8	13.8	.....	68	10.73	nne.	9.3	1,100	
8:03	970.6	21.5	79	n.	2.2	1,646	838.9	12.7	0.73	69	10.14	nne.	9.1	.....	
						1,750	828.6	12.0	.....	67	9.40	nne.	9.6	.....	Few A.Cu., near horizon.
						2,000	804.1	10.4	.....	64	8.07	n.	11.0	1,100	
						2,250	780.2	8.8	.....	60	6.80	nw.	12.3	.....	
8:49	970.6	23.7	69	n.	2.7	2,368	769.5	8.0	0.65	58	6.22	nw.	12.9	2,300	
						2,500	757.0	7.8	.....	53	5.61	nw.	12.1	.....	
						2,750	734.5	7.3	.....	45	4.60	nnw.	10.7	.....	
						3,000	713.0	6.9	.....	36	3.58	n.	9.2	.....	
9:37	970.6	24.5	56	nne.	2.2	3,172	698.1	6.6	0.17	30	2.92	n.	8.2	3,200	
						3,250	692.0	6.1	.....	30	2.83	n.	8.7	3,700	
						3,500	671.0	4.6	.....	30	2.54	n.	10.3	.....	
						3,750	650.9	3.0	.....	29	2.20	n.	11.9	.....	
						4,000	630.8	1.5	.....	29	1.97	n.	13.6	.....	
10:07	970.6	25.0	54	ne.	2.7	4,129	620.8	0.7	0.58	29	1.86	n.	14.4	.....	Few A.Cu., near horizon; few Cu., n.
						4,000	630.8	1.4	.....	29	1.96	n.	13.6	.....	
						3,750	650.0	2.7	.....	29	2.15	n.	12.2	.....	
						3,500	670.0	4.1	.....	29	2.38	n.	10.7	2,500	
10:19	970.5	25.4	52	ne.	2.7	3,327	684.8	5.0	0.43	29	2.53	n.	9.7	.....	
						3,250	690.9	5.3	.....	29	2.58	n.	9.9	.....	
						3,000	712.0	6.4	.....	29	2.79	n.	10.3	.....	
						2,750	734.0	7.5	.....	28	2.90	nnw.	10.8	.....	
						2,500	757.0	8.6	.....	28	3.13	nnw.	11.3	.....	
10:38	970.4	25.5	51	nne.	2.2	2,404	765.9	9.0	0.48	28	3.21	nnw.	11.5	1,400	Few A.Cu., near horizon; 1/10 Cu., n
						2,250	780.2	9.7	.....	37	4.45	nnw.	10.8	.....	
						2,000	804.1	11.0	.....	52	6.83	nnw.	9.8	.....	
						1,750	828.6	12.2	.....	68	9.66	n.	8.7	860	
10:55	970.3	26.0	52	cne.	2.2	1,536	850.0	13.2	1.06	81	12.29	n.	7.8	0	
						1,500	853.8	13.6	.....	80	12.46	n.	7.6	.....	
						1,250	879.2	16.2	.....	74	13.63	n.	6.1	.....	
11:00	970.3	26.0	52	ne.	2.2	1,103	894.4	17.8	1.10	70	14.27	n.	5.3	.....	
						1,000	905.0	18.9	.....	66	14.41	n.	5.6	.....	
						750	931.0	21.7	.....	58	15.06	n.	6.3	.....	
11:13	970.3	25.7	51	n.	2.7	647	942.9	22.8	1.24	54	14.99	n.	6.6	.....	
						500	958.0	24.6	.....	52	16.09	n.	4.8	.....	
11:19	970.3	25.9	50	n.	3.6	396	970.3	25.9	.....	50	16.71	n.	3.6	.....	3/10 Cu., n.

July 19, 1918.

A. M.															
6:45	969.8	21.0	70	w.	4.5	396	969.8	21.0	.....	70	17.41	w.	4.5	.....	5/10 Cu., n.
						500	958.0	23.4	.....	57	16.40	w.	8.5	.....	
6:47	969.8	21.0	70	w.	4.5	599	947.4	25.7	−2.32	44	14.53	w.	12.3	.....	
						750	931.3	25.0	.....	42	13.31	w.	11.3	.....	
						1,000	905.2	24.0	.....	40	11.94	w.	9.6	.....	
7:05	969.9	21.4	69	wsw.	4.9	1,152	889.7	23.3	0.43	38	10.87	w.	8.6	.....	
						1,250	879.5	22.4	.....	40	10.84	w.	8.4	.....	
						1,500	854.9	20.3	.....	45	10.72	wnw.	7.9	0	Few Cu., n.
8:29	970.1	24.9	62	w.	5.4	1,739	831.7	18.2	0.87	50	10.45	wnw.	7.5	1,280	
						1,750	830.8	18.1	.....	50	10.38	wnw.	7.5	.....	
						2,000	807.0	15.9	.....	56	10.12	wnw.	6.7	.....	
						2,250	783.8	13.6	.....	63	9.82	nw.	5.9	1,170	
						2,500	760.7	11.4	.....	69	9.30	nw.	5.2	.....	
9:15	969.9	26.9	58	wsw.	5.4	2,714	741.1	9.5	0.90	74	8.78	nw.	4.5	.....	
						2,500	760.7	11.5	.....	69	9.36	nw.	5.0	.....	
						2,250	783.8	13.7	.....	63	9.88	nw.	5.5	.....	Few A.Cu., nnw.
						2,000	807.0	16.0	.....	57	10.36	wnw.	6.1	490	
9:49	969.9	27.7	55	w.	5.8	1,763	829.2	18.2	0.81	51	10.66	wnw.	6.6	.....	
						1,750	830.8	18.3	.....	51	10.73	wnw.	6.6	620	
						1,500	854.9	20.3	.....	49	11.67	wnw.	7.3	0	
						1,250	879.5	22.3	.....	46	12.39	w.	8.0	.....	
10:18	969.8	28.7	53	w.	6.3	1,105	894.7	23.5	0.41	45	13.03	w.	8.4	.....	
						1,000	905.2	23.9	.....	50	14.83	w.	7.6	.....	
10:22	969.8	28.8	52	w.	6.3	836	922.7	24.6	1.00	58	17.95	w.	6.4	.....	
						750	931.3	25.5	.....	57	18.60	w.	6.3	.....	
						500	958.0	28.0	.....	53	20.04	w.	5.9	.....	
10:30	969.7	29.0	52	w.	5.8	396	969.7	29.0	.....	52	20.84	w.	5.8	.....	Few A.Cu., nnw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, July, 1918*—Continued.

July 20, 1918.

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
5:41	969.1	20.8	67	sw.	4.0	396	969.1	20.8	.....	67	16.46	sw.	4.0	.....	1/10 Ci., near horizon; few St.Cu.
5:43	969.1	20.8	67	sw.	4.5	504	957.7	26.6	−5.37	54	18.81	sw.	17.2	.....	
5:53	969.2	20.9	67	sw.	4.0	749	931.1	25.8	0.33	40	13.29	sw.	13.5	0	
.....	.....	.....	.....	.....	.....	1,000	904.8	23.9	.....	40	11.86	sw.	12.1	.....	
.....	.....	.....	.....	.....	.....	1,250	879.3	22.0	.....	40	10.58	sw.	10.8	920	
.....	.....	.....	.....	.....	.....	1,500	854.1	20.2	.....	40	9.47	sw.	9.4	.....	
6:30	969.4	21.2	67	sw.	3.6	1,523	852.1	20.0	0.75	40	9.35	sw.	9.3	.....	
.....	.....	.....	.....	.....	.....	1,750	829.5	17.8	.....	47	9.58	sw.	10.0	.....	
.....	.....	.....	.....	.....	.....	2,000	805.4	15.5	.....	55	9.69	ssw.	10.8	.....	
.....	.....	.....	.....	.....	.....	2,250	782.0	13.1	.....	63	9.50	ssw.	11.6	2,300	
.....	.....	.....	.....	.....	.....	2,500	759.3	10.7	.....	73	9.40	s.	12.3	.....	
7:03	969.6	21.7	64	sw.	3.6	2,619	748.9	9.6	0.95	74	8.84	s.	12.7	.....	
.....	.....	.....	.....	.....	.....	2,750	736.7	9.0	.....	69	7.92	s.	12.1	3,600	
.....	.....	.....	.....	.....	.....	3,000	714.7	7.7	.....	58	6.10	s.	11.1	.....	
.....	.....	.....	.....	.....	.....	3,250	693.3	6.5	.....	48	4.65	ssw.	10.0	4,400	
7:39	969.8	22.6	65	sw.	4.0	3,486	674.0	5.3	0.50	38	3.39	ssw.	9.0	4,600	
.....	.....	.....	.....	.....	.....	3,500	672.6	5.2	.....	38	3.36	ssw.	8.9	4,800	
.....	.....	.....	.....	.....	.....	3,750	652.8	3.7	.....	35	2.79	ssw.	7.9	.....	1/10 Ci. St., near horizon.
.....	.....	.....	.....	.....	.....	4,000	633.2	2.1	.....	32	2.28	ssw.	6.8	4,900	
8:33	970.1	25.0	59	wsw.	4.0	4,215	616.5	0.8	0.54	30	1.94	ssw.	5.9	.....	
.....	.....	.....	.....	.....	.....	4,000	633.2	1.8	.....	32	2.23	ssw.	7.0	.....	
.....	.....	.....	.....	.....	.....	3,750	652.8	3.0	.....	34	2.58	ssw.	8.2	.....	
8:51	970.2	25.7	57	wsw.	6.7	3,707	656.3	3.2	0.75	34	2.61	ssw.	8.4	3,500	3/10 Ci., 1/10 Ci.St., near horizon.
.....	.....	.....	.....	.....	.....	3,500	672.6	4.8	.....	34	2.92	ssw.	9.3	.....	
.....	.....	.....	.....	.....	.....	3,250	693.3	6.6	.....	34	3.32	ssw.	10.4	3,500	
.....	.....	.....	.....	.....	.....	3,000	715.0	8.5	.....	33	3.66	s.	11.5	.....	
9:25	970.3	26.7	56	wsw.	5.4	2,761	736.2	10.3	0.47	33	4.13	s.	12.5	3,000	
.....	.....	.....	.....	.....	.....	2,750	737.3	10.4	.....	34	4.29	s.	12.6	.....	
.....	.....	.....	.....	.....	.....	2,500	760.0	11.5	.....	49	6.65	s.	13.8	.....	
.....	.....	.....	.....	.....	.....	2,250	782.8	12.7	.....	64	9.40	sse.	15.1	.....	
9:35	970.3	27.2	55	wsw.	4.9	2,224	785.3	12.8	0.88	66	9.75	sse.	15.2	1,800	
.....	.....	.....	.....	.....	.....	2,000	806.1	14.8	.....	61	10.27	sse.	14.8	.....	
.....	.....	.....	.....	.....	.....	1,750	830.5	17.1	.....	56	10.92	s.	13.5	.....	
.....	.....	.....	.....	.....	.....	1,500	855.2	19.2	.....	51	11.35	s.	12.7	.....	
.....	.....	.....	.....	.....	.....	1,250	880.4	21.4	.....	46	11.73	ssw.	11.9	490	
10:05	970.3	28.3	51	sw.	4.9	1,148	890.4	22.3	0.29	43	11.58	ssw.	11.5	.....	
.....	.....	.....	.....	.....	.....	1,000	905.8	22.7	.....	48	13.24	ssw.	11.3	.....	
10:16	970.3	28.8	50	sw.	7.2	808	925.9	23.3	1.38	54	15.44	sw.	11.1	.....	
.....	.....	.....	.....	.....	.....	750	931.5	24.1	.....	53	15.91	sw.	10.5	0	
.....	.....	.....	.....	.....	.....	500	957.9	27.6	.....	50	18.47	wsw.	7.8	.....	4/10 Ci., 1/10 Ci.St., near horizon.
10:24	970.3	29.0	49	wsw.	6.7	396	970.3	29.0	.....	49	19.63	wsw.	6.7	.....	

July 21, 1918.

A. M.															
7:46	968.2	23.2	59	sw.	2.7	396	968.2	23.2	.....	59	16.78	sw.	2.7	.....	3/10 Ci.St., wsw.; 7/10 St.Cu., sw.
.....	.....	.....	.....	.....	.....	500	957.0	24.1	.....	51	15.31	sw.	11.0	.....	
7:55	968.2	23.3	58	sw.	3.1	687	936.6	25.7	−0.86	37	12.22	ssw.	25.8	0	
.....	.....	.....	.....	.....	.....	750	930.0	25.2	.....	38	12.18	ssw.	25.1	.....	
.....	.....	.....	.....	.....	.....	1,000	903.4	23.2	.....	41	11.66	ssw.	22.1	.....	
.....	.....	.....	.....	.....	.....	1,250	877.8	21.2	.....	43	10.83	ssw.	19.1	860	
.....	.....	.....	.....	.....	.....	1,500	852.8	19.2	.....	46	10.24	sw.	16.1	.....	
.....	.....	.....	.....	.....	.....	1,750	828.3	17.2	.....	49	9.61	sw.	13.1	1,800	
.....	.....	.....	.....	.....	.....	2,000	804.9	15.1	.....	52	8.92	sw.	10.2	.....	
8:37	968.2	24.4	54	ssw.	3.6	2,006	804.3	15.1	0.80	52	8.92	sw.	10.1	2,500	1/10 Ci.St., wsw; 9/10 St.Cu., sw.
.....	.....	.....	.....	.....	.....	2,250	781.2	13.1	.....	56	8.44	sw.	8.8	3,800	
.....	.....	.....	.....	.....	.....	2,500	758.5	11.0	.....	61	8.01	sw.	7.5	.....	
9:57	967.9	27.4	48	ssw.	5.4	2,672	743.9	9.6	0.83	64	7.65	sw.	6.6	.....	8/10 Ci.St., wsw; 2/10 St.Cu., sw.
.....	.....	.....	.....	.....	.....	2,750	736.4	9.1	.....	67	7.75	sw.	7.1	.....	
.....	.....	.....	.....	.....	.....	3,000	715.0	7.6	.....	75	7.83	sw.	8.5	.....	
10:19	967.8	28.7	44	ssw.	6.7	3,162	701.3	6.6	0.61	81	7.90	sw.	9.5	3,500	
.....	.....	.....	.....	.....	.....	3,250	693.0	6.4	.....	72	6.92	ssw.	7.9	.....	
10:25	967.8	29.0	41	ssw.	6.7	3,275	691.1	6.3	0.34	69	6.59	ssw,	7.4	.....	
.....	.....	.....	.....	.....	.....	3,250	693.0	6.4	.....	70	6.73	ssw.	7.3	.....	
.....	.....	.....	.....	.....	.....	3,000	714.0	7.4	.....	79	8.14	ssw.	6.7	.....	
10:31	967.7	29.3	42	ssw.	6.3	2,924	720.6	7.7	0.92	82	8.62	ssw.	6.5	.....	
.....	.....	.....	.....	.....	.....	2,750	735.3	9.3	.....	74	8.67	ssw.	7.2	.....	
.....	.....	.....	.....	.....	.....	2,500	757.7	11.6	.....	63	8.61	ssw.	8.2	.....	
.....	.....	.....	.....	.....	.....	2,250	781.2	13.9	.....	52	8.26	ssw.	9.3	2,900	
10:50	967.7	30.2	41	ssw.	6.7	2,167	788.7	14.7	0.79	48	8.03	ssw.	9.6	1,800	
.....	.....	.....	.....	.....	.....	2,000	804.9	16.0	.....	45	8.18	ssw.	10.5	.....	
.....	.....	.....	.....	.....	.....	1,750	828.3	18.0	.....	40	8.26	ssw.	11.9	1,700	
.....	.....	.....	.....	.....	.....	1,500	852.8	19.9	.....	36	8.37	s.	13.3	.....	
.....	.....	.....	.....	.....	.....	1,250	877.8	21.9	.....	31	8.15	s.	14.7	.....	
11:17	967.4	31.3	37	ssw.	5.8	1,201	882.9	22.3	0.81	30	8.08	s.	15.0	.....	
.....	.....	.....	.....	.....	.....	1,000	903.4	23.9	.....	32	9.49	s.	13.6	520	
.....	.....	.....	.....	.....	.....	750	929.0	25.9	.....	35	11.70	s.	11.8	.....	
11:33	967.2	31.6	36	s.	6.7	730	931.4	26.1	1.83	35	11.84	s.	11.6	.....	
.....	.....	.....	.....	.....	.....	500	955.4	30.3	.....	35	15.11	s.	8.2	0	
11:43	967.1	32.2	35	s.	6.7	396	967.1	32.2	.....	35	16.84	s.	6.7	.....	8/10 Ci.St., wsw.; 2/10 St.Cu., sw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, July, 1918*—Continued.

July 22, 1918.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	*°C.*	*%*		*m. p. s.*	*m.*	*mb.*	*°C.*		*%*	*mb.*		*m. p. s.*	*volts.*	
9:21	968.0	26.8	63	sw.	4.5	396	968.0	26.8	.....	63	22.20	sw.	4.5	.....	6/10 A.St., wsw.; 4/10 St.Cu., sw.
						500	956.8	26.7	.....	60	21.02	sw.	6.5	.....	
9:42	968.1	27.0	61	sw.	4.5	696	935.9	26.4	0.13	55	18.94	wsw.	10.3	.....	
						750	930.2	26.4	.....	56	19.28	wsw.	10.2	.....	
						1,000	904.4	24.4	.....	59	18.04	wsw.	9.5	.....	
						1,250	878.9	22.4	.....	62	16.80	wsw.	8.9	.....	
10:18	968.3	27.9	57	sw.	7.2	1,344	869.3	21.2	0.80	63	15.86	wsw.	8.7	0	3/10 Ci.St., wsw.; 5/10 St.Cu., sw.
						1,500	853.7	19.9	.....	65	15.11	wsw.	9.4	.....	
						1,750	828.9	17.9	.....	67	13.74	sw.	10.6	.....	
						2,000	805.0	16.9	.....	70	13.48	sw.	11.7	.....	
						2,250	782.0	13.9	.....	73	11.59	ssw.	12.9	.....	
10:42	968.5	28.7	55	wsw.	7.6	2,457	763.3	12.2	0.81	75	10.66	ssw.	13.8	1,600	7/10 A.Cu., sw.; 2/10 St.Cu., sw.; 1/10 Cu., sw.
						2,500	759.3	11.9	.....	75	10.45	ssw.	14.2	.....	
						2,750	737.0	10.2	.....	73	9.09	ssw.	16.3	.....	
						3,000	715.4	8.6	.....	72	8.04	s.	18.4	.....	
10:55	968.6	28.9	52	wsw.	7.2	3,162	701.3	7.5	0.66	71	7.36	s.	19.8	2,800	
						3,250	694.0	6.8	.....	71	7.01	s.	19.6	.....	
						3,500	673.0	4.9	.....	71	6.15	s.	19.0	.....	
						3,750	652.7	3.0	.....	71	5.38	sse.	18.3	.....	
11:16	968.7	29.7	51	sw.	8.5	3,885	641.9	2.0	0.77	71	5.01	sse.	18.0	3,800	
						3,750	652.7	3.0	.....	71	5.38	sse.	17.9	.....	
						3,500	673.0	5.0	.....	69	6.02	sse.	17.6	.....	
						3,250	694.0	6.9	.....	69	6.87	sse.	17.3	.....	
11:37	968.8	29.8	51	wsw.	9.4	3,119	704.7	8.0	0.59	68	7.30	sse.	17.2	2,300	
						3,000	715.4	8.7	.....	70	7.88	sse.	16.8	.....	
						2,750	737.0	9.2	.....	76	8.85	s.	16.0	.....	
						2,500	759.3	11.6	.....	82	11.20	ssw.	15.1	.....	
11:54	968.9	28.6	53	w.	11.2	2,351	772.7	12.5	0.78	85	12.32	sw.	14.6	1,500	
						2,250	782.0	13.3	.....	83	12.67	sw.	14.7	.....	
						2,000	805.0	15.2	.....	77	13.30	sw.	14.8	.....	
						1,750	828.9	17.2	.....	71	13.93	sw.	15.0	.....	
P. M.															
12:11	969.0	29.0	53	w.	8.9	1,555	848.4	18.7	0.62	67	14.45	sw.	15.1	950	
						1,500	853.7	19.0	.....	67	14.72	sw.	14.9	.....	
						1,250	878.9	20.6	.....	64	15.53	sw.	14.0	.....	
						1,000	905.1	22.4	.....	61	16.23	sw.	13.0	0	
12:33	969.1	26.9	58	w.	6.7	801	925.6	23.4	0.74	59	16.98	sw.	12.3	.....	
						750	931.6	23.8	.....	60	17.69	sw.	11.5	.....	
						500	958.2	25.6	.....	63	20.69	wsw.	7.4	.....	
12:42	969.2	26.4	64	w.	5.8	396	969.2	26.4	.....	64	22.04	w.	5.8	.....	5/10 A.St., sw.; 4/10 A.Cu., sw.; 1/10 Cu., sw.

July 23, 1918.

A. M.															
8:32	967.4	23.0	79	s.	6.3	396	967.4	23.0	.....	79	22.20	s.	6.3	.....	2/10 Ci.St., 7/10 St.Cu., sw.
						500	955.9	22.1	.....	80	21.28	s.	9.0	.....	
						750	929.2	19.9	.....	82	19.06	ssw.	15.6	.....	
8:39	967.3	23.3	79	ssw.	6.7	782	925.3	19.6	0.88	82	18.70	ssw.	16.4	0	
						1,000	903.0	19.1	.....	81	17.91	ssw.	15.6	.....	
						1,250	877.0	18.5	.....	80	17.04	ssw.	14.6	660	
						1,500	852.0	18.0	.....	78	16.10	sw.	13.6	1,240	
9:18	967.2	24.6	75	ssw.	8.0	1,753	826.7	17.4	0.23	77	15.30	sw.	12.6	.....	
						2,000	802.8	15.4	.....	83	14.52	sw.	12.2	1,600	Altitude of St.Cu. base about 2,500 m.
						2,250	779.5	13.4	.....	89	13.68	sw.	11.8	.....	
						2,500	757.0	11.4	.....	95	12.81	sw.	11.4	2,500	
9:40	967.2	25.4	72	ssw.	8.9	2,693	739.9	9.8	0.81	100	12.12	sw.	11.1	3,000	2/10 A.Cu., sw; 4/10 St.Cu., sw.; 1/10 Cu., sw.
						2,750	734.9	9.4	.....	97	11.44	sw.	11.7	.....	
9:58	967.2	26.2	71	ssw.	7.2	2,904	721.3	8.2	0.76	89	9.67	sw.	13.5	.....	
						3,000	713.3	7.7	.....	89	9.35	sw.	13.3	.....	
						3,250	692.0	6.4	.....	88	8.46	sw.	12.8	4,100	
						3,500	671.0	5.0	.....	87	7.59	sw.	12.3	.....	
10:22	967.1	26.8	66	ssw.	9.8	3,599	663.1	4.5	0.62	87	7.33	sw.	12.1	4,600	
						3,500	671.0	5.2	.....	85	7.52	sw.	12.2	.....	
						3,250	692.0	6.9	.....	79	7.86	sw.	12.4	.....	
10:38	967.0	27.2	66	sw.	9.8	3,185	697.5	7.4	0.76	77	7.93	sw.	12.5	3,800	
						3,000	713.3	8.8	.....	79	8.95	sw.	12.3	.....	
						2,750	734.9	10.7	.....	81	10.42	sw.	11.9	.....	
						2,500	757.0	12.6	.....	83	12.11	sw.	11.6	2,700	
						2,250	779.5	14.5	.....	85	14.03	sw.	11.3	.....	Altitude of Cu. base about 1,200 m.
11:01	966.9	27.4	64	wsw.	8.0	2,242	780.9	14.6	0.73	85	14.13	sw.	11.3	.....	
						2,000	802.8	16.4	.....	78	14.55	sw.	11.8	2,300	
						1,750	827.0	18.2	.....	70	14.63	sw.	12.3	.....	
11:22	966.9	27.5	63	wsw.	8.0	1,677	834.1	18.7	0.00	68	14.67	sw.	12.4	2,000	
						1,500	852.0	18.7	.....	75	16.18	sw.	12.1	.....	
						1,250	877.0	18.7	.....	84	18.12	sw.	11.7	.....	
11:35	966.9	28.4	60	sw.	10.3	1,184	883.4	18.7	1.06	87	18.77	sw.	11.6	1,040	
						1,000	903.0	20.7	.....	81	19.78	sw.	10.7	.....	
						750	929.2	23.3	.....	72	20.60	ssw.	9.5	.....	
11:47	966.9	29.0	59	sw.	7.6	723	931.8	23.6	1.38	71	20.68	ssw.	9.4	0	9/10 St.Cu., sw.
						500	955.9	26.7	.....	66	23.13	sw.	7.9	.....	
11:55	966.9	28.1	64	sw.	7.2	396	966.9	28.1	.....	64	24.34	sw.	7.2	.....	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, July, 1918*—Continued.

July 24, 1918.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	Δt. 100 m.	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
8:02	965.2	25.0	67	ssw.	4.9	396	965.2	25.0		67	21.23	ssw.	4.9		Few St.Cu., wsw.
						500	954.0	22.9		72	20.11	ssw.	8.8		
8:10	965.2	25.0	66	sw.	4.9	526	951.0	22.4	2.00	73	19.78	ssw.	9.8		
						750	926.6	21.8		73	19.07	sw.	10.6	0	
						1,000	900.2	21.2		72	18.13	wsw.	11.4		
8:20	965.3	25.2	66	ssw.	4.5	1,146	885.6	20.8	0.26	72	17.69	wsw.	11.9	920	
9:37	965.3	26.9	64	sw.	4.5	1,248	875.7	20.7	0.10	73	17.83	wsw.	6.6	1,280	
						1,500	850.6	19.9		74	17.20	sw.	5.0		Cloudless.
10:28	965.2	28.0	60	sw.	4.9	1,582	842.5	19.7	0.34	74	16.98	sw.	4.5		
						1,500	850.6	20.0		74	17.30	sw.	4.6		
						1,250	874.8	21.0		73	18.16	wsw.	4.9	980	
10:36	965.2	28.8	59	sw.	4.0	1,018	899.4	21.9	0.74	72	18.92	wsw.	5.2	810	
						1,000	900.2	22.0		72	19.04	wsw.	5.2		
						750	926.6	23.9		70	20.76	sw.	4.7		
10:45	965.2	28.3	58	sw.	3.1	516	952.3	25.6	2.17	68	22.23	sw.	4.3		
						500	954.0	25.9		67	22.39	sw.	4.1		
10:49	965.2	28.2	59	sw.	3.1	396	965.2	28.2		59	22.57	sw.	3.1		Cloudless.

July 25, 1918.

A. M.															
10:07	965.9	30.6	52	se.	7.2	396	965.9	30.6		52	22.84	se.	7.2		2/10 Ci.St., w.; 3/10 St.Cu., ssw.
						500	954.3	29.0		55	22.04	se.	7.5		
10:25	965.7	30.2	54	sse.	9.8	637	940.0	26.8	1.58	59	20.79	se.	8.0	0	
						750	928.0	25.9		61	20.39	se.	7.9	330	
						1,000	901.8	23.9		65	19.29	sse.	7.8		
10:36	965.7	30.9	51	sse.	13.0	1,116	890.1	23.0	0.79	67	18.83	sse.	7.7		
						1,250	876.3	23.8		59	17.40	sse.	7.8	1,100	
10:49	965.6	31.2	51	sse.	12.5	1,453	856.6	25.0	−0.59	47	14.89	sse.	8.0		
						1,500	851.7	24.6		47	14.54	sse.	8.0		
						1,750	827.8	22.6		45	12.34	s.	8.4	1,800	
11:23	965.4	31.9	49	se.	13.4	1,938	810.1	21.0	0.82	44	10.94	s.	8.6	2,000	Few Ci.St., w.; 7/10 A.Cu., wsw.
						2,000	804.5	20.4		46	11.01	s.	8.7		
						2,250	781.5	18.1		52	10.80	s.	9.1		
						2,500	759.2	15.7		58	10.35	ssw.	9.5		
						2,750	737.0	13.4		65	9.99	ssw.	9.9		
						3,000	715.5	11.0		71	9.32	sw.	10.3		
						3,250	694.0	8.7		77	8.66	sw.	10.7		
11:50	965.3	32.6	46	sse.	11.2	3,272	692.3	8.5	0.94	78	8.66	sw.	10.7		
						3,500	673.0	6.7		84	8.24	sw.	11.1	3,500	
						3,750	652.8	4.8		90	7.74	sw.	11.6		
						4,000	633.3	2.9		96	7.23	wsw.	12.0	4,400	
P. M.															
12:17	964.9	33.0	44	se.	9.8	4,136	623.3	1.8	0.78	100	6.96	wsw.	12.3		
						4,250	614.8	1.7		92	6.36	wsw.	12.2	4,800	
12:24	964.8	33.1	43	sse.	12.1	4,343	607.3	1.5	0.24	85	5.79	wsw.	12.1		
						4,250	614.8	1.8		88	6.12	wsw.	12.1		
12:32	964.7	33.4	42	sse.	12.1	4,056	629.6	2.5	0.83	94	6.87	wsw.	12.1		
						4,000	633.3	3.0		93	7.05	wsw.	12.2		
						3,750	652.8	5.1		87	7.80	wsw.	12.5		
						3,500	673.0	7.1		82	8.27	wsw.	12.9		
						3,250	694.0	9.2		76	8.85	sw.	13.2		
12:53	964.3	34.4	39	sse.	12.1	3,038	711.5	11.0	0.83	71	9.32	sw.	13.5		
						3,000	715.5	11.3		70	9.37	sw.	13.3	2,700	
						2,750	737.0	13.4		65	9.99	sw.	12.3		
						2,500	759.2	15.5		60	10.57	sw.	11.3		
						2,250	781.5	17.6		55	11.07	ssw.	10.3	1,750	
						2,000	804.5	18.0		54	11.15	ssw.	10.1		
1:19	964.0	34.1	39	sse.	11.6	1,920	811.3	20.3	0.82	48	11.43	ssw.	8.9		
						1,750	827.8	21.7		48	12.46	ssw.	9.1	1,080	
						1,500	851.0	23.7		47	13.78	s.	9.4		
						1,250	875.2	25.8		46	15.29	s.	9.7		
						1,000	900.5	27.8		45	16.82	sse.	9.9	330	
1:50	963.6	34.6	36	sse.	11.6	782	923.1	29.6	1.14	44	18.25	sse.	10.2		
						750	926.4	30.0		44	18.67	sse.	10.3	0	
						500	952.8	32.8		41	20.40	sse.	11.2		
2:00	963.5	34.0	40	sse.	11.6	396	963.5	34.0		40	21.28	sse.	11.6		Few Ci.Cu., wsw.; 2/10 A.Cu., wsw

July 26, 1918.

P. M.															
1:54	968.6	28.1	64	nne.	3.6	396	968.6	28.1		64	24.34	nne.	3.6		
						500	957.2	26.9		68	24.11	nne.	4.7		10/10 St. Cu., w.
						750	930.0	24.1		78	23.42	ne.	7.4		
2:40	968.3	28.8	62	ne.	4.0	903	914.2	22.4	1.12	84	22.76	ene.	9.1	0	
						1,000	903.9	22.1		82	21.81	ene.	8.6	860	
						1,250	878.0	21.4		76	19.37	e.	7.1	1,400	9/10 St.Cu., w.
						1,500	852.8	20.7		70	17.09	ese.	5.7	1,900	
						1,750	828.2	20.0		63	14.73	se.	4.3		
3:52	967.9	28.4	67	ene.	4.0	1,768	827.3	19.9	0.38	63	14.64	se.	4.2		7/10 St.Cu., w.
						1,750	828.2	20.0		63	14.73	se.	4.5	1,470	
						1,500	852.8	21.1		61	15.27	se.	8.8		
4:15	967.9	30.5	62	ene.	4.5	1,405	862.9	21.6	0.00	61	15.74	se.	10.4	1,200	
						1,250	878.0	21.6		73	18.83	ese.	11.2		
4:23	967.9	29.8	62	e.	4.5	1,110	892.7	21.6	0.95	84	21.67	e.	11.9	590	4/10 St.Cu., w.
						1,000	903.9	22.6		81	22.22	e.	11.1		
						750	930.0	25.0		77	24.39	e.	9.2		
4:32	967.9	30.3	58	e.	4.5	668	938.8	25.8	1.62	71	23.59	e.	8.6		
						500	957.2	28.5		62	24.13	e.	6.1		
4:38	967.9	30.2	57	e.	4.5	396	967.9	30.2		57	24.47	e.	4.5		1/10 A.Cu., wnw.; 3/10 St.Cu., w.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, July, 1918*—Continued.

July 27, 1918.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
6:36	968.8	24.0	85	se.	4.5	396	968.8	24.0	.....	85	25.36	se.	4.5	.....	Few Cu., near horizon.
						500	957.6	24.9	.....	74	23.31	sse.	6.7	.....	
6:40	968.8	24.0	85	se.	4.5	695	936.4	26.6	−0.87	53	18.46	s.	10.7	0	
						750	930.8	26.4	.....	53	18.25	s.	10.7	.....	
						1,000	905.0	25.2	.....	52	16.67	s.	10.7	.....	
						1,250	879.7	24.1	.....	52	15.61	ssw.	10.6	760	
7:03	968.9	24.7	80	sse.	4.9	1,467	857.9	23.1	0.45	51	14.42	ssw.	10.6	.....	
						1,500	855.0	22.8	.....	51	14.16	ssw.	10.3	.....	Few A.Cu., w.
						1,750	831.5	20.8	.....	52	12.78	sw.	8.1	.....	
8:45	968.7	29.6	56	sse.	5.4	1,858	821.1	19.9	0.82	52	12.08	sw.	7.2	.....	
						2,000	808.2	18.8	.....	54	11.72	sw.	7.5	.....	
						2,250	785.0	16.9	.....	57	10.97	sw.	8.0	.....	
						2,500	762.2	15.0	.....	60	10.23	sw.	8.6	1,600	
9:05	968.6	30.6	51	ssw.	5.4	2,709	743.7	13.4	0.76	63	9.68	sw.	9.0	2,200	
						2,750	739.9	13.1	.....	64	9.65	sw.	8.9	.....	
						3,000	718.0	11.0	.....	71	9.32	sw.	8.2	.....	
						3,250	697.2	9.0	.....	79	9.07	wsw.	7.5	.....	
						3,500	676.8	7.0	.....	86	8.62	wsw.	6.8	.....	
9:20	968.6	30.9	47	ssw.	4.5	3,699	659.9	5.4	0.81	92	8.25	wsw.	6.2	2,000	
						3,500	676.8	7.0	.....	86	8.62	wsw.	6.4	1,700	Few Ci.St., w.; 2/10 Ci.Cu., w.,
						3,250	697.2	9.0	.....	78	8.95	wsw.	6.6	.....	
						3,000	718.0	11.1	.....	71	9.38	wsw.	6.9	.....	
						2,750	739.9	13.0	.....	63	9.44	sw.	7.2	.....	
						2,500	762.2	15.0	.....	56	9.55	sw.	7.4	1,400	
10:06	968.6	31.1	45	ssw.	6.7	2,317	777.7	16.6	0.91	50	9.44	sw.	7.6	.....	
						2,250	785.0	17.2	.....	49	9.61	sw.	7.7	1,300	1/10 Ci.St., w.; 3/10 Ci.Cu., w.
						2,000	808.2	19.4	.....	46	10.36	sw.	8.0	.....	
						1,750	831.5	21.7	.....	43	11.16	sw.	8.3	890	
						1,500	855.0	24.0	.....	39	11.64	ssw.	8.7	.....	
						1,250	879.7	26.2	.....	36	12.25	ssw.	9.0	.....	
10:39	968.6	31.9	45	ssw.	6.3	1,022	902.9	28.4	−0.50	33	12.77	ssw.	9.3	490	
						1,000	905.0	28.3	.....	34	13.08	ssw.	9.4	.....	
10:47	968.6	31.8	46	ssw.	7.2	785	927.3	27.2	1.21	49	17.68	ssw.	10.1	0	
						750	930.8	27.6	.....	49	18.10	ssw.	9.8	.....	
						500	957.6	30.6	.....	47	20.65	sw.	7.3	.....	
10:51	968.6	31.9	46	sw.	6.3	396	968.6	31.9	.....	46	21.76	sw.	6.3	.....	3/10 Ci. St., w.; 1/10 Ci. Cu., w.

July 28, 1918.

A. M.															
7:01	967.9	24.6	59	nw.	4.0	396	967.9	24.6	.....	59	18.25	nw.	4.0	.....	4/10 Ci.St., w; 6/10 A.Cu., sw.
						500	956.1	24.7	.....	58	18.05	nw.	7.2	.....	
7:08	968.0	25.3	60	nw.	3.1	610	944.8	24.8	−0.93	56	17.53	wnw.	10.7	.....	
						750	929.4	25.2	.....	53	16.99	w.	12.0	.....	
						1,000	903.8	25.9	.....	48	15.95	wsw.	14.2	.....	
7:24	968.2	25.7	58	wnw.	1.8	1,030	901.0	26.0	−0.29	47	15.80	wsw.	14.5	0	
						1,250	878.3	24.7	.....	47	14.63	wsw.	14.4	.....	
						1,500	853.8	23.3	.....	48	13.73	sw.	14.2	.....	
7:39	968.4	26.0	58	wnw.	1.3	1,704	834.3	22.0	0.59	48	12.69	sw.	14.1	950	3/10 Ci.St., w.; 3/10 A.St., w.; 4/10 A. Cu., sw.
						1,750	829.8	21.7	.....	48	12.46	sw.	13.7	.....	
						2,000	806.2	19.5	.....	50	11.34	sw.	13.2	.....	
						2,250	783.3	17.4	.....	52	10.33	sw.	12.4	.....	
7:50	968.5	26.1	58	wnw.	1.8	2,286	779.9	17.0	0.86	52	10.08	sw.	12.3	1,600	
						2,500	760.2	15.2	.....	57	9.84	sw.	12.1	.....	
						2,750	738.0	13.0	.....	63	9.44	sw.	11.9	2,300	
						3,000	716.3	10.9	.....	69	8.94	sw.	11.7	.....	
						3,250	695.2	8.8	.....	75	8.50	sw.	11.5	2,800	
8:39	968.6	27.5	58	n.	4.9	3,279	693.3	8.5	0.86	76	8.44	sw.	11.4	3,600	3/10 Ci.St., w.; 2/10 A.St., w.; 4/10 A.Cu., sw.
						3,500	674.6	6.6	.....	81	7.90	sw.	10.2	.....	
						3,750	654.3	4.4	.....	87	7.28	sw.	8.8	3,500	
9:02	968.6	27.2	60	nne.	7.6	3,905	642.6	3.0	0.86	91	6.90	sw.	7.9	.....	2/10 A.St., w.; 2/10 A.Cu., sw.; 5/10 St.Cu., sw.
						3,750	654.3	4.2	.....	87	7.18	sw.	8.0	.....	
						3,500	674.6	6.2	.....	80	7.58	sw.	8.1	2,600	Threatening conditions.
						3,250	695.2	8.4	.....	73	8.04	sw.	8.3	.....	
						3,000	716.3	10.4	.....	67	8.45	sw.	8.5	.....	
						2,750	738.8	12.4	.....	60	8.64	sw.	8.6	.....	
9:22	968.8	26.6	64	ne.	7.2	2,633	748.3	13.5	0.77	57	8.82	sw.	8.7	1,400	Sprinkling rain from 9:26 to 9:30 a. m
						2,500	761.0	14.5	.....	56	9.18	sw.	8.9	.....	
						2,250	783.3	15.2	.....	55	9.50	ssw.	8.8	.....	
						2,000	806.2	18.3	.....	52	10,94	s.	9.0	.....	
						1,750	829.8	20.4	.....	49	11.74	s.	9.2	.....	
						1,500	853.8	22.2	.....	47	12.58	sse.	9.3	.....	
						1,250	878.8	24.1	.....	45	13.51	se.	9.4	.....	
9:37	969.0	26.6	64	ne.	8.0	1,167	887.3	24.8	−0.33	44	13.78	se.	9.5	.....	
						1,000	904.6	24.3	.....	53	16.11	ese.	9.8	.....	
						750	930.6	23.4	.....	67	19.28	ene.	10.3	.....	
9:44	969.0	26.4	65	ne.	7.6	619	944.8	23.0	1.66	74	20.79	ne.	10.6	1,100	
						500	957.3	25.0	.....	69	21.86	ne.	8.3	0	
9:56	969.2	26.7	64	ne.	6.3	396	969.0	26.7	.....	64	22.43	ne.	6.3	.....	2/10 A.St., w.; 4/10 St.Cu., sw.; 2/10 Cu.Nb., sw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, July, 1918*—Continued.

July 29, 1918.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	Δt. / 100 m.	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
6:17	974.2	16.3	83	n.	3.1	396	974.2	16.3	.....	83	15.38	n.	3.1	.....	Few Cu., n.
						500	963.0	16.6	.....	77	14.55	n.	9.1	.....	
6:22	974.3	16.4	83	n.	3.1	555	956.3	16.8	−0.31	74	14.16	n.	12.3	.....	
						750	935.0	16.0	.....	68	12.36	n.	9.9	.....	
6:42	974.5	16.9	81	nne.	4.0	922	916.2	15.3	0.41	62	10.78	n.	7.8	0	
						1,000	908.0	14.8	.....	62	10.43	n.	8.6	.....	
						1,250	881.2	12.1	.....	61	8.61	nnw.	11.2	.....	
						1,500	855.2	11.5	.....	60	8.14	nnw.	13.8	.....	
7:03	974.7	17.3	78	nne.	4.5	1,576	847.9	11.0	0.66	60	7.88	nnw.	14.6	1,350	
						1,750	829.9	12.2	.....	46	6.54	nw.	12.5	.....	
7:10	974.7	17.6	77	nne.	4.0	1,884	817.3	13.1	−0.68	35	5.28	nw.	10.9	.....	
						2,000	805.0	12.7	.....	32	4.70	nw.	11.4	.....	
						2,250	781.6	11.9	.....	25	3.48	nw.	12.7	.....	
7:30	974.7	18.0	74	ne.	5.4	2,437	765.0	11.2	0.34	20	2.66	nw.	13.6	1,900	Cloudless.
						2,500	758.8	10.8	.....	20	2.59	nw.	13.5	.....	
						2,750	736.1	9.3	.....	18	2.11	nw.	13.3	.....	
						3,000	714.3	7.7	.....	16	1.68	nw.	13.0	3,300	
						3,250	693.4	6.2	.....	14	1.33	nw.	12.8	.....	
						3,500	673.2	4.6	.....	13	1.10	nw.	12.5	.....	
8:19	974.8	19.6	69	ne.	4.5	3,743	653.1	3.1	0.62	11	0.84	nw.	12.3	5,100	
						3,750	652,8	3.1	.....	11	0.84	nw.	12.3	5,000	
						4,000	633.0	1.7	.....	9	0.62	nw.	12.8	.....	Few Cu., n.
						4,250	613.5	0.4	.....	8	0.50	nw.	13.4	8,000	
10:02	975.0	21.1	58	n.	4.0	4,499	594.8	− 0.9	0.60	6	0.34	nw.	13.9	.....	
						4,250	613.5	0.7	.....	6	0.39	nw.	13.0	.....	
						4,000	633.0	2.4	.....	6	0.44	nw.	12.2	.....	
						3,750	652.8	4.0	.....	5	0.41	nw.	11.3	.....	
						3,500	673.2	5.7	.....	5	0.46	nw.	10.4	.....	
10:39	975.0	21.9	53	n.	5.4	3,315	688.3	6.9	0.58	5	0.50	nw.	9.8	.....	
						3,250	693.4	7.3	.....	5	0.51	nw.	10.1	.....	
						3,000	714.3	8.7	.....	6	0.68	nw.	11.0	.....	
						2,750	736.1	10.2	.....	7	0.87	nw.	12.0	3,400	
						2,500	758.8	11.6	.....	7	0.96	nnw.	13.0	.....	
						2,250	781.6	13.1	.....	8	1.21	nnw.	13.9	2,500	
11:12	974.9	22.2	48	n.	4.9	2,208	786.1	13.3	−0.50	8	1.22	nnw.	14.1	.....	
						2,000	805.0	12.3	.....	19	2.72	nnw.	13.3	.....	
						1,750	829.9	11.0	.....	32	4.20	n.	12.4	.....	
11:24	974.7	23.2	46	nne.	4.5	1,529	852.8	9.9	0.87	44	5.37	n.	11.6	1,700	
						1,500	855.2	10.2	.....	46	5.73	n.	11.3	.....	
						1,250	881.2	12.3	.....	63	9.02	n.	8.9	.....	
11:30	974.6	22.9	46	ne.	4.5	1,149	892.3	13.2	0.88	70	10.62	n.	7.9	.....	
						1,000	908.0	14.5	.....	66	10.90	n.	8.3	0	
						750	935.0	16.7	.....	59	11.22	n.	9.0	.....	
11:45	974.5	22.4	46	nne.	4.9	593	952.4	18.1	2.28	55	11.42	n.	9.4	.....	
						500	963.0	20.2	.....	51	12.08	n.	7.1	.....	
11:52	974.4	22.6	47	n.	4.5	396	974.4	22.6	.....	47	12.89	n.	4.5	.....	Few Cu., n.

July 30, 1918.

A. M.															
6:56	974.0	16.0	76	e.	6.3	396	974.0	16.0	.....	76	13.82	e.	6.3	.....	Few Cu. near horizon.
						500	962.0	15.6	.....	74	13.11	e.	6.3	.....	
7:10	974.0	16.7	71	e.	6.3	714	938.2	14.9	0.35	71	12.03	ese.	6.3	620	
						750	934.2	14.6	.....	71	11.80	ese.	5.9	950	
						1,000	907.4	12.7	.....	75	11.02	ese.	3.3	.....	
8:25	974.3	18.9	61	se.	7.6	1,033	903.7	12.4	0.69	75	10.80	ese.	3.0	.....	
						1,000	907.4	12.6	.....	75	10.94	ese.	3.0	.....	
						750	934.2	14.1	.....	75	12.07	ese.	2.9	.....	
8:28	974.3	19.2	60	se.	6.3	705	939.5	14.4	1.68	75	12.30	ese.	2.9	.....	
						500	962.0	17.9	.....	64	13.13	se.	5.1	.....	
8:32	974.3	19.6	58	se.	6.3	396	974.3	19.6	.....	58	13.23	se.	6.3	.....	Few Ci., w.

July 31, 1918, series (No. 1).

A. M.															
6:13	970.4	16.3	77	sse.	6.7	396	970.4	16.3	.....	77	14.27	sse.	6.7	.....	Cloudless.
						500	958.4	17.0	.....	71	13.76	sse.	11.4	.....	
6:16	970.4	16.4	76	sse.	6.7	695	937.0	18.2	−0.64	60	12.54	s.	20.1	.....	
						750	931.0	18.2	.....	58	12.12	s.	18.9	 0	
						1,000	903.9	18.1	.....	50	10.38	ssw.	13.7	.....	
6:38	970.5	17.1	74	s.	8.5	1,198	883.8	18.0	0.04	44	9.08	ssw.	9.5	1,300	
						1,250	877.5	17.8	.....	45	9.17	ssw.	9.3	.....	
						1,500	852.4	16.8	.....	49	9.37	sw.	8.5	2,000	
						1,750	828.2	15.8	.....	53	9.51	wsw.	7.7	.....	
7:08	970.5	19.2	65	s.	10.7	1,825	821.2	15.5	0.40	54	9.51	wsw.	7.5	2,800	
7:47	970.2	20.9	59	s.	10.7	1,861	817.6	15.1	1.11	58	9.95	wsw.	6.1	3,900	
						2,000	804.1	14.3	.....	58	9.45	wsw.	4.1	.....	
8:35	970.4	22.8	52	ssw.	12.5	2,089	796.0	13.7	0.56	58	9.09	wsw.	2.9	.....	
						2,000	804.1	14.1	.....	57	9.17	wsw.	3.9	.....	
						1,750	828.2	15.4	.....	53	9.27	sw.	6.6	.....	
						1,500	852.4	16.7	.....	50	9.50	ssw.	9.3	1,700	
8:59	970.6	22.9	53	ssw.	10.7	1,394	864.1	17.2	0.17	48	9.42	ssw.	10.4	.....	
						1,250	877.5	17.4	.....	52	10.33	ssw.	10.7	1,500	
						1,000	903.9	17.9	.....	58	11.90	s.	11.1	.....	
9:16	970.5	23.3	52	s.	13.0	807	925.4	18.2	1.31	63	13.17	s.	11.5	0	
						750	931.0	19.0	.....	61	13.40	s.	11.5	.....	
						500	959.2	22.2	.....	55	14.72	s.	11.4	.....	
9:24	970 5	23.6	52	s.	11.2	396	970.5	23.6	.....	52	15.15	s.	11.2	.....	Cloudless.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, July, 1918*—Continued.

July 31, 1918, series (No. 2).

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
10:05	970.2	25.4	49	SSW.	4.9	396	970.2	25.4		49	15.90	SSW.	4.9		Cloudless.
						500	958.6	23.8		51	15.04	SSW.	5.9		
10:15	970.1	25.7	48	S.	5.8	752	931.2	19.8	1.57	57	13.17	S.	8.3	0	
						1,000	905.0	18.4		53	11.21	S.	10.5		
10:25	970.0	25.5	46	S.	6.7	1,025	902.0	18.3	0.55	53	11.15	S.	10.7		
						1,250	878.7	17.9		51	10.46	S.	8.3	1,680	
11:30	969.2	28.1	45	SSW.	6.7	1,455	857.6	17.6	0.16	49	9.86	S.	6.1	1,800	Few A.Cu., WSW.
						1,500	852.9	17.4		49	9.74	S.	6.0	2,200	
						1,750	828.0	16.4		50	9.32	SSW.	5.3		
						2,000	804.0	15.3		51	8.86	SW.	4.7		
P. M.															
12:15	968.9	27.8	42	S.	6.3	2,178	787.4	14.6	0.36	51	8.48	SW.	4.2		
						2,000	804.0	15.2		53	9.15	SW.	4.6		
						1,750	828.0	16.0		56	10.18	SSW.	5.3		
						1,500	852.9	16.8		59	11.29	SSW.	5.9		
						1,250	878.7	17.6		62	12.48	S.	6.6	1,390	
12:37	968.9	28.6	41	S.	7.6	1,238	879.7	17.6	1.14	62	12.48	S.	6.6		Cloudless.
						1,000	905.0	20.3		58	13.82	S.	7.9	890	
						750	931.5	23.2		53	15.07	S.	9.3		
12:56	968.9	28.7	41	SSW.	7.6	710	935.0	23.6	1.40	52	15.15	S.	9.5	0	
						500	957.7	26.5		45	15.58	SSW.	8.0		
1:02	968.9	28.0	42	SSW.	7.2	396	968.9	28.0		42	15.88	SSW.	7.2		Cloudless.

July 31, 1918, series (No. 3).

P. M.															
1:45	968.4	29.3	39	SSW.	6.7	396	968.4	29.3		39	15.90	SSW.	6.7		Cloudless.
						500	957.0	27.7		41	15.23	SSW.	7.3		
1:53	968.3	29.5	39	SSW.	6.3	646	941.3	25.5	1.52	45	14.69	SSW.	8.1		
						750	930.2	24.6		47	14.54	SSW.	7.7	0	
						1,000	904.0	22.4		51	13.82	SSW.	6.9		
						1,250	878.0	20.2		55	13.02	S.	6.1	950	
3:08	967.8	30.2	38	S.	5.4	1,473	855.4	18.2	0.88	59	12.33	S.	5.3	1,500	
						1,500	852.2	18.0		59	12.18	S.	5.3		
						1,750	827.6	16.0		60	10.91	SSW.	5.3		
3:36	967.5	30.4	38	SSW.	6.3	1,946	808.9	14.4	0.84	61	10.00	SW.	5.3		
						1,750	827.6	16.2		60	11.05	SW.	6.0	1,500	
						1,500	852.2	18.4		58	12.27	SSW.	6.9	560	
3:53	967.3	30.8	37	SSW.	5.8	1,263	876.4	20.5	1.02	57	13.75	SSW.	7.7		
						1,250	878.0	20.6		57	13.83	SSW.	7.7	590	
						1,000	903.3	23.2		53	15.07	SSW.	8.1		
						750	929.0	25.7		48	15.85	S.	8.4		
4:15	967.0	31.0	38	SSW.	6.7	623	942.6	27.0	1.72	46	16.40	S.	8.6	0	
						500	955.2	29.1		42	16.93	S.	7.6		
4:23	966.9	30.9	38	SSW.	6.7	396	966.9	30.9		38	16.98	SSW.	6.7		Cloudless.

July 31, 1918, series (No. 4).

P. M.															
4:58	966.5	31.2	36	SSW.	5.8	396	966.5	31.2		36	16.37	SSW.	5.8		Cloudless.
						500	954.6	29.4		38	15.58	SSW.	6.4		
5:08	966.5	30.8	38	SSW.	4.9	695	934.5	26.1	1.71	43	14.54	S.	7.4	260	
						750	927.9	25.6		44	14.45	S	7.5	0	
						1,000	902.0	23.3		48	13.73	SSW.	7.8		
						1,250	876.7	21.1		52	13.02	SW.	8 1.		
6:00	966.2	30.0	41	SSW.	4.5	1,398	861.8	19.7	0.91	54	12.39	SW.	8.3	1,500	
						1,500	851.8	19.5		51	11.56	WSW.	6.6	2,200	
7:12	966.2	27.7	49	S.	2.7	1,749	827.4	18.9	0.46	45	9.83	WNW.	2.4	980	
						1,500	851.8	20.6		46	11.16	WSW.	4.4		
						1,250	876.7	22.4		47	12.73	SW.	6.5	1,080	
7:39	966.2	26.2	52	S.	3.1	1,092	892.6	23.5	0.42	47	13.61	SSW.	7.8	490	
						1,000	902.0	23.9		47	13.94	SSW.	9.3		
						750	927.9	24.9		49	15.44	S.	13.3		
7:52	966.2	25.8	54	S.	3.6	738	929.4	25.0	0.06	49	15.52	S.	13.5	0	
						500	954.6	25.1		54	17.21	S.	6.6		
8:00	966.2	25.2	56	S.	3.6	396	966.2	25.2		56	17.95	S.	3.6		Cloudless.

July 31, 1918, series (No. 5).

P. M.															
8:45	966.4	24.6	54	S.	6.3	396	966.4	24.6		54	16.71	S.	6.3		Few Cu., NW.
						500	954.0	25.4		52	16.87	S.	9.8		
8:50	966.4	24.2	56	S.	6.3	588	945.4	26.0	−0.73	51	17.15	S.	12.7	0	
						750	927.7	25.4		50	16.22	SSW.	10.3		
						1,000	902.3	24.4		48	14.67	SW.	6.5	760	
9:43	966.5	23.2	59	S.	7.2	1,105	891.5	24.0	0.39	47	14.02	SW.	4.9	1,200	
						1,250	877.1	22.8		46	12.77	SW.	4.2		Cloudless.
						1,500	852.4	20.9		44	10.88	WSW.	3.0		
10:15	966.5	22.6	59	S.	7.2	1,701	832.3	19.3	0.86	43	9.63	W.	2.0		
						1,500	852.4	21.1		43	10.76	WSW.	2.6		
10:23	966.5	22.7	58	S.	6.7	1,277	874.1	23.2	0.38	42	11.94	SSW.	3.3		
						1,250	877.1	23.3		42	12 02	SSW.	3.7		
						1,000	903.3	24.2		43	12.99	SSW.	7.2	560	
						750	929.6	25.2		43	13.79	S.	10.9		
10:49	966.5	22.4	58	S.	7.2	542	950.6	26.0	−2.47	44	14.79	S.	13.7	0	
						500	955.7	25.0		48	15.21	S.	12.1		
10:54	966.5	22.4	59	S.	8.0	396	966.5	22.4		59	15.98	S.	8.0		Cloudless.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918.*

August 1, 1918, series (No. 6).

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	Δt. 100 m.	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
6:58	965.9	20.9	59	ssw.	6.3	396	965.9	20.9	.....	59	14.58	ssw.	6.3	.....	2/10 A.Cu., nw.; few Ci.St., nw.
						500	954.1	23.1	.....	57	16.11	sw.	8.3	.....	
7:02	965.9	21.1	59	ssw.	6.3	539	950.3	28.0	−5.52	50	18.90	wsw.	13.7	.....	
						750	927.7	27.3	.....	42	15.25	wsw.	12.8	0	
						1,000	902.3	26.6	.....	32	11.15	wsw.	11.9	.....	
7:23	966.0	21.8	58	ssw.	6.7	1,183	883.6	26.0	0.31	25	8.40	wsw.	11.1	660	1/10 Ci.St., nw.; 6/10 A.Cu., nw.
						1,250	877.1	25.5	.....	25	8.16	wsw.	10.9	.....	
						1,500	852.5	23.7	.....	27	7.91	wsw.	10.1	1,600	
						1,750	828.4	21.8	.....	28	7.31	w.	9.3	.....	3/10 Ci.St., nw.; 6/10 A.Cu., nw.
						2,000	805.0	20.0	.....	29	6.78	w.	8.5	1,300	
						2,250	782.0	18.1	.....	31	6.44	wnw.	7.7	2,300	
8:30	966.0	24.0	54	wsw.	3.1	2,470	762.2	16.5	0.74	32	5.99	wnw.	7.0	2,700	
						2,500	759.5	16.2	.....	32	5.89	wnw.	6.9	3,000	
						2,750	737.6	14.0	.....	34	5.43	wnw.	5.7	2,800	
						3,000	716.2	11.7	.....	36	4.95	wnw.	4.6	.....	3/10 Ci.St., nw.; 4/10 A.Cu., nw.
9:20	965.8	27.7	49	sw.	4.5	3,184	700.9	10.1	0.90	38	4.70	wnw.	3.7	.....	
						3,000	716.2	11.7	.....	37	5.09	wnw.	4.2	.....	
						2,750	737.6	13.9	.....	35	5.56	wnw.	5.0	.....	
						2,500	759.5	16.2	.....	32	5.89	w.	5.7	1,470	
						2,250	782.0	18.4	.....	30	6.35	w.	6.5	.....	
9:45	965.6	26.5	51	sw.	3.1	2,067	799.0	20.0	0.78	29	6.78	w.	7.0	460	8/10 A.Cu., nw.
						2,000	805.0	20.5	.....	29	6.99	w.	7.1	.....	
						1,750	828.4	22.5	.....	27	7.36	w.	7.3	.....	
						1,500	852.5	24.4	.....	26	7.95	w.	7.5	730	
						1,250	877.1	26.3	.....	25	8.56	wsw.	7.7	0	
						1,000	902.3	28.3	.....	23	8.85	wsw.	7.9	.....	
10:16	965.4	28.4	46	ssw.	3.1	919	910.1	28.9	0.96	23	9.16	wsw.	8.0	.....	
						750	927.7	29.1	.....	29	11.69	sw.	6.3	.....	
						500	954.1	29.3	.....	38	15.49	ssw.	3.7	.....	8/10 A.Cu., nw.
10:27	965.4	29.4	42	ssw.	2.7	396	965.4	29.4	.....	42	17.22	ssw.	2.7	.....	

August 2, 1918.

A. M.															
6:38	967.3	21.5	73	nne.	5.4	396	967.3	21.5	.....	73	18.72	nne.	5.4	.....	3/10 A.Cu., nw.
						500	956.0	21.7	.....	70	18.17	nne.	14.6	.....	
6:42	967.4	21.9	70	nne.	5.4	585	946.6	22.4	−0.15	54	14.63	ne.	22.1	0	
						750	928.5	22.7	.....	53	14.62	ne.	18.5	.....	
						1,000	902.2	23.1	.....	52	14.70	ne.	13.1	.....	
7:00	967.6	22.3	70	nne.	4.9	1,037	898.9	23.2	−0.18	52	14.79	ne.	12.3	1,470	
						1,250	877.0	22.5	.....	47	12.81	nne.	11.6	.....	
						1,500	852.5	21.7	.....	42	10.90	n.	10.8	.....	
7:10	967.6	22.7	62	nne.	4.5	1,670	835.8	21.1	0.33	38	9.51	nnw.	10.3	2,300	2/10 A.Cu., nw.
						1,750	828.3	20.8	.....	36	8.85	nnw.	10.6	.....	
						2,000	804.4	19.9	.....	28	6.51	nnw.	11.7	.....	
						2,250	780.8	19.0	.....	20	4.39	nw.	12.7	.....	
7:30	967.6	23.5	64	nne.	4.0	2,459	762.5	18.2	0.37	14	2.93	nw.	13.6	3,200	
						2,500	758.2	17.9	.....	15	3.08	nw.	13.8	.....	
						2,750	736.2	16.1	.....	19	3.48	nw.	15.2	.....	
						3,000	715.2	14.3	.....	24	3.91	nw.	16.6	4,200	
7:45	967.6	23.8	68	nne.	4.9	3,174	701.2	13.0	0.73	27	4.04	nw.	17.6	.....	
						3,250	694.4	12.3	.....	29	4.15	nw.	17.4	.....	
						3,500	674.0	10.1	.....	34	4.20	nw.	16.7	5,200	
						3,750	654.0	7.9	.....	40	4.26	nw.	16.0	.....	
						4,000	635.0	5.6	.....	45	4.10	nw.	15.3	.....	
8:15	967.7	25.1	63	ne.	5.8	4,117	626.3	4.6	0 89	48	4.07	nw.	15.0	6,000	
						4,250	616.0	3.8	.....	41	3.29	nnw.	13.9	5,800	
9:03	967.9	26.5	60	ne.	4.5	4,380	606.1	3.1	0.70	35	2.67	nnw.	12.8	.....	
						4,250	616.0	4.2	.....	35	2.89	nnw.	12.6	.....	
						4,000	635.0	6.2	.....	34	3.22	nnw.	12.2	4,800	Cloudless.
						3,750	654.0	8.3	.....	33	3.61	nw.	11.8	.....	
						3,500	674.0	10.3	.....	32	4.01	nw.	11.4	.....	
9:27	967.9	27.4	58	ne.	4.9	3,321	688.8	11.8	0.59	31	4.29	nw.	11.1	3,900	
						3,250	694.4	12.2	.....	30	4.26	nw.	10.9	.....	
						3,000	715.2	13.7	.....	27	4.23	nw.	10.2	.....	
						2,750	736.2	15.2	.....	24	4.14	nnw.	9.4	.....	
						2,500	758.2	16.7	.....	20	3.80	nnw.	8.7	2,700	
						2,250	780.8	18.1	.....	17	3.53	n.	7.9	.....	
9:55	967.9	28.6	55	ne.	5.4	2,002	804.1	19.6	−0.38	14	3.19	n.	7.2	.....	
						1,750	828.3	18.6	.....	30	6.43	nne.	8.9	.....	
10:05	967.9	29.0	54	ne.	4.5	1,713	832.1	18.5	0.61	32	6.82	nne.	9.2	1,500	
						1,500	852.5	19.8	.....	38	8.78	nne.	8.8	.....	
						1,250	877.0	21.3	.....	44	11.15	nne.	8.4	590	
						1,000	902.2	22.9	.....	51	14.24	ne.	7.9	.....	
						750	928.5	24.4	.....	57	17.42	ne.	7.5	.....	
10:27	968.0	29.4	51	ne.	4.5	607	945.3	25.3	1.94	61	19.68	ne.	7.2	0	
						500	956.0	27.4	.....	56	20.45	ne.	6.5	.....	
10:34	968.1	29.4	51	ne.	5.8	396	968.1	29.4	.....	51	20.91	ne.	5.8	.....	Few Ci.St.

August 3, 1918.

A. M.															
6:19	966.9	19.6	86	se.	3.1	396	966.9	19.6	.....	86	19.62	se.	3.1	.....	8/10 Ci.St., wnw.
						500	955.4	21.0	.....	77	19.15	se.	5.1	.....	
6:23	966.9	19.7	86	se.	3.6	722	931.2	24.0	−1.35	57	17.01	sse.	9.6	.....	
						750	928.2	24.0	.....	56	16.71	sse.	9.4	330	
						1,000	902.3	24.4	.....	47	14.37	s.	7.9	980	
						1,250	877.0	24.8	.....	39	12.21	s.	6.3	.....	
7:24	966.9	21.6	77	se.	4.9	1,265	875.7	24.8	−0.15	38	11.90	s.	6.2	1,470	
						1,500	852.3	23.7	.....	38	11.14	s.	4.5	.....	
						1,750	828.0	22.4	.....	40	10.84	ssw.	2.8	.....	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918.*—Continued.

August 3, 1918—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	Δt. 100 m.	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
8:08	966.8	23.2	71	se.	3.6	1,757	827.5	22.4	0.51	40	10.84	ssw.	2.7		
						1,750	828.0	22.4		40	10.84	ssw.	2.7	1,500	7/10 Ci.St., nw.
						1,500	851.0	23.8		41	12.09	ssw.	4.5		
						1,250	875.5	25.1		42	13.39	s.	6.3	1,400	
9:34	966.2	27.0	63	se.	3.6	1,100	891.9	25.9	−0.29	42	14.04	s.	7.3	425	
						1,000	900.8	25.6		47	15.43	s.	7.5		
						750	927.3	24.9		59	18.58	sse.	8.0	0	
9:50	966.0	27.3	62	sse.	4.0	549	949.4	24.3	2.16	68	20.67	sse.	8.4		
						500	954.2	25.4		66	21.42	sse.	7.0		
9:53	966.0	27.6	63	sse.	4.0	396	966.0	27.6		63	23.27	sse.	4.0		6/10 Ci.St., nw.; few A.Cu., nw.

August 4, 1918.

A. M.															
5:25	959.6	25.0	50	sw.	6.7	396	959.6	25.0		50	15.84	sw.	6.7		2/10 Ci.St., nw.
						500	948.3	28.8		43	17.03	sw.	13.6		
5:27	959.6	24.9	50	sw.	6.7	636	934.1	33.8	−0.37	33	17.36	wsw.	22.6		
						750	922.3	34.6		27	14.86	wsw.	24.3		
5:35	959.6	24.8	51	sw.	6.3	879	909.5	35.4	−0.66	20	11.50	w.	26.3		
						1,000	897.5	34.5		19	10.39	w.	24.9	0	
5:47	959.7	24.9	49	sw.	5.8	1,162	881.5	33.4	0.70	18	9.26	w.	23.0		5/10 Ci.St., nw.
						1,250	873.2	32.7		19	9.40	w.	22.5		
						1,500	849.3	30.5		20	8.74	w.	21.3	330	
						1,750	825.7	28.4		22	8.51	w.	20.0		
						2,000	802.5	26.3		24	8.21	w.	18.7		
						2,250	780.0	24.2		26	7.85	w.	17.4		
						2,500	758.0	22.0		28	7.40	w.	16.1	1,170	
6:25	959.9	26.7	45	sw.	5.8	2,670	743.3	20.6	0.85	29	7.04	w.	15.2		
						2,750	736.6	19.9		31	7.20	w.	15.2	1,600	
						3,000	715.7	17.5		36	7.20	w.	15.4		
						3,250	695.0	15.2		42	7.25	wsw.	15.5	2,300	
						3,500	675.3	12.8		48	7.09	wsw.	15.6	2,200	
7:46	960.3	29.1	39	wsw.	6.7	3,653	662.5	11.3	0.94	51	6.83	wsw.	15.7		
						3,500	675.3	12.7		49	7.20	wsw.	15.7		
						3,250	695.0	15.1		46	7.89	wsw.	15.8		
						3,000	715.7	17.4		43	8.54	wsw.	15.9	1,600	2/10 Ci.St., nw.; few A.Cu., w.
						2,750	736.6	19.8		39	9.01	w.	15.9		
						2,500	758.0	22.1		36	9.58	w.	16.0	1,100	
						2,250	780.0	24.4		33	10.09	w.	16.0		
						2,000	802.5	26.8		30	10.57	w.	16.1		
8:34	960.2	30.9	35	wsw.	7.2	1,933	808.8	27.4	0.94	29	10.59	w.	16.1		
						1,750	825.7	29.1		27	10.88	w.	16.5		
						1,500	849.3	31.4		24	11.04	w.	17.0	330	
9:00	960.1	32.8	33	wsw.	8.0	1,291	869.0	33.4	0.19	22	11.32	w.	17.4	0	
						1,250	873.2	33.5		22	11.38	w.	16.4		
						1,000	897.5	34.0		24	12.77	w.	10.4		
9:06	960.1	32.6	34	wsw.	7.2	981	899.2	34.0	−2.77	24	12.77	w.	9.9		
9:15	960.1	32.6	33	wsw.	7.6	779	919.8	28.4	0.99	32	12.38	w.	9.5		
						750	922.3	28.7		32	12.60	w.	9.3		
						500	948.3	31.2		33	15.00	wsw.	7.8		
9:20	960.1	32.2	33	wsw.	7.2	396	960.1	32.2		33	15.87	wsw.	7.2		Few Ci.St., nw.

August 5, 1918, series (No. 1).

A. M.															
6:21	961.0	26.5	38	ssw.	8.0	396	961.0	26.5		38	13.16	ssw.	8.0		3/10 Ci.St., wsw.
						500	949.6	28.3		36	13.85	ssw.	12.0		
6:24	961.0	26.6	37	ssw.	8.5	740	924.5	32.4	−1.72	32	15.57	sw.	21.1		
						750	922.8	32.3		32	15.48	sw.	21.1		
						1,000	897.4	30.8		30	13.33	sw.	20.4		
						1,250	873.0	29.3		28	11.42	sw.	19.8		
6:45	960.9	27.4	38	ssw.	8.9	1,384	860.2	28.5	0.61	27	10.51	sw.	19.4	0	5/10 Ci.St., wsw.
						1,500	849.2	27.4		28	10.22	sw.	18.7		
						1,750	825.0	25.2		29	9.30	sw.	17.2		
						2,000	801.3	22.9		31	8.66	sw.	15.8	1,470	
7:45	961.0	29.1	39	sw.	7.2	2,230	781.1	20.8	0.91	32	7.86	sw.	14.4		
						2,250	778.7	20.6		32	7.77	sw.	14.2	2,000	
8:03	961.1	30.1	38	sw.	7.6	2,497	757.6	18.6	0.82	37	7.93	sw.	12.1		
						2,750	735.7	16.3		41	7.60	sw.	12.5	2,200	1/10 Ci.St., wsw.
						3,000	714.2	14.0		44	7.03	sw.	13.2	2,700	
8:41	961.1	31.6	35	sw.	9.8	3,062	708.8	13.4	0.88	45	6.92	sw.	13.1		
						3,000	714.2	13.9		44	6.99	sw.	13.1		
						2,750	735.7	16.0		42	7.64	sw.	13.0	2,000	
						2,500	757.0	18.1		40	8.31	sw.	12.9		
9:15	961.1	32.5	33	sw.	8.0	2,363	769.2	19.3	0.89	39	8.73	sw.	12.8		
						2,250	778.7	20.3		38	9.05	sw.	13.4	1,320	
						2,000	801.3	22.5		36	9.81	sw.	14.9		
						1,750	825.0	24.7		34	10.58	sw.	16.3		
						1,500	849.2	27.0		31	11.05	sw.	17.8		
9:39	961.1	32.8	33	sw.	9.8	1,462	852.8	27.3	0.66	31	11.25	sw.	18.0	420	
						1,250	873.0	28.7		31	12.21	sw.	17.2		
9:55	961.1	33.5	32	sw.	9.8	1,145	883.8	29.4	−0.40	31	12.71	sw.	16.8	0	
						1,000	897.4	28.8		30	11.88	sw.	14.4		
10:05	961.1	34.3	31	sw.	8.0	895	909.0	28.4	1.16	30	11.61	sw.	12.7		
						750	922.8	30.1		30	12.81	sw.	11.6		
						500	949.6	33.0		30	15.10	sw.	9.7		
10:14	961.1	34.2	30	sw.	8.9	396	961.1	34.2		30	16.14	sw.	8.9		Few Ci.St., wsw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918.*—Continued.

August 5, 1918, series (No. 2).

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
10:48	961.1	35.6	28	sw.	8.5	396	961.1	35.6	.....	28	16.28	sw.	8.5	.....	Few Ci.St., wsw.
.....	.....	.....	.....	.....	.....	500	950.4	34.4	.....	29	15.78	sw.	9.5	.....	
.....	.....	.....	.....	.....	.....	750	924.0	31.4	.....	32	15.17	sw.	11.8	.....	
10:55	961.1	36.0	28	sw.	7.6	800	919.0	30.8	1.19	32	14.22	sw.	12.3	.....	
.....	.....	.....	.....	.....	.....	1,000	899.0	29.3	.....	33	13.45	sw.	13.7	.....	
.....	.....	.....	.....	.....	.....	1,250	874.2	27.4	.....	33	12.05	sw.	15.4	0	
.....	.....	.....	.....	.....	.....	1,500	849.8	25.5	.....	34	11.10	sw.	17.1	.....	
.....	.....	.....	.....	.....	.....	1,750	825.8	23.6	.....	35	10.20	sw.	18.9	.....	
11:19	961.0	36.9	25	sw.	11.6	1,869	814.2	22.7	0.76	35	9.66	sw.	19.7	1,280	
.....	.....	.....	.....	.....	.....	2,000	801.8	21.5	.....	35	8.98	sw.	19.3	.....	
.....	.....	.....	.....	.....	.....	2,250	779.0	19.3	.....	36	8.06	sw.	19.2	.....	
11:34	960.9	37.6	25	sw.	11.2	2,423	763.9	17.8	0.88	36	7.34	sw.	18.0	2,200	Few Ci.St., sw.
.....	.....	.....	.....	.....	.....	2,500	756.8	17.1	.....	37	7.22	sw.	18.1	.....	
.....	.....	.....	.....	.....	.....	2,750	734.8	14.6	.....	39	6.48	ssw.	18.6	.....	
P. M.															
12:01	960.8	37.8	25	sw.	11.2	2,942	718.4	12.8	0.96	41	6.06	ssw.	19.0	2,800	
.....	.....	.....	.....	.....	.....	3,000	713.4	12.4	.....	39	5.62	ssw.	18.8	.....	
.....	.....	.....	.....	.....	.....	3,250	692.4	11.4	.....	32	4.31	ssw.	18.0	.....	
.....	.....	.....	.....	.....	.....	3,500	672.3	10.4	.....	24	3.03	sw.	17.2	3,750	
.....	.....	.....	.....	.....	.....	3,750	652.0	9.3	.....	17	1.99	sw.	16.4	.....	
12:28	960.5	39.0	23	ssw.	12.5	3,806	647.7	9.0	0.48	15	1.72	sw.	16.2	4,000	
.....	.....	.....	.....	.....	.....	3,750	652.0	9.3	.....	15	1.76	sw.	16.2	.....	
.....	.....	.....	.....	.....	.....	3,500	672.3	10.6	.....	13	1.66	sw.	16.0	.....	
12:52	960.2	39.5	19	sw.	10.3	3,431	677.5	11.0	−0.63	13	1.71	sw.	16.0	.....	
.....	.....	.....	.....	.....	.....	3,250	692.4	9.9	.....	21	2.56	sw.	15.4	.....	
12:55	960.2	39.4	18	sw.	12.5	3,208	695.6	9.6	1.01	23	2.75	sw.	15.2	950	
.....	.....	.....	.....	.....	.....	3,000	713.4	11.7	.....	31	4.26	sw.	16.6	.....	
.....	.....	.....	.....	.....	.....	2,750	734.8	14.2	.....	38	6.15	sw.	18.2	.....	Few Cu., sw.
1:15	959.9	40.2	19	ssw.	11.6	2,497	756.9	16.8	1.02	46	8.80	sw.	19.9	1,040	
.....	.....	.....	.....	.....	.....	2,250	779.0	19.3	.....	43	9.63	sw.	18.7	.....	
.....	.....	.....	.....	.....	.....	2,000	801.8	22.3	.....	40	10.77	sw.	17.4	.....	
1:35	959.7	39.8	18	ssw.	11.2	1,814	819.1	23.8	1.05	38	11.21	sw.	16.5	.....	
.....	.....	.....	.....	.....	.....	1,750	825.8	24.5	.....	37	11.38	sw.	16.5	.....	
.....	.....	.....	.....	.....	.....	1,500	849.4	27.1	.....	34	12.20	sw.	16.5	.....	
.....	.....	.....	.....	.....	.....	1,250	873.2	29.7	.....	31	12.93	ssw.	16.4	0	
.....	.....	.....	.....	.....	.....	1,000	897.8	32.4	.....	28	13.62	ssw.	16.4	.....	
1:57	959.4	40.2	19	ssw.	10.3	827	915.1	34.2	1.35	26	13.99	ssw.	16.4	.....	
.....	.....	.....	.....	.....	.....	750	922.8	35.2	.....	23	13.08	ssw.	16.0	.....	
.....	.....	.....	.....	.....	.....	500	948.0	38.6	.....	15	10.27	ssw.	14.8	.....	
2:07	959.4	40.0	11	ssw.	14.3	396	959.4	40.0	.....	11	8.12	ssw.	14.3	.....	Few Cu., sw.

August 5, 1918, series (No. 3).

P. M.															
2:44	959.2	41.0	18	s.	11.6	396	959.2	41.0	.....	18	14.01	s.	11.6	.....	Few Cu., sw.
.....	.....	.....	.....	.....	.....	500	948.3	38.7	.....	18	12.39	s.	12.4	.....	
.....	.....	.....	.....	.....	.....	750	922.8	35.1	.....	19	10.75	ssw.	14.2	.....	
2:48	959.2	39.4	19	ssw.	12.1	792	918.4	34.2	2.22	19	10.22	ssw.	14.5	.....	
.....	.....	.....	.....	.....	.....	1,000	897.5	32.1	.....	22	10.52	ssw.	14.6	.....	
.....	.....	.....	.....	.....	.....	1,250	872.5	29.6	.....	25	10.37	ssw.	14.7	.....	
.....	.....	.....	.....	.....	.....	1,500	848.3	27.1	.....	28	10.04	ssw.	14.8	.....	
.....	.....	.....	.....	.....	.....	1,750	824.3	24.6	.....	31	9.59	ssw.	14.9	0	
.....	.....	.....	.....	.....	.....	2,000	800.7	22.1	.....	34	9.04	ssw.	15.0	.....	
.....	.....	.....	.....	.....	.....	2,250	777.8	19.6	.....	39	8.67	ssw.	15.1	1,105	
3:29	958.9	39.6	19	ssw.	10.3	2,439	761.5	17.7	1.00	40	8.10	ssw.	15.2	.....	
.....	.....	.....	.....	.....	.....	2,500	755.7	17.1	.....	41	8.00	ssw.	15.2	.....	
.....	.....	.....	.....	.....	.....	2,750	734.0	14.7	.....	47	7.86	ssw.	15.2	1,500	
.....	.....	.....	.....	.....	.....	3,000	712.7	12.4	.....	52	7.49	sw.	15.2	.....	
.....	.....	.....	.....	.....	.....	3,250	691.8	10.0	.....	57	7.00	sw.	15.2	2,500	
.....	.....	.....	.....	.....	.....	3,500	671.3	7.6	.....	63	6.58	sw.	15.2	.....	
4:01	958.7	39.6	19	ssw.	12.5	3,514	670.1	7.5	0.93	63	6.53	sw.	15.2	.....	
.....	.....	.....	.....	.....	.....	3,500	671.3	7.6	.....	63	6.58	sw.	15.2	.....	
4:05	958.7	39.7	20	sw.	10.7	3,273	690.1	9.7	1.01	67	8.06	sw.	15.2	.....	
.....	.....	.....	.....	.....	.....	3,250	691.8	9.9	.....	67	8.17	sw.	15.2	.....	
.....	.....	.....	.....	.....	.....	3,000	712.7	12.5	.....	62	8.98	sw.	15.3	1,400	
.....	.....	.....	.....	.....	.....	2,750	734.0	15.0	.....	58	9.89	sw.	15.3	.....	
.....	.....	.....	.....	.....	.....	2,500	755.7	17.5	.....	53	10.60	ssw.	15.4	1,700	
.....	.....	.....	.....	.....	.....	2,250	777.8	20.0	.....	49	11.46	ssw.	15.4	.....	
.....	.....	.....	.....	.....	.....	2,000	800.7	22.6	.....	45	12.34	ssw.	15.5	.....	
4:53	958.4	39.0	22	sw.	10.7	1,810	818.8	24.5	1.04	41	12.61	ssw.	15.6	890	
.....	.....	.....	.....	.....	.....	1,750	824.3	25.1	.....	40	12.75	ssw.	15.6	.....	
.....	.....	.....	.....	.....	.....	1,500	848.3	27.7	.....	36	13.37	ssw.	15.8	.....	
.....	.....	.....	.....	.....	.....	1,250	872.5	30.3	.....	32	13.82	ssw.	16.0	0	
.....	.....	.....	.....	.....	.....	1,000	896.8	32.9	.....	27	13.51	ssw.	16.2	.....	
5:32	958.4	38.8	21	ssw.	10.3	798	917.1	35.0	0.82	24	13.50	ssw.	16.4	.....	
.....	.....	.....	.....	.....	.....	750	922.0	35.4	.....	24	13.80	ssw.	15.8	.....	
.....	.....	.....	.....	.....	.....	500	947.3	37.4	.....	23	14.76	sw.	12.8	.....	
5:39	958.4	38.3	23	sw.	11.6	396	958.4	38.3	.....	23	15.49	sw.	11.6	.....	Cloudless.

August 5, 1918, series (No. 4).

P. M.															
6:25	958.4	37.0	22	sw.	9.8	396	958.4	37.0	.....	22	13.81	sw.	9.8	.....	Cloudless.
.....	.....	.....	.....	.....	.....	500	946.9	36.3	.....	21	12.69	sw.	11.5	.....	
.....	.....	.....	.....	.....	.....	750	921.2	34.7	.....	20	11.06	ssw.	15.8	.....	
6:30	958.4	36.7	22	sw.	8.0	788	917.9	34.4	0.66	20	10.88	ssw.	16.4	0	
.....	.....	.....	.....	.....	.....	1,000	896.2	32.1	.....	22	10.52	ssw.	16.8	.....	
.....	.....	.....	.....	.....	.....	1,250	872.0	29.6	.....	25	10.37	ssw.	17.2	490	
.....	.....	.....	.....	.....	.....	1,500	847.9	27.0	.....	27	9.63	ssw.	17.7	.....	
.....	.....	.....	.....	.....	.....	1,750	824.0	24.4	.....	30	9.17	ssw.	18.2	1,010	
7:05	958.5	35.3	25	ssw.	8.5	1,885	811.0	23.0	1.04	31	8.71	ssw.	18.4	1,500	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918.*—Continued.

August 5, 1918, series (No. 4)—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 m}$.	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
						2,000	800.0	21.9		33	8.67	ssw.	18.5		
						2,250	777.0	19.6		36	8.21	sw.	18.8		
						2,500	754.8	17.3		40	7.90	sw.	19.1		
7:21	958.6	34.9	24	ssw.	8.0	2,598	746.8	16.4	0.93	41	7.65	sw.	19.2	2,400	
						2,750	733.0	14.8		46	7.74	sw.	17.5	2,800	
						3,000	711.8	12.2		53	7.53	sw.	14.6		2/10 Cu., near horizon.
7:57	959.1	34.3	27	sw.	7.2	3,057	707.4	11.6	1.00	55	7.51	sw.	14.0	3,100	
						3,000	711.8	12.1		54	7.62	sw.	14.1		
						2,750	733.0	14.5		51	8.42	sw.	14.8	2,500	
						2,500	754.8	16.9		47	9.05	sw.	15.5		
						2,250	777.0	19.2		44	9.79	ssw.	16.2		
						2,000	800.0	21.6		41	10.58	ssw.	16.9	1,400	Distant lightning in n., 8:40 p.m.
8:42	959.3	32.6	30	s.	4.9	1,891	811.0	22.6	0.97	39	10.70	ssw.	17.2		
						1,750	824.0	24.0		37	11.04	ssw.	17.4	890	
						1,500	847.9	26.4		34	11.71	ssw.	17.9		
						1,250	872.0	28.8		30	11.88	ssw.	18.3	330	
						1,000	897.0	31.3		26	11.89	ssw.	18.8		
9:15	959.5	33.0	27	s.	6.7	783	919.2	33.4	—1.03	23	11.84	ssw.	19.1	0	
						750	922.8	33.4		23	11.84	ssw.	18.1		
						500	948.8	33.1		27	13.66	s.	10.7		
9:19	959.5	33.0	28	s.	7.6	396	959.5	33.0		28	14.09	s.	7.6		2/10 Cu., near horizon.

August 5–6, 1918, series (No. 5).

P. M.															
10:09	959.8	33.0	28	ssw.	9.8	396	959.8	33.0		28	14.09	ssw.	9.8		Few Cu., near north horizon.
						500	948.6	32.6		28	13.77	ssw.	14.4		
						750	922.3	31.8		26	12.23	ssw.	26.0		
10:15	959.8	32.9	26	ssw.	10.3	795	918.0	31.6	0.35	26	12.09	ssw.	28.1	0	
						1,000	897.0	29.7		28	11.68	ssw.	28.2	260	
						1,250	872.0	27.5		31	11.38	ssw.	28.3		
						1,500	847.5	25.2		33	10.58	ssw.	28.4	780	
10:42	959.8	32.4	27	ssw.	10.3	1,652	833.2	23.8	0.91	35	10.32	ssw.	28.5		
						1,750	823.3	22.9		36	10.05	ssw.	27.6	1,280	
						2,000	800.2	20.5		37	8.92	ssw.	25.2		
						2,250	777.8	18.1		39	8.10	sw.	22.8		
10:57	959.8	31.9	30	ssw.	11.2	2,408	763.4	16.6	0.92	40	7.56	sw.	21.3		
						2,250	777.8	18.0		40	8.26	sw.	21.9	2,700	
						2,000	800.2	20.2		39	9.24	ssw.	22.8		
						1,750	823.3	22.5		38	10.36	ssw.	23.7		
11:25	959.9	31.3	32	ssw.	9.8	1,679	830.7	23.1	0.95	38	10.74	ssw.	24.0		
						1,500	847.5	24.8		37	11.58	ssw.	23.7	1,300	
						1,250	872.0	27.2		36	12.99	ssw.	23.3	755	
						1,000	897.0	29.6		34	14.10	ssw.	22.9		
A. M.															
12:21	960.2	30.3	34	ssw.	8.9	785	919.3	31.6	—0.41	33	15.34	ssw.	22.6		Lightning in wnw.
						750	922.3	31.5		33	15.26	ssw.	21.4	0	
						500	948.6	30.4		35	15.20	ssw.	13.2		
12:34	960.3	30.0	36	ssw.	9.8	396	960.3	30.0		36	15.28	ssw.	9.8		Few Ci.St., wsw.

August 6, 1918, series (No. 6).

A. M.															
1:44	960.9	29.8	38	ssw.	8.0	396	960.9	29.8		38	15.94	ssw.	8.0		1/10 Ci.St., w.
						500	949.8	30.0		38	16.13	ssw.	11.1		Lightning in wnw
						750	923.7	30.5		37	16.16	ssw.	18.6		
1:50	961.0	29.7	38	ssw.	7.6	883	909.9	30.8	—0.20	37	16.44	ssw.	22.6		
						1,000	898.2	29.5		38	15.67	ssw.	22.3		
						1,250	873.2	26.8		39	13.74	ssw.	21.6	1,040	
						1,500	848.7	24.1		40	12.01	sw.	21.0	1,700	
2:46	960.9	29.2	38	ssw.	7.2	1,685	830.3	22.1	0.79	41	10.91	sw.	20.5		
3:19	960.9	28.5	41	ssw.	6.7	1,564	841.4	22.7	0.40	43	11.86	sw.	20.5		
						1,500	848.7	23.0		43	12.08	sw.	20.2		3/10 Ci.St., w.
						1,250	873.2	24.0		44	13.13	sw.	19.2	1,280	
						1,000	898.2	25.0		44	13.94	wsw.	18.1	705	
4:18	961.5	27.1	46	sw.	4.5	796	918.9	25.8	0.78	45	14.95	wsw.	17.2	0	
						750	923.7	26.3		45	15.40	wsw.	16.9		
4:23	961.6	26.6	47	wsw.	4.0	551	944.9	27.7	—1.49	45	16.72	wsw.	15.8		
						500	949.8	26.9		47	16.66	wsw.	11.8		
4:26	960.5	25.4	50	w.	3.6	396	960.5	25.4		50	16.22	w.	3.6		6/10 Ci.St., wsw.

August 6, 1918, series (No. 7).

A. M.															
5:20	962.6	25.2	51	ssw.	3.6	396	962.6	25.2		51	16.35	ssw.	3.6		8/10 Ci.St., wsw.; few St.Cu., sw.
5:22	962.6	25.2	51	ssw.	3.6	450	956.7	27.4	—4.07	47	17.16	sw.	16.0		
						500	951.1	27.1		47	16.86	sw.	15.6		
5:26	962.6	25.1	51	ssw.	3.6	707	929.3	25.8	—0.62	47	15.62	sw.	13.9	0	
						750	925.2	25.5		47	15.34	sw.	14.0		
						1,000	899.7	23.9		48	14.24	sw.	14.9		
						1,250	874.2	22.2		48	12.85	sw.	15.8		
						1,500	849.3	20.6		49	11.89	sw.	16.6	1,010	
						1,750	824.8	19.0		50	10.98	sw.	17.5		
						2,000	800.7	17.3		51	10.07	sw.	18.4		
6:03	962.8	25.7	51	ssw.	3.1	2,158	785.9	16.3	0.65	51	9.45	sw.	18.9	3,500	6/10 Ci.St., wsw.; few Cu., sw.
						2,250	776.0	15.6		52	9.21	sw.	18.4		
						2,500	750.8	13.8		55	8.68	sw.	17.1		
						2,750	726.0	12.0		57	8.00	sw.	15.8	4,800	
6:54	962.8	29.1	43	ssw.	4.9	2,988	712.5	10.3	0.76	60	7.53	sw.	14.5	4,900	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918.*—Continued.

August 6, 1918, series (No. 7)—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*			*volts.*	
7:30	962.8	30.1	40	ssw.	5.8	2,951	715.8	10.6	0.77	63	8.05	sw.	12.2	3,900	4/10 Ci.St., wsw.; few Cu., sw.
						2,750	726.0	12.1		60	8.47	sw.	13.5		
						2,500	750.8	14.1		56	9.01	sw.	15.1		
						2,250	776.0	16.0		53	9.64	sw.	16.7		
						2,000	800.7	17.9		49	10.05	sw.	18.3	2,300	
						1,750	824.8	19.8		45	10.40	sw.	19.9		
8:28	962.8	30.1	40	ssw.	7.2	1,651	834.3	20.6	0.47	44	10.68	sw.	20.5	1,600	Few Ci., wsw.; 1/10 Cu., sw.
						1,500	849.3	21.3		46	11.65	sw.	19.2		
						1,250	874.2	22.5		47	12.81	sw.	17.2	780	
						1,000	899.7	23.7		48	14.07	ssw.	15.1		
8:57	962.8	30.6	40	ssw.	10.3	758	924.1	24.8	1.71	50	15.66	ssw.	13.1	0	
						750	925.2	24.9		50	15.75	ssw.	13.0		
						500	951.1	29.2		41	16.62	ssw.	10.1		
9:04	962.8	31.0	38	ssw.	8.9	396	962.8	31.0		38	17.08	ssw.	8.9		Few Cu., sw.

August 6, 1918, series (No. 8).

A. M.															
9:40	962.8	31.8	37	sw.	10.3	396	962.8	31.8		37	17.40	sw.	10.3		Few Cu., sw.
						500	951.7	30.5		37	16.16	sw.	10.4		
						750	925.0	27.4		38	13.87	sw.	10.7		
9:47	962.8	32.2	35	sw.	9.8	796	920.4	26.8	1.25	38	13.39	sw.	10.7		
						1,000	899.8	25.5		38	12.40	sw.	11.8		
						1,250	874.2	23.8		39	11.50	sw.	13.1	0	
						1,500	849.4	22.2		39	10.44	sw.	14.4	1,600	
						1,750	825.2	20.5		40	9.65	sw.	15.7		
10:19	962.8	33.7	31	wsw.	10.7	1,979	803.9	19.0	0.66	40	8.79	sw.	16.9		
						2,000	801.7	18.9		40	8.74	sw.	16.8	2,400	
						2,250	778.8	17.3		43	8.49	sw.	15.9		
						2,500	756.3	15.7		46	8.21	sw.	15.0	2,400	
11:05	962.8	33.9	31	sw.	9.8	2,635	744.7	14.8	0.64	48	8.08	sw.	14.5		
						2,750	734.3	13.8		49	7.73	sw.	14.5	2,600	
						3,000	712.8	11.5		50	6.78	sw.	14.4		
						3,250	692.2	9.2		51	5.94	sw.	14.3	4,800	
						3,500	672.0	6.9		52	5.17	sw.	14.2		1/10 Cu., sw.
11:43	962.6	34.3	31	sw.	8.0	3,614	662.1	5.9	0.84	53	4.92	sw.	14.2		
						3,500	672.0	6.8		53	5.24	sw.	14.3		
						3,250	692.2	8.7		54	6.08	sw.	14.5		
						3,000	712.8	10.7		55	7.08	sw.	14.8	3,800	
						2,750	734.3	12.6		55	8.02	sw.	15.0		
						2,500	756.3	14.5		56	9.25	sw.	15.2		
P. M.															
12:07	962.4	35.4	28	wsw.	5.4	2,438	762.3	15.0	0.91	56	9.55	sw.	15.3	2,700	
						2,250	778.8	16.7		55	10.46	sw.	14.4		
						2,000	801.7	19.0		53	11.64	sw.	13.3	1,300	
						1,750	825.2	21.2		51	12.84	sw.	12.1		
						1,500	849.4	23.5		49	14.19	sw.	11.0	0	
						1,250	874.2	25.8		47	15.62	sw.	9.8		
						1,000	899.8	28.0		45	17.01	sw.	8.7		
12:39	962.0	36.0	26	sw.	5.4	894	810.2	29.0	1.61	44	17.63	sw.	8.2		
						750	925.0	31.3		39	17.83	sw.	7.8		
						500	950.6	35.3		30	17.16	ssw.	7.0		
12:51	961.9	37.0	26	ssw.	6.7	396	961.9	37.0		26	16.32	ssw.	6.7		2/10 Cu., sw..

August 6, 1918, series (No. 9).

P. M.															
1:29	961.5	37.4	25	sw.	7.6	396	961.5	37.4		25	16.04	sw.	7.6		Few Ci.Cu., sw.; 2/10 Cu., sw.
						500	950.5	35.9		27	15.96	sw.	8.2		
1:39	961.3	37.3	26	ssw.	7.6	703	929.4	33.1	1.40	32	16.19	ssw.	9.4		
						750	924.0	32.6		32	15.74	ssw.	9.4		
						1,000	898.8	30.1		35	14.94	ssw.	9.7		
						1,250	873.8	27.6		38	14.04	ssw.	10.0		
						1,500	849.2	25.1		41	13.07	ssw.	10.3	0	
2:04	961.1	37.8	25	sw.	8.5	1,553	844.3	24.5	1.01	42	12.92	ssw.	10.4		
						1,750	825.0	22.6		45	12.34	ssw.	11.2		
						2,000	801.3	20.1		50	11.76	ssw.	12.1	950	
						2,250	778.5	17.6		54	10.87	sw.	13.1		
						2,500	755.9	15.2		58	10.02	sw.	14.1		
2:29	961.0	38.4	22	ssw.	11.2	2,528	754.2	14.9	0.98	59	9.99	sw.	14.2	1,600	1/10 Ci.St., sw.; 4/10 Cu., sw.
						2,750	733.8	13.0		63	9.44	sw.	15.0		
						3,000	712.3	10.9		68	8.87	sw.	15.9	3,000	
						3,250	691.0	8.8		72	8.16	ssw.	16.9		
						3,500	670.7	6.7		77	7.55	ssw.	17.8		
						3,750	650.8	4.6		81	6.87	ssw.	18.7		
3:07	960.8	39.3	22	ssw.	10.7	3,801	647.0	4.2	0.84	82	6.76	ssw.	18.9		Altitude of Cu. base about 3,850 m.
						4,000	631.3	3.6		60	4.75	ssw.	17.1	4,200	
3:15	960.7	39.2	22	ssw.	10.7	4,120	622.3	3.2	−0.76	46	3.54	ssw.	16.0		
3:18	960.7	39.1	22	ssw.	9.8	4,087	624.4	2.6	0.35	43	3.17	ssw.	15.2		
						4,000	631.3	2.9		57	4.29	ssw.	15.1	3,800	
3:29	960.6	39.6	22	ssw.	8.5	3,800	647.0	3.6	0.93	90	7.12	ssw.	14.8		
						3,750	650.8	4.1		88	7.21	ssw.	14.7		
						3,500	670.7	6.4		80	7.69	ssw.	14.5		
						3,250	691.0	8.7		73	8.21	ssw.	14.2		
						3,000	712.3	11.0		65	8.53	ssw.	14.0		
3:42	960.5	38.2	22	ssw.	10.3	2,948	717.1	11.5	0.98	63	8.55	ssw.	13.9	1,900	
						2,750	733.8	13.4		58	8.91	ssw.	13.7		
						2,500	755.9	15.9		51	9.22	ssw.	13.5	1,200	
						2,250	778.5	18.3		44	9.25	ssw.	13.3		

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918.*—Continued.

August 6. 1918, series (No. 9)—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
4:02	960.4	38.6	23	ssw.	6.7	2,235	780.0	18.5	0.98	44	9.37	ssw.	13.3	.....	Threatening in nw.
.....	.....	.....	.....	.....	.....	2,000	801.3	20.8	.....	41	10.07	ssw.	13.9	.....	
.....	.....	.....	.....	.....	.....	1,750	825.0	23.2	.....	38	10.81	s.	14.5	0	
.....	.....	.....	.....	.....	.....	1,500	849.2	25.7	.....	35	11.56	s.	15.1	.....	
.....	.....	.....	.....	.....	.....	1,250	873.8	28.1	.....	32	12.17	s.	15.7	.....	
.....	.....	.....	.....	.....	.....	1,000	898.8	30.6	.....	29	12.74	sse.	16.4	.....	Lightning in nw.
.....	.....	.....	.....	.....	.....	750	924.0	33.0	.....	26	13.08	sse.	17.0	.....	
4:34	960.1	37.4	25	s.	8.9	741	924.2	33.1	1.19	26	13.16	sse.	17.0	.....	
.....	.....	.....	.....	.....	.....	500	950.0	36.0	.....	25	14.86	s.	11.7	.....	
4:40	960.0	37.2	25	s.	9.4	396	960.0	37.2	.....	25	15.87	s.	9.4	.....	1/10 Ci.St., sw.; 5/10 St.Cu., wsw.
August 7, 1918.															
P. M.															
12:12	965.1	29.0	51	s.	1.8	396	965.1	29.0	.....	51	20.44	s.	1.8	.....	10/10 St.Cu., sw.
.....	.....	.....	.....	.....	.....	500	953.5	27.4	.....	53	19.35	s.	3.5	.....	
1:19	964.3	29.4	51	s.	5.4	743	927.1	23.6	1.56	58	16.90	s.	7.4	330	
.....	.....	.....	.....	.....	.....	750	926.0	23.5	.....	58	16.80	s.	7.5	.....	
.....	.....	.....	.....	.....	.....	1,000	899.9	21.6	.....	60	15.48	s.	10.0	.....	
1:37	964.1	29.8	49	ssw.	6.3	1,207	878.8	19.9	0.80	61	14.18	s.	12.1	1,170	
.....	.....	.....	.....	.....	.....	1,250	874.7	19.6	.....	61	13.91	s.	12.2	.....	
.....	.....	.....	.....	.....	.....	1,500	850.5	18.1	.....	62	12.88	s.	12.8	.....	
.....	.....	.....	.....	.....	.....	1,750	827.2	16.6	.....	63	11.90	s.	13.3	2,500	
.....	.....	.....	.....	.....	.....	2,000	804.7	15.1	.....	65	11.15	ssw.	13.9	.....	
.....	.....	.....	.....	.....	.....	2,250	782.7	13.6	.....	66	10.28	ssw.	14.4	.....	
.....	.....	.....	.....	.....	.....	2,500	760.7	12.1	.....	67	9.46	ssw.	15.0	4,500	
2:24	963.7	30.9	43	ssw.	6.7	2,558	750.5	11.8	0.76	67	9.27	ssw.	15.1	.....	
.....	.....	.....	.....	.....	.....	2,500	760.7	12.3	.....	.....	.....	ssw.	14.9	.....	
.....	.....	.....	.....	.....	.....	2,250	782.7	14.7	.....	.....	.....	ssw.	14.3	3,000	
.....	.....	.....	.....	.....	.....	2,000	804.7	17.0	.....	.....	.....	ssw.	13.7	.....	
.....	.....	.....	.....	.....	.....	1,750	827.2	19.3	.....	.....	.....	sw.	13.0	1,800	
.....	.....	.....	.....	.....	.....	1,500	850.3	21.6	.....	.....	.....	sw.	12.4	.....	
3:13	963.4	31.6	33	sw.	9.8	1,321	867.6	23.3	0.84	.....	.....	sw.	11.9	.....	
.....	.....	.....	.....	.....	.....	1,250	874.7	23.9	.....	.....	.....	sw.	11.7	860	
.....	.....	.....	.....	.....	.....	1,000	899.9	26.0	.....	.....	.....	sw.	10.8	.....	
3:31	963.3	30.8	37	sw.	7.2	786	921.9	27.8	0.69	.....	.....	sw.	10.1	0	
.....	.....	.....	.....	.....	.....	750	925.7	28.0	.....	.....	.....	sw.	9.7	.....	
.....	.....	.....	.....	.....	.....	500	952.0	29.8	.....	.....	.....	sw.	7.3	.....	
3:38	963.3	30.5	38	sw.	6.3	396	963.3	30.5	.....	38	16.60	sw.	6.3	.....	10/10 St.Cu., sw.
August 8, 1918.															
A. M.															
7:53	967.8	19.2	91	nw.	4.0	396	967.8	19.2	.....	91	20.25	nw.	4.0	.....	10/10 St.Cu., nw.
.....	.....	.....	.....	.....	.....	500	956.0	18.4	.....	92	19.47	nw.	5.4	.....	Altitude of St.Cu. base about 700m.
8:00	967.9	19.3	90	nnw.	4.5	746	929.3	16.6	0.74	96	18.13	nnw	8.8	260	
.....	.....	.....	.....	.....	.....	1,000	902.7	16.4	.....	81	15.11	nnw.	6.5	420	
8:55	967.9	20.0	85	nw.	4.9	1,141	887.3	16.3	0.08	73	13.53	nnw.	5.3	950	
.....	.....	.....	.....	.....	.....	1,250	876.9	16.1	.....	71	12.99	nnw.	5.1	.....	
.....	.....	.....	.....	.....	.....	1,500	851.0	15.5	.....	66	11.62	nw.	4.5	.....	
9:25	967.9	20.4	83	nw.	4.0	1,517	849.0	15.5	0.13	66	11.62	nw.	4.5	.....	
.....	.....	.....	.....	.....	.....	1,500	851.0	15.5	.....	67	11.80	nw.	4.5	0	
.....	.....	.....	.....	.....	.....	1,250	876.9	15.6	.....	79	14.00	nnw.	5.0	.....	
.....	.....	.....	.....	.....	.....	1,000	902.7	15.8	.....	91	16.33	n.	5.4	0	
10:17	968.0	21.9	76	n.	3.1	941	908.7	15.8	1.17	94	16.87	n.	5.5	.....	
.....	.....	.....	.....	.....	.....	750	928.8	18.0	.....	87	17.96	n.	4.5	.....	
.....	.....	.....	.....	.....	.....	500	956.0	21.0	.....	77	19.15	nnw.	3.2	.....	
10:25	968.0	22.2	73	nnw.	2.7	396	968.0	22.2	.....	73	19.54	nnw.	2.7	.....	10/10 St.Cu., nnw.
August 9, 1918.															
A. M.															
6:43	965.6	17.6	89	se.	3.1	396	965.6	17.6	.....	89	17.92	se.	3.1	.....	2/10 Ci.St., wsw.; 2/10 Ci.Cu., wsw.
.....	.....	.....	.....	.....	.....	500	954.3	18.1	.....	89	18.49	sse.	4.6	.....	
.....	.....	.....	.....	.....	.....	750	926.4	19.2	.....	90	20.02	s.	8.2	0	
6:56	965.5	18.0	89	se.	2.2	784	922.9	19.3	−0.44	90	20.15	s.	8.7	.....	
.....	.....	.....	.....	.....	.....	1,000	900.2	18.9	.....	79	17.25	s.	8.2	.....	
7:04	965.5	18.6	88	se.	2.7	1,096	890.0	18.7	0.19	74	15.96	s.	8.0	920	
.....	.....	.....	.....	.....	.....	1,250	874.7	18.0	.....	72	14.86	s.	7.3	1,080	
8:11	965.4	22.3	81	s.	3.6	1,451	854.2	17.2	0.42	70	13.73	s.	6.4	1,390	3/10 Ci.St., wsw.; 3/10 St.Cu., ssw.
.....	.....	.....	.....	.....	.....	1,500	849.8	17.1	.....	68	13.26	s.	6.8	2,000	
.....	.....	.....	.....	.....	.....	1,750	825.0	16.6	.....	57	10.77	s.	8.6	.....	
.....	.....	.....	.....	.....	.....	2,000	800.8	16.1	.....	45	8.24	s.	10.5	.....	
8:36	965.3	23.1	78	s.	3.1	2,028	798.2	16.0	0.21	44	8.00	s.	10.7	.....	
.....	.....	.....	.....	.....	.....	2,250	777.8	14.2	.....	54	8.74	ssw.	10.5	.....	
.....	.....	.....	.....	.....	.....	2,500	755.0	12.3	.....	65	9.30	ssw.	10.4	.....	
.....	.....	.....	.....	.....	.....	2,750	732.5	10.3	.....	76	9.52	sw.	10.3	.....	
8:41	965.3	23.4	77	ssw.	3.1	2,849	724.3	9.5	0.79	80	9.50	sw.	10.2	.....	Altitude of St.Cu. base about 800 m
.....	.....	.....	.....	.....	.....	3,000	710.6	8.8	.....	71	8.04	sw.	10.4	.....	
.....	.....	.....	.....	.....	.....	3,250	689.4	7.7	.....	55	5.78	wsw.	10.8	5,000	
.....	.....	.....	.....	.....	.....	3,500	668.8	6.6	.....	40	3.90	wsw.	11.2	.....	
8:52	965.2	23.9	77	ssw.	7.6	3,595	661.7	6.2	0.60	34	3.22	wsw.	11.3	.....	
.....	.....	.....	.....	.....	.....	3,500	668.8	6.9	.....	33	3.28	wsw.	11.2	.....	
.....	.....	.....	.....	.....	.....	3,250	689.4	8.8	.....	31	3.51	sw.	11.0	.....	
9:03	965.2	24.4	76	ssw.	5.8	3,096	702.8	10.0	0.11	30	3.68	sw.	10.9	.....	
.....	.....	.....	.....	.....	.....	3,000	710.6	10.1	.....	43	5.31	sw.	10.7	.....	
.....	.....	.....	.....	.....	.....	2,750	732.5	10.4	.....	77	9.71	sw.	10.4	.....	
9:10	965.1	24.3	76	ssw.	5.4	2,651	741.7	10.5	0.64	91	11.56	sw.	10.2	2,800	9/10 St.Cu., ssw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918.*—Continued.

August 9, 1918—Continued.

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
						2,500	755.0	11.5		90	12.21	sw.	10.4		
						2,250	777.8	13.1		87	13.12	sw.	10.7		
						2,000	800.8	14.7		85	14.22	sw.	11.1	2,300	
						1,750	825.0	16.3		83	15.38	sw.	11.4		
						1,500	849.8	17.9		81	16.61	sw.	11.8		Altitude of St.Cu.base about 850 m.
9:34	965.0	24.0	77	ssw.	5.8	1,403	859.1	18.5	0.10	80	17.04	sw.	11.9	1,470	
						1,250	874.7	18.6		84	18.00	ssw.	10.4	1,240	
						1,000	900.2	18.9		92	20.09	s.	8.0		
9:55	964.8	24.7	75	s.	4.5	891	911.4	19.0	1.29	95	20.87	s.	7.0		
						750	926.4	20.8		88	21.62	s.	6.1		
						500	954.3	24.1		76	22.82	ssw.	4.2		
10:01	964.8	25.4	71	ssw.	4.0	396	964.8	25.4		71	23.04	ssw.	4.0		3/10 A.Cu., wsw.; 5/10 St.Cu., ssw.

August 10, 1918.

P. M.															
8:44	963.9	27.9	69	nne.	3.6	396	963.9	27.9		69	25.94	nne.	3.6		4/10 Cu., wnw.
						500	952.3	27.4		69	25.19	nne.	6.6		Threatening conditions.
8:48	964.0	27.9	69	nne.	3.6	645	937.3	26.6	0.52	68	23.68	ne.	10.8		
						750	926.0	26.5		65	22.51	ne.	9.6		
9:15	964.3	27.4	71	nne.	3.6	882	912.8	26.3	0.13	61	20.87	ene.	8.1		
						1,000	900.7	25.2		63	20.20	e.	7.6	0	
						1,250	875.8	22.8		68	18.88	ese.	6.6	1,010	
						1,500	851.0	20.5		73	17.61	se.	5.5		
9:32	964.4	27.0	73	ne.	3.1	1,626	838.2	19.3	0.82	76	17.02	sse.	5.0	705	2/10 Cu., wnw.
						1,500	851.0	20.2		74	17.52	sse.	6.2		
						1,250	875.8	21.9		70	18.40	ese.	8.7		
						1,000	900.7	23.6		66	19.23	e.	11.1		
						750	926.0	25.3		62	20.00	ene.	13.5		Thunderstorm passed to south of station. First thunder to sw. of station at 7:05; last thunder to e. of station at 11:00 p. m.
9:42	964.4	26.8	72	ne.	3.1	710	930.8	25.6	0.35	61	20.03	ene.	13.9	0	
						500	953.3	26.3		69	23.61	ne.	7.3		
9:53	964.5	26.7	73	ne.	4.0	396	964.5	26.7		73	25.58	ne.	4.0		2/10 Cu., wsw.

August 11, 1918.

P. M.															
1:05	966.8	28.6	61	ene.	5.4	396	966.8	28.6		61	23.88	ene.	5.4		5/10 Ci.St., wsw.; 2/10 Cu., sw.
						500	955.8	27.2		64	23.09	ene.	6.4		
						750	928.8	23.7		71	20.81	ese.	8.9	0	
1:17	966.7	29.3	61	ese.	5.4	806	922.9	22.9	1.39	73	20.39	ese.	9.5		
						1,000	902.6	21.9		71	18.66	se.	9.7		
						1,250	876.9	20.6		68	16.50	sse.	10.1	2,500	
						1,500	852.0	19.3		65	14.55	s.	10.4		
1:51	966.3	30.8	60	se.	6.3	1,754	827.0	18.0	0.52	62	12.80	ssw.	10.7	3,700	
						2,000	805.0	17.1		62	12.09	sw.	15.1		
						2,250	782.2	16.2		61	11.24	sw.	19.5		
2:00	966.2	32.0	59	se.	6.3	2,493	759.0	15.3	0.37	61	10.60	wsw.	23.8		
						2,500	758.8	15.2		61	10.53	wsw.	23.8	5,700	
						2,750	738.0	13.1		65	9.80	wsw.	23.8	5,400	3/10 Ci.St., wsw.; 4/10 A.Cu., sw.; 2/10 Cu., sse.
						3,000	716.4	11.0		68	8.93	wsw.	23.8		
						3,250	695.5	8.8		72	8.16	wsw.	23.8		
						3,500	674.7	6.7		76	7.46	wsw.	23.8		
						3,750	654.3	4.6		79	6.70	sw.	23.8		
						4,000	634.2	2.4		83	6.03	sw.	23.8	8,500	
2:47	966.0	29.8	65	se.	7.6	4,214	617.1	0.6	0.94	86	5.49	sw.	23.8		
						4,000	634.2	2.8		82	6.13	sw.	23.5	9,000	
						3,750	654.3	5.4		78	7.00	sw.	23.1		
						3,500	674.7	8.0		74	7.94	sw.	22.7		
						3,250	695.5	10.6		70	8.95	sw.	22.3		
						3,000	716.4	13.1		65	9.80	sw.	21.9	6,000	
						2,750	738.0	15.7		61	10.88	sw.	21.5		
3:03	965.9	29.8	65	ese.	8.0	2,695	742.6	16.3	1.30	60	11.12	sw.	21.4		2/10 Ci.St., wsw.; 5/10 A.Cu., sw.
3:35	965.7	30.9	58	sse.	8.0	2,541	756.6	18.3	0.66	52	10.94	sw.	22.0	4,800	
						2,500	760.0	18.6		52	11.14	sw.	21.5		
						2,250	782.2	20.2		52	12.31	sw.	18.5		
						2,000	805.0	21.9		53	13.93	sw.	15.5	3,500	
3:49	965.6	31.4	55	se.	8.0	1,938	811.2	22.3	0.51	53	14.27	sw.	14.7		7/10 A.Cu., sw.
						1,750	828.8	23.3		53	15.16	ssw.	14.3		
						1,500	852.0	24.5		53	16.30	ssw.	13.8		
						1,250	876.9	25.8		53	17.61	s.	13.3	1,400	
						1,000	901.8	27.1		53	19.01	sse.	12.8		
4:11	965.3	30.7	56	se.	7.2	760	926.7	28.3	0.74	53	20.39	se.	12.3		
						750	927.3	28.4		53	20.51	se.	12.2	0	
						500	954.0	30.2		56	24.04	se.	9.9		
4:18	965.2	31.0	57	se.	8.9	396	965.2	31.0		57	25.62	se.	8.9		5/10 A.Cu., sw.

August 12, 1918.

A. M.															
7:18	964.4	27.0	54	sw.	4.9	396	964.4	27.0		54	19.26	sw.	4.9		2/10 Ci.St., w.; 3/10 A.Cu., sw.
						500	952.5	27.0		52	18.54	sw.	9.7		
						750	925.7	27.0		48	17.12	ssw.	20.7		
7:24	964.4	26.6	56	sw.	5.8	809	920.4	27.0	0.00	47	16.76	ssw.	23.8	0	
						1,000	900.2	26.9		44	15.60	ssw.	24.3		
						1,250	875.4	26.8		39	13.74	sw.	24.9		
7:37	964.6	26.2	57	wnw.	2.2	1,268	874.0	26.8	0.04	39	13.74	sw.	24.9	640	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918.*—Continued.

August 12, 1918—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
						1,500	851.3	24.8		41	12.84	sw.	25.2	1,170	
						1,750	827.6	22.7		44	12.14	sw.	25.5		
						2,000	804.0	20.6		46	11.16	sw.	25.8	2,600	
						2,250	781.0	18.5		48	10.22	sw.	26.1		
						2,500	758.8	16.4		51	9.51	sw.	26.4		
						2,750	736.3	14.3		53	8.64	sw.	26.7	3,500	
8:18	964.6	27.9	54	sw.	3.6	2,851	728.0	13.4	0.85	54	8.30	sw.	26.8	3,700	
						3,000	715.3	12.2		57	8.10	sw.	23.2		2/10 Ci.St., w.; 3/10 A.Cu., sw.
						3,250	694.0	10.2		63	7.84	sw.	17.0	4,800	
9:03	964.2	30.5	45	sw.	6.7	3,411	680.8	8.9	0.80	66	7.52	sw.	13.1	5,100	
						3,250	694.0	10.2		64	7.97	sw.	14.4		
						3,000	715.3	13.2		61	9.25	sw.	16.5		Few Ci.St., w.; few A.Cu., sw.
						2,750	736.3	14.2		58	9.39	sw.	18.6	3,700	
						2,500	758.8	16.1		55	10.06	sw.	20.6		
						2,250	781.0	18.1		52	10.80	sw.	22.7		
9:57	964.2	33.0	37	sw	8.9	2,077	797.2	19.5	1.08	50	11.34	sw.	24.1	3,000	
						2,000	804.0	20.7		49	11.97	sw.	24.4		
						1,750	827.6	23.0		45	12.64	ssw.	25.6		
10:10	964.1	33.6	36	sw.	8.9	1,524	849.5	25.5	0.84	42	13.71	ssw.	26.6		
						1,500	851.3	25.7		42	13.87	ssw.	26.3		
						1,250	875.4	27.8		39	14.57	ssw.	23.1		
						1,000	900.2	29.9		36	15.19	ssw.	20.1		
						750	925.7	32.0		33	15.69	ssw.	16.9		
						500	952.5	34.1		30	16.05	ssw.	13.8		
10:30	963.8	35.0	29	ssw.	12.5	396	963.8	35.0		29	16.31	ssw.	12.5		1/10 Ci.St., w.

August 13, 1918.

A. M.															
6:58	968.6	23.8	82	nnw.	2.2	396	968.6	23.8		82	24.18	nnw.	2.2		3/10 Ci.St., s.; 3/10 A.Cu., s.
						500	957.0	23.2		80	22.75	n.	5.4		
7:09	968.6	23.8	82	nne.	3.1	722	933.2	22.0	0.55	75	19.83	nne.	12.2		
						750	930.0	21.9		74	19.45	nne.	12.2		
						1,000	903.7	21.3		69	17.48	ne.	10.8		3/10 Ci.St., s.; 1/10 A.Cu., s.; Few St., ne.
7:31	968.8	24.5	79	nne.	3.1	1,162	887.3	20.9	0.25	66	16.32	ne.	10.0	0	
						1,250	877.6	20.1		69	16.24	ne.	10.0		
						1,500	852.3	17.9		79	16.20	ne.	10.1		
7:39	968.8	24.5	79	n.	3.1	1,730	830.6	15.8	0.90	88	15.80	ne.	10.2	1,240	
						1,750	828.0	15.8		87	15.62	ne.	9.9	1,320	
						2,000	804.4	15.6		79	14.00	nnw.	5.8	1,900	
8:40	968.9	26.0	72	nne.	4.0	2,089	796.7	15.6	0.34	76	13.47	nw.	4.3		
						2,000	804.4	16.2		75	13.82	nw.	4.6		
						1,750	828.0	17.7		71	14.38	nnw.	5.6	1,100	
						1,500	852.3	19.3		68	15.23	n.	6.5		
						1,250	877.6	20.8		65	15.97	nne.	7.5		
9:13	968.9	26.7	66	ne.	4.9	1,066	897.3	22.0	−0.20	62	16.39	ne.	8.2	420	2/10 Ci.St., s.; Few A.Cu., s.; Few Cu., on nw. horizon.
						1,000	903.7	21.9		67	17.61	ne.	7.9		
9:17	968.9	27.0	65	nne.	4.0	811	924.1	21.5	1.42	83	21.29	nne.	7.0		
						750	930.0	22.4		80	21.67	nne.	6.7		
						500	957.0	25.9		67	22.39	ne.	5.4	0	
9:30	968.9	27.4	65	ne.	4.9	396	968.9	27.4		65	23.73	ne.	4.9		1/10 Ci.St., s.; 1/10 A.Cu., s.; Few Cu., ne.

August 14, 1918.

A. M.															
8:10	974.3	18.6	88	ene.	3.6	396	974.3	18.6		88	18.86	ene.	3.6		6/10 A.Cu., wsw.; 4/10 St.Cu., s.
						500	961.9	18.8		81	17.58	ene.	5.7		
						750	934.2	19.1		64	14.15	e.	10.8		
8:14	974.2	18.6	88	ene.	3.6	786	931.0	19.2	−0.15	62	13.80	e.	11.5	0	
						1,000	907.5	18.8		67	14.54	ese.	9.3	420	
						1,250	881.8	17.5		73	14.60	se.	6.8	1,170	3/10 A.St., wsw.; 2/10 A.Cu., wsw.; 3/10 St.Cu., s.
8:42	974.1	19.7	83	e.	4.5	1,312	875.8	17.3	0.36	75	14.81	se.	6.2		
						1,500	856.2	16.1		78	14.27	ese.	4.2	2,000	
9:59	973.6	23.3	66	ene.	3.6	1,601	846.3	15.4	0.68	80	14.00	ese.	3.2		
						1,500	856.2	16.1		73	13.36	ese.	5.2	1,800	2/10 A.Cu., wsw.; 8/10 St.Cu., s.
10:18	973.6	23.8	64	ene.	5.4	1,311	875.8	17.4	0.36	71	14.11	ese.	9.0		
						1,250	881.8	17.6		71	14.29	ese.	9.2	1,550	10/10 St. Cu., s.
						1,000	907.5	18.5		69	14.70	e.	9.8		
10:40	973.6	23.4	62	e.	5.8	749	934.8	19.4	1.10	67	15.10	e.	10.5	0	
						500	961.9	22.1		63	16.76	ese.	6.3		
10:47	973.6	23.3	62	ese.	4.5	396	973.6	23.3		62	17.74	ese.	4.5		10/10 St.Cu., s.

August 16, 1918 (No. 1).

A. M.															
6:52	966.5	24.0	76	ssw.	5.8	396	966.5	24.0		76	22.68	ssw.	5.8		4/10 A.Cu., wsw.
						500	954.5	24.9		69	21.74	sw.	7.8		
6:57	966.5	24.5	73	ssw.	6.3	750	928.4	27.0	−0.85	53	18.90	wsw.	12.7		
						1,000	902.2	25.2		53	16.99	wsw.	13.8		
						1,250	876.9	23.4		52	14.97	wsw.	14.4		
						1,500	852.2	21.6		52	13.42	wsw.	15.3		
						1,750	827.8	19.8		52	12.01	wsw.	16.2		
						2,000	804.2	18.0		51	10.53	wsw.	17.0		
						2,250	781.0	16.3		51	9.45	wsw.	17.9		
7:33	966.5	25.6	67	ssw.	6.3	2,285	778.0	16.0	0.72	51	9.27	wsw.	18.0	2,200	
						2,500	758.0	14.3		57	9.29	wsw.	15.4		Few A.Cu., wsw.
						2,750	736.3	12.3		65	9.30	wsw.	12.4		
7:47	966.5	26.0	67	ssw.	6.7	2,757	735.9	12.2	0.81	65	9.24	wsw.	12.3	2,800	
						3,000	714.7	10.4		68	8.57	wsw.	13.5	3,500	4/10 A.Cu., wsw.
						3,250	693.8	8.6		70	7.82	wsw.	14.8		

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918.*—Continued.

August 16, 1918 (No. 1)—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
8:52	966.5	27.9	60	ssw.	7.6	3,387	682.5	7.6	0.74	72	7.52	wsw.	15.5	3,500	5/10 A.Cu., wsw.
						3,250	693.8	8.6		71	7.93	wsw.	14.7		
						3,000	714.7	10.5		68	8.64	wsw.	13.2	2,400	
						2,750	736.3	12.5		66	9.56	wsw.	11.8	2,700	
9:25	966.5	28.7	56	ssw.	7.6	2,665	744.0	13.1	0.79	65	9.80	wsw.	11.3		
						2,500	758.0	14.4		65	10.66	wsw.	12.3		1/10 A.Cu., wsw.
						2,250	781.0	16.4		64	11.94	wsw.	13.8	1,900	
9:40	966.5	29.4	55	ssw.	7.6	2,184	787.5	16.9	0.65	64	12.32	wsw.	14.2		
						2,000	804.2	18.1		63	13.09	wsw.	13.9		
						1,750	827.8	19.7		62	14.23	wsw.	13.5	1,240	
						1,500	852.2	21.4		61	15.55	wsw.	13.1		
						1,250	876.9	23.0		59	16.58	sw.	12.7	490	
						1,000	902.2	24.6		58	17.95	sw.	12.2		
10:18	966.3	30.3	52	sw.	8.0	789	924.5	26.0	1.20	57	19.16	sw.	11.9	0	
						750	928.4	26.5		57	19.74	sw.	11.5		
						500	954.5	29.5		53	21.86	sw.	8.7		
10:25	966.3	30.7	52	sw.	7.6	396	966.3	30.7		52	22.97	sw.	7.6		2/10 A.Cu., wsw.

August 16, 1918 (No. 2).

A. M.															
11:32	965.7	33.1	44	sw.	6.7	396	965.7	33.1		44	22.26	sw.	6.7		2/10 A.Cu., wsw.
						500	953.9	31.1		46	20.79	sw.	7.1		
P. M.															
12:03	965.5	33.4	44	ssw.	5.8	608	943.0	29.1	1.89	48	19.34	ssw.	7.6		
						750	927.4	27.9		49	18.42	ssw.	8.5	0	
						1,000	901.7	25.8		50	16.62	sw.	10.1		
12:22	965.2	33.5	40	sw.	8.0	1,123	889.5	24.8	0.83	51	15.97	sw.	10.9		
						1,250	876.4	23.8		52	15.33	sw.	11.1		4/10 A.Cu., wsw.; few Cu., sw.
						1,500	851.7	21.9		53	13.93	sw.	11.5		
						1,750	827.0	20.0		54	12.63	sw.	11.9	2,200	
						2,000	802.7	18.1		56	11.63	sw.	12.3		
						2,250	779.7	16.2		57	10.50	sw.	12.7	3,300	
						2,500	757.4	14.3		59	9.62	sw.	13.1		
1:05	964.8	35.3	34	sw.	7.6	2,568	752.0	13.8	0.76	59	9.31	sw.	13.2		
						2,750	736.0	12.3		62	8.87	sw.	13.0	3,800	
						3,000	714.8	10.3		66	8.27	sw.	12.8	3,600	
						3,250	693.2	8.3		70	7.66	sw.	12.5	4,300	Few A.Cu., wsw.; 2/10 Cu., sw.
2:15	964.1	36.1	29	wsw.	8.9	3,453	676.1	6.7	0.76	73	7.16	sw.	12.3		
						3,250	693.2	8.2		71	7.72	sw.	12.6		
						3,000	714.8	10.0		68	8.35	sw.	13.0		
2:28	964.0	36.5	28	wsw.	10.7	2,886	724.2	10.8	0.92	67	8.68	sw.	13.2	3,200	Thunderstorm forming about 5 mi. nw. of station.
						2,750	736.0	12.1		66	9.32	sw.	12.8		
						2,500	757.4	14.4		63	10.33	sw.	12.2	1,800	
						2,250	779.7	16.7		61	11.60	sw.	11.5		
						2,000	802.7	19.0		58	12.74	sw.	10.8		
2:47	963.9	36.7	26	sw.	10.3	1,757	826.8	21.2	1.03	56	14.10	sw.	10.2	0	Cu.Nb. cloud about 1 mi. nnw. of head kite.
						1,750	827.0	21.3		56	14.18	sw.	10.2		
						1,500	851.7	23.9		51	15.13	sw.	10.2		
						1,250	876.4	26.3		47	16.08	sw.	10.2		
						1,000	901.7	29.0		42	16.83	sw.	10.2	0	
						750	926.7	31.6		37	17.20	sw.	10.2		
3:10	963.6	36.7	27	wsw.	8.0	729	928.8	31.8	1.38	37	17.40	sw.	10.2	260	
						500	952.2	34.5		31	16.96	wsw.	9.3		
3:17	963.5	36.4	27	wsw.	8.9	396	963.5	36.4		27	16.40	wsw.	8.9		2/10 Cu., sw.; 1/10 Cu.Nb., sw.

August 16, 1918 (No. 3).

P. M.															
4:01	962.8	37.0	30	sw.	6.3	396	962.8	37.0		30	18.83	sw.	6.3		3/10 Cu., sw.; 1/10 Cu.Nb., sw.
						500	951.3	35.0		31	17.44	sw.	9.2		Thunderstorms forming to n. of station.
4:13	962.8	36.2	27	wsw.	9.8	683	932.6	31.5	1.92	33	15.26	sw.	14.3	0	
						750	925.6	30.8		34	15.11	sw.	14.4		
						1,000	900.3	28.4		38	14.71	sw.	14.6	360	2/10 Cu., sw.; 2/10 Cu.Nb., sw.
						1,250	875.0	25.9		42	14.04	sw.	14.9	760	
						1,500	850.4	23.5		45	13.03	sw.	15.2		
4:39	962.8	36.4	28	wsw.	8.0	1,547	845.9	23.0	0.98	46	12.93	sw.	15.2		
						1,750	826.0	21.0		52	12.93	sw.	14.5		
						2,000	802.2	18.4		59	12.48	sw.	13.7	1,800	
						2,250	779.0	15.9		67	12.11	sw.	12.9	3,000	
						2,500	756.6	13.4		74	11.37	sw.	12.0		
						2,750	735.0	10.9		82	10.69	sw.	11.2	2,100	
5:23	962.7	36.4	29	wsw.	5.4	2,756	734.6	10.8	1.00	82	10.62	sw.	11.2		Few Ci., wsw.; 1/10 Cu., sw.; 3/10 Cu.Nb., sw.
						3,000	712.7	9.1		81	9.36	sw.	11.3		
						3,250	691.6	7.3		79	8.08	sw.	11.4	3,000	
5:58	962.5	35.4	28	wsw.	3.6	3,437	676.7	6.0	0.66	78	7.29	sw.	11.5	2,200	
						3,250	691.6	7.2		82	8.33	sw.	12.2		Few Ci., wsw.; 3/10 Cu., sw.
6:06	962.5	35.4	30	wsw.	3.6	3,177	698.0	7.6	0.95	84	8.77	sw.	12.5		
						3,000	712.7	9.3		80	9.38	sw.	12.3		
						2,750	735.0	11.7		75	10.31	sw.	12.1		
						2,500	756.6	14.0		70	11.19	sw.	11.9		
						2,250	779.0	16.4		64	11.94	sw.	11.7	1,400	
						2,000	802.2	18.8		59	12.80	sw.	11.4		
						1,750	826.0	21.2		54	13.60	sw.	11.2		
6:34	962.5	34.3	28	sw.	2.7	1,620	838.5	22.4	1.00	51	13.82	sw.	11.1	640	
						1,500	850.4	23.6		49	14.27	sw.	11.1		
						1,250	875.0	26.1		45	15.22	sw.	11.0	0	
						1,000	900.3	28.6		42	16.44	sw.	11.0		
						750	925.6	31.1		38	17.18	sw.	10.9		
7:02	962.5	32.7	42	ssw.	3.1	680	932.6	31.8	1.41	37	17.40	sw.	10.9		
						500	951.3	32.1		41	19.61	ssw.	8.7		
7:09	962.5	32.2	43	ssw.	7.6	396	962.5	32.2		43	20.68	ssw.	7.6		Few Ci., wsw.; 3/10 Cu., sw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918.*—Continued.

August 17, 1918 (No. 1).

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
7:12	965.3	24.5	64	se.	2.7	396	965.3	24.5	.....	64	19.68	se.	2.7	.....	2/10 A.St., sw.; 7/10 A.Cu., sw.; 1/10 St.Cu., sw.
						500	954.2	24.4	.....	62	18.95	s.	5.0	.....	
7:19	965.4	25.3	62	se.	2.7	593	944.0	24.4	0.05	61	18.65	ssw.	7.0	0	
						750	927.5	24.4	.....	58	17.73	ssw.	7.5	.....	
8:15	966.0	26.6	60	sse.	1.8	929	909.2	24.4	0.16	54	16.51	ssw.	8.0	0	
						750	927.5	25.0	.....	57	18.06	s.	6.9	.....	
8:25	966.0	26.9	59	sse.	1.8	611	942.7	25.4	0.84	59	19.15	sse.	6.0	0	
						500	954.2	26.3	.....	58	19.85	se.	3.8	.....	
8:28	966.0	27.2	58	se.	1.8	396	966.0	27.2	.....	58	20.93	se.	1.8	.....	5/10 A.Cu., sw.; 4/10 St.Cu., sw. Rain began at 8:48 a. m.

August 17, 1918 (No. 2).

P. M.															
5:30	965.2	31.6	45	ese.	4.5	396	965.2	31.6	.....	45	20.92	ese.	4.5	.....	3/10 A.Cu., w.; 2/10 St.Cu., sw.; 2/10 Cu.Nb., sw.
						500	954.4	30.5	.....	48	20.97	ese.	5.4	.....	
5:39	965.2	31.9	45	ese.	4.5	671	936.0	28.6	1.09	52	20.36	ese.	7.7	.....	6/10 A.Cu., w.; 2/10 St.Cu., sw.; 1/10 Cu.Nb., sw.
						750	927.8	28.0	.....	52	19.66	ese.	7.4	.....	
						1,000	902.0	26.1	.....	54	18.26	se.	6.7	.....	Thunderstorm forming to ssw. of station.
						1,250	876.9	24.3	.....	56	17.02	se.	5.9	0	
						1,500	852.2	22.4	.....	57	15.44	sse.	5.1	730	
						1,750	827.7	20.5	.....	59	14.23	s.	4.3	.....	
6:32	965.6	29.7	50	se.	6.3	1,957	807.8	19.0	0.65	60	13.18	s.	3.6	.....	
						1,750	827.7	20.1	.....	59	13.88	s.	4.7	.....	
						1,500	852.2	21.5	.....	58	14.88	sse.	6.1	.....	
						1,250	876.9	22.9	.....	57	15.92	se.	7.5	0	
						1,000	902.0	24.2	.....	56	16.91	se.	8.8	.....	
						750	927.8	25.6	.....	54	17.73	ese.	10.2	.....	
6:52	965.8	29.1	53	ese.	6.3	661	937.3	26.1	0.91	54	18.26	ese.	10.2	.....	Thunder in ssw.
						500	954.4	27.5	.....	54	19.83	se.	7.8	.....	
7:00	965.9	28.5	53	se.	6.3	396	965.9	28.5	.....	53	20.63	se.	6.3	.....	3/10 A.Cu., w.; 5/10 St.Cu., w.; 1/10 Cu.Nb., w.

August 18, 1918.

A. M.															
7:08	970.0	21.3	92	se.	5.8	396	970.0	21.3	.....	92	23.30	se.	5.8	.....	10/10 St.Cu., s.
						500	958.3	20.3	.....	91	21.68	se.	10.5	.....	
7:12	970.0	21.4	91	se.	10.3	607	946.6	19.3	0.95	90	20.15	se.	15.4	0	
7:22	970.2	21.5	90	se.	10.7	741	932.3	23.0	−2.76	61	17.14	se.	7.4	380	
						750	931.7	23.0	.....	61	17.14	se.	7.4	0	
						1,000	905.6	22.6	.....	59	16.18	se.	8.6	860	6/10 A.Cu., sw.; 4/10 St. Cu., ssw.
						1,250	879.6	22.3	.....	56	15.08	se.	9.7	.....	Threatening condition sw. of station.
8:19	970.8	22.4	86	se.	14.3	1,370	868.1	22.1	0.14	55	14.63	se.	10.3	730	
						1,500	854.4	20.9	.....	58	14.34	se.	9.9	.....	
						1,750	829.9	18.6	.....	63	13.50	sse.	9.0	.....	
						2,000	806.1	16.3	.....	69	12.79	s.	8.2	1,430	
8:27	970.9	22.7	85	sse.	13.9	2,227	785.5	14.2	0.82	74	11.98	ssw.	7.4	.....	4/10 A.Cu., sw.; 5/10 St.Cu., ssw.
						2,000	806.1	15.8	.....	70	12.56	ssw.	7.4	.....	Rain from 8:47 to 8:55 a. m.
						1,750	829.9	17.7	.....	66	13.36	ssw.	7.5	1,100	
						1,500	854.4	19.5	.....	62	14.06	ssw.	7.5	.....	
						1,250	879.6	21.3	.....	58	14.69	s.	7.6	.....	
						1,000	905.6	23.2	.....	53	15.07	s.	7.6	950	
8:52	971.2	23.0	84	sse.	10.7	980	908.0	23.3	−1.43	53	15.16	s.	7.6	.....	
						750	932.4	20.0	.....	83	19.41	se.	12.4	.....	
8:57	971.3	23.1	83	se.	4.5	715	936.2	19.5	1.29	88	19.95	se.	13.1	.....	
						500	959.6	22.3	.....	84	22.62	se.	7.0	0	
9:07	971.5	23.6	82	se.	4.0	396	971.5	23.6	.....	82	23.89	se.	4.0	.....	4/10 A.Cu., sw.; 5/10 St.Cu., ssw.

August 19, 1918.

A. M.															
7:10	972.5	20.7	95	se.	5.4	396	972.5	20.7	.....	95	23.20	se.	5.4	.....	9/10 A.Cu., wsw.; 1/10 St., se.
7:11	972.5	20.7	95	se.	5.4	505	960.4	20.2	0.47	94	22.26	se.	15.1	.....	Altitude of St. base about 550 m.
7:15	972.6	20.7	95	se.	5.8	649	944.8	21.5	−0.90	69	17.70	se.	10.7	950	
						750	934.2	21.2	.....	69	17.37	se.	9.6	1,170	
						1,000	907.8	20.3	.....	67	15.96	se.	6.9	1,280	10/10 St., se.
8:16	973.4	21.2	91	se.	4.5	1,040	903.7	20.2	0.33	67	15.87	se.	6.5	2,000	
8:43	973.5	21.4	89	se.	4.9	1,100	897.5	20.0	0.33	68	15.90	se.	6.1	.....	
						1,250	882.2	19.2	.....	68	15.13	se.	6.4	.....	
						1,500	857.1	17.8	.....	67	13.65	sse.	7.0	2,300	
						1,750	832.7	16.4	.....	67	12.50	s.	7.5	.....	
						2,000	808.5	15.0	.....	66	11.25	s.	8.1	1,800	
9:07	973.6	21.0	91	se.	4.0	2,142	794.7	14.2	0.62	66	10.69	ssw.	8.4	.....	Altitude of St. base about 600 m.
						2,000	808.5	15.2	.....	65	11.23	ssw.	8.6	.....	
						1,750	832.7	16.8	.....	64	12.24	ssw.	8.9	1,390	
						1,500	857.1	18.5	.....	62	13.21	s.	9.2	.....	
9:41	973.6	22.3	86	se.	4.0	1,365	870.2	19.4	−0.22	61	13.74	s.	9.4	.....	
						1,250	882.2	19.2	.....	70	15.58	s.	10.4	.....	
9:47	973.6	22.7	83	se.	3.6	1,041	903.7	18.7	0.83	86	18.55	sse.	12.3	680	
						1,000	907.8	19.0	.....	85	18.67	sse.	12.1	.....	
9:55	973.6	23.0	82	se.	3.1	896	919.0	19.9	−0.53	81	18.82	se.	11.5	.....	
						750	934.2	19.1	.....	88	19.46	se.	9.8	.....	
10:01	973.6	22.7	82	se.	3.6	669	943.5	18.7	1.72	92	19.84	se.	8.8	0	3/10 A.Cu., wsw.; 7/10 St.Cu., se.
						500	961.8	21.6	.....	82	21.16	se.	5.3	.....	
10:08	973.6	23.4	76	se.	3.1	396	973.6	23.4	.....	76	21.87	se.	3.1	.....	5/10 A.Cu., wsw.; 2/10 St.Cu., es.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918*—Continued.

August 20, 1918.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
10:48	971.3	25.6	78	s.	4.9	396	971.3	25.6	.....	78	25.62	s.	4.9	.....	10/10 St.Cu., wsw.
						500	959.8	24.6	.....	79	24.44	s.	5.7	.....	
11:13	971.2	26.2	74	s.	5.4	740	933.9	22.3	0.96	81	21.81	s.	7.4	.....	
						750	932.8	22.5	.....	79	21.54	s.	7.6	.....	
11:16	971.2	26.5	72	s.	5.4	921	914.7	25.1	− 1.56	50	15.94	s.	10.2	0	
						1,000	906.4	25.0	.....	49	15.52	s.	10.5	.....	
						1,250	880.7	24.5	.....	45	13.84	ssw.	11.3	.....	
11:27	971.1	26.2	71	s.	4.9	1,411	864.9	24.2	0.18	43	12.99	ssw.	11.9	.....	
						1,500	855.9	24.1	.....	43	12.91	ssw.	11.9	.....	
						1,750	831.8	21.1	.....	46	11.51	ssw.	11.9	1,280	
						2,000	807.8	18.8	.....	48	10.42	ssw.	11.8	.....	
11:48	971.0	27.0	71	s.	4.5	2,109	798.0	17.8	0.92	49	9.99	ssw.	11.8	1,600	8/10 St.Cu., wsw.
						2,250	784.4	16.7	.....	51	9.70	ssw.	11.1	.....	
						2,500	761.7	14.7	.....	55	9.20	ssw.	9.9	1,800	
						2,750	739.8	12.7	.....	60	8.81	sw.	8.7	2,600	
						3,000	718.4	10.7	.....	64	8.24	sw.	7.5	.....	7/10 St. Cu., w.
						3,250	697.2	8.7	.....	68	7.65	sw.	6.4	.....	
P. M.															
1:05	970.3	32.6	55	sse.	4.9	3,262	696.1	8.6	0.81	68	7.60	sw.	6.3	.....	
						3,250	697.2	8.7	.....	68	7.65	sw.	6.3	.....	6/10 St. Cu., w.
						3,000	718.4	10.7	.....	65	8.37	sw.	7.0	1,900	
						2,750	739.8	12.8	.....	61	9.02	sw.	7.6	.....	
						2,500	761.7	14.8	.....	58	9.76	sw.	8.3	.....	
1:26	970.1	32.8	52	s.	5.4	2,274	782.5	16.7	0.71	55	10.46	sw.	8.9	1,400	4/10 St. Cu., w.
						2,250	784.4	16.9	.....	55	10.59	sw.	8.9	.....	
						2,000	807.8	18.6	.....	52	11.14	ssw.	8.8	.....	
						1,750	831.8	20.4	.....	48	11.51	ssw.	8.8	1,170	
						1,500	855.9	22.2	.....	45	12.05	s.	8.7	.....	
1:52	970.0	32.7	50	s.	5.4	1,334	872.3	23.4	0.48	43	12.38	s.	8.7	.....	1/10 A.Cu., w.; 3/10 St. Cu., wsw.
						1,250	880.7	23.8	.....	47	13.86	s.	8.8	.....	
						1,000	905.9	25.0	.....	58	18.37	s.	9.2	.....	
1:59	969.9	33.0	48	s.	4.9	917	914.7	25.4	0.90	62	20.12	s.	9.3	0	
						750	931.8	26.9	.....	61	21.62	s.	8.1	.....	
2:05	969.9	32.5	50	s.	3.6	550	953.4	28.7	2.60	60	23.63	s.	6.6	.....	
						500	958.0	30.0	.....	57	24.19	s.	5.8	.....	
2:15	969.7	32.7	51	s.	4.0	396	969.7	32.7	.....	51	25.23	s.	4.0	.....	3/10 A.Cu., w.; 3/10 St.Cu., wsw.

August 21, 1918, series (No. 1).

A. M.															
6:50	968.6	24.5	72	s.	3.6	396	968.6	24.5	.....	72	22.14	s.	3.6	.....	3/10 Cu., sw.
						500	957.0	25 5	.....	66	21 54	s.	7.4	.....	
						750	930.2	27.9	.....	52	19.55	sw.	16.4	0	
7:02	968.6	24.5	72	s.	3.6	818	923.5	28.6	−0.97	48	18.79	sw.	18.9	.....	
						1,000	904.3	27.7	.....	46	17.09	sw.	22.5	.....	
7:07	968.6	24.6	71	s.	2.2	1,064	898.2	27.4	0.49	45	16.43	sw.	23.8	.....	
						1,250	879.3	25.7	.....	49	16.18	sw.	21.9	490	1000 27.7
						1,500	854.8	23.5	.....	54	15.64	sw.	19.4	.....	
7:19	968.6	25.2	71	s.	3.1	1,716	834.1	21.6	0.89	59	15.22	sw.	17.2	1,500	3/10 Cu., sw.
						1,750	830.8	21.4	.....	59	15.04	sw.	16.9	.....	
						2,000	806.7	19.8	.....	56	12.94	sw.	14.5	.....	
						2,250	784.0	18.2	.....	53	11.08	sw.	12.1	.....	
7:44	968.6	25.6	70	s.	3.1	2,268	782.4	18.1	0.63	53	11.01	sw.	11.9	2,100	
						2,500	761.4	16.2	.....	56	10.32	sw.	11.8	.....	
						2,750	739.3	14.1	.....	60	9.65	sw.	11.7	2,500	
						3,000	717.7	12.0	.....	63	8.84	sw.	11.5	.....	
8:14	968.6	26.0	68	s.	3.6	3,045	714.1	11.6	0.84	64	8.74	sw.	11.5	3,000	4/10 Cu., sw.
						3,250	696.8	9.8	.....	66	8.00	sw.	11.1	2,800	
						3,500	676.3	7.6	.....	68	7.10	sw.	10.6	.....	
						3,750	656.2	5.4	.....	70	6.28	sw.	10.2	.....	
8:49	968.6	27.3	64	s.	4.0	3,782	653.1	5.1	0.86	70	6.15	sw.	10.1	.....	
						3,750	656.2	5.4	.....	70	6.28	sw.	10.2	.....	
						3,500	676.3	7.5	.....	67	6.95	sw.	10.7	.....	
						3,250	696.8	9.6	.....	64	7.65	sw.	11.2	.....	
						3,000	717.7	11.8	.....	61	8.44	sw.	11.6	.....	
						2,750	739.3	13.9	.....	59	9.37	sw.	12.1	.....	
						2,500	761.4	16.0	.....	56	10.18	sw.	12.6	.....	7/10 Cu., sw.
9:19	968.5	28.9	58	s.	4.5	2,317	777.8	17.6	0.84	54	10.87	sw.	13.0	1,400	
						2,250	784.0	18.2	.....	53	11.08	sw.	13.3	.....	
						2,000	806.7	20.3	.....	51	12.15	sw.	14.2	.....	
						1,750	830.8	22.4	.....	49	13.27	ssw.	15.2	1,390	
						1,500	854.8	24.5	.....	47	14.45	ssw.	16.2	.....	
9:42	968.3	29.3	56	s.	4.0	1,246	879.6	26.6	−0.43	45	15.67	ssw.	17.2	0	
						1,000	904.3	25.5	.....	55	17.95	s.	11.3	.....	
9:51	968.3	29.5	56	se.	4.9	778	927.4	24.6	1.54	64	19.80	sse.	5.9	.....	
						750	930.2	25.0	.....	63	19.96	sse.	5.8	.....	
						500	957.0	28.9	.....	58	23.11	se.	4.5	.....	
10:04	968.2	30.5	56	ese.	4.0	396	968.2	30.5	.....	56	24.46	ese.	4.0	.....	3/10 Cu., sw.

August 21, 1918, series (No. 2).

A. M.															
10:49	967.7	31.5	54	se.	7.6	396	967.7	31.5	.....	54	24.97	se.	7.6	.....	3/10 Cu., sw.
						500	956.2	30.1	.....	56	23.91	se.	8.4	.....	
						750	929.9	26.8	.....	62	21.85	sse.	10.2	0	
11:02	967.7	31.9	54	sse.	8.0	944	909.7	24.2	1.33	66	19.93	sse.	11.6	.....	
						1,000	904.0	24.4	.....	63	19.26	sse.	12.1	.....	
						1,250	878.0	25.2	.....	50	16.03	ssw.	14.5	950	
11:10	967.5	32.0	54	e.	7.6	1,290	873.4	25.4	− 0.34	48	15.58	ssw.	15.0	.....	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918*—Continued.

August 21, 1918, series (No. 2)—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
						1,500	853.3	24.0		46	13.76	ssw.	14.4		Few Ci., wsw.; few A. Cu., sw.
						1,750	829.5	22.2		44	11.78	sw.	13.6		
11:24	967.3	32.1	52	se.	7.6	1,896	815.7	21.2	0.70	43	10.83	sw.	13.2	1,300	
						2,000	806.0	20.3		44	10.48	sw.	13.4		
						2,250	782.2	18.1		47	9.76	sw.	13.8		
						2,500	759.7	15.9		50	9.04	sw.	14.2	2,200	
						2,750	737.7	13.6		53	8.26	sw.	14.7		
						3,000	716.4	11.4		56	7.55	sw.	15.1		
11:47	967.1	33.0	51	se.	8.9	3,129	705.6	10.3	0.88	58	7.27	sw.	15.3	3,100	
						3,250	695.5	9.3		59	6.91	sw.	14.9		
						3,500	674.9	7.3		62	6.34	sw.	14.2	3,400	Few A.Cu., sw.
						3,750	654.8	5.3		66	5.88	sw.	13.5		
P. M.															
12:22	966.6	33.4	50	se.	8.9	3,872	644.7	4.3	0.85	67	5.57	sw.	13.1		
						3,750	654.8	5.4		66	5.92	sw.	12.9		
						3,500	674.9	7.6		63	6.58	sw.	12.6		
						3,250	695.5	9.8		60	7.27	ssw.	12.3	1,500	
						3,000	716.4	12.1		58	8.19	ssw.	11.9		
12:45	966.4	34.5	46	se.	8.5	2,762	736.6	14.2	0.75	55	8.90	ssw.	11.6		
						2,750	737.7	14.3		55	8.96	ssw.	11.6		
						2,500	759.7	16.2		53	9.76	ssw.	12.3	1,700	
						2,250	782.0	18.0		51	10.53	ssw.	12.9		
						2,000	805.1	19.9		49	11.39	s.	13.5		
						1,750	828.9	21.8		47	12.28	s.	14.2	680	
1:10	966.2	33.5	48	sse.	8.9	1,695	834.0	22.2	− 0.04	47	12.58	s.	14.3		
						1,500	853.3	22.1		53	14.10	sse.	14.6		
1:15	966.1	33.7	47	s.	8.9	1,444	858.6	22.1	0.99	67	17.82	sse.	14.7		
						1,250	878.0	24.0		64	19.10	sse.	14.5		
						1,000	903.3	26.5		60	20.78	se.	14.2	0	
1:34	966.0	35.1	42	sse.	8.0	787	925.0	28.6	1.69	56	21.92	se.	13.9		
						750	928.8	29.2		55	22.29	se.	13.6		
						500	955.0	33.4		47	24.19	sse.	11.3		
1:45	966.0	35.2	44	s.	10.3	396	966.0	35.2		44	25.02	s.	10.3		Few Ci.St., wsw.; few Cu., sw.

August 21, 1918, series (No. 3).

P. M.															
2:30	965.5	35.1	44	se.	8.9	396	965.5	35.1		44	24.89	se.	8.9		Few Ci.St., wsw.; few A.Cu., sw.; few Cu., sw.
						500	954.7	33.3		47	24.05	se.	11.4		
2:34	965.5	35.0	44	sse.	10.7	702	933.3	29.8	1.73	52	21.82	sse.	16.4		
						750	928.4	29.4		53	21.73	sse.	16.7		
						1,000	902.4	27.1		58	20.80	sse.	18.1		
						1,250	877.0	24.9		63	19.84	s.	19.5	0	
2:52	965.3	34 8	44	s.	10.3	1,479	854.6	22.8	0.90	68	18.88	s.	20.8		
						1,500	852.3	22.7		67	18.49	s.	20.8		
						1,750	828.0	21.3		61	15.45	ssw.	20.5	620	
						2,000	804.5	20.0		54	12.63	ssw.	20.2		
						2,250	781.3	18.6		48	10.29	sw.	19.9		
3:10	965.1	35.2	43	s.	8.9	2,399	768.2	17.8	0.54	44	8.97	sw.	19.7	1,280	
						2,500	758.8	16.9		46	8.85	sw.	19.6		
						2,750	736.8	14.6		49	8.14	sw.	19.4	1,700	Few Ci.St., wsw.; few Cu., sw.
						3,000	715.6	12.2		53	7.53	sw.	19.1		
						3,250	694.4	9.9		57	6.95	sw.	18.9	2,500	
3:55	964.6	35.4	43	sse.	10.3	3,301	685.0	8.9	0.91	59	6.73	sw.	18.8		
						3,250	694.4	9.9		58	7.08	sw.	18.6		
						3,000	715.6	12.1		55	7.77	sw.	18.0	1,800	
						2,750	736.8	14.3		53	8.64	ssw.	17.5		
						2,500	758.8	16.6		50	9.44	ssw.	16.9		
4:27	964.5	35.0	42	s.	11.6	2,303	776.4	18.3	0.66	48	10.09	ssw.	16.5	1,100	
						2,250	781.3	18.7		48	10.35	ssw.	16.8		
						2,000	804.5	20.3		47	11.20	ssw.	18.4		
						1,750	828.0	21.9		47	12.35	ssw.	20.0	590	
						1,500	852.3	23.6		46	13.40	s.	21.6		
						1,250	877.0	25.2		46	14.75	s.	23.2		
4:54	964.5	34.7	44	s.	8.9	1,161	885.3	25.8	1.00	46	15.29	s.	23.8	0	
						1,000	902.2	27.4		45	16.43	s.	23.0		
						750	927.2	29.9		45	18.99	sse.	21.8		
5:10	964.5	34.6	42	s.	9.4	680	934.5	30.6	1.34	45	19.77	sse.	21.5		
						500	953.2	33.0		44	22.14	s.	13.8		
5:17	964.5	34.4	44	s.	9.4	396	964.5	34.4		44	23.94	s.	9.4		1/10 Cu., sw.

August 21, 1918, series (No. 4).

P. M.															
6:12	964.5	33.3	44	sse.	8.5	396	964.5	33.3		44	22.51	sse.	8.5		2/10 Cu., sw.; thunder in nw. at 6:04 p. m. from storm about 8 m. away.
						500	953.2	32.5		44	21.53	sse.	13.6		
6:15	964.5	33.2	43	sse.	6.3	693	933.1	30.9	0.81	43	19.22	sse.	23.0		
						750	927.2	30.4		44	19.11	sse.	22.8		
						1,000	901.7	28.1		46	17.49	sse.	21.8	0	
						1,250	876.3	25.8		49	16.28	s.	20.8		
						1,500	851.8	23.5		52	15.06	s.	19.8		1/10 Cu., sw.
6:57	964.5	32.0	47	s.	8.0	1,586	843.3	22.7	0.92	53	14.62	s.	19.5	950	
						1,750	827.3	21.8		49	12.80	s.	20.5	1,500	
						2,000	803.9	20.5		42	10.13	ssw.	22.0		
						2,250	780.8	19.1		38	8.40	ssw.	23.4	2,000	
7:26	964.8	31.4	47	s.	7.6	2,345	772.5	18.6	0.54	36	7.71	ssw.	24.0	2,200	1/10 Cu., sw.
						2,500	758.5	17.1		40	7.80	ssw.	22.4		
						2,750	736.9	14.6		46	7.65	ssw.	19.7	2,700	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918*—Continued.

August 21, 1918, series (No. 4)—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
7:52	965.1	31.0	48	s.	7.2	2,856	728.1	13.6	0.94	48	7.48	ssw.	18.6	.....	Lightning in wnw from 7.50 p. m. to end of flight.
.....	.....	.....	.....	.....	.....	2,750	736.9	14.6	.....	46	7.65	ssw.	18.6	.....	
.....	.....	.....	.....	.....	.....	2,500	759.2	16.8	.....	42	8.03	ssw.	18.7	.....	
.....	.....	.....	.....	.....	.....	2,250	782.0	19.1	.....	39	8.62	ssw.	18.8	2,200	2/10 Cu., sw.
8:15	965.3	30.5	51	s.	6.7	2,082	797.3	20.6	0.58	36	8.74	ssw.	18.8	.....	
.....	.....	.....	.....	.....	.....	2,000	805.2	21.1	.....	37	9.26	ssw.	19.8	.....	
.....	.....	.....	.....	.....	.....	1,750	828.8	22.5	.....	41	11.18	ssw.	22.7	1,900	
.....	.....	.....	.....	.....	.....	1,500	853.2	24.0	.....	45	13.43	s.	25.6	.....	
.....	.....	.....	.....	.....	.....	1,250	877.8	25.4	.....	49	15.90	s.	28.7	.....	
8:49	965.4	30.1	53	s.	7.6	1,221	880.2	25.6	0.95	49	16.09	s.	29.0	.....	
.....	.....	.....	.....	.....	.....	1,000	902.4	27.7	.....	49	18.20	s.	29.4	.....	
.....	.....	.....	.....	.....	.....	750	927.7	30.1	.....	48	20.49	s.	29.9	330	
9:06	965.5	29.9	53	s.	6.7	714	931.8	30.4	−0.16	48	20.85	s.	30.0	0	
.....	.....	.....	.....	.....	.....	500	954.4	30.1	.....	51	21.77	s.	14.0	.....	
9:16	965.5	29.9	53	s.	6.3	396	965.5	29.9	.....	53	22.37	s.	6.3	.....	Few Cu., sw.

August 21–22, 1918, series (No. 5).

P. M.															
10:16	965.5	29.2	53	s.	7.2	396	965.5	29.2	.....	53	21.48	s.	7.2	.....	1/10 A.Cu., wsw.; few Cu., sw.
.....	.....	.....	.....	.....	.....	500	954.2	29.1	.....	52	20.96	s.	10.7	.....	
.....	.....	.....	.....	.....	.....	750	928.2	28.7	.....	49	19.30	s.	19.3	.....	
10:21	965.5	29.3	52	s.	6.7	900	912.4	28.5	0.14	47	18.29	s.	24.4	.....	
.....	.....	.....	.....	.....	.....	1,000	902.3	27.8	.....	47	17.56	s.	23.6	.....	
.....	.....	.....	.....	.....	.....	1,250	877.0	26.1	.....	47	15.90	s.	21.5	0	
.....	.....	.....	.....	.....	.....	1,500	852.3	24.4	.....	47	14.37	ssw.	19.4	1,010	
11:18	965.5	29.2	51	s.	6.7	1,662	836.7	23.3	0.68	47	13.45	ssw.	18.0	.....	
.....	.....	.....	.....	.....	.....	1,750	828.0	22.6	.....	47	12.89	ssw.	17.5	.....	
.....	.....	.....	.....	.....	.....	2,000	804.5	20.7	.....	49	11.97	ssw.	15.9	2,000	
.....	.....	.....	.....	.....	.....	2,250	781.3	18.9	.....	50	10.92	ssw.	14.4	.....	
11:36	965.5	29.2	51	s.	8.0	2,297	777.6	18.5	0.70	50	10.65	ssw.	14.1	.....	1/10 A.Cu., wsw.; few Cu., sw.
.....	.....	.....	.....	.....	.....	2,250	781.3	18.8	.....	50	10.85	ssw.	14.7	.....	
.....	.....	.....	.....	.....	.....	2,000	804.5	20.4	.....	49	11.75	ssw.	17.7	2,200	
.....	.....	.....	.....	.....	.....	1,750	828.0	22.1	.....	48	12.77	ssw.	20.7	.....	
A. M.															
12:16	965.6	29.0	51	s.	8.0	1,686	834.2	22.5	0.58	48	13.08	ssw.	21.5	.....	
.....	.....	.....	.....	.....	.....	1,500	852.3	23.6	.....	48	13.98	ssw.	21.9	.....	
.....	.....	.....	.....	.....	.....	1,250	877.0	25.0	.....	48	15.21	s.	22.5	0	
.....	.....	.....	.....	.....	.....	1,000	902.3	26.5	.....	48	16.62	s.	23.1	.....	
12:41	965.8	28.7	52	s.	8.0	888	913.7	27.1	0.28	48	17.22	s.	23.4	.....	
.....	.....	.....	.....	.....	.....	750	928.2	27.5	.....	49	17.99	s.	18.8	.....	
.....	.....	.....	.....	.....	.....	500	954.8	27.9	.....	50	18.80	s.	13.9	.....	
12:50	965.8	28.5	52	s.	7.2	396	965.8	28.5	.....	52	20.24	s.	7.2	.....	1/10 A.Cu., wsw.; few Cu., sw.

August 22, 1918, series (No. 6).

A. M.															
1:44	965.9	27.8	54	ssw.	10.7	396	965.9	27.8	.....	54	20.18	ssw.	10.7	.....	1/10 A.Cu., wsw.; few Cu., sw.
.....	.....	.....	.....	.....	.....	500	954.3	27.4	.....	54	19.72	ssw.	15.5	.....	
1:48	965.9	27.6	54	ssw.	8.5	699	933.3	26.5	0.43	54	18.70	ssw.	24.8	.....	
.....	.....	.....	.....	.....	.....	750	927.8	26.4	.....	54	18.59	ssw.	24.9	0	
.....	.....	.....	.....	.....	.....	1,000	902.2	25.6	.....	54	17.63	ssw.	25.5	.....	
.....	.....	.....	.....	.....	.....	1,250	876.9	24.9	.....	53	16.70	ssw.	26.1	.....	
.....	.....	.....	.....	.....	.....	1,500	852.2	24.2	.....	53	16.01	ssw.	26.7	.....	
2:01	965.9	27.5	56	ssw.	7.6	1,605	842.1	23.9	0.29	53	15.72	ssw.	27.0	2,000	
.....	.....	.....	.....	.....	.....	1,750	828.0	22.7	.....	54	14.90	ssw.	26.3	.....	
.....	.....	.....	.....	.....	.....	2,000	804.5	20.6	.....	54	13.11	ssw.	25.2	.....	
.....	.....	.....	.....	.....	.....	2,250	781.5	18.6	.....	55	11.79	sw.	24.0	3,400	
2:41	965.9	27.0	59	ssw.	8.0	2,418	766.6	17.2	0.84	56	10.99	sw.	23.2	3,700	1/10 A.Cu., wsw.; few Cu., sw.
.....	.....	.....	.....	.....	.....	2,250	781.8	18.8	.....	55	11.79	sw.	22.8	3,500	
.....	.....	.....	.....	.....	.....	2,000	804.5	20.8	.....	54	13.27	sw.	22.3	.....	
.....	.....	.....	.....	.....	.....	1,750	828.0	22.9	.....	52	14.52	sw.	21.8	2,000	
.....	.....	.....	.....	.....	.....	1,500	852.2	25.1	.....	51	16.25	sw.	21.2	.....	
3:30	965.9	27.0	59	sw.	6.3	1,390	863.0	26.0	−0.50	50	16.81	sw.	21.0	.....	
.....	.....	.....	.....	.....	.....	1,250	876.9	25.9	.....	52	17.38	sw.	22.2	.....	
.....	.....	.....	.....	.....	.....	1,000	902.2	25.8	.....	55	18.28	sw.	24.4	.....	
3:47	965.9	26.9	60	sw.	6.7	785	924.3	25.7	0.26	57	18.83	sw.	26.2	.....	
.....	.....	.....	.....	.....	.....	750	927.8	25.8	.....	57	18.94	sw.	24.4	0	
.....	.....	.....	.....	.....	.....	500	954.3	26.4	.....	59	20.31	sw.	11.6	.....	
3:56	965.9	26.7	60	sw.	6.3	396	965.9	26.7	.....	60	21.02	sw.	6.3	.....	1/10 A.Cu., wsw.; few Cu., sw.

August 22, 1918, series (No. 7).

A. M.															
5:01	965.9	25.9	64	ssw.	5.4	396	965.9	25.9	.....	64	21.39	ssw.	5.4	.....	2/10 Cu., sw.
.....	.....	.....	.....	.....	.....	500	954.4	26.0	.....	61	20.51	ssw.	10.4	.....	
5:08	966.0	25.8	64	ssw.	5.4	656	937.9	26.1	−0.08	57	19.28	sw.	18.0	0	
.....	.....	.....	.....	.....	.....	750	928.2	26.5	.....	55	19.05	sw.	18.0	.....	
5:15	966.1	25.9	64	ssw.	6.3	977	904.6	27.3	−0.37	49	17.79	wsw.	18.1	.....	
.....	.....	.....	.....	.....	.....	1,000	902.2	27.1	.....	49	17.58	wsw.	17.8	.....	
.....	.....	.....	.....	.....	.....	1,250	877.0	25.1	.....	47	14.98	w.	15.1	780	
.....	.....	.....	.....	.....	.....	1,500	852.7	23.1	.....	46	13.00	wnw.	12.3	.....	
5:41	966.3	25.4	64	sw.	6.3	1,612	841.5	22.2	0.80	45	12.05	wnw.	11.1	1,500	
.....	.....	.....	.....	.....	.....	1,750	828.7	20.5	.....	48	11.58	wnw.	9.1	.....	4/10 Cu., sw.
6:42	966.8	26.1	64	sw.	4.5	1,836	820.7	19.4	1.25	50	11.26	wnw.	7.8	2,200	
.....	.....	.....	.....	.....	.....	2,000	805.3	18.4	.....	51	10.79	wnw.	8.1	.....	
.....	.....	.....	.....	.....	.....	2,250	782.8	16.9	.....	52	10.01	w.	8.5	2,200	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918*—Continued.

August 22, 1918, series (No. 7)—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
						2,500	760.6	15.4		54	9.45	w.	8.9		
						2,750	738.1	13.8		55	8.68	w.	9.3		
						3,000	716.4	12.3		57	8.16	wsw.	9.7		
						3,250	695.0	10.8		59	7.64	wsw.	10.1		
6:55	966.9	26.2	64	sw.	4.5	3,332	688.1	10.3	0.61	59	7.39	wsw.	10.2		
						3,500	674.0	8.6		62	6.93	wsw.	11.3	5,000	
						3,750	653.8	6.0		68	6.36	sw.	12.9	5,200	
7:07	966.9	26.1	65	sw.	4.0	3,911	640.9	4.3	0.94	71	5.90	sw.	13.9		
						3,750	653.8	5.6		69	6.28	sw.	14.2		
						3,500	673.5	7.7		66	6.94	sw.	14.6		Few Cu., sw.
						3,250	694.0	9.8		64	7.76	sw.	15.1	3,900	
						3,000	715.0	11.9		61	8.50	wsw.	15.6		
						2,750	736.8	14.0		58	9.27	wsw.	16.0		
						2,500	759.0	16.1		55	10.07	wsw.	16.5		
7:42	967.1	25.7	64	nw.	4.5	2,483	760.1	16.2	0.60	55	10.13	wsw.	16.5	2,500	
						2,250	781.5	17.6		53	10.67	wsw.	13.5		
						2,000	804.0	19.1		51	11.28	wsw.	10.4		
7:55	967.2	25.6	56	nnw.	5.8	1,886	814.7	19.8	0.27	50	11.55	wsw.	8.9		
						1,750	927.4	20.2		52	12.31	wsw.	8.6		
						1,500	851.4	20.8		56	13.76	w.	8.1		
						1,250	876.0	21.5		59	15.13	wnw.	7.5		
8:05	967.2	25.0	52	n.	4.9	1,148	887.1	21.8	−0.12	61	15.93	wnw.	7.3		
						1,000	902.2	21.6		59	15.22	nw.	8.0	0	
						750	928.2	21.3		54	13.68	nnw.	9.1		
8:23	967.2	24.6	43	n.	4.5	664	937.9	21.2	1.42	53	13.35	nnw.	9.5		
						500	954.4	23.5		47	13.61	nnw.	6.4		
8:29	967.2	25.0	43	nnw.	4.5	396	967.2	25.0		43	13.62	nnw.	4.5		1/10 Ci., sw.; 1/10 Cu., sw.

August 22, 1918, series (No. 8).

A. M.															
9:23	967.6	26.6	34	n.	4.5	396	967.6	26.6		34	11.84	n.	4.5		1/10 Ci., sw.; few Cu., sw.
						500	956.0	24.9		34	10.71	n.	6.9		
9:29	967.7	26.2	31	ne.	5.4	685	936.1	21.8	1.66	35	9.14	nne.	11.1		
						750	929.0	21.7		34	8.83	nne.	11.2		
						1,000	903.0	21.3		30	7.60	nne.	11.8		
9:42	967.9	26.8	30	nne.	6.3	1,060	896.7	21.2	0.16	29	7.30	nne.	11.9	0	Few C.St., sw.; 2/10 A.Cu., sw. 2/10 Cu., sw.
						1,250	877.5	20.7		32	7.81	nne.	9.0	680	
10:36	968.2	26.2	31	nne.	3.1	1,282	874.3	20.6	0.27	32	7.77	nne.	8.5	660	
						1,500	852.5	20.0		47	10.99	n.	5.2	0	1/10 ACu., sw.; 7/10 St.Cu., sw.
10:50	968.2	26.8	33	nne.	3.6	1,554	847.3	19.8	0.21	51	11.78	n.	4.4		
						1,500	852.5	19.9		48	11.16	n.	4.9		
						1,250	877.5	20.2		36	8.52	nne.	7.3		
11:16	968.3	26.8	32	nne.	3.6	1,173	885.5	20.3	0.54	32	7.62	nne.	8.0		
						1,000	903.0	21.2		34	8.56	nne.	9.1		
						750	929.0	22.6		37	10.15	nne.	10.7		
11:36	968.4	26.3	33	n.	4.5	692	936.1	22.9	1.18	38	10.61	nne.	11.1		2/10 St.Cu., sw.; 4/10 Cu., sw.
						500	956.9	25.2		35	11.22	n.	6.5		
11:45	968.5	26.4	34	n.	4.0	396	968.5	26.4		34	11.71	n.	4.0		

August 22, 1918, series (No. 9).

P. M.															
12:44	969.0	28.9	31	n.	2.2	396	969.0	28.9		31	12.35	n.	2.2		1/10 St.Cu., sw.; 5/10 Cu., sw.
						500	957.7	27.4		32	11.68	nnw.	4.0		
						750	930.8	23.7		35	10.26	nw.	8.4		
1:08	969.1	28.5	33	nnw.	6.3	793	926.3	23.1	1.46	35	9.89	nw.	9.2	0	9/10 St.Cu., sw.
						1,000	904.6	21.5		38	9.75	nw	8.8		Sprinkling rain from 1:27 to 1:50 p. m.
						1,250	878.7	19.5		41	9.29	nnw.	8.2		
1:35	968.8	26.2	37	nnw.	5.4	1,441	858.7	18.0	0.68	44	9.08	n.	7.8	0	
						1,250	878.7	19.1		43	9.51	n.	8.6		
						1,000	904.6	20.5		42	10.13	n.	9.5		
1:43	968.8	26.4	38	nnw.	4.0	861	918.5	21.3	1.16	42	10.64	n.	10.1	0	
						750	930.8	22.6		41	11.25	n.	8.8		
						500	957.7	25.5		39	12.73	n.	5.8		
1:58	968.6	26.7	38	n.	4.5	396	968.6	26.7		38	13.22	n.	4.5		9/10 St.Cu., sw.; sprinkling rain from 1:58 to 2:15 p. m.

August 23, 1918.

P. M.															
4:35	969.6	30.0	28	e.	4.5	396	969.6	30.0		28	11.88	e.	4.5		Few Ci.Cu., sw.; 2/10 A.Cu., sw.
						500	958.2	28.7		29	11.42	e.	4.7		
						750	931.1	25.6		32	10.51	ene.	5.3		
5:06	969.6	29.5	30	ese.	4.9	937	911.9	23.3	1.20	34	9.73	ene.	5.7	0	
						750	931.1	25.5		33	10.77	ene.	5.0		
						500	958.2	28.4		31	12.00	e.	4.0		
5:33	969.6	29.6	30	e.	3.6	396	969.6	29.6		30	12.44	e.	3.6		1/10 Ci.St., sw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918*—Continued.

August 24, 1918.

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
7:05	973.3	20.4	62	ne.	1.8	396	973.3	20.4	.....	62	14.86	ne.	1.8	.....	Few Ci.St., sw.
7:08	973.3	20.4	62	ne.	1.8	495	962.3	22.0	−1.62	54	14.28	ne.	7.4	0	
						750	934.3	21.5	.....	52	13.34	ne.	5.5	.....	
7:58	973.6	22.6	55	ne.	1.8	928	915.9	21.1	1.26	50	12.52	ne.	4.1	0	
						750	934.3	21.9	.....	51	13.40	ne.	3.3	.....	
						500	962.1	22.9	.....	52	14.52	ene.	2.2	.....	
8:09	973.6	23.4	52	ene.	1.8	396	973.6	23.4	.....	52	14.97	ene.	1.8	.....	Few Ci., sw.

August 25, 1918.

A. M.															
6:10	970.9	19.2	71	sw.	4.0	396	970.9	19.2	.....	71	15.80	sw.	4.0	.....	3/10 Ci.St., sw.
						500	958.9	21.8	.....	65	16.98	sw.	8.1	.....	
6:13	970.9	19.3	71	sw.	4.0	588	949.6	24.0	−2.50	59	17.61	sw.	11.6	.....	
						750	931.5	23.1	.....	56	15.83	sw.	10.4	.....	
						1,000	905.5	21.6	.....	51	13.16	wsw.	8.6	0	
7:05	970.9	21.2	61	wsw.	3.1	1,230	882.2	20.3	0.58	47	11.20	wsw.	7.0	620	
						1,250	880.0	20.1	.....	48	11.29	wsw.	6.9	.....	
8:35	970.7	24.2	53	w.	3.6	1,354	869.8	19.3	0.81	52	11.64	wsw.	6.1	760	
						1,500	855.0	18.1	.....	53	11.01	wsw.	6.4	680	Few Ci., sw.; few A.Cu., sw.
9:21	970.5	26.4	45	w.	4.9	1,625	842.8	17.0	0.85	54	10.47	wsw.	6.7	380	
						1,750	830.2	16.0	.....	55	10.00	wsw.	6.9	890	
						2,000	805.9	13.9	.....	56	8.89	wsw.	7.2	.....	
						2,250	782.3	12.9	.....	58	8.63	wsw.	7.6	.....	
						2,500	759.3	9.8	.....	60	7.27	w.	8.0	.....	
						2,750	736.4	7.8	.....	61	6.45	w.	8.3	.....	
						3,000	714.2	5.7	.....	63	5.77	w.	8.7	.....	
						3,250	691.8	3.7	.....	64	5.09	w.	9.1	2,000	
9:33	970.4	27.2	43	w.	4.9	3,342	683.0	2.9	0.80	65	4.89	w.	9.2	.....	
						3,250	691.8	3.6	.....	65	5.14	w.	9.3	.....	
						3,000	714.2	5.5	.....	64	5.78	w.	9.7	.....	
						2,750	736.4	7.5	.....	64	6.64	w.	10.0	.....	1/10 Ci.St., sw.
						2,500	759.3	9.4	.....	64	7.55	wsw.	10.3	.....	
						2,250	782.3	11.3	.....	63	8.44	wsw.	10.7	.....	
9:58	970.3	28.3	41	w.	4.5	2,147	792.0	12.1	0.89	63	8.90	wsw.	10.8	.....	
						2,000	805.9	13.4	.....	61	9.38	wsw.	10.7	.....	
						1,750	830.2	15.6	.....	57	10.10	wsw.	10.4	0	
						1,500	855.0	17.9	.....	53	10.87	wsw.	10.2	.....	
10:19	970.3	29.0	38	w.	4.9	1,373	867.4	19.0	0.84	51	11.20	wsw.	10.1	.....	
						1,250	880.0	20.0	.....	50	11.69	wsw.	9.4	.....	
						1,000	905.5	22.1	.....	49	13.03	wsw.	8.0	.....	
						750	931.5	24.2	.....	47	14.19	wsw.	6.6	.....	
10:36	970.3	29.0	38	wsw.	4.0	695	937.9	24.7	1.57	47	14.63	wsw.	6.3	.....	
						500	958.5	27.8	.....	40	14.95	sw.	5.7	.....	
10:44	970.3	29.4	37	sw.	5.4	396	970.3	29.4	.....	37	15.17	sw.	5.4	.....	1/10 Ci.St., sw.

August 26, 1918.

A. M.															
6:38	971.7	18.6	71	ne.	4.0	396	971.7	18.6	.....	71	15.22	ne.	4.0	.....	Cloudless.
						500	960.1	19.1	.....	64	14.15	ne.	8.6	.....	
6:41	971.8	18.6	71	ne.	4.0	706	937.4	20.0	−0.45	50	11.69	ne.	17.8	.....	
						750	932.8	20.4	.....	52	12.46	ne.	15.4	.....	
6:52	971.9	19.0	71	ne.	3.1	886	918.2	21.8	−1.00	58	15.15	ne.	8.1	.....	
						1,000	906.2	21.2	.....	58	14.60	nne.	7.5	0	
7:34	972.2	20.0	63	ne.	4.5	1,215	884.4	20.0	0.55	59	13.79	nnw.	6.3	0	
						1,250	880.5	19.7	.....	59	13.54	nnw.	6.3	810	
						1,500	855.3	17.6	.....	60	12.08	nnw.	6.5	.....	
						1,750	830.7	15.6	.....	61	10.81	nnw.	6.8	2,500	
						2,000	806.8	13.5	.....	62	9.59	nnw.	7.0	.....	
8:40	972.3	21.7	54	ne.	3.6	2,142	793.1	12.3	0.18	63	9.02	nnw.	7.1	.....	
						2,250	783.4	11.5	.....	60	8.14	nnw.	6.8	.....	
8:44	972.3	21.9	53	ne.	4.5	2,482	761.5	9.9	0.76	53	6.47	nw.	6.0	.....	
						2,250	783.4	11.8	.....	51	7.06	nw.	5.9	.....	
						2,000	806.8	13.8	.....	49	7.73	nw.	5.9	.....	
						1,750	830.7	15.8	.....	47	8.44	nnw.	5.8	.....	
						1,500	855.3	17.9	.....	45	9.23	nnw.	5.7	1,200	
9:33	972.5	23.2	47	ne.	4.5	1,386	867.2	18.8	0.00	44	9.55	nnw.	5.7	380	
10:31	972.4	25.3	45	ne.	3.1	1,290	877.0	18.8	0.06	31	6.73	n.	8.4	.....	
						1,250	880.5	18.8	.....	33	7.16	n.	8.2	.....	
						1,000	907.0	19.0	.....	48	10.55	nne.	6.8	0	
10:39	972.4	25.4	46	nne.	3.6	955	911.8	19.0	1.22	51	11.20	nne.	6.6	.....	
						750	933.7	21.5	.....	49	12.57	nne.	5.5	.....	
						500	961.3	24.5	.....	47	14.45	nne.	4.2	.....	
10:50	972.4	25.8	46	nne.	3.6	396	972.4	25.8	.....	46	15.29	nne.	3.6	.....	Cloudless.

August 27, 1918.

A. M.															
6:24	968.1	17.9	80	sse.	4.0	396	968.1	17.9	.....	80	16.41	sse.	4.0	.....	6/10 Ci., wnw.
						500	956.4	22.0	.....	72	19.04	s.	17.6	.....	
6:25	968.1	17.9	80	sse.	4.0	537	952.6	23.5	−3.98	69	19.98	s.	22.2	0	
						750	929.1	22.8	.....	63	17.49	ssw.	18.8	.....	
						1,000	903.0	21.9	.....	55	14.45	ssw.	14.8	.....	
						1,250	877.8	21.1	.....	48	12.01	sw.	10.8	2,100	
6:47	968.0	19.2	78	se.	4.0	1,384	864.2	20.6	0.34	44	10.68	sw.	8.6	3,000	
						1,500	852.8	19.8	.....	42	9.70	sw.	7.8	3,800	
						1,750	828.2	18.0	.....	38	7.84	sw.	5.9	.....	
8:18	967.3	23.8	69	sse.	6.3	1,783	825.0	17.8	0.70	38	7.74	sw.	5.7	4,000	5/10 Ci., wnw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918*—Continued.

August 27, 1918—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
						2,000	803.9	15.9		40	7.23	sw.	6.7		
						2,250	780.0	13.8		41	6.47	sw.	7.8		
						2,500	757.5	11.7		43	5.91	sw.	8.9		
						2,750	735.5	9.5		45	5.34	sw.	10.0		
8:24	967.2	24.2	67	sse.	5.8	2,860	726.0	8.6	0.85	46	5.14	sw.	10.5		
						3,000	713.8	8.3		40	4.38	sw.	9.6	3,500	
						3,250	692.2	7.8		30	3.17	wsw.	8.0		
8:37	966.9	25.4	63	sse.	5.8	3,277	690.0	7.7	0.36	29	3.04	wsw.	7.8		
						3,250	692.2	7.8		30	3.17	wsw.	7.8		
						3,000	713.8	9.1		37	4.28	wsw.	8.1	2,100	
						2,750	735.5	10.3		45	5.64	sw.	8.3		
						2,500	757.5	11.5		52	7.06	sw.	8.5		
8:52	966.6	26.2	59	s.	5.8	2,342	771.4	12.3	0.96	57	8.16	sw.	8.7		
						2,250	780.0	13.2		58	8.80	sw.	10.0		
9:02	966.5	26.7	58	s.	6.7	2,103	793.7	14.6	0.81	60	9.97	sw.	12.2		6/10 Ci.St., wnw.
						2,000	803.3	15.4		59	10.32	sw.	12.3		
						1,750	828.0	17.5		56	11.20	ssw.	12.4	2,400	
						1,500	852.8	19.5		54	12.24	ssw.	12.6		
						1,250	877.8	21.5		51	13.08	ssw.	12.7	1,400	
						1,000	903.0	23.6		48	13.98	s.	12.9		
9:34	966.2	27.5	54	s.	6.3	765	926.7	25.5	0.60	46	15.01	s.	13.0		
						750	928.2	25.6		46	15.11	s.	12.7	0	
						500	954.6	27.1		50	17.94	s.	7.6		
9:45	966.1	27.7	52	s.	5.4	396	966.1	27.7		52	19.32	s.	5.4		9/10 Ci.St., wnw.

August 28, 1918.

A. M.															
8:40	967.2	24.9	50	n.	3.6	396	967.2	24.9		50	15.75	n.	3.6		Threatening in wnw. 5/10 A.St., wnw.; 2/10 St.Cu., wsw.
						500	955.9	23.5		52	15.06	n.	6.0		
8:56	967.5	24.8	51	n.	3.1	694	935.0	20.8	1.38	57	14.00	n.	10.4	0	2/10 A.St., wnw.; 7/10 St.Cu., wsw.
						750	928.4	20.4		58	13.90	n.	10.7		
						1,000	902.1	18.7		62	13.37	n.	11.9	260	
						1,250	876.6	17.0		65	12.60	n.	13.2		
9:13	967.9	24.5	53	n.	4.5	1,416	860.0	15.8	0.69	68	12.21	n.	14.0		
						1,500	851.6	15.8		65	11.67	n.	13.2		
						1,750	827.0	15.8		56	10.05	n.	10.6	1,700	
9:45	968.6	23.9	54	n.	6.7	1,916	811.3	15.8	0.00	50	8.98	n.	8.9		1/10 A.St., wnw.; 9/10 St.Cu., wsw
						2,000	803.0	15.2		51	8.81	n.	7.9	1,600	Threatening conditions to west.
						2,250	780.0	13.3		54	8.25	n.	4.9		
9:56	968.8	23.8	54	n.	7.2	2,345	771.1	12.6	0.59	55	8.02	n.	3.7	10,000	
						2,250	780.0	13.0		55	8.24	n.	5.3		
						2,000	803.0	14.1		54	8.69	n.	9.7	5,300	Sprinkling rain began 10:13 a.m and continued at end of flight.
						1,750	827.0	15.2		53	9.15	n.	14.0		
10:18	969.0	22.6	52	n.	8.0	1,716	830.6	15.3	0.40	53	9.21	n.	14.6	8,000	
						1,500	851.6	16.2		54	9.85	n.	14.6		
						1,250	876.6	17.1		55	10.72	n.	14.6		
						1,000	902.7	18.1		56	11.63	n.	14.6		
						750	929.9	18.8		56	12.15	n.	14.6		
10:23	969.0	22.5	51	n.	7.6	634	942.7	19.6	1.09	57	13.00	n.	14.6	(*)	
						500	957.7	21.1		52	13.02	n.	11.4	(*)	
10:35	969.1	22.2	48	n.	8.9	396	969.1	22.2		48	12.85	n.	8.9		1/10 A.St., wnw.; 9/10 St.Cu., w.

August 29, 1918.

A. M.															
6:29	973.8	13.6	77	se.	4.0	396	973.8	13.6		77	12.00	se.	4.0		Cloudless.
						500	961.6	15.7		67	11.95	se.	9.9		Few A.Cu., wnw.
6:32	973.8	13.6	77	se.	4.0	587	952.1	17.4	—1.99	58	11.52	se.	14.8		
						750	933.8	16.5		59	11.07	se.	11.6	0	
						1,000	907.1	15.1		60	10.30	se.	6.8	2,000	
7:33	973.6	16.8	57	se.	5.4	1,050	901.9	14.8	0.56	60	10.10	se.	5.8	2,500	
8:11	973.2	18.7	48	se.	5.4	1,130	893.2	15.0	—0.25	55	9.38	se.	6.2	3,400	
						1,250	880.8	14.7		54	9.03	se.	5.9		
						1,500	855.2	14.0		52	8.31	se.	5.2		
						1,750	830.0	13.2		50	7.58	sse.	4.6		
8:17	973.2	19.0	48	se.	6.7	1,969	808.5	12.6	0.29	48	7.00	sse.	4.0		
						2,000	805.4	12.4		49	7.06	sse.	4.1		
						2,250	782.0	10.9		55	7.17	s.	4.7		
						2,500	759.3	9.3		61	7.15	ssw.	5.4		
8:27	973.2	19.5	49	se.	7.2	2,620	748.2	8.6	0.61	64	7.15	sw.	5.7		
						2,750	736.9	7.9		64	6.82	sw.	7.1		
						3,000	715.0	6.4		65	6.25	wsw.	9.9	7,700	
						3,250	693.6	5.0		65	5.67	wsw.	12.6		
						3,500	672.7	3.6		66	5.22	w.	15.4		
9:05	973.0	21.3	43	sse.	6.3	3,665	659.1	2.6	0.57	66	4.86	w.	17.2		
						3,750	652.2	2.0		65	4.59	w.	17.5		
						41000	632.2	0.4		62	3.90	w.	18.3		
9:13	972.9	21.0	43	sse.	7.2	4,126	622.5	—0.4	0.68	60	3.55	w.	18.7	11,000	
						4,000	632.2	0.5		61	3.86	w.	18.5		
						3,750	652.2	2.3		63	5.26	w.	18.2	8,800	
						3,500	672.7	4.0		65	5.28	wsw.	17.8		
9:42	972.7	22.5	40	sse.	5.8	3,349	685.6	5.1	0.78	66	5.80	wsw.	17.6		
						3,250	693.6	5.9		57	5.30	wsw.	16.6		
						3,000	715.2	7.8		56	5.92	wsw.	14.2		
9:51	972.7	23.0	39	sse.	6.7	2,798	733.2	9.4		50	5.90	wsw.	12.3	5,400	Few A.Cu., wnw.

* More than 10,000 volts.

NOTE.—Clock stopped at 10 a. m.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, August, 1918*—Continued.

August 30, 1918.

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
6:20	967.5	17.0	73	n.	3.1	396	967.5	17.0	.....	73	14.15	n.	3.1	.....	3/10 A.St., w.
						500	955.2	17.8	.....	73	14.88	n.	7.3	.....	
6:24	967.6	17.3	70	n.	3.1	668	937.3	19.0	−0.74	72	15.82	nne.	14.1	.....	
						750	928.0	18.6	.....	70	15.00	nne.	14.4	0	
						1,000	901.7	17.4	.....	64	12.72	nne.	15.2	.....	6/10 A.Cu., wnw.
6:37	967.9	17.5	70	n.	4.5	1,111	890.4	16.9	0.47	61	11.74	nne.	15.6	1,700	
						1,250	875.8	16.2	.....	67	12.34	nne.	14.7	.....	
						1,500	850.8	14.8	.....	77	12.96	n.	13.0	2,800	7/10 A.Cu., wnw.; 3/10 St.Cu., nw.
6:54	968.4	17.7	72	n.	5.4	1,674	833.8	13.9	0.53	84	13.34	nnw.	11.9	.....	
						1,750	826.0	13.2	.....	86	13.05	nnw.	11.3	.....	
						2,000	802.0	10.9	.....	93	12.13	nnw.	9.3	4,000	5/10 A.Cu.,wnw.; 5/10 St.Cu., nw.
7:10	968.8	17.9	72	nne.	3.6	2,198	783.5	9.1	0.92	98	11.33	nnw.	7.8	.....	Altitude of St.Cu. base about 2,400 m.
						2,250	778.5	8.7	.....	79	8.89	nnw.	8.1	5,100	
8:09	969.6	17.8	70	nne.	5.4	2,354	769.4	7.8	0.83	40	4.23	nw.	8.8	.....	2/10 A.St., w.; 8/10 St.Cu., nw.
						2,500	755.8	6.8	.....	42	4.15	nw.	8.5	4,000	Lightning to ssw.
						2,750	733.8	5.0	.....	46	4.01	nw.	8.0	(*)	
						3,000	711.4	3.2	.....	50	3.84	wnw.	7.5	.....	
						3,250	689.0	1.4	.....	54	3.65	wnw.	7.0	(*)	
8:18	969.7	17.7	69	nne.	4.9	3,340	681.7	0.8	0.58	55	3.56	wnw.	6.8	.....	Altitude of A.St. base about 3,650 m.
						3,250	689.0	1.2	.....	61	4.06	w.	10.0	.....	
8:25	969.7	17.7	69	n.	4.9	3,211	692.7	1.4	0.81	63	4.26	w.	11.4	.....	Rain from 8:22 to 8:37 a. m.
						3,000	711.4	3.1	.....	59	4.50	w.	10.2	.....	
						2,750	733.8	5.2	.....	53	4.69	w.	8.7	5,000	
						2,500	755.8	7.2	.....	48	4.88	wnw.	7.2	.....	Thunderstorm passed to south of station from east to west.
8:34	969.8	17.7	69	n.	4.5	2,301	774.1	8.8	0.61	44	4.99	wnw.	6.0	.....	
						2,250	778.5	9.1	.....	44	5.09	wnw.	6.4	.....	
						2,000	802.0	10.6	.....	41	5.24	nw.	8.5	.....	
						1,750	826.0	12.2	.....	39	5.54	nnw.	10.6	.....	
						1,500	851.0	13.7	.....	36	5.64	n.	12.7	1,600	
						1,250	877.0	15.2	.....	34	5.87	nne.	14.8	.....	
8:59	969.9	17.9	64	nne.	4.0	1,161	886.7	15.8	0.54	33	5.92	nne.	15.6	.....	
						1,000	903.3	16.7	.....	34	6.46	nne.	15.5	0	
						750	930.0	18.0	.....	35	7.22	nne.	15.3	.....	
9:14	969.9	18.0	59	nne.	4.9	640	942.5	18.6	−3.14	35	7.50	nne.	15.2	.....	
9:17	969.9	18.0	59	nne.	4.9	570	950.3	16.4	0.92	43	8.02	nne.	13.2	.....	
						500	958.0	17.0	.....	49	9.50	nne.	9.7	.....	
9:23	969.9	18.0	59	nne.	4.5	396	969.9	18.0	.....	59	12.18	nne.	4.5	.....	2/10 A.St.; w.; 8/10 St.Cu., nw.; sprinkling rain began 9:26 a. m.

August 31, 1918.

A. M.															
6:37	972.0	11 0	80	sw.	5.4	396	972.0	11.0	.....	80	10.50	sw.	5.4	.....	Cloudless.
						500	960.0	18 6.	.....	50	10.72	wsw.	7.1	0	
6:55	972.0	10.7	82	sw.	4.0	508	959.2	19.2	−7.33	48	10.68	wsw.	7.2	560	
						750	932.2	17.6	.....	49	9.86	wsw.	8.1	.....	
						1,000	905.7	15.9	.....	51	9.22	w.	9.1	.....	
7:17	972.0	12.6	73	sw.	3.6	1,232	881.2	14.3	0.68	52	8.48	w.	10.0	.....	
						1,250	879.7	14.1	.....	52	8.37	w.	10.0	3,200	
						1,500	853.9	12.0	.....	55	7.22	w.	10.9	.....	
						1,750	828.8	9.9	.....	57	6.95	wnw.	11.9	.....	
						2,000	804.0	7.7	.....	60	6.31	wnw.	12.8	.....	
						2,250	779.6	5.5	.....	62	5.60	nw.	13.7	6,200	
7:44	972.0	14.9	64	sw.	3.6	2,317	773.2	5.0	0.85	63	5.49	nw.	14.0	.....	
						2,500	756.3	3.9	.....	66	5.33	nw.	16.5	.....	
						2,750	733.5	2.4	.....	70	5.08	nw.	19.8	.....	
8:03	972.0	16.5	59	sw.	4.5	2,917	718.5	1.4	0.71	73	4.93	nw.	22.1	9,300	
						2,750	733.5	2.8	.....	69	5.15	nw.	19.5	.....	
						2,500	756.3	4.8	.....	63	5.42	nw.	15.7	.....	
8:23	971.8	17.1	55	w.	4.0	2,382	767.3	5.8	0.79	60	5.53	nw.	13.9	5,300	
						2,250	779.6	6.8	.....	58	5.73	nw.	13.1	6,500	
						2,000	804.0	8.8	.....	54	6.12	wnw.	11.6	3,700	
9:00	971.6	18.2	56	wsw.	4.5	1,923	811.3	9.4	0.81	53	6.25	wnw.	11.1	.....	
						1,750	828.8	10.8	.....	52	6.73	wnw.	10.3	.....	
						1,500	853.0	12.8	.....	50	7.39	wnw.	9.2	2,000	
						1,250	878.7	14.8	.....	48	8.08	w.	8.1	.....	
9:18	971.5	19.8	50	w.	4.5	1,229	881.2	15.0	0.70	48	8.18	w.	8.0	.....	
						1,000	905.2	16.6	.....	48	9.07	w.	8.3	950	
9:30	971.4	20.2	46	w.	4.9	801	926.6	18.0	.....	49	10.11	w.	8.6	260	
9:37	971.4	21.0	46	w.	4.5	801	926.6	16.1	0.41	55	10.06	w.	7.4	.....	
						750	932.2	16.8	.....	54	10.33	w.	7.0	.....	
						500	959.8	20.3	.....	49	11.67	w.	5.2	.....	
9 41	971.4	21.8	47	w.	4.5	396	971.4	21.8	.....	47	12.28	w.	4.5	.....	Cloudless.

* More than 50,000 volts.

TABLE 9.—*Free-air data from kites flights at Drexel Aerological Station, September, 1918.*

September 1, 1918 (No. 1).

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	Δt. / 100 m.	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
6:27	967.9	18.0	51	s.	8.0	396	967.9	18.0	.....	51	10.53	s.	8.0	.....	5/10 Ci., wnw.
						500	956.3	18.8	.....	47	10.20	sw.	13.7	0	
6:38	967.9	18.0	51	s.	7.6	753	928.6	20.8	−0.78	38	9.34	sw.	22.2	.....	
						1,000	902.5	20.1	.....	36	8.47	sw.	21.4	.....	
						1,250	876.7	19.4	.....	35	7.89	sw.	20.6	.....	
6:47	967.9	18.0	51	s.	7.2	1,495	852.0	18.7	0.28	33	7.12	sw.	19.7	.....	
						1,750	827.0	17.1	.....	34	6.63	sw.	16.7	4,000	
						2,000	803.1	15.6	.....	35	6.20	sw.	13.7	.....	
7:00	967.9	18.4	55	s.	6.7	2,112	792.3	14.9	0.62	36	6.10	sw.	12.3	*4,700	
						2,250	.....	13.3	.....	42	6.41	sw.	11.3	*5,800	7/10 Ci., wnw.
9:13	967.6	22.5	46	ssw.	9.8	*2,500	.....	10.5	1.14	52	6.60	ssw.	9.4	*6,300	Solar halo, 22° radius, from 8:42 a. m. to end of flight.
						2,750	.....	9.5	.....	49	5.82	sw.	10.1	.....	
						3,000	.....	8.4	.....	46	5.07	sw.	10.7	.....	
						3,250	.....	7.4	.....	43	4.43	wsw.	11.4	.....	
9:25	967.6	23.1	45	ssw.	9.4	*3,300	.....	7.2	0.55	42	4.27	wsw.	11.5	.....	
						3,250	.....	7.5	.....	42	4.36	wsw.	11.6	.....	5/10 Ci., wnw.; 4/10 Ci.St., wnw.
						3,000	.....	9.2	.....	44	5.12	wsw.	12.1	*6,000	
						2,750	.....	11.0	.....	45	5.91	sw.	12.6	.....	
						2,500	.....	12.7	.....	47	6.90	sw.	13.1	.....	
9:46	967.6	24.2	42	ssw.	8.9	2,432	762.7	13.2	0.55	47	7.13	sw.	13.3	*4,800	
						2,250	779.5	14.2	.....	43	6.96	sw.	14.2	.....	
						2,000	803.1	15.6	.....	36	6.38	sw.	15.4	.....	
						1,750	826.8	17.0	.....	30	5.81	sw.	16.6	3,800	
						1,500	851.0	18.3	.....	24	5.05	sw.	17.8	.....	
10:05	967.6	25.0	39	ssw.	9.4	1,418	859.3	18.8	−0.42	22	4.77	sw.	18.2	.....	
						1,250	876.4	18.1	.....	29	6.02	sw.	18.2	.....	
10:13	967.5	25.5	32	ssw.	13.4	1,041	897.8	17.2	1.09	38	7.46	sw.	18.1	0	
						1,000	902.2	17.7	.....	41	8.30	sw.	17.4	.....	
10:24	967.4	25.9	33	ssw.	12.5	885	914.4	18.9	1.09	50	10.92	sw.	15.4	.....	
						750	929.0	20.4	.....	48	11.51	sw.	15.2	.....	
10:34	967.4	26.2	34	ssw.	14.8	656	939.0	21.4	1.96	47	11.98	sw.	15.0	.....	
						500	956.3	24.5	.....	39	11.99	ssw.	13.5	.....	
10:39	967.4	26.5	33	ssw.	11.2	396	967.4	26.5	.....	33	11.43	ssw.	11.2	.....	

September 1, 1918 (No. 2).

A. M.															
11:37	966.6	27.7	30	ssw.	9.8	396	966.6	27.7	.....	30	11.14	ssw.	9.8	.....	7/10 Ci.St., wnw.; 3/10 Ci., wnw.
						500	955.2	25.4	.....	33	10.71	ssw.	11.6	.....	
11:45	966.4	27.5	34	ssw.	9.8	636	940.3	22.5	2.17	37	10.09	s.	13.9	0	
						750	927.7	21.6	.....	38	9.80	s.	14.2	.....	
						1,000	901.0	19.7	.....	40	9.18	s.	14.9	640	
NOON.															
12:00	966.2	28.0	33	ssw.	8.9	1,212	879.3	18.0	0.78	42	8.67	s.	15.5	.....	
						1,250	875.8	18.0	.....	40	8.26	s.	15.7	.....	
P. M.						1,500	850.4	18.1	.....	29	6.02	s.	17.1	.....	
12:03	966.2	28.2	33	ssw.	9.8	1,518	848.6	18.1	−0.03	28	5.82	s.	17.2	.....	
						1,750	825.3	17.3	.....	20	3.95	ssw.	17.3	.....	2/10 Ci., wnw.; 8/10 Ci.St., wnw.
12:11	966.1	28.3	33	ssw.	10.7	1,779	822.8	17.2	0.34	19	3.73	ssw.	17.3	2,300	
						2,000	801.3	15.7	.....	24	4.28	ssw.	16.0	.....	
						2,250	778.0	14.0	.....	29	4.63	ssw.	14.5	3,800	
						2,500	755.0	12.3	.....	34	4.87	ssw.	13.0	.....	
						2,750	733.3	10.6	.....	39	4.98	ssw.	11.5	5,000	
						3,000	711.5	8.9	.....	44	5.02	ssw.	10.0	5,100	
1:00	965.9	28.4	34	ssw.	8.5	3,043	707.8	8.6	0.68	45	5.03	ssw.	9.7	5,300	
1:06	965.8	28.1	36	ssw.	8.0	3,241	690.8	7.9	0.19	38	4.05	ssw.	8.7	.....	
						3,000	711.5	8.0	.....	43	4.61	ssw.	17.8	.....	
1:14	965.7	28.1	37	ssw.	7.6	2,950	715.7	8.0	0.80	44	4.72	ssw.	19.7	5,000	
						2,750	733.3	9.6	.....	41	4.90	ssw.	19.5	.....	
						2,500	755.0	11.6	.....	38	5.19	ssw.	19.2	.....	
1:29	965.6	28.5	36	ssw.	6.3	2,453	759.7	12.0	0.68	37	5.19	ssw.	19.1	4,400	
						2,250	778.0	13.4	.....	32	4.92	ssw.	18.0	.....	6/10 Ci.St., wnw.; 4/10 A.St., wnw.
						2,000	800.8	15.1	.....	24	4.12	ssw.	16.7	3,000	
1:52	965.3	29.6	35	ssw.	8.5	1,775	822.8	16.6	−0.27	17	3.21	ssw.	15.5	.....	
						1,750	825.3	16.5	.....	18	3.38	ssw.	15.5	.....	
1:56	965.2	29.5	34	ssw.	11.2	1,550	844.9	16.0	0.98	28	5.09	ssw.	15.5	.....	
						1,500	850.4	16.5	.....	30	5.63	ssw.	12.0	.....	
						1,250	875.4	18.9	.....	38	8.30	ssw.	13.4	.....	
						1,000	900.6	21.4	.....	48	12.24	ssw.	11.6	0	
2:13	965.0	29.1	35	ssw.	8.5	989	901.8	21.5	0.77	48	12.31	ssw.	11.5	.....	
						750	926.8	23.3	.....	46	13.16	ssw.	11.4	.....	
2:26	964.9	28.6	38	s.	7.2	600	942.9	24.5	1.86	44	13.53	s.	11.4	.....	
						500	953.5	26.4	.....	42	14.46	s.	9.8	.....	
2:31	964.8	28.3	39	s.	7.2	396	964.8	28.3	.....	39	15.01	s.	7.2	.....	10/10 A.St., wnw.

September 2, 1918.

P. M.															
12:48	966.9	22.2	68	nnw.	4.9	396	966.9	22.2	.....	68	18.20	nnw.	4.9	.....	6/10 St.Cu., sse.; 2/10 St., nw.
						500	955.5	21.0	.....	73	18.15	nnw.	7.7	.....	
12:52	966.9	22.4	66	nnw.	4.5	628	941.3	19.6	1.12	80	18.25	n.	11.1	.....	
						750	928.0	18.5	.....	85	18.10	n.	10.6	0	
						1,000	901.5	16.2	.....	95	17.50	nnw.	9.7	.....	
1:08	966.9	23.1	63	n.	4.9	1,117	889.0	15.1	0.92	100	17.16	nnw.	9.3	560	
						1,250	875.5	14.3	.....	100	16.30	nnw.	8.0	810	4/10 St.Cu., sse.; 2/10 St., nw.
						1,500	850.0	12.8	.....	100	14.78	nw.	5.6	560	

*Altitude computed from angle.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918.*

September 2, 1918—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
3:01	967.6	23.2	60	n.	4.0	1,580	842.2	12.3	0.62	100	14.31	nw.	4.8	.....	4/10 St.Cu., sse.; 6/10 St., nw.
						1,500	850.0	12.8	.....	98	14.48	nw.	5.8	0	Altitude of St. base about 1,350 m.
						1,250	875.5	14.4	.....	91	14.92	nnw.	9.1	.....	
						1,000	902.0	16.0	.....	84	15.27	nnw.	12.4	.....	
3:28	967.9	22.7	60	n.	3.1	769	927.0	17.5	1.26	77	15.40	n.	15.4	.....	
						750	929.0	17.7	.....	76	15.38	n.	14.9	.....	
						500	956.8	20.9	.....	66	16.32	n.	8.2	.....	
3:35	968.0	22.2	62	n.	5.4	396	968.0	22.2	.....	62	16.60	n.	5.4	.....	3/10 St.Cu., sse.; 6/10 St., nw.

September 3, 1918.

P. M.															
3:21	974.6	10.8	80	ene.	3.6	396	974.6	10.8	.....	80	10.36	ene.	3.6	.....	10/10 St., nw.
						500	962.7	10.1	.....	77	9.52	ene.	6.3	.....	Light rain from beginning of flight to 3:42 p. m.
						750	934.0	8.5	.....	69	7.66	ene.	12.8	.....	
3:30	974.5	10.6	77	ene.	5.4	863	921.1	7.7	0.66	65	6.83	ene.	15.8	0	
						1,000	906.4	7.5	.....	69	7.16	ene.	14.5	.....	
						1,250	879.3	7.2	.....	76	7.72	ene.	12.1	890	
						1,500	853.3	6.9	.....	84	8.36	ene.	9.7	920	
						1,750	827.8	6.6	.....	91	8.87	ene.	7.3	.....	
4:20	974.3	11.2	77	ene.	5.4	1,993	803.1	6.3	0.33	98	9.36	ene.	5.0	.....	
						1,750	827.8	7.6	.....	90	9.40	ene.	5.1	.....	
4:25	974.3	11.2	76	ene.	4.9	1,642	838.1	8.2	−0.45	87	9.46	ene.	5.2	0	
						1,500	852.9	7.6	.....	89	9.29	ene.	8.0	.....	
4:33	974.3	11.2	78	ene.	4.0	1,463	856.6	7.4	0.22	89	9.17	ene.	8.7	.....	
						1,250	878.9	7.9	.....	80	8.52	ene.	11.0	.....	
						1,000	905.9	8.4	.....	70	7.71	ene.	13.7	.....	
4:50	974.3	11.2	79	ene.	4.9	828	925.0	8.8	0.58	63	7.14	ene.	15.6	.....	
						750	933.5	9.3	.....	66	7.74	ene.	13.4	.....	
						500	962.0	10.7	.....	74	9.52	ene.	6.5	.....	
4:58	974.3	11.3	78	ene.	3.6	396	974.3	11.3	.....	78	10.44	ene.	3.6	.....	10/10 St., w.

September 4, 1918.

A. M.															
6:42	974.1	9.3	73	nne.	3.1	396	974.1	9.3	.....	73	8.56	nne.	3.1	.....	Few A.Cu., wnw.
						500	962.0	10.4	.....	57	7.19	ne.	11.4	.....	
6:45	974.1	9.4	72	nne.	3.1	563	954.7	11.0	−1.02	48	6.30	ene.	16.4	0	
						750	933.2	10.0	.....	47	5.77	ene.	15.8	.....	
						1,000	905.0	8.5	.....	40	4.44	ene.	14.9	1,500	
						1,250	879.0	7.1	.....	36	3.63	ne.	14.1	2,900	
7:16	974.3	10.1	68	nne.	3.1	1,453	857.2	6.0	0.56	32	2.99	ne.	13.4	3,600	
						1,500	853.0	5.9	.....	35	3.25	ne.	13.2	.....	
						1,750	827.6	5.5	.....	48	4.33	nne.	12.2	5,000	
						2,000	802.5	5.1	.....	62	5.45	nne.	11.3	.....	
						2,250	778.1	4.7	.....	76	6.49	n.	10.3	.....	
7:42	974.3	11.1	64	nne.	3.6	2,369	766.7	4.5	0.16	82	6.90	n.	9.8	.....	
						2,500	754.4	3.9	.....	83	6.71	n.	9.2	9,200	
						2,750	731.6	2.9	.....	84	6.33	n.	8.1	9,300	Few A.Cu., wnw.
						3,000	709.5	1.8	.....	86	5.99	nnw.	7.0	10,200	
8:50	974.3	13.7	52	ne.	4.5	3,151	696.4	1.2	0.42	87	5.79	nnw.	6.3	.....	
						3,250	688.2	0.6	.....	83	5.30	nnw.	6.5	.....	
						3,500	667.5	−0.7	.....	71	4.09	nw.	7.2	.....	
8:58	974.3	14.0	51	ne.	4.5	3,599	658.7	−1.3	0.58	67	3.67	nw.	7.4	9,000	
						3,500	667.0	−0.7	.....	70	4.03	nw.	7.2	.....	
						3,250	688.2	0.8	.....	77	4.98	nw.	6.7	.....	
9:10	974.3	13.9	50	ne.	5.4	3,051	705.4	2.0	0.45	82	5.79	nw.	6.3	.....	
						3,000	709.5	2.2	.....	81	5.80	nw.	6.4	.....	
						2,750	731.6	3.4	.....	78	6.08	nnw.	7.1	.....	
						2,500	754.4	4.5	.....	74	6.23	n.	7.7	8,000	
						2,250	778.1	5.6	.....	71	6.46	nne.	8.4	.....	
9:34	974.1	14.7	49	nne.	5.4	2,125	790.3	6.2	0.27	69	6.54	nne.	8.7	.....	
						2,000	802.5	6.5	.....	59	5.71	nne.	9.0	6,000	2/10 CiCu., w.
						1,750	827.6	7.2	.....	40	4.06	ne.	9.7	.....	
9:57	974.0	15.1	45	ne.	5.4	1,540	848.6	7.8	−0.17	23	2.43	ne.	10.2	4,700	
						1,500	853.0	7.7	.....	25	2.63	ne.	10.3	.....	
						1,250	879.0	7.3	.....	39	3.99	ne.	10.9	.....	
10:08	973.9	15.7	43	ne.	5.8	1,060	899.3	7.0	1.03	50	5.01	ne.	11.3	2,300	1/10 Ci.St., w.
						1,000	905.8	7.6	.....	50	5.22	ne.	11.2	.....	
						750	933.2	10.2	.....	51	6.35	ne.	10.8	.....	
10:22	973.8	15.3	43	ne.	4.9	574	953.4	12.0	1.97	51	7.16	ne.	10.5	0	
						500	962.0	13.5	.....	48	7.43	ne.	8.8	.....	
10:26	973.8	15.5	43	ne.	6.3	396	973.8	15.5	.....	43	7.57	ne.	6.3	.....	1/10 Ci.St., w.

September 6, 1918.

6:57	975.0	10.5	70	sw.	4.5	396	975.0	10.5	.....	70	8.89	sw.	4.5	.....	Few St.Cu.,nw.
						500	962.9	12.8	.....	62	9.16	wsw.	8.8	.....	
7:00	975.0	11.3	68	sw.	4.5	627	948.6	15.6	−2.21	53	9.39	w.	14.0	.....	
						750	934.8	14.8	.....	55	9.26	w.	13.1	1,280	
						1,000	907.0	13.0	.....	60	8.99	w.	11.1	.....	
						1,250	880.7	11.2	.....	65	8.64	w.	9.2	2,600	Few St.Cu.,nw.
8:29	975.0	14.9	56	sw.	4.9	1,486	856.5	9.6	0.70	69	8.25	w.	7.4	3,200	
						1,500	855.0	9.5	.....	69	8.19	w.	7.4	.....	
						1,750	829.8	7.5	.....	68	7.05	w.	7.8	.....	
						2,000	805.0	5.6	.....	67	6.10	w.	8.1	.....	
						2,250	780.5	3.6	.....	66	5.22	w.	8.5	.....	
9:11	974.9	17.0	53	wsw.	4.5	2,349	770.9	2.8	0.78	66	4.93	w.	8.6	.....	
						2,250	780.5	3.6	.....	66	5.22	w.	8.5	.....	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 6, 1918—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
						2,000	805.0	5.5		67	6.05	w.	8.3		
						1,750	829.8	7.4		68	7.00	wsw.	8.1		
						1,500	855.0	9.4		69	8.14	wsw.	7.9		
A. M.															
9:28	974.9	17.5	51	w.	4.5	1,368	868.8	10.4	0.70	69	8.70	wsw.	7.8	3,400	
						1,250	880.7	11.2		67	8.91	wsw.	7.7		Cloudless.
						1,000	907.0	13.0		63	9.44	wsw.	7.5	425	
						750	934.8	14.7		59	9.87	w.	7.3		
9:44	974.8	18.3	50	wsw.	3.6	627	948.6	15.6	1.13	57	10.10	w.	7.2		
						500	962.9	17.0		53	10.27	wsw.	5.2		
9:48	974.8	18.2	49	wsw.	3.6	396	974.8	18.2		49	10.24	wsw.	3.6		Cloudless.

September 7, 1918.

P. M.															
6:38	967.6	23.4	29	sse.	2.2	396	967.6	23.4		29	8.35	sse.	2.2		1/10 St.Cu., nw.
						500	956.2	22.7		29	8.00	sse.	3.8		
6:49	967.6	22.7	29	sse.	2.2	662	938.3	21.6	0.68	30	7.74	se.	6.4		
						750	929.0	20.8		31	7.62	se.	6.2	0	
						1,000	902.3	18.4		34	7.19	sse.	5.7	950	
7:55	967.9	20.0	34	sse.	2.7	1,164	885.0	16.4	0.96	37	6.90	sse.	5.3		Few Ci. St., nw.
						1,250	876.0	15.7		57	6.60	sse.	4.9	1,100	
						1,500	850.5	13.5		38	5.88	sse.	3.8	1,040	
						1,750	825.5	11.4		38	5.12	sse.	2.7		
8:07	967.9	19.6	37	sse.	2.7	1,794	821.1	11.0	0.87	38	4.99	sse.	2.5		
						1,750	825.5	11.4		38	5.12	sse.	2.7		
						1,500	850.5	13.6		37	5.76	sse.	3.9		
						1,250	876.0	15.7		37	6.60	sse.	5.0	780	
						1,000	902.3	17.9		37	7.59	sse.	6.2	260	
						750	929.0	20.1		36	8.47	sse.	7.4		
8:42	967.9	19.8	43	s.	3.1	723	931.8	20.3	−0.15	36	8.58	sse.	7.5	0	
						500	956.2	20.0		41	9.59	s.	4.8		
8:48	967.9	19.8	43	s.	3.6	396	967.9	19.8		43	9.93	s.	3.6		Few Ci. St., nw.

September 8, 1918.

A. M.															
7:59	968.2	17.6	55	ssw.	6.7	396	968.2	17.6		55	11.07	ssw.	6.7		Few Ci. St., nw.
						500	956.5	18.7		49	10.57	ssw.	12.5		
8:07	968.2	17.8	55	sw.	5.8	706	934.0	20.8	−1.03	37	9.09	sw.	24.0	0	
						750	929.5	20.4		37	8.87	sw.	23.3		
						1,000	903.0	18.4		39	8.25	sw.	19.7		
						1,250	877.0	16.3		41	7.60	sw.	16.0	1,900	
						1,500	851.4	14.3		43	7.01	sw.	12.3		
8:29	968.2	18.6	55	sw.	7.2	1,524	848.9	14.1	0.82	43	6.92	sw.	11.9	3,500	
						1,750	826.3	12.2		46	7.96	sw.	11.2		Few Ci. St., nw.; few Ci. Cu., nw.
8:50	968.2	19.6	52	wsw.	7.2	1,995	802.7	10.1	0.85	50	6.18	ssw.	10.5	5,400	
						2,250	778.0	8.1		55	5.94	ssw.	10.3		
						2,500	755.8	6.1		60	5.65	s.	10.1	7,500	
9:40	968.2	23.0	40	sw.	6.7	2,674	740.4	4.7	0.80	64	5.47	s.	10.0		
						2,750	733.9	4.4		62	5.19	s.	9.7		2/10 Ci. St., nw.
						3,000	712.0	3.3		55	4.26	ssw.	8.8		
						3,250	690.2	2.3		48	3.46	sw.	7.8	9,500	
						3,500	668.7	1.3		41	2.75	wsw.	6.9	9,600	
10:33	968.0	24.9	37	sw.	8.5	3,567	662.7	1.0	0.48	39	2.56	wsw.	6.6		
						3,500	668.7	1.4		40	2.70	wsw.	7.1		2/10 Ci. St., nw.; 3/10 A. Cu., nw.
						3,250	690.2	2.7		43	3.19	wsw.	9.1	7,000	
						3,000	712.0	4.1		45	3.69	sw.	11.1		
						2,750	733.9	5.4		48	4.31	sw.	13.1	6,300	
						2,500	755.8	6.8		51	5.04	ssw.	15.1		
						2,250	778.0	8.1		54	5.83	ssw.	17.1		
11:10	967.9	25.3	35	sw.	8.5	2,239	778.9	8.2	0.91	54	5.87	ssw.	17.2	4,500	
						2,000	801.4	10.4		51	6.43	ssw.	17.5		
						1,750	825.5	12.6		48	7.00	ssw.	17.7	3,800	
						1,500	850.6	14.9		45	7.62	ssw.	18.0		
						1,250	877.0	17.2		42	8.24	ssw.	18.3		
11:35	967.9	27.6	32	sw.	8.5	1,212	880.9	17.5	0.89	42	8.40	ssw.	18.3	1,800	
						1,000	903.0	19.4		42	9.46	ssw.	16.7		
						750	929.5	21.6		42	10.84	ssw.	14.9		
11:51	967.9	27.4	30	ssw.	9.8	708	934.0	22.0	1.73	42	11.10	ssw.	14.6	700	
						500	956.5	25.6		34	11.17	ssw.	11.7		
11:58	967.9	27.4	30	ssw.	10.3	396	967.9	27.4		30	10.95	ssw.	10.3		3/10 Ci. St., nw.; 3/10 A. Cu., nw.

September 9, 1918.

A. M.															
10:32	974.5	17.9	69	nne.	3.6	396	974.5	17.9		69	14.15	nne.	3.6		4/10 A.St., w.; 6/10 St.Cu., s.
						500	962.8	16.6		67	12.66	ne.	5.5		
10:35	974.5	17.8	68	nne.	4.0	571	954.7	15.7	1.26	66	11.77	ne.	6.8	330	
						750	935.0	14.9		68	11.52	ne.	5.1		
						1,000	908.0	13.8		71	11.20	ne.	2.8	1,100	3/10 A.St., w.; 7/10 St.Cu., s.
P. M.															
12:25	975.6	16.3	76	ne.	4.9	1,115	895.9	13.3	0.04	72	10.99	ne.	1.7	0	
						1,000	908.0	12.9		76	11.31	ne.	2.7	380	Rain began 12:37 p. m., and continued at end of flight.
						750	936.0	12.0		85	11.93	ne.	4.9	6,000	
12:49	975.9	15.5	80	nne.	4.0	731	937.8	11.9	0.99	86	11.98	ne.	5.1		
						500	964.4	14.2		83	13.44	nne.	4.1		
12:53	975.9	15.2	82	nne.	3.6	396	975.9	15.2		82	14.16	nne.	3.6		10/10 St., s.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 10, 1918.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
2:38	973.4	19.3	80	ssw.	7.2	396	973.4	19.3	.....	80	17.91	ssw.	7.2	.....	10/10 St.Cu., sw.
.....	.....	.....	.....	.....	.....	500	961.8	18.0	.....	86	17.75	ssw.	8.3	.....	Sprinkling rain at beginning of flight ended 2:45 p. m.
2:52	973.3	19.3	81	ssw.	5.8	701	939.1	15.6	1.21	99	17.54	ssw.	10.3	0	
.....	.....	.....	.....	.....	.....	750	934.0	15.4	.....	99	17.32	ssw.	10.9	.....	
.....	.....	.....	.....	.....	.....	1,000	907.0	14.7	.....	98	16.40	ssw.	13.8	1,200	
.....	.....	.....	.....	.....	.....	1,250	880.5	13.9	.....	97	15.40	sw.	16.7	.....	
3:14	973.2	19.5	79	s.	5.8	1,363	868.7	13.5	0.32	97	15.01	sw.	18.0	.....	Altitude of St. base about 1,050 m.
.....	.....	.....	.....	.....	.....	1,500	854.4	13.4	.....	68	10.45	sw.	18.6	.....	
3:16	973.2	19.4	79	s.	5.8	1,556	849.0	13.4	0.05	56	8.61	sw.	18.9	2,700	
.....	.....	.....	.....	.....	.....	1,750	829.4	12.3	.....	63	9.02	sw.	18.4	.....	
.....	.....	.....	.....	.....	.....	2,000	805.4	10.8	.....	72	9.32	sw.	17.8	.....	
3:30	973.1	19.5	80	ssw.	5.4	2,250	781.5	9.4	0.58	81	9.55	sw.	17.2	3,500	
.....	.....	.....	.....	.....	.....	2,500	758.1	7.8	.....	86	9.10	sw.	17.3	.....	
.....	.....	.....	.....	.....	.....	2,750	735.1	6.2	.....	91	8.63	sw.	17.3	.....	
3:47	973.1	19.7	82	ssw.	5.8	2,975	715.5	4.8	0.64	95	8.17	sw.	17.4	5,200	2/10 St.Cu., sw.; 8/10 St., sw.
.....	.....	.....	.....	.....	.....	3,000	713.1	4.6	.....	95	8.06	sw.	17.2	.....	Rain from 3:57 to 4:10 p. m.
.....	.....	.....	.....	.....	.....	3,250	691.9	3.0	.....	94	7.13	sw.	15.6	7,500	
4:03	973.0	19.5	83	ssw.	5.8	3,350	683.1	2.3	0.66	94	6.78	sw.	14.9	.....	
.....	.....	.....	.....	.....	.....	3,250	691.9	3.0	.....	94	7.13	sw.	15.4	.....	
.....	.....	.....	.....	.....	.....	3,000	714.0	4.6	.....	93	7.89	sw.	16.7	.....	
.....	.....	.....	.....	.....	.....	2,750	736.5	6.3	.....	92	8.79	sw.	17.9	.....	
4:25	972.8	19.8	81	ssw.	6.3	2,592	751.1	7.3	0.54	92	9.41	sw.	18.7	.....	
.....	.....	.....	.....	.....	.....	2,500	759.0	7.8	.....	89	9.42	sw.	18.1	.....	
.....	.....	.....	.....	.....	.....	2,250	782.0	9.1	.....	79	9.13	sw.	16.6	.....	
.....	.....	.....	.....	.....	.....	2,000	805.4	10.5	.....	70	8.89	sw.	15.0	.....	
.....	.....	.....	.....	.....	.....	1,750	829.4	11.8	.....	61	8.44	sw.	13.5	.....	Light rain began 4:46 p. m. and continued at end of flight.
4:33	972.8	19.7	82	sw.	6.3	1,736	830.6	11.9	0.00	60	8.36	sw.	13.4	.....	
.....	.....	.....	.....	.....	.....	1,500	854.4	11.9	.....	91	12.68	sw.	11.9	.....	
4:38	972.7	19.7	81	sw.	7.2	1,432	861.3	11.9	0.65	99	13.79	sw.	11.5	.....	Altitude of St. base about 1,000 m.
.....	.....	.....	.....	.....	.....	1,250	880.0	13.1	.....	95	14.33	sw.	12.5	.....	
.....	.....	.....	.....	.....	.....	1,000	906.3	14.7	.....	89	14.89	ssw.	13.9	.....	
5:00	972.6	19.6	78	sw.	7.6	756	932.6	16.3	0.83	83	15.38	ssw.	15.2	0	
.....	.....	.....	.....	.....	.....	750	933.5	16.4	.....	83	15.48	ssw.	15.1	.....	
.....	.....	.....	.....	.....	.....	500	960.8	18.4	.....	81	17.14	sw.	9.5	.....	
5:05	972.6	19.3	80	sw.	7.2	396	972.6	19.3	.....	80	17.91	sw.	7.2	.....	10/10 St., sw.

September 11, 1918, series (No. 1).

A. M.															
6:44	969.9	12.3	97	w.	4.0	396	969.9	12.3	.....	97	13.88	w.	4.0	.....	Cloudless.
.....	.....	.....	.....	.....	.....	500	958.0	14.9	.....	82	13.89	nw.	6.4	.....	Light fog began during night, a. m. and ended at 6:58 a. m.
6:51	969.9	12.6	97	w.	4.5	587	948.2	17.0	−2.46	70	13.57	nnw.	8.4	.....	
.....	.....	.....	.....	.....	.....	750	930.0	16.0	.....	73	13.27	nnw.	8.6	.....	
.....	.....	.....	.....	.....	.....	1,000	902.7	14.5	.....	78	12.88	nw.	8.9	0	
.....	.....	.....	.....	.....	.....	1,250	876.4	13.0	.....	83	12.43	nw.	9.2	.....	
7:25	969.8	13.0	93	nw.	4.0	1,357	865.8	12.3	0.61	86	12.31	nw.	9.4	.....	
.....	.....	.....	.....	.....	.....	1,500	850.9	11.9	.....	80	11.14	nw.	11.0	.....	
.....	.....	.....	.....	.....	.....	1,750	825.7	11.1	.....	69	9.11	nw.	13.9	1,800	
.....	.....	.....	.....	.....	.....	2,000	801.4	10.4	.....	58	7.31	nw.	16.7	.....	
.....	.....	.....	.....	.....	.....	2,250	777.9	9.7	.....	48	5.77	nw.	19.6	.....	
7:52	969.6	13.3	93	nw.	6.3	2,471	757.4	9.0	0.30	38	4,36	nw.	22.1	3,700	
.....	.....	.....	.....	.....	.....	2,500	754.9	8.7	.....	38	4.28	nw.	22.1	.....	
.....	.....	.....	.....	.....	.....	2,750	732.4	6.6	.....	38	3.70	nw.	22.3	.....	
.....	.....	.....	.....	.....	.....	3,000	710.0	4.4	.....	37	3.10	wnw.	22.6	.....	Few Ci.St., wnw.
8:25	969.6	14.5	86	nw.	5.8	3,152	696.6	3.1	0.80	37	2.82	wnw.	22.7	5,100	
.....	.....	.....	.....	.....	.....	3,000	710.0	4.2	.....	37	3.05	wnw.	22.5	.....	
.....	.....	.....	.....	.....	.....	2,750	732.4	6.0	.....	38	3.55	wnw.	22.1	.....	
.....	.....	.....	.....	.....	.....	2,500	754.9	7.8	.....	38	4.02	nw.	21.7	.....	
.....	.....	.....	.....	.....	.....	2,250	777.9	9.6	.....	39	4.66	nw.	21.3	.....	
8:56	969.6	16.5	84	nnw.	5.4	2,115	790.4	10.6	−1.01	39	4.98	nw.	21.1	.....	
.....	.....	.....	.....	.....	.....	2,000	801.4	9.4	.....	63	7.43	nw.	18.6	.....	
9:13	969.7	17.0	83	nw.	7.2	1,956	806.0	9.0	0.73	72	8.27	nw.	17.7	2,200	
.....	.....	.....	.....	.....	.....	1,750	825.7	10.5	.....	70	8.89	nw.	16.7	.....	
.....	.....	.....	.....	.....	.....	1,500	850.9	12.3	.....	68	9.73	nw.	15.4	1,200	
.....	.....	.....	.....	.....	.....	1,250	876.4	14.1	.....	65	10.46	nw.	14.1	.....	
.....	.....	.....	.....	.....	.....	1,000	903.0	15.9	.....	63	11.38	nw.	12.9	260	
.....	.....	.....	.....	.....	.....	750	930.4	17.8	.....	60	12.23	nw.	11.6	.....	
9:48	969.8	20.0	69	nw.	5.4	730	932.6	17.9	−0.43	60	12.31	nw.	11.5	0	
9:56	969.9	19.9	69	nw.	4.9	567	950.8	17.2	1.52	80	15.70	nw.	7.7	.....	
.....	.....	.....	.....	.....	.....	500	958.0	18.2	.....	76	15.88	nw.	7.0	.....	
9:59	969.9	19.8	69	nw.	5.8	396	969.9	19.8	.....	69	15.94	nw.	5.8	.....	1/10 Ci.St., w.

September 11, 1918, series (No. 2).

A. M.															
10:44	969.9	22.0	54	nw.	7.2	396	969.9	22.0	.....	54	14.28	nw.	7.2	.....	1/10 Ci.St., wnw.; few Cu., nw.
.....	.....	.....	.....	.....	.....	500	958.5	20.6	.....	55	13.35	nw.	9.4	.....	
.....	.....	.....	.....	.....	.....	750	931.0	17.4	.....	58	11.52	nw.	14.6	.....	
10:51	969.9	21.7	53	nw.	8.0	761	929.6	17.2	1.32	58	11.38	nw.	14.8	0	
.....	.....	.....	.....	.....	.....	1,000	903.7	15.1	.....	67	11.50	nw.	14.3	.....	
.....	.....	.....	.....	.....	.....	1,250	877.4	12.9	.....	76	11.31	nw.	13.8	980	
.....	.....	.....	.....	.....	.....	1,500	851.7	10.7	.....	85	10.94	nw.	13.2	.....	
11:22	969.8	22.2	46	nw.	8.5	1,642	837.4	9.4	0.88	90	10.61	nw.	12.9	.....	
.....	.....	.....	.....	.....	.....	1,750	826.6	9.2	.....	83	9.66	nw.	13.3	.....	
.....	.....	.....	.....	.....	.....	2,000	802.0	8.8	.....	66	7.48	nw.	14.2	2,800	
.....	.....	.....	.....	.....	.....	2,250	778.0	8.4	.....	49	5.40	nw.	15.0	.....	
.....	.....	.....	.....	.....	.....	2,500	754.8	8.0	.....	32	3.43	nw.	15.9	3,700	
11:57	969.6	22.7	40	nw.	6.7	2,634	742.5	7.8	0.16	23	2.43	nw.	16.4	.....	
.....	.....	.....	.....	.....	.....	2,750	732.0	7.1	.....	22	2.22	nw.	17.4	.....	
.....	.....	.....	.....	.....	.....	3,000	709.9	5.6	.....	20	1.82	nw.	19.6	.....	
.....	.....	.....	.....	.....	.....	3,250	688.4	4.1	.....	17	1.39	nw.	21.8	7,000	
.....	.....	.....	.....	.....	.....	3,500	667.7	2.6	.....	15	1.11	nw.	23.9	.....	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 11, 1911, series (No. 2)—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
P. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*volts.*	
12:33	969.4	23.1	37	nnw.	5.4	3,692	651.8	1.4	0.54	13	0.88	nw.	25.6	8,000	
						3,500	667.7	2.3		13	0.94	nw.	24.2		
						3,250	688.4	3.5		13	1.02	nw.	22.4		
						3,000	709.6	4.7		13	1.11	nw.	20.5		
						2,750	731.6	5.9		13	1.21	nw.	18.7	5,000	
						2,500	754.2	7.1		13	1.31	nw.	16.9		
1:10	969.2	23.8	33	nnw.	5.8	2,448	758.8	7.4	−0.93	13	1.34	nw.	16.5		
						2,250	777.3	5.6		32	2.91	nw.	15.2		
1:16	969.1	24.2	31	nnw.	4.9	2,212	781.0	5.2	0.85	36	3.19	nw.	14.9		
						2,000	801.3	7.0		63	6.31	nw.	14.9		
1:25	969.1	23.2	28	nnw.	5.8	1,989	802.4	7.1	0.91	64	6.46	nw.	14.9	2,100	
						1,750	825.6	9.3		59	6.91	nw.	14.1	1,900	
						1,500	850.7	11.6		54	7.38	nw.	13.2		
						1,250	876.4	13.9		49	7.78	nw.	12.3	780	
						1,000	903.0	16.1		44	8.05	nw.	11.4		
						750	930.4	18.4		39	8.25	nw.	10.5		
1:58	968.9	23.8	30	nw.	5.4	742	930.9	18.5	1.36	39	8.31	nw.	10.5	560	
						500	957.5	21.8		32	8.36	nnw.	6.6		
2:05	968.9	23.2	29	nnw.	4.9	396	968.9	23.2		29	8.25	nnw.	4.9		1/10 Ci.St., wnw.; few Cu., nw.

September 11, 1918, series (No. 3).

P. M.															
2:47	968.9	24.2	28	nw.	8.5	396	968.9	24.2		28	8.46	nw.	8.5		Few Ci.Cu., wnw.; few Cu., nw.
						500	957.4	22.9		28	7.82	nw.	9.6		
						750	930.0	19.7		28	6.43	nw.	12.3		
2:52	968.9	23.9	29	nw.	8.0	821	922.5	18.8	1.27	28	6.08	nw.	13.1	0	
						1,000	903.5	17.0		34	6.59	nw.	13.4		
						1,250	877.4	14.6		42	6.98	nw.	13.7	520	
						1,500	851.7	12.1		51	7.20	nw.	14.1	1,320	
						1,750	826.4	9.7		59	7.10	nw.	14.5		
						2,000	802.0	7.2		68	6.91	nw.	14.8	2,200	
3:50	968.9	24.0	31	nw.	5.4	2,245	778.2	4.8	0.98	76	6.54	nw.	15.2		Altitude of Cu. base about 2,700 m.
						2,500	754.4	4.0		62	5.04	nw.	17.6		
						2,750	731.3	3.3		49	3.79	nw.	20.0		
						3,000	709.1	2.6		36	2.65	nw.	22.3	6,000	Few Ci.Cu., wnw.; few Cu., nw.
						3,250	687.7	1.8		22	1.53	nw.	24.7	6,900	
4:39	969.1	23.6	28	nnw.	10.3	3,401	674.6	1.4	0.34	14	0.95	nw.	26.1	7,000	
						3,250	687.7	2.0		13	0.92	nw.	25.7	5,500	
						3,000	709.1	2.9		12	0.90	nw.	25.0		
5:03	969.2	23.3	31	nnw.	6.3	2,922	715.8	3.2	−0.51	11	0.85	nnw.	24.8		
						2,750	731.3	2.3		19	1.37	nnw.	20.0		
5:09	969.3	23.1	30	nnw.	5.8	2,630	742.1	1.7	0.81	25	1.73	nnw.	16.6		
						2,500	754.4	2.7		34	2.52	nnw.	16.4		
						2,250	778.5	4.8		51	4.39	nnw.	16.1	3,000	
5:22	969.3	23.1	31	nnw.	4.9	2,040	798.3	6.5	1.04	66	6.39	nnw.	15.8		
						2,000	802.4	6.9		65	6.47	nnw.	15.8		Few Cu., nw.
						1,750	827.0	9.5		60	7.12	nnw.	15.7		
						1,500	852.4	12.1		54	7.62	nnw.	15.6	1,100	
						1,250	878.0	14.7		49	8.20	nnw.	15.5	420	
						1,000	904.2	17.3		43	8.49	nnw.	15.4		
6:03	696.6	22.3	34	nnw.	4.5	803	925.0	19.4	0.69	39	8.79	nnw.	15.2	0	
						750	930.9	19.8		38	8.78	nnw.	13.8		
						500	958.2	21.5		35	8.98	nnw.	17.2		
6:06	969.6	22.2	34	nnw.	4.5	396	969.6	22.2		34	9.10	nnw.	4.5		Few Ci.St., wnw.

September 11, 1918, series (No. 4).

P. M.															
6:53	969.6	20.0	42	n.	1.8	396	969.6	20.0		42	9.82	n.	1.8		Few Ci.St., wnw.
						500	958.4	19.2		40	8.90	n.	4.9		
						750	930.5	17.6		36	7.25	nnw.	10.7		
7:01	969.6	19.7	42	n.	1.8	783	926.8	17.4	0.67	35	6.95	nnw.	11.5	0	
						1,000	903.4	15.4		38	6.65	nnw.	13.3		
						1,250	877.0	13.1		42	6.33	nnw.	15.3	980	
						1,500	851.6	10.8		45	5.83	nnw.	17.4		
						1,750	826.5	8.5		49	5.44	nw.	19.4	2,300	
						2,000	801.8	6.2		52	4.93	nw.	21.5		
						2,250	778.0	3.9		56	4.52	nw.	23.6		
7:47	970.1	18.4	44	n.	2.2	2,475	756.2	1.8	0.92	59	4.11	nw.	25.4		
						2,500	754.3	1.7		58	4.01	nw.	25.4	4,600	
						2,750	731.3	0.4		50	3.14	nw.	25.8		
						3,000	709.5	−0.8		42	2.40	nw.	26.1	5,500	
						3,250	687.9	−2.0		34	1.76	nw.	26.4		
						3,500	666.3	−3.3		26	1.21	nw.	26.8	7,300	
						3,750	645.0	−4.5		17	0.71	nw.	27.2		
8:43	970.0	17.1	45	n.	3.1	3,826	638.6	−4.9	0.52	15	0.61	nw.	27.3	8,200	
						3,750	645.0	−4.5		15	0.63	nw.	26.9		
						3,500	666.0	−3.1		15	0.71	nw.	25.7		
						3,250	687.4	−1.7		15	0.80	nw.	24.4		
						3,000	709.0	−0.3		14	0.83	nw.	23.2		
						2,750	731.3	1.1		14	0.93	nw.	21.9		
9:35	969.9	15.6	50	n.	2.7	2,564	748.1	2.1	0.83	14	1.00	nw.	21.0		
						2,500	754.3	2.6		16	1.18	nw.	21.1		
						2,250	778.0	4.7		23	1.96	nw.	21.4	4,300	
						2,000	801.8	6.8		31	3.06	nw.	21.6		
						1,750	826.5	8.9		38	4.33	nw.	21.9	2,600	
10:07	969.9	12.5	63	wnw.	2.2	1,700	831.1	9.3	0.77	40	4.69	nw.	22.0		
						1,500	851.6	10.8		39	5.05	nw.	20 0		
						1,250	877.0	12.8		38	5.62	nw.	17.4	590	
						1,000	903.4	14.7		37	6.19	nw.	14.9		
						750	930.5	16.6		36	6.80	nw.	12.4	0	
						500	958.4	18.6		35	7.50	nw.	9.9		
10:47	969.9	12.1	64	nw.	2.2	455	963.1	18.9	−4.92	35	7.64	nw.	9.4		
10:48	969.9	12.0	64	nw.	2.2	396	969.9	12.0		64	8.98	nw.	2.2		Few Ci.St., wnw.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 11-12, 1918, series (No. 5).

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
11:42	969.9	12.6	62	nw.	2.7	396	969.9	12.6	.....	62	9.05	nw.	2.7	.....	Few Ci.St., wnw.
11:46	969.9	12.5	62	nw.	2.7	403	969.0	16.3	−5.28	54	10.01	nw.	7.0	.....	
						500	958.8	15.8	.....	53	9.51	nw.	8.0	.....	
						750	930.9	14.6	.....	49	8.14	nw.	10.6	0	
						1,000	903.3	13.3	.....	46	7.02	nw.	13.2	420	
A. M.															
2:15	970.3	10.1	73	nw.	3.1	1,083	894.3	12.9	0.50	45	6.70	nw.	14.1	.....	
						1,250	876.5	11.5	.....	46	6.24	nw.	15.4	.....	
						1,500	850.7	9.5	.....	48	5.70	nw.	17.5	2,000	Cloudless.
						1,750	825.4	7.4	.....	49	5.05	nw.	19.5	.....	
						2,000	800.8	5.4	.....	51	4.57	nw.	21.6	.....	
2:37	970.3	9.8	73	nw.	3.1	2,141	786.9	4.2	0.78	52	4.29	nw.	22.7	4,100	
						2,000	800.8	5.2	.....	52	4.60	nw.	21.0	.....	
						1,750	825.4	7.1	.....	52	5.25	nw.	17.9	.....	
						1,500	850.7	8.9	.....	52	5.93	nnw.	14.8	2,200	
3:15	970.4	9.3	75	nw.	4.0	1,330	868.3	10.2	0.72	52	6.47	nnw.	12.7	.....	
						1,250	876.5	10.8	.....	51	6.60	nnw.	12.2	.....	
						1,000	903.3	12.6	.....	48	7.00	nnw.	10.5	.....	
						750	930.9	14.4	.....	45	7.38	nw.	8.9	0	
3:34	970.5	9.2	76	nw.	4.0	536	954.5	15.9	−4.79	42	7.59	nw.	7.5	.....	
						500	958.8	14.2	.....	51	8.26	nw.	6.6	.....	
3:35	970.5	9.2	76	nw.	4.0	396	970.5	9.2	.....	76	8.85	nw.	4.0	.....	Cloudless.

September 12, 1918, series (No. 6).

A. M.															
4:27	970.6	8.9	75	nw.	1.8	396	970.6	8.9	.....	75	8.55	nw.	1.8	.....	Cloudless.
4:28	970.6	8.8	76	nw.	1.8	427	967.0	15.9	−22.58	49	8.85	nw.	8.3	.....	
						500	958.9	15.6	.....	47	8.33	nw.	8.3	.....	
4:46	970.6	8.1	80	nw.	1.8	742	931.7	14.6	-0.68	42	6.98	nnw.	8.3	0	
						750	931.0	14.5	.....	42	6.93	nnw.	8.4	.....	
						1,000	903.3	12.8	.....	45	6.65	nnw.	10.3	760	
						1,250	876.9	11.1	.....	47	6.21	nnw.	12.3	.....	
						1,500	851.1	9.4	.....	50	5.90	nw.	14.3	.....	
						1,750	826.0	7.7	.....	53	5.57	nw.	16.3	3,900	
5:28	970.7	7.2	86	nnw.	1.8	1,959	805.1	6.3	0.36	55	5.28	nw.	17.9	.....	
						2,000	801.5	6.2	.....	54	5.12	nw.	18.1	.....	
						2,250	777.5	5.2	.....	48	4.25	nw.	19.4	7,000	
						2,500	753.6	4.3	.....	42	3.49	nw.	20.7	.....	
						2,750	730.4	3.4	.....	36	2.81	nw.	22.0	9,000	
						3,000	707.9	2.5	.....	30	2.19	nw.	23.3	.....	
						3,250	686.6	1.6	.....	23	1.58	nw.	24.6	.....	
						3,500	665.9	0.7	.....	17	1.09	nw.	25.9	.....	
6:16	971.0	8.2	79	n.	2.7	3,557	661.3	0.5	0.69	16	1.01	nw.	26.2	12,000	
						3,750	646.0	−0.8	.....	22	1.26	nw.	27.3	.....	
						4,000	626.4	−2.5	.....	30	1.49	nw.	28.7	.....	
6:50	971.2	9.1	80	nnw.	2.2	4,080	620.3	−3.1	0.71	32	1.51	nw.	29.2	.....	
						4,000	626.4	−2.5	.....	33	1.64	nw.	28.6	15,500	
						3,750	646.7	−0.7	.....	37	2.13	nw.	26.7	.....	
						3,500	667.0	1.1	.....	40	2.65	nw.	24.8	.....	
7:18	971.3	10.3	72	nne.	1.8	3,395	675.7	1.9	0.39	42	2.94	nw.	24.0	.....	
						3,250	687.6	2.5	.....	39	2.85	nw.	23.2	.....	
						3,000	708.4	3.4	.....	35	2.73	nw.	22.0	9,200	
						2,750	730.4	4.4	.....	30	2.51	nw.	20.7	.....	
						2,500	753.6	5.4	.....	26	2.33	nw.	19.4	.....	
						2,250	777.5	6.3	.....	21	2.01	nw.	18.1	6,200	
7:51	971.3	13.1	63	nne.	0.9	2,236	778.8	6.4	−0.24	21	2.02	nw.	18.0	.....	
						2,000	801.8	5.8	.....	31	2.86	nw.	16.4	.....	
7:55	971.3	13.6	61	ne.	1.3	1,990	802.7	5.8	0.93	31	2.86	nw.	16.3	.....	
						1,750	826.7	8.0	.....	39	4.18	nw.	15.4	4,000	
						1,500	852.0	10.4	.....	47	5.93	nw.	14.5	.....	
8:10	971.3	14.0	60	ne.	1.3	1,455	856.4	10.8	0.56	49	6.35	nw.	14.3	.....	
						1,250	877.9	12.0	.....	47	6.59	nw.	12.3	.....	
						1,000	904.7	13.4	.....	45	6.92	nnw.	9.9	1,240	
						750	932.0	14.8	.....	42	7.07	n.	7.5	.....	
8:27	971.3	14.9	59	ne.	1.3	725	934.3	14.9	0.33	42	7.11	n.	7.3	.....	
						500	959.8	15.7	.....	50	8.92	nne.	3.2	.....	
8:31	971.3	16.0	54	ne.	1.3	396	971.3	16.0	.....	54	9.82	ne.	1.3	.....	Cloudless.

September 13, 1918.

A. M.															
7:03	965.9	16.6	55	ssw.	6.3	396	965.9	16.6	.....	55	10.39	ssw.	6.3	.....	7/10 A.St., wnw.; 2/10 A.Cu., wnw.
						500	954.2	19.8	.....	48	11.09	ssw.	11.8	.....	
7:07	965.9	16.5	54	ssw.	6.3	618	941.3	23.4	−3.06	39	11.22	sw.	18.0	0	
						750	926.8	22.7	.....	38	10.48	sw.	16.7	.....	
						1,000	900.5	21.5	.....	35	8.98	sw.	14.1	.....	4/10 A.St., wnw.; 6/10 A.Cu., wnw.
						1,250	874.9	20.3	.....	33	7.86	wsw.	11.5	760	
						1,500	850.0	19.0	.....	30	6.59	wsw.	9.0	.....	
8:02	965.5	17.4	51	ssw.	5.4	1,528	847.1	18.9	0.49	30	6.55	wsw.	8.7	1,600	
						1,750	825.7	17.3	.....	30	5.92	wsw.	4.7	2,800	3/10 Ci.St., wnw.; 3/10 A.St., wnw.;
8:09	965.2	20.9	45	sw.	6.7	1,802	820.2	16.9	0.73	30	5.78	wsw.	3.8	4,000	2/10 A.Cu., wnw.
						2,000	801.8	15.2	.....	32	5.53	wsw.	4.8	.....	
						2,250	778.0	13.0	.....	34	5.09	w.	6.2	.....	
						2,500	755.5	10.8	.....	36	4.66	w.	7.5	.....	
						2,750	733.0	8.7	.....	38	4.28	w.	8.8	.....	
						3,000	711.3	6.5	.....	40	3.87	wnw.	10.1	.....	
						3,250	689.7	4.3	.....	42	3.49	wnw.	11.4	5,500	
9:25	965.3	23.0	39	sw.	5.8	3,263	688.5	4.2	0.94	42	3.46	wnw	11.5	.....	
						3,250	689.7	4.3	.....	42	3.49	wnw.	11.5	.....	3/10 Ci.St., wnw.; 2/10 A.St., wnw.;
						3,000	711.3	6.8	.....	41	4.05	wnw.	10.6	.....	3/10 St.Cu., wnw.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 13, 1918—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
						2,750	733.0	9.3		41	4.81	wnw.	9.7	3,800	
						2,500	755.5	11.8		41	5.67	w.	8.8		
						2,250	778.0	14.3		40	6.52	w.	7.9		Sprinkling rain from 9:45 to 9:58 a. m.
9:40	965.4	22.2	40	sw.	5.4	2,164	786.5	15.2	0.70	40	6.91	w.	7.6	1,300	
						2,000	801.8	16.4		39	7.27	w.	8.4		
						1,750	825.7	18.1		37	7.68	wsw.	9.7		Altitude of St. Cu., base about 3,000 m.
						1,500	850.0	19.9		35	8.13	wsw.	11.0	810	
						1,250	874.9	21.6		33	8.51	wsw.	12.3		
						1,000	900.5	23.4		31	8.92	sw.	13.6		
9:58	965.5	22.5	41	sw.	4.0	857	915.5	24.4	−2.24	30	9.17	sw.	14.3		2/10 Ci.St., wnw.; 8/10 St.Cu., wnw.
						750	926.8	22.0		32	8.46	sw.	14.0		
10:08	965.4	22.7	39	sw.	4.5	687	933.5	20.6	0.82	33	8.01	sw.	13.8	0	
						500	953.8	22.1		36	9.58	sw.	7.8		
10:13	965.3	23.0	37	sw.	4.5	396	965.3	23.0		37	10.40	sw.	4.5		10/10 St.Cu., wnw.

September 14, 1918.

A. M.															
6:48	965.1	13.6	79	n.	2.2	396	965.1	13.6		79	12.31	n.	2.2		8/10 Ci.St., nw.; 1/10 A.Cu., nw.; few St.Cu., nnw.
						500	953.6	16.2		71	13.08	nnw.	8.3		
6:50	965.1	13.7	80	n.	2.2	548	948.0	17.5	−2.57	67	13.40	nnw.	11.2		
						750	925.7	18.0		56	11.56	nnw.	11.4	0	
						1,000	899.1	18.7		43	9.28	nnw.	11.7		
7:22	965.1	14.0	80	n.	3.1	1,223	876.3	19.3	−0.27	31	6.94	nnw.	12.0	4,200	
						1,250	873.8	19.1		31	6.85	nnw.	12.1		A.Cu. clouds moving very rapidly.
						1,500	848.7	17.2		32	6.28	nnw.	12.9		
						1,750	824.2	15.4		33	5.78	nnw.	13.8	4,300	
						2,000	800.5	13.5		34	5.26	nnw.	14.6		4/10 Ci.St., nw.; 4/10 A.Cu., nw.
						2,250	776.9	11.6		35	4.78	nw.	15.4		
						2,500	753.5	9.7		36	4.33	nw.	16.3	6,500	
						2,750	731.0	7.9		37	3.94	nw.	17.1	8,600	
						3,000	709.0	6.0		38	3.55	nw.	18.0		
8:14	964.7	16.4	68	n.	3.1	3,134	697.4	5.0	0.75	39	3.40	nw.	18.4		4/10 Ci.St., nw.; 2/10 A.Cu., nw.
						3,250	688.0	4.2		44	3.63	nw.	18.5	11,500	
						3,500	667.3	2.6		54	3.98	nw.	18.6		
						3,750	647.3	1.0		65	4.25	nw.	18.7		
						4,000	627.2	−0.7		75	4.32	nw.	18.8		
8:31	964.6	17.4	64	nne.	3.1	4,138	616.2	−1.6	0.70	81	4.33	nw.	18.9	15,700	
						4,000	627.2	−0.6		80	4.65	nw.	19.1		
						3,750	647.3	1.3		78	5.23	nw.	19.4		
						3,500	667.3	3.1		76	5.80	nw.	19.6		
						3,250	688.0	5.0		73	6.37	nw.	19.9	9,000	
9:29	964.5	20.2	56	n.	2.2	3,193	692.9	5.4	0.74	73	6.55	nw.	20.0		
						3,000	709.0	6.8		65	6.42	nw.	19.5		
						2,750	731.0	8.7		56	6.30	nw.	18.8		
						2,500	753.5	10.6		46	5.88	nw.	18.1		
9:43	964.5	21.4	51	n.	2.7	2,481	755.2	10.7	0.72	45	5.79	nw.	18.0	6,000	5/10 Ci.St., nw.; 1/10 A. Cu., nw.
						2,250	776.9	12.4		42	6.05	nw.	16.4		
						2,000	800.5	14.1		39	6.28	nnw.	14.6		
						1,750	824.2	15.9		36	6.51	n.	12.8	3,500	
10:20	964.4	22.1	51	n.	3.1	1,516	846.7	17.6	0.27	33	6.64	n.	11.2		
						1,500	848.7	17.6		33	6.64	n.	11.2		
						1,250	873.8	18.3		39	8.20	n.	10.8		
						1,000	899.1	19.0		45	9.89	n.	10.4	1,000	
						750	925.7	19.7		51	11.70	n.	9.9	0	
10:39	964.3	22.7	49	n.	3.1	664	935.0	19.9	1.12	53	12.32	n.	9.8		
						500	952.8	21.7		50	12.98	nne.	6.0		
10:43	964.3	22.9	48	nne.	3.6	396	964.3	22.9		48	13.41	nne.	3.6		7/10 Ci.St., nw.; few A.Cu., nw.

September 15, 1918.

A. M.															
6:11	966.4	13.5	87	nnw.	2.7	396	966.4	13.5		87	13.46	nnw.	2.7		10/10 St.Cu., w.
						500	954.8	12.4		88	12.67	nnw.	5.7	0	Sprinkling rain at beginning of flight, ended 6:18 a. m.
						750	926.9	9.7		91	10.95	nne.	13.1		
6:25	966.6	13.3	88	nne.	4.0	824	918.4	8.9	1.07	92	10.49	nne.	15.2		
						1,000	899.4	10.0		69	8.47	nne.	16.6	1,140	
6:33	966.8	13.3	87	nne.	4.0	1,044	894.4	10.3	−0.64	63	7.89	nne.	17.0		
						1,250	872.8	9.1		69	7.86	nne.	15.6	2,200	
						1,500	847.0	7.6		74	7.73	nne.	13.9	2,600	
						1,750	822.0	6.1		81	7.63	n.	12.2		
7:15	967.4	13.1	86	nne.	4.0	1,970	800.2	4.8	0.59	86	7.40	n.	10.7	5,300	
						2,000	797.6	4.7		86	7.34	n.	10.6		
						2,250	773.4	3.6		82	6.49	n.	10.0		6/10 St.Cu., w.; 4/10 St., ne.
						2,500	750.0	2.4		78	5.66	n.	9.4	5,300	
						2,750	727.0	1.3		75	5.03	n.	8.8	8,700	
8:12	968.0	13.0	85	ne.	5.8	2,938	710.5	0.5	0.46	72	4.56	n.	8.3		
						2,750	727.0	1.4		73	4.93	n.	8.8		
						2,500	750.0	2.5		74	5.41	n.	9.5	5,700	7/10 St.Cu., w.
						2,250	773.4	3.7		74	5.89	n.	10.2		
						2,000	797.6	4.9		75	6.50	n.	10.9	5,000	3/10 St., ne.
8:44	968.1	13.3	83	ne.	6.3	1,778	819.4	5.9	0.38	76	7.06	n.	11.5	4,500	
						1,750	822.0	6.0		75	7.01	n.	12.0		
						1,500	847.0	7.0		66	6.61	n.	16.0	3,200	
						1,250	873.5	7.9		57	6.07	n.	20.1		
9:02	968.2	13.1	80	ne.	6.7	1,206	878.3	8.1	0.20	55	5.94	n.	20.8		
						1,000	900.7	8.5		71	7.88	n.	18.3	1,800	
9:14	968.4	13.2	78	ne.	7.2	746	928.7	9.0	1.20	90	10.33	nne.	15.2		
						500	957.0	12.0		79	11.08	ne.	9.2	0	
9:28	968.7	13.2	75	ne.	6.7	396	968.7	13.2		75	11.30	ne.	6.7		10/10 St.Cu., w.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 16, 1918.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	mb.	°C.	%		m. p. s.	m.	mb.	°C.		%	mb.		m. p. s.	volts.	
3:07	969.8	20.7	24	wnw.	3.1	396	939.8	20.7	.....	24	5.86	wnw.	3.1	.....	1/10 Cu., nw.
						500	957.9	19.1	.....	24	5.31	wnw.	4.5	0	
						750	930.4	15.3	.....	26	4.52	w.	8.1	.....	
3:34	969.5	20.7	24	wnw.	5.4	834	920.9	14.0	1.53	26	4.15	w.	9.2	330	Few Ci.St., wnw.; 1/10 Cu., nw.
						1,000	903.2	12.4	.....	28	4.03	w.	9.4	620	
						1,250	876.5	9.9	.....	30	3.66	wnw.	9.7	.....	
						1,500	850.2	7.4	.....	32	3.30	wnw.	9.9	.....	
4:10	969.2	21.0	22	nw.	5.4	1,571	842.6	6.8	0.98	33	3.26	wnw.	10.0	.....	
						1,750	824.6	5.3	.....	35	3.12	wnw.	9.7	4,700	
						2,000	799.8	3.1	.....	38	2.90	wnw.	9.3	2,900	
						2,250	775.0	0.9	.....	41	2.67	wnw.	8.9	.....	
4:55	969.2	20.3	19	wnw.	4.0	2,299	770.5	0.5	0.94	42	2.66	wnw.	8.8	.....	
						2,250	775.0	1.0	.....	42	2.76	wnw.	8.8	3,200	5/10 Ci.St., wnw.; few Cu., nw.
						2,000	799.8	3.5	.....	42	3.30	wnw.	8.9	2,800	
5:20	969.3	19.6	22	nnw.	5.8	1,828	816.9	5.2	0.94	42	3.72	wnw.	8.9	.....	
						1,750	824.6	5.9	.....	41	3.81	wnw.	8.7	.....	
						1,500	850.2	8.3	.....	38	4.16	nw.	8.2	.....	
5:30	969.4	19.1	23	nw.	3.1	1,266	874.5	10.5	0.97	35	4.44	nw.	7.7	.....	
						1,250	876.5	10.7	.....	35	4.50	nw.	7.7	860	
						1,000	903.2	13.1	.....	32	4.83	nw.	7.7	0	
						750	930.4	15.5	.....	30	5.28	nw..	7.6	.....	
5:44	969.5	18.7	24	nnw.	2.2	646	941.6	16.5	0.84	29	5.44	nw.	7.6	.....	
						500	957.9	17.7	.....	27	5.47	nnw.	3.9	.....	8/10 Ci.St., wnw.; 2/10 Cu., nw.
5:48	969.5	18.6	25	nnw.	1.3	396	969.5	18.6	.....	25	5.36	nnw.	1.3	.....	

September 17, 1918 (No. 1).

A. M.															
6:17	969.9	8.7	65	ssw.	5.4	396	969.9	8.7	.....	65	7.31	ssw.	5.4	.....	5/10 A.St., w.; 5/10 A.Cu., w.
						500	957.5	11.0	.....	58	7.62	sw.	12.8	.....	
6:24	969.9	8.7	65	sw.	5.4	627	943.5	13.9	−2.25	50	7.94	wsw.	21.9	.....	
						750	929.7	13.8	.....	50	7.89	wsw.	21.6	0	3/10 Ci.Cu., w.; 3/10 A. St.,w.; 3/10 A.Cu., w.
						1,000	902.5	12.0	.....	42	5.89	wsw.	17.5	.....	
6:49	969.9	8.6	69	sw.	4.5	1,187	882.5	11.1	0.50	38	5.02	wsw.	15.3	2,000	
						1,250	876.0	10.5	.....	39	4.95	wsw.	15.2	.....	
						1,500	850.0	8.3	.....	42	4.60	wsw.	14.9	.....	
						1,750	824.0	6.0	.....	45	4.21	wsw.	14.5	5,600	
						2,000	800.0	3.7	.....	48	3.82	wsw.	14.2	.....	Few Ci., w.; 5/10 A.Cu., w.
						2,250	775.8	1.5	.....	52	3.54	wsw.	13.9	8,500	
7:32	970.1	8.6	68	sw.	4.9	2,443	757.0	−0.3	0.91	54	3.22	wsw.	13.6	10,000	
						2,500	752.0	−0.7	.....	55	3.17	wsw.	13.7	.....	
						2,750	729.1	−2.5	.....	59	2.93	wsw.	13.9	13,000	
						3,000	705.1	−4.3	.....	63	2.68	wsw.	14.2	13,000	
8:14	970.1	11.9	59	sw.	6.3	3,094	697.4	−5.0	0.72	64	2.57	wsw.	14.3	.....	Few Ci., w.; 3/10 A.Cu. w.
						3,250	683.5	−6.6	.....	57	2.00	wsw.	13.0	.....	
8:23	970.0	12.4	54	sw.	6.7	3,292	679.7	−7.0	0.86	56	1.89	wsw.	12.7	.....	
						3,250	683.5	−6.7	.....	56	1.94	wsw.	12.8	.....	
						3,000	704.6	−4.9	.....	58	2.35	wsw.	13.7	.....	
						2,750	728.6	−3.1	.....	59	2.78	wsw.	14.6	10,500	
8:37	969.9	14.2	49	sw.	8.0	2,611	740.8	−2.1	0.90	60	3.08	wsw.	15.1	.....	
						2,500	752.0	−1.1	.....	58	3.23	wsw.	15.2	.....	
						2,250	775.8	1.1	.....	54	3.57	wsw.	15.3	8,900	
						2,000	800.0	3.4	.....	50	3.90	sw.	15.4	.....	
						1,750	824.0	5.6	.....	46	4.19	sw.	15.6	6,500	Few Ci.St., w.; few A.Cu., w.
9:07	969.6	16.8	42	ssw.	8.9	1,719	827.2	5.9	0.78	45	4.18	sw.	15.6	6,500	
						1,500	850.0	7.6	.....	43	4.49	sw.	16.8	.....	
						1,250	876.0	9.6	.....	40	4.78	sw.	18.1	2,900	
9:24	969.6	16.9	39	ssw.	10.7	1,069	895.0	11.0	0.53	38	4.99	sw.	19.1	.....	
						1,000	902.5	11.4	.....	40	5.39	sw.	18.0	.....	
						750	929.7	12.7	.....	47	6.90	ssw.	13.9	700	
9:35	969.6	17.1	40	ssw.	9.4	709	934.4	12.9	1.44	48	7.14	ssw.	13.2	.....	
						500	957.5	15.9	.....	43	7.77	ssw.	10.9	.....	
9:41	969.6	17.4	40	ssw.	9.8	396	969.6	17.4	.....	40	7.95	ssw.	9.8	.....	Few Ci.St., w.; few A.Cu., w.

September 17, 1918 (No. 2).

A. M.															
10:18	969.2	18.5	38	sw.	11.2	396	969.2	18.5	.....	38	8.09	sw.	11.2	.....	Few Ci.St., w.; few A.Cu., w.
						500	957.9	16.9	.....	37	7.12	sw.	13.4	.....	
10:21	969.1	18.5	38	ssw.	10.7	713	933.6	13.7	1.51	36	5.64	sw.	17.8	840	
						750	929.9	13.4	.....	37	5.69	sw.	17.7	.....	
						1,000	902.1	11.4	.....	42	5.66	sw.	17.3	.....	
						1,250	875.3	9.5	.....	47	5.58	sw.	16.9	2,000	6/10 Ci.St., w.; few A.Cu., w.
						1,500	849.2	7.6	.....	52	5.43	sw.	16.5	.....	
10:53	968.4	18.8	36	ssw.	13.4	1,729	825.5	5.8	0.78	57	5.26	sw.	16.1	5,000	
						1,750	823.5	5.6	.....	57	5.19	sw.	16.1	.....	
						2,000	798.3	3.5	.....	62	4.87	sw.	15.9	.....	
						2,250	774.0	1.4	.....	67	4.53	sw.	15.6	8,500	
						2,500	750.7	−0.8	.....	71	4.05	wsw.	15.4	.....	
						2,750	727.8	−2.9	.....	76	3.65	wsw.	15.2	.....	7/10 Ci.St., w.; few A.Cu , w.
11:21	967.8	20.6	30	ssw.	13.4	2,774	725.3	−3.1	0.85	76	3.58	wsw.	15.2	10,000	
						3,000	705.0	−4.1	.....	71	3.07	wsw.	16.1	.....	
						3,250	683.4	−5.1	.....	66	2.63	w.	17.1	.....	
11:43	967.5	21.1	30	ssw.	15.2	3,412	669.5	−5.8	0.52	63	2.36	w.	17.7	12,500	
						3,250	683.4	−4.8	.....	67	2.73	w.	17.6	.....	
						3,000	705.0	−3.2	.....	73	3.42	w.	17.5	7,500	
P. M.															
12:04	967.0	21.4	31	ssw.	12.5	2,858	717.5	−2.3	0.75	76	3.83	w.	17.4	.....	
						2,750	727.0	−1.5	.....	75	4.04	w.	17.4	.....	
						2,500	749.6	0.4	.....	74	4.65	wsw.	17.3	7,000	8/10 Ci.St., w.; 1/10 St.Cu., w
						2,250	772.7	2.3	.....	73	5.26	wsw.	17.3	.....	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 17, 1918 (No. 2)—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
						2,000	796.8	4.1		71	5.81	wsw.	17.2		
						1,750	821.6	6.0		70	6.54	sw.	17.2		
12:35	965.8	20.8	32	ssw.	14.3	1,727	824.2	6.2	1.00	70	6.64	sw.	17.2		Threatening conditions in west.
						1,500	847.0	8.5		64	7.10	sw.	17.0	3,000	
						1,250	872.3	11.0		58	7.62	sw.	16.9		
						1,000	898.6	13.5		52	8.04	ssw.	16.7		
						750	925.4	16.0		45	8.18	ssw.	16.5		4/10 Ci.St., w.; 4/10 St.Cu., w.
1:07	964.7	21.2	31	sw.	15.2	677	933.6	16.7	1.81	43	8.17	ssw.	16.5		2/10 St.Cu., wsw.
						500	953.0	19.9		36	8.37	sw.	15.7		
1:13	964.6	21.8	32	sw.	15.2	396	964.6	21.8		32	8.36	sw.	15.2		

September 18, 1918.

A. M.															
7:26	969.2	3.6	91	n.	2.7	396	969.2	3.6		91	7.18	n.	2.7		3/10 A.Cu., nw.
						500	956.9	3.3		85	6.58	n.	4.4		
7:39	969.2	3.7	92	nne.	4.0	719	931.4	2.6	0.31	73	5.38	nne.	8.1	890	
						750	928.0	2.5		73	5.34	nne.	8.1		
8:13	969.3	5.4	81	ne.	4.9	1,002	899.4	1.7	0.32	69	4.77	ne.	7.8		
						750	928.0	2.5		69	5.01	ne.	6.8		
8:19	969.3	6.0	73	ne.	4.9	686	935.3	2.7	1.24	69	5.12	ne.	6.5		
						500	956.9	5.0		71	6.19	ne.	8.4		
8:23	969.4	6.3	73	ne.	3.6	396	969.4	6.3		73	6.97	ne.	3.6		3/10 A.Cu., nw. Clouds moving very rapidly.

September 19, 1918.

A. M.															
9:59	974.3	8.3	62	n.	4.5	396	974.3	8.3		62	6.79	n.	4.5		2/10 Cu., nnw.
						500	962.3	7.1		64	6.46	n.	6.1		
10:22	974.3	8.9	57	n.	4.0	729	935.6	4.5	1.14	69	5.81	n.	9.8	0	
						750	933.4	4.3		69	5.73	n.	9.8		
						1,000	905.0	2.4		74	5.37	n.	10.1	1,390	3/10 Cu., n.
						1,250	877.7	0.3		80	4.99	n.	10.3	2,000	
						1,500	850.7	− 1.7		85	4.50	n.	10.6		
11:50	974.1	11.0	46	n.	3.6	1,590	840.9	− 2.4	0.80	87	4.35	n.	10.7	6,000	4/10 Cu., n.
						1,750	824.5	− 3.2		77	3.60	n.	10.3		Altitude of Cu. base about 1,600 m.
						2,000	799.1	− 4.5		62	2.60	n.	9.8		
						2,250	774.0	− 5.7		47	1.78	n.	9.3	8,000	
P. M.															
12:18	974.0	11.3	47	nne.	5.4	2,365	762.3	− 6.3	0.50	40	1.44	n.	9.0		
						2,500	749.4	− 7.0		39	1.32	n.	9.9		
						2,750	725.5	− 8.4		37	1.11	nnw.	11.6	13,000	
						3,000	702.5	− 9.8		35	0.92	nnw.	13.4		
						3,250	680.5	−11.1		33	0.78	nw.	15.1	14,000	
						3,500	659.0	−12.5		31	0.64	nw.	16.8		
						3,750	638.0	−13.8		29	0.53	nw.	18.5	14,000	
						4,000	617.0	−15.2		27	0.44	wnw.	20.2		
1:34	974.2	11.1	45	nne.	5.4	4,054	612.7	−15.5	0.56	27	0.42	wnw.	20.6		
						4,000	617.0	−15.2		27	0.44	wnw.	20.3		
						3,750	638.0	−13.8		28	0.52	wnw.	18.9		
						3,500	659.0	−12.4		28	0.59	nw.	17.4		
						3,250	680.5	−10.9		29	0.69	nw.	16.0		
						3,000	702.5	− 9.5		30	0.81	nw.	14.6		
						2,750	725.5	− 8.1		30	0.92	nw.	13.2	10,000	
						2,500	749.4	− 6.7		31	1.08	nnw.	11.7		
						2,250	774.0	− 5.2		31	1.21	nnw.	10.3		6/10 Cu., n.
2:13	974.4	10.5	52	nne.	4.9	2,022	797.5	− 4.0	0.72	32	1.40	nnw.	9.0	5,900	Strong convectional winds.
						2,000	799.1	− 3.8		34	1.51	nnw.	9.0		
						1,750	824.9	− 2.0		52	2.69	nnw.	9.4		
						1,500	851.0	− 0.3		71	4.23	n.	9.8	4,800	
2:35	974.5	10.6	49	ne.	6.7	1,296	872.9	1.2	0.94	86	5.73	n.	10.1		
						1,250	877.7	1.6		84	5.76	n.	10.3		
						1,000	905.0	4.0		74	6.02	n.	11.3	1,500	
						750	933.4	6.3		64	6.11	n.	12.3	0	
2:54	974.7	11.1	50	n.	4.9	712	938.2	6.7	1.43	63	6.18	n.	12.5		
						500	962.3	9.7		54	6.50	n.	7.7		
2:57	974.7	11.2	50	n.	5.4	396	974.7	11.2		50	6.65	n.	5.4		7/10 Cu., n.

September 20, 1918.

A. M.															
6:39	981.3	−0.7	86	nnw.	1.8	396	981.3	− 0.7		86	4.95	nnw.	1.8		Cloudless.
						500	969.5	1.9		70	4.91	n.	6.1		
6:50	981.4	−0.4	82	nnw.	1.8	565	961.0	3.5	−2.49	60	4.71	nne.	8.8	0	
						750	939.4	2.3		61	4.40	nne.	10.6		
						1,000	910.7	0.7		63	4.05	n.	13.1	3,400	
7:04	981.4	0.3	81	nnw.	1.8	1,134	895.6	− 0.1	0.63	64	3.88	n.	14.4		
						1,250	883.0	− 0.4		59	3.21	n.	14.2		
						1,500	856.0	− 1.1		50	2.78	n.	13.8	8,000	
						1,750	829.9	− 1.7		40	2.12	n.	13.5		
7:17	981.6	1.5	77	nnw.	1.8	1,931	811.0	− 2.2	0.26	33	1.68	n.	13.2		
						2,000	804.5	− 2.5		32	1.59	n.	13.4	11,500	
						2,250	779.9	− 3.6		30	1.36	n.	14.0		
						2,500	755.5	− 4.7		28	1.15	nnw.	14.7	12,000	
						2,750	732.1	− 5.8		25	0.94	nnw.	15.4		
8:00	982.1	3.6	67	n.	2.2	2,996	709.5	− 6.9	0.44	23	0.78	nnw.	16.0	19,000	
						3,250	687.9	− 7.5		21	0.68	nnw.	14.7		
						3,500	666.7	− 8.1		19	0.58	nnw.	13.5	20,000	
9:27	982.1	7.5	52	n.	3.1	3,620	656.3	− 8.4	0.24	18	0.54	nnw.	12.9	21,000	
						3,750	645.9	− 8.8		17	0.49	nnw.	15.0		

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 20, 1918—Continued.

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
						4,000	625.0	− 9.5		15	0.41	nnw.	19.1	25,000	
						4,250	604.1	−10.3		14	0.35	nnw.	23.2		
9:47	982.1	8.1	51	n.	3.6	4,289	601.0	−10.4	0.58	14	0.35	nnw.	23.8		
						4,250	604.1	−10.1		14	0.36	nnw.	23.3		
						4,000	623.6	− 7.9		12	0.37	nnw.	19.9		
10:13	982.0	8.9	50	nw.	5.4	3,971	625.2	− 7.7	−0.35	12	0.38	nnw.	19.5		
						3,750	643.8	− 8.5		13	0.38	nnw.	16.1		
						3,500	664.5	− 9.3		14	0.39	nnw.	12.2	20,500	
10:29	982.0	9.3	48	nnw.	4.5	3,482	666.1	− 9.4	0.51	14	0.38	nnw.	11.9		
						3,250	686.2	− 8.3		15	0.45	nnw.	11.2		
						3,000	708.0	− 7.0		15	0.51	nnw.	10.5	16,700	
						2,750	731.3	− 5.7		16	0.60	nnw.	9.7		
						2,500	755.5	− 4.4		16	0.68	nnw.	9.0	13,000	
						2,250	779.9	− 3.1		17	0.80	n.	8.3		
						2,000	805.0	− 1.9		18	0.94	n.	7.5	9,400	
						1,750	831.0	− 0.6		18	1.05	n.	6.7		
						1,500	857.3	0.7		19	1.22	n.	6.0		
11:17	981.8	10.8	39	n.	4.9	1,474	859.8	0.8	−0.14	19	1.23	n.	5.9		
11:23	981.8	11.1	37	n.	3.6	1,257	883.2	0.5	0.92	32	2.03	n.	8.9	3,900	
						1,250	884.4	0.6		32	2.04	n.	8.9		
						1,000	912.2	2.9		40	3.01	n.	7.5		
11:35	981.8	11.9	35	n.	4.0	810	933.7	4.6	1.39	46	3.90	n.	6.4		
						750	940.7	5.4		46	4.13	n.	6.3	0	
11:55	981.8	11.0	38	nnw.	3.1	584	959.7	7.6	2.23	45	4.70	n.	6.2		
						500	970.0	9.9		40	4.88	n.	4.8		
11:58	981.8	11.8	56	n.	3.1	396	981.8	11.8		36	4.98	n.	3.1		Cloudless.

September 21, 1918.

A. M.															
6:40	979.7	4.4	54	s.	4.5	396	979.7	4.4		54	4.52	s.	4.5		Cloudless.
6:42	979.7	4.5	54	s.	5.8	466	971.5	10.6	−8.86	45	5.75	s.	15.5		
						500	967.4	10.5		44	5.59	s.	14.9		
						750	938.8	9.8		35	4.24	s.	10.9	260	
6:52	979.7	4.8	52	s.	5.4	773	936.1	9.7	2.93	34	4.09	s.	10.5		
						1,000	910.9	8.7		36	4.05	s.	9.4	5,000	
						1,250	884.0	7.5		38	3.94	s.	8.1	6,200	
						1,500	858.1	6.3		40	3.82	ssw.	6.9	9,500	
8:27	980.1	9.7	44	ssw.	9.8	1,744	833.5	5.2	0.46	42	3.72	ssw.	5.7	12,000	
						1,750	832.9	5.2		42	3.72	ssw.	5.7		
						2,000	808.4	4.2		45	3.71	ssw.	7.6		
9:38	979.7	14.2	34	ssw.	10.7	2,043	804.3	4.1	0.37	46	3.77	ssw.	7.9		
						2,250	784.5	4.1		41	3.36	ssw.	8.1		
						2,500	760.6	4.0		32	2.60	sw.	8.3		
						2,750	737.3	4.0		23	1.87	sw.	8.5		
						3,000	714.6	3.9		24	1.94	wsw.	8.8		
9:52	979.5	15.0	36	ssw.	8.9	3,142	701.8	3.9	0.19	21	1.70	wsw.	8.9		
						3,000	714.1	4.2		23	1.90	wsw.	8.6	11,000	
						2,750	736.7	4.7		26	2.22	sw.	8.1		
						2,500	760.0	5.2		29	2.57	sw.	7.6		
						2,250	783.8	5.7		33	3.02	sw.	7.1		
						2,000	807.8	6.2		36	3.41	ssw.	6.6		
						1,750	832.3	6.6		39	3.80	ssw.	6.2		
10:24	979.3	16.2	32	ssw.	12.1	1,635	843.4	6.9	0.53	41	4.08	ssw.	5.9	8,000	
						1,500	857.5	7.6		40	4.18	ssw.	6.3	7,000	
						1,250	883.5	8.9		38	4.33	ssw.	7.1		
						1,000	910.5	10.2		37	4.61	s.	7.9	2,900	
						750	938.5	11.6		35	4.78	s.	8.6		
10:57	979.1	17.6	28	s.	14.3	705	943.9	11.8	1.84	35	4.84	s.	8.7	170	
						500	967.4	15.6		30	5.32	s.	11.2		
11:03	979.1	17.5	27	s.	12.5	396	979.1	17.5		27	5.40	s.	12.5		Cloudless.

September 22, 1918.

A. M.															
6:08	975.3	8.3	62	s.	4.5	396	973.3	8.3		62	6.79	s.	4.5		Cloudless.
						500	961.6	9.6		60	7.17	s.	7.7	0	
						750	934.5	12.8		54	7.98	ssw.	15.3		
6:18	975.3	8.5	62	s.	5.4	870	921.4	14.3	−1.27	52	8.48	ssw.	18.9		
						1,000	907.6	13.6		52	8.10	ssw.	16.8	3,900	
						1,250	880.7	12.4		53	7.63	ssw.	12.9	6,400	
						1,500	855.0	11.1		53	7.05	ssw.	8.9		
7:24	975.3	10.3	56	ssw.	7.2	1,569	848.0	10.8	0.50	53	6.86	ssw.	7.8	8,800	
						1,750	829.5	10.2		54	6.72	ssw.	7.5		
						2,000	805.0	9.4		55	6.48	sw.	7.2	12,600	
8:29	975.3	13.9	49	ssw.	8.5	2,137	792.3	8.9	0.33	55	6.27	sw.	7.0	12,000	
						2,250	781.5	8.8		52	5.89	wsw.	6.6	14,000	
						2,500	758.5	8.7		45	5.06	w.	5.8		
8:57	975.3	15.1	47	ssw.	9.4	2,704	739.7	8.6	0.11	40	4.47	wnw.	5.2		
						2,500	758.5	9.0		44	5.05	w.	5.3		
						2,250	782.4	9.4		49	5.78	wsw.	5.5		
9:24	975.3	16.5	43	ssw.	10.7	2,014	804.3	9.8	0.37	53	6.42	sw.	5.7	9,000	
						2,000	806.3	9.9		53	6.47	sw.	5.8	6,700	
						1,750	830.2	10.8		52	6.73	sw.	7.3	7,500	
						1,500	855.0	11.7		51	7.01	ssw.	9.8	5,600	
						1,250	880.7	12.7		50	7.34	ssw.	10.3		
						1,000	907.6	13.6		49	7.63	s.	11.8	3,400	
10:02	975.3	18.1	42	ssw.	9.4	784	931.6	14.4	−0.74	48	7.87	s.	13.1		
						750	935.5	14.1		49	7.88	s.	13.4		
10:08	975.3	18.5	40	ssw.	8.5	690	942.0	13.7	2.07	50	7.84	s.	13.9	330	
						500	963.7	17.5		41	8.20	ssw.	11.0		
10:16	975.3	19.6	36	sw.	9.4	396	975.3	19.6		36	8.21	sw.	9.4		Cloudless.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 23, 1918, series (No. 1).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.		
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*		
6:25	972.2	12.3	69	s.	4.5	396	972.2	12.3	.....	69	9.87	s.	4.5	.....		6/10 Ci., wnw.
						500	960.1	15.1	.....	57	9.78	ssw.	19.6	.....		
6:30	972.3	12.2	70	s.	4.0	520	958.0	15.6	−2.66	55	9.75	ssw.	22.5	0		
						750	932.6	16.8	.....	51	9.76	sw.	17.6	.....		
6:52	972.5	12.3	68	s.	4.5	946	911.6	17.8	−0.52	48	9.78	sw.	13.5	1,170		
						1,000	906.0	17.4	.....	49	9.74	sw.	13.3	.....		
						1,250	879.9	15.7	.....	53	9.46	sw.	12.3	2,900		
						1,500	854.3	14.0	.....	57	9.11	ssw.	11.3	.....		
						1,750	829.4	12.2	.....	62	8.81	ssw.	10.3	.....		
7:27	972.5	13.7	63	s.	5.4	1,769	827.5	12.1	0.69	62	8.75	ssw.	10.2	6,000		5/10 Ci., wnw.
						2,000	805.0	10.9	.....	58	7.56	ssw.	10.2	.....		
						2,250	781.2	9.5	.....	55	6.53	ssw.	10.2	8,500		
						2,500	758.4	8.2	.....	51	5.54	ssw.	10.2	.....		
						2,750	736.0	6.8	.....	47	4.64	ssw.	10.2	.....		
8:09	972.3	15.6	56	s.	5.8	2,756	735.3	6.8	0.54	47	4.64	ssw.	10.2	10,400		
						3,000	714.1	5.3	.....	46	4.10	ssw.	9.4	.....		
						3,250	692.7	3.8	.....	44	3.53	sw.	8.6	10,500		
						3,500	671.2	2.2	.....	43	3.08	sw.	7.7	.....		4/10 Ci., wnw.
8:49	972.1	17.3	47	s.	8.0	3,628	660.2	1.4	0.64	42	2.84	sw.	7.3	.....		
						3,500	671.2	2.3	.....	42	3.03	sw.	7.9	.....		
						3,250	691.6	3.9	.....	43	3.47	sw.	9.0	.....		
9:07	972.0	18.2	45	ssw.	8.9	2,999	712.5	5.6	0.60	43	3.91	sw.	10.1	.....		
						2,750	734.0	7.1	.....	48	4.84	sw.	10.9	9,200		
						2,500	756.4	8.6	.....	53	5.92	sw.	11.7	8,600		
						2,250	779.8	10.1	.....	58	7.17	ssw.	12.5	.....		
						2,000	804.0	11.7	.....	64	8.80	ssw.	13.4	.....		
9:32	972.0	19.2	42	s.	7.6	1,923	811.8	12.1	0.62	65	9.18	ssw.	13.6	6,200		
						1,750	828.7	13.2	.....	62	9.41	ssw.	13.8	.....		
						1,500	853.9	14.7	.....	59	9.87	ssw.	14.1	4,100		
						1,250	879.9	16.3	.....	55	10.19	ssw.	14.4	.....		
						1,000	906.0	17.8	.....	51	10.39	ssw.	14.7	2,600		
10:02	972.0	20.9	37	s.	8.0	935	912.8	18.2	−0.58	50	10.45	ssw.	14.8	.....		
						750	932.6	17.1	.....	49	9.56	ssw.	11.2	.....		
10:12	971.9	21.2	38	ssw.	8.5	661	942.4	16.6	1.66	49	9.26	ssw.	9.5	0		
						500	960.0	19.3	.....	42	9.40	ssw.	8.6	.....		
10:18	971.9	21.0	38	ssw.	8.0	396	971.9	21.0	.....	38	9.45	ssw.	8.0	.....		3/10 Ci., wnw.

September 23, 1918, series (No. 2).

A. M.																
11:01	970.9	23.2	33	ssw.	8.5	396	970.9	23.2	.....	33	9.39	ssw.	8.5	.....		1/10 Ci., wnw.; 2/10 Ci.St., wnw.
						500	959.0	21.6	.....	34	8.77	ssw.	9.3	.....		
11:07	970.8	23.9	32	s.	8.5	678	939.5	18.8	1.56	35	7.60	s.	10.7	.....		
						750	931.4	18.5	.....	36	7.67	s.	11.8	0		
						1,000	904.5	17.3	.....	40	7.90	s.	14.6	3,000		
						1,250	878.7	16.1	.....	43	7.87	s.	17.6	.....		
11:32	970.6	24.8	31	s.	6.3	1,361	867.5	15.6	0.47	45	7.97	s.	18.9	5,000		
						1,500	853.5	14.8	.....	47	7.91	s.	17.6	.....		
						1,750	828.6	13.3	.....	50	7.64	s.	15.3	.....		3/10 Ci., w.; 4/10 Ci.St., w.
						2,000	804.0	11.8	.....	54	7.47	ssw.	13.0	6,800		
11:54	970.4	25.3	30	ssw.	4.9	2,176	787.2	10.8	0.59	56	7.25	ssw.	11.4	.....		
						2,250	780.2	10.5	.....	54	6.86	ssw.	10.9	.....		
						2,500	757.0	9.6	.....	48	5.74	sw.	9.2	8,000		
P. M.																
12:23	969.9	25.9	31	ssw.	7.2	2,516	755.5	9.5	0.38	48	5.70	sw.	9.1	.....		
						2,750	734.2	8.0	.....	45	4.83	sw.	9.5	7,500		
						3,000	712.0	6.3	.....	42	4.01	sw.	9.9	.....		
						3,250	690.7	4.7	.....	38	3.25	sw.	10.3	9,800		
12:53	969.3	26.6	29	ssw.	11.2	3,503	669.3	3.0	0.66	35	2.65	sw.	10.7	8,000		8/10 Ci.St., w.
						3,250	690.7	4.7	.....	39	3.33	sw.	10.7	.....		
						3,000	711.8	6.3	.....	43	4.11	sw.	10.6	.....		
						2,750	733.8	8.0	.....	46	4.94	sw.	10.6	.....		
						2,500	756.5	9.7	.....	50	6.02	sw.	10.5	6,800		
1:13	969.1	27.5	28	s.	10.7	2,435	762.5	10.1	0.46	51	6.30	sw.	10.5	.....		
						2,250	779.5	10.9	.....	50	6.52	sw.	11.5	.....		
						2,000	803.0	12.1	.....	50	7.06	ssw.	12.8	4,600		
						1,750	827.2	13.2	.....	49	7.43	ssw.	14.2	.....		
						1,500	852.0	14.4	.....	48	7.87	s.	15.5	.....		
1:48	968.7	26.3	30	s.	9.4	1,408	861.3	14.8	0.99	48	8.08	s.	16.0	2,500		
						1,250	877.4	16.4	.....	46	8.58	s.	16.2	.....		
						1,000	903.3	18.8	.....	42	9.11	s.	16.4	1,100		
						750	930.0	21.3	.....	38	9.63	s.	16.7	.....		
2:09	968.4	26.3	31	s.	9.8	637	942.1	22.4	1.66	36	9.75	s.	16.8	0		
						500	957.0	24.7	.....	33	10.27	sse.	11.6	.....		
2:15	968.4	26.4	30	sse.	7.6	396	968.4	26.4	.....	30	10.33	sse.	7.6	.....		9/10 Ci.St., w.

September 23, 1918, series (No. 3).

P. M.																
3:06	967.6	26.6	30	s.	8.5	396	967.6	26.6	.....	30	10.45	s.	8.5	.....		9/10 Ci.St., w.
						500	956.0	24.9	.....	31	9.76	s.	12.0	.....		
3:10	967.6	26.5	29	s.	10.3	628	942.2	22.9	1.59	32	8.94	s.	16.4	0		
						750	928.9	21.6	.....	33	8.51	s.	16.0	.....		
						1,000	902.2	19.1	.....	36	7.96	s.	15.1	.....		
3:26	967.6	25.6	31	s.	8.0	1,131	888.7	17.7	1,03	37	7.49	s.	14.7	1,280		
						1,250	876.4	17.0	.....	38	7.36	s.	14.3	.....		
						1,500	851.0	15.4	.....	39	6.82	ssw.	13.4	.....		
						1,750	825.9	13.9	.....	40	6.35	ssw.	12.4	3,300		
3:55	967.6	25.9	30	ssw.	9.4	1,987	803.1	12.4	0.62	41	5.90	sw.	11.5	4,300		
						2,000	801.7	12.5	.....	42	6.09	sw.	11.0	.....		

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 23, 1918, series (No. 3)—Continued.

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
4:28	967.3	25.7	31	ssw.	10.7	2,073	794.7	12.9	−0.58	47	6.99	sw.	7.9	4,700	1/10 Ci.St., w.; 8/10 A.St., w.
						2,250	778.0	11.7		48	6.60	sw.	7.7		
						2,500	754.9	9.9		49	5.98	sw.	7.4		
						2,750	732.5	8.2		49	5.33	sw.	7.1		
4:58	966.9	25.2	32	ssw.	7.6	2,891	720.0	7.2	0.64	50	5.08	sw.	6.9	4,700	
						2,750	732.5	8.0		49	5.26	sw.	7.6		
						2,500	754.9	9.5		47	5.56	ssw.	8.7		
						2,250	778.0	11.0		44	5.78	ssw.	9.9		
						2,000	801.7	12.4		42	6.05	s.	11.1	3,200	
5:28	966.7	25.1	32	s.	6.3	1,855	815.1	13.3	0.60	41	6.26	s.	11.8		
						1,750	825.5	13.9		41	6.51	s.	12.2		
						1,500	850.4	15.4		40	7.00	s.	13.2	2,000	
						1,250	875.7	16.9		40	7.70	sse.	14.2	860	
						1,000	901.5	18.4		40	8.46	sse.	15.2		
						750	928.0	19.9		39	9.06	sse.	16.2		
6:00	966.5	24.0	32	s.	5.4	701	933.1	20.2	1.18	39	9.24	sse.	16.4	0	
						500	955.0	22.6		35	9.60	s.	10.0		
6:09	966.5	23.8	33	s.	6.7	396	966.5	23.8		33	9.73	s.	6.7		Few Ci.St., wsw.; 1/10 A.St., wsw.

September 23, 1918, series (No. 4).

P. M.															
6:56	966.5	22.2	37	s.	5.4	396	966.5	22.2		37	9.90	s.	5.4		Few Ci.St., wsw.; 1/10 A.St., wsw.
						500	955.0	21.6		38	9.80	s.	9.1		
7:02	966.5	22.1	38	sse.	5.4	731	929.8	20.3	0.57	41	9.77	sse.	17.2		
						750	927.8	20.1		41	9.65	sse.	17.4	0	
						1,000	901.1	17.8		42	8.56	s.	19.5		
7:15	966.6	21.9	40	sse.	4.5	1,116	889.0	16.7	0.94	43	8.17	s.	20.5	1040	
						1,250	875.5	15.8		44	7.90	s.	19.5		
						1,500	850.0	14.1		47	7.56	s.	17.6		
7:28	966.7	20.8	45	sse.	4.0	1,598	839.7	13.5	0.66	48	7.43	s.	16.9		
						1,750	825.0	14.2		49	7.93	s.	12.7	3,000	
7:54	966.9	20.3	44	sse.	4.5	1,911	809.1	14.9	−0.45	50	8.47	s.	8.3		
						2,000	801.0	14.3		51	8.31	s.	7.9	3,400	
						2,250	777.3	12.6		53	7.73	ssw.	6.9	5,000	
						2,500	754.5	10.8		55	7.12	ssw.	5.9		1/10 Ci.St., wsw.
8:56	967.2	19.5	44	s.	5.4	2,735	733.6	9.2	0.66	57	6.63	ssw.	4.9		
						2,500	754.5	10.7		57	7.34	ssw.	6.5		
						2,250	777.3	12.3		56	8.01	ssw.	8.2		Few Ci.St., wsw.
9:23	967.4	19.0	45	s.	5.8	2,068	794.7	13.5	0.00	56	8.66	ssw.	9.4	4,000	
						2,000	801.0	13.5		55	8.51	ssw.	10.6		
						1,750	825.0	13.5		51	7.89	s.	14.8	3,900	
9:45	967.5	18.9	45	s.	4.5	1,628	837.2	13.5	0.40	49	7.58	s.	16.8		
						1,500	850.0	14.2		48	7.77	s.	17.6		
						1,250	875.5	16.6		44	8.31	s.	20.0		
						1,000	901.1	17.1		43	8.38	s.	20.5	560	
						750	928.2	18.5		41	8.73	s.	22.0		
10:10	967.6	18.0	48	s.	4.5	689	935.0	18.9	−0.31	40	8.74	s.	22.4	0	
						500	956.0	18.3		44	9.25	s.	12.3		
10:22	967.6	18.0	46	s.	5.4	396	967.6	18.0		46	9.49	s.	5.4		Few Ci.St., wsw.

September 23-24, 1918, series (No. 5).

P. M.															
11:15	967.6	16.9	50	s.	4.5	396	967.6	16.9		50	9.62	s.	4.5		Few Ci.St., wsw.
						500	956.0	16.9		50	9.62	s	12.5		
11:20	967.6	16.9	50	s.	4.5	647	939.5	17.0	−0.04	50	9.67	s.	23.8	0	
						750	928.0	17.2		49	9.61	s.	24.5		
11:30	967.6	16.7	50	s.	4.5	943	907.4	17.7	−0.24	48	9.72	s.	25.8	1,010	
						1,000	901.3	17.5		48	9.60	s.	24.9		
						1,250	875.3	16.5		48	9.01	s.	21.0	2,600	
						1,500	850.0	15.5		48	8.45	ssw.	17.0		
						1,750	825.1	14.5		47	7.76	ssw.	13.1		
11:55	967.6	16.3	52	s.	4.5	1,966	804.3	13.7	0.39	47	7.37	ssw.	9.7	4,900	
						2,000	801.1	13.5		47	7.28	ssw.	9.6		
						2,250	777.5	11.7		50	6.86	ssw.	8.8	5,500	
						2,500	754.6	10.0		52	6.39	ssw.	7.9	5,900	
A. M.															
12:54	967.6	14.9	55	sse.	4.0	2,754	731.5	8.2	0.71	55	5.98	ssw.	7.1		1/10 A.Cu., sse.
						2,500	754.6	10.0		53	6.51	ssw.	7.7		
						2,250	777.5	11.8		51	7.06	ssw.	8.2		
						2,000	800.8	13.7		50	7.84	ssw.	8.8		
1:12	967.6	14.8	57	sse.	4.5	1,898	810.3	14.4	−0.38	49	8.04	ssw.	9.0		
						1,750	824.5	14.4		49	8.04	ssw.	10.5	3,500	
						1,500	849.2	14.2		49	7.93	ssw.	13.1		
1:36	967.6	15.1	56	sse.	4.9	1,369	862.8	14.2	0.38	49	7.93	ssw.	14.4		
						1,250	874.8	14.6		48	7.98	ssw.	16.0	2,600	
						1,000	900.8	15.6		46	8.15	s.	19.3	860	
						750	928.0	16.5		44	8.26	s.	22.6		
2:01	967.6	14.8	56	sse.	4.5	705	933.0	16.7	−0.65	44	8.36	s.	23.2	0	
						500	956.0	15.4		53	9.28	sse.	10.5		
2:08	967.6	14.7	57	sse.	4.5	396	967.6	14.7		57	9.54	sse.	4.5		Few A.Cu., sse.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 24, 1918, series (No. 6).

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
2:54	967.2	14.2	58	sse.	4.5	396	967.2	14.2	.....	58	9.39	sse.	4.5	.....	Few A.Cu., sse.
						500	955.2	15.1	.....	56	9.61	sse.	7.9	.....	
						750	927.4	17.2	.....	52	10.20	s.	16.3	0	
3:05	967.2	13.9	59	sse.	4.0	838	918.1	17.9	−0.84	50	10.26	s.	19.2	.....	
						1,000	900.1	16.9	.....	51	9.82	s.	17.2	810	
						1,250	874.1	15.4	.....	53	9.28	s.	14.0	2,400	
						1,500	848.8	13.8	.....	54	8.52	ssw.	10.9	.....	
3:27	967.1	13.7	60	sse.	4.0	1,566	842.5	13.4	0.62	55	8.45	ssw.	10.1	.....	
						1,750	823.8	13.5	.....	46	7.12	ssw.	9.3	.....	Cloudless.
						2,000	800.0	13.7	.....	34	5.33	ssw.	8.2	5,000	
4:14	966.8	13.2	59	se.	4.9	2,124	788.1	13.8	−0.07	28	4.42	ssw.	7.7	6,000	
						2,250	776.3	12.6	.....	31	4.52	ssw.	7.5	.....	
						2,500	753.5	10.3	.....	36	4.51	ssw.	6.9	6,500	
						2,750	731.3	7.9	.....	42	4.47	ssw.	6.4	.....	
						3,000	709.2	5.6	.....	48	4.37	ssw.	5.9	.....	
4:30	966.7	13.2	61	se.	4.9	3,102	700.4	4.6	0.88	50	4.24	ssw.	5.7	6,000	
						3,000	709.2	5.4	.....	48	4.31	ssw.	6.2	.....	
						2,750	731.3	7.5	.....	44	4.56	ssw.	7.4	.....	Cloudless.
						2,500	753.5	9.6	.....	41	4.90	ssw.	8.6	.....	
						2,250	776.3	11.6	.....	37	5.05	ssw.	9.8	.....	
4:51	966.6	13.0	62	sse.	4.9	2,024	797.7	13.5	0.16	33	5.11	ssw.	10.9	5,500	
						2,000	800.0	13.5	.....	34	5.26	ssw.	11.0	.....	
						1,750	823.8	13.9	.....	41	6.51	ssw.	11.8	.....	
						1,500	848.8	14.3	.....	49	7.99	s.	12.5	.....	
5:05	966.5	13.0	63	se.	4.5	1,392	859.7	14.5	0.71	52	8.59	s.	12.9	3,100	
						1,250	874.0	15.5	.....	50	8.80	s.	13.6	.....	
						1,000	900.0	17.3	.....	46	9.08	s.	14.7	760	
5:22	966.4	12.3	65	se.	4.9	772	924.5	18.9	−1.78	43	9.39	s.	15.8	.....	
						750	926.8	18.5	.....	44	9.37	s.	15.1	0	
						500	954.1	14.1	.....	60	9.65	sse.	7.3	.....	
5:36	966.3	12.2	66	se.	4.0	396	966.3	12.2	.....	66	9.38	se.	4.0	.....	Few Ci., wsw.

September 24, 1918, series (No. 7).

Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.															
6:24	966.2	12.1	67	sse.	3.1	396	966.2	12.1	.....	67	9.46	sse.	1.3	.....	Few Ci., wsw.
						500	954.5	15.5	.....	55	9.68	sse.	15.3	.....	
6:32	966.2	12.4	65	sse.	3.6	565	947.1	17.2	− 3.02	48	9.42	sse.	24.2	0	
						750	927.8	16.6	.....	48	9.07	sse.	22.5	.....	
						1,000	900.9	15.7	.....	47	8.38	sse.	20.2	.....	
						1,250	874.4	14.9	.....	47	7.96	see.	18.9	.....	
						1,500	848.7	14.0	.....	46	7.35	sse.	15.6	4,500	
						1,750	823.2	13.2	.....	46	6.98	sse.	13.4	.....	
6:43	966.2	12.4	67	se.	3.6	1,778	820.8	13.1	0.34	46	6.94	sse.	13.1	.....	1/10 Ci., wsw.; few A.Cu., sse.
						2,000	799.0	13.3	.....	35	5.65	sse.	13.0	.....	
6:58	966.2	12.5	67	se.	4.0	2,224	778.8	13.5	− 0.07	24	3.71	sse.	12.8	7,000	
						2,250	776.0	13.3	.....	25	3.82	sse.	12.7	.....	
						2,500	753.0	11.0	.....	32	4.12	sse.	11.9	.....	
						2,750	730.8	8.8	.....	40	4.48	s.	11.0	9,100	
7:31	966.4	14.1	62	sse.	5.4	2,894	718.4	7.5	1.05	44	4.56	s.	10.5	.....	
						3,000	709.0	6.8	.....	44	4.35	s.	10.4	.....	2/10 Ci.St., wsw.; few A.Cu., sse.
						3,250	688.0	5.1	.....	44	3.87	s.	10.3	10,500	
						3,500	667.5	3.5	.....	44	3.45	s.	10.1	12,000	
						3,750	646.9	1.8	.....	44	3.06	s.	9.9	.....	
8:12	966.4	15.4	58	s.	5.4	3,781	644.0	1.6	0.64	44	3.02	s.	9.9	.....	
						3,750	646.9	1.8	.....	44	3.06	s.	9.9	.....	
						3,500	667.5	3.3	.....	41	3.17	s.	10.2	.....	
						3,250	688.0	4.8	.....	39	3.35	s.	10.5	10,300	
						3,000	709.0	6.4	.....	37	3.56	sse.	10.9	.....	
						2,750	730.8	7.9	.....	35	3.73	sse.	11.2	.....	
8:35	966.3	16.9	53	s.	6.7	2,552	748.4	9.1	− 0.66	33	3.81	sse.	11.4	.....	
						2,500	753.0	8.8	.....	39	4.42	sse.	12.2	.....	
8:41	966.3	17.2	52	sse.	6.7	2,323	769.5	7.6	0.89	58	6.06	sse.	14.8	9,100	
						2,250	776.0	8.2	.....	57	6.20	sse.	15.1	.....	
						2,000	799.0	10.5	.....	54	6.86	sse.	16.3	.....	
						1,750	823.0	12.7	.....	52	7.64	sse.	17.4	.....	
						1,500	847.9	14.9	.....	49	8.30	sse.	18.6	.....	
						1,250	873.4	17.1	.....	46	8.97	sse.	19.8	.....	
						1,000	899.8	19.4	.....	44	9.91	sse.	20.9	2,000	
8:52	966.2	16.7	56	s.	6.3	851	916.1	20.7	− 2.33	42	10.26	sse.	21.6	.....	
8:58	966.2	17.2	53	s.	8.5	778	923.8	19.0	− 1.70	36	7.91	sse.	20.7	.....	
						750	927.0	18.5	.....	38	8.09	sse.	20.0	490	
9:14	966.1	17.8	51	sse.	6.7	577	945.8	15.6	1.22	49	8.68	sse.	15.5	0	
						500	954.2	16.5	.....	49	9.20	sse.	11.8	.....	
9:22	966.1	17.8	49	s.	6.7	396	966.1	17.8	.....	49	9.99	s.	6.7	.....	8/10 Ci.St., sw.

September 24, 1918, series (No. 8).

Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.															
9:58	965.9	19.2	47	sse.	6.7	396	965.9	19.2	.....	47	10.46	sse.	6.7	.....	8/10 Ci.St., sw.
						500	954.1	18.0	.....	46	9.49	sse.	10.2	.....	
10:03	965.8	19.2	47	sse.	7.6	685	933.6	15.8	1.18	45	8 08	sse.	16.4	.....	
						750	926.6	16.1	.....	45	8.24	sse.	16.6	0	
						1,000	899.7	17.2	.....	43	8.44	s.	17.6	.....	
10:18	965.6	19.2	47	sse.	8.0	1,150	883.9	17.8	− 0.43	42	8.56	s.	18.1	2,400	
						1,250	873.4	17.0	.....	44	8.53	s.	17.9	.....	
						1,500	847.4	15.2	.....	51	8.81	s.	17.5	4,500	
						1,750	822.2	13.3	.....	57	8.70	s.	17.1	.....	
						2,000	798.6	11.4	.....	63	8.49	s.	16.7	.....	
						2,250	775.1	9.5	.....	69	8.19	s.	16.3	8,500	
10:46	965.1	19.5	45	sse.	8.9	2,453	756.6	8.0	0.75	74	7.94	s.	15.9	.....	1/10 Ci.St., sw.; 3/10 A.St., sw.; 3/10 A.Cu., sw.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 24, 1918, series (No. 8)—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	Δt. / 100 m.	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.		
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*		
						2,500	752.4	8.0		70	7.51	s.	14.8			
						2,750	729.8	7.7		51	5.36	s.	15.2	10,500		
						3,000	707.8	7.4		32	3.30	ssw.	14.6			
11:10	964.8	20.6	43	sse.	8.9	3,104	699.0	7.3	0.11	24	2.46	ssw.	14.3	11,500		
						3,250	686.8	6.1		30	2.83	ssw.	14.0			
						3,500	666.2	4.1		41	3.36	ssw.	13.5	12,500		
11:35	964.6	21.3	42	sse.	7.2	3,668	652.3	2.8	0.64	48	3.59	ssw.	13.2			
						3,500	666.2	3.6		52	4.11	ssw.	13.5			1/10 Ci.St., sw.; 3/10 A.St., sw.; 5/10 A.Cu., sw.
						3,250	686.8	4.8		58	4.99	ssw.	14.0			
						3,000	707.8	6.1		64	6.03	s.	14.5	9,000		
						2,750	729.8	7.3		70	7.16	s.	15.0			
						2,500	752.4	8.5		76	8.44	s.	15.5			
P. M.																
12:03	964.5	21.3	44	sse.	7.2	2,439	757.8	8.8	0.67	77	8.72	s.	15.6	7,800		
						2,250	774.9	10.0		75	9.21	s.	15.6			
						2,000	798.0	11.7		71	9.76	s.	15.5			
						1,750	821.8	13.4		68	10.45	sse.	15.5	3,700		
						1,500	846.5	15.1		65	11.15	sse.	15.4			
						1,250	872.4	16.7		62	11.79	sse.	15.4			
12:30	964.3	21.9	42	sse.	7.6	1,165	881.4	17.3	0.00	61	12.05	sse.	15.4	510		
						1,000	898.7	17.3		58	11.46	sse.	14.7			
						750	925.6	17.3		53	10.47	sse.	13.6			
12:39	964.3	22.4	40	sse.	7.2	722	928.4	17.3	2.30	52	10.27	sse.	13.5	0		
						500	953.0	20.8		44	10.81	sse.	9.2			
12:45	964.3	22.4	40	sse.	7.2	396	964.3	22.4		40	10.84	sse.	7.2			2/10 Ci.St., sw.; 4/10 A.St., sw.; 2/10 A.Cu., sw.

September 24, 1918, series (No. 9).

P. M.																
1:14	963.9	24.3	37	se.	8.9	396	963.9	24.3		37	11.24	se.	8.9			2/10 A.St., sw.; 3/10 A.Cu., sw.
						500	952.5	22.6		38	10.42	se.	12.1			
1:19	963.8	24.4	37	sse.	8.9	643	936.7	20.3	1.62	39	9.29	sse.	16.4	0		
						750	925.4	19.3		43	9.63	sse.	17.0			
						1,000	898.6	16.8		53	10.14	s.	18.5			1/10 A.St., sw.; 5/10 A.Cu., sw.
1:33	963.6	24.9	36	sse.	9.4	1,035	894.7	16.5	0.97	54	10.14	s.	18.7	810		
						1,250	872.5	15.3		57	9.91	s.	18.7			
						1,500	846.5	13.9		60	9.53	s.	18.8	3,600		
						1,750	821.3	12.0		63	8.84	s.	18.9			7/10 A.Cu., sw.; conditions favorable for thundershowers.
						2,000	797.1	11.1		66	8.72	ssw.	18.9	8,000		
						2,250	773.8	9.7		70	8.42	ssw.	19.0			
						2,500	750.9	8.3		73	7.99	ssw.	19.1	10,000		4/10 A.Cu., sw.; 6/10 St.Cu., sw.
2:08	963.1	23.9	41	sse.	8.9	2,591	742.8	7.8	0.56	74	7.83	ssw.	19.1			
						2,750	729.0	7.8		62	6.56	ssw.	14.4			
2:22	963.0	23.9	41	sse.	8.9	2,765	727.6	7.8	0.10	61	6.45	ssw.	13.9	22,500		
						2,750	729.0	8.0		68	7.30	ssw.	14.6			
2:30	962.9	24.2	41	s.	11.2	2,510	750.9	8.3		74	8.10	ssw.	15.2			2/10 A.Cu., sw.; 8/10 St.Cu., sw. Rain from 2:35 to 2:45 p. m. Thunderstorm developed in sw. at 4:45 p. m. Kites broke away at 2:30 p. m.

September 25, 1918.

A. M.																
8:00	966.2	14.7	87	e.	4.9	396	966.2	14.7		87	14.56	e.	4.9			Sprinkling rain from 7:05 to 7:20 a. m.; 2/10 Ci.St., wsw.; 5/10 St.Cu., se.
						500	954.1	14.5		86	14.20	e.	6.3			
						750	926.5	14.1		83	13.35	e.	9.9	980		
						1,000	899.6	13.6		81	12.62	e.	13.4			
8:19	966.3	15.2	86	e.	4.9	1,152	883.6	13.3	0.18	79	12.06	e.	15.6	3,500		
						1,250	873.4	12.6		81	11.82	e.	15.8			
						1,500	847.9	10.9		85	11.08	ese.	16.2			
8:38	966.4	16.7	78	e.	6.7	1,708	827.1	9.5	0.68	89	10.56	ese.	16.5	6,600		5/10 Ci.St., wsw.; 2/10 St.Cu., se.
						1,750	823.0	9.3		86	10.08	ese.	15.5			
8:58	966.5	17.4	75	e.	8.0	1,991	799.4	8.4	0.39	70	7.71	se.	10.0			
						2,000	798.6	8.3		70	7.66	se.	10.0			
						2,250	774.6	6.6		74	7.22	se.	10.4	8,300		
						2,500	750.8	4.8		78	6.71	se.	10.8	9,200		
						2,750	728.0	3.1		83	6.33	se.	11.2			
						3,000	706.0	1.3		87	5.84	se.	11.6			
						3,250	685.0	−0.4		91	5.38	se.	12.0	12,500		
9:34	966.7	18.9	68	e.	7.2	3,501	664.2	−2.2	0.67	95	4.84	se.	12.4	11,000		
						3,250	685.0	−0.6		92	5.35	se.	12.4	8,900		
						3,000	706.0	1.0		89	5.85	se.	12.4			
						2,750	728.0	2.6		85	6.26	se.	12.5			
						2,500	751.2	4.2		82	6.76	se.	12.5			
9:55	966.9	18.8	68	e.	10.3	2,331	767.5	5.3	0.90	80	7.13	se.	12.5			
						2,250	775.1	6.0		78	7.29	se.	12.7			
						2,000	799.2	8.3		74	8.10	ese.	13.4			
10:12	967.0	19.5	62	ese.	9.8	1,811	817.4	10.0	0.35	70	8.60	e.	13.9	8,200		5/10 Ci.St., wsw.; 2/10 St.Cu., se.; 1/10 St., e.
						1,750	823.8	10.2		71	8.84	e.	14.2			
						1,500	848.8	11.1		77	10.17	e.	15.5			
						1,250	874.5	12.0		83	11.64	e.	16.9			
10:30	967.1	20.9	60	ese.	9.8	1,186	881.1	12.2	0.62	85	12.08	e.	17.2	3,800		
						1,000	901.0	13.3		83	12.67	e.	15.7			
						750	928.0	14.9		81	13.72	e.	13.7			
10:47	967.1	20.5	60	ese.	8.9	704	932.9	15.2	1.72	81	13.99	e.	13.3	1,040		
						500	955.6	18.7		67	14.45	ese.	11.6			
10:54	967.2	20.5	60	ese.	10.7	396	967.2	20.5		60	14.47	ese.	10.7			1/10 Ci.St., wsw.; 3/10 A.St., ssw.; 5/10 A.Cu., s.; few St.Cu., ese.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 26, 1918.

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
7:20	978.6	9.7	78	ne.	3.1	396	978.6	9.7	.....	78	9.38	ne.	3.1	.....	Cloudless.
.....	.....	.....	.....	.....	.....	500	966.6	11.5	.....	64	8.68	ne.	7.4	.....	
7:23	978.7	9.9	77	ne.	3.1	604	954.7	13.3	− 1.73	51	7.79	ene.	11.6	.....	
.....	.....	.....	.....	.....	.....	750	938.0	12.7	.....	48	7.05	ene.	11.8	1,800	
.....	.....	.....	.....	.....	.....	1,000	910.4	11.7	.....	44	6.05	ene.	12.2	.....	
.....	.....	.....	.....	.....	.....	1,250	883.7	10.7	.....	40	5.15	ene.	12.6	3,100	
.....	.....	.....	.....	.....	.....	1,500	857.8	9.8	.....	35	4.24	ene.	13.0	6,200	
.....	.....	.....	.....	.....	.....	1,750	832.3	8.8	.....	31	3.51	ne.	13.5	.....	
.....	.....	.....	.....	.....	.....	2,000	807.5	7.9	.....	27	2.88	ne.	13.9	.....	
.....	.....	.....	.....	.....	.....	2,250	783.6	6.9	.....	22	2.19	ne.	14.3	10,200	
.....	.....	.....	.....	.....	.....	2,500	760.4	5.9	.....	18	1.67	ne.	14.8	.....	
8:27	979.2	12.5	60	ne.	2.7	2,669	744.9	5.2	3.92	15	1.33	ne.	14.9	.....	
.....	.....	.....	.....	.....	.....	2,750	737.3	4.8	.....	15	1.55	ne.	14.6	.....	
.....	.....	.....	.....	.....	.....	3,000	714.7	3.7	.....	14	1.11	ne.	13.5	13,000	
.....	.....	.....	.....	.....	.....	3,250	693.1	2.6	.....	13	0.96	nne.	12.4	.....	
.....	.....	.....	.....	.....	.....	3,500	672.5	1.5	.....	12	0.82	nne.	11.4	17,000	
9:28	979.5	15.4	51	ne.	3.6	3,738	653.4	0.5	0.44	12	0.76	nne.	10.4	9,500	
.....	.....	.....	.....	.....	.....	3,750	652.0	0.4	.....	12	0.75	nne.	10.3	.....	
.....	.....	.....	.....	.....	.....	4,000	632.3	− 1.1	.....	12	0.67	nne.	8.8	20,000	
.....	.....	.....	.....	.....	.....	4,250	612.9	− 2.7	.....	12	0.59	nne.	7.3	.....	
10:43	979.7	18.3	34	ene.	4.9	4,299	609.0	− 3.0	0.61	12	0.57	nne.	7.0	.....	
.....	.....	.....	.....	.....	.....	4,250	612.9	− 2.7	.....	12	0.59	nne.	7.2	18,000	
.....	.....	.....	.....	.....	.....	4,000	632.3	− 1.2	.....	12	0.66	nne.	8.3	.....	
.....	.....	.....	.....	.....	.....	3,750	652.0	0.3	.....	12	0.75	nne.	9.4	.....	
.....	.....	.....	.....	.....	.....	3,500	672.5	1.8	.....	11	0.77	nne.	10.6	.....	
.....	.....	.....	.....	.....	.....	3,250	693.1	3.2	.....	11	0.85	nne.	11.7	.....	
11:18	979.6	19.1	28	ene.	5.4	3,089	707.3	4.2	0.21	11	0.91	nne.	12.4	11,500	
.....	.....	.....	.....	.....	.....	3,000	714.7	4.4	.....	11	0.92	nne.	12.2	.....	
.....	.....	.....	.....	.....	.....	2,750	737.3	4.9	.....	11	0.95	nne.	11.8	.....	
.....	.....	.....	.....	.....	.....	2,500	760.4	5.4	.....	11	0.99	nne.	11.4	.....	
.....	.....	.....	.....	.....	.....	2,250	783.6	6.0	.....	12	1.12	ne.	10.9	8,600	
.....	.....	.....	.....	.....	.....	2,000	807.9	6.5	.....	12	1.16	ne.	10.5	.....	
11:48	979.5	19.4	29	ene.	5.4	1,796	828.6	6.9	0.71	12	1.19	ne.	10.1	7,700	
.....	.....	.....	.....	.....	.....	1,750	833.4	7.2	.....	13	1.32	ne.	10.0	.....	
.....	.....	.....	.....	.....	.....	1,500	858.9	9.0	.....	18	2.07	ne.	9.7	.....	
.....	.....	.....	.....	.....	.....	1,250	885.1	10.8	.....	23	2.98	nne.	9.4	.....	
P. M.															
.....	.....	.....	.....	.....	.....	1,000	912.4	12.6	.....	28	4.09	nne.	9.1	2,000	
.....	.....	.....	.....	.....	.....	750	940.1	14.4	.....	32	5.25	nne.	8.8	.....	
12:13	979.4	20.0	28	ene.	5.4	719	943.8	14.6	1.70	33	5.48	nne.	8.8	680	
.....	.....	.....	.....	.....	.....	500	968.0	18.3	.....	29	6.10	ne.	5.9	.....	
12:20	979.4	20.1	27	ne.	4.5	396	979.4	20.1	.....	27	6.35	ne.	4.5	.....	Cloudless.

September 27, 1918.

A. M.															
6:58	980.1	5.0	78	wsw.	4.0	396	980.1	5.0	.....	78	6.80	wsw.	4.0	.....	Few Ci., ese.
.....	.....	.....	.....	.....	.....	500	968.0	9.0	.....	66	7.58	wsw.	6.9	.....	
7:03	980.1	5.4	77	wsw.	4.0	596	956.7	12.6	− 3.80	55	8.02	wsw.	9.6	1,500	
.....	.....	.....	.....	.....	.....	750	939.2	12.2	.....	52	7.39	w.	7.6	3,000	
.....	.....	.....	.....	.....	.....	1,000	911.9	11.6	.....	48	6.56	nw.	4.5	7,000	
8:41	979.7	12.0	50	w.	5.4	1,063	905.2	11.5	0.24	47	6.38	nw.	3.7	7,000	
.....	.....	.....	.....	.....	.....	1,250	885.2	10.3	.....	48	6.01	wnw.	2.8	.....	
8:44	979.7	12.3	47	w.	4.9	1,378	871.6	9.5	0.72	48	5.70	wnw.	2.2	.....	
.....	.....	.....	.....	.....	.....	1,250	885.2	10.5	.....	48	6.10	wnw.	2.7	.....	
9:03	979.7	13.6	46	w.	4.9	1,003	911.5	12.5	0.49	48	6.96	nw.	3.6	.....	
.....	.....	.....	.....	.....	.....	750	939.0	13.7	.....	45	7.06	wnw.	4.5	2,200	
9:19	979.6	14.3	44	w.	4.9	619	954.1	14.4	0.26	44	7.22	w.	10.2	0	
.....	.....	.....	.....	.....	.....	500	967.9	14.7	.....	43	7.19	w.	7.4	.....	
9:24	979.6	15.0	42	w.	4.9	396	979.6	15.0	.....	42	7.16	w.	4.9	.....	Few Ci., ese.

September 28, 1918.

A. M.															
6:47	968.8	11.1	59	w.	4.5	396	968.8	11.1	.....	59	7.79	w.	4.5	.....	Cloudless.
.....	.....	.....	.....	.....	.....	500	957.1	14.0	.....	53	8.47	w.	7.5	.....	
6:58	968.9	11.1	57	wnw.	4.5	723	932.3	20.3	−2.82	39	9.29	nnw.	14.0	0	
.....	.....	.....	.....	.....	.....	750	929.5	20.1	.....	39	9.18	nnw.	13.9	.....	
.....	.....	.....	.....	.....	.....	1,000	902.1	18.1	.....	43	8.93	nnw.	13.2	.....	
.....	.....	.....	.....	.....	.....	1,250	876.0	16.0	.....	46	8.36	nw.	12.5	2,200	
.....	.....	.....	.....	.....	.....	1,500	850.9	14.0	.....	50	7.99	nw.	11.8	.....	
7:21	969.0	12.4	56	wnw.	4.5	1,674	833.8	12.6	0.81	52	7.59	nw.	11.8	4,500	
.....	.....	.....	.....	.....	.....	1,750	826.0	11.9	.....	54	7.52	nw.	11.4	.....	
.....	.....	.....	.....	.....	.....	2,000	801.7	9.5	.....	60	7.12	wnw.	11.9	.....	
.....	.....	.....	.....	.....	.....	2,250	777.7	7.1	.....	64	6.46	wnw.	12.4	.....	
7:48	969.1	13.0	55	nw.	3.6	2,320	771.6	6.4	0.96	68	6.53	wnw.	12.5	9,500	
.....	.....	.....	.....	.....	.....	2,500	754.4	5.8	.....	60	5.53	wnw.	12.3	.....	
.....	.....	.....	.....	.....	.....	2,750	731.9	5.1	.....	49	4.31	nw.	11.9	.....	
8:10	969.3	14.1	50	nw.	1.8	2,996	710.3	4.3	0.31	38	3.16	nw.	11.6	11,000	
.....	.....	.....	.....	.....	.....	3,250	688.7	3.3	.....	36	2.79	nw.	12.6	.....	
.....	.....	.....	.....	.....	.....	3,500	668.0	2.3	.....	33	2.38	nw.	13.5	12,500	
.....	.....	.....	.....	.....	.....	3,750	647.9	1.3	.....	31	2.08	nw.	14.4	.....	
9:16	969.9	18.4	48	nw.	3.1	3,867	638.5	0.8	0.40	30	1.94	nw.	14.9	.....	
.....	.....	.....	.....	.....	.....	4,000	628.1	− 0.2	.....	31	1.86	nw.	15.2	.....	
.....	.....	.....	.....	.....	.....	4,250	608.8	− 2.2	.....	34	1.73	nw.	15.8	.....	
.....	.....	.....	.....	.....	.....	4,500	590.0	− 4.1	.....	37	1.60	nw.	16.4	16,500	
10:05	969.9	22.3	35	nw.	3.1	4,564	585.1	− 4.6	0.78	38	1.58	nw.	16.6	16.500	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 28, 1918—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Electric potential.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*volts.*	
						4,750	571.8	− 5.7		39	1.47	nw.	16.6		
						5,000	553.5	− 7.2		41	1.36	nw.	16.7		
10:18	969.8	22.9	37	nw.	3.6	5,118	545.3	− 7.9	0.61	42	1.31	nw.	16.7		
						5,000	553.5	− 7.2		42	1.39	nw.	16.2		
						4,750	571.8	− 5.6		42	1.60	nw.	15.2		
						4,500	590.0	− 4.0		42	1.84	nw.	14.1		
						4,250	608.8	− 2.5		42	2.08	nw.	13.1		
						4,000	628.1	− 0.9		42	2.38	nw.	12.0		
						3,750	647.9	0.7		42	2.70	nw.	11.0		
10:53	969.6	24.0	33	nw.	4.0	3,635	657.1	1.4	0.53	42	2.84	nw.	10.5	10,000	
						3,500	668.0	2.1		41	2.92	nw.	11.1		
						3,250	689.1	3.4		38	2.96	nw.	12.1	8,200	
11:16	969.5	24.9	34	nnw.	3.6	3,032	708.1	4.6	0.46	36	3.05	nw.	13.0		
						3,000	711.1	4.7		37	3.16	nw.	13.0		
						2,750	733.4	5.9		42	3.90	nw.	13.0		
						2,500	756.0	7.0		47	4.71	nw.	13.0	5,500	
						2,250	779.1	8.2		53	5.76	nw.	13.1		
						2,000	803.0	9.3		58	6.80	nw.	13.1		
						1,750	827.4	10.5		63	8.00	nw.	13.1		
11:47	969.3	25.5	31	nnw.	4.5	1,719	830.1	10.6	0.99	64	8.18	nw.	13.1	2,000	
						1,500	852.3	12.8		60	8.87	nw.	12.6		
						1,250	878.0	15.3		54	9.39	nw.	12.1	700	
						1,000	903.9	17.7		50	10.12	nw.	11.5		
						750	931.0	20.2		44	10.42	nw.	10.9		
P. M.															
12:14	969.1	25.4	31	n.	4.5	733	932.3	20.4	1.46	44	10.55	nw.	10.9	0	
						500	958.2	23.8		34	10.03	nnw.	6.1		
12:21	969.1	25.3	30	n.	4.0	396	969.1	25.3		30	9.68	n.	4.0		Cloudless.

September 29, 1918.

A. M.															
6:17	970.7	8.6	66	sw.	4.9	396	970.7	8.6		66	7.37	sw.	4.9		Cloudless.
						500	958.9	11.6		61	8.33	sw.	7.3		
6:22	970.7	9.0	63	sw.	4.5	666	940.0	16.4	−2.89	52	9.70	sw.	11.1	1,280	
						750	931.0	16.0		53	9.64	sw.	11.2		
						1,000	904.1	15.0		55	9.38	wsw.	11.4		
						1,250	877.5	13.9		58	9.21	wnw.	11.7	4,500	
6:45	970.8	9.6	61	sw.	4.5	1,268	875.6	13.8	0.43	58	9.15	wnw	11.7		
						1,500	852.0	11.9		61	8.50	wnw.	12.6		
						1,750	826.8	9.8		65	7.88	wnw.	13.6	8,000	
						2,000	802.5	7.7		69	7.25	nw.	14.7		
						2,250	778.8	5.6		72	6.55	nw.	15.7		
7:03	970.9	11.2	55	sw.	4.9	2,431	761.2	4.1	0.83	75	6.14	nw.	16.4		
						2,500	755.0	3.8		73	5.85	nw.	16.5	11,500	
						2,750	732.0	2.9		66	4.97	nw.	16.7		
						3,000	709.7	1.9		59	4.14	nw.	16.9		
						3,250	688.0	0.9		52	3.39	nw.	17.1	14,500	
7:44	971.2	13.6	48	sw.	4.0	3,485	668.3	0.0	0.39	46	2.81	nw.	17.3		
						3,500	667.0	− 0.1		46	2.79	nw.	17.3		
						3,750	646.7	− 1.7		44	2.33	nw.	17.7	16,400	
						4,000	626.5	− 3.2		42	1.97	nw.	18.1		
						4,250	607.0	− 4.8		41	1.67	nw.	18.5	18,200	
						4,500	588.6	− 6.3		39	1.40	nw.	18.9		
8:36	971.3	16.6	42	sw.	6.3	4,622	579.6	− 7.1	0.66	38	1.27	nw.	19.1	20,500	
						4,500	588.6	− 6.3		38	1.36	nw.	18.9		
						4,250	607.8	− 4.5		38	1.59	nw.	18.6		
						4,000	627.4	− 2.8		38	1.84	nw.	18.3		
9:02	971.3	18.6	36	sw.	9.8	3,912	634.7	− 2.2	0.54	38	1.93	nw.	18.2		
						3,750	647.9	− 1.3		39	2.14	nw.	17.2		
						3,500	668.3	0.0		42	2.57	nw.	15.7		
						3,250	689.2	1.4		44	2.97	nw.	14.1	12,000	
						3,000	710.9	2.7		46	3.41	nw.	12.6		
9:30	971.1	20.3	31	wsw.	8.0	2,760	732.1	4.0	0.27	48	3.90	nw.	11.1		
						2,750	733.3	4.0		49	3.98	nw.	11.1		
						2,500	756.1	4.7		70	5.98	wnw.	10.5	8,500	
9:40	971.0	19.9	32	sw.	8.9	2,393	765.9	5.0	0.96	79	6.89	wnw.	10.2		
						2,250	779.4	6.4		76	7.30	wnw.	10.6		
						2,000	803.0	8.8		72	8.16	wnw.	11.4		
						1,750	827.2	11.2		67	8.91	w.	12.2	5,000	
						1,500	852.8	13.5		62	9.59	w.	13.0		
9:57	970.9	20.2	31	sw.	8.5	1,264	876.9	15.8	0.68	58	10.41	w.	13.7		
						1,250	878.2	15.9		58	10.48	w.	13.8	3,000	
10:08	970.9	20.7	32	sw.	8.5	1,014	903.0	17.5	− 1.11	51	10.20	w.	15.2		
						1,000	903.3	17.3		51	10.07	w.	15.0		
10:12	970.9	20.6	31	wsw.	8.0	789	927.1	15.0	1.63	46	7.84	w.	12.1		
						750	930.5	15.6		45	7.97	w.	11.8	1,080	
						500	958.9	19.7		36	8.26	wsw.	9.7		
10:23	970.9	21.4	32	wsw.	8.9	396	970.9	21.4		32	8.16	wsw.	8.9		Cloudless.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, September, 1918*—Continued.

September 30, 1918.

Surface.						At different heights above sea.									Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Electric potential.	
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.		
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	*volts.*	
6:11	976.9	7.8	56	ne.	4.0	396	976.9	7.8	.....	56	5.92	ne.	4.0	.....	10/10 St. Cu., wsw.
.....	.....	.....	.....	.....	.....	500	964.5	7.9	.....	56	5.96	ne.	6.8	.....	
6:22	977.1	7.9	52	ne.	4.0	702	941.5	8.0	−0.65	56	6.01	ne.	12.1	0	
.....	.....	.....	.....	.....	.....	750	936.0	7.6	.....	56	5.85	ne.	12.0	.....	
.....	.....	.....	.....	.....	.....	1,000	908.3	5.6	.....	56	5.10	n.	11.7	.....	
6:34	977.3	7.9	52	nnw.	3.1	1,161	890.5	4.3	0.81	56	4.65	nnw.	11.5	1,500	Rain began 6:33 a. m., and continued at end of flight.
.....	.....	.....	.....	.....	.....	1,250	881.3	4.4	.....	56	4.69	nnw.	12.5	.....	
.....	.....	.....	.....	.....	.....	1,500	854.9	4.8	.....	57	4.90	n.	15.3	.....	
6:50	977.5	7.9	52	nne.	4.0	1,673	836.3	5.1	−0.16	58	5.10	n	17.2	.....	
.....	.....	.....	.....	.....	.....	1,750	828.7	4.4	.....	66	5.52	n.	16.5	10,500	
6:59	977.7	7.8	55	nne.	4.9	2,000	803.6	2.2	0.89	94	6.73	nnw.	14.1	.....	
.....	.....	.....	.....	.....	.....	2,250	779.0	1.2	.....	96	6.39	nnw.	10.4	8,000	
7:13	977.9	7.7	56	nne.	4.9	2,388	765.7	0.6	0.50	97	6.19	nnw.	9.3	12,000	
.....	.....	.....	.....	.....	.....	2,250	779.0	1.4	.....	92	6.22	nnw.	11.0	.....	
.....	.....	.....	.....	.....	.....	2,000	803.4	2.9	.....	83	6.25	n.	14.0	.....	
7:25	978.0	7.3	60	ne.	5.8	1,863	816.8	3.7	−0.12	78	6.21	n.	15.7	.....	
.....	.....	.....	.....	.....	.....	1,750	828.7	3.6	.....	81	6.41	n.	14.8	.....	
.....	.....	.....	.....	.....	.....	1,500	854.2	3.3	.....	87	6.73	n.	12.9	.....	
7:32	978.1	7.0	65	ne.	5.8	1,438	860.9	3.2	−0.23	88	6.77	n.	12.4	.....	
.....	.....	.....	.....	.....	.....	1,250	880.8	2.8	.....	64	4.78	n.	12.2	.....	
7:37	978.1	6.9	67	ne.	5.8	1,220	884.3	2.7	0.49	63	4.67	n.	12.2	28,000	10/10 St., wsw.
.....	.....	.....	.....	.....	.....	1,000	908.3	3.8	.....	57	4.57	nne.	13.3	.....	
.....	.....	.....	.....	.....	.....	750	937.0	5.0	.....	49	4.27	ne.	14.9	30,000	
7:44	978.2	6.2	74	ne.	5.8	710	941.5	5.2	0.25	48	4.25	ne.	14.7	.....	
.....	.....	.....	.....	.....	.....	500	966.7	5.7	.....	67	6.14	ne.	7.9	.....	
7:51	978.3	6.0	76	ne.	4.5	396	978.3	6.0	.....	76	7.11	ne.	4.5	.....	10/10 St., wsw.

TABLE 10.—*Free-air data from kite flights at Ellendale Aerological Station, July, 1918.*

July 1, 1918.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	°*C.*	%		*m.p.s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m.p.s.*	
7:16	963.7	14.0	80	ssw.	4.5	444	963.7	14.0	.....	80	12.78	ssw.	4.5	4/10 Ci.St., w.
						500	957.1	14.6	.....	72	11.97	ssw.	5.6	
						750	929.7	17.4	.....	39	7.75	sw.	10.4	
7:25	963.7	14.7	76	ssw.	4.0	784	925.9	17.8	−1.12	34	6.93	sw.	11.1	
						1,000	902.7	16.6	.....	39	7.37	sw.	9.9	
						1,250	876.2	15.2	.....	44	7.60	sw.	8.5	
7:51	963.5	16.3	71	ssw.	4.5	1,308	870.6	14.9	0.55	45	7.62	sw.	8.2	
						1,500	851.0	14.3	.....	45	7.34	sw.	8.2	
						1,750	826.1	12.7	.....	46	6.76	wsw.	8.1	
8:22	963.4	18.0	65	ssw.	5.8	1,851	816.6	11.4	0.64	47	6.34	w.	8.0	
						2,000	802.1	10.2	.....	47	5.85	w.	7.7	
						2,250	778.2	8.3	.....	46	5.04	w.	7.1	
						2,500	755.1	6.3	.....	46	4.39	w.	6.5	5/10 C.St., w.
10:07	962.4	22.0	54	s.	7.2	2,516	753.4	6.2	0.90	46	4.36	w.	6.5	
						2,500	755.1	6.4	.....	46	4.42	w.	6.5	
						2,250	778.2	8.9	.....	44	5.02	w.	6.7	
						2,000	802.0	11.5	.....	41	5.56	wsw.	6.9	
11:03	961.8	23.5	53	s.	6.7	1,968	804.4	11.8	0.85	41	5.67	wsw.	6.9	
						1,750	825.8	13.7	.....	40	6.27	wsw.	7.1	
						1,500	850.3	15.8	.....	38	6.82	sw.	7.3	
11:18	961.6	23.7	51	s.	7.6	1,251	875.3	17.9	−0.59	37	7.59	sw.	7.5	
11:22	961.5	23.8	51	s.	6.3	1,065	894.4	16.8	0.74	49	9.37	sw.	7.8	
						1,000	901.1	17.3	.....	50	9.88	sw.	7.8	
						750	928.0	19.1	.....	55	12.16	s.	7.9	
11:35	961.4	24.0	48	s.	5.8	739	929.3	19.2	1.80	55	12.24	s.	7.9	
						500	955.3	23.5	.....	49	14.19	s.	7.3	
11:44	961.3	24.5	48	s.	7.2	444	961.3	24.5	.....	48	14.76	s.	7.2	4/10 Ci.St., w.
July 2, 1918 (No. 1).														
A. M.														
6:28	960.9	13.3	86	nne.	6.3	444	960.9	13.3	.....	86	13.13	nne.	6.3	Few Ci.St., w.
						500	954.8	14.2	.....	75	12.14	nne.	7.0	
						750	927.2	18.3	.....	27	5.68	ene.	10.1	
6:40	961.0	14.7	85	ne.	5.8	784	923.3	18.9	−1.65	20	4.37	ene.	10.5	
						1,000	900.5	18.3	.....	17	3.58	ene.	8.8	
6:55	961.1	16.2	79	ne.	5.8	1,098	890.2	18.0	0.29	16	3.30	ene.	8.1	
						1,250	874.4	17.3	.....	20	3.95	ene.	6.9	
						1,500	849.2	16.2	.....	25	4.60	e.	4.9	
7:54	961.1	18.4	58	ene.	5.4	1,530	846.2	16.1	0.54	26	4.76	e.	4.7	Few Ci.St., w.
						1,500	849.2	16.3	.....	25	4.63	e.	4.9	
						1,250	874.4	17.9	.....	21	4.31	e.	6.1	
8:47	961.1	20.0	54	e.	7.2	1,099	890.2	18.8	−0.80	18	3.91	e.	6.9	
						1,000	900.5	18.0	.....	23	4.75	e.	7.2	
9:03	961.1	20.3	52	e.	8.0	850	916.6	16.8	0.94	31	5.93	e.	7.6	
						750	927.2	17.7	.....	36	7.29	e.	8.4	
						500	954.8	20.1	.....	49	11.53	e.	10.3	
9:13	961.0	20.6	52	e.	10.7	444	961.0	20.6	.....	52	12.62	e.	10.7	2/10 Ci.St., w.
July 2, 1918 (No. 2).														
P. M.														
12:43	959.3	25.3	43	se.	7.6	444	959.3	25.3	.....	43	13.87	se.	7.6	9/10 Ci.St., w.
						500	953.4	24.6	.....	43	13.30	se.	8.0	
						750	926.0	21.3	.....	45	11.40	se.	9.7	
12:53	959.2	25.2	42	se.	8.0	784	922.6	20.9	1.29	45	11.12	se.	9.9	
						1,000	899.2	20.1	.....	39	9.18	sse.	10.1	
						1,250	873.0	19.2	.....	32	7.12	sse.	10.5	
						1,500	848.0	18.3	.....	26	5.47	s.	10.7	
1:20	958.9	25.8	40	se.	11.2	1,528	845.7	18.2	0.36	25	5.22	s.	10.7	
						1,750	823.8	17.8	.....	21	4.28	ssw.	9.7	6/10 Ci.St., w.; 3/10 St.Cu., wnw.
1:43	958.6	25.5	42	se.	8.5	1,922	807.4	17.5	0.18	18	3.60	sw.	8.9	
						2,000	799.9	16.9	.....	19	3.66	sw.	9.4	
						2,250	776.1	15.0	.....	21	3.58	sw.	10.9	
						2,500	753.7	13.1	.....	23	3.47	wsw.	12.5	
						2,750	731.5	11.1	.....	25	3.30	wsw.	14.1	
2:00	958.4	25.4	48	se.	7.2	2,806	726.8	10.7	0.77	25	3.22	wsw.	14.4	
						3,000	710.0	9.2	.....	27	3.14	wsw.	15.0	
						3,250	689.0	7.3	.....	29	2.97	wsw.	15.7	
						3,500	668.8	5.4	.....	31	2.78	w.	16.5	
						3,750	648.3	3.5	.....	33	2.59	w.	17.2	
2:32	958.0	25.4	50	se.	8.9	3,780	646.2	3.3	0.86	33	2.55	w.	17.3	
						3,750	648.3	3.6	.....	30	2.37	w.	17.2	
						3,500	668.8	6.0	.....	31	2.90	w.	16.4	
						3,250	689.0	8.4	.....	30	3.31	w.	15.7	
						3,000	710.0	10.9	.....	28	3.65	w.	14.9	
3:11	957.6	26.8	46	e.	8.5	2,966	713.6	11.2	0.72	28	3.72	w.	14.8	
						2,750	731.5	12.7	.....	26	3.97	wsw.	14.6	
						2,500	753.7	14.5	.....	25	4.13	wsw.	14.5	
3:32	957.4	26.5	46	e.	10.3	2,282	774.0	16.1	0.68	23	4.21	sw.	14.3	
						2,250	776.1	16.3	.....	23	4.26	sw.	14.3	
						2,000	799.2	18.0	.....	19	3.92	ssw.	14.6	
						1,750	823.0	19.7	.....	16	3.67	s.	14.8	
3:52	957.2	25.8	51	ese.	8.5	1,739	824.2	19.8	−0.07	16	3.70	s.	14.8	Solar halo, 22° radius, from 4:00 to 4:20 p. m.
						1,500	847.3	19.6	.....	31	7.01	sse.	13.4	
4:06	957.1	25.9	49	ese.	8.5	1,330	864.3	19.5	0.64	42	9.52	sse.	12.4	
						1,250	872.5	20.0	.....	44	10.29	sse.	12.3	
						1,000	898.5	21.6	.....	50	12.90	se.	11.8	
4:20	957.0	26.5	50	se.	8.5	892	909.2	22.3	0.85	52	14.00	se.	11.6	
						750	924.7	23.5	.....	52	15.06	se.	10.7	
						500	950.9	25.6	.....	51	16.75	ese.	9.2	
4:35	956.9	26.1	51	ese.	8.9	444	956.9	26.1	.....	51	17.25	ese.	8.9	4/10 Ci.St., wnw.; 6/10 A.St., wnw.

TABLE 10.—*Free-air data from kite flights at Ellendale Aerological Station, July, 1918*—Continued.

July 3, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
4:13	948.1	31.1	51	s.	5.4	444	948.1	31.1	.....	51	23.05	s.	5.4	7/10 St. Cu., sw.
						500	942.2	30.7	.....	51	22.53	s.	6.6	
						750	916.5	28.9	.....	49	19.52	ssw.	12.0	
4:20	948.1	31.2	49	ssw.	13.4	841	907.0	28.3	0.71	48	18.47	ssw.	13.9	
						1,000	890.8	27.5	.....	46	16.89	ssw.	13.4	
4:28	948.1	31.9	50	s.	12.1	1,086	882.2	27.1	0.49	45	16.14	ssw.	13.1	
						1,250	865.4	26.2	.....	41	13.95	sw.	12.6	
						1,500	841.1	24.9	.....	35	11.02	wsw.	11.9	
						1,750	817.8	23.6	.....	28	8.16	w.	11.1	Lightning in w.
4:55	947.9	31.1	46	s.	11.2	1,760	816.7	23.5	0.53	28	8.11	w.	11.1	
						2,000	794.5	21.3	.....	28	7.09	w.	12.3	
						2,250	772.0	18.9	.....	27	5.90	wsw.	13.6	
						2,500	749.5	16.6	.....	27	5.10	wsw.	14.9	
5:07	947.8	30.9	47	s.	9.4	2,545	745.6	16.2	0.94	27	4.97	wsw.	15.1	
						2,500	749.5	16.6	.....	27	5.10	wsw.	14.9	9/10 St.Cu., wsw.
						2,250	771.2	19.0	.....	27	5.93	wsw.	13.7	
						2,000	793.7	21.4	.....	28	7.14	wsw.	12.5	
						1,750	817.0	23.8	.....	28	8.26	wsw.	11.3	
						1,500	840.9	26.2	.....	29	9.87	wsw.	10.1	
5:24	947.6	30.7	48	s.	9.4	1,390	852.1	27.2	0.42	29	10.46	wsw.	9.6	
						1,250	865.0	27.8	.....	32	11.96	sw.	12.2	
						1,000	889.6	28.8	.....	37	14.66	ssw.	16.9	
5:42	947.4	31.2	45	s.	7.6	917	898.6	29.2	0.42	39	15.81	ssw.	18.4	
						750	915.8	29.9	.....	42	17.72	ssw.	14.0	
						500	942.2	31.0	.....	47	21.12	s.	7.3	Lightning in w. and n. 9/10 St.Cu., wsw.
5:53	947.3	31.2	48	s.	5.8	444	947.3	31.2	.....	48	21.82	s.	5.8	

July 4, 1918.

A. M.														
6:46	962.4	16.5	74	nw.	7.2	444	962.4	16.5	.....	74	13.89	nw.	7.2	8/10 A.St., w.
						500	955.8	16.7	.....	67	12.74	nw.	7.9	
						750	928.2	17.7	.....	37	7.49	nnw.	11.3	
6:58	962.7	16.5	74	nw.	6.7	804	923.0	17.9	−0.39	30	6.15	nnw.	12.0	
						1,000	901.8	16.8	.....	27	5.17	nw.	10.6	
						1,250	875.9	15.3	.....	23	4.00	nw.	8.9	
						1,500	850.5	13.9	.....	19	3.02	wnw.	7.2	
8:02	963.5	17.1	65	nnw.	6.3	1,528	848.0	13.7	0.58	19	2.98	wnw.	7.0	
						1,750	825.6	12.3	.....	19	2.72	wnw.	8.5	
						2,000	801.7	10.7	.....	19	2.45	wnw.	10.2	
						2,250	778.0	9.1	.....	18	2.08	wnw.	11.8	
						2,500	755.0	7.5	.....	18	1.87	wnw.	13.5	
						2,750	732.1	5.9	.....	18	1.67	wnw.	15.2	
8:12	963.6	17.7	61	nnw.	8.5	2,965	713.1	4.5	0.64	18	1.52	wnw.	16.6	
						3,000	710.1	4.3	.....	18	1.50	wnw.	17.0	
						3,250	688.9	2.6	.....	21	1.55	wnw.	20.0	
						3,500	667.8	0.9	.....	23	1.50	w.	23.0	4/10 A.St., w.; 2/10 A.Cu., w.
8:54	964.1	19.4	49	nnw.	6.3	3,593	660.0	0.3	0.58	24	1.50	w.	24.1	
						3,500	667.8	0.8	.....	22	1.42	w.	22.4	
						3,250	688.9	2.0	.....	18	1.27	w.	17.7	
9:32	964.5	20.6	45	nnw.	7.6	3,097	701.7	2.7	0.70	16	1.19	w.	14.9	
						3,000	710.1	3.4	.....	17	1.33	w.	14.9	
						2,750	732.1	5.1	.....	20	1.76	w.	14.8	
						2,500	755.0	6.9	.....	23	2.29	w.	14.8	
9:47	964.7	21.3	46	nnw.	8.5	2,481	757.1	7.0	−0.48	23	2.30	w.	14.8	
						2,250	778.0	5.9	.....	24	2.23	wnw.	14.8	
						2,000	801.9	4.7	.....	26	2.22	wnw.	15.0	
						1,750	826.2	3.5	.....	27	2.12	nw.	15.1	
10:12	964.9	21.5	40	nnw.	7.6	1,602	841.8	2.8	9.04	28	4.45	nw.	15.2	
10:18	964.9	21.8	40	nnw.	7.2	1,508	851.1	11.3	0.81	24	3.21	nw.	10.1	
						1,500	851.5	11.4	.....	24	3.24	nw.	10.1	
						1,250	878.0	13.4	.....	32	4.92	nw.	8.8	
						1,000	904.8	15.4	.....	38	6.65	nw.	7.6	
10:39	965.1	22.1	40	nnw.	7.2	796	926.4	17.1	1.51	44	8.58	nw.	6.6	
						750	932.0	17.8	.....	43	8.76	nw.	6.9	
						500	959.2	21.6	.....	36	9.29	nnw.	8.2	
10:52	965.1	22.4	35	nnw.	8.5	444	965.1	22.4	.....	35	9.48	nnw.	8.5	2/10 A.St., w.

July 5, 1918.

A. M.														
9:05	969.9	19.3	52	nnw.	4.5	444	969.9	19.3	.....	52	11.64	nnw.	4.5	Few St.Cu., w.
						500	963.5	18.6	.....	49	10.50	nnw.	4.7	
9:33	969.9	20.4	40	nnw.	6.3	691	942.2	16.4	1.17	38	7.09	nnw.	5.5	
						750	935.6	15.9	.....	38	6.87	nnw.	5.8	
						1,000	908.2	13.8	.....	40	6.31	nnw.	7.0	
9:59	969.9	21.0	35	nnw.	6.7	1,076	900.3	13.1	0.86	40	6.03	nnw.	7.4	
						1,250	881.5	12.0	.....	39	5.47	nnw.	9.9	
						1,500	855.4	10.5	.....	36	4.57	nnw.	13.6	
						1,750	830.2	8.9	.....	34	3.88	nnw.	17.2	
10:28	970.1	22.1	34	nw.	6.7	1,789	826.9	8.7	0.62	34	3.82	nnw.	17.8	
						2,000	805.5	7.7	.....	34	3.57	nnw.	20.2	
						2,250	781.8	6.4	.....	35	3.36	nnw.	23.0	
10:45	970.2	22.3	32	nw.	7.2	2,433	764.9	5.5	0.36	35	3.16	nnw.	25.0	
						2,250	782.2	5.9	.....	36	3.34	nnw.	19.9	
11:31	970.3	23.6	28	nw.	8.5	2,046	802.5	6.4	0.95	37	3.56	nw.	14.3	
						2,000	807.0	6.8	.....	37	3.66	nw.	13.9	
						1,750	832.0	9.2	.....	40	4.66	nw.	11.4	
11:52	970.3	23.8	27	nw.	8.5	1,510	856.1	11.5	1.16	42	5.70	nw.	9.1	
						1,500	858.0	11.6	.....	42	5.74	nw.	9.1	
						1,250	883.9	14.5	.....	38	6.27	nw.	8.4	
						1,000	910.2	17.4	.....	34	6.76	nw.	7.8	

TABLE 10.—*Free-air data from kite flights at Ellendale Aerological Station, July, 1918*—Continued.

July 5, 1918—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
12:13	970.2	24.1	26	nw.	7.6	933	916.7	18.2	0.57	33	6.90	nw.	7.6	
						750	936.7	19.2		33	7.34	nw.	8.1	
12:21	970.2	24.4	28	nw.	8.0	619	950.9	20.0	2.57	30	7.01	nw.	8.4	
						500	963.5	23.1		30	8.48	nw.	7.0	
12:25	970.1	24.5	30	nw.	6.3	444	970.1	24.5		30	9.22	nw.	6.3	Few St.Cu., w.
July 6, 1918.														
A. M.														
9:50	967.0	13.1	89	ene.	8.0	444	967.0	13.1		89	13.42	ene.	8.0	10/10 St.Cu., e.
						500	960.8	12.7		89	13.07	ene.	8.1	
						750	931.7	11.2		92	12.24	e.	8.6	
10:01	966.9	13.4	87	ene.	7.6	793	927.5	10.9	0.63	92	12.00	e.	8.7	Altitude of St.Cu. base about 750 m.
						1,000	904.0	10.2		95	11.83	e.	8.2	
						1,250	877.2	9.4		98	11.55	e.	7.5	
10:53	966.9	14.0	87	ene.	6.7	1,410	861.3	8.9	0.32	100	11.40	e.	7.1	
						1,500	851.3	10.3		93	11.65	ese.	5.9	
11:08	966.9	13.7	86	ene.	10.3	1,530	848.9	10.8	−1.58	90	11.66	ese.	5.5	
						1,750	825.9	9.5		91	10.80	ese.	5.6	
11:38	966.9	13.6	87	e.	5.4	1,990	803.0	8.0	0.58	92	9.87	ese.	5.8	10/10 St.Cu., ese.
						1,750	825.9	9.3		93	10.90	ese.	6.2	Rain from 12:01 to 1:05 p. m.
P. M.														
12:14	966.8	13.6	88	ene.	4.9	1,665	835.1	9.8	0.02	94	11.39	ese.	6.3	Altitude of St.Cu. base about 1,550 m.
						1,500	851.3	9.8		94	11.39	ese.	7.9	
						1,250	877.2	9.9		94	11.47	ese.	10.2	
12:37	966.7	13.8	88	ene.	6.3	1,244	878.5	9.9	0.27	94	11.47	ese.	10.3	
						1,000	904.0	10.6		93	11.89	ese.	10.8	
12:49	966.6	14.4	88	ene.	7.6	837	922.4	11.0	0.87	92	12.08	ese.	11.1	
						750	931.7	11.8		91	12.59	ese.	10.2	
						500	960.8	13.9		89	14.13	ene.	7.8	
1:01	966.5	14.4	88	ene.	7.2	444	966.5	14.4		88	14.43	ene.	7.2	10/10 St.Cu., ese.
July 7, 1918.														
A. M.														
11:10	967.9	16.3	83	se.	4.0	444	967.9	16.3		83	15.38	se.	4.0	10/10 St.Cu., se.
						500	961.3	15.9		84	15.18	se.	4.4	
P. M.														
12:18	967.8	18.4	77	se.	5.4	663	943.2	13.9	0.64	86	13.66	se.	5.5	
						750	933.4	13.4		89	13.68	se.	5.2	
12:50	967.6	18.6	73	se.	4.5	848	922.6	12.8	0.79	93	13.75	se.	4.9	
						750	933.4	13.8		90	14.20	se.	4.9	
12:57	967.6	18.8	72	se.	4.0	615	948.4	15.1	2.16	80	13.73	se.	4.9	
						500	961.3	17.6		75	15.10	se	4.3	
1:00	967.6	18.8	72	se.	4.0	444	967.6	18.8		72	15.62	se.	4.0	10/10 St.Cu., se.
July 8, 1918.														
A. M.														
8:02	970.3	17.0	78	nw.	4.5	444	970.3	17.0		78	15.12	nw.	4.5	9/10 St.Cu., nnw.
						500	964.5	16.4		79	14.73	nw.	5.3	
						750	936.1	13.5		85	13.15	nnw.	6.1	
8:50	970.6	17.8	72	nnw.	7.2	828	927.6	12.6	1.15	87	12.69	nnw.	7.4	
						1,000	908.5	11.0		90	11.82	nw.	7.9	Altitude of St.Cu. base about 1,150 m.
						1,250	881.8	8.6		95	9.49	nw.	8.6	
9:27	970.7	18.5	70	nnw.	6.7	1,486	857.4	6.4	0.94	100	9.61	wnw.	9.2	
						1,500	855.8	6.6		98	9.56	wnw.	9.3	
9:28	970.7	18.6	69	nnw.	6.7	1,679	837.4	8.6	−1.13	69	7.71	wnw.	11.2	
						1,750	830.5	8.3		66	7.23	wnw.	11.8	
						2,000	805.6	7.5		58	6.01	w.	14.0	
						2,250	781.2	6.6		49	4.78	w.	16.1	
9:40	970.8	18.4	70	nnw.	7.6	2,296	776.8	6.4	0.36	47	4.52	w.	16.5	
						2,500	757.6	6.2		37	3.47	w.	16.5	
						2,750	734.9	6.0		24	2.24	w.	16.6	
9:55	970.9	18.4	70	nnw.	7.2	2,860	725.3	5.9	0.89	18	1.67	w.	16.6	
						3,000	712.4	4.9		18	1.56	w.	16.9	
						3,250	691.0	3.2		19	1.46	w.	17.5	
						3,500	669.7	1.4		19	1.28	w.	18.1	
						3,750	649.0	−0.3		20	1.19	w.	18.7	
10:14	970.9	18.3	70	nnw.	7.6	3,772	648.0	−0.5	0.70	20	1.17	w.	18.8	
						4,000	629.0	−1.5		20	1.08	w.	19.6	10/10 St.Cu., nw.
						4,250	610.2	−2.6		21	1.03	w.	20.4	
						4,500	591.9	−3.7		21	0.94	w.	21.3	
10:40	970.9	18.5	70	nnw.	6.3	4,630	582.1	−4.3	0.51	21	0.89	w.	21.7	Altitude of St.Cu. base about 1,550 m.
						4,500	592.0	−3.6		21	0.95	w.	21.2	
						4,250	610.2	−2.2		21	1.07	w.	20.3	
						4,000	629.9	−0.7		21	1.21	w.	19.4	
						3,750	650.0	0.7		21	1.35	w.	18.5	
11:32	970.9	19.0	66	nnw.	7.2	3,619	660.8	1.4	0.66	21	1.42	w.	18.0	
						3,500	670.2	2.2		21	1.50	w.	17.6	
						3,250	691.0	3.7		20	1.59	w.	16.9	
						3,000	712.4	5.5		18	1.63	wnw.	16.1	
						2,750	734.9	7.0		17	1.70	wnw.	15.3	

TABLE 10.—*Free-air data from kite flights at Ellendale Aerological Station, July, 1918*—Continued.

July 8, 1918—Continued.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
12:05	970.9	19.0	64	nnw.	3.6	2,665	742.9	7.7	−0.13	17	1.79	wnw.	15.0	
						2,500	757.6	7.5		31	3.21	wnw.	13.3	
						2,250	781.2	7.1		52	5.25	wnw.	10.7	
						2,000	805.6	6.8		83	8.20	nw.	8.0	
						1,750	830.5	6.5		95	9.20	nw.	5.5	Altitude of St.Cu. base about 1,500 m.
12:20	971.0	19.1	63	nw.	6.3	1,686	837.4	6.4	0.89	100	9.61	nw.	4.8	
						1,500	856.3	8.1		95	10.26	nw.	5.0	
12:37	971.1	19.2	62	nw.	7.2	1,316	876.0	9.7	0.92	90	10.83	nw.	5.1	
						1,250	882.8	10.3		88	11.03	nw.	5.7	
						1,000	909.6	12.6		81	11.82	nw.	8.0	
12:57	971.3	19.0	62	nw.	8.0	913	919.2	13.4	1.22	78	11.99	nw.	8.8	
						750	936.5	15.4		73	12.78	nw.	8.7	
						500	964.5	18.4		66	13.97	nw.	8.5	
1:12	971.3	19.1	64	nw.	8.5	444	971.3	19.1		64	14.15	nw.	8.5	9/10 St.Cu., nw.

July 9, 1918.

A. M.														
6:25	972.8	12.5	89	nnw.	5.4	444	972.8	12.5		89	12.90	nnw.	5.4	4/10 St.Cu., nnw.
						500	966.0	12.6		84	12.26	nnw.	5.9	
6:37	972.8	12.8	87	nnw.	5.4	736	939.5	13.2	−0.24	64	9.71	nne.	8.0	
						750	938.0	13.1		63	9.50	nne.	8.0	
6:57	973.0	13.5	84	nnw.	5.4	981	912.9	12.3	0.37	48	6.87	nnw.	8.0	
						1,000	911.0	12.1		49	6.92	nnw.	8.0	
						1,250	884.2	10.2		58	7.22	nnw.	8.5	
						1,500	858.0	8.2		67	7.28	nnw.	9.0	
						1,750	832.3	6.2		76	7.20	nnw.	9.4	
7:23	973.1	14.7	81	n.	6.3	1,784	828.7	5.9	0.80	77	7.15	nnw.	9.5	
						2,000	807.5	5.7		48	4.40	nnw.	9.1	
7:50	973.3	15.4	76	nne.	7.2	2,215	786.2	5.6	0.07	20	1.82	nnw.	8.7	
						2,250	783.0	5.5		20	1.81	nnw.	8.7	
						2,500	759.0	4.5		18	1.52	nnw.	8.8	
						2,750	735.6	3.6		16	1.27	nnw.	9.0	
						3,000	713.5	2.6		14	1.03	nnw.	9.1	
						3,250	692.1	1.7		12	0.83	nnw.	9.2	
9:22	973.2	17.7	61	nne.	6.7	3,464	674.3	0.9	0.44	11	0.72	nnw.	9.3	2/10 Ci.St., w.
						3,250	692.1	1.9		11	0.77	nnw.	9.2	
						3,000	713.5	3.2		11	0.85	n.	9.2	
						2,750	735.6	4.4		11	0.92	n.	9.1	
9:57	973.0	18.4	60	nne.	7.2	2,662	744.9	4.8	0.49	11	0.95	n.	9.1	
						2,500	759.0	5.6		11	1.00	n.	9.8	
						2,250	783.0	6.8		11	1.09	n.	10.9	
						2,000	807.5	8.0		12	1.29	nnw.	12.0	
						1,750	832.3	9.3		12	1.41	nnw.	13.1	
10:31	972.6	19.0	54	n.	6.7	1,602	847.1	10.0	−1.24	12	1.47	nnw.	13.8	
						1,500	858.0	8.7		13	1.46	n.	9.1	
10:39	972.5	19.0	52	n.	6.3	1,481	859.4	8.5	0.79	13	1.44	n.	8.2	
						1,250	884.2	10.3		42	5.26	n.	8.5	
10:51	972.4	19.5	51	n.	7.2	1,040	906.4	12.0	0.76	68	9.54	n.	8.8	
						1,000	911.0	12.3		67	9.59	n.	8.7	
11:04	972.3	19.7	50	nne.	7.2	752	937.8	14.2	1.95	57	9.23	nne.	8.4	
						500	938.0	19.1		52	11.50	nne.	7.0	
11:13	972.2	20.2	51	nne.	6.7	444	972.2	20.2		51	12.08	nne.	6.7	8/10 Ci.St., w.

July 11, 1918.

P. M.														
12:42	970.7	24.3	39	se.	6.3	444	970.7	24.3		39	11.85	se.	6.3	4/10 Ci.St., wnw.; 2/10 Cu., sse.
						500	964.7	23.6		40	11.65	se.	6.3	
						750	937.0	20.3		45	10.72	se.	6.4	
1:22	970.5	24.6	40	sse.	5.8	874	923.5	18.7	1.30	47	10.14	se.	6.5	
						1,000	909.6	17.4		50	9.94	se.	6.6	
						1,250	883.1	14.7		56	9.37	se.	6.8	
2:02	970.3	25.4	43	sse.	6.7	1,314	876.6	14.0	1.07	57	9.11	se.	6.9	
						1,500	857.1	12.3		63	9.02	se.	6.8	
						1,750	831.8	10.0		72	8.84	sse.	6.6	5/10 Ci.St., wnw.; 2/10 Cu, sse. 1/10 St.Cu., sse.
3:54	969.9	26.1	40	se.	6.7	1,876	819.6	8.8	0.93	76	8.61	sse.	6.5	
						2,000	807.2	9.1		63	7.28	sse.	5.7	
						2,250	783.4	9.7		36	4.33	sse.	4.0	
4:19	969.9	25.3	40	se.	7.6	2,362	772.7	10.0	−1.29	24	2.95	sse.	3.3	
						2,250	783.4	7.4		68	7.00	sse.	6.0	
4:30	969.9	25.2	41	se.	8.0	2,190	789.2	6.0	1.11	92	8.60	sse.	7.4	Altitude of St.Cu., base about 2,300 m.
						2,000	807.2	8.1		84	9.07	sse.	7.4	
						1,750	831.8	10.9		74	9.65	se.	7.3	
4:55	969.9	24.8	44	se.	7.2	1,587	848.7	12.7	0.96	68	9.99	se.	7.3	
						1,500	857.1	13.5		65	10.06	se.	7.3	
						1,250	883.1	15.9		58	10.48	se.	7.3	
						1,000	909.6	18.3		50	10.52	se.	7.4	
5:18	969.8	24.0	44	se.	6.7	899	920.1	19.3	1.08	47	10.52	se.	7.4	
						750	937.0	20.9		46	11.37	se.	6.9	
						500	964.7	23.6		44	12.82	se.	6.0	
5:30	969.7	24.2	44	se.	5.8	444	969.7	24.2		44	13.29	se.	5.8	4/10 Ci.St., wnw.; 3/10 A.St., wnw. 1/10 St.Cu., sse.

TABLE 10.—*Free-air data from kite flights at Ellendale Aerological Station, July, 1918*—Continued.

July 12, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
7:34	968.2	16.8	84	se.	6.3	444	968.2	16.8	.....	84	16.07	se.	6.3	10/10 St., sse.
						500	961.9	17.0	.....	80	15.50	se.	8.4	
						750	934.0	17.8	.....	60	12.23	sse.	18.0	
7:42	968.1	17.1	83	se.	5.8	828	925.7	18.0	−0.31	54	11.15	sse.	21.0	
						1,000	907.0	16.9	.....	59	11.36	sse.	20.0	
						1,250	881.1	15.3	.....	67	11.64	sse.	18.6	
8:05	967.9	17.2	81	sse.	8.0	1,305	875.1	14.9	0.65	69	11.69	sse.	18.3	
						1,500	855.8	13.8	.....	68	10.73	sse.	18.1	
						1,750	830.4	12.4	.....	67	9.65	s.	17.7	
8:30	967.8	18.2	74	sse.	8.0	1,856	819.4	11.8	0.57	66	9.13	s.	17.6	
						1,750	830.4	12.4	.....	66	9.50	s.	18.8	
						1,500	855.8	13.9	.....	67	10.64	s.	21.8	
9:13	967.5	18.2	73	sse.	8.0	1,301	875.1	15.0	0.48	67	11.42	s.	24.1	
						1,250	881.1	15.2	.....	67	11.57	s.	23.2	
						1,000	907.0	16.4	.....	66	12.31	s.	18.6	
9:32	967.4	18.4	72	sse.	7.6	822	925.7	17.3	0.58	65	12.84	s.	15.4	
						750	934.0	17.7	.....	66	13.36	s.	14.4	
						500	961.7	19.2	.....	68	15.13	sse.	11.1	
10:25	967.2	19.5	68	sse.	10.3	444	967.2	19.5	.....	68	15.42	sse.	10.3	10/10 St., sse.

July 13, 1918.

A. M.														
8:06	962.1	20.3	78	nnw.	6.3	444	962.1	20.3	.....	78	18.58	nnw.	6.3	1/10 A.St., w.
						500	956.0	19.0	.....	80	17.58	nnw.	6.1	
						750	928.0	13.4	.....	90	13.83	nnw.	5.3	
9:44	962.5	21.9	66	nnw.	6.3	890	913.3	10.2	2.26	96	11.95	nnw.	4.9	7/10 St.Cu., wnw.
						1,000	901.0	9.4	.....	97	11.44	nnw.	4.8	
10:10	962.6	21.6	71	nnw.	7.6	1,191	880.7	8.0	0.73	100	10.73	nnw.	4.6	Altitude of St.Cu. base about 1,150 m.
						1,250	874.2	8.9	.....	89	10.15	nnw.	5.7	
						1,500	848.4	12.5	.....	44	6.38	wnw	10.3	
10:44	962.7	21.8	68	nnw.	6.3	1,523	846.4	12.8	−1.45	40	5.91	wnw.	10.7	
						1,750	823.8	11.8	.....	32	4.43	wnw.	11.0	
						2,000	799.8	10.7	.....	23	2.96	wnw.	11.4	
10:58	962.8	21.0	67	nnw.	4.5	2,021	797.4	10.6	0.44	22	2.81	wnw.	11.4	
						2,250	776.2	9.1	.....	22	2.54	wnw.	10.2	
						2,500	753.9	7.5	.....	22	2.28	wnw.	9.0	
11:38	963.0	22.3	66	nnw.	4.0	2,630	742.1	6.6	0.99	22	2.14	wnw.	8.3	
						2,500	754.8	8.3	.....	22	2.41	wnw.	8.1	
P. M.														
12:25	963.0	22.8	62	n.	4.5	2,337	770.1	10.5	0.15	22	2.79	wnw.	7.9	
						2,250	778.7	10.6	.....	24	3.07	wnw.	7.8	
						2,000	802.0	11.0	.....	31	4.07	wnw.	7.3	
12:35	962.9	23.0	61	n.	4.9	1,748	826.4	11.4	.....	37	4.99	wnw.	6.9	4/10 St.Cu., wnw.; all kite fell in field at 12:40 p. m.

July 14, 1918.

A. M.														
9:12	965.3	18.4	80	ne.	7.6	444	965.3	18.4	.....	80	16.93	ne.	7.6	10/10 St.Cu., n.
						500	959.5	17.8	.....	83	16.92	ne.	7.6	
						750	931.3	14.9	.....	96	16.26	nne.	7.3	
9:21	965.3	18.5	80	ne.	5.8	801	925.7	14.3	1.15	99	16.14	nne.	7.3	
						1,000	904.3	12.9	.....	100	14.88	ne.	6.0	Altitude of St.Cu. base about 1,000 m.
10:28	965.5	19.0	81	ne.	4.0	1,096	894.2	12.2	0.86	100	14.21	ne.	5.4	
						1,000	904.3	13.2	.....	97	14.71	ne.	4.5	
10:35	965.5	19.0	81	ne.	3.6	927	912.3	13.9	1.10	94	14.93	ne.	3.9	
						750	931.3	15.8	.....	89	15.98	ne.	3.9	
						500	959.5	18.6	.....	81	17.36	ne.	4.0	
10:38	965.5	19.2	79	ne.	4.0	444	965.5	19.2	.....	79	17.58	ne.	4.0	10/10 St.Cu., ne.

July 15, 1918.

A. M.														
6:30	965.3	16.7	95	nnw.	6.7	444	965.3	16.7	.....	95	18.06	nnw.	6.7	2/10 A.Cu., w.; 8/10 St.Cu., ne.
						500	958.8	16.7	.....	93	17.68	nnw.	7.1	
6:40	965.4	16.6	94	nnw.	5.8	755	930.9	16.8	−0.03	85	16.26	nne.	9.0	
						1,000	904.0	15.1	.....	90	15.44	nne.	8.4	
						1,250	878.4	13.4	.....	95	14.60	nne.	7.7	Altitude of St.Cu. base about 1,250 m.
7:45	965.8	18.6	88	nnw.	6.7	1,419	861.3	12.3	0.68	99	14.17	nne.	7.3	
						1,500	853.0	12.0	.....	92	12.91	nne.	7.4	
						1,750	828.3	11.2	.....	71	9.44	nne.	7.7	6/10 A.St., w.; 3/10 St.Cu., nne.
8:09	965.9	19.3	84	nnw.	7.2	1,758	827.4	11.2	0.32	70	9.31	nne.	7.7	
						2,000	804.2	12.9	.....	47	6.99	ne.	7.6	
8:15	966.0	19.5	84	nnw.	5.8	2,155	789.3	14.0	−0.71	32	5.11	ne.	7.5	
8:20	966.0	19.7	83	n.	6.3	2,202	784.8	12.8	1.34	29	4.29	ne.	8.0	
						2,000	804.2	13.1	.....	44	6.64	ne.	7.4	
						1,750	828.3	13.5	.....	62	9.59	nne.	6.7	
						1,500	853.4	13.8	.....	81	12.78	nne.	6.0	
8:46	966.1	20.9	77	n.	6.7	1,379	865.9	14.0	0.62	90	14.38	nne.	5.6	
						1,250	879.0	14.8	.....	89	14.98	nne.	5.9	
						1,000	905.5	16.3	.....	87	16.12	nne.	6.6	
9:20	966.2	22.3	73	n.	6.3	766	930.9	17.8	1.43	85	17.32	nne.	7.2	
						750	932.7	18.0	.....	84	17.34	nne.	7.2	
						500	960.3	21.6	.....	74	19.09	n.	6.8	
9:31	966.2	22.4	72	n.	6.7	444	966.2	22.4	.....	72	19.50	n.	6.7	3/10 A.St., w.; 5/10 St.Cu., nne.

TABLE 10.—*Free-air data from kite flights at Ellendale Aerological Station, July, 1918*—Continued.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
July 16, 1918.														
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
7:27	970.3	14.0	84	nnw.	4.5	444	970.3	14.0	.....	84	13.42	nnw.	4.5	8/10 St.Cu., nne.
						500	964.1	13.5	.....	85	13.15	nnw.	4.8	
						750	935.9	11.3	.....	89	11.92	nne.	6.0	
7:38	970.3	14.0	83	nnw.	4.5	841	925.5	10.5	0.88	90	11.43	ne.	6.5	
						1,000	908.2	9.5	.....	93	11.04	ne.	6.9	
						1,250	881.0	7.9	.....	98	10.44	ne.	7.6	3/10 Ci.St., nw.; 2/10 St.Cu., nne.
9:10	970.3	18.2	68	ne.	4.5	1,312	874.9	7.6	0.62	99	10.34	ne.	7.8	
						1,500	855.0	10.0	.....	70	8.60	ne.	7.3	
9:15	970.3	18.3	68	ne.	4.9	1,752	829.9	13.3	−1.42	30	4.58	nne.	6.7	
						1,500	855.0	9.7	.....	76	9.14	n.	5.2	
9:23	970.3	18.4	68	ne.	4.9	1,372	868.6	7.8	0.80	100	10.58	n.	4.5	
						1,250	881.0	8.8	.....	96	10.88	n.	4.5	
						1,000	908.2	10.8	.....	87	11.27	nne.	4.5	
						750	935.9	12.8	.....	78	11.53	nne.	4.5	
9:36	970.3	19.0	66	ne.	4.9	735	937.6	12.9	2.23	77	11.46	nne.	4.5	
						500	964.1	18.2	.....	64	13.38	ne.	5.5	
9:49	970.3	19.4	63	ne.	5.8	444	970.3	19.4	.....	63	14.19	ne.	5.8	1/10 Ci.St., nw.; 6/10 St.Cu., ne.
July 17, 1918.														
P. M.														
6:21	963.8	26.2	34	se.	4.5	444	963.8	26.2	.....	34	11.57	se.	4.5	3/10 Ci.St., w.; 2/10 St.Cu.
						500	957.3	25.7	.....	35	11.56	se.	5.0	
6:34	963.8	25.0	44	se.	4.5	659	940.4	24.4	0.84	36	11.01	se.	6.4	
						750	930.2	23.5	.....	37	10.72	se.	5.4	
7:47	963.8	23.0	55	s.	3.6	923	912.2	21.7	0.86	38	9.86	sse.	3.6	
						750	930.2	22.9	.....	37	10.33	sse.	5.0	
8:33	963.8	20.5	60	ssw.	3.6	657	940.4	23.6	−1.55	36	10.49	sse.	5.8	
						500	957.3	21.2	.....	53	13.35	s.	4.3	
8:40	963.8	20.3	59	ssw.	3.6	444	963.8	20.3	.....	59	14.05	ssw.	3.6	2/10 Ci.St., w.; 2/10 A.St.
July 18, 1918.														
P. M.														
1:29	961.4	30.5	28	nne.	4.0	444	961.4	30.5	.....	28	12.23	nne.	4.0	5/10 Ci.St., nw.
						500	955.6	29.9	.....	27	11.39	nne.	4.7	
2:18	961.0	31.7	26	nnw.	9.4	700	933.7	27.6	1.14	24	8.87	nnw.	7.4	
						750	928.0	27.4	.....	24	8.76	nw.	7.3	
2:57	960.8	32.6	22	wnw.	4.9	874	915.2	27.0	0.34	23	8.20	wnw.	6.9	
						1,000	902.5	25.8	.....	23	7.64	wnw.	6.5	
						1,250	877.0	23.5	.....	24	6.95	wnw.	5.6	
3:07	960.8	32.9	22	wnw.	3.1	1,332	868.7	22.7	0.96	24	6.62	wnw.	5.3	
						1,250	877.0	23.5	.....	24	6.95	wnw.	.....	
						1,000	902.5	26.0	.....	23	7.73	wnw.	.....	
3:20	960.7	32.3	21	nnw.	3.6	763	926.9	28.3	1.22	23	8.85	wnw.	.....	
						750	928.0	28.5	.....	23	8.95	wnw.	.....	
						500	954.2	31.5	.....	21	9.71	nw.	.....	
3:24	960.5	32.2	20	nw.	3.6	444	960.5	32.2	.....	20	9.62	nw.	3.6	4/10 Ci.St., nw.
July 19, 1918.														
A. M.														
6:35	959.1	22.0	60	w.	4.5	444	959.1	22.0	.....	60	15.86	w.	4.5	1/10 Ci.St., nw.; 1/10 St.Cu., wnw.
						500	953.4	23.0	.....	56	15.74	w.	5.3	
6:43						750	926.0	27.2	.....	36	12.99	w.	8.6	
6:43	959.1	22.2	62	w.	4.5	869	913.9	29.2	−1.69	27	10.94	w.	10.2	
						1,000	899.9	28.0	.....	28	10.59	w.	9.1	
						1,250	874.8	25.6	.....	31	10.18	wnw.	6.9	
7:03	959.1	23.6	60	w.	4.5	1,458	854.8	23.6	0.95	33	9.61	wnw.	5.1	
						1,500	850.1	23.2	.....	33	9.39	wnw.	5.2	
						1,750	826.1	20.9	.....	35	8.65	wnw.	5.6	
						2,000	802.8	18.6	.....	37	7.93	w.	6.0	
						2,250	780.0	16.3	.....	39	7.23	w.	6.4	
8:16	958.9	28.9	43	w.	4.5	2,493	757.6	14.0	0.94	41	6.55	w.	6.8	
						2,250	780.0	16.3	.....	40	7.41	w.	7.2	3/10 St.Cu., w.; 1/10 Cu., w.
						2,000	802.8	18.7	.....	39	8.41	w.	7.5	
						1,750	826.1	21.1	.....	38	9.51	w.	7.9	
8:58	959.4	28.3	41	n.	4.9	1,696	831.7	21.6	0.47	38	9.80	w.	8.0	
						1,500	850.1	22.5	.....	39	10.63	wnw.	8.6	
						1,250	875.0	23.7	.....	41	12.02	nw.	9.4	
						1,000	900.8	24.9	.....	43	13.54	n.	10.2	
9:36	959.6	30.0	37	n.	6.7	908	910.6	25.3	0.86	44	14.19	n.	10.5	
						750	927.0	26.7	.....	42	14.72	n.	8.8	
						500	954.3	28.8	.....	38	15.05	n.	6.0	
9:57	959.8	29.3	37	n.	5.4	444	959.8	29.3	.....	37	15.08	n.	5.4	Few St.Cu., nw.; few Cu., nw.
July 20, 1918.														
A. M.														
6:34	957.7	18.8	89	s.	5.4	444	957.7	18.8	.....	89	19.31	s.	5.4	9/10 Ci.St., nnw.
						500	952.0	19.7	.....	84	19.27	s.	5.9	
						750	925.0	23.8	.....	61	17.99	s.	8.3	
6:47	957.7	19.3	80	s.	4.9	942	904.6	26.9	−1.63	43	15.24	s.	10.2	
						1,000	898.8	26.4	.....	43	14.80	s.	10.6	
						1,250	873.3	24.3	.....	45	13.68	s.	12.1	
						1,500	848.8	22.2	.....	46	12.31	ssw.	13.7	
						1,750	825.0	20.2	.....	48	11.37	ssw.	15.2	

TABLE 10.—*Free-air data from kite flights at Ellendale Aerological Station, July, 1918*—Continued.

July 20, 1918—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
7:11	957.6	21.0	72	s.	7.2	1,936	806.9	18.6	0.84	49	10.50	ssw.	16.4	
						2,000	801.0	18.0		50	10.32	ssw.	16.3	
						2,250	777.6	15.5		56	9.86	ssw.	15.9	
						2,500	755.0	13.1		61	9.20	ssw.	15.6	
						2,750	732.8	10.7		66	8.49	ssw.	15.2	
7:34	957.4	21.8	70	s.	5.8	2,797	728.9	10.2	0.98	67	8.34	ssw.	15.1	
						3,000	711.3	8.7		73	8.21	ssw.	15.7	
						3,250	690.8	6.8		81	8.00	sw.	16.5	
8:09	957.0	24.2	63	s.	8.0	3,397	682.7	5.7	0.75	86	7.88	sw.	16.9	8/10 Ci.St., nnw.
						3,500	670.7	5.2		71	6.28	sw.	15.4	
						3,750	650.6	4.0		35	2.85	sw.	11.7	
8:44	958.8	25.3	62	ssw.	7.2	3,834	643.8	3.6	0.40	23	1.82	sw.	10.4	
						3,750	650.6	3.9		46	3.72	sw.	11.9	
9:01	956.7	26.1	59	ssw.	8.0	3,561	665.2	4.5	1.12	97	8.17	sw.	15.2	
						3,500	670.7	5.2		95	8.41	sw.	15.2	
						3,250	690.8	8.0		85	9.12	sw.	15.4	
						3,000	711.9	10.7		76	9.78	sw.	15.5	
						2,750	733.5	13.5		67	10.36	sw.	15.7	
9:54	955.8	30.5	53	ssw.	8.5	2,682	739.3	14.3	0.90	64	10.43	sw.	15.7	
						2,500	755.0	15.9		61	11.02	sw.	15.5	
						2,250	776.9	18.2		57	11.91	sw.	15.3	
						2,000	799.3	20.4		52	12.46	ssw.	15.1	
						1,750	823.0	22.6		48	13.17	ssw.	14.8	
10:39	955.5	31.6	46	s.	8.9	1,520	845.4	24.7	−1.73	44	13.69	ssw.	14.6	
						1,500	847.2	24.4		46	14.06	ssw.	14.4	
10:49	955.5	31.6	45	ssw.	8.9	1,347	862.5	21.7	0.91	61	15.84	s.	12.9	
						1,250	872.2	22.6		59	16.18	s.	12.7	
						1,000	897.8	24.9		55	17.32	s.	12.0	
11:05	955.4	32.0	42	ssw.	10.7	865	911.3	26.1	1.36	52	17.59	s.	11.7	
						750	923.3	27.7		50	18.58	s.	11.1	
						500	949.5	31.0		44	19.77	ssw.	9.7	
11:19	955.4	31.8	43	ssw.	9.4	444	955.4	31.8		43	20.22	ssw.	9.4	5/10 Ci.St., nnw.

July 22, 1918 (No. 1).

A. M.														
6:35	963.9	14.3	91	ne.	6.3	444	963.9	14.3		91	14.83	ne.	6.3	10/10 St.Cu., ne.
						500	957.5	13.1		94	14.58	ne.	8.1	
6:39	964.0	14.4	90	nne.	7.2	574	949.2	11.4	2.23	98	13.21	nne.	10.4	
						750	930.0	12.2		90	12.79	nne.	8.4	
						1,000	902.4	13.2		86	13.05	n.	5.6	Altitude of St.Cu. base about 950 m.
7:15	964.3	14.5	90	nne.	6.3	1,129	888.9	13.8	−0.43	83	13.10	n.	4.1	
						1,250	876.3	14.0		80	12.78	nnw.	3.5	
8:18	964.5	15.7	85	nne.	4.5	1,328	868.4	14.1	−0.15	78	12.55	nnw.	3.1	10/10 St.Cu., sw. Thunder in sw. from 8:30 a. m. to end of flight.
8:24	964.5	15.8	84	nne.	4.5	1,346	866.8	13.4	2.08	78	11.99	nnw.	3.9	
						1,250	876.3	13.7		77	12.07	n.	4.7	
						1,000	902.4	14.4		74	12.14	nne.	6.8	
9:00	964.5	16.0	84	nne.	4.9	781	926.8	15.0	−0.94	71	12.11	ne.	8.6	Rain began 9:00 a. m. and continued at end of flight.
						750	930.0	14.7		74	12.38	ne.	8.6	
9:04	964.5	16.1	84	ne.	4.9	610	945.7	13.4	1.63	86	13.22	ne.	8.6	
						500	958.8	15.2		85	14.68	ne.	6.3	
9:10	964.6	16.1	85	ne.	4.5	444	964.6	16.1		85	15.56	ne.	4.5	2/10 A.St., sw.; 8/10 St.Cu., sw.

July 22, 1918 (No. 2).

P. M.														
1:12	964.3	20.1	74	ne.	4.5	444	964.3	20.1		74	17.41	ne.	4.5	3/10 A.St., sw.; 5/10 St.Cu., sw.
						500	958.2	19.1		77	17.02	ne.	4.9	
1:22	964.4	20.0	78	nne.	5.8	586	948.6	17.6	1.76	82	16.51	nne.	5.5	
						750	930.0	16.1		88	16.10	nne.	5.5	
1:39	964.6	19.9	76	nne.	5.4	837	921.3	15.3	0.92	91	15.82	nne.	5.5	
1:54	964.7	20.1	75	ne.	4.5	945	909.7	16.4	−1.02	72	13.43	ene.	5.5	
						1,000	903.8	15.8		75	13.46	ene.	6.2	
2:12	964.7	20.2	74	ese.	4.0	1,053	898.2	15.2	0.66	77	13.30	e.	6.8	
						1,000	903.8	15.3		81	14.08	e.	6.1	
2:19	964.7	20.6	75	e.	3.6	900	914.6	15.5	0.83	88	15.50	e.	4.9	
						750	930.0	16.7		85	16.16	e.	4.9	
2:25	964.6	20.8	74	e.	4.9	587	948.6	18.1	1.96	82	17.03	e.	5.0	
						500	958.2	19.8		77	17.79	e.	4.7	
2:29	964.6	20.9	74	e.	4.5	444	964.6	20.9		74	18.29	e.	4.5	2/10 A.St., sw.; 5/10 St.Cu., sw.

July 23, 1918.

P. M.														
12:25	961.1	27.1	64	sse.	5.8	444	961.1	27.1		64	22.96	sse.	5.8	2/10 Ci.St., w.; few Cu., ssw.
						500	955.0	26.3		65	22.24	sse.	5.6	
12:34	961.1	27.6	57	sse.	5.8	739	929.4	23.1	1.36	70	19.79	sse.	5.0	
						750	927.6	23.0		70	19.67	sse.	5.0	
12:49	961.1	28.0	60	sse.	6.7	980	904.0	20.8	0.95	80	19.66	sse.	6.0	
						1,000	901.8	20.7		81	19.78	sse.	6.1	
						1,250	876.4	19.0		89	19.55	s.	6.2	
1:30	960.8	28.9	58	sse.	5.4	1,418	859.1	18.0	0.64	94	19.40	s.	6.6	
						1,500	850.7	19.6		89	17.92	s.	6.4	Altitude of Cu. base about 1,750 m.
						1,750	825.8	16.4		74	13.80	s.	6.0	
						2,000	801.4	15.5		58	10.21	ssw.	5.5	
2:12	960.3	29.4	54	sse.	6.3	2,121	790.0	15.0	0.66	51	8.70	ssw.	5.3	
						2,000	802.0	16.1		55	10.07	ssw.	5.4	
2:33	960.1	29.9	56	sse.	6.3	1,783	823.6	18.0	−1.58	61	12.59	s.	5.6	7/10 Ci.St., ssw.; few Cu., ssw.
						1,750	827.2	17.3		72	14.22	s.	5.8	
2:35	960.0	29.9	56	sse.	6.3	1,702	831.3	16.2	1.11	89	16.39	s.	6.0	
						1,500	851.9	18.2		82	17.14	s.	6.0	
						1,250	876.7	21.2		74	18.63	s.	6.1	

TABLE 10.—*Free-air data from kite flights at Ellendale Aerological Station, July, 1918*—Continued.

July 23, 1918—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
3:02	959.8	30.1	54	sse.	5.8	1,038	897.4	23.6	1.41	67	19.52	s.	6.1	
						1,000	901.5	24.1		65	19.51	s.	6.2	
3:15	959.4	30.3	51	s.	4.9	776	924.2	27.3	0.96	56	20.33	s.	6.6	
						750	926.5	27.5		56	20.56	s.	6.5	
						500	953.0	29.9		51	21.52	s.	5.9	
3:20	959.3	30.5	50	s.	5.8	444	959.3	30.5		50	21.84	s.	5.8	7/10 Ci.St., ssw.
July 24, 1918.														
A. M.														
6:35	959.4	19.4	93	nne.	5.4	444	959.4	19.4		93	20.95	nne.	5.4	10/10 St.Cu., w.
						500	953.3	19.9		85	19.75	ne.	5.2	Rain from 6:32 to 6:40 a. m.
6:45	959.4	19.2	91	nne.	5.4	545	948.3	20.3	−0.09	78	18.58	ne.	5.0	
						750	926.0	17.6		93	18.72	nne.	6.6	
6:55	959.4	19.2	91	n.	5.4	765	924.3	17.4	1.32	94	18.68	nne.	6.7	3/10 St.Cu., w.; 7/10 St., nne.
7:28	960.4	20.0	88	nne.	10.3	867	914.3	19.5	−2.06	79	17.91	n.	4.1	
						1,000	900.1	18.4		83	17.56	n.	4.0	
						1,250	875.0	16.4		90	16.78	nnw.	3.8	
8:06	961.6	19.4	88	nnw.	10.7	1,477	852.4	14.5	0.82	96	16.51	nnw.	3.7	
						1,500	800.2	14.8		90	15.15	nnw.	5.4	
8:25	961.7	18.5	95	nnw.	18.8	1,538	846.2	15.3	−0.84	81	14.08	nnw.	8.3	Altitude of St. base about 1,650 m.
						1,500	800.2	15.4		81	14.18	nnw.	9.0	
						1,250	875.7	16.0		82	14.91	nnw.	13.7	Altitude of St. base about 1,350 m.
						1,000	901.4	16.6		83	15.68	nnw.	18.4	
8:38	961.9	18.8	93	nnw.	13.9	848	917.6	17.0	0.16	84	16.28	nnw.	21.2	Rain began 8:22 a. m. and continued at end of flight.
8:46	962.0	18.8	92	n.	12.5	787	924.3	17.1	0.50	91	17.74	nnw.	25.4	10/10 St., nnw.
						750	928.0	17.3		91	17.97	nnw.	24.1	
						500	955.7	18.5		91	19.38	n.	15.0	
9:00	962.1	18.8	91	n.	13.0	444	962.1	18.8		91	19.75	n.	13.0	10/10 St.Cu., n. Thunder at 9:10 a. m. from nnw.
July 25, 1918.														
P. M.														
6:54	960.3	16.9	85	nw.	8.5	444	960.3	16.9		85	16.36	nw.	8.5	10/10 St., wnw.
						500	954.1	16.2		89	16.39	nw.	7.8	Misting at beginning of flight; ended 7:00 p. m.
6:58	960.4	16.8	85	nw.	7.6	649	937.5	14.2	1.32	100	16.19	nw.	6.1	
						750	926.0	13.4		100	15.37	nw.	5.5	
7:10	960.5	16.4	85	nnw.	7.2	881	912.1	12.4	0.78	100	14.40	wnw.	4.8	Altitude of St.Cu. base about 900 m.
						1,000	899.0	11.9		100	13.93	wnw.	5.1	
7:51	960.7	15.8	86	nw.	6.3	1,199	878.2	11.0	0.44	100	13.13	w.	5.5	
						1,250	872.4	10.9		100	13.04	w.	5.9	
						1,500	847.0	10.2		98	12.20	w.	7.8	
						1,750	822.0	9.4		94	11.08	wnw.	9.8	10/10 St., wnw.
7:57	960.8	15.7	86	wnw.	5.8	1,884	808.8	9.1	0.28	93	10.75	wnw.	10.7	Head kite collapsed at 7:57 p. m. Light rain began 8:06 p. m.
July 26, 1918.														
P. M.														
6:03	963.8	20.0	65	ese.	4.0	444	963.8	20.0		65	15.20	ese.	4.0	6/10 St.Cu., sw.
						500	957.8	19.1		65	14.37	ese.	3.9	
6:35	964.4	19.6	64	ese.	4.5	659	940.5	16.4	1.67	66	12.31	ese.	3.7	
						750	930.4	15.6		69	12.23	ese.	3.4	
7:00	964.8	19.1	64	se.	4.0	941	910.0	13.8	0.92	74	11.68	se.	2.8	
						1,000	904.0	13.6		72	11.22	se.	3.3	
7:29	964.8	18.5	76	se.	3.6	1,156	887.2	13.0	0.37	66	9.89	se.	4.6	8/10 St.Cu., sw.
						1,250	877.3	13.3		58	8.86	se.	4.0	
						1,500	852.0	14.2		37	5.99	se.	2.4	
7:36	964.8	18.2	78	se.	3.1	1,536	848.1	14.3	−0.14	34	5.54	se.	2.2	
						1,500	852.0	14.3		35	5.70	se.	2.3	
						1,250	877.3	14.5		45	7.43	se.	3.3	
						1,000	904.0	14.6		54	8.97	se.	4.2	
7:43	964.8	18.1	78	se.	3.1	972	906.7	14.6	0.61	55	9.14	se.	4.3	
						750	931.0	16.0		58	10.54	se.	4.6	
7:49	964.8	18.1	78	se.	2.7	677	938.8	16.4	0.64	59	11.00	se.	4.7	
						500	959.0	17.5		73	14.60	ese.	3.9	
8:02	964.8	17.9	77	ese.	3.6	444	964.8	17.9		77	15.79	ese.	3.6	9/10 St.Cu., sw.
July 27, 1918 (No. 1).														
A. M.														
6:27	961.7	17.4	78	se.	7.2	444	961.7	17.4		78	15.50	se.	7.2	10/10 St.Cu., se.
						500	955.4	17.4		79	15.70	se.	8.9	
						750	928.0	17.5		82	16.40	sse.	16.2	
6:32	961.6	17.4	78	sse.	6.7	850	917.0	17.5	−0.02	84	16.80	see.	19.2	
						1,000	901.1	18.2		96	20.06	sse.	20.6	
6:36	961.6	17.5	78	sse.	7.2	1,054	895.5	18.5	−0.49	100	21.30	sse.	21.2	Altitude of St.Cu. base about 1,000 m.
						1,250	875.6	19.2		91	20.25	s.	20.3	
6:50	961.6	18.0	77	sse.	7.6	1,413	858.9	19.8	−0.36	84	19.40	ssw.	19.6	
						1,500	850.8	19.1		86	19.01	ssw.	18.7	10/10 St., sse.
						1,750	826.6	16.3		93	17.23	ssw.	16.1	
7:18	961.9	18.4	78	ne.	5.8	1,964	805.2	15.2	0.74	99	17.10	ssw.	13.8	
						1,750	826.6	16.6		98	18.51	ssw.	14.5	
						1,500	850.8	18.1		96	19.94	s.	15.4	
7:30	962.2	18.3	78	ene.	6.7	1,413	858.9	18.7	−1.06	96	20.71	s.	15.7	
						1,250	875.6	17.0		97	18.80	s.	15.0	
						1,000	900.1	14.3		99	16.14	sse.	14.0	
7:43	962.6	18.1	79	ene.	5.8	950	907.0	13.8	0.52	99	15.62	sse.	13.8	Altitude of St. base about 1,000 m.
7:55	962.7	17.2	80	ne.	8.5	797	923.7	14.6	0.59	96	15.96	ese.	8.8	
						750	929.0	14.9		94	15.92	ese.	8.5	
						500	957.2	16.4		86	16.04	ese.	7.0	
8:09	962.8	16.7	84	e.	6.7	444	962.8	16.7		84	15.97	e.	6.7	10/10 St., sse.

TABLE 10.—*Free-air data from kite flights at Ellendale Aerological Station, July, 1918*—Continued.

July 27, 1918 (No. 2).

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
10:29	959.6	26.8	67	se.	11.6	444	959.6	26.8	.....	67	23.61	se.	11.6	2/10 St.Cu., se.
						500	954.0	26.3	.....	69	23.61	se.	12.0	
						750	927.0	22.8	.....	76	21.10	se.	13.9	
10:36	959.5	26.7	66	se.	12.1	849	916.2	22.0	1.19	79	20.89	se.	14.6	
						1,000	900.6	20.8	.....	82	20.15	se.	15.9	
10:48	959.3	27.2	66	se.	8.9	1,178	882.1	19.3	0.82	85	19.03	sse.	17.6	
						1,250	875.0	19.7	.....	78	17.90	sse.	18.3	
10:54	959.2	27.6	65	se.	11.2	1,504	849.4	21.2	−0.58	54	13.60	sse.	21.2	
						1,750	825.4	19.1	.....	58	12.82	sse.	21.2	
						2,000	801.6	16.9	.....	63	12.13	s.	21.2	
11:14	958.9	28.4	62	sse.	8.9	2,046	797.4	16.4	0.89	64	11.93	s.	21.2	
11:55	958.2	30.0	57	s.	12.1	2,163	786.8	17.5	−0.79	64	12.80	ssw.	20.7	1/10 St.Cu., se.
						2,000	801.6	16.5	.....	83	15.58	s.	19.3	
P. M.														
12:24	957.7	30.9	53	s.	12.1	1,914	809.6	15.9	1.18	93	16.81	s.	18.6	
						1,750	824.9	17.7	.....	87	17.62	s.	18.1	
12:51	957.3	31.8	53	s.	9.8	1,517	847.9	20.4	1.13	79	18.94	s.	17.4	
						1,500	848.8	20.8	.....	78	19.16	s.	17.3	
						1,250	873.5	23.0	.....	69	19.39	s.	16.1	
						1,000	898.8	26.1	.....	60	20.29	s.	14.8	
1:19	956.7	31.6	49	s.	9.8	896	909.6	27.4	1.13	56	20.45	s.	14.3	
						750	924.3	29.0	.....	52	20.84	s.	12.9	
1:32	956.8	31.9	49	s.	11.6	684	931.4	29.8	0.91	50	20.98	s.	12.2	
						500	951.0	31.5	.....	49	22.66	s.	10.4	
1:36	956.8	32.0	48	s.	9.8	444	956.8	32.0	.....	48	22.83	s.	9.8	1/10 Cu., ssw.

July 28, 1918.

A. M.														
7:20	964.5	17.3	71	wsw.	4.9	444	964.5	17.3	.....	71	14.02	wsw.	4.9	3/10 Ci.St., sw.; 2/10 A.St., sw.
						500	958.0	17.1	.....	67	13.06	wsw.	6.4	
						750	930.3	16.1	.....	49	8.97	w.	12.9	
7:29	964.5	17.4	69	wsw.	4.9	848	910.8	15.7	0.40	42	7.49	w.	15.4	
						1,000	903.2	14.7	.....	43	7.19	w.	15.3	
						1,250	877.0	13.1	.....	45	6.79	w.	15.2	
7:37	964.5	17.8	68	wsw.	4.9	1,351	866.5	12.5	0.64	46	6.67	w.	15.2	
						1,500	851.1	13.2	.....	34	5.16	wsw.	16.6	
7:48	964.5	18.2	64	wsw.	4.5	1,641	837.1	13.8	−0.45	22	3.47	wsw.	17.9	
						1,750	825.7	12.9	.....	24	3.57	wsw.	18.3	
						2,000	801.0	10.7	.....	27	3.47	wsw.	19.3	
						2,250	777.0	8.5	.....	31	3.44	wsw.	20.3	
						2,500	755.0	6.4	.....	34	3.27	wsw.	21.3	
8:25	964.5	19.3	58	wsw.	7.2	2,625	743.7	5.3	0.86	36	3.21	wsw.	21.8	
						2,750	732.5	5.7	.....	32	2.93	wsw.	22.5	
						3,000	710.4	6.5	.....	24	2.32	w.	23.8	
8:48	964.5	19.8	53	wnw.	7.2	3,068	704.4	6.7	−0.32	22	2.16	w.	24.2	
						3,250	688.0	5.0	.....	16	1.40	wnw.	25.6	
9:48	964.7	20.9	47	wnw.	9.8	3,282	685.6	4.7	0.62	15	1.28	wnw.	25.9	Few A.Cu., sw.; few A.St., sw.
						3,250	688.0	4.8	.....	16	1.38	wnw.	25.8	
						3,000	709.4	5.6	.....	20	1.82	wnw.	24.8	
10:47	964.8	20.6	56	nw.	10.3	2,854	721.7	6.0	−0.98	22	2.06	wnw.	24.3	
						2,750	731.2	5.0	.....	25	2.18	wnw.	19.4	
11:15	964.8	20.9	56	nw.	10.3	2,721	733.4	4.7	0.20	26	2.22	wnw.	18.0	
						2,500	753.9	5.1	.....	43	3.78	wnw.	16.1	
						2,250	777.0	5.7	.....	63	5.77	wnw.	13.9	
						2,000	800.9	6.2	.....	83	7.87	wnw.	11.8	
11:45	964.8	20.3	55	nw.	10.3	1,782	823.3	6.6	1.05	100	9.75	wnw.	9.9	Altitude of Cu. base about 1,750 m.
						1,750	826.4	7.3	.....	97	9.92	wnw.	10.1	
						1,500	851.0	9.6	.....	87	10.40	wnw.	10.7	
NOON.														
12:00	964.8	20.2	55	wnw.	8.9	1,355	866.5	11.1	0.86	80	10.57	wnw.	11.1	
						1,250	877.0	12.0	.....	76	10.66	wnw.	11.3	
						1,000	904.0	14.1	.....	67	10.78	wnw.	11.7	
P. M.														
12:11	964.9	20.8	54	wnw.	8.9	854	919.8	15.4	1.12	61	10.68	wnw.	12.0	
						750	931.3	16.6	.....	60	11.33	wnw.	11.4	
						500	959.3	19.4	.....	58	13.07	wnw.	10.1	
12:23	965.1	20.0	58	wnw.	9.8	444	965.1	20.0	.....	58	13.56	wnw.	9.8	6/10 Cu., wnw.

July 29, 1918.

P. M.														
7:50	968.0	17.0	75	ese.	4.0	444	968.0	17.0	.....	75	14.54	ese.	4.0	Few Ci.St., w.; 1/10 St.Cu., sw.
						500	962.3	17.0	.....	69	13.37	ese.	4.8	
7:54	968.0	16.8	77	ese.	4.0	550	956.1	17.0	0.00	64	12.40	ese.	5.6	
						750	934.3	15.3	.....	65	11.30	se.	4.7	
8:58	968.2	15.5	70	e.	4.0	948	912.5	13.6	0.91	65	10.13	se.	3.8	
						750	933.4	15.5	.....	62	10.92	ese.	4.9	
9:11	968.4	15.2	71	e.	4.0	598	951.0	17.0	−1.17	60	11.63	e.	5.8	
						500	962.9	15.9	.....	67	12.11	e.	4.7	
9:13	968.4	15.2	71	e.	4.0	444	968.4	15.2	.....	71	12.26	e.	4.0	2/10 St.Cu., sw.

TABLE 10.—*Free-air data from kite flights at Ellendale Aerological Station, July, 1918*—Continued.

July 30, 1918, series (No. 1).

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	
6:41	967.2	13.8	84	s.	4.0	444	967.2	13.8	.....	84	13.26	s.	4.0	7/10 St.Cu., sw.
						500	961.5	14.0	.....	80	12.78	s.	5.6	
						750	932.6	14.9	.....	61	10.33	s.	12.7	
7:00	967.2	14.0	86	s.	3.6	825	924.6	15.2	−0.37	55	9.50	s.	14.8	
						1,000	905.0	14.4	.....	55	9.02	s.	13.6	
						1,250	878.8	13.3	.....	54	8.25	ssw.	11.8	
7:14	967.0	14.2	86	s.	4.5	1,408	862.7	12.6	0.45	54	7.88	ssw.	10.7	
						1,500	853.2	13.8	.....	34	5.37	s.	8.2	
7:45	966.7	15.9	75	sw.	6.7	1,574	845.7	14.7	−1.27	18	3.01	s.	6.1	
						1,750	828.0	13.1	.....	43	6.48	s.	6.1	
						2,000	804.0	10.9	.....	78	10.17	wsw	6.0	4/10 A Cu., w.; 2/10 St.Cu., sw.
8:10	966.5	18.3	65	s.	7.2	2,025	801.5	10.7	0.89	82	10.55	wsw.	6.0	
						2,250	780.5	9.0	.....	86	9.87	wsw.	4.7	
8:24	966.4	19.0	59	s.	8.0	2,499	756.9	7.1	0.65	91	9.18	wsw.	3.3	
						2,250	780.5	9.1	.....	86	9.94	sw.	6.7	
8:46	966.3	19.1	60	s.	7.6	2,088	795.5	10.4	0.60	83	10.47	sw.	7.3	
						2,000	804.0	10.9	.....	74	9.65	sw.	7.7	
						1,750	828.0	12.4	.....	48	6.91	ssw.	8.9	
8:56	966.2	19.8	58	s.	7.2	1,589	844.2	13.4	0.26	31	4.76	ssw.	9.6	
						1,500	853.2	13.6	.....	37	5.76	ssw.	10.6	
9:05	966.2	20.1	56	s.	8.9	1,318	871.9	14.1	0.41	50	8.04	ssw.	12.5	
						1,250	878.8	14.4	.....	51	8.36	ssw.	12.3	
						1,000	905.0	15.4	.....	55	9.62	ssw.	11.8	
9:09	966.1	20.1	56	s.	8.0	926	913.1	15.7	.....	56	9.99	ssw.	11.6	
9:14	966.1	20.3	56	s.	7.6	926	913.1	14.7	1.29	61	10.21	ssw.	13.3	
						750	932.0	17.0	.....	58	11.24	ssw.	11.1	
						500	960.0	20.2	.....	54	12.79	s.	7.9	
9:23	966.0	20.9	53	s.	7.2	444	966.0	20.9	.....	53	13.10	s.	7.2	5/10 A.Cu., sw.

July 30, 1918, series (No. 2).

A. M.														
9:55	965.3	21.3	53	s.	4.9	444	965.3	21.3	.....	53	13.42	s.	4.9	5/10 A.Cu., sw.
						500	959.6	20.6	.....	54	13.11	s.	5.6	
						750	931.5	17.3	.....	57	11.26	s.	8.6	
10:03	965.2	21.3	58	s.	7.2	812	924.8	16.5	1.30	58	10.89	s.	9.4	
						1,000	904.4	15.8	.....	58	10.41	s.	11.5	
10:08	965.1	21.8	52	s.	6.3	1,209	882.6	15.0	0.38	57	9.72	ssw.	13.8	
						1,250	878.0	15.0	.....	54	9.21	ssw.	13.0	
10:27	964.9	22.3	50	s.	8.0	1,494	853.1	15.3	−0.11	38	6.60	ssw.	8.1	
						1,500	852.4	15.2	.....	39	6.74	ssw.	8.1	
						1,750	827.8	13.1	.....	67	10.10	ssw.	9.1	
10:42	964.7	22.5	52	s.	6.3	1,943	808.7	11.4	0.87	89	12.00	ssw.	10.1	
						2,000	803.2	11.3	.....	87	11.65	ssw.	9.1	
11:36	964.1	24.1	50	sse.	8.5	2,245	779.9	10.7	0.23	80	10.30	ssw.	4.6	Few A.Cu., sw.
						2,500	756.0	9.3	.....	63	7.38	sw.	5.9	
						2,750	733.3	8.0	.....	44	4.72	wsw.	7.3	
11:50	963.9	24.4	47	s.	7.2	2,908	719.6	7.1	0.52	37	3.73	wsw.	8.1	
						2,750	733.3	7.9	.....	44	4.09	wsw.	9.2	
						2,500	756.0	9.1	.....	55	6.36	sw.	10.9	
						2,250	779.3	10.3	.....	66	8.27	sw.	12.7	
						2,000	803.2	11.5	.....	77	10.45	ssw.	14.4	
P. M.														
12:05	963.7	24.4	48	s.	7.2	1,942	808.7	11.8	0.81	80	11.07	ssw.	14.8	
						1,750	827.8	13.3	.....	71	10.84	ssw.	13.6	
12:24	963.5	25.0	44	s.	7.2	1,595	842.3	14.6	−2.50	63	10.47	ssw.	12.6	
12:26	963.5	25.0	44	s.	7.2	1,535	848.5	13.1	0.97	75	11.31	ssw.	10.2	
						1,500	852.3	13.4	.....	74	11.37	ssw.	10.3	
						1,250	877.0	15.9	.....	65	11.75	s.	10.9	
12:33	963.4	25.1	44	s.	8.5	1,186	884.2	16.5	1.32	63	11.83	s.	11.0	
						1,000	903.0	19.0	.....	57	12.52	s.	10.4	
12:54	963.2	25.6	45	sse.	8.9	800	924.8	21.6	1.24	50	12.90	sse.	9.8	
						750	929.5	22.2	.....	49	13.12	sse.	9.5	
						500	957.0	25.3	.....	46	14.84	sse.	8.3	
1:02	963.1	26.0	45	sse.	8.0	444	963.1	26.0	.....	45	15.13	sse.	8.0	Few Ci.St., w.

July 30, 1918, series (No. 3).

P. M.														
1:38	963.9	26.4	42	se.	8.0	444	963.9	26.4	.....	42	14.46	se.	8.0	Few Ci.St., w.
						500	957.7	25.7	.....	42	13.87	se.	8.5	
						750	930.0	22.4	.....	42	11.38	sse.	10.8	
1:43	963.9	26.8	43	se.	7.2	818	923.4	21.5	1.31	42	10.77	sse.	11.4	
						1,000	903.9	19.8	.....	48	11.09	sse.	11.1	
						1,250	878.0	17.5	.....	57	11.40	s.	10.8	
2:17	963.7	27.1	42	s.	8.5	1,470	855.9	15.4	0.94	65	11.38	s.	10.5	
						1,500	852.8	15.2	.....	66	11.40	s.	10.4	
						1,750	827.8	13.2	.....	74	11.23	ssw.	9.1	
						2,000	803.8	11.2	.....	82	10.91	sw.	7.9	
3:03	963.5	27.3	43	s.	5.8	2,191	785.6	9.7	0.80	88	10.59	wsw.	6.9	
						2,000	803.8	11.2	.....	85	11.30	sw.	7.6	
						1,750	827.8	13.2	.....	81	12.29	sw.	8.4	Few A.Cu., sw.
4:01	962.8	27.2	46	s.	7.2	1,588	843.6	14.5	1.03	79	13.04	ssw.	9.0	
						1,500	852.8	15.4	.....	76	13.30	ssw.	8.9	
						1,250	878.0	18.0	.....	68	14.04	ssw.	8.7	
						1,000	903.9	20.6	.....	60	14.56	ssw.	8.6	
4:12	962.7	27.0	47	s.	5.4	794	925.1	22.7	1.23	53	14.62	ssw.	8.4	
						750	930.0	23.2	.....	52	14.79	ssw.	8.0	
						500	956.8	26.3	.....	48	16.43	s.	7.4	
4:34	962.6	27.0	47	s.	7.2	444	962.6	27.0	.....	47	16.76	s.	7.2	1/10 A.Cu., sw.

TABLE 10.—*Free-air data from kite flights at Ellendale Aerological Station, July, 1918*—Continued.

July 30, 1918, series (No. 4).

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
5:01	962.5	27.1	47	s.	4.0	444	962.5	27.1	.....	47	16.86	s.	4.0	1/10 A.Cu., sw.
						500	956.2	26.4	.....	47	16.18	s.	4.8	
						750	929.0	23.2	.....	50	14.22	s.	8.1	
5:11	962.4	27.1	48	s.	4.0	771	927.1	22.9	1.28	50	13.96	s.	8.4	
						1,000	902.6	22.2	.....	53	14.19	s.	8.2	
						1,250	876.5	18.2	.....	69	14.42	ssw.	7.1	
6:05	962.1	26.7	51	s.	3.1	1,378	863.9	16.9	0.99	74	14.24	ssw.	6.8	
						1,500	851.1	16.4	.....	68	12.68	sw.	6.0	Few A. St., wsw.
						1,750	826.0	15.4	.....	57	9.98	wsw.	4.5	
7:37	961.5	23.7	67	s.	5.4	1,869	814.7	14.9	0.48	51	8.64	w.	3.7	
						1,750	826.0	15.5	.....	55	9.69	w.	5.0	
						1,500	851.1	16.9	.....	64	12.32	wsw.	7.9	
8:05	961.2	21.5	76	sse.	4.5	1,259	874.9	18.2	0.96	72	15.05	ssw.	10.6	
						1,250	876.0	18.3	.....	72	15.14	ssw.	10.7	
						1,000	902.4	20.7	.....	64	15.63	s.	12.7	
8:22	961.4	20.5	80	sse.	4.9	853	917.1	22.1	−0.44	59	15.69	sse.	13.9	
						750	928.5	21.7	.....	64	16.61	sse.	11.6	
						500	955.0	20.5	.....	77	18.57	sse.	6.1	
8:30	961.5	20.3	80	sse.	4.9	444	961.5	20.3	.....	80	19.06	sse.	4.9	1/10 A.St., wsw.

July 30, 1918, series (No. 5).

P. M.														
8:49	961.7	20.0	79	sse.	4.5	444	961.7	20.0	.....	79	18.47	sse.	4.5	1/10 A.St., wsw.
						500	954.8	19.9	.....	76	17.66	sse.	5.8	
						750	927.0	19.2	.....	64	14.24	s.	11.5	
8:57	961.8	19.9	79	sse.	4.9	809	921.9	19.1	0.25	61	13.49	s.	12.8	
						1,000	901.0	18.6	.....	65	13.94	ssw.	9.3	Aurora from 9:10 to 10:50 p. m.
9:55	962.1	18.0	87	s.	3.6	1,232	877.8	18.0	0.26	70	14.45	sw.	5.1	
						1,250	875.5	18.0	.....	69	14.24	sw.	4.9	Few A.St., wsw.
10:37	962.1	17.8	85	s.	4.9	1,463	854.4	17.4	0.34	63	12.52	wsw.	2.0	
10:55	962.1	17.8	83	s.	4.5	1,247	876.3	18.3	0.30	70	14.72	ssw.	7.0	
						1,000	901.6	19.0	.....	61	13.40	s.	12.6	
11:10	962.1	17.1	83	s.	4.0	841	918.6	19.5	−0.61	55	12.47	s.	16.2	
						750	928.2	18.9	.....	61	13.32	s.	13.5	
						500	955.8	17.4	.....	78	15.50	s.	6.2	
11:19	962.1	17.0	83	s.	4.5	444	962.1	17.0	.....	83	16.09	s.	4.5	Cloudless.

July 30, 31, 1918, series (No. 6).

P. M.														
11:43	962.1	16.9	83	s.	3.6	444	962.1	16.9	.....	83	15.98	s.	3.6	Cloudless. Aurora from 11:45 p. m. to 12:30 a. m.
						500	955.5	17.1	.....	81	15.80	s.	4.5	
						750	927.9	18.1	.....	71	14.75	s.	8.5	
						1,000	901.2	19.0	.....	61	13.40	s.	12.5	
A. M.														
12:04	962.1	16.2	86	s.	2.7	1,073	894.0	19.3	−0.38	58	12.99	s.	13.7	
						1,250	875.2	19.0	.....	55	12.08	s.	9.7	
						1,500	849.7	18.5	.....	52	11.08	ssw.	4.2	
1:57	961.8	14.8	90	s.	2.7	1,534	846.9	18.4	0.62	51	10.79	ssw.	3.4	
						1,500	849.7	18.7	.....	51	11.07	ssw.	4.5	
						1,250	875.2	21.3	.....	52	13.67	ssw.	10.9	
2:26	961.8	14.7	90	s.	2.7	1,193	881.2	21.9	−1.32	52	13.67	ssw.	12.4	
						1,000	901.2	19.4	.....	57	12.68	ssw.	13.0	
2:35	961.8	14.6	91	s.	2.7	928	908.7	18.4	−0.79	59	12.48	ssw.	13.2	
						750	927.9	17.0	.....	71	13.76	ssw.	9.5	
						500	955.5	15.0	.....	87	14.83	s.	4.3	
2:42	961.8	14.6	91	s.	3.1	444	961.8	14.6	.....	91	15.12	s.	3.1	Cloudless.

July 31, 1918, series (No. 7).

A. M.														
4:38	961.6	13.8	89	ssw.	3.1	444	961.6	13.8	.....	89	14.04	ssw.	3.1	Cloudless.
						500	955.4	14.5	.....	84	13.87	ssw.	4.3	
4:43	961.6	14.0	87	ssw.	3.6	710	931.9	17.3	−1.32	65	12.84	ssw.	8.8	
						750	927.3	19.6	.....	64	14.60	ssw.	6.6	
6:11	961.4	14.3	87	ssw.	3.6	818	920.2	23.4	−5.65	61	17.56	ssw.	3.0	
						1,000	900.8	22.4	.....	57	15.44	ssw.	3.3	
						1,250	875.2	21.0	.....	51	12.68	sw.	3.7	
6:17	961.4	14.4	85	ssw.	3.1	1,440	856.3	19.9	0.56	46	10.69	sw.	4.0	
						1,500	850.1	19.4	.....	47	10.59	sw.	4.4	
						1,750	825.4	17.6	.....	49	9.86	sw.	5.8	
						2,000	801.3	15.7	.....	51	9.10	sw.	7.3	
6:22	961.4	14.5	85	ssw.	3.6	2,039	793.6	15.0	0.80	52	8.87	sw.	7.8	Cloudless.
						2,000	801.3	15.7	.....	51	9.10	sw.	7.2	
6:30	961.3	14.8	85	ssw.	3.1	1,751	825.6	17.8	0.77	50	10.19	sw.	5.4	
						1,500	850.1	19.7	.....	47	10.79	sw.	4.5	
						1,250	875.2	21.7	.....	45	11.68	sw.	3.6	
6:48	961.2	15.5	84	ssw.	3.1	1,002	900.4	23.6	−3.09	42	12.23	sw.	2.7	
6:53	961.1	15.6	83	sw.	3.6	814	920.2	17.8	12.00	62	12.64	sw.	3.2	
6:56	961.1	15.8	83	ssw.	3.6	799	921.9	19.6	−4.74	61	13.91	ssw.	5.1	
						750	927.3	17.3	.....	65	12.84	ssw.	4.9	
7:03	961.1	16.2	81	ssw.	3.6	721	930.3	15.9	0.18	68	12.29	ssw.	4.8	
						500	955.4	16.3	.....	78	14.45	ssw.	3.8	
7:08	961.2	16.4	80	ssw.	3.6	444	961.2	16.4	.....	80	14.92	ssw.	3.6	Few St.Cu., wnw.

July 31, 1918, series (No. 8).

A. M.														
7:37	961.3	17.6	77	ssw.	5.8	444	961.3	17.6	.....	77	15.50	ssw.	5.8	Few St.Cu., wnw.
7:44	961.4	17.7	76	ssw.	4.9	486	956.8	15.4	5.24	83	14.51	ssw.	4.5	
						500	954.7	15.8	.....	82	14.72	ssw.	4.3	
8:26	961.3	18.9	74	ssw.	4.5	721	930.8	21.4	−6.07	63	16.06	ssw.	2.0	
8:33	961.3	19.3	72	ssw.	4.5	672	936.0	16.7	1.36	67	12.74	ssw.	2.9	
						500	954.7	19.0	.....	70	15.38	sw.	4.1	
8:39	961.2	19.8	71	sw.	4.5	444	961.2	19.8	.....	71	16.40	sw.	4.5	Few St.Cu., wnw.

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918.*

August 1, 1918.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
P. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
12:19	962.1	29.2	52	ne.	7.2	444	962.1	29.2	.....	52	21.08	ne.	7.2	2/10 A.St., ne.
						500	956.7	28.4	.....	52	20.12	ne.	7.6	
						750	929.5	24.8	.....	54	16.91	ne.	9.3	
12:29	962.1	29.1	52	ne.	7.6	816	922.4	23.8	1.45	55	16.22	ne.	9.7	
						1,000	902.8	22.3	.....	63	16.97	ne.	7.8	
1:43	962.4	29.0	49	nne.	8.0	1,168	886.2	21.0	0.80	70	17.41	nne.	6.1	
						1,250	877.0	20.0	.....	72	16.83	nne.	6.5	
						1,500	852.0	17.1	.....	79	15.40	nne.	7.9	
1:49	962.4	29.0	49	nne.	6.3	1,509	851.7	17.0	1.17	79	15.31	nne.	8.0	
						1,750	827.2	14.8	.....	88	13.13	nne.	8.2	Altitude of St.Cu., base about 2,000 m.
						2,000	802.9	12.4	.....	97	13.97	n.	8.3	
2:11	962.5	28.7	49	ne.	6.3	2,077	796.6	11.7	0.92	100	13.75	n.	8.4	
						2,000	802.9	12.4	.....	97	13.97	n.	8.3	
						1,750	827.7	14.7	.....	89	14.89	n.	7.8	
						1,500	852.8	17.0	.....	80	15.50	n.	7.4	
2:19	962.5	28.7	49	ne.	8.0	1,432	859.4	17.6	1.05	78	15.70	n.	7.3	2/10 Ci.St., w.; 5/10 St.Cu., n.
						1,250	878.0	19.5	.....	70	15.87	n.	7.7	
						1,000	904.0	22.1	.....	60	15.96	nne.	8.4	
3:35	962.7	28.4	55	ne.	8.5	822	922.4	24.0	1.06	52	15.52	nne.	8.8	
						750	930.2	24.8	.....	51	15.97	nne.	8.6	
						500	956.7	27.4	.....	46	16.79	ne.	7.8	
3:44	962.7	28.0	45	ne.	7.6	444	962.7	28.0	.....	45	17.01	ne.	7.6	1/10 Ci.St., w.; 4/10 St. Cu., n.

August 2, 1918.

P. M.														
12:27	964.5	26.0	46	sse.	5.4	444	964.5	26.0	.....	46	15.47	sse.	5.4	7/10 Ci.St., nnw.
						500	958.2	25.4	.....	46	14.93	sse.	5.5	
						750	930.8	22.9	.....	44	12.29	se.	6.0	
12:58	964.2	27.3	40	sse.	5.4	809	924.9	22.3	1.01	44	11.85	se.	6.1	Solar halo, 22° radius, from 1:10 to 1:25 p. m.
						1,000	904.3	20.6	.....	47	11.41	se.	6.3	
1:11	964.1	27.1	39	sse.	5.4	1,185	885.4	19.0	0.88	50	10.98	sse.	6.6	
						1,250	878.4	18.5	.....	50	10.65	sse.	6.8	
						1,500	853.2	16.6	.....	53	10.01	sse.	7.7	
1:49	963.6	27.9	35	sse.	4.9	1,520	850.9	16.4	0.78	53	9.88	sse.	7.8	
						1,750	823.3	17.1	.....	35	6.82	ssw.	6.5	9/10 St.Cu., nnw.
						2,000	804.4	17.8	.....	15	3.06	sw.	5.0	
3:00	963.1	27.9	39	sse.	4.0	2,069	797.3	18.0	—0.29	10	2.06	wsw.	4.6	
						2,250	780.8	16.8	.....	12	2.30	wsw.	4.8	Rain from 3:05 to 3:10 p. m.
						2,500	757.8	15.3	.....	16	2.78	wsw.	5.0	
						2,750	736.0	13.7	.....	19	2.98	w.	5.2	
3:12	963.0	27.6	44	sse.	4.5	2,901	722.8	12.7	0.65	21	3.08	w.	5.4	
						2,750	736.0	13.8	.....	21	3.31	w.	5.9	
						2,500	757.8	15.3	.....	20	3.48	wsw.	6.8	
						2,250	780.8	17.0	.....	19	3.68	sw.	7.7	
3:30	962.9	27.8	44	sse.	3.6	2,156	789.7	17.6	—1.60	19	3.82	sw.	8.0	
						2,000	804.4	15.1	.....	28	4.80	sw.	9.4	
3:36	962.9	27.4	46	sse.	3.6	1,962	807.9	14.5	1.06	30	4.95	sw.	9.7	
						1,750	828,3	16.7	.....	48	9.12	ssw.	10.0	
3:47	962.9	26.8	49	sse.	3.1	1,726	830.9	17.0	0.91	50	9.69	ssw.	10.0	
						1,500	852.8	19.1	.....	48	10.83	ssw.	10.0	
3:59	962.8	26.1	53	sse.	3.6	1,287	874.3	21.0	0.92	45	11.19	s.	10.0	
						1,250	877.3	21.3	.....	45	11.40	s.	9.8	
						1,000	903.2	23.6	.....	41	11.64	sse.	8.4	
4:08	962.5	25.9	54	sse.	5.4	810	923.3	25.4	0.08	39	12.66	sse.	7.3	Rain from 4:05 to 4:10 p. m.
						750	929.5	25.4	.....	41	13.30	sse.	7.5	
						500	956.2	25.6	.....	52	17.08	ese.	8.3	
4:17	962.2	25.7	54	ese.	8.5	444	962.2	25.7	.....	54	17.84	ese.	8.5	10/10 St.Cu., w.

August 3, 1918.

A. M.														
6:39	958.4	19.2	88	s.	4.0	444	958.4	19.2	.....	88	19.58	s.	4.0	9/10 Ci.St., nw.
						500	952.2	19.7	.....	84	19.28	ssw.	4.4	
						750	925.6	21.9	.....	68	17.87	wsw.	6.4	
						1,000	899.0	24.2	.....	52	15.70	nw.	8.4	
6:57	958.4	20.3	84	s.	5.8	1,094	889.5	25.0	—0.89	46	14.57	nnw.	9.1	
						1,250	873.5	23.9	.....	46	13.64	nnw.	8.8	
						1,500	848.8	22.1	.....	46	12.24	nnw.	8.3	
						1,750	824.9	20.3	.....	45	10.72	nnw.	7.7	
						2,000	801.3	18.6	.....	45	9.86	nnw.	7.2	
7:58	958.4	24.2	67	ssw.	5.4	2,052	796.5	18.2	0.71	45	9.40	nnw.	7.1	3/10 Ci.St., nw.; 4/10 A.St., nw.
						2,250	778.7	16.1	.....	50	9.15	nnw.	7.0	
						2,500	756.0	13.4	.....	57	8.76	nnw.	6.9	
8:44	958.2	26.0	66	ssw.	4.0	2,750	733.8	10.8	1.06	64	8.29	nnw.	6.8	
						2,500	756.0	13.4	.....	61	9.38	nnw.	6.4	
						2,250	778.7	16.1	.....	59	10.80	nnw.	6.1	
8:59	958.1	26.0	65	ssw.	4.0	2,076	795.0	17.9	1.16	57	11.69	nnw.	5.8	
						2,000	801.3	18.8	.....	56	12.15	nnw.	5.9	
						1,750	824.9	21.7	.....	51	13.24	nnw.	6.2	
9:09	958.1	25.6	67	ssw.	5.4	1,575	842.4	23.7	0.84	48	14.07	nnw.	6.4	
						1,500	848.8	24.3	.....	47	14.28	nnw.	6.0	
						1,250	873.5	26.4	.....	44	15.15	nnw.	4.6	
9:15	958.2	25.4	68	ssw.	4.9	1,064	892.8	28.0	—1.67	42	15.88	nnw.	3.6	
						1,000	899.0	26.9	.....	47	16.66	nnw.	3.6	
						750	925.6	22.8	.....	67	18.60	nnw.	3.6	
9:24	958.3	25.2	69	sw.	4.5	662	934.7	21.3	1.74	74	18.74	nnw.	3.6	
						500	952.2	24.1	.....	70	21 01	wsw.	4.3	
9:28	958.3	25.1	69	sw.	4.5	444	958.3	25.1	.....	69	21.99	sw.	4.5	9/10 A.St., nw.

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 4, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
8:23	956.3	23.5	76	nw.	6.3	444	956.3	23.5	.....	76	22.01	nw.	6.3	3/10 St.Cu., nw.
						500	950.3	23.1	.....	74	20.92	nw.	6.5	
						750	923.6	21.2	.....	65	16.37	nw.	7.5	
8:33	956.7	23.8	76	wnw.	6.7	811	917.2	20.7	0.76	63	15.38	nw.	7.7	
						1,000	897.3	19.8	.....	64	14.78	nw.	7.7	
						1,250	872.0	18.6	.....	65	13.93	nnw.	7.8	
9:17	956.7	25.5	68	wnw.	4.5	1,458	851.1	17.6	0.48	66	13.29	nnw.	7.8	
						1,500	847.3	17.6	.....	63	12.68	nnw.	7.7	
						1,750	823.2	17.2	.....	48	9.42	n.	7.0	Cloudless.
10:17	956.7	27.0	65	w.	4.0	1,843	814.2	17.1	0.52	42	8.19	n.	6.8	
						1,750	823.2	17.9	.....	40	8.20	n.	6.9	
10:26	956.7	27.2	64	w.	4.5	1,512	846.5	20.1	0.37	36	8.47	n.	7.1	
						1,500	847.3	20.1	.....	37	8.71	n.	7.0	
						1,250	872.0	21.1	.....	50	12.52	nnw.	5.6	
10:33	956.7	27.3	61	wnw.	4.5	1,103	887.4	21.6	0.84	58	14.96	nnw.	4.7	
						1,000	897.3	22.5	.....	57	15.54	nnw.	4.9	
						750	923.6	24.6	.....	55	17.02	nw.	5.2	
10:40	956.7	27.5	56	wnw.	4.0	637	936.0	25.5	1.14	54	17.63	nw.	5.4	
						500	950.3	27.1	.....	53	19.01	wnw.	4.4	
10:44	956.7	27.7	53	wnw.	4.0	444	956.7	27.7	.....	53	19.69	wnw.	4.0	Cloudless.

August 5, 1918 (No. 1).

A. M.														
6:38	959.5	16.6	86	nne.	6.7	444	959.5	16.6	.....	86	16.25	nne.	6.7	10/10 St.Cu., wsw.
						500	953.2	16.6	.....	82	15.49	nne.	7.7	
						750	926.0	16.6	.....	63	11.90	ne.	11.9	
6:48	959.7	16.6	86	n.	6.3	802	920.2	16.6	0.00	59	11.15	ne.	12.8	
						1,000	899.0	15.2	.....	64	11.05	ne.	11.2	
						1,250	873.0	13.5	.....	70	10.83	ene.	9.3	
7:17	960.2	17.0	85	n.	4.5	1,332	864.9	12.9	0.70	72	10.71	ene.	8.6	
						1,500	847.7	12.3	.....	81	11.59	e.	7.8	
						1,750	823.7	11.5	.....	95	12.89	se.	6.5	
7:58	961.0	18.1	80	nne.	5.8	1,848	814.0	11.1	0.58	100	13.21	sse.	6.0	
9:00	960.8	18.9	77	ne.	6.3	1,751	823.2	11.9	−6.00	91	12.68	ese.	4.5	7/10 A.St., wsw.; 2/10 St.Cu., wsw.
9:11	960.9	19.0	75	ne.	7.6	1,721	826.2	10.1	0.61	94	11.62	e.	8.0	
						1,500	848.5	11.4	.....	82	11.05	ene.	9.4	
9:22	960.9	19.2	72	ne.	8.0	1,262	872.7	12.9	0.86	70	10.42	ne.	11.0	
						1,250	874.0	13.0	.....	70	10.49	ne.	11.0	
						1,000	900.2	15.1	.....	63	10.81	ne.	12.2	
9:35	961.0	20.8	69	ne.	8.5	879	913.5	16.2	1.15	60	11.05	ne.	12.7	
						750	927.0	17.7	.....	61	12.35	ne.	11.2	
						500	954.5	20.6	.....	63	15.29	ne.	8.3	
9:47	961.0	21.2	63	ne.	7.6	444	961.0	21.2	.....	63	15.86	ne.	7.6	7/10 St.Cu., wsw.

August 5, 1918 (No. 2).

P. M.														
12:52	960.4	21.9	60	ne.	6.3	444	960.4	21.9	.....	60	15.77	ne.	6.3	9/10 St.Cu., sw.
						500	954.6	21.1	.....	59	14.77	ne.	6.7	
12:59	960.4	21.7	58	ne.	5.8	735	928.4	17.6	1.48	54	10.87	nne.	8.4	
						750	927.0	17.5	.....	55	11.00	nne.	8.4	
1:49	960.2	21.0	53	ne.	5.4	984	901.6	15.2	0.96	68	11.74	ne.	7.8	Thunder first heard 1:15 p. m., sw. of station; last heard at 5:00 p. m. s. of station.
						1,000	900.1	15.1	.....	67	11.50	ne.	7.8	
						1,250	873.4	13.8	.....	58	9.15	ne.	7.7	
1:54	960.1	21.0	53	ne.	5.4	1,287	869.6	13.6	0.65	56	8.72	ne.	7.2	
						1,250	873.2	13.9	.....	58	9.21	ne.	7.0	
2:00	960.1	21.0	53	nne.	5.4	1,106	888.6	15.0	0.69	64	10.91	ne.	6.4	
						1,000	899.4	15.7	.....	64	11.42	ne.	6.9	
2:11	959.9	20.7	50	ne.	5.4	777	923.3	17.2	0.99	64	12.56	ne.	7.9	
						750	925.8	17.5	.....	63	12.60	ne.	7.8	
						500	953.0	19.9	.....	51	11.85	nne.	6.6	
2:20	959.7	20.5	48	nne.	6.3	444	959.7	20.5	.....	48	11.58	nne.	6.3	10/10 St., sw. Rain began 2:55 p.m.

August 6, 1918 (No. 1).

A. M.														
6:50	958.7	14.4	96	n.	2.7	444	958.7	14.4	.....	96	15.74	n.	2.7	6/10 Ci.St., w.; 3/10 St., w.
						500	952.5	14.8	.....	91	15.32	nne	5.1	
6:55	958.7	14.6	94	n.	2.7	539	948.0	15.0	−0.63	87	14.83	nne.	6.8	
7:01	958.7	14.9	91	nne.	3.1	681	932.4	15.8	−0.56	83	14.90	ene.	6.4	
						750	925.2	16.1	.....	82	15.01	ne.	5.8	
8:02	959.4	17.7	85	nne.	3.1	781	922.1	16.3	−0.50	82	15.19	ne.	5.5	
8:08	959.6	18.0	84	nne.	3.1	893	910.3	15.6	0.34	80	14.18	ne.	4.6	
						750	925.2	15.7	.....	91	16.23	nne.	5.0	
8:15	959.8	18.3	87	nne.	3.6	738	927.2	15.7	0.88	92	16.41	nne.	5.0	
						500	953.0	17.8	.....	90	18.34	n.	3.9	
8:19	959.9	18.3	90	n.	3.6	444	959.9	18.3	.....	90	18.93	n.	3.6	9/10 St., w.

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 6, 1918 (No. 2).

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
5:55	959.4	26.7	51	w.	3.6	444	959.4	26.7	.....	51	17.87	w.	3.6	1/10 Ci.St., sw.; 1/10 St.Cu., nw.; 1/10 Cu., nw.
						500	953.5	26.1	.....	51	17.25	w.	4.1	
6:30	959.6	26.0	59	w.	3.6	752	926.5	23.2	1.14	54	15.36	wnw.	6.4	
						1,000	900.1	20.5	.....	60	14.47	wnw.	6.9	
7:06	959.8	25.2	64	wnw.	4.9	1,222	877.5	18.0	1.11	65	13.42	wnw.	7.4	
						1,250	874.0	17.7	.....	66	13.36	wnw.	7.3	
						1,500	848.9	15.1	.....	73	12.53	wnw.	6.2	
						1,750	824.7	12.4	.....	81	11.66	wnw.	5.0	
8:49	960.3	19.7	76	nw.	5.8	1,933	806.6	10.5	1.04	86	10.92	wnw.	4.2	3/10 Ci.St., sw.; 1/10 A.St., sw.
						1,750	824.7	12.4	.....	79	11.38	wnw.	5.7	
						1,500	848.9	15.0	.....	69	11.76	nw.	7.9	
						1,250	874.0	17.5	.....	59	11.80	nw.	10.0	
9:26	960.7	18.0	84	nw.	6.7	1,224	877.5	17.8	0.78	58	11.82	nw.	10.2	
						1,000	900.1	19.6	.....	52	11.86	nw.	12.2	
9:41	960.9	17.8	83	nw.	6.7	867	914.7	20.6	−0.66	48	11.65	nw.	13.4	
						750	927.2	19.8	.....	57	13.17	nw.	11.0	
						500	955.4	18.2	.....	78	16.30	nw.	6.0	
9:50	961.0	17.8	82	nw.	4.9	444	961.0	17.8	.....	82	16.71	nw.	4.9	1/10 A.St., sw.

August 7, 1918.

A. M.														
6:34	964.5	12.7	93	nne.	3.6	444	964.5	12.7	.....	93	13.66	nne.	3.6	10/10 St.Cu., sw.
						500	958.3	12.2	.....	85	12.08	nne.	6.2	
6:36	964.6	12.8	92	ne.	3.6	620	944.5	11.1	0.94	68	8.98	ne.	11.8	
						750	929.8	13.2	.....	69	10.47	ene.	10.4	
6:43	964.6	13.0	91	ne.	4.0	818	922.6	14.3	−1.62	70	11.41	ene.	9.6	
						1,000	902.7	13.2	.....	72	10.92	ne.	8.5	
6:57	964.8	13.2	96	ne.	4.0	1,120	890.2	12.5	0.60	74	10.72	ne.	7.8	
						1,250	876.4	11.6	.....	70	9.56	ne.	6.7	
						1,500	851.3	10.5	.....	65	8.26	ne.	5.4	
9:31	965.7	16.4	68	ne.	7.6	1,593	842.2	9.1	0.72	58	6.70	ne.	3.7	
						1,750	826.4	10.5	.....	30	3.81	ne.	2.3	10/10 A.St., sw.
9:38	965.8	16.2	71	ne.	6.7	1,760	825.4	10.6	−0.90	28	3.58	ne.	2.2	
9:46	965.8	16.3	70	ne.	5.4	1,914	810.2	9.8	0.07	27	3.27	ne.	2.7	
						1,750	826.4	9.2	.....	49	5.70	ne.	4.6	
10:00	965.9	16.6	69	ne.	5.4	1,701	831.5	9.0	0.79	55	6.31	ne.	5.2	
						1,500	851.5	10.6	.....	61	7.80	ne.	5.8	
						1,250	877.7	12.6	.....	69	10.07	ne.	6.7	
10:14	966.0	16.8	66	ne.	6.7	1,207	882.4	12.9	−0.05	70	10.42	ne.	6.8	
						1,000	904.4	12.8	.....	76	11.23	ne.	7.4	
10:36	966.1	16.8	66	ne.	6.3	835	922.6	12.7	1.05	81	11.90	ne.	7.9	
						750	931.8	13.6	.....	78	12.15	ne.	7.2	
						500	960.2	16.2	.....	68	12.53	ne.	5.0	
10:48	966.1	16.8	66	ne.	4.5	444	966.1	16.8	.....	66	12.63	ne.	4.5	10/10 St.Cu., sw.

August 8, 1918.

P. M.														
1:43	961.0	23.4	48	s.	5.4	444	961.0	23.4	.....	48	13.81	s.	5.4	Few Cu., ssw.
						500	954.8	22.9	.....	49	13.69	s.	5.2	
						750	927.3	20.6	.....	54	13.11	ssw.	4.4	
2:44	960.3	24.3	52	ssw.	4.5	832	918.3	19.9	0.90	55	12.78	ssw.	4.1	
						1,000	900.6	18.0	.....	58	11.97	ssw.	4.4	
3:09	960.0	24.8	49	ssw.	5.8	1,095	890.3	16.9	1.14	59	11.36	ssw.	4.6	
						1,250	874.8	15.7	.....	66	11.77	ssw.	5.3	
						1,500	849.9	13.8	.....	78	12.31	ssw.	6.5	
						1,750	824.0	11.9	.....	90	12.54	ssw.	7.7	2/10 Ci.St., w.; 3/10 St.Cu., ssw.
4:07	959.3	24.9	49	s.	5.4	1,972	801.9	10.2	0.76	100	12.45	ssw.	8.7	Altitude of Cu. base about 2,000 m.
						2,000	799.5	11.0	.....	74	9.72	ssw.	8.2	
4:40	958.9	25.2	51	s.	6.3	2,014	797.4	11.4	−2.86	61	8.22	ssw.	7.9	
						2,250	775.8	9.9	.....	57	6.95	sw.	7.7	
						2,500	752.8	8.3	.....	52	5.69	sw.	7.5	
5:46	958.5	25.0	51	s.	4.5	2,741	730.3	6.7	0.64	48	4.71	wsw.	7.3	2/10 Ci.St., w.; 3/10 St.Cu., ssw.
						2,750	730.0	6.7	.....	48	4.71	wsw.	7.4	
						3,000	708.0	6.1	.....	41	3.86	wsw.	8.7	
						3,250	686.8	5.5	.....	33	2.98	wsw.	10.1	
5:53	958.4	25.1	56	sse.	4.5	3,404	673.9	5.1	0.37	29	2.55	wsw.	11.0	
						3,250	686.8	5.9	.....	33	3.07	wsw.	10.0	
						3,000	708.0	7.1	.....	39	3.94	w.	8.4	
						2,750	730.0	8.3	.....	45	4.93	w.	6.8	
6:08	958.3	24.9	61	s.	4.5	2,733	731.8	8.4	0.37	45	4.96	w.	6.7	
						2,500	753.2	9.3	.....	52	6.09	wsw.	7.2	
						2,250	777.2	10.2	.....	60	7.47	sw.	7.8	
6:22	958.1	24.6	54	s.	4.0	2,052	794.3	10.9	2.14	66	8.61	ssw.	8.3	
						2,000	801.4	12.0	.....	80	11.22	ssw.	8.5	
6:32	958.0	23.9	60	s.	4.0	1,926	806.5	13.6	0.69	100	15.58	s.	8.9	
						1,750	825.6	14.8	.....	95	15.99	s.	8.5	
						1,500	849.3	16.6	.....	88	16.62	sse.	7.9	
						1,250	873.0	18.3	.....	80	16.82	sse.	7.3	
6:45	957.9	24.1	59	s.	3.6	1,205	877.5	18.6	0.84	79	16.93	sse.	7.2	
						1,000	898.0	20.3	.....	72	17.15	see.	7.7	
7:00	957.7	23.4	65	sse.	4.0	778	921.7	22.2	0.29	64	17.13	sse.	8.3	
						750	925.0	22.3	.....	64	17.24	sse.	7.8	
						500	954.2	23.0	.....	63	17.70	sse.	2.9	
7:06	957.7	23.2	63	sse.	1.8	444	957.7	23.2	.....	63	17.92	see.	1.8	2/10 Ci.St., w.; 1/10 St.Cu., sw.

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 9, 1918, series (No. 1).

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
6:31	953.6	18.8	89	s.	6.7	444	953.6	18.8	.....	89	19.31	s.	6.7	9/10 St.Cu., wsw.
						500	947.6	19.1	.....	85	18.79	s.	7.6	
						750	920.2	20.5	.....	68	16.40	s.	11.5	
6:43	953.5	18.9	88	s.	7.2	881	906.4	21.2	−0.55	59	14.86	s.	13.5	
						1,000	894.0	21.1	.....	53	13.27	s.	13.2	
						1,250	868.2	20.9	.....	41	10.14	ssw.	12.7	
6:53	953.4	18.9	90	s.	8.0	1,258	867.8	20.9	0.08	41	10.14	ssw.	12.7	
						1,500	842.7	19.2	.....	46	10.24	ssw.	13.9	6/10 St. Cu., ssw.
						1,750	818.1	17.5	.....	51	10.20	ssw.	15.2	
						2,000	794.5	15.7	.....	56	9.99	sw.	16.5	
						2,250	771.8	14.0	.....	62	9.91	sw.	17.7	
7:10	953.2	19.1	89	s.	8.9	2,265	771.2	13.9	0.70	62	9.85	sw.	17.8	
						2,500	749.2	11.7	.....	67	9.21	sw.	17.5	
						2,750	727.3	9.4	.....	73	8.61	sw.	17.2	
7:23	953.0	19.3	88	s.	8.0	2,894	715.2	8.1	0.92	76	8.21	sw.	17.0	
						3,000	706.3	7.3	.....	74	7.57	sw.	17.0	2/10 St.Cu., ssw.
						3,250	685.5	5.5	.....	70	6.32	sw.	17.2	
						3,500	664.7	3.6	.....	67	5.30	sw.	17.3	
						3,750	643.5	1.8	.....	63	4.38	sw.	17.4	
7:52	952.7	20.8	78	s.	7.6	3,789	640.6	1.5	0.82	62	4.22	sw.	17.4	
						3,750	643.5	1.9	.....	62	4.35	sw.	17.3	
						3,500	664.7	4.1	.....	60	4.91	sw.	16.9	
						3,250	685.5	6.4	.....	59	5.67	ssw.	16.4	
						3,000	706.3	8.6	.....	57	6.37	ssw.	15.9	
						2,750	727.3	10.9	.....	56	7.30	s.	15.5	
						2,500	749.2	13.1	.....	54	8.14	s.	15.0	
8:54	952.1	22.2	83	s.	10.7	2,437	754.9	13.7	0.80	54	8.47	s.	14.9	
						2,250	771.8	15.2	.....	52	8.98	s.	14.2	
						2,000	794.5	17.2	.....	50	9.81	s.	13.3	
						1,750	818.1	19.2	.....	47	10.46	s.	12.4	
9:15	951.9	23.1	78	s.	12.1	1,654	827.5	20.0	0.09	46	10.75	s.	12.1	
						1,500	842.5	20.1	.....	52	12.24	s.	13.4	
9:29	951.8	23.2	76	s.	12.1	1,304	861.5	20.3	−0.81	60	14.29	ssw.	15.0	
						1,250	867.2	19.9	.....	66	15.34	ssw.	14.9	
9:32	951.8	23.4	75	s.	13.0	1,009	891.6	17.9	1.08	92	18.87	s.	14.5	
						1,000	892.7	18.0	.....	92	18.99	s.	14.4	
						750	918.7	20.7	.....	84	20.51	s.	13.0	
						500	945.8	23.4	.....	76	21.87	s.	11.5	
9:50	951.7	24.0	74	s.	11.2	444	951.7	24.0	.....	74	22.08	s.	11.2	3/10 St.Cu., sw.

August 9, 1918, series (No. 2).

A. M.														
10:06	951.5	24.6	73	s.	14.8	444	951.5	24.6	.....	73	22.59	s.	14.8	3/10 St.Cu., sw.
						500	945.6	23.8	.....	76	22.41	s.	15.1	
						750	918.5	20.4	.....	89	21.33	s.	16.3	
10:14	951.5	24.8	71	s.	13.4	818	911.5	19.5	1.36	92	20.86	s.	16.6	3/10 St.Cu., ssw.
						1,000	892.4	19.2	.....	80	17.80	s.	16.3	
10:24	951.4	24.9	70	s.	12.5	1,232	868.6	18.9	0.14	65	14.20	s.	16.0	
						1,250	867.0	18.8	.....	65	14.10	s.	16.1	
						1,500	842.3	17.9	.....	64	13.13	s.	16.9	
						1,750	817.8	17.0	.....	62	12.02	s.	17.8	
						2,000	793.8	16.1	.....	61	11.16	s.	18.6	
10:47	951.1	25.6	69	s.	12.1	2,030	791.2	16.0	0.36	61	11.09	s.	18.7	
						2,250	770.8	14.2	.....	58	9.39	ssw.	18.5	
						2,500	748.4	12.1	.....	54	7.62	ssw.	18.3	
11:23	950.6	26.6	68	s.	13.9	2,689	731.2	10.5	0.83	51	6.48	sw.	18.2	
						2,750	726.4	10.0	.....	51	6.26	sw.	18.3	
						3,000	705.0	8.1	.....	51	5.51	sw.	18.9	
						3,250	684.1	6.2	.....	52	4.93	ssw.	19.5	
						3,500	663.8	4.3	.....	52	4.32	ssw.	20.0	
11:41	950.2	27.5	62	s.	10.7	3,534	660.0	4.0	0.77	52	4.23	ssw.	20.1	
						3,750	643.7	2.5	.....	54	3.95	ssw.	20.1	
						4,000	624.2	0.7	.....	57	3.67	ssw.	20.2	
						4,250	604.7	−1.1	.....	59	3.29	ssw.	20.2	1/10 Ci.St., sw., 3/10 St.Cu., ssw.
P. M.														
12:02	949.9	28.5	55	s.	11.2	4,303	600.4	−1.5	0.81	60	3.23	ssw.	20.2	
						4,250	604.7	−1.0	.....	59	3.32	ssw.	20.2	
						4,000	624.2	1.3	.....	53	3.56	ssw.	20.0	
						3,750	643.7	3.5	.....	47	3.69	ssw.	19.9	
						3,500	663.8	5.8	.....	41	3.78	ssw.	19.7	
12:36	949.5	28.4	58	s.	10.7	3,437	668.7	6.4	0.91	40	3.84	ssw.	19.7	
						3,250	684.1	8.1	.....	40	4.32	ssw.	19.6	
						3,000	705.0	10.4	.....	41	5.17	ssw.	19.6	
12:59	949.3	28.9	58	s.	11.6	2,797	722.3	12.2	0.72	41	5.83	ssw.	19.5	
						2,750	726.4	12.5	.....	41	5.94	ssw.	19.5	
						2,500	748.4	14.3	.....	39	6.36	ssw.	19.2	
						2,250	770.8	16.1	.....	37	6.77	sw.	19.0	
1:18	949.0	29.2	58	ssw.	12.1	2,006	792.7	17.9	−0.88	35	7.18	sw.	18.8	
						2,000	793.8	17.8	.....	37	7.54	sw.	18.8	
1:23	948.9	29.4	56	ssw.	11.6	1,812	811.1	16.2	0.90	87	16.03	ssw.	17.9	
						1,750	817.4	16.8	.....	85	16.26	ssw.	17.9	
						1,500	841.7	19.0	.....	79	17.36	ssw.	17.9	
						1,250	866.0	21.3	.....	72	18.24	ssw.	17.9	
1:38	948.6	29.7	52	ssw.	11.6	1,203	870.2	21.7	1.20	71	18.43	ssw.	17.9	
						1,000	890.7	24.1	.....	63	18.91	ssw.	15.9	
1:47	948.4	30.1	51	ssw.	12.5	895	901.4	25.4	1.06	59	19.15	ssw.	14.9	
						750	916.0	26.9	.....	56	19.85	ssw.	14.3	
						500	942.7	29.6	.....	50	20.74	ssw.	13.2	
1:59	948.2	30.2	49	ssw.	13.0	444	948.2	30.2	.....	49	21.04	ssw.	13.0	5/10 St.Cu., ssw.

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 9, 1918, series (No. 3).

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
2:43	948.2	31.0	38	ssw.	13.0	444	948.2	31.0	.....	38	17.08	ssw.	13.0	5/10 St.Cu., ssw.
						500	941.2	30.5	.....	38	16.60	ssw.	13.5	
						750	915.6	28.0	.....	36	13.61	sw.	15.5	
2:52	948.2	31.2	39	ssw.	12.5	806	910.4	27.5	0.97	36	13.22	sw.	16.0	
						1,000	890.3	25.4	.....	40	12.98	sw.	15.6	
						1,250	865.2	22.6	.....	45	12.34	sw.	15.0	
						1,500	840.7	19.9	.....	50	11.62	sw.	14.5	
3:08	948.2	31.1	41	ssw.	11.6	1,738	818.0	17.3	1.09	55	10.86	sw.	14.0	
						1,750	816.3	17.2	.....	56	10.99	sw.	14.0	
						2,000	792.9	14.8	.....	72	12.12	sw.	14.1	
						2,250	770.0	12.5	.....	87	12.61	ssw.	14.3	
3:29	948.1	30.8	41	wsw.	9.8	2,292	766.2	12.1	0.94	90	12.71	ssw.	14.3	
						2,500	747.7	10.9	.....	77	10.04	ssw.	15.0	
						2,750	725.5	9.5	.....	60	7.12	sw.	15.8	
						3,000	703.3	8.1	.....	44	4.75	sw.	16.6	
3:44	948.0	30.8	40	wsw.	8.9	3,114	694.0	7.5	0.56	37	3.84	sw.	17.0	
						3,250	682.0	6.6	.....	36	3.51	sw.	17.5	2/10 A.St., sw.; 3/10 Cu., ssw.
						3,500	661.3	5.0	.....	35	3.05	sw.	18.4	
						3,750	641.9	3.4	.....	34	2.65	sw.	19.3	
4:17	948.3	30.6	41	wsw.	8.5	3,954	626.6	2.1	0.74	33	2.35	sw.	20.0	
						3,750	642.2	3.8	.....	33	2.65	sw.	17.6	
						3,500	662.9	5.9	.....	32	2.97	sw.	14.7	
4:39	948.8	29.3	44	w.	10.7	3,400	671.0	6.7	0.91	32	3.14	sw.	13.5	
						3,250	683.8	8.1	.....	31	3.35	sw.	13.8	
						3,000	704.3	10.3	.....	29	3.63	sw.	14.2	
						2,750	725.7	12.6	.....	27	3.94	wsw.	14.6	
5:03	949.4	27.7	44	wnw.	12.1	2,576	740.9	14.2	0.41	26	4.21	wsw.	14.9	
						2,500	747.7	14.5	.....	31	5.12	wsw.	14.3	
						2,250	770.0	15.5	.....	47	8.28	w.	12.2	
						2,000	793.4	16.6	.....	63	11.90	wnw.	10.1	
5:12	949.6	26.7	46	nw.	13.9	1,851	807.2	17.2	0.47	72	14.13	wnw.	8.9	
						1,750	817.0	17.7	.....	69	13.97	wnw.	9.4	
						1,500	841.7	18.9	.....	62	13.54	wnw.	10.6	
						1,250	866.3	20.0	.....	55	12.86	nw.	11.8	
						1,000	891.9	21.2	.....	48	12.09	nw.	13.0	
5:37	950.3	25.6	44	nw.	15.2	852	907.0	21.9	0.81	44	11.56	nw.	13.7	
						750	918.0	22.7	.....	44	12.14	nw.	13.2	
						500	944.5	24.7	.....	43	13.38	nw.	11.9	
5:48	950.7	25.2	43	nw.	11.6	444	950.7	25.2	.....	43	13.79	nw.	11.6	1/10 Ci.St., w.; 1/10 St.Cu., w.

August 9, 1918, series (No. 4).

P. M.														
6:31	952.0	24.1	45	nw.	2.7	444	952.0	24.1	.....	45	13.51	nw.	2.7	1/10 Ci.St., w.; 1/10 St.Cu., w.
						500	945.5	23.6	.....	45	13.11	nw.	4.5	
						750	918.9	21.5	.....	44	11.29	nw.	12.6	
6:42	952.4	24.1	46	nw.	7.6	845	909.5	20.7	0.85	44	10.74	nw.	15.7	
						1,000	893.0	19.4	.....	45	10.14	nw.	15.8	
						1,250	867.6	17.4	.....	46	9.14	nw.	16.0	
6:53	952.8	23.6	47	nw.	5.8	1,295	863.2	17.0	0.82	46	8.91	nw.	16.0	
						1,500	842.8	15.8	.....	52	9.33	nw.	15.5	
						1,750	818.0	14.3	.....	59	9.62	wnw.	14.8	
7:10	953.1	22.7	50	nw.	4.5	1,762	817.1	14.2	0.60	59	9.55	wnw.	14.8	
						2,000	794.1	12.5	.....	76	11.01	w.	13.3	
						2,250	770.8	10.8	.....	94	12.17	wsw.	11.8	
7:25	953.3	22.1	54	nw.	5.4	2,292	767.2	10.5	0.70	97	12.32	wsw.	11.5	
						2,500	748.0	9.3	.....	89	10.43	wsw.	14.8	
						2,750	726.0	7.8	.....	80	8.46	wsw.	18.7	
						3,000	704.8	6.3	.....	71	6.78	sw.	22.6	
						3,250	683.8	4.9	.....	61	5.28	sw.	26.5	
8:00	953.7	21.4	63	nw.	10.7	3,395	671.2	4.0	0.58	56	4.55	sw.	28.8	1/10 Ci.St., w.; 1/10 St.,Cu. w.
						3,250	683.8	4.8	.....	56	4.82	sw.	26.6	
						3,000	704.8	6.2	.....	54	5.12	wsw.	22.8	Lightning in se. from 8:20 to end of flight.
						2,750	726.0	7.6	.....	52	5.43	w.	18.9	
						2,500	748.0	9.1	.....	51	5.90	w.	15.1	
9:05	955.4	17.6	68	n.	1.8	2,493	749.5	9.1	0.98	51	5.90	w.	15.0	
						2,250	770.8	11.5	.....	40	5.43	wnw.	17.0	
						2,000	794.1	13.9	.....	30	4.76	nw.	19.1	
9:41	955.6	16.5	60	ne.	0.9	1,828	811.0	15.6	−1.50	22	3.90	nw.	20.5	
						1,750	818.0	14.4	.....	25	4.10	nw.	20.1	
9:48	955.6	16.5	60	ne.	0.9	1,608	832.4	12.3	0.68	30	4.29	nw.	19.5	
						1,500	843.1	13.0	.....	40	7.34	nw.	18.5	
10:01	955.7	16.6	60	ne.	0.9	1,382	855.5	13.8	0.18	51	8.05	nw.	17.5	
						1,250	868.7	14.0	.....	49	7.83	nw.	16.9	
						1,000	894.7	14.5	.....	46	7.59	nw.	15.8	
10:20	955.8	16.0	61	ne.	1.3	987	896.4	14.5	0.26	46	7.59	nw.	15.7	
						750	921.4	15.1	.....	53	9.09	nw.	10.0	
						500	949.4	15.8	.....	61	10.95	nnw.	4.0	
10:32	955.9	15.9	63	nnw.	2.7	444	955.9	15.9	.....	63	11.38	nnw.	2.7	1/10 St.Cu., w.

August 9–10, 1918, series (No. 5).

P. M.														
11:35	956.6	16.8	60	nw.	4.9	444	956.6	16.8	.....	60	11.48	nw.	4.9	1/10 St.Cu., n.; thunder heard 11:20 p. m., se.
						500	950.8	16.7	.....	59	11.22	nw.	6.0	
						750	922.8	16.1	.....	55	10.06	nnw.	10.7	
11:44	956.8	17.0	59	nw.	7.6	936	903.0	15.6	0.24	52	9.21	nnw.	14.2	
						1,000	896.2	15.2	.....	52	8.98	nnw.	13.6	
						1,250	870.3	13.5	.....	51	7.89	nnw.	11.4	

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 9-10, 1918, series (No. 5)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
12:12	957.2	16.6	61	nw.	3.1	1,338	861.4	12.9	0.78	51	7.59	nnw.	10.6	Rain from 12:13 to 12:30 a. m.
						1,250	870.3	13.7		46	7.21	nnw.	11.0	Thunder heard in s.
12:34	957.3	16.8	59	nw.	4.0	1,002	896.4	15.9	0.76	30	5.42	nnw.	12.0	
						750	897.3	16.1		46	8.42	nnw.	10.1	
12:40	957.3	16.6	60	nw.	3.6	740	924.6	16.1	0.68	47	8.60	nnw.	10.0	
						500	923.8	16.3		58	10.75	nw.	8.9	
12:47	957.3	16.3	61	nw.	4.0	444	957.3	16.3		61	11.30	nw.	4.0	8/10 St.Cu., w.

August 10, 1918, series (No. 6).

A. M.														
4:59	958.4	10.8	78	sw.	5.4	444	958.4	10.8		78	10.10	sw.	5.4	4/10 St.Cu., w.
						500	952.2	11.6		72	9.84	sw.	5.3	
						750	925.2	15.0		44	7.50	wsw.	5.0	
6:54	959.7	12.7	73	sw.	4.5	827	917.2	16.0	−1.36	36	6.54	wsw.	4.9	
						1,000	898.5	14.8		36	6.06	wsw.	5.8	
						1,250	872.3	13.1		37	5.58	w.	7.0	
						1,500	846.7	11.3		38	5.09	w.	8.3	
7:06	959.8	13.5	72	sw.	3.6	1,564	840.3	10.9	0.69	38	4.96	w.	8.6	
						1,750	821.3	9.6		38	4.54	w.	9.8	
						2,000	797.0	7.8		39	4.13	w.	11.4	
						2,250	773.8	6.0		39	3.65	w.	13.0	
7:15	959.8	14.2	70	sw.	3.1	2,304	768.6	5.6	0.72	39	3.55	w.	13.3	
						2,500	750.8	4.7		43	3.67	w.	16.1	
						2,750	728.0	3.5		47	3.69	w.	19.7	
7:28	959.8	15.2	68	sw.	3.6	2,856	718.4	3.0	0.55	49	3.71	w.	21.2	
						2,750	728.0	3.7		48	3.82	w.	19.1	Few Ci.St., w.
						2,500	750.8	5.2		45	3.98	w.	14.3	
8:00	959.8	17.5	57	sw.	4.0	2,310	768.6	6.4	0.93	43	4.13	w.	10.6	
						2,250	773.8	7.0		43	4.31	w.	10.5	
						2,000	797.0	9.3		41	4.81	w.	10.3	
						1,750	822.0	11.6		39	5.33	w.	10.1	
8:20	959.8	18.9	52	sw.	5.4	1,558	841.9	13.4	0.63	38	5.84	w.	9.9	
						1,500	847.8	12.8		38	5.62	w.	9.7	
						1,250	873.8	15.4		37	6.48	w.	9.1	
						1,000	900.2	16.9		36	6.93	w.	8.4	
8:37	959.8	19.7	48	sw.	4.5	927	907.1	17.4	0.56	36	7.15	w.	8.2	
						750	926.6	18.4		42	8.89	wsw.	7.9	
						500	953.9	19.8		50	11.55	sw.	6.4	
8:45	959.8	20.1	52	sw.	5.4	444	959.8	20.1		52	12.24	sw.	5.4	Few Ci.St., w.; few Ci.Cu., w.

August 10, 1918, series (No. 7).

A. M.														
9:05	959.8	20.9	41	sw.	5.4	444	959.8	20.9		41	10.14	sw.	5.4	Few Ci.St.,w.; few Ci.Cu.,w.
						500	953.8	20.5		40	9.25	sw.	5.9	
						750	926.2	18.9		35	7.64	wsw.	8.0	
9:15	959.9	21.5	42	wsw.	7.2	898	910.5	18.0	0.64	32	6.60	w.	9.2	
						1,000	899.6	17.1		33	6.44	w.	9.8	
						1,250	873.6	14.7		34	5.69	wsw.	11.3	
9:33	960.0	22.0	40	sw.	6.3	1,393	859.1	13.4	0.93	35	5.38	wsw.	12.1	
						1,500	848.0	12.5		36	5.22	wsw.	12.4	
						1,750	823.0	10.5		38	4.83	wsw.	13.0	
						2,000	799.0	8.5		40	4.44	wsw.	13.5	
9:58	960.1	22.5	34	sw.	6.7	2,105	788.7	7.6	0.81	41	4.28	wsw.	13.8	
						2,250	775.0	6.9		38	3.78	sw.	20.5	
10:53	959.8	23.2	36	wsw.	8.5	2,265	773.5	6.8	0.48	38	3.75	sw.	21.2	
						2,250	775.0	6.9		38	3.78	sw.	20.8	Cloudless.
						2,000	799.0	8.0		46	4.94	wsw.	13.9	
P. M.														
12:01	959.8	24.3	35	w.	8.9	1,915	806.9	8.4	1.08	49	5.40	wsw.	11.5	
						1,750	823.8	10.2		48	5.98	wsw.	11.3	
						1,500	849.0	12.9		45	6.70	wsw.	11.1	
						1,250	874.7	15.6		43	7.62	wsw.	10.8	
12:10	959.7	24.4	33	wsw.	7.2	1,100	889.2	17.2	0.68	42	8.24	wsw.	10.7	
						1,000	900.3	17.9		40	8.20	wsw.	10.4	
						750	926.8	19.6		34	7.76	wsw.	9.5	
12:25	959.6	24.5	32	wsw.	7.6	691	932.6	20.0	1.94	33	7.72	wsw.	9.3	
						500	953.8	23.7		34	9.97	wsw.	8.8	
12:39	959.5	24.8	34	wsw.	7.2	444	959.5	24.8		34	10.65	wsw.	7.2	Few St.Cu., sw.

August 10, 1918, series (No. 8).

P. M.														
12:59	959.4	25.2	37	wsw.	6.7	444	959.4	25.2		37	11.86	wsw.	6.7	Few St.Cu., wsw.
						500	953.0	24.6		36	11.14	wsw.	7.6	
						750	926.1	21.7		34	8.83	wsw.	11.6	
1:08	959.4	25.1	35	wsw.	8.0	822	918.6	20.9	1.14	33	8.16	wsw.	12.7	
						1,000	899.8	19.1		34	7.52	wsw.	12.5	
						1,250	873.8	16.6		36	6.80	w.	12.1	
1:20	959.3	25.3	33	wsw.	7.6	1,271	871.7	16.4	1.00	36	6.71	w.	12.1	
						1,500	848.7	14.2		41	6.64	w.	12.6	
1:37	959.2	25.4	33	w.	9.8	1,668	831.5	12.5	0.98	44	6.38	w.	13.0	
						1,750	823.8	11.8		45	6.23	w.	13.7	
						2,000	799.3	9.5		49	5.82	w.	16.0	
						2,250	775.7	7.2		52	5.28	w.	18.3	
						2,500	752.6	4.9		56	4.85	w.	20.6	

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 10, 1918, series (No. 8)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
1:56	959.1	25.8	30	w.	9.4	2,521	750.1	4.7	0.91	56	4.78	w.	20.8	
						2,750	729.9	4.8		56	4.82	w.	24.8	
						3,000	707.4	5.0		56	4.88	wsw.	29.2	
2:18	959.0	25.8	29	wnw.	8.9	3,029	704.9	5.0	−0.58	56	4.88	wsw.	29.7	
						3,000	707.4	5.0		57	4.97	wsw.	28.8	
						2,750	729.9	4.8		65	5.59	w.	21.0	
2:58	958.7	26.2	29	wnw.	6.7	2,508	751.6	4.7	1.08	73	6.23	w.	13.4	
						2,500	752.6	4.8		73	6.28	w.	13.4	
						2,250	775.7	7.6		66	6.89	w.	13.7	
						2,000	799.3	10.2		59	7.35	w.	14.0	
3:11	958.7	26.1	33	wnw.	9.8	1,795	819.2	12.4	1.09	53	7.63	w.	14.3	
						1,750	823.8	12.9		52	7.74	w.	14.2	
						1,500	848.7	15.6		46	8.15	w.	13.5	
						1,250	873.8	18.4		40	8.46	wnw.	12.8	
						1,000	899.8	21.1		34	8.51	wnw.	12.1	
3:36	958.7	26.8	29	w.	9.4	898	910.2	22.2	1.01	32	8.57	wnw.	11.8	
						750	926.1	23.7		31	9.09	wnw.	11.2	
						500	953.0	26.2		30	10.21	w.	8.7	
3:50	958.7	26.8	30	w.	7.2	444	958.7	26.8		30	10.57	w.	7.2	Few St.Cu., wsw.

August 11, 1918.

P. M.														
12:26	961.4	27.0	40	sse.	7.2	444	961.4	27.0		40	14.26	sse.	7.2	4/10 Ci.St., w.
						500	955.2	26.3		41	14.03	sse.	7.6	
12:36	961.1	27.4	40	se.	3.6	754	927.7	23.1	1.26	46	13.00	se.	9.2	
						1,000	901.2	21.0		50	12.44	se.	10.1	
						1,250	875.2	18.9		54	11.79	se.	11.0	
						1,500	850.2	16.9		59	11.36	se.	11.9	
1:04	960.4	27.4	39	se.	8.5	1,650	835.3	15.7	0.83	61	10.88	se.	12.4	
						1,750	825.2	14.8		61	10.27	se.	12.5	
						2,000	801.0	12.4		62	8.93	se.	12.7	
						2,250	777.5	10.0		63	7.74	se.	12.9	
1:29	960.3	27.9	40	se.	8.0	2,446	759.6	8.1	0.95	64	6.91	se.	13.0	
						2,500	754.4	8.0		63	6.76	se.	12.9	
						2,750	731.0	7.4		60	6.18	sse.	12.2	1/10 St.Cu., sw.; 6/10 Ci.St., w.
						3,000	709.0	6.7		57	5.59	s.	11.5	
						3,250	687.8	6.1		54	5.09	ssw.	10.8	
						3,500	667.5	5.5		51	4.61	wsw.	10.1	
2:42	959.1	28.7	40	se.	4.0	3,549	663.9	5.4	0.24	50	4.48	wsw.	10.0	
						3,750	647.3	4.0		55	4.47	wsw.	10.5	6/10 Ci.St., wsw.; 2/10 St.Cu., sw.
						4,000	628.0	2.3		61	4.40	wsw.	11.0	
						4,250	609.9	0.6		67	4.27	wsw.	11.6	
						4,500	591.4	−1.2		73	4.04	wsw.	12.2	
3:12	958.6	28.2	38	se.	11.6	4,755	572.4	−2.9	0.81	79	3.79	wsw.	12.8	
						4,500	591.4	−0.5		73	4.28	wsw.	12.3	
						4,250	610.2	1.8		68	4.73	sw.	11.8	
						4,000	629.3	4.1		62	5.08	sw.	11.3	
				se.		3,750	649.0	6.4		56	5.38	ssw.	10.8	
3:53	958.4	28.1	40		12.1	3,657	656.8	7.3	0.50	54	5.52	ssw.	10.6	
						3,500	669.2	8.1		52	5.62	ssw.	11.6	
						3,250	689.8	9.4		48	5.66	s.	13.3	
						3,000	710.9	10.6		45	5.75	s.	14.9	
						2,750	732.7	11.9		42	5.85	sse.	16.5	
4:15	958.2	28.8	31	se.	12.5	2,706	736.1	12.1	−0.82	41	5.79	sse.	16.8	
4:20	958.2	28.5	32	se.	10.7	2,559	749.3	10.9	0.78	55	7.17	sse.	16.7	
						2,500	754.8	11.4		55	7.41	sse.	16.5	
						2,250	777.5	13.3		56	8.55	sse.	15.4	
						2,000	801.0	15.3		57	9.91	se.	14.4	
4:36	958.0	29.0	33	se.	11.6	1,815	818.4	16.7	0.90	57	10.84	se.	13.6	
						1,750	824.8	17.3		56	11.06	se.	13.6	
						1,500	848.8	19.5		52	11.79	se.	13.7	
						1,250	873.7	21.8		49	12.80	se.	13.7	
						1,000	899.0	24.0		45	13.43	se.	13.8	
4:56	957.7	28.7	35	se.	12.1	871	912.6	25.2	0.75	43	13.79	se.	13.8	
						750	925.6	26.1		41	13.87	se.	12.8	
						500	952.9	28.0		36	13.61	se.	10.8	
5:03	957.7	28.4	35	se.	10.3	444	957.7	28.4		35	13.54	se.	10.3	7/10 A.Cu., sw.; 2/10 Ci.St., wsw.

August 12, 1918.

A. M.														
11:56	954.3	26.3	63	nw.	5.8	444	954.3	26.3		63	21.56	nw.	5.8	8/10 St.Cu., nw.
						500	948.8	25.8		63	20.93	nw.	6.1	
						750	921.7	23.4		65	18.71	nw.	7.5	
P. M.														
12:07	954.4	26.9	61	nw.	5.8	798	916.7	22.9	0.96	65	18.15	nw.	7.8	
						1,000	895.8	20.8		73	17.94	nw.	7.5	
						1,250	870.5	18.1		83	17.24	nnw.	7.2	
1:21	955.2	25.9	60	nw.	10.3	1,447	850.8	16.0	1.06	91	16.54	nnw.	6.9	
						1,500	845.9	15.8		90	16.16	nnw.	7.0	
						1,750	821.2	14.7		82	13.72	nw.	7.3	
						2,000	797.2	13.7		75	11.76	nw.	7.6	
						2,250	774.0	12.6		68	9.92	wnw.	7.9	
2:00	955.7	26.0	58	nw.	12.5	2,476	753.5	11.7	0.42	62	8.52	wnw.	8.2	
						2,500	751.3	11.6		61	8.33	wnw.	8.1	
						2,750	729.4	10.6		52	6.65	wnw.	7.6	2/10 A.Cu., nw.; 1/10 St.Cu., nw.
						3,000	708.3	9.7		43	5.17	wnw.	7.0	
2:10	955.8	25.9	55	nw.	10.3	3,066	702.2	9.4	−0.19	41	4.83	wnw.	6.8	
						3,000	708.3	8.9		53	6.04	wnw.	6.7	
2:24	956.0	26.0	54	nw.	9.4	2,885	718.2	8.0	0.89	74	7.94	w.	6.6	
						2,750	730.2	9.2		70	8.15	w.	7.2	

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 12, 1918—Continued.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
P. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
						2,500	752.2	11.4		64	8.63	wnw.	8.4	
						2,250	775.0	13.7		57	8.94	wnw.	9.5	
						2,000	798.3	15.9		50	9.04	nw.	10.7	
3:06	956.5	26.0	46	nw.	10.7	1,931	804.7	16.5	0.10	48	9.01	nw.	11.0	
						1,750	822.7	16.7		54	10.27	nw.	11.3	
						1,500	847.0	16.9		62	11.94	nw.	11.8	
3:17	956.7	26.2	47	nw.	11.6	1,413	855.4	17.0	0.95	65	12.60	nw.	12.0	
						1,250	872.0	18.6		60	12.86	nw.	11.1	
						1,000	897.5	20.9		52	12.85	nw.	9.8	
3:29	956.9	25.8	47	nw.	9.4	899	908.3	21.9	0.90	49	12.88	nw.	9.2	
						750	923.9	23.2		48	13.65	nw.	9.0	
						500	950.8	25.5		46	15.01	nw.	8.6	
3:34	957.0	26.0	46	nw.	8.5	444	957.0	26.0		46	15.47	nw.	8.5	3/10 Ci.St., w.

August 13, 1918.

A. M.														
6:25	965.8	12.2	92	nnw.	3.1	444	965.8	12.2		92	13.07	nnw.	3.1	9/10 St. Cu., wsw.
						500	959.7	12.4		87	12.53	nnw.	3.5	
						750	932.1	13.3		63	9.62	n.	5.4	
8:04	966.9	15.0	78	nnw.	7.6	797	927.3	13.5	−0.37	59	9.13	n.	5.8	9/10 St.Cu., ssw.
						1,000	905.0	12.3		60	8.59	nnw.	5.5	
						1,250	878.8	10.8		62	8.03	nnw.	5.0	
8:09	967.0	15.0	76	nnw.	7.2	1,435	859.2	9.7	0.64	63	7.58	nw.	4.7	
						1,250	878.8	11.0		63	8.27	nnw.	4.3	
						1,000	905.0	12.6		64	9.34	nnw.	3.8	
8:18	967.1	14.9	78	nnw.	6.7	830	923.9	13.8	0.36	64	10.10	n.	3.5	
						750	932.0	14.1		66	10.62	n.	4.0	
						500	960.8	15.0		74	12.62	nnw.	5.5	
8:40	967.4	15.2	76	nnw.	5.8	444	967.4	15.2		76	13.13	nnw.	5.8	5/10 St., ssw.: 5/10 St.Cu., ssw.

August 14, 1918.

A. M.														
6:26	969.7	12.2	87	sw.	4.5	444	969.7	12.2		87	12.36	sw.	4.5	Few Ci.St., w.
						500	963.3	12.9		81	12.05	sw.	4.5	
						750	935.4	15.8		57	10.23	ssw.	4.6	
9:04	969.9	20.2	59	s.	6.3	869	923.0	17.2	−1.18	45	8.83	ssw.	4.7	
						1,000	908.6	16.4		44	8.21	ssw.	4.6	
						1,250	882.5	14.8		42	7.07	s.	4.3	
						1,500	857.0	13.2		40	6.07	s.	4.0	
						1,750	831.6	11.6		38	5.19	sse.	3.8	1/10 Ci.St., sw.
10:00	969.2	22.2	54	s.	6.3	1,913	815.2	10.6	0.72	37	4.73	sse.	3.6	
						1,750	831.6	11.9		36	5.01	sse.	4.3	
						1,500	857.0	13.9		35	5.56	sse.	5.5	
10:25	969.2	22.8	50	s.	4.5	1,317	875.5	15.4	0.71	34	5.95	sse.	6.4	
						1,250	882.5	15.9		36	6.51	sse.	6.4	
						1,000	908.6	17.7		44	8.91	sse.	6.2	
10:39	969.2	23.6	47	s.	4.5	867	923.0	18.6	1.23	48	10.29	sse.	6.1	
						750	935.4	20.0		47	10.99	sse.	5.9	
						500	962.8	23.1		45	12.72	sse.	5.5	
10:49	969.2	23.8	44	sse.	5.4	444	969.2	23.8		44	12.98	sse.	5.4	1/10 Ci.St., sw.

August 15, 1918.

A. M.														
6:59	966.5	17.4	85	e.	3.1	444	966.5	17.4		85	16.89	e.	3.1	10/10 St.Cu., s.
						500	960.5	17.5		81	16.20	e.	4.3	
						750	932.2	18.0		64	13.21	ese.	9.9	
7:03	966.5	17.5	85	e.	3.1	866	920.0	18.2	−0.19	56	11.70	se.	12.5	
						1,000	905.4	16.9		65	12.51	se.	11.1	
						1,250	879.0	14.4		82	13.45	ese.	8.4	
7:29	966.5	18.1	79	e.	4.9	1,353	868.9	13.4	0.99	89	13.68	ese.	7.3	
						1,500	853.7	12.6		79	11.53	ese.	8.6	
7:45	966.5	18.7	77	e.	5.4	1,732	830.4	11.2	0.58	62	8.25	e.	10.6	
						1,750	828.8	11.1		63	8.32	e.	10.5	
						2,000	804.5	10.0		78	9.58	ese.	8.4	
						2,250	780.9	8.9		92	10.49	se.	6.4	
9:05	966.5	20.2	68	se.	5.8	2,380	768.5	8.3	0.45	100	10.95	sse.	5.3	Altitude of St.Cu. base about 2,400 m.
						2,500	757.8	7.7		100	10.51	sse.	5.2	
						2,750	735.2	6.3		100	9.55	sse.	5.1	
						3,000	713.2	4.9		100	8.66	s.	5.0	
9:30	966.5	20.5	69	se.	4.5	3,148	700.0	4.1	0.61	100	8.19	s.	4.9	
						3,000	713.2	5.1		100	8.79	s.	6.1	
						2,750	735.2	6.7		100	9.81	s.	8.0	
						2,500	757.8	8.5		100	11.10	sse.	10.0	
						2,250	780.8	10.1		100	12.36	sse.	12.0	
10:02	966.5	20.8	68	se.	4.0	2,242	781.8	10.2	0.37	100	12.45	sse.	12.1	
						2,000	804.5	11.1		90	11.89	se.	10.7	
10:07	966.5	21.0	67	se.	4.0	1,860	818.2	11.6	0.56	84	11.47	se.	9.8	
						1,750	828.8	12.2		92	13.07	se.	10.1	
10:14	966.4	21.1	63	se.	4.9	1,628	841.1	12.9	0.55	100	14.88	se.	10.4	
						1,500	853.7	13.6		96	14.96	se.	10.2	
						1,250	879.0	15.0		89	15.17	se.	9.7	
						1,000	905.4	16.3		81	15.01	se.	9.2	
10:27	966.3	21.0	67	se.	5.8	897	916.7	16.9	0.93	78	15.02	se.	9.0	
						750	932.2	18.3		74	15.56	se.	8.0	
						500	959.8	20.6		68	16.50	se.	6.2	
10:33	966.3	21.1	67	se.	5.8	444	966.3	21.1		67	16.77	se.	5.8	10/10 St.Cu., s.

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 16, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	
12:13	960.3	25.3	74	ese.	4.5	444	960.3	25.3	.....	74	23.87	ese.	4.5	Few St.Cu., se.
						500	954.7	24.9	.....	74	23.31	ese.	4.9	
						750	927.2	23.3	.....	72	20.60	e.	6.5	
12:46	960.2	27.1	62	e.	6.3	805	921.6	22.9	0.66	71	19.83	e.	6.9	
						1,000	900.7	20.9	.....	78	19.28	e.	9.2	
1:15	960.0	27.3	61	ese.	6.7	1,215	878.9	18.7	1.02	85	18.33	ese.	11.8	
						1,250	875.0	18.6	.....	83	17.79	ese.	11.8	
						1,500	850.0	18.1	.....	66	13.71	ese.	11.8	
1:19	960.0	27.4	61	ese.	5.8	1,619	838.3	17.9	0.20	58	11.90	ese.	11.8	
						1,750	825.0	17.4	.....	59	11.72	ese.	10.0	
						2,000	801.5	16.3	.....	62	11.49	ese.	6.6	
						2,250	778.6	15.3	.....	65	11.30	se.	3.2	
2:25	959.8	28.0	65	ese.	5.8	2,280	775.8	15.2	0.34	65	11.23	se.	2.8	Altitude of St.Cu. base about 2,350 m.
						2,250	778.6	15.3	.....	66	11.47	se.	3.1	
						2,000	801.5	15.9	.....	77	13.91	se.	5.4	
						1,750	825.0	16.6	.....	89	16.81	se.	7.7	2/10 Cu., se.; 1/10 St.Cu., se.
2:48	959.8	28.1	65	ese.	7.6	1,495	850.7	17.3	0.91	100	19.75	se.	10.0	
						1,250	875.0	19.5	.....	93	21.08	se.	10.6	
						1,000	900.7	21.8	.....	86	22.46	ese.	11.3	
3:09	959.8	27.4	66	ese.	8.0	880	913.3	22.9	1.06	82	22.90	ese.	11.6	
						750	927.0	24.3	.....	77	23.40	ese.	10.8	
						500	953.3	26.9	.....	67	23.75	ese.	9.2	
3:19	959.8	27.5	65	ese.	8.9	444	959.8	27.5	.....	65	23.87	ese.	8.9	3/10 Cu., se.; 1/10 St.Cu., se.

August 17, 1918.

A. M.														
8:25	962.3	18.9	96	ese.	5.8	444	962.3	18.9	.....	96	20.97	ese.	5.8	10/10 St., ese. Misting.
						500	956.2	18.5	.....	97	20.66	ese.	5.9	
8:30	962.3	18.9	97	se.	5.8	632	941.4	17.7	0.64	100	20.25	ese.	6.1	
						750	928.4	18.5	.....	99	21.09	ese.	7.4	
						1,000	902.0	19.8	.....	95	21.94	sse.	9.9	
9:09	962.5	19.2	98	sse.	4.5	1,068	895.2	20.5	−0.81	95	22.91	sse.	11.0	
						1,000	902.0	19.8	.....	96	22.18	sse.	10.1	
9:15	962.6	19.1	99	sse.	2.2	792	924.5	17.8	0.40	100	20.38	sse.	7.2	
						750	928.4	18.0	.....	100	20.64	sse.	6.6	
						500	956.2	19.0	.....	98	21.53	sse.	3.0	
9:21	962.6	19.2	98	sse.	2.2	444	962.6	19.2	.....	98	21.80	sse.	2.2	10/10 St., sse. Misting.

August 18, 1918.

A. M.														
7:16	965.5	20.3	93	s.	6.3	444	965.5	20.3	.....	93	22.15	s.	6.3	10/10 St., sse.
						500	959.0	19.9	.....	94	21.85	s.	7.0	Mist from 7:18 to 8:27 a. m.
						750	932.0	18.4	.....	98	20.74	ssw.	10.0	
7:24	965.5	20.3	93	s.	5.8	841	922.1	17.6	0.96	100	20.13	ssw.	11.1	Altitude of St. base about 700 m.
						1,000	905.4	16.6	.....	100	18.89	ssw.	12.1	
7:36	965.5	20.3	93	s.	5.4	1,252	878.6	15.0	0.63	100	17.05	ssw.	13.8	
						1,500	853.3	15.1	.....	92	15.79	ssw.	12.9	
						1,750	828.8	15.3	.....	84	14.50	ssw.	12.0	
8:06	965.4	20.3	94	s.	3.6	1,795	824.6	15.3	0.77	83	14.42	ssw.	11.8	Heavy mist.
						1,750	828.8	15.6	.....	82	14.53	ssw.	11.8	
						1,500	853.3	17.5	.....	78	15.60	ssw.	11.8	
8:11	965.4	20.5	93	se.	3.6	1,362	867.7	18.6	0.68	76	16.29	ssw.	11.8	
						1,250	879.1	17.9	.....	85	17.43	ssw.	9.8	
8:13	965.4	20.5	92	se.	3.6	1,101	894.4	17.0	0.56	98	18.99	ssw.	7.2	
						1,000	905.4	17.6	.....	97	19.53	ssw.	6.8	
						750	932.0	19.0	.....	96	21.09	sse.	5.8	
						500	959.0	20.4	.....	94	22.53	se.	4.7	
8:22	965.3	20.7	94	se.	4.5	444	965.3	20.7	.....	94	22.95	se.	4.5	10/10 St., sse.

August 19, 1918.

A. M.														
8:27	967.2	21.0	91	sse.	6.3	444	967.2	21.0	.....	91	22.63	sse.	6.3	10/10 St., s.
						500	961.0	20.5	.....	92	22.19	sse.	7.6	Altitude of St. base about 650 m.
						750	933.0	18.4	.....	98	20.74	s.	13.2	
8:40	967.2	21.1	91	sse.	7.2	839	923.9	17.7	0.84	100	20.25	s.	15.2	
						1,000	906.4	18.6	.....	91	19.50	s.	13.3	
8:58	967.2	21.6	90	sse.	7.2	1,247	881.2	19.9	−0.39	76	17.66	s.	10.3	
						1,500	855.2	18.6	.....	69	14.79	s.	10.4	
						1,750	830.8	17.3	.....	63	12.44	s.	10.6	
						2,000	806.8	16.0	.....	56	10.18	s.	10.7	
9:25	966.9	21.9	89	sse.	6.7	2,010	805.4	15.9	0.52	56	10.12	s.	10.7	
						2,250	783.7	14.5	.....	54	8.92	s.	10.8	
						2,500	760.6	13.0	.....	52	7.79	s.	11.0	
						2,750	738.0	11.5	.....	50	6.78	ssw.	11.1	10/10 St., ssw.
						3,000	716.2	9.9	.....	48	5.86	ssw.	11.3	Conditions threatening.
10:12	966.5	22.1	87	sse.	9.4	3,240	695.9	8.5	0.62	46	5.11	ssw.	11.4	
						3,000	716.2	10.0	.....	52	6.39	ssw.	11.2	
						2,750	738.0	11.6	.....	58	7.92	ssw.	11.0	
						2,500	760.6	13.1	.....	64	9.65	ssw.	10.7	
10:27	966.5	22.3	89	sse.	9.4	2,361	773.5	14.0	0.90	67	10.71	ssw.	10.6	
						2,250	783.7	15.0	.....	63	10.74	ssw.	10.6	
						2,000	806.8	17.3	.....	55	10.86	ssw.	10.6	

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 19, 1918—Continued.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
10:39	966.5	22.2	89	sse.	7.2	1,807	825.3	19.0	0.37	48	10.55	ssw.	10.6	
						1,750	830.8	19.2		51	11.35	ssw.	10.7	
						1,500	855.2	20.1		66	15.29	ssw.	11.0	
10:52	966.5	22.4	87	sse.	9.4	1,352	870.1	20.7	−0.75	74	18.07	ssw.	11.2	
						1,250	880.2	19.9		81	18.82	ssw.	11.2	
						1,000	906.4	18.1		99	20.56	ssw.	11.0	
10:59	966.5	22.6	85	sse.	8.9	992	907.2	18.0	0.88	100	20.64	ssw.	11.0	
						750	933.0	20.1		93	21.88	s.	10.5	
						500	960.3	22.3		86	23.16	sse.	9.9	
11:14	966.5	22.8	84	sse.	9.8	444	966.5	22.8		84	23.32	sse.	9.8	10/10 St., ssw.

August 20, 1918.

A. M.														
8:32	963.3	19.2	96	s.	5.8	444	963.3	19.2		96	21.36	s.	5.8	10/10 St.Cu., ssw.
						500	957.3	18.6		97	20.79	s.	5.8	Altitude of St. Cu. base about 650 m.
						750	929.5	16.0		100	18.18	ssw.	5.5	
8:40	963.4	19.2	93	s.	5.4	765	928.0	15.8	1.06	100	17.95	ssw.	5.5	
						1,000	903.0	16.3		94	17.42	ssw.	5.5	
9:19	963.5	20.7	86	ssw.	5.4	1,110	891.4	16.5	−0.20	91	17.08	ssw.	5.5	
						1,250	877.0	18.0		66	13.62	sw.	6.4	
9:50	963.5	20.5	86	ssw.	6.3	1,310	870.7	18.7	−1.10	55	11.86	wsw.	6.8	
						1,500	851.8	17.1		55	10.72	wsw.	5.6	
						1,750	827.2	14.9		55	9.32	w.	4.1	10/10 St.Cu., ssw.
10:18	963.5	21.1	87	ssw.	4.9	1,919	810.6	13.4	0.74	55	8.45	w.	3.0	
						1,750	827.2	14 4		60	9.84	w.	3.9	
						1,500	851.8	16.0		67	12.18	w.	5.2	
						1,250	877.0	17.5		73	14.60	w.	6.6	
10:35	963.5	21.8	86	ssw.	4.5	1,190	883.4	17.9	−0.02	75	15.38	w.	6.9	
						1,000	903.0	17.9		86	17.64	wsw.	5.9	
10:47	963.5	21.3	85	ssw.	4.9	768	928.0	17.8	1.23	100	20.38	ssw.	4.6	Altitude of St.Cu. base about 700 m.
						750	929.5	18.0		99	20.43	ssw.	4.6	
						500	957.3	21.1		88	22.03	sw.	4.8	
10:57	963.5	21.8	86	sw.	4.9	444	963.5	21.8		86	22.46	sw.	4.9	6/10 St.Cu., ssw.

August 21, 1918 (No. 1).

A. M.														
6:39	964.4	15.7	96	nne.	3.1	444	964.4	15.7		96	17.13	nne.	3.1	3/10 A.Cu., sw.; 6/10 A.St., sw.
						500	958.0	16.3		87	16.12	e.	4.6	
6:48	964.4	16.0	96	nne.	2.7	750	930.6	19.1	−1.11	46	10.17	e.	11.5	
						1,000	903.8	17.9		59	12.10	e.	8.6	
7:03	964.5	16.3	96	nne.	3.6	1,107	892.7	17.4	0.48	65	12.92	e.	7.3	
						1,250	877.2	16.5		75	14.08	e.	6.2	
						1,500	852.0	14.8		93	15.65	ese.	4.3	
8:25	963.9	18.8	92	ne.	2.7	1,520	850.4	14.7	0.65	95	15.89	ese.	4.1	
						1,750	827.0	13.4		100	15.37	sse.	6.4	
8:53	963.6	19.0	91	ne.	3.6	1,767	825.8	13.3	0.56	100	15.27	sse.	6.6	
						2,000	803.0	11.4		100	13.48	sse.	6.8	
9:26	963.3	19.2	89	ne.	2.2	2,127	790.8	10.3	0.83	100	12.53	sse.	6.9	Altitude of St.Cu. base about 1,550 m.
						2,250	779.1	11.2		72	9.58	sse.	7.1	
9:32	963.3	19.2	89	ne.	2.2	2,431	762.4	12.6	−0.76	32	4.67	sse.	7.4	3/10 A.St., sw.; 7/10 St.Cu., sse.
						2,500	756.1	12.1		32	4.52	sse.	7.4	
						2,750	733.9	10.2		30	3.74	sse.	7.6	
						3,000	712.3	8.3		29	3.18	s.	7.7	
9:41	963.2	19.2	90	ne.	2.7	3,166	698.3	7.0	0.85	28	2.81	s.	7.8	
						3,000	712.3	8.6		28	3.13	s.	7.4	Rain from 9:42 a. m. to 12 noon.
						2,750	733.9	10.9		27	3.52	s.	6.8	
						2,500	756.1	13.2		26	3.94	s.	6.3	Thunder first heard in ssw. at 8:55 a. m.; last heard about 10:40 a. m.
9:51	963.2	19.2	91	ene.	1.8	2,388	766.8	14.3	−0.47	26	4.24	s.	6.0	
						2,250	779.1	13.7		48	7.53	s.	6.2	
						2,000	803.0	12.5		88	12.75	sse.	6.7	
9:56	963.1	19.2	91	ene.	1.8	1,986	804.5	12.4	2.08	90	12.96	sse.	6.7	
						1,750	827.0	14.2		84	13.60	se.	7.5	
						1,500	852.0	16.2		77	14.18	ese.	8.4	
10:18	963.1	19.1	91	ne.	2.2	1,363	865.8	17.3	0.88	73	14.42	ese.	8.9	
						1,250	877.2	18.3		68	14.30	ese.	9.5	
						1,000	902.7	20.5		57	13.75	se.	11.0	
10:29	963.1	19.1	91	ne.	1.8	897	913.9	21.4	0.51	52	13.25	se.	11.6	
						750	929.1	20.7		65	15.87	ese.	8.5	
						500	955.8	19.4		86	19.38	ne.	3.2	
10:44	963.1	19.1	91	ne.	1.8	444	963.1	19.1		91	20.12	ne.	1.8	9/10 St.Cu., sse.

August 21, 1918 (No. 2).

P. M.														
1:20	960.7	23.8	79	se.	9.4	444	960.7	23.8		79	23.30	se.	9.4	4/10 A.Cu., sw.; 2/10 A.St., sw.
						500	954.2	23.5		75	21.72	se.	9.9	
						750	927.0	22.1		58	15.43	se.	12.3	
1:30	960.6	24.0	77	se.	10.7	919	909.6	21.1	0.57	46	11.51	se.	13.9	
						1,000	900.2	20.8		45	11.06	se.	13.0	
						1,250	874.9	20.0		43	10.05	sse.	10.1	
1:55	960.4	25.1	64	se.	9.8	1,463	853.8	19.3	0.33	41	9.18	sse.	7.7	
						1,500	850.0	19.0		42	9.23	sse.	7.8	

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 21, 1918 (No. 2)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
						1,750	825.5	17.1		47	9.16	sse.	8.7	
						2,000	801.3	15.2		53	9.15	s.	9.6	
						2,250	778.2	13.3		59	9.01	s.	10.5	
						2,500	755.6	11.3		64	8.57	ssw.	11.4	5/10 St.Cu., sw.
2:24	960.2	24.8	75	se.	10.7	2,528	753.7	11.1	0.78	65	8.59	ssw	11.5	
						2,500	755.6	11.3		65	8.70	ssw.	11.5	
						2,250	778.2	13.3		60	9.16	s.	10.9	
						2,000	801.3	15.3		55	9.56	sse.	10.4	
						1,750	824.7	17.4		50	9.94	se.	9.8	
2:45	960.0	24.5	71	se.	10.7	1,631	836.9	18.3	0.40	48	10.09	se.	9.6	
						1,500	849.0	18.8		50	10.85	se.	10.6	
						1,250	874.0	19.8		54	12.47	se.	12.6	
						1,000	900.0	20.8		58	14.25	se.	14.5	
3:02	959.8	24.6	66	se.	9.4	975	903.0	20.9	0.81	58	14.34	se.	14.7	
						750	927.0	22.7		60	16.55	se.	12.1	
						500	954.2	24.7		62	19.29	se.	9.2	
3:10	959.8	25.2	63	se.	8.5	444	959.8	25.2		63	20.20	se.	8.5	7/10 St.Cu., sw.

August 22, 1918, series (No. 1).

A. M.														
6:33	958.3	14.4	72	wsw.	4.5	444	958.3	14.4		72	11.81	wsw.	4.5	1/10 Ci.Cu., wnw.
						500	952.3	14.1		72	11.58	wsw.	6.3	
						750	924.5	13.0		69	10.34	wnw.	14.3	
6:38	958.3	14.5	72	sw.	4.5	832	915.1	12.6	0.46	68	9.92	wnw.	16.9	
						1,000	897.3	12.0		71	9.96	wnw.	19.1	
6:45	958.3	14.9	68	sw.	4.9	1,200	875.9	11.2	0.38	75	9.98	nw.	21.7	
						1,250	870.8	11.4		73	9.84	nw.	21.5	
						1,500	845.2	12.3		61	8.73	nw.	20.6	
						1,750	820.7	13.2		49	7.43	wnw.	19.7	
7:00	958.4	15.8	64	sw.	5.4	1,987	797.3	14.0	−0.88	37	5.91	wnw.	18.9	
						1,750	820.7	10.7		53	6.82	wnw.	19.5	
7:22	958.4	15.9	65	sw.	7.6	1,622	832.4	8.9	1.70	62	7.07	wnw.	19.9	2/10 Ci.St., wnw.
7:36	958.4	16.4	63	sw.	9.8	1,516	843.2	10.7	−0.60	53	6.82	wnw.	16.0	
						1,500	845.2	10.6		55	7.03	wnw.	16.0	
						1,250	870.8	9.1		83	9.59	wnw.	16.1	
7:51	958.4	16.8	62	sw.	9.8	1,215	874.3	8.9	0.97	87	9.92	wnw.	16.1	
						1,000	897.3	11.0		80	10.50	wnw.	15.6	
8:15	958.4	17.2	62	sw.	9.8	835	915.1	12.6	1.25	75	10.94	nw.	15.2	
						750	924.5	13.7		72	11.29	wnw.	14.0	
						500	952.3	16.8		64	12.24	wsw.	10.6	
8:24	958.4	17.5	62	sw.	9.8	444	958.4	17.5		62	12.40	sw.	9.8	3/10 Ci.St., wnw.

August 22, 1918, series (No. 2).

A. M.														
8:57	958.4	18.7	61	w.	10.7	444	958.4	18.7		61	13.16	w.	10.7	3/10 Ci.St., wnw.
						500	952.8	17.9		63	12.92	w.	11.0	
						750	924.9	14.2		72	11.66	w.	12.5	
9:06	958.4	18.8	60	w.	9.8	825	916.4	13.1	1.47	75	11.31	w.	12.9	
						1,000	897.2	13.2		66	10.01	w.	14.2	
						1,250	870.7	13.3		53	8.09	w.	16.0	
						1,500	844.9	13.5		40	6.19	wsw.	17.8	
9:26	958.4	19.0	58	w.	9.8	1,663	828.5	13.6	−0.06	32	4.99	wsw.	19.0	
						1,750	819.9	13.2		32	4.85	wsw.	19.3	
						2,000	795.8	12.0		32	4.49	wsw.	20.3	
						2,250	772.7	10.8		31	4.01	sw.	21.3	
						2,500	750.4	9.6		31	3.70	sw.	22.3	
9:51	958.4	19.3	61	w.	10.7	2,640	737.9	8.9	0.48	31	3.53	sw.	22.9	
						2,750	728.3	8.5		29	3.22	sw.	23.4	
						3,000	706.8	7.6		26	2.71	sw.	24.6	
						3,250	686.0	6.7		22	2.16	sw.	25.7	
						3,500	665.4	5.8		18	1.66	sw.	26.9	
10:40	958.4	20.9	57	w.	9.4	3,516	663.9	5.7	0.44	18	1.65	sw.	27.0	
						3,500	665.4	5.8		18	1.66	sw.	26.8	
						3,250	686.0	7.1		25	2.52	wsw.	24.1	1/10 Ci.Cu., wsw.
						3,000	706.8	8.4		32	3.53	w.	21.4	
						2,750	728.5	9.7		39	4.69	wnw.	18.7	
11:48	958.4	22.8	57	w.	11.2	2,716	732.0	9.9	0.13	40	4.88	wnw.	18.3	
						2,500	751.0	10.2		50	6.22	wnw.	17.5	
						2,250	773.9	10.5		62	7.87	wnw.	16.7	
						2,000	797.3	10.8		74	9.58	w.	15.8	
						1,750	822.0	11.1		85	11.23	w.	14.9	
P. M.														
12:33	958.4	23.4	49	w.	11.6	1,610	836.2	11.3	0.99	92	12.32	w.	14.4	
						1,500	847.0	12.3		88	12.59	w.	14.3	
						1,250	872.2	14.9		78	13.21	w.	13.9	
						1,000	898.3	17.3		68	13.43	w.	13.6	
12:52	958.4	23.9	49	w.	10.7	911	908.1	18.2	1.24	64	13.38	w.	13.5	
						750	925.0	20.2		59	13.97	w.	12.5	
						500	952.8	23.3		51	14.59	w.	11.0	
12:58	958.4	24.0	49	w.	10.7	444	958.4	24.0		49	14.62	w.	10.7	6/10 St.Cu., wnw.

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 22, 1918, series (No. 3).

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
P. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
1:25	958.7	24.0	49	w.	11.2	444	958.7	24.0	.....	49	14.62	w.	11.2	6/10 St.Cu., wnw.
						500	952.5	23.3	.....	50	14.30	w.	11.6	
						750	925.5	20.2	.....	53	12.55	wnw.	13.6	
1:34	958.7	24.3	48	w.	11.2	831	916.9	19.2	1.24	54	12.02	wnw.	14.2	
						1,000	898.8	17.4	.....	62	12.32	wnw.	14.2	
						1,250	872.8	14.8	.....	73	12.29	wnw.	14.3	
						1,500	847.4	12.2	.....	84	11.94	w.	14.4	
2:05	958.7	24.4	48	w.	11.2	1,592	838.3	11.2	1.05	88	11.70	w.	14.4	Altitude of St.Cu. base about 2,000 m.
						1,750	822.3	9.9	.....	91	11.10	w.	14.3	
						2,000	798.0	7.9	.....	97	10.33	wnw.	14.0	
2:19	958.7	24.6	48	w.	8.9	2,155	783.2	6.6	0.82	100	9.75	wnw.	13.9	
						2,250	774.2	6.3	.....	96	9.17	wnw.	14.3	
						2,500	751.0	5.5	.....	85	7.68	wnw.	15.4	
						2,750	728.0	4.7	.....	74	6.32	wnw.	16.5	
						3,000	705.8	3.9	.....	63	5.09	wnw.	17.6	
						3,250	684.2	3.1	.....	52	3.97	wnw.	18.7	
2:49	958.7	25.0	47	wnw.	8.9	3,319	678.8	2.9	0.32	49	3.69	wnw.	19.0	
						3,500	663.7	1.9	.....	42	2.94	wnw.	19.6	7/10 St.Cu., wnw.
						3,750	743.4	0.6	.....	32	2.04	w.	20.4	
						4,000	623.8	− 0.7	.....	23	1.32	wsw.	21.2	
3:19	958.8	24.3	48	wnw.	9.8	4,139	613.3	− 1.4	0.52	17	0.92	wsw.	21.7	
						4,000	624.1	− 0.6	.....	21	1.22	wsw.	20.8	
						3,750	644.0	0.7	.....	27	1.74	wsw.	19.1	
						3,500	664.5	2.1	.....	34	2.42	w.	17.4	
						3,250	685.2	3.4	.....	41	3.20	w.	15.7	
3:52	959.0	24.5	48	wnw.	7.6	3,096	698.9	4.3	−1.37	45	3.74	w.	14.7	
						3,000	707.0	3.0	.....	76	5.76	w.	20.6	Altitude of St.Cu. base about 2,050 m.
4:03	959.1	24.6	48	wnw.	5.4	2,928	713.4	2.0	0.80	100	7.06	w.	25.0	
						2,750	729.0	3.4	.....	98	7.64	w.	23.1	
						2,500	751.0	5.4	.....	96	8.61	w.	20.4	
						2,250	774.2	7.4	.....	93	9.58	w.	17.7	
						2,000	798.0	9.4	.....	90	10.61	wnw.	15.1	
						1,750	823.0	11.4	.....	88	11.86	wnw.	12.4	
4:53	959.4	24.8	49	wnw.	6.7	1,648	833.6	12.2	1.04	87	12.36	wnw.	11.3	
						1,500	848.0	13.7	.....	82	12.86	wnw.	11.1	
						1,250	873.4	16.3	.....	73	13.53	wnw.	10.9	
						1,000	899.5	18.8	.....	64	13.89	wnw.	10.6	
5:18	959.3	25.1	48	wnw.	7.6	869	913.6	20.2	1.08	59	13.97	wnw.	10.5	
						750	926.0	21.5	.....	57	14.62	wnw.	9.3	
						500	953.4	24.2	.....	51	15.40	wnw.	6.9	
5:26	959.3	24.8	50	wnw.	6.3	444	959.3	24.8	.....	50	15.66	wnw.	6.3	2/10 St.Cu., wnw.

August 22, 1918, series (No. 4).

P. M.														
5:47	959.1	24.2	49	wnw.	6.3	444	959.1	24.2	.....	49	14.80	wnw.	6.3	2/10 St.Cu., wnw.
						500	954.0	23.5	.....	50	14.48	wnw.	6.9	
						750	926.2	20.6	.....	53	12.86	wnw.	9.4	
5:55	959.1	24.4	50	wnw.	4.9	783	922.5	20.2	1.18	53	12.55	wnw.	9.7	
						1,000	899.8	18.2	.....	63	13.17	wnw.	9.5	
						1,250	874.0	15.8	.....	74	13.28	w.	9.4	
6:21	959.5	24.1	50	wnw.	5.4	1,470	851.3	13.7	0.95	84	13.17	w.	9.2	
						1,500	848.3	13.4	.....	85	13.06	w.	9.4	
						1,750	823.7	10.9	.....	90	11.74	w.	11.4	Few St.Cu. wnw.
						2,000	799.0	8.4	.....	94	10.36	w.	13.4	
6:38	959.7	23.7	52	wnw.	5.8	2,222	777.9	6.2	1.00	99	9.39	w.	15.2	
						2,250	775.0	6.1	.....	98	9.23	w.	15.2	
						2,500	752.0	4.8	.....	93	8.00	w.	15.3	
						2,750	729.1	3.5	.....	87	6.83	w.	15.4	
						3,000	707.2	2.2	.....	82	5.87	w.	15.4	
7:05	960.1	22.8	56	wnw.	4.9	3,202	689.8	1.1	0.52	77	5.10	w.	15.5	
						3,250	685.7	0.9	.....	75	4.89	w.	15.4	
						3,500	664.5	−0.3	.....	62	3.70	w.	15.1	
						3,750	644.3	−1.5	.....	49	2.64	w.	14.7	1/10 St.Cu., wnw
7:20	960.2	22.0	60	wnw.	4.5	3,919	631.1	−2.3	0.46	41	2.07	w.	14.4	
						3,750	645.0	−1.5	.....	50	2.70	w.	13.9	
						3,500	665.5	−0.4	.....	63	3.72	w.	13.1	
						3,250	686.3	0.7	.....	76	4.89	w.	12.3	
7:38	960.3	21.5	61	wnw.	5.8	3,098	699.8	1.4	0.82	84	5.68	w.	11.8	
						3,000	707.8	2.2	.....	83	5.94	w.	11.8	
						2,750	729.7	4.3	.....	79	6.56	w.	12.0	
						2,500	752.3	6.3	.....	75	7.16	w.	12.1	
						2,250	775.5	8.4	.....	71	7.82	w.	12.3	
						2,000	799.6	10.4	.....	68	8.57	w.	12.4	
8:00	960.4	20.8	61	wnw.	5.4	1,836	815.9	11.8	0.68	65	9.00	w.	12.5	
						1,750	824.0	12.4	.....	66	9.50	w.	12.6	
						1,500	848.3	14.1	.....	71	11.42	w.	12.7	
8:12	960.5	19.9	67	wnw.	4.9	1,309	868.5	15.4	0.84	74	12.95	w.	12.9	
						1,250	874.0	15.9	.....	72	13.01	w.	12.5	
						1,000	900.4	18.0	.....	66	13.62	wnw.	11.0	
8:26	960.7	18.7	73	wnw.	4.5	810	920.7	19.6	−0.19	61	13.91	wnw.	9.8	
						750	927.2	19.5	.....	63	14.28	wnw.	8.8	
						500	954.5	19.0	.....	70	15.38	wnw.	4.9	
8:31	960.8	18.9	72	wnw.	4.0	444	960.8	18.9	.....	72	15.72	wnw.	4.0	1/10 A.St., wnw.

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 22, 1918, series (No. 5).

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	
8:52	961.1	18.6	73	wnw.	4.0	444	961.1	18.6	.....	73	15.64	wnw.	4.0	1/10 A.St., wnw.
						500	955.0	20.1	.....	64	15.06	wnw.	7.3	
8:55	961.1	18.6	73	wnw.	4.0	542	950.2	21.2	−2.65	57	14.35	wnw.	9.7	
						750	927.2	19.8	.....	59	13.63	wnw.	11.4	
9:02	961.1	18.7	72	wnw.	4.5	832	918.9	19.3	0.66	60	11.43	wnw.	12.1	
						1,000	900.8	17.6	.....	63	12.68	wnw.	13.1	
						1,250	874.8	15.1	.....	67	11.50	wnw.	14.6	
9:17	961.3	18.2	73	wnw.	4.0	1,334	866.5	14.2	1.02	69	11.17	wnw.	15.1	
						1,500	849.3	13.0	.....	68	10.19	wnw.	14.6	
						1,750	824.4	11.2	.....	67	8.91	wnw.	13.9	
						2,000	800.0	9.4	.....	66	7.78	w.	13.3	
						2,250	776.0	7.6	.....	65	6.79	w.	12.6	
9:43	961.6	17.3	78	wnw.	4.5	2,306	771.3	7.2	0.72	65	6.60	w.	12.4	
						2,500	753.0	5.9	.....	66	6.13	w.	12.2	
						2,750	730.5	4.2	.....	68	5.61	w.	11.8	
						3,000	708.8	2.5	.....	70	5.12	w.	11.5	
10:12	961.9	17.9	75	wnw.	5.8	3,111	699.1	1.7	0.68	71	4.91	w.	11.4	
						3,250	687.3	1.1	.....	66	4.37	w.	12.3	
						3,500	666.5	0.1	.....	57	3.51	w.	14.0	
						3,750	646.3	− 1.0	.....	47	2.64	w.	15.6	
						4,000	626.4	− 2.0	.....	38	1.96	w.	17.2	1/10 A.St., wnw.
10:30	962.0	17.8	76	wnw.	4.9	4,072	620.5	− 2.3	0.41	35	1.76	w.	17.7	
						4,000	626.4	− 2.0	.....	38	1.96	w.	17.2	
						3,750	646.3	− 1.0	.....	48	2.70	w.	15.5	
						3,500	666.5	0.0	.....	58	3.54	w.	13.9	
						3,250	687.3	1.1	.....	69	4.57	w.	12.2	
10:49	962.0	17.2	80	wnw.	4.5	3,115	699.1	1.6	0.74	74	5.08	w.	11.3	
						3,000	708.8	2.4	.....	73	5.30	w.	11.6	
						2,750	730.8	4.3	.....	70	5.82	w.	12.2	
						2,500	753.8	6.2	.....	68	6.45	w.	12.7	
						2,250	777.5	8.0	.....	66	7.08	w.	13.3	
11:14	962.2	16.4	84	wnw.	3.6	2,104	791.0	9.1	0.68	64	7.40	w.	13.7	
						2,000	801.5	9.8	.....	68	8.24	w.	13.7	
						1,750	825.9	11.5	.....	76	10.31	wnw.	13.7	
11:24	962.3	16.1	84	wnw.	3.6	1,694	830.8	11.9	0.78	78	10.87	wnw.	13.7	
						1,500	850.4	13.4	.....	68	10.45	wnw.	12.8	
11:30	962.3	16.0	83	wnw.	3.6	1,401	860.2	14.2	0.72	62	10.04	wnw.	12.4	
						1,250	875.3	15.3	.....	62	10.78	wnw.	12.1	
						1,000	901.3	17.1	.....	63	12.28	wnw.	11.7	
						750	928.0	18.8	.....	64	13.89	wnw.	11.2	
11:48	962.4	16.0	83	wnw.	4.0	632	941.4	19.7	−1.97	64	14.69	wnw.	11.0	
						500	956.7	17.1	.....	77	15.02	wnw.	6.1	
11:50	962.4	16.0	83	wnw.	4.0	444	962.4	16.0	.....	83	15.09	wnw.	4.0	Few A.St., near horizon.

August 23, 1918, series (No. 6).

A. M.														
12:12	962.5	16.3	85	nw.	5.4	444	962.5	16.3	.....	85	15.75	nw.	5.4	Few A.St., near horizon.
						500	956.0	16.5	.....	82	15.39	nw.	6.3	
						750	928.0	17.5	.....	69	13.80	nw.	10.3	
12:16	962.5	16.3	85	nw.	4.5	799	923.3	17.7	−0.39	67	13.57	nw.	11.1	
						1,000	900.7	16.4	.....	63	11.75	nw.	11.4	
						1,250	874.6	14.8	.....	57	9.59	nw.	11.8	
						1,500	849.9	13.2	.....	51	7.74	wnw.	12.1	
12:43	962.5	15.1	89	wnw.	4.5	1,605	839.4	12.5	0.65	49	7.10	wnw.	12.3	
						1,750	825.2	11.4	.....	51	6.87	wnw.	12.3	
						2,000	801.0	10.3	.....	53	6.64	wnw.	12.4	
						2,250	777.0	7.5	.....	58	6.01	wnw.	12.5	
						2,500	753.7	5.8	.....	60	5.53	w.	12.6	
1:16	962.6	13.9	90	wnw.	4.0	2,728	732.9	3.7	0.78	65	5.17	w.	12.7	
						2,750	730.2	3.6	.....	65	5.14	w.	12.7	
						3,000	707.7	2.2	.....	61	4.37	w.	12.9	
						3,250	686.0	0.9	.....	57	3.72	w.	13.0	Few A.St., near horizon.
						3,500	665.2	− 0.5	.....	53	3.10	w.	13.4	
						3,750	645.0	− 1.9	.....	49	2.56	w.	13.6	
						4,000	625.0	− 3.3	.....	46	2.13	w.	13.8	
1:50	962.7	14.8	89	w.	4.9	4,034	622.9	− 3.5	0.65	45	2.05	w.	13.8	
						4,000	625.0	− 3.3	.....	46	2.13	w.	13.7	
						3,750	645.0	− 1.8	.....	49	2.58	w.	13.1	
						3,500	665.2	− 0.3	.....	53	3.16	w.	12.5	
						3,250	686.0	1.2	.....	57	3.80	w.	12.0	
						3,000	707.7	2.7	.....	61	4.53	w.	11.4	
2:20	962.9	14.9	89	w.	4.5	2,809	725.7	3.9	0.70	64	5.17	w.	10.9	
						2,750	730.2	4.3	.....	64	5.32	w.	10.9	
						2,500	753.7	6.1	.....	64	6.03	w.	10.7	
						2,250	777.0	7.8	.....	63	6.67	w.	10.5	
						2,000	801.0	9.5	.....	62	7.30	w.	10.4	
2:41	963.0	14.6	90	w.	4.0	1,764	824.1	11.2	0.62	62	8.25	w.	10.2	
						1,750	825.2	11.3	.....	62	8.30	w.	10.1	
						1,500	849.9	12.8	.....	63	9.31	w.	9.2	
						1,250	874.6	14.4	.....	63	10.33	w.	8.2	
						1,000	900.7	15.9	.....	64	11.56	w.	7.2	
						750	928.0	17.4	.....	65	12.92	w.	6.3	
3:05	963.1	13.7	90	w.	4.5	617	943.7	18.3	−2.72	65	13.67	w.	5.7	
						500	956.0	15.1	.....	83	14.24	w.	4.9	
3:07	963.1	13.6	91	w.	4.5	444	963.1	13.6	.....	91	14.18	w.	4.5	Cloudless.

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 23, 1918, series (No. 7).

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
4:21	963.6	13.3	86	wsw.	4.5	444	963.6	13.3	.....	86	13.13	wsw.	4.5	Cloudless.
						500	957.3	14.0	.....	84	13.42	wsw.	5.0	
						750	929.3	16.9	.....	74	14.24	wnw.	7.3	
6:05	963.8	13.7	89	w.	5.4	765	928.0	17.1	−1.18	73	14.24	wnw.	7.4	
						1,000	902.0	15.6	.....	70	12.40	wnw.	9.0	
						1,250	875.6	14.0	.....	67	10.71	wnw.	10.7	
						1,500	850.0	12.4	.....	64	9.22	wnw.	12.5	
						1,750	825.2	10.9	.....	61	7.95	wnw.	14.2	
6:12	963.9	13.8	89	w.	4.9	1,852	815.6	10.2	0.63	60	7.47	wnw.	14.9	
						2,000	801.0	9.2	.....	62	7.22	wnw.	13.9	
6:30	964.0	14.1	89	w.	4.9	2,188	783.5	7.9	0.68	64	6.82	wnw.	12.5	
						2,250	777.1	7.8	.....	65	6.88	wnw.	12.5	
						2,500	754.0	5.3	.....	69	6.15	wnw.	12.5	
						2,750	731.2	3.2	.....	72	5.54	wnw.	12.5	
6:53	964.2	14.8	88	w.	4.5	2,789	728.3	2.9	0.83	73	5.50	wnw.	12.5	Faint solar halo, 22° radius, from 7:15 to 8:00 a. m.
						3,000	709.0	1.5	.....	74	5.04	wnw.	13.3	
						3,250	687.3	− 0.1	.....	84	5.09	wnw.	14.2	
						3,500	666.3	− 1.8	.....	90	4.73	wnw.	15.1	
7:15	964.3	15.7	88	w.	4.5	3,562	661.7	− 2.2	0.66	92	4.68	wnw.	15.3	
						3,750	645.9	− 2.3	.....	85	4.28	wnw.	15.8	
						4,000	625.8	− 4.3	.....	76	3.24	wnw.	16.4	
						4,250	606.4	− 5.5	.....	67	2.57	wnw.	17.0	
						4,500	587.5	− 6.8	.....	58	2.00	wnw.	17.7	
						4,750	568.6	− 8.0	.....	49	1.52	wnw.	18.3	
7:49	964.4	17.2	84	w.	4.5	4,794	565.6	− 8.2	0.49	47	1.43	wnw.	18.4	3/10 Ci.St., w.; 2/10 A.St., w. Kite broke away at 8:05 a. m.

August 24, 1918.

A. M.														
9:54	965.5	26.0	46	wsw.	4.9	444	965.5	26.0	.....	46	15.47	wsw.	4.9	Cloudless.
						500	959.0	25.6	.....	45	14.78	wsw.	5.3	
						750	931.2	23.6	.....	41	11.94	w.	7.4	
P. M.														
12:12	964.7	27.4	38	wsw.	4.9	837	922.4	22.9	0.79	40	11.17	w.	8.1	
						1,000	904.8	21.2	.....	42	10.58	w.	8.4	
						1,250	878.8	18.7	.....	44	9.49	w.	8.8	
						1,500	853.4	16.1	.....	47	8.60	w.	9.2	
1:02	964.5	28.1	33	w.	6.7	1,517	852.1	15.9	1.03	47	8.49	w.	9.2	
						1,750	828.6	14.0	.....	51	8.15	w.	9.9	
						2,000	804.5	11.9	.....	56	7.80	w.	10.6	1/10 Cu., w.
2:21	964.0	29.1	34	w.	4.9	2,209	784.9	10.2	0.96	60	7.47	w.	11.2	
						2,000	804.5	12.5	.....	56	8.11	w.	11.0	
						1,750	828.6	15.2	.....	52	8.98	w.	10.8	
						1,500	853.4	18.0	.....	48	9.91	w.	10.6	
2:35	963.8	29.3	30	w.	5.8	1,379	865.9	19.3	1.16	46	10.30	w.	10.5	
						1,250	878.8	20.8	.....	43	10.57	w.	10.5	
						1,000	904.8	23.7	.....	36	10.55	w.	10.6	
2:45	963.7	29.7	28	w.	5.8	896	915.6	24.9	1.00	33	10.40	w.	10.6	
						750	930.9	26.3	.....	31	10.61	w.	8.5	
						500	957.3	28.8	.....	28	11.09	w.	4.8	
2:52	963.6	29.4	27	w.	4.0	444	963.6	29.4	.....	27	11.07	w.	4.0	8/10 Ci., w.; few Cu., w.

August 25, 1918.

A. M.														
7:47	962.3	22.9	49	wnw.	5.8	444	962.3	22.9	.....	49	13.69	wnw.	5.8	1/10 Ci.St., w.
						500	956.0	23.9	.....	46	13.64	wnw.	7.5	
7:51	962.3	23.0	48	wnw.	5.4	688	935.8	27.1	−1.72	34	12.20	wnw.	13.4	
						750	929.4	26.5	.....	34	11.77	wnw.	13.2	
						1,000	903.5	24.2	.....	37	11.17	wnw.	13.0	
						1,250	877.8	21.8	.....	39	10.19	wnw.	12.6	
						1,500	852.9	19.5	.....	41	9.29	wnw.	12.2	
						1,750	828.1	17.1	.....	44	8.58	wnw.	11.9	
8:38	962.2	26.2	42	wnw.	7.6	1,806	822.9	16.6	0.94	44	8.31	wnw.	11.8	
						2,000	804.0	14.8	.....	52	8.75	wnw.	11.6	
						2,250	780.6	12.5	.....	62	8.98	wnw.	11.4	
						2,500	757.7	10.1	.....	72	8.90	wnw.	11.2	
9:42	962.1	28.7	39	wnw.	11.6	2,704	740.0	8.2	0.94	80	8.70	wnw.	11.0	
						2,750	735.3	8.0	.....	78	8.37	wnw.	11.4	
						3,000	714.0	6.8	.....	70	6.92	wnw.	13.6	
						3,250	693.0	5.6	.....	60	5.46	w.	15.8	7/10 Ci.St., w.
10:32	962.1	29.6	37	w.	11.2	3,291	689.0	5.4	0.62	59	5.29	w.	16.2	
						3,250	693.0	5.7	.....	59	5.40	w.	16.2	
						3,000	714.0	7.3	.....	61	6.24	w.	16.1	
						2,750	735.3	8.9	.....	63	7.18	w.	16.0	
						2,500	757.7	10.6	.....	65	8.31	w.	15.8	
10:58	962.1	30.0	35	nw.	10.7	2,437	763.6	11.0	0.91	65	8.53	w.	15.8	
						2,250	780.6	12.7	.....	63	9.25	w.	14.5	
						2,000	804.0	15.0	.....	60	10.23	w.	12.8	
						1,750	828.1	17.2	.....	58	11.38	wnw.	11.1	
11:15	962.2	30.0	30	wnw.	8.9	1,698	833.7	17.7	0.98	57	11.54	wnw.	10.7	
						1,500	852.9	19.6	.....	53	12.09	wnw.	10.7	
						1,250	877.9	22.1	.....	48	12.77	wnw.	10.7	
						1,000	903.5	24.6	.....	43	13.30	wnw.	10.8	
11:36	962.2	30.0	35	nw.	9.8	823	922.0	26.3	0.92	40	13.69	wnw.	10.8	
						750	929.4	27.0	.....	39	13.91	wnw.	10.8	
						500	956.3	29.4	.....	36	14.76	nw.	10.7	
11:42	962.4	29.8	36	nw.	10.7	444	962.4	29.8	.....	36	15.10	nw.	10.7	3/10 Ci.St., w.

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 26, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
10:25	968.1	21.3	47	sse.	5.4	444	968.1	21.3	.....	47	11.91	sse.	5.4	Cloudless.
						500	962.0	20.6	.....	47	11.41	sse.	5.5	
						750	933.9	17.4	.....	44	8.74	s.	5.9	5/10 Ci.St., wsw.
10:56	967.9	22.6	44	s.	5.4	783	930.6	17.0	1.27	44	8.53	s.	6.0	
						1,000	906.8	15.6	.....	48	8.51	s.	6.5	
						1,250	880.2	14.0	.....	52	8.31	s.	7.1	
11:53	966.7	23.9	42	s.	6.3	1,353	869.1	13.3	0.65	54	8.25	s.	7.4	
						1,500	854.2	14.2	.....	50	8.10	s.	6.9	
						1,750	828.3	15.7	.....	43	7.67	s.	6.0	4/10 Ci.St., wsw.
P. M.														
2:17	964.6	26.0	34	s.	7.2	1,770	826.1	15.8	−0.30	42	7.54	s.	5.9	
						1,750	828.3	15.8	.....	42	7.54	s.	6.0	
						1,500	853.2	15.8	.....	34	6.10	s.	7.4	
2:53	964.3	26.2	33	sse.	7.2	1,431	859.9	15.8	0.77	32	5.74	s.	7.8	
						1,250	878.3	17.2	.....	35	6.87	s.	8.6	
3:04	964.1	26.4	33	s.	6.3	1,095	894.4	18.4	1.23	38	8.04	sse.	9.3	
						1,000	904.3	19.6	.....	37	8.44	sse.	9.2	
						750	930.8	22.6	.....	35	9.60	sse.	8.9	
						500	957.7	25.7	.....	34	11.23	s.	8.6	
3:22	963.7	26.4	33	s.	8.5	444	963.7	26.4	.....	33	11.36	s.	8.5	2/10 Ci.St., wsw.

August 27, 1918.

A. M.														
6:27	956.7	16.6	66	s.	8.0	444	956.7	16.6	.....	66	12.47	s.	8.0	4/10 A.St., wsw.; 3/10 St.Cu., wsw.
						500	950.7	17.2	.....	61	11.97	s.	9.7	
						750	923.4	19.7	.....	40	9.18	ssw.	17.0	
6:37	956.7	16.1	67	s.	7.2	816	916.1	20.4	−1.02	34	8.15	ssw.	19.0	
						1,000	897.0	23.6	.....	32	9.32	ssw.	20.2	
6:45	956.7	16.1	67	s.	7.2	1,104	886.2	25.5	−1.77	30	9.79	ssw.	20.8	
						1,250	870.9	24.7	.....	30	9.34	ssw.	19.5	
						1,500	845.8	23.2	.....	29	8.25	ssw.	17.3	
						1,750	821.7	21.9	.....	28	7.36	sw.	15.2	
7:17	956.7	16.8	67	s.	4.5	1,838	814.5	21.3	0.57	28	7.09	sw.	14.3	2/10 A.St., wsw.; 1/10 St.Cu., wsw.
						2,000	798.3	19.9	.....	29	6.74	sw.	13.8	
8:59	955.7	20.1	56	s.	3.1	2,224	777.9	18.0	0.68	31	6.40	sw.	13.0	3/10 A.Cu., sw.
						2,000	798.3	19.2	.....	32	7.12	sw.	14.1	
9:22	955.7	20.0	56	s.	4.0	1,746	822.1	20.5	0.22	34	8.20	ssw.	15.4	Faint lightning in w. at 9:15 a. m.
						1,500	845.8	21.0	.....	35	8.70	ssw.	16.2	
						1,250	870.3	21.6	.....	35	9.03	ssw.	17.0	
						1,000	896.0	22.2	.....	36	9.64	ssw.	17.8	
9:55	955.7	21.9	48	ssw.	7.6	985	897.7	22.2	−1.21	36	9.64	ssw.	17.9	
10:03	955.7	22.4	48	ssw.	5.4	795	917.7	19.9	0.85	46	10.69	ssw.	12.2	
						750	922.2	20.3	.....	46	10.96	ssw.	11.3	
						500	949.6	22.4	.....	48	13.00	ssw.	6.1	
10:09	955.6	22.9	48	ssw.	4.9	444	955.6	22.9	.....	48	13.41	ssw.	4.9	2/10 A.Cu., sw.

August 28, 1918.

A. M.														
6:30	964.5	13.1	75	nnw.	8.0	444	964.5	13.1	.....	75	11.31	nnw.	8.0	10/10 St., wnw.
						500	958.0	13.1	.....	71	10.70	nnw.	9.0	
						750	929.4	13.2	.....	54	8.19	n.	14.5	
6:36	964.6	13.1	75	nnw.	7.6	858	918.1	13.3	−0.05	46	7.02	n.	16.8	
						1,000	902.5	12.2	.....	46	6.54	n.	16.1	
6:51	965.0	13.2	74	nnw.	7.6	1,255	876.2	10.2	0.78	46	5.73	nnw.	14.8	
						1,500	850.2	8.4	.....	53	5.89	nnw.	14.5	
						1,750	824.8	6.6	.....	60	5.85	nnw.	14.1	
						2,000	799.8	4.7	.....	67	5.72	nw.	13.8	
7:19	965.3	13.2	73	nnw.	6.7	2,169	784.2	3.5	0.73	72	5.65	nw.	13.5	7/10 A.St., sw.
						2,250	775.0	3.1	.....	68	5.19	nw.	13.2	
						2,500	751.3	1.9	.....	57	4.00	nw.	12.5	
						2,750	728.4	0.7	.....	46	2.96	nw.	11.7	
						3,000	706.5	− 0.4	.....	34	2.01	wnw.	10.9	
7:50	965.4	13.6	72	nw.	8.0	3,244	686.1	− 1.6	0.68	28	1.23	wnw.	10.1	1/10 Ci.St., sw.; 2/10 A. St., sw.
						3,250	685.0	− 1.6	.....	23	1.23	wnw.	10.1	
						3,500	663.8	− 3.0	.....	21	1.00	wnw.	11.4	
						3,750	643.0	− 4.3	.....	20	0.89	wnw.	12.6	
						4,000	623.0	− 5.6	.....	19	0.72	wnw.	13.9	
						4,250	603.9	− 7.0	.....	17	0.57	wnw.	15.2	
						4,500	585.0	− 8.3	.....	15	0.45	w.	16.4	
						4,750	566.6	− 9.6	.....	14	0.38	w.	17.7	
						5,000	548.0	−11.0	.....	13	0.31	w.	18.9	
8:56	966.2	16.3	55	nnw.	12.5	5,248	531.3	−12.3	0.50	11	0.23	w.	20.2	
						5,000	548.0	−11.2	.....	11	0.26	w.	19.5	Few A.St., sw.
						4,750	566.6	−10.0	.....	11	0.29	w.	18.7	
						4,500	585.0	− 8.9	.....	11	0.31	w.	18.0	
						4,250	603.9	− 7.7	.....	11	0.35	w.	17.3	
						4,000	623.0	− 6.6	.....	11	0.38	w.	16.5	
						3,750	643.0	− 5.4	.....	11	0.43	w.	15.8	
						3,500	663.8	− 4.3	.....	11	0.47	w.	15.0	
10:30	966.7	18.6	41	w.	13.4	3,419	671.8	− 3.9	0.67	11	0.49	w.	14.8	
						3,250	685.6	− 2.8	.....	13	0.63	w.	14.1	
						3,000	707.7	− 1.1	.....	15	0.84	wnw.	13.1	
						2,750	730.2	0.6	.....	18	1.15	wnw.	12.0	
						2,500	753.6	2.2	.....	21	1.50	nw.	11.0	
10:57	966.9	19.3	38	nnw.	13.4	2,357	767.7	3.2	0.52	22	1.69	nw.	10.4	
						2,250	777.3	3.3	.....	28	2.17	nw.	10.8	
						2,000	801.8	5.0	.....	44	3.84	nw.	11.7	
						1,750	826.8	6.4	.....	59	5.67	nw.	12.7	

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 28, 1918—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	mb.	° C.	%		m. p. s.	m.	mb.	° C.		%	mb.		m. p. s.	
11:18	966.9	19.3	38	nnw.	13.4	1,588	843.6	7.2	0.99	69	7.01	nw.	13.3	
						1,500	852.8	8.1		66	7.13	nw.	13.3	
						1,250	878.8	10.6		57	7.28	nw.	13.3	
						1,000	905.2	13.0		49	7.34	nw.	13.4	
11:46	966.9	19.7	33	nnw.	15.2	884	918.1	14.2	1.20	45	7.29	nw.	13.4	
						750	932.0	15.8		41	7.36	nw.	12.0	
						500	960.0	18.8		35	7.60	nnw.	9.5	
P. M.														
12:02	966.9	19.5	33	nnw.	8.9	444	966.9	19.5		33	7.48	nnw.	8.9	Few Cu., w.

August 29, 1918.

A. M.														
6:35	964.5	10.5	88	s.	4.5	444	964.5	10.5		88	11.18	s.	4.5	
						500	957.8	11.3		80	10.71	s.	5.8	4/10 A.St., w.; 5/10 St. Cu., wsw.
						750	929.3	14.6		44	7.31	ssw.	11.7	
6:41	964.5	10.9	85	s.	5.4	829	921.2	15.7	−1.35	33	5.89	ssw.	13.6	
						1,000	902.0	14.1		36	5.79	ssw.	12.2	Rain from 6:50 to 7:35 a.m.
						1,250	875.8	11.9		41	5.71	sw.	10.2	
7:08	964.4	12.0	76	ssw.	6.7	1,442	856.1	10.1	0.91	44	5.44	wsw.	8.6	
						1,500	850.0	9.7		47	5.65	wsw.	8.9	
						1,750	824.4	8.2		59	6.41	wsw.	10.5	
						2,000	799.2	6.6		71	6.92	sw.	12.0	
						2,250	775.0	5.0		83	7.24	sw.	13.5	
7:35	964.1	11.6	85	s.	5.4	2,320	769.6	4.6	0.63	86	7.29	sw.	13.9	8/10 St.Cu., wnw.
						2,500	752.1	3.5		89	6.99	sw.	14.9	
						2,750	729.7	2.0		93	6.57	sw.	16.3	
						3,000	707.8	0.5		97	6.14	wsw.	17.7	
7:58	963.8	13.2	73	ssw.	4 9.	3,191	690.9	− 0.6	0.60	100	5.81	wsw.	18.7	Altitude of St.Cu. base about 2,950 m.
						3,250	686.1	− 0.9		99	5.61	wsw.	18.5	
						3,500	664.7	− 2.3		96	4.84	wsw.	17.8	
						3,750	643.8	− 3.7		93	4.17	wsw.	17.1	4/10 St. Cu., wsw.; 3/10 Ci., w.
						4,000	624.0	− 5.1		90	3.58	wsw.	16.3	
						4,250	604.8	− 6.5		87	3.07	wsw.	15.6	
8:35	963.4	14.6	68	s.	7.6	4,273	603.1	− 6.6	0.60	87	3.04	wsw.	15.5	
						4,250	604.8	− 6.4		85	3.03	wsw.	15.4	
						4,000	624.0	− 4.8		60	2.45	wsw.	14.1	
9:00	963.1	16.2	61	s.	7.6	3,806	639.7	− 3.5	0.76	41	1.87	wsw.	13.1	
						3,750	643.8	− 3.1		45	2.12	wsw.	13.2	
						3,500	664.7	− 1.2		60	3.32	wsw.	13.7	
						3,250	686.1	0.7		76	4.89	sw.	14.2	
						3,000	707.8	2.6		91	6.71	sw.	14.7	
9:37	962.7	18.0	50	s.	13.9	2,993	708.3	2.7	0.85	92	6.83	sw.	14.7	
						2,750	729.7	4.8		84	7.22	sw.	14.8	
						2,500	752.1	6.9		76	7.56	sw.	14.9	
10:15	962.4	20.0	43	s.	11.2	2,489	753.4	7.0	0.27	76	7.62	sw.	14.9	
						2,250	775.0	7.6		77	8.04	sw.	13.6	
						2,000	799.8	8.3		77	8.43	sw.	12.2	
						1,750	823.2	9.0		78	8.95	ssw.	10.9	
						1,500	848.3	9.7		79	9.50	ssw.	9.5	
10:55	962.1	18.9	54	ssw.	9.4	1,428	856.1	9.9	0.77	79	9.64	ssw.	9.1	
						1,250	874.2	11.3		76	10.18	ssw.	9.6	
						1,000	900.8	13.2		72	10.92	ssw.	10.4	
11:14	962.0	19.1	54	ssw.	9.8	859	916.3	14.3	1.23	70	11.41	ssw.	10.8	
						750	928.0	15.6		67	11.87	ssw.	10.3	
						500	955.5	18.7		59	12.73	ssw.	9.2	
11:24	961.9	19.4	57	ssw.	8.9	444	961.9	19.4		57	12.84	ssw.	8.9	7/10 St.Cu., wsw.

August 30, 1918.

A. M.														
6:27	965.7	8.2	86	wnw.	7.2	444	965.7	8.2		86	9.35	wnw.	7.2	Few St. Cu., nw.
						500	958.7	8.7		84	9.45	wnw.	7.6	
						750	930.4	11.0		77	10.11	nnw.	9.3	
6:45	965.8	9.0	86	wnw.	4.9	799	925.5	11.4	−0.90	75	10.11	nnw.	9.6	
						1,000	903.0	10.0		73	8.96	nnw.	10.2	
						1,250	876.3	8.1		70	7.56	nnw.	10.8	
						1,500	850.7	6.0		67	6.24	nnw.	11.6	
7:16	966.0	11.0	78	wnw	4.5	1,625	838.0	5.5	0.72	66	5.96	nnw.	11.9	
						1,750	825.5	4.7		65	5.55	nnw.	11.8	
						2,000	800.7	3.1		63	4.81	nnw.	11.6	
						2,250	776.5	1.5		62	4.22	nnw.	11.4	
7:56	966.2	13.6	70	nw.	4.9	2,451	757.9	0.2	0.64	60	3.72	nnw.	11.2	
						2,500	752.9	− 0.1		61	3.73	nnw.	11.4	
						2,750	729.8	− 1.5		64	3.45	nnw.	12.2	
						3,000	707.2	− 3.0		68	3.28	nw.	13.2	
						3,250	685.7	− 4.5		72	3.02	nw.	14.2	
8:30	966.2	14.4	66	nw.	4.5	3,258	685.1	− 4.6	0.60	72	2.99	nw.	14.2	
						3,500	665.0	− 6.0		78	2.87	nw.	14.7	
						3,750	645.0	− 7.4		84	2.74	nw.	17.1	
						4,000	625.1	− 8.8		91	2.63	nw.	14.5	
9:44	966.2	17.3	54	nnw.	5.4	4,048	621.2	− 9.1	0.57	92	2.59	nw.	18.8	
						4,250	605.0	−10.4		93	2.33	nw.	17.1	
						4,500	585.0	−12.0		95	2.06	nw.	14.9	
10:13	966.0	17.9	50	nw.	8.0	4,686	570.8	−13.2	0.68	96	1.87	nw.	13.3	1/10 A.St., nw.; 1/10 Cu., nw.
						4,500	584 2	−11.9		90	1.97	nw.	13.2	
						4,250	603.3	−10.1		82	2.11	nw.	13.0	
10:31	965.8	18.3	49	nw.	5.4	4,052	618.4	− 8.7	0.20	76	2.02	nw.	12.9	
						4,000	622.8	− 8.6		80	2.35	nw.	13.0	

TABLE 11.—*Free-air data from kite flights at Ellendale Aerological Station, August, 1918*—Continued.

August 30, 1918—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
10:46	965.7	18.4	51	nw.	4.0	3,758	642.3	− 8.1	0.75	100	3.07	nw.	13.3	
						3,750	642.8	− 8.1		100	3.07	nw.	13.3	
						3,500	663.7	− 6.2		97	3.54	nw.	12.5	
						3,250	685.7	− 4.3		95	4.05	nw.	11.7	
11:01	965.5	18.9	45	nw.	6.7	3,102	698.2	− 3.2	0.66	93	4.35	nw.	11.2	
						3,000	707.2	− 2.5		93	4.61	nw.	11.0	
						2,750	729.8	− 0.9		92	5.22	nw.	10.4	
						2,500	752.9	0.8		91	5.89	nw.	9.9	
						2,250	776.5	2.4		91	6.61	nw.	9.4	
						2,000	800.7	4.1		89	7.29	nw.	8.9	
11:20	965.4	19.4	44	nw.	4.5	1,785	822.7	5.5	0.98	89	8.04	nw.	8.4	
						1,750	825.5	6.3		86	8.21	nw.	8.4	
						1,500	851.2	8.3		79	8.65	nw.	8.4	
						1,250	877.3	10.7		69	8.88	nw.	8.3	
						1,000	904.3	13.2		60	9.10	nw.	8.3	
11:44	965.3	19.0	44	nw.	7.2	880	917.1	14.4	1.10	56	9.18	nw.	8.3	
						750	931.5	15.8		53	9.51	nw.	7.8	
						500	960.0	18.6		46	9.86	nw.	6.9	
11:55	965.2	19.2	45	nw.	6.7	444	965.2	19.2		45	9.95	nw.	6.7	8/10 St.Cu., nw.

August 31, 1918.

A. M.														
6:35	963.5	8.0	85	w.	4.9	444	963.5	8.0		85	9.12	w.	4.9	Few Ci., w.
						500	957.0	13.7		53	8.31	w.	6.3	
6:39	963.5	8.4	82	w.	4.9	525	954.3	16.2	−10.12	39	7.18	w.	7.0	
						750	929.0	14.8		42	7.07	w.	7.0	3/10 Ci., w.; 2/10 Ci.St., w.
						1,000	902.0	13.2		46	6.98	w.	6.9	
						1,250	876.0	11.7		49	6.74	w.	6.9	
9:55	962.5	21.2	38	sw.	6.3	1,293	872.1	11.4	0.62	50	6.74	w.	6.9	
						1,500	850.5	10.1		47	5.81	w.	6.7	
						1,750	824.8	8.4		43	4.74	wnw.	6.5	
10:44	962.2	22.0	34	sw.	7.2	1,773	822.9	8.3	0.65	43	4.71	wnw.	6.5	
						2,000	800.2	6.7		46	4.51	wnw.	6.9	3/10 Ci., w.; 4/10 Ci.St., w.
						2,250	776.2	5.0		50	4.36	wnw.	7.3	
						2,500	752.8	3.2		54	4.15	nw.	7.7	
						2,750	729.8	1.5		58	3.95	nw.	8.1	
10:57	962.1	22.0	34	sw.	6.3	2,842	721.6	0.8	0.80	59	3.82	nw.	8.2	
						2,750	729.8	1.6		58	3.98	nw.	7.9	
						2,500	752.8	3.9		55	4.44	nw.	7.2	
						2,250	776.2	6.2		51	4.83	wnw.	6.5	
11:13	962.0	22.2	33	sw.	6.3	2,062	794.0	7.9	0.66	49	5.22	wnw.	5.9	
						2,000	800.2	8.3		49	5.37	wnw.	6.1	
						1,750	824.8	10.0		51	6.26	wnw.	6.7	
						1,500	849.9	11.6		52	7.10	w.	7.3	
11:29	961.8	22.8	31	sw.	7.2	1,445	855.1	12.0	1.01	52	7.30	w.	7.4	
						1,250	875.2	14.0		47	7.51	wsw.	7.4	
						1,000	901.1	16.5		41	7.70	sw.	7.3	
11:45	961.7	23.1	29	sw.	6.7	978	903.8	16.7	1.35	40	7.60	sw.	7.3	
						750	927.8	19.8		35	8.08	sw.	7.1	
						500	955.3	23.1		29	8.20	sw.	6.8	
NOON	961.5	23.9	28	sw.	6.7	444	961.5	23.9		28	8.30	sw.	6.7	4/10 Ci.St., w.

TABLE 12.—*Free-air data from kites flights at Ellendale Aerological Station, September, 1918.*

September 1, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
6:56	961.1	11.3	93	n.	4.5	444	961.1	11.3	.....	93	12.45	n.	4.5	1/10 Ci.St., wnw.
						500	954.7	11.7	.....	88	12.10	n.	5.5	
						750	926.7	13.5	.....	63	9.75	ne.	9.9	
7:07	961.1	11.8	91	n.	4.9	826	918.4	14.0	−0.71	56	8.95	ene.	11.3	
						1,000	900.0	14.1	.....	53	8.53	ne.	7.5	
8:03	961.5	15.7	78	nne.	7.2	1,137	885.8	14.2	−0.06	50	8.10	nne.	4.6	
						1,250	874.3	13.4	.....	49	7.53	nne.	3.0	4/10 Ci.St., wnw.
8:53	961.8	18.3	57	ene.	6.7	1,383	860.7	12.4	0.50	48	6.91	nne.	1.0	
						1,250	874.3	12.8	.....	52	7.69	nne.	3.0	
						1,000	901.0	13.4	.....	61	9.38	ne.	6.9	
9:30	961.8	19.4	54	ene.	7.6	853	916.7	13.8	1.44	66	10.41	ene	9.2	
						750	928.0	15.3	.....	63	10.95	ene.	8.6	
						500	955.8	18.9	.....	56	12.23	ene.	7.0	
9:38	961.8	19.7	54	ene.	6.7	444	961.8	19.7	.....	54	12.39	ene.	6.7	6/10 Ci.St., wnw.

September 2, 1918.

A. M.														
7:06	967.0	8.2	85	nnw.	8.5	444	967.0	8.2	.....	85	9.24	nnw	8.5	10/10 St.Cu., n.
						500	960.7	8.1	.....	78	8.42	nnw.	8.7	
						750	932.5	7.8	.....	48	5.08	n.	9.4	
7:15	967.7	8.3	84	n.	9.8	757	931.7	7.8	0.13	47	4.97	n.	9.4	
7:20	967.7	8.3	84	n.	8.5	981	906.8	6.7	0.49	97	9.52	n.	14.7	
						1,000	905.0	6.6	.....	97	9.46	n.	14.5	10/10 A.Cu., n.
						1,250	878.0	5.5	.....	91	8.22	n.	11.3	
						1,500	851.8	4.4	.....	85	7.11	nnw.	8.2	
8:10	967.9	8.3	81	n.	9.4	1,644	836.1	3.8	0.44	82	6.58	nnw.	6.4	
						1,750	825.8	3.2	.....	84	6.46	nnw.	6.8	
						2,000	800.9	1.9	.....	89	6.24	nnw.	7.7	
						2,250	776.5	0.5	.....	94	5.95	nw	8.6	
						2,500	752.0	−0.8	.....	99	5.65	nw.	9.5	
9:12	968.0	8.6	82	n.	7.2	2,535	748.8	−1.0	0.55	100	5.62	nw.	9.6	10/10 A.Cu., n.
						2,500	752.0	−0.8	.....	99	5.65	nw.	9.4	
						2,250	776.5	0.6	.....	94	6.00	nw.	8.2	
						2,000	800.9	2.0	.....	89	6.28	nw.	7.1	
						1,750	825.8	3.4	.....	83	6.47	nw.	5.9	
9:41	968.1	9.5	74	n.	7.2	1,694	831.5	3.7	0.72	82	6.53	nw.	5.6	
						1,500	851.8	5.1	.....	73	6.42	nw.	7.2	
						1,250	878.0	6.9	.....	60	5.97	nnw.	9.4	
10:08	968.1	10.9	69	n.	6.7	1,163	887.4	7.5	−0.81	56	5.81	nnw.	10.1	
						1,000	905.0	6.2	.....	76	7.20	nnw.	8.9	
10:16	968.0	11.6	65	n.	7.6	954	910.1	5.8	1.16	82	7.56	nnw.	8.5	
						740	932.6	8.2	.....	73	7.94	nnw.	8.1	
						500	961.2	11.0	.....	62	8.14	n.	7.7	
10:33	967.8	11.7	59	n.	7.6	444	967.8	11.7	.....	59	8.11	n.	7.6	3/10 Ci.Cu., wsw. 3/10 A.St., wsw.

September 3, 1918.

A. M.														
6:41	971.5	1.8	90	nnw.	5.4	444	971.5	1.8	.....	90	6.26	nnw.	5.4	2/10 Ci.St., wsw.
						500	965.0	3.2	.....	77	5.92	n.	5.6	
6:51	971.6	2.3	92	nnw.	4.9	581	957.5	5.3	−2.55	57	5.08	nne.	5.9	
7:34	972.0	5.6	87	n.	4.9	731	938.7	5.5	0.00	68	6.14	nne.	4.4	
						500	966.0	5.8	.....	83	7.65	nne.	4.1	
7:48	972.2	5.9	87	nne.	4.0	444	972.2	5.9	.....	87	8.08	nne.	4.0	1/10 A.St., w.; 2/10 Ci.St., w.

September 4, 1918.

A. M.														
6:57	970.9	6.8	79	sw.	3.6	444	970.9	6.8	.....	79	7.81	sw.	3.6	8/10 A.Cu., w.
						500	964.5	7.3	.....	73	7.47	sw.	4.1	
						750	936.0	9.3	.....	46	5.39	s.	6.4	
7:08	970.9	7.7	73	sw.	3.1	769	933.5	9.5	−0.83	44	5.22	s.	6.6	
						1,000	908.5	8.0	.....	49	5.26	ssw.	6.1	
						1,250	881.6	6.3	.....	55	5.25	sw.	5.5	
10:44	971.2	14.7	38	s.	5.8	1,404	865.4	5.3	0.66	58	5.17	wsw.	5.1	
						1,500	855.0	4.5	.....	59	4.97	wsw.	4.8	9/10 A. Cu., wsw.
						1,750	829.3	2.4	.....	61	4.43	wsw.	4.0	
10:55	971.3	15.3	40	s.	5.4	1,849	819.3	1.6	0.82	62	4.25	wsw.	3.7	
						1,750	829.3	2.4	.....	61	4.43	wsw.	3.9	
						1,500	855.0	4.4	.....	60	5.02	sw.	4.5	
11:18	971.3	15.0	41	s.	4.9	1,388	866.9	5.3	1.05	59	5.26	sw.	4.7	
						1,250	881.6	6.7	.....	56	5.49	sw.	5.1	
P. M.														
						1,000	909.0	9.4	.....	51	6.01	ssw.	5.8	
12:14	971.3	16.3	37	ssw.	4.9	779	933.5	11.7	1.52	47	6.46	ssw.	6.5	
						750	937.1	12.1	.....	46	6.50	ssw.	6.4	
						500	965.4	15.9	.....	38	6.87	sw.	5.6	
12:24	971.3	16.8	36	sw.	5.4	444	971.3	16.8	.....	36	6.89	sw.	5.4	8/10 A.Cu., wsw.; 1/10 Cu., wsw.

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 5, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
6:33	971.1	7.6	82	w.	4.0	444	971.1	7.6	.....	82	8.56	w.	4.0	1/10 Ci.St., w.; 5/10 St.Cu., wnw.
						500	965.0	9.0	.....	73	8.38	w.	4.3	
6:49	971.2	8.2	80	w.	3.6	605	952.6	11.7	−4.41	57	7.84	wnw.	4.8	
						750	936.2	10.7	.....	62	7.98	wnw.	4.5	
7:47	971.3	10.0	77	w.	4.0	849	925.3	10.0	0.70	66	8.10	w.	4.3	
						1,000	908.5	9.2	.....	62	7.22	w.	3.2	
8:30	971.3	11.3	71	w.	4.0	1,206	886.2	8.0	0.62	57	6.12	wsw.	1.6	
						1,000	908.5	9.4	.....	59	6.96	wsw.	2.5	
						750	936.2	11.0	.....	61	8.01	wsw.	3.6	
8:41	971.3	14.0	68	wnw.	4.0	608	952.6	12.0	1.71	63	8.84	wsw.	4.3	
						500	965.0	13.8	.....	61	9.68	w.	4.1	
8:50	971.3	14.8	60	wnw.	4.0	444	971.3	14.8	.....	60	10.10	wnw.	4.0	Few Ci.St., wsw.; 1/10 A.Cu., wsw.

September 6, 1918.

A. M.														
6:38	967.1	9.7	73	wnw.	5.8	444	967.1	9.7	.....	73	8.78	wnw.	5.8	Few A.Cu., wnw.
						500	961.0	10.2	.....	70	8.72	wnw.	5.9	
						750	933.5	12.6	.....	56	8.17	nw.	6.5	
7:52	967.8	16.0	53	nw.	4.0	937	913.0	14.4	−0.95	46	7.54	nw.	6.9	
						1,000	906.3	13.8	.....	48	7.57	nw.	6.9	
						1,250	879.8	11.7	.....	54	7.42	nw.	6.9	
						1,500	854.0	9.5	.....	61	7.24	nw.	7.0	
8:26	967.8	17.6	48	nw.	3.6	1,542	849.5	9.1	0.90	62	7.17	nw.	7.0	1/10 A.Cu., nw.
						1,500	854.0	9.5	.....	61	7.24	nw.	6.9	
						1,250	879.8	11.8	.....	56	7.75	nw.	6.1	
						1,000	906.3	14.1	.....	52	8.37	nw.	5.3	
8:40	967.7	18.5	47	nw.	4.0	908	916.3	15.0	0.82	50	8.52	nw.	5.0	
						750	933.5	16.3	.....	48	8.89	nw.	4.7	
						500	961.0	18.3	.....	46	8.52	nnw.	4.1	
8:52	967.6	18.8	45	nnw.	4.0	444	967.6	18.8	.....	45	9.76	nnw.	4.0	2/10 A.Cu., nw.

September 8, 1918.

A. M.														
7:14	956.6	11.4	77	s.	4.9	444	956.6	11.4	.....	77	10.38	s.	4.9	5/10 Ci.St., wnw.; 3/10 A.Cu., wnw.
						500	950.5	12.3	.....	72	10.30	s.	5.0	
						750	923.0	16.5	.....	51	9.57	sw.	5.5	
7:23	956.7	11.3	75	s.	4.5	841	912.8	18.0	−1.66	43	8.88	sw.	5.7	
8:41	956.8	16.0	56	s.	3.6	936	903.0	21.6	.....	33	8.51	w.	3.4	6/10 Ci.St., wnw.; 2/10 A.Cu., wnw.
						1,000	896.2	21.2	.....	33	8.31	w.	3.6	
						1,250	870.8	19.6	.....	33	7.53	w.	4.3	
						1,500	846.1	18.0	.....	33	6.81	w.	5.6	
						1,750	821.7	16.4	.....	34	6.34	wsw.	5.9	
8:50	956.8	16.2	55	s.	4.5	1,923	804.8	15.3	0.67	34	5.91	wsw.	6.2	
						1,750	821.7	15.8	.....	34	6.10	wsw.	6.1	
						1,500	846.1	18.3	.....	33	6.94	wsw.	5.4	
						1,250	870.8	20.1	.....	32	7.53	sw.	5.0	
						1,000	896.2	21.8	.....	31	8.10	sw.	4.5	
9:00	956.7	16.8	55	s.	4.9	875	909.5	22.7	−5.75	31	8.55	sw.	4.3	
						750	923.0	15.5	.....	50	8.80	ssw.	5.9	
9:14	956.7	14.6	52	ssw.	6.3	734	924.6	14.6	0.93	52	8.64	ssw.	6.1	
						500	950.5	16.8	.....	54	10.33	s.	6.6	
9:19	956.7	17.3	55	s.	6.7	444	956.7	17.3	.....	55	10.86	s.	6.7	7/10 Ci.St., wnw.; 1/10 A.Cu., wnw. 1/10 St.Cu., sw.

September 9, 1918 (No. 1).

A. M.														
6:37	974.8	1.4	86	n.	6.7	444	974.8	1.4	.....	86	5.81	n.	6.7	Few Ci.St., nw.; 1/10 A.Cu., nw.
						500	968.1	1.4	.....	86	5.83	n.	8.4	
						750	938.9	1.3	.....	84	5.64	nne.	16.0	
6:46	975.0	1.4	86	n.	7.2	864	925.4	1.2	0.05	83	5.53	ne.	19.5	
						1,000	909.9	−0.2	.....	87	5.23	ne.	19.6	
6:54	975.2	1.7	83	n.	6.3	1,234	883.8	−2.5	1.00	93	4.61	ne.	19.8	
						1,250	882.0	−2.2	.....	91	4.63	ne.	19.6	
						1,500	855.0	1.9	.....	52	3.65	n.	16.1	
7:10	975.3	2.2	80	n.	7.2	1,696	834.5	5.2	−1.67	21	1.86	nnw.	13.3	
						1,750	829.0	5.0	.....	21	1.83	nnw.	13.2	
						2,000	803.6	4.0	.....	19	1.54	nnw.	12.6	
						2,250	779.0	3.0	.....	17	1.29	nnw.	12.0	
						2,500	755.8	2.0	.....	16	1.13	nw.	11.5	
						2,750	733.0	1.0	.....	14	0.92	nw.	10.9	
8:28	975.6	5.1	64	nne.	8.9	2,877	721.7	0.5	0.40	13	0.82	nw.	10.6	3/10 Ci.St., wnw.; few Cu., nne.
						3,000	710.8	0.0	.....	13	0.79	nw.	10.8	
						3,250	689.2	−1.0	.....	13	0.73	nw.	11.1	
						3,500	668.0	−2.1	.....	12	0.62	nw.	11.4	
						3,750	697.1	−3.1	.....	12	0.57	nw.	11.7	
9:10	976.1	7.0	52	nne.	10.7	3,814	641.8	−3.4	0.40	12	0.55	nw.	11.8	
						3,750	697.1	−3.1	.....	12	0.57	nw.	11.6	
						3,500	668.0	−2.0	.....	12	0.62	nw.	11.0	
						3,250	689.2	−0.9	.....	12	0.68	nw.	10.3	
						3,000	710.8	0.2	.....	12	0.74	nw.	9.6	
9:47	976.5	7.8	58	nne.	11.2	2,990	711.6	0.3	0.44	12	0.75	nw.	9.6	
						2,750	733.0	1.3	.....	12	0.80	nw.	9.5	
						2,500	755.8	2.5	.....	12	0.88	nw.	9.4	
						2,250	780.0	3.6	.....	12	0.95	nnw.	9.3	

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 9, 1918 (No. 1)—Continued.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
10:06	976.8	8.0	47	nne.	11.2	2,038	801.1	4.5	−1.99	12	1.01	nnw.	9.2	
						2,000	805.0	3.8		12	0.96	nnw.	9.2	
						1,750	831.0	−1.2		13	0.72	n.	9.2	
10:30	977.1	8.9	44	nne.	11.6	1,642	842.2	−3.4	0.79	13	0.60	n.	9.2	
						1,500	857.5	−2.3		22	1.11	n.	9.6	
						1,250	884.7	−0.3		39	2.32	nne.	10.2	
						1,000	913.0	1.7		57	3.94	ne.	10.9	
10:54	977.3	9.0	49	nne.	8.9	919	922.1	2.3	1.43	62	4.47	ne.	11.1	
						750	941.9	4.7		57	4.87	ne.	10.3	
						500	971.0	8.3		51	5.58	nne.	9.2	
11:08	977.5	9.1	49	nne.	8.9	444	977.5	9.1		49	5.66	nne.	8.9	1/10 Ci., sw.

September 9, 1918 (No. 2).

A. M.														
11:43	977.4	9.7	46	ne.	10.7	444	977.4	9.7		46	5.53	ne.	10.7	1/10 Ci., sw.
						500	971.2	9.0		46	5.28	ne.	10.9	
						750	941.9	5.9		68	6.32	nne.	12.1	
11:56	977.4	10.5	44	ne.	10.7	873	927.7	4.4	1.24	49	4.10	nne.	12.6	
						1,000	913.0	3.0		55	4.17	nne.	12.1	
						1,250	885.0	0.2		65	4.03	nne.	11.1	
P. M.														
12:21	977.4	10.9	40	ne.	10.7	1,357	873.7	−1.0	1.12	70	3.93	nne.	10.7	
						1,500	858.5	0.1		56	3.44	nne.	9.2	
						1,750	832.5	2.0		31	2.19	ne.	6.6	
1:55	977.4	11.6	34	ne.	10.7	1,915	815.5	3.2	−0.60	15	1.15	ne.	4.9	3/10 Ci.St., sw.
						1,750	832.5	2.5		21	1.53	ne.	6.5	
						1,500	858.9	1.4		31	2.10	nne.	9.1	
2:24	977.2	12.7	32	nne.	8.9	1,434	866.0	1.1	1.05	33	2.18	nne.	9.6	
						1,250	885.6	3.0		37	2.80	nne.	9.2	
						1,000	913.0	5.7		41	3.76	ne.	8.8	
2:44	977.1	12.9	32	ne	8.9	816	934.3	7.6	1.37	45	4.70	ne.	8.4	
						750	941.9	8.5		43	4.77	ne.	8.5	
						500	971.2	11.9		35	4.88	ne.	8.8	
2:49	977.1	12.7	33	ne.	8.9	444	977.1	12.7		33	4.85	ne.	8.9	2/10 Ci.St., sw.

September 9, 1918 (No. 3).

P. M.														
3:12	977.0	13.1	32	nne.	2.2	444	977.0	13.1		32	4.83	nne.	2.2	2/10 Ci.St., sw.
						500	971.0	12.1		34	4.80	nne.	3.4	
						750	941.9	7.8		42	4.42	ne.	8.6	
3:21	977.0	12.8	34	ne.	2.2	765	939.9	7.5	1.74	42	4.36	ne.	8.9	
						1,000	913.4	5.0		48	4.19	ne.	8.3	
						1,250	886.0	2.4		54	3.82	ne.	7.7	
5:50	977.3	11.0	34	ne.	2.7	1,444	864.6	0.3	1.06	59	3.68	ne.	7.2	
						1,500	859.0	0.8		55	3.56	ne.	6.6	4/10 Ci.St., sw.; 2/10 A.St., w.
						1.750	833.0	2.8		35	2.61	ene.	4.1	
6:04	977.4	10.6	39	ne.	3.6	1,900	817.1	4.1	−0.70	23	1.88	ene.	2.6	
						1,750	833.0	3.2		27	2.08	ene.	4.5	
						1,500	859.0	1.8		34	2.37	ne.	7.6	
6:20	977.4	9.8	41	ne.	3.1	1,331	876.9	0.8	1.21	39	2.52	ne.	9.7	
						1,250	886.0	1.8		40	2.78	ne.	9.4	
						1,000	913.4	4.8		43	3.70	ne.	8.3	
6:38	977.4	9.0	42	ne.	3.1	825	933.2	6.9	0.37	46	4.58	ne.	7.6	
						750	941.9	7.2		46	4.67	ne.	6.7	
						500	971.0	8.1		48	5.18	ne.	3.8	
6:49	977.4	8.3	48	ne.	3.1	444	977.4	8.3		48	5.26	ne.	3.1	2/10 Ci.St., sw.; 7/10 A.St., w.

September 9, 1918 (No. 4).

P. M.														
7:42	977.6	7.0	52	ne.	4.0	444	977.6	7.0		52	5.21	ne.	4.0	2/10 Ci.St., sw.; 7/10 A.St., w.
						500	971.5	6.8		52	5.14	ne.	4.5	
						750	941.9	5.9		49	4.55	ene.	6.5	
7:52	977.7	6.4	56	nne.	3.6	783	938.0	5.8	0.35	49	4.52	ene.	6.8	
						1,000	913.0	3.4		54	4.21	ene.	6.4	
						1,250	885.0	0.6		60	3.83	ene.	6.0	
8:29	977.8	5.3	56	nne.	4.0	1,328	876.9	−0.3	1.12	62	3.70	ene.	5.9	
						1,500	858.7	2.1		41	2.92	ene.	4.9	1/10 A.St., w.
8:45	977.9	4.4	59	nne.	3.6	1,631	844.6	3.9	−0.93	25	2.02	ene.	4.1	
						1,500	858.7	3.3		33	2.55	ene.	4.5	
						1,250	885.0	2.1		47	3.34	ene.	5.4	
9:00	978.0	3.9	60	nne.	3.6	1,145	897.2	1.6	1.22	53	3.64	ene.	5.8	
						1,000	913.0	3.4		55	4.29	ene.	6.0	
9:08	978.0	3.9	60	nne.	4.0	857	929.6	5.1	−0.46	56	4.92	ene.	6.3	
						750	941.9	4.6		58	4.92	ene.	5.7	
						500	971.5	3.5		64	5.02	nne.	4.3	
9:24	978.0	3.2	65	nne.	4.0	444	978.0	3.2		65	5.00	nne.	4.0	1/10 A.St., w.

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 10, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
7:06	975.6	5.8	77	se.	4.0	444	975.6	5.8	.....	77	7.10	se.	4.0	10/10 St. se.
						500	969.7	5.8	.....	77	7.10	se.	4.6	
						750	940.0	5.6	.....	74	6.73	sse.	7.0	
7:14	975.5	6.0	78	se.	3.6	846	928.7	5.5	0.07	73	6.59	sse.	8.0	
						1,000	910.8	5.5	.....	59	5.33	sse.	7.4	
						1,250	883.2	5.5	.....	36	3.25	se.	6.5	
8:49	974.1	9.3	67	se.	8.5	1,419	865.0	5.5	0.00	20	1.81	ese.	5.9	
						1,500	856.5	6.0	.....	18	1.68	ese.	6.1	
						1,750	830.7	7.4	.....	12	1.24	sse.	6.7	
9:40	973.7	11.4	58	se.	8.0	1,835	822.1	7.9	−0.58	10	1.06	sse.	6.9	5/10 A.Cu., ssw.; 2/10 A.St., ssw.
						2,000	805.7	6.5	.....	20	1.94	sse.	7.1	
						2,250	781.3	5.0	.....	34	2.96	s.	7.4	
						2,500	708.2	3.2	.....	49	3.77	ssw.	7.7	
						2,750	735.3	1.4	.....	64	4.33	sw.	8.0	
10:01	973.6	11.5	61	se.	6.7	2,888	722.6	0.4	0.80	72	4.52	sw.	8.2	
						2,750	735.3	1.6	.....	65	4.46	sw.	8.1	
						2,500	708.2	3.8	.....	52	4.17	sw.	7.9	
						2,250	781.3	6.0	.....	40	3.74	ssw.	7.7	
10:25	973.4	12.9	54	se.	6.7	2,037	802.3	7.9	0.00	29	3.09	ssw.	7.5	
						2,000	805.7	7.9	.....	28	2.98	ssw.	7.5	
						1,750	830.7	7.9	.....	19	2.02	sse.	7.5	
10:39	973.2	12.9	57	se.	5.8	1,595	846.5	7.9	−0.51	14	1.49	se.	7.5	
						1,500	856.0	7.4	.....	24	2.47	se.	7.0	
						1,250	882.7	6.1	.....	50	4.71	se.	5.8	
10:45	973.2	13.2	52	se.	4.0	1,126	896.2	5.5	0.82	63	5.69	se.	5.2	
						1,000	910.0	6.5	.....	63	6.10	se.	5.4	
10:52	973.1	13.6	46	se.	5.8	834	928.7	7.9	1.44	63	6.71	se.	5.7	
						750	938.4	9.1	.....	59	6.82	se.	5.8	
						500	966.7	12.7	.....	49	7.20	se.	6.2	
11:07	972.8	13.5	46	se.	6.3	444	972.8	13.5	.....	46	7.12	se.	6.3	5/10 A.Cu., sw.

September 11, 1918.

A. M.														
6:41	963.4	10.2	75	nw.	8.5	444	963.4	10.2	.....	75	9.34	nw.	8.5	1/10 Ci.Cu., wnw.
						500	957.4	10.6	.....	70	8.95	nw.	11.1	
6:45	963.4	10.2	74	nw.	8.5	718	932.2	12.1	−0.69	52	7.34	nw.	21.2	
						750	929.0	12.0	.....	51	7.16	nw.	21.3	
						1,000	901.5	11.4	.....	46	6.20	nw.	22.4	
7:01	963.5	10.1	75	nw.	7.6	1,102	890.4	11.1	0.26	44	5.81	nw.	22.9	
						1,250	875.0	10.1	.....	37	4.57	nw.	22.7	
						1,500	849.5	8.5	.....	26	2.89	nw.	22.3	
7:17	963.7	11.2	69	nw.	8.5	1,677	831.0	7.4	0.64	18	1.85	nw.	22.1	
						1,750	823.6	6.9	.....	18	1.79	nw.	22.1	
						2,000	798.4	5.1	.....	18	1.58	nw.	22.1	
						2,250	774.3	3.2	.....	18	1.38	nw.	22.1	
						2,500	751.0	1.4	.....	17	1.15	nw.	22.2	
7:27	963.8	12.1	64	nw.	9.4	2,644	737.6	0.4	0.73	17	1.07	nw.	22.2	
						2,500	751.0	1.5	.....	17	1.16	nw.	21.7	
						2,250	774.3	3.3	.....	16	1.24	nw.	20.4	
						2,000	798.4	5.2	.....	16	1.42	nw.	19.2	
						1,750	823.6	7.1	.....	15	1.51	nw.	18.0	Few A.Cu., wnw.; few A.St., wnw.
7:43	964.0	12.6	61	nw.	11.2	1,706	827.9	7.4	−0.20	15	1.54	nw.	17.8	
						1,500	849.5	7.0	.....	39	3.91	nw.	21.0	
9:22	964.2	16.0	48	nnw.	13.4	1,412	858.7	6.8	1.07	49	4.84	nw.	22.4	
						1,250	876.0	8.5	.....	52	5.77	nw.	19.1	
						1,000	902.9	11.2	.....	56	7.55	nnw.	16.5	
9:43	964.2	17.2	43	nnw.	12.5	962	906.8	11.6	1.04	57	7.79	nnw.	16.0	
						750	930.2	13.8	.....	49	7.73	nnw.	16.2	
						500	958.0	16.5	.....	39	7.32	nnw.	16.4	
10:01	964.2	17.0	37	nnw.	16.5	444	964.2	17.0	.....	37	7.17	nnw.	16.5	Cloudless.

September 12, 1918.

A. M.														
6:30	964.0	3.9	85	ssw.	4.5	444	964.0	3.9	.....	85	6.87	ssw.	4.5	Cloudless.
						500	958.0	6.2	.....	75	7.11	ssw.	4.9	
						750	929.3	16.2	.....	31	5.71	w.	6.0	
6:40	963.9	5.1	86	sw.	4.9	774	926.5	17.2	−4.03	27	5.30	w.	6.1	
						1,000	902.4	16.1	.....	29	5.31	w.	7.2	
						1,250	876.3	14.9	.....	31	5.25	wnw.	8.4	
7:43	963.3	10.6	73	ssw.	4.9	1,395	861.5	14.2	0.48	32	5.18	wnw.	9.1	
						1,500	851.0	13.4	.....	32	4.92	wnw.	9.3	
						1,750	826.0	11.6	.....	33	4.51	wnw.	9.6	
						2,000	801.6	9.8	.....	34	4.12	wnw.	10.0	
						2,250	777.8	8.0	.....	36	3.86	wnw.	10.3	
7:53	963.2	11.3	68	ssw.	4.9	2,352	763.3	7.2	0.73	36	3.66	wnw.	10.5	
						2,500	754.5	6.3	.....	36	3.44	wnw.	12.7	
						2,750	732.2	4.7	.....	37	3.16	wnw.	16.4	
						3,000	710.2	3.2	.....	38	2.92	nw.	20.1	
8:10	963.1	12.7	62	ssw.	3.6	3,174	695.2	2.1	0.62	39	2.77	nw.	22.7	
						3,250	689.0	1.7	.....	40	2.76	nw.	22.8	
						3,500	667.8	0.3	.....	44	2.75	nw.	23.3	
						3,750	647.0	−1.1	.....	47	2.62	nw.	23.7	
8:33	962.9	15.5	53	ssw.	4.0	3,937	630.9	−2.1	0.60	50	2.56	nw.	24.1	
						3,750	647.0	−0.9	.....	47	2.66	nw.	23.4	Cloudless.
						3,500	667.8	0.7	.....	44	2.83	nw.	22.5	
						3,250	688.6	2.4	.....	40	2.90	nw.	21.6	
9:43	962.6	22.3	32	wsw.	4.9	3,001	709.5	4.0	0.82	37	3.01	nw.	20.7	
						2,750	731.8	6.0	.....	36	3.37	nw.	18.2	
						2,500	754.5	8.1	.....	36	3.89	nw.	15.7	
						2,250	777.8	10.1	.....	35	4.33	nw.	13.2	
10:21	962.4	23.5	31	wnw.	4.0	2,205	781.9	10.5	0.61	35	4.44	nw.	12.8	
						2,000	801.6	11.7	.....	35	4.81	nw.	12.2	

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 12, 1918—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
						1,750	826.0	13.3		34	5.19	nw.	11.5	
						1,500	851.0	14.8		33	5.55	nw.	10.7	
10:41	962.2	25.0	28	wnw.	5.4	1,318	869.4	15.9	1.07	33	5.96	nw.	10.2	
						1,250	876.3	16.6		32	6.04	nw.	10.1	
						1,000	902.4	19.3		29	6.49	nw.	9.8	
10:50	962.2	25.8	25	nw.	4.5	822	921.4	21.2	1.11	27	6.80	nw.	9.6	
						750	929.3	22.0		27	7.14	nw.	8.6	
						500	956.4	24.8		26	8.14	nw.	5.2	
10:55	962.1	25.4	26	nw.	4.5	444	962.1	25.4		26	8.44	nw.	4.5	3/10 Ci.St., nw.

September 13, 1918.

A. M.														
6:35	959.6	9.8	70	nne.	5.4	444	959.6	9.8		70	8.48	nne.	5.4	Few A.Cu., w.; 1/10 St.Cu., w.
						500	953.4	11.0		64	8.40	nne.	6.2	
						750	925.6	16.4		36	6.71	e.	9.7	
6:44	959.7	10.0	67	ne.	4.0	777	922.4	17.0	−2.16	33	6.40	e.	10.1	
						1,000	898.9	15.5		34	5.99	e.	9.1	
						1,250	873.0	13.8		36	5.68	e.	8.1	
7:43	960.2	15.1	52	ne.	4.9	1,293	868.7	13.5	0.68	36	5.57	e.	7.9	
						1,500	848.0	12.4		38	5.47	ene.	6.7	
						1,750	822.8	11.1		41	5.42	ne.	5.2	Cloudless.
9:08	960.9	18.7	43	ne.	6.3	1,992	799.4	9.8	0.48	44	5.33	nne.	3.8	
						1,750	822.8	10.8		43	5.57	nne.	3.7	
						1,500	848.0	11.9		41	5.71	ne.	3.7	
9:36	961.2	19.8	37	ne.	6.3	1,255	873.4	13.0	0.53	40	5.99	ne.	3.6	
						1,000	900.8	14.4		40	6.56	ne.	4.1	
9:48	961.4	20.0	36	ne.	7.6	783	924.0	15.5	1.45	40	7.04	ene.	4.6	
						750	927.9	16.0		40	7.27	ene.	4.8	
						500	955.7	19.6		39	8.90	ne.	6.0	
10:14	961.6	20.4	35	ne.	6.3	444	961.6	20.4		35	8.39	ne.	6.3	Cloudless.

September 14, 1918.

A. M.														
6:52	961.8	11.0	69	w.	2.7	444	961.8	11.0		69	9.06	w.	2.7	10/10 St., w.
						500	955.4	12.5		62	8.98	wsw.	3.7	
6:59	961.8	11.0	67	w.	2.7	624	941.5	15.9	−2.72	46	8.31	s.	6.1	
						750	927.8	15.4		44	7.70	s.	5.9	
						1,000	900.7	14.5		39	6.44	s.	5.5	2/10 Ci.St.; 1/10 Ci.Cu.; 2/10 A.St.
8:08	961.8	15.3	52	sw.	1.3	1,165	883.3	13.8	0.54	36	5.68	s.	5.2	
						1,000	900.7	14.9		38	6.44	s.	4.4	
						750	927.8	16.7		42	7.98	s.	3.1	
8:23	961.8	15.8	51	sw.	2.2	703	932.9	17.0	−0.31	43	8.33	s.	2.9	
						500	955.4	16.4		50	9.32	sw.	2.4	
8:32	961.8	16.2	52	sw.	2.2	444	961.8	16.2		52	9.58	sw.	2.2	2/10 Ci.St., wnw.; 8/10 A.St., wnw.

September 15, 1918.

A. M.														
7:00	967.9	2.0	83	nw.	4.5	444	967.9	2.0		83	5.86	nw.	4.5	2/10 Ci.St., w.
						500	961.8	2.3		83	5.98	nw.	6.0	
						750	932.7	3.4		83	6.47	nnw.	12.9	
7:05	967.9	2.2	82	wnw.	4.5	811	925.1	3.7	−0.46	83	6.61	nnw.	14.6	
						1,000	904.0	2.5		83	6.07	nnw.	14.7	
						1,250	876.7	1.0		82	5.39	nnw.	14.8	
						1,500	850.0	− 0.6		81	4.71	nnw.	14.9	
7:30	968.1	4.1	79	nw.	3.6	1,517	848.0	− 0.6	0.61	81	4.71	nnw.	14.9	
						1,750	823.6	− 1.8		72	3.79	nnw.	14.8	
						2,000	798.5	− 3.0		62	2.94	nnw.	14.7	
						2,250	774.0	− 4.2		52	2.24	nnw.	14.7	
8:02	968.2	6.2	70	nw.	5.8	2,426	756.9	− 5.1	0.50	45	1.79	nnw.	14.6	
						2,500	750.0	− 5.3		43	1.68	nnw.	14.6	
						2,750	726.8	− 5.9		34	1.26	nnw.	14.5	
						3,000	704.2	− 6.6		25	0.88	nnw.	14.5	
						3,250	682.9	− 7.2		16	0.53	nnw.	14.4	
9:07	968.6	9.1	65	nw.	6.3	3,286	679.7	− 7.3	0.26	15	0.49	nnw.	14.4	
						3,500	661.5	− 8.6		15	0.44	nnw.	14.4	
						3,750	640.5	−10.1		15	0.39	nnw.	14.4	1/10 A.St., w.; 2/10 Cu., nw.
						4,000	619.8	−11.6		14	0.32	nw.	14.5	
10:02	968.6	10.9	58	nw.	8.0	4,187	604.6	−12.7	0.58	14	0.29	nw.	14.5	
						4,000	619.8	−11.6		14	0.32	nw.	14.4	
						3,750	639.8	−10.2		14	0.36	nw.	14.2	
						3,500	660.2	− 8.7		14	0.41	nw.	14.0	
10:31	968.4	11.3	53	nnw.	8.0	3,318	675.4	− 7.7	0.38	14	0.45	nw.	13.9	
						3,250	681.5	− 7.5		14	0.45	nw.	13.7	
						3,000	703.7	− 6.5		14	0.49	nw.	13.2	
						2,750	726.8	− 5.5		14	0.54	nnw.	12.6	
						2,500	751.0	− 4.6		15	0.62	nnw.	12.0	
11:03	968.2	12.0	48	nnw.	6.7	2,293	770.2	− 3.8	0.61	15	0.67	nnw.	11.5	
						2,250	774.9	− 3.5		17	0.78	nnw.	11.4	
						2,000	799.1	− 2.0		32	1.65	nnw.	10.8	
						1,750	824.5	− 0.5		47	2.75	nnw.	10.1	
						1,500	851.0	1.1		61	4.04	nnw.	9.5	
11:30	968.2	12.2	46	nnw.	8.0	1,250	877.6	2.6	0.89	76	5.60	nnw.	8.9	
						1,000	905.8	4.8		68	5.85	nnw.	9.8	
11:40	968.2	12.3	44	nnw.	8.5	823	925.1	6.4	1.53	62	5.96	nnw.	10.5	
						750	933.8	7.5		59	6.12	nnw.	10.1	
						500	962.1	11.3		48	6.43	nnw.	8.8	
11:48	968.2	12.2	46	nnw.	8.5	444	968.2	12.2		46	6.54	nnw.	8.5	Few Ci., nw.; 4/10 Cu., nw.

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 16, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
6:50	965.8	1.3	78	nnw.	4.9	444	965.8	1.3	.....	78	5.23	nnw.	4.9	9/10 St.Cu., nw.
						500	959.2	1.9	.....	77	5.40	nnw.	5.7	
						750	930.0	4.6	.....	70	5.94	n.	9.1	
6:54	965.9	1.3	78	nw.	4.9	833	920.7	5.5	−1.08	68	6.14	n.	10.2	
						1,000	902.0	4.4	.....	74	6.19	n.	9.1	
						1,250	875.0	1.5	.....	90	6.13	nnw.	5.9	
9:18	966.0	9.0	58	nnw.	5.4	1,390	860.1	0.2	0.95	97	6.01	nw.	4.4	10/10 St.Cu., nw.
						1,500	849.0	− 0.6	.....	98	5.74	nw.	4.6	
						1,750	822.5	− 2.4	.....	99	4.95	nw.	5.2	
9:39	966.1	9.4	72	nnw.	5.8	1,813	815.6	− 2.8	0.71	100	4.84	nw.	5.3	
						2,000	796.8	− 4.1	.....	100	4.33	nw.	7.6	
						2,250	772.0	− 5.8	.....	100	3.75	wnw.	10.6	
9:52	966.2	9.8	68	n.	5.4	2,401	757.1	− 6.8	0.72	100	3.44	wnw.	12.6	
						2,250	772.0	− 5.7	.....	100	3.78	wnw.	11.6	
						2,000	796.8	− 3.8	.....	99	4.40	nw.	9.7	Altitude of St.Cu. base about 2,400 m.
						1,750	822.5	− 1.9	.....	98	5.16	nnw.	7.9	
10:05	966.3	8.6	62	nne.	5.8	1,566	841.6	− 0.5	0.67	97	5.68	nnw.	6.6	
						1,500	849.0	− 0.1	.....	96	5.82	nnw.	6.4	
						1,250	876.0	1.6	.....	90	5.74	n.	5.8	
10:14	966.4	8.2	63	nne.	5.4	1,016	901.0	3.2	0.48	85	6.54	nne.	5.2	
						1,000	903.3	3.3	.....	85	6.58	nne.	5.2	
						750	931.4	4.5	.....	81	6.82	nne.	5.3	
10:22	966.6	8.3	62	nne.	5.8	724	934.1	4.6	1.21	81	6.87	nne.	5.3	
						500	960.5	7.3	.....	67	6.85	nne.	6.9	
10:30	966.7	8.0	63	nne.	7.2	444	966.7	8.0	.....	63	6.76	nne.	7.2	10/10 St.Cu., nw.

September 18, 1918.

A. M.														
6:39	960.9	1.1	86	w.	4.5	444	960.9	1.1	.....	86	5.69	w.	4.5	1/10 A.Cu., nw.
						500	954.6	2.0	.....	80	5.65	w.	5.7	
						750	925.0	6.1	.....	52	4.90	wnw.	11.2	
6:42	960.9	1.1	86	w.	4.5	787	921.1	6.7	−1.63	48	4.71	wnw.	12.0	
						1,000	896.9	5.0	.....	46	4.01	wnw.	10.3	
						1,250	870.0	3.0	.....	44	3.34	nw.	8.2	
						1,500	844.0	1.0	.....	41	2.69	nw.	6.2	
7:40	960.5	4.3	78	w.	5.8	1,512	842.5	0.9	0.80	41	2.67	nw.	6.1	
						1,750	818.2	− 1.3	.....	42	2.30	nw.	6.5	
8:44	960.2	8.9	52	w.	5.8	1,965	796.6	− 3.4	0.95	43	1.98	nw.	6.9	9/10 A.Cu., nw.
						2,000	793.1	− 3.7	.....	44	1.97	nw.	6.9	
						2,250	768.0	− 5.8	.....	54	2.02	nw.	7.2	
						2,500	743.5	− 7.9	.....	63	1.97	nw.	7.4	
9:22	960.0	9.7	46	w.	7.2	2,575	736.8	− 8.5	0.84	66	1.95	nw.	7.5	
						2,750	720.0	− 9.7	.....	70	1.87	nw.	8.0	
						3,000	697.2	−11.5	.....	76	1.73	nw.	8.7	
						3,250	675.2	−13.3	.....	81	1.56	nw.	9.3	
						3,500	653.7	−15.1	.....	87	1.42	nw.	10.0	
						3,750	632.0	−16.8	.....	93	1.29	nw.	10.7	
9:37	959.9	10.0	44	w.	6.7	3,886	620.5	−17.8	0.76	96	1.22	nw.	11.1	
						3,750	632.0	−16.7	.....	97	1.37	nw.	11.4	
						3,500	653.0	−14.7	.....	100	1.70	nw.	11.9	
9:52	959.8	10.1	46	w.	6.3	3,485	654.5	−14.6	0.72	100	1.71	nw.	11.9	
						3,250	674.5	−12.9	.....	94	1.88	nw.	11.2	
						3,000	696.8	−11.1	.....	89	2.09	wnw.	10.5	
						2,750	720.0	− 9.3	.....	83	2.29	w.	9.8	
10:18	959.7	12.2	46	w.	8.5	2,510	742.7	− 7.6	1.04	77	2.47	w.	9.1	Altitude of A.Cu. base about 2,400 m.
						2,500	743.5	− 7.5	.....	77	2.49	w.	9.1	
						2,250	768.0	− 4.9	.....	71	2.88	w.	9.9	
						2,000	792.8	− 2.3	.....	66	3.33	w.	10.7	
10:30	959.6	12.1	45	wnw.	10.7	1,945	798.1	− 1.7	0.50	65	3.44	w.	10.9	
						1,750	818.2	− 0.7	.....	75	4.32	w.	11.1	
10:41	959.5	12.8	49	wnw.	9.8	1,526	841.0	0.4	1.16	87	5.47	wnw.	11.3	
						1,500	844.0	0.7	.....	86	5.53	wnw.	11.3	
						1,250	870.0	3.6	.....	72	5.70	wnw.	11.2	
						1,000	896.9	6.5	.....	58	5.61	wnw.	11.1	
11:06	959.5	12.4	37	wnw.	9.8	906	907.6	7.6	0.95	53	5.53	wnw.	11.1	
						750	925.0	9.1	.....	48	5.55	wnw.	11.0	
						500	953.5	11.5	.....	40	5.43	nw.	10.7	
11:16	959.6	12.0	38	nw.	10.7	444	959.6	12.0	.....	38	5.33	nw.	10.7	8/10 A.Cu., wnw.

September 19, 1918 (No. 1).

A. M.														
6:58	970.6	1.3	94	nnw.	8.9	444	970.6	1.3	.....	94	6.31	nnw.	8.9	10/10 St., n.
						500	964.6	1.3	.....	93	6.24	nnw.	9.1	
						750	934.9	1.5	.....	87	5.92	nne.	9.8	Altitude of St. base about 600 m.
7:09	970.6	1.4	93	nnw.	8.5	817	926.7	1.5	−0.05	85	5.79	nne.	10.0	
						1,000	905.7	0.3	.....	83	5.18	nne.	10.4	
						1,250	877.8	− 1.3	.....	79	4.71	nne.	10.7	
						1,500	851.0	− 3.1	.....	76	3.58	n.	11.4	
7:30	970.8	1.7	91	nnw.	8.9	1,673	832.3	− 4.2	0.67	74	3.18	n.	11.7	
						1,750	824.8	− 4.8	.....	72	2.94	n.	11.8	
						2,000	799.0	− 6.1	.....	66	2.41	n.	12.1	
						2,250	773.7	− 7.6	.....	58	1.86	n.	12.3	
8:05	970.9	2.8	87	nnw.	8.0	2,462	752.7	− 8.9	0.59	54	1.54	n.	12.6	
						2,500	749.0	− 9.1	.....	53	1.49	n.	12.6	
						2,750	725.0	−10.8	.....	49	1.19	n.	12.4	
						3,000	702.0	−12.4	.....	45	0.94	n.	12.2	
8:53	971.3	3.1	84	nnw.	9.4	3,207	683.3	−13.8	0.66	42	0.77	n.	12.1	
						3,250	679.3	−14.0	.....	41	0.74	n.	12.2	
						3,500	657.8	−15.5	.....	36	0.57	n.	13.0	
						3,750	636.3	−16.9	.....	31	0.43	n.	13.7	
						4,000	615.4	−18.3	.....	27	0.33	n.	14.5	

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 19, 1918 (No. 1)—Continued.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
9:22	971.6	3.1	84	nnw.	9.4	4,099	606.9	−18.9	0.60	25	0.28	n.	14.8	10/10 St.Cu., n.
						4,000	615.4	−18.3		25	0.30	n.	14.4	
						3,750	636.3	−16.7		26	0.37	n.	13.4	
						3,500	657.8	−15.1		27	0.44	n.	12.4	
						3,250	679.3	−13.5		28	0.53	n.	11.4	
						3,000	702.0	−12.0		29	0.63	n.	10.5	
10:03	972.0	4.1	79	n.	8.9	2,958	706.3	−11.7	0.57	29	0.65	n.	10.3	
						2,750	725.0	−10.5		38	0.94	n.	10.0	
						2,500	749.0	− 9.1		48	1.35	n.	9.5	
						2,250	773.7	− 7.7		58	1.84	n.	9.1	
						2,000	799.0	− 6.3		68	2.44	n.	8.7	
						1,750	826.0	− 4.8		78	3.16	n.	8.3	
10:28	972.1	5.4	69	nnw.	8.9	1,687	832.3	− 4.5	0.61	81	3.39	n.	8.2	
						1,500	852.7	− 3.4		86	3.96	n.	8.3	
						1,250	880.0	− 1.7		94	4.98	n.	8.5	
10:43	972.2	5.6	66	nnw.	8.9	1,034	903.8	− 0.5	1.27	100	5.86	n.	8.7	Altitude of St.Cu. base about 1,050 m.
						1,000	908.0	− 0.1		98	5.94	n.	8.9	
10:51	972.3	6.9	63	nnw.	8.9	892	920.1	1.3	1.00	93	6.24	n.	9.7	
						750	937.0	2.7		85	6.31	n.	9.6	
						500	965.3	5.2		71	6.28	nnw.	9.4	
11:00	972.3	5.8	68	nnw.	9.4	444	972.3	5.8		68	6.27	nnw.	9.4	8/10 St.Cu., nw.

September 19, 1918 (No. 2).

A. M.														
11:18	972.4	7.0	62	nnw.	9.4	444	972.4	7.0		62	6.21	nnw.	9.4	8/10 St.Cu., nw.
						500	965.9	6.0		65	6.08	nnw.	9.0	
						750	936.9	1.8		79	5.50	n.	6.9	
11:30	972.5	6.9	63	nnw.	8.0	765	934.9	1.5	1.71	80	5.45	n.	6.8	
						1,000	908.3	− 0.3		86	5.13	n.	7.2	
						1,250	880.5	− 2.3		92	4.64	n.	7.6	
						1,500	852.5	− 4.3		98	4.18	nnw.	7.9	
P. M.														
12:30	972.4	7.4	55	n.	9.4	1,605	841.1	− 5.1	0.79	100	3.98	nnw.	8.1	
						1,750	826.0	− 5.5		88	3.00	nnw.	8.1	
						2,000	800.2	− 6.1		66	2.41	nnw.	7.9	
						2,250	775.2	− 6.7		44	1.53	nnw.	7.8	
2:00	972.3	8.9	44	nnw.	6.7	2,346	765.6	− 7.0	0.26	36	1.22	nnw.	7.8	
						2,500	750.7	− 7.9		34	1.06	nnw.	8.0	
						2,750	727.0	− 9.3		32	0.88	nnw.	8.3	6/10 St.Cu., nw.
						3,000	704.1	−10.8		29	0.70	nnw.	8.7	
						3,250	682.0	−12.2		27	0.58	nnw.	9.0	
2:39	972.1	9.4	41	nnw.	7.6	3,334	674.2	−12.8	0.62	26	0.53	nnw.	9.1	
						3,250	682.0	−12.2		26	0.55	nnw.	9.1	
						3,000	704.1	−10.6		25	0.62	nnw.	9.1	
						2,750	727.0	− 8.9		24	0.69	n.	9.0	
						2,500	751.4	− 7.3		23	0.76	n.	9.0	
3:00	972.0	9.5	43	nnw.	7.2	2,460	755.3	− 7.0	0.41	23	0.78	n.	9.0	
						2,250	776.0	− 6.2		26	0.94	n.	8.3	
						2,000	801.1	− 5.1		30	1.19	n.	7.5	
3:16	972.0	9.2	40	nnw.	8.5	1,847	816.7	− 4.5	1.06	32	1.34	n.	7.0	
						1,750	827.1	− 3.5		43	1.96	n.	6.9	
						1,500	853.6	− 0.8		71	4.05	n.	6.7	
3:28	972.0	9.4	43	nnw.	7.6	1,414	862.6	0.1	0.69	80	4.92	n.	6.6	
						1,250	880.5	1.2		74	4.93	n.	6.8	
						1,000	908.3	3.0		64	4.85	nnw.	7.0	
3:41	972.0	9.7	41	nnw.	7.6	765	934.9	4.6	1.53	55	4.66	nnw.	7.2	
						750	936.9	4.8		54	4.64	nnw.	7.2	
						500	965.9	8.6		43	4.80	n.	6.8	
3:50	972.0	9.5	40	n.	6.7	444	972.0	9.5		40	4.75	n.	6.7	Few St.Cu., nnw.

September 19, 1918 (No. 3).

P. M.														
4:24	972.0	9.6	41	nnw.	8.9	444	972.0	9.6		41	4.90	nnw.	8.9	Few St.Cu., nnw.
						500	965.9	8.8		41	4.65	nnw.	8.7	
						750	937.0	5.4		44	3.95	n.	7.7	
4:34	972.0	9.7	39	n.	7.2	770	934.3	5.1	1.38	44	3.87	n.	7.6	
						1,000	908.2	2.9		57	4.29	n.	7.8	
						1,250	880.5	0.5		72	4.56	nnw.	8.0	
5:51	972.3	8.9	39	n.	4.9	1,461	857.6	−1.5	0.96	84	4.53	nnw.	8.2	
						1,500	853.6	−1.7		80	4.24	nnw.	8.2	
						1,750	827.0	−2.7		50	2.44	nnw.	8.4	
6:32	972.5	6.6	50	n.	4.0	1,898	811.7	−3.4	0.43	33	1.52	nnw.	8.5	
						2,000	800.9	−3.5		33	1.50	nnw.	8.9	
						2,250	775.5	−5.3		31	1.21	nnw.	10.0	
						2,500	751.7	−6.7		30	1.04	nnw.	11.1	
						2,750	728.2	−8.0		28	0.87	nnw.	12.2	
6:44	972.5	5.8	50	n.	4.5	2,777	725.6	−8.2	0.55	28	0.85	nnw.	12.3	Cloudless.
						2,750	728.2	−8.1		28	0.86	nnw.	12.2	
						2,500	751.7	−6.7		28	0.97	nnw.	11.5	
						2,250	776.2	−5.3		27	1.06	n.	10.8	
						2,000	801.5	−4.0		27	1.18	n.	10.1	
6:59	972.6	5.0	51	n.	4.0	1,917	809.9	−3.5	0.79	27	1.23	n.	9.8	
						1,750	827.0	−2.2		42	2.15	n.	9.3	
						1,500	853.6	−0.2		64	3.85	n.	8.6	
7:15	972.7	4.0	53	n.	4.9	1,435	860.7	0.3	0.71	70	4.37	n.	8.4	
						1,250	880.5	1.6		66	4.53	n.	8.8	
						1,000	908.2	3.4		60	4.68	n.	9.3	
7:30	972.8	3.1	57	n.	4.5	889	920.9	4.2	−0.27	58	4.78	n.	9.5	
						750	937.0	3.8		58	4.65	n.	7.9	
						500	966.4	3.2		57	4.35	n.	5.1	
7:37	972.8	3.0	57	n.	4.5	444	972.8	3.0		57	4.32	n.	4.5	Cloudless.

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 19, 1918 (No. 4).

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
P. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
8:03	973.0	2.7	56	n.	3.6	444	973.0	2.7	.....	56	4.16	n.	3.6	Cloudless.
						500	967.0	2.7	.....	56	4.16	n.	4.3	
						750	937.0	3.0	.....	56	4.24	nne.	7.3	
8:15	973.2	2.0	60	n.	3.6	789	932.6	3.0	−0.09	56	4.24	nne.	7.8	
						1,000	908.0	0.8	.....	65	4.21	nne.	7.6	
9:18	973.6	1.7	63	n.	4.9	1,180	888.7	−1.1	0.99	73	4.07	nne.	7.4	
						1,000	908.0	0.4	.....	70	4.40	nne.	6.9	
10:12	973.6	−2.2	76	n.	5.8	745	937.7	2.5	−1.63	65	4.75	nne.	6.2	
						500	967.0	−1.5	.....	75	4.04	nnw.	5.6	
10:21	973.6	−2.4	77	nnw.	5.4	444	973.6	−2.4	.....	77	3.85	nnw.	5.4	Cloudless.

September 20, 1918.

A. M.														
8:25	975.7	3.0	69	ssw.	3.6	444	975.7	3.0	.....	69	5.23	ssw.	3.6	Cloudless.
						500	969.0	3.0	.....	67	5.09	ssw.	4.6	
8:28	975.7	3.1	68	ssw.	3.6	740	940.8	2.8	0.07	61	4.56	ssw.	8.8	
						750	939.6	2.8	.....	61	4.56	ssw.	8.8	
						1,000	910.9	1.4	.....	63	4.26	ssw.	7.8	
10:45	975.1	9.0	42	ssw.	5.4	1,249	883.5	0.0	0.55	65	3.97	ssw.	6.9	
11:00	975.0	9.7	40	ssw.	5.4	1,433	863.3	1.1	−0.60	24	1.59	ssw.	6.9	
						1,500	856.4	1.0	.....	23	1.51	ssw.	6.7	
						1,750	830.1	0.7	.....	21	1.35	ssw.	5.8	
						2,000	804.5	0.4	.....	19	1.20	sw.	4.9	
						2,250	779.3	0.1	.....	17	1.05	sw.	4.0	
P. M.														
1:25	973.0	12.2	33	sw.	7.2	2,320	772.1	0.0	0.09	16	0.98	sw.	3.7	
						2,250	779.3	0.0	.....	16	0.98	sw.	4.2	
						2,000	804.5	− 0.2	.....	16	0.96	ssw.	6.2	
						1,750	829.8	− 0.4	.....	16	0.95	s.	8.1	
1:55	972.7	12.9	30	s.	6.3	1,670	837.1	− 0.4	1.12	16	0.95	s.	8.7	
						1,500	855.7	1.5	.....	19	1.29	s.	9.9	
2:03	972.6	13.2	27	s.	6.7	1,483	857.1	1.7	1.05	19	1.31	s.	10.0	
						1,250	882.4	4.1	.....	25	2.05	s.	10.2	
						1,000	909.7	6.7	.....	31	3.04	ssw.	10.5	
2:23	972.5	13.4	26	s.	8.0	871	923.9	8.1	1.26	34	3.67	ssw.	10.6	
						750	937.5	9.6	.....	32	3.82	ssw.	9.6	
						500	966.0	12.8	.....	26	3.84	s.	7.6	
2:33	972.5	13.5	25	s.	7.2	444	972.5	13.5	.....	25	3.87	s.	7.2	Cloudless.

September 21, 1918 (No. 1).

A. M.														
6:27	968.4	− 0.7	72	s.	4.0	444	968.4	− 0.7	.....	72	4.15	s.	4.0	1/10 A. Cu., wnw.
						500	961.9	0.6	.....	69	4.40	s.	5.9	
						750	932.9	6.6	.....	56	5.46	ssw.	14.3	
6:40	968.3	− 0.8	76	s.	3.6	823	924.1	8.3	− 2.37	52	5.69	ssw.	16.7	
						1,000	904.6	9.2	.....	52	6.05	ssw.	14.2	
						1,250	877.5	10.5	.....	51	6.48	s.	10.6	
7:03	968.2	− 0.3	73	s.	4.0	1,315	870.9	10.9	−0.53	51	6.65	s.	9.7	
						1,500	851.5	9.9	.....	45	5.49	s.	9.4	
						1,750	826.0	8.6	.....	36	4.02	ssw.	9.1	
7:14	968.1	0.7	68	s.	4.5	1,997	801.9	7.3	0.53	28	2.86	ssw.	8.7	
						2,250	778.4	7.6	.....	25	2.61	sw.	6.5	Few A. St., wnw.
						2,500	755.0	8.1	.....	21	2.27	w.	3.4	
8:51	967.6	10.0	37	s.	11.2	2,506	754.1	8.1	0.10	21	2.27	w.	3.3	
						2,500	755.0	8.1	.....	21	2.27	w.	3.3	
						2,250	778.4	9.0	.....	24	2.76	wsw.	4.9	
						2,000	801.7	9.9	.....	26	3.17	sw.	6.5	
						1,750	826.0	10.9	.....	29	3.78	sw.	8.1	
						1,500	851.5	11.8	.....	31	4.29	ssw.	9.7	
9:29	967.6	11.8	33	s.	8.9	1,331	869.3	12.4	−1.41	33	4.75	s.	10.8	
						1,250	877.5	9.6	.....	39	4.66	s.	10.1	
						1,000	904.0	7.7	.....	43	4.52	s.	9.6	
9:43	967.6	12.0	34	s.	8.0	884	917.4	6.1	1.57	46	4.33	s.	9.2	
						750	932.3	8.3	.....	42	4.60	s.	8.8	
						500	961.0	12.1	.....	34	4.80	s.	8.2	
9:51	967.6	13.0	32	s.	8.0	444	967.6	13.0	.....	32	4.79	s.	8.0	Few A. St., wnw.

September 21, 1918 (No. 2).

A. M.														
10:26	967.3	13.6	35	s.	7.6	444	967.3	13.6	.....	35	5.45	s.	7.6	Few A. St., wnw.
						500	960.8	12.8	.....	35	5.17	s.	7.9	
						750	932.6	9.0	.....	36	4.13	s.	9.3	
10:40	967.1	14.6	31	s.	8.5	768	930.3	8.7	1.51	36	4.05	s.	9.4	
						1,000	904.4	13.2	.....	37	5.61	s.	13.8	
10:49	967.0	15.5	33	s.	7.2	1,058	898.5	14.3	−1.93	37	6.03	s.	14.9	
						1,250	877.6	13.5	.....	36	5.57	s.	12.6	
						1,500	851.7	12.6	.....	35	5.11	ssw.	9.5	
						1,750	826.4	11.6	.....	35	4.78	sw.	6.4	
						2,000	802.0	10.6	.....	33	4.22	wsw.	3.4	3/10 A. St., wnw.
P. M.														
1:38	965.5	20.0	30	s.	8.0	2,128	789.0	10.1	0.30	33	4.08	wsw.	1.8	
						2,000	802.0	10.4	.....	34	4.29	wsw.	3.1	
						1,750	826.4	10.9	.....	36	4.69	sw.	5.7	
						1,500	851.7	11.5	.....	37	5.02	sw.	8.2	

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 21, 1918 (No. 2)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
1:57	965.2	20.8	28	s.	8.0	1,267	876.0	12.0	0.62	39	5.47	ssw.	10.6	
						1,250	877.6	12.1		39	5.51	ssw.	10.6	
						1,000	904.0	13.7		37	5.80	ssw.	10.2	
2:08	965.1	21.2	28	s.	8.9	853	920.1	15.2	1.42	36	6.22	s.	9.8	
						750	931.3	16.7		34	6.46	s.	9.2	
						500	958.9	20.2		28	6.63	s.	7.6	
2:20	965.0	21.0	27	s.	7.2	444	965.0	21.0		27	6.71	s.	7.2	2/10 A. St., wnw.

September 22, 1918.

P. M.														
4:58	963.5	26.2	23	e.	5.4	444	963.5	26.2		23	7.82	e.	5.4	Few A.St., nw.
						500	957.5	25.4		24	7.79	e.	5.7	
						750	930.5	21.9		28	7.36	e.	6.9	
5:20	963.6	25.6	24	e.	6.3	767	928.6	21.7	1.39	28	7.27	e.	7.0	
						1,000	903.4	19.6		30	6.84	e.	6.9	
						1,250	877.0	17.3		32	6.32	ese.	6.8	
6:27	964.0	20.3	34	ene.	6.3	1,364	865.4	16.3	0.90	33	6.11	ese.	6.8	
						1,500	851.6	15.7		34	6.07	ese.	6.2	
						1,750	826.9	14.5		35	5.78	ese.	5.0	
						2,000	803.0	13.3		37	5.65	se.	3.9	1/10 Ci.St., nw.
						2,250	779.2	12.1		38	5.37	se.	2.8	
7:37	964.4	17.3	40	ene.	6.3	2,261	778.3	12.0	0.47	38	5.33	se.	2.7	
						2,250	779.2	12.0		38	5.33	se.	2.7	
						2,000	803.0	13.2		38	5.76	se.	3.8	
						1,750	827.4	14.4		39	6.40	se.	4.9	
						1,500	852.5	15.5		40	7.04	se.	6.0	
8:17	964.6	16.1	41	ene.	5.4	1,264	876.4	16.6	0.74	40	7.56	se.	7.0	
						1,250	877.9	16.7		40	7.60	se.	7.1	
						1,000	903.4	18.6		36	7.71	se.	9.4	
8:27	964.6	15.5	42	ene.	5.4	831	921.9	19.8	− 1.21	33	7.62	se.	10.9	
						750	930.5	18.8		35	7.60	ese.	9.7	
						500	958.4	15.8		41	7.36	e.	6.2	
8:34	964.7	15.1	43	ene.	5.4	444	964.7	15.1		43	7.38	ene.	5.4	Few Ci.St., nw.

September 23, 1918.

A. M.														
6:41	963.8	8.0	80	ne.	4.5	444	963.8	8.0		80	8.58	ne.	4.5	8/10 Ci. St., wnw.
						500	957.5	9.8		75	9.09	ene.	4.9	
6:52	963.8	8.5	78	ne.	4.9	629	942.6	14.1	− 3.30	62	9.98	ese.	6.0	
						750	929.0	15.4		56	9.80	ese.	5.7	
						1,000	902.0	18.2		45	9.40	ese.	5.0	
8:12	963.4	11.4	71	ne.	5.4	1,122	889.4	19.5	− 1.09	39	8.84	ese.	4.6	
						1,250	876.5	18.6		39	8.36	ese.	4.7	
						1,500	851.4	16.9		40	7.70	se.	4.8	
						1,750	826.5	14.2		41	6.64	sse.	4.9	
8:39	963.2	13.3	64	ene.	6.7	1,962	805.9	13.8	0.68	42	6.63	s.	5.0	
						2,000	802.2	13.5		42	6.50	s.	4.9	
						2,250	778.7	11.6		40	5.46	sse.	4.4	
						2,500	755.9	9.6		37	4.42	se.	3.8	8/10 Ci.St., wsw.
						2,750	733.4	7.6		35	3.65	se.	3.3	
11:29	962.3	22.4	42	e.	7.6	2,968	713.9	5.9	0.86	33	3.07	ese.	2.8	
						2,750	733.4	7.9		33	3.51	se.	4.7	
						2,500	755.9	10.3		33	4.13	se.	6.9	
P. M.														
12:12	962.0	24.2	36	e.	12.1	2,266	777.1	12.5	0.70	33	4.78	sse.	8.9	
						2,250	778.7	12.6		33	4.81	sse.	8.9	
						2,000	801.8	14.5		35	5.78	sse.	9.5	
						1,750	825.9	16.1		37	6.77	se.	10.1	
						1,500	850.5	17.9		40	8.20	se.	10.7	
12:35	961.9	25.1	35	ene	11.6	1,351	865.7	18.9	− 2.01	41	8.95	se.	11.0	
						1,250	876.0	16.9		48	9.24	ese.	10.0	
12:40	961.9	25.5	35	ene.	12.5	1,212	879.9	16.1	1.15	51	9.33	ese.	9.6	
						1,000	902.0	18.5		47	10.01	e.	10.2	
12:50	961.9	25.6	34	e.	12.5	890	913.8	19.8	1.17	45	10.40	e.	10.5	
						750	929.0	21.4		42	10.70	e.	11.1	
						500	956.0	24.3		35	10.64	e.	12.0	
12:58	961.8	25.0	34	e.	12.5	444	961.8	25.0		34	10.77	e.	12.5	6/10 Ci.St., wsw.

September 24, 1918, series (No. 1).

A. M.														
6:43	961.6	10.1	80	ene.	10.7	444	961.6	10.1		80	9.89	ene.	10.7	5/10 Ci.St., nw.; 4/10 A.Cu., w.
						500	955.5	10.5		79	10.03	ene.	11.7	
						750	927.5	12.4		72	10.37	ese.	15.9	
6:51	961.7	10.1	80	ene.	10.7	766	925.3	12.5	−0.74	72	10.43	ese.	16.2	
						1,000	900.0	13.2		64	9.71	ese.	15.3	
						1,250	873.6	14.0		55	8.79	e.	14.8	
						1,500	848.0	14.7		47	7.86	e.	14.0	
7:11	961.8	10.2	80	e.	10.7	1,515	846.7	14.8	−0.31	46	7.74	e.	14.0	
						1,750	823.1	13.0		53	7.94	e.	13.2	
						2,000	800.1	11.2		61	8.11	ese.	12.3	
						2,250	775.8	9.3		69	8.09	ese.	11.4	
						2,500	752.6	7.4		76	7.83	se.	10.6	
7:50	961.8	10.7	81	e.	10.3	2,547	748.4	7.1	0.75	78	7.87	se.	10.4	
						2,750	729.8	6.4		66	6.34	se.	9.5	
						3,000	708.0	5.7		51	4.67	sse.	8.4	

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 24, 1918, series (No. 1)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
8:35	962.0	12.0	78	e.	11.2	3,244	687.3	5.0	0.30	37	3,23	s.	7.3	
						3,250	687.0	4.9		37	3.20	s.	7.3	
						3,500	667.7	2.4		47	3.41	s.	7.2	
						3,750	649.0	−0.1		57	3.45	sse.	7.1	
						4,000	630.8	−2.6		66	3.25	sse.	7.0	9/10 A.Cu., w.
9:23	962.1	13.1	79	e.	11.2	4,019	624.7	−2.8	0.95	67	3.24	sse.	7.0	
						4,000	630.8	−2.6		67	3.30	sse.	7.1	
						3,750	649.8	−0.4		60	3.55	sse.	8.2	
						3,500	669.1	1.8		54	3.76	sse.	9.3	
						3,250	689.3	4.1		47	3.85	s.	10.4	
						3,000	709.7	6.3		41	3.92	s.	11.5	
10:14	962.1	14.4	68	e.	12.5	2,801	726.3	8.1	0.26	36	3.89	s.	12.4	
						2,750	731.0	8.2		38	4.13	s.	12.3	
						2,500	753.4	8.9		49	5.59	sse.	12.0	
						2,250	776.5	9.5		61	7.24	se.	11.7	
10:32	962.1	15.2	66	e.	10.3	2,153	785.6	9.8	0.77	65	7.88	se.	11.6	
						2,000	799.0	11.0		61	8.01	se.	11.6	
						1,750	824.4	12.9		56	8.33	se.	11.6	
						1,500	849.5	14.8		50	8.42	ese.	11.6	
						1,250	874.7	16.7		44	8.36	ese.	11.6	
10:58	962.1	15.9	64	e.	12.5	1,173	882.6	17.3	−1.69	42	8.30	ese.	11.6	
						1,000	901.0	14.0		59	9.68	e.	12.0	
11:07	962.1	16.0	63	e.	12.1	883	913.5	12.4	0.87	71	10.22	e.	12.3	
						750	928.4	13.6		68	10.59	e.	12.4	
						500	956.2	15.7		62	11.06	e.	12.5	
11:14	962.1	16.2	61	e.	12.5	444	962.1	16.2		61	11.24	e.	12.5	10/10 A. St., w.

September 24, 1918, series (No. 2).

A. M.														
11:40	962.1	17.2	61	e.	10.7	444	962.1	17.2		61	11.97	e.	10.7	10/10 A.St., w.
						500	956.0	16.5		63	11.83	e.	10.8	
11:48	962.1	18.4	56	ene.	10.7	754	927.6	13.3	1.26	73	11.15	e.	11.5	
						1,000	901.0	15.4		55	9.62	e.	13.5	
NOON	962.1	18.2	57	ene.	13.4	1,063	894.3	16.0	−0.87	51	9.27	e.	14.0	
						1,250	874.8	14.7		54	9.03	e.	14.0	
						1,500	849.0	13.0		57	8.54	ese.	13.9	
						1,750	824.1	11.2		61	8.11	se.	13.8	
						2,000	800.0	9.5		65	7.72	se.	13.8	
						2,250	776.0	7.8		69	7.30	sse.	13.7	
P. M.														
12:36	961.9	19.6	51	e.	10.7	2,256	775.4	7.7	0.70	69	7.25	sse.	13.7	
						2,500	753.0	7.4		61	6.28	sse.	12.1	
						2,750	730.8	7.1		54	5.45	sse.	10.5	
						3,000	708.6	6.7		46	4.51	sse.	8.9	
1:19	961.7	20.9	46	e.	12.5	3,023	706.3	6.7	0.13	45	4 41	sse.	8.7	4/10 Ci.St., wnw.; 4/10 A.St., w
						3,250	687.3	4.7		50	4.27	se.	9.3	
						3,500	666.7	2.4		55	3.99	ese.	9.9	
						3,750	646.4	0.2		60	3.72	ese.	10.5	
1:39	961.6	21.2	46	e.	12.5	3,941	630.8	−1.5	0.92	64	3.45	e.	11.0	
						3,750	646.4	0.3		60	3.74	e.	10.7	
						3,500	666.7	2.7		56	4.16	ese.	10.3	
						3,250	687.3	5.0		51	4.45	ese.	9.9	
						3,000	708.6	7.4		46	4.74	se.	9.5	
2:00	961.5	21.6	43	e.	12.5	2,998	709.2	7.4	0.08	46	4.73	se.	9.5	
						2,750	730.8	7.6		52	5.43	se.	10.7	
						2,500	753.0	7.8		59	6.24	se.	11.8	
						2,250	776.0	8.0		65	6.97	se.	13.0	
2:23	961.3	21.3	43	e.	12.5	2,148	786.0	8.1	0.92	68	7.34	se.	13.5	
						2,000	800.0	9.5		65	7.72	se.	13.3	
						1,750	824.1	11.7		59	8.11	ese.	12.9	
2:38	961.2	21.0	43	e.	12.5	1,536	845.6	13.7	0.49	54	8.47	e.	12.6	
						1,500	849.0	13.9		54	8.58	e.	12.6	
						1,250	874.8	15.1		53	9.09	e.	13.0	
						1,000	901.0	16.3		52	9.64	e.	13.4	
2:50	961.2	21.0	44	e.	12.5	906	910.7	16.8	0.93	52	9.95	e.	13.5	
						750	927.4	18.2		50	10.45	e.	13.3	
						500	954.9	20.6		46	11.16	e.	13.1	
2:59	961.1	21.1	45	e.	13.0	444	961.1	21.1		45	11.26	e.	13.0	10/10 A.St., ssw.

September 24, 1918, series (No. 3).

P. M.														
3:17	961.2	21.0	45	e.	14.8	444	961.2	21.0		45	11.19	e.	14.8	10/10 A.St., ssw.
						500	955.0	20.4		46	11.03	e.	14.8	
						750	927.5	17.6		49	9.86	e.	14.6	
3:26	961.3	21.0	46	e.	14.8	829	919.1	16.7	1.12	50	9.50	e.	14.6	
						1,000	900.5	15.7		50	8.92	e.	13.3	
						1,250	874.3	14.2		50	8.10	e.	11.3	
						1,500	849.0	12.7		51	7.49	e.	9.4	
3:58	961.5	21.0	44	e.	14.8	1,533	845.7	12.5	0.60	51	7.39	e.	9.1	
						1,750	824.0	11.2		53	7.05	e.	10.1	
						2,000	799.8	9.7		55	6.62	e.	11.3	
						2,250	776.0	8.1		57	6.16	e.	12.4	
						2,500	753.0	6.6		58	5.66	e.	13.6	
						2,750	730.8	5.1		60	5.27	e.	14.7	8/10 A.St., sw.; 2/10 St.Cu., e.
5:38	962.2	19.7	49	e.	9.4	2,825	723.9	4.6	0.61	61	5.17	e.	15.1	
						3,000	708.7	3.6		66	5.22	e.	14.0	
						3,250	687.3	2.1		74	5.26	e.	12.5	
						3,500	666.6	0.6		81	5.17	e.	11.0	
						3,750	646.0	−0.8		89	5.08	e.	9.5	

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 24, 1918, series (No. 3)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
5:53	962.4	19.3	50	e.	8.9	3,849	637.8	—1.4	0.64	92	5.00	e.	8.9	
						3,750	646.0	—0.7		90	5.18	e.	9.1	
						3,500	666.6	1.0		83	5.45	e.	9.6	
						3,250	687.3	3.3		75	5.80	ene.	10.2	
						3,000	708.7	4.4		71	5.94	ene.	10.5	
6:13	962.6	19.0	51	e.	8.0	2,978	710.8	4.6	0.53	70	5.94	ene.	10.6	
						2,750	730.8	5.8		69	6.36	ene.	10.1	
						2,500	753.0	7.1		68	6.86	ene.	9.5	
						2,250	776.7	8.5		67	7.44	ene.	9.0	
						2,000	800.5	9.8		66	8.00	ene.	8.4	
						1,750	825.0	11.1		64	8.45	ene.	7.8	
6:41	962.9	18.7	52	e.	5.8	1,684	831.8	11.5	0.55	64	8.68	ene.	7.7	
						1,500	850.3	12.5		64	9.27	ene.	9.4	
						1,250	875.9	13.9		64	10.16	ene.	11.8	
						1,000	902.2	15.3		64	11.12	ene.	14.1	
7:06	963.2	17.5	54	ene.	6.3	921	910.7	15.7	0.29	64	11.42	ene.	14.9	
						750	929.7	16.2		62	11.42	ene.	12.9	
						500	957.3	16.9		60	11.55	ene.	10.1	
7:16	963.3	17.1	59	ene.	9.4	444	963.3	17.1		59	11.50	ene.	9.4	9/10 St.Cu., e.

September 24, 1918, series (No. 4).

P. M.														
7:36	963.5	16.0	66	ene.	14.3	444	963.5	16.0		66	12.00	ene.	14.3	9/10 St.Cu., e.
						500	957.4	15.9		65	11.75	ene.	14.3	
						750	929.5	15.4		60	10.50	ene.	14.4	
7:45	963.6	15.7	67	ene.	13.4	827	921.0	15.3	0.18	58	10.08	ene.	14.4	
						1,000	902.0	14.3		57	9.29	ene.	12.4	
						1,250	875.9	12.9		54	8.04	e.	9.4	3/10 St.Cu., e.
						1,500	850.8	11.4		52	7.01	ese.	6.4	
9:35	964.4	12.8	77	ene.	14.3	1,653	835.3	10.5	0.58	51	6.48	ese.	4.6	
						1,750	826.0	9.5		54	6.41	ese.	5.1	
						2,000	801.5	7.1		63	6.36	ese.	6.5	
						2,250	777.4	4.6		71	6.02	ese.	7.9	
9:40	964.4	12.8	77	ene.	14.3	2,387	764.1	3.2	0.99	76	5.84	ese.	8.7	
						2,500	753.6	2.8		77	5.75	ese.	8.9	
						2,750	730.7	1.8		80	5.57	ese.	9.5	
						3,000	708.3	0.9		83	5.41	ese.	10.1	
						3,250	687.0	0.0		86	5.25	ese.	10.6	
						3,500	666.0	—1.0		89	5.00	ese.	11.2	
9:50	964.4	12.7	79	ene.	16.1	3,553	661.1	—1.2	0.41	90	4.98	ese.	11.3	6/10 A.St.
						3,500	666.0	—1.0		90	5.06	ese.	11.1	
						3,250	687.0	0.1		92	5.66	ese.	10.4	
						3,000	708.3	1.2		93	6.19	ese.	9.6	
						2,750	730.7	2.3		95	6.85	ese.	8.9	
10:15	964.6	12.7	79	ene.	16.1	2,594	744.9	3.0	0.81	96	7.28	ese.	8.4	
						2,500	753.6	3.6		93	7.36	ese.	8.5	
						2,250	777.4	5.8		84	7.74	ese.	8.7	
						2,000	801.5	7.8		76	8.04	ese.	8.9	
						1,750	826.0	9.8		67	8.12	e.	9.2	
10:47	964.7	11.7	87	ene.	13.4	1,594	841.4	11.1	0.59	62	8.19	e.	9.3	
						1,500	851.2	11.7		63	8.66	e.	9.9	
						1,250	876.8	13.1		65	9.80	e.	11.6	
						1,000	903.4	14.6		67	11.14	e.	13.2	
11:04	964.8	11.6	88	ene.	13.4	882	915.9	15.3	—0.91	68	11.82	e.	14.0	
						750	930.9	14.1		74	11.91	ene.	13.8	
						500	958.8	11.8		86	11.90	ne.	13.5	
11:15	964.9	11.3	89	ne.	13.4	444	964.9	11.3		89	11.92	ne.	13.4	6/10 A.Cu., e.

September 24-25, 1918, series (No. 5).

P. M.														
11:32	965.0	11.0	90	ne.	5.8	444	965.0	11.0		90	11.82	ne.	5.8	6/10 St.Cu., e.
						500	959.0	11.5		87	11.81	ne.	7.2	
						750	930.8	13.9		73	11.59	ene.	13.5	
11:44	965.1	10.5	90	nne.	5.4	862	918.2	15.0	—0.96	67	11.42	ene.	16.3	
						1,000	903.3	14.3		65	10.60	ene.	15.5	
						1,250	876.8	12.8		61	9.07	ene.	14.1	
						1,500	851.0	11.6		57	7.79	e.	12.7	
A. M.														
12:07	965.3	10.2	93	nne.	5.8	1,563	844.7	11.0	0.57	56	7.35	e.	12.3	
						1,750	826.0	9.4		61	7.19	e.	11.0	
						2,000	801.8	7.4		69	7.11	e.	9.0	
						2,250	778.0	5.2		76	6.73	e.	7.6	
1:08	965.9	9.4	93	nne.	6.7	2,351	768.5	4.4	0.84	79	6.61	e.	6.9	
						2,500	754.5	3.8		80	6.42	e.	7.7	
						2,750	731.8	2.8		81	6.05	e.	9.1	
						3,000	709.7	1.9		82	5.75	e.	10.5	
1:45	966.1	8.6	93	nne.	4.9	3,092	701.2	1.5	0.39	82	5.58	e.	11.0	Few St.Cu., e.; 9/10 St., ene.
						3,250	688.0	0.8		76	4.92	e.	10.9	
						3,500	667.0	− 0.3		66	3.93	e.	10.8	
						3,750	646.0	− 1.4		56	3.05	e.	10.7	
1:58	966.2	8.4	95	n.	4.5	3,939	630.9	− 2.2	0.49	48	2.44	e.	10.6	
						3,750	646.0	− 1.2		54	2.99	e.	11.8	
						3,500	667.0	0.2		61	3.78	e.	13.4	
						3,250	688.4	1.5		68	4.63	ene.	16.2	
						3,000	710.1	2.9		76	5.72	ene.	17.0	
2:27	966.5	9.0	95	n.	5.4	2,901	718.5	3.4	0.45	79	6.16	ene.	17.3	
						2,750	732.1	4.1		78	6.39	ene.	16.9	
						2,500	754.9	5.2		76	6.73	ene.	16.2	
						2,250	778.5	6.3		74	7.07	ene.	15.6	
						2,000	802.8	7.4		72	7.42	ene.	14.9	

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 24-25, 1918, series (No. 5)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
2:45	966.7	9.0	95	nne.	6.7	1,958	806.4	7.6	0.97	72	7.52	ene.	14.8	
						1,750	827.5	9.6		68	8.13	ene.	13.5	
						1,500	852.8	12.0		63	8.84	ene.	11.8	
						1,250	878.0	14.5		58	9.58	ene.	10.2	
3:06	967.0	9.0	95	nne.	7.6	1,196	883.8	15.0	−1.25	57	9.72	ene.	9.8	
						1,000	904.7	12.6		78	11.38	ene.	10.3	
3:14	967.1	9.0	95	nne.	7.6	829	923.3	10.4	−0.36	97	12.23	ene.	10.8	
						750	932.4	10.1		97	11.99	ene.	10.1	
						500	961.0	9.2		95	11.06	nne.	7.7	
3:20	967.1	9.0	95	nne.	7.2	444	967.1	9.0		95	10.91	nne.	7.2	10/10 St., ene.

September 25, 1918, series (No. 6).

A. M.														
3:52	967.5	8.6	95	nne.	6.7	444	967.5	8.6		95	10.61	nne.	6.7	10/10 St., ene.
						500	961.0	8.7		96	10.80	nne.	7.2	
						750	932.6	9.3		99	11.60	ene.	9.4	
4:00	967.6	8.6	95	nne.	6.3	788	928.4	9.4	−0.23	99	11.67	ene.	9.7	
						1,000	905.0	12.0		75	10.52	ene.	8.3	
4:28	967.9	8.4	95	nne.	6.3	1,128	891.8	13.6	−1.24	61	9.50	ene.	7.5	
						1,250	878.9	12.4		63	9.07	ene.	8.1	
						1,500	853.0	9.9		67	8.17	ene.	9.2	
						1,750	827.9	7.4		72	7.42	ene.	10.4	
4:47	968.1	8.4	95	nne.	4.9	1,874	815.5	6.2	0.99	74	7.02	ene.	11.0	Dense fog.
						2,000	803.0	5.7		69	6.32	ene.	11.3	
						2,250	778.9	4.8		60	5.16	ene.	12.0	
						2,500	755.3	3.9		50	4.04	ene.	12.6	
						2,750	732.7	3.0		40	3.03	ene.	13.2	
						3,000	710.8	2.0		30	2.22	ene.	13.9	
6:05	969.0	7.7	98	nne.	6.3	3,008	709.7	2.0	0.37	30	2.12	ene.	13.9	
						3,250	688.8	0.8		27	1.75	ene.	13.2	Dense fog.
						3,500	667.9	− 0.5		23	1.35	ene.	12.5	
						3,750	647.9	− 1.8		20	1.05	ene.	11.7	
6:39	969.4	7.4	98	nne.	6.3	3,956	631.1	− 2.9	0.65	17	0.82	ene.	11.1	
						3,750	648.0	− 1.3		17	0.93	ene.	11.1	
						3,500	668.9	0.7		16	1.03	ene.	11.0	
						3,250	690.0	2.6		16	1.18	ene.	10.9	
						3,000	711.8	4.6		15	1.27	ene.	10.8	
7:11	969.7	7.4	98	nne.	6.3	2,855	724.3	5.7	−0.59	15	1.37	ene.	10.8	
						2,750	734.0	5.1		26	2.29	ene.	10.2	
7:17	969.7	7.5	97	nne.	7.2	2,531	753.8	3.8	0.59	49	3.93	ene.	9.1	
						2,500	756.9	4.0		51	4.15	ene.	9.1	
						2,250	780.8	5.5		69	6.23	ene.	8.6	
7:29	969.7	7.7	97	nne.	8.9	2,059	798.8	6.6	0.64	82	8.00	ene.	8.2	
						2,000	804.6	7.0		80	8.02	ene.	8.7	
						1,750	829.0	8.6		70	7.82	ene.	10.8	
						1,500	854.0	10.2		61	7.59	ne.	13.0	
7:43	969.8	7.7	98	nne.	8.9	1,296	875.8	11.5	0.35	53	7.19	ne.	14.7	
						1,250	880.2	11.7		56	7.70	ne.	14.4	
						1,000	907.0	12.5		72	10.43	ne.	13.0	
7:53	969.9	7.9	97	nne.	8.9	869	921.6	13.0	−1.20	81	12.13	ne.	12.2	
						750	934.8	11.6		85	11.61	ne.	11.3	
						500	963.4	8.6		95	10.61	nne.	9.3	
7:59	969.9	7.9	97	nne.	8.9	444	969.9	7.9		97	10.33	nne.	8.9	10/10 St., ne.; light fog, nne.

September 25, 1918, series (No. 7).

A. M.														
8:38	970.2	8.1	97	nne.	8.0	444	970.2	8.1		97	10.48	nne.	8.0	10/10 St., ne.; light fog, nne.
						500	964.0	8.8		94	10.65	nne.	9.0	Altitude of St. base about 500 m.
						750	936.0	11.7		78	10.72	ne.	● 13.6	
8:51	970.2	8.2	97	nne.	8.9	850	924.1	12.9	−1.18	72	10.71	ne.	15.4	
						1,000	908.4	12.2		74	10.52	ne.	13.8	
9:02	970.3	8.6	96	nne.	7.2	1,180	888.4	11.3	0.48	76	10.18	ene.	11.9	2/10 St.Cu., ne.
						1,250	882.0	10.9		75	9.78	ene.	11.7	
						1,500	856.4	9.7		73	8.78	ene.	11.1	
						1,750	832.0	8.4		70	7.71	ne.	10.5	
10:38	971.2	14.7	71	nne.	8.5	1,957	811.4	7.4	0.50	68	7.00	ne.	10.0	
						2,000	807.5	7.2		66	6.70	ne.	10.2	
						2,250	783.0	5.9		57	5.30	ne.	11.2	
						2,500	759.0	4.6		48	4.07	ne.	12.2	
						2,750	736.0	3.0		38	2.88	ne.	13.2	
						3,000	714.0	2.1		27	1.92	ne.	14.2	
						3,250	692 8	0.8		20	1.29	ne.	15.2	
11:25	971.3	17.0	64	ne.	7.6	3,270	690.7	0.7	0.70	19	1.22	ne.	15.2	
						3,250	692.8	0.9		19	1.24	ne.	15.1	
						3,000	714.0	3.1		19	1.45	ne.	13.5	Cloudless.
						2,750	736.0	5.3		18	1.60	ne.	11.9	
11:49	971.3	18.0	57	ne.	8.9	2,739	736.9	5.4	0.58	18	1.61	ne.	11.8	
						2,500	759.0	6.8		18	1.78	ne.	11.8	
						2,250	783.0	8.2		17	1.85	ne.	11.9	
NOON	971.3	18.4	54	ne.	10.7	2,186	788.6	8.6	0.21	17	1.90	ne.	11.9	
						2,000	807.5	9.0		21	2.41	ne.	10.8	
						1,750	832.0	9.5		25	2.97	ne.	9.3	
P. M.														
12:20	971.3	18.6	49	ne.	8.0	1,509	855.8	10.0	0.64	30	3.68	ne.	7.8	
						1,500	856.5	10.0		33	4.05	ne.	7.8	
						1,250	884.0	11.6		41	5.60	ne.	8.1	
						1,000	910.7	13.2		52	7.89	ne.	8.3	
12:37	971.3	19.2	50	ne.	8.0	853	925.8	14.2	1.17	58	9.39	ne.	8.5	
						750	938.0	15.4		54	9.45	ne.	8.4	
						500	965.5	18.3		46	9.67	ne.	8.1	
12:43	971.3	19.0	44	ne.	8.0	444	971.3	19.0		44	9.67	ne.	8.0	Cloudless.

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 25, 1918, series (No. 8).

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
1:14	971.2	19.0	44	ne.	6.3	444	971.2	19.0	.....	44	9.66	ne.	6.3	Cloudless.
						500	964.9	18.5	.....	41	8.73	ne.	6.8	
2:02	970.9	20.2	37	ne.	7.2	714	940.6	16.4	0.96	31	5.78	ne.	8.7	
						750	937.0	16.1	.....	31	5.67	ne.	8.8	
						1,000	909.5	13.8	.....	31	4.89	ne.	9.3	
						1,250	882.9	11.6	.....	32	4.37	nne.	9.8	
2:44	970.7	21.0	27	ne.	6.7	1,258	881.8	11.5	0.90	32	4.34	nne.	9.8	
						1,500	857.0	10.7	.....	27	3.47	nne.	9.3	
						1,750	831.2	9.8	.....	22	2.67	nne.	8.7	
3:35	970.6	21.0	26	nne.	8.9	1,966	809.5	9.0	0.24	18	2.07	nne.	8.2	
						1,750	831.2	9.2	.....	18	2.10	nne.	8.3	
4:06	970.6	21.0	23	nne.	5.4	1,630	843.1	9.4	0.82	18	2.12	nne.	8.4	
						1,500	857.0	10.5	.....	19	2.41	nne.	8.6	
4:18	970.7	21.0	23	nne.	5.4	1,290	878.6	12.2	0.96	21	2.98	nne.	9.0	
						1,250	882.9	12.6	.....	21	3.06	nne.	9.0	
						1,000	909.5	15.0	.....	23	3.92	nne.	8.8	
4:32	970.8	21.0	23	nne.	6.3	791	932.1	17.0	1.15	25	4.84	nne.	8.6	
						750	937.0	17.5	.....	25	5.00	nne.	8.5	
						500	964.9	20.4	.....	23	5.51	nne.	8.1	
4:45	970.8	21.0	23	nne.	8.0	444	970.8	21.0	.....	23	5.72	nne.	8.0	Cloudless.

September 27, 1918 (No. 1).

A. M.														
6:28	970.5	11.1	56	w.	5.4	444	970.5	11.1	.....	56	7.40	w.	5.4	9/10 Ci.St., ne.
						500	964.8	12.5	.....	54	7.82	w.	7.3	
6:32	970.4	11.1	56	w.	5.4	752	935.7	18.6	−2.44	42	9.00	w.	15.7	
						1,000	909.2	16.2	.....	47	8.66	w.	14.5	
						1,250	882.7	13.8	.....	51	8.05	w.	13.3	
						1,500	856.5	11.5	.....	56	7.60	w.	12.1	
7:02	970.3	11.4	55	w.	4.9	1,553	851.0	11.0	0.95	57	7.48	w.	11.8	
						1,750	831.0	9.0	.....	62	7.12	w.	11.4	
7:14	970.2	12.7	51	w.	5.4	1,936	812.7	7.0	1.04	66	6.61	w.	11.0	
						2,000	806.4	7.3	.....	56	5.73	w.	12.0	
7:33	970.1	12.9	51	w.	4.9	2,216	785.4	8.5	−0.54	22	2.44	w.	15.3	
						2,250	782.5	8.2	.....	22	2.39	w.	15.3	
						2,500	759.1	6.3	.....	21	2.01	w.	14.9	
						2,750	736.2	4.3	.....	20	1.66	w.	14.6	
7:57	969.9	14.5	47	w.	3.6	2,889	723.6	3.2	0.79	20	1.54	w.	14.4	
						3,000	713.6	2.5	.....	21	1.54	w.	14.9	
						3,250	691.4	1.0	.....	23	1.51	w.	16.0	
						3,500	670.0	−0.5	.....	24	1.41	w.	17.1	
						3,750	649.8	−2.0	.....	26	1.34	w.	18.2	
						4,000	630.0	−3.5	.....	28	1.28	w.	19.3	
8:45	969.4	18.3	36	w.	6.7	4,117	621.0	−4.2	0.60	29	1.25	w.	19.8	
						4,250	610.9	−4.6	.....	29	1.20	w.	19.4	
						4,500	592.3	−5.4	.....	28	1.09	w.	18.6	
						4,750	573.8	−6.0	.....	27	0.99	w.	17.8	
9:20	969.0	20.6	32	w.	7.2	4,863	565.3	−6.5	0.46	27	0.95	w.	17.5	4/10 Ci.St., ne.
						4,750	573.8	−5.9	.....	27	0.92	w.	17.5	
						4,500	592.3	−4.6	.....	28	1.16	w.	17.4	
						4,250	610.9	−3.3	.....	28	1.30	w.	17.3	
10:17	968.3	22.6	35	w.	7.6	4,010	629.4	−2.1	0.64	29	1.49	w.	17.2	
						4,000	630.0	−2.0	.....	29	1.50	w.	17.2	
						3,750	649.8	−0.4	.....	27	1.60	w.	16.8	
						3,500	670.0	1.2	.....	25	1.66	w.	16.5	
						3,250	691.4	2.7	.....	23	1.71	w.	16.2	
						3,000	713.6	4.3	.....	22	1.83	w.	15.8	
10:46	967.8	23.6	33	w.	6.7	2,789	732.3	5.7	0.88	20	1.83	w.	15.5	
						2,750	736.0	6.0	.....	20	1.87	w.	15.7	
						2,500	758.4	8.2	.....	20	2.17	w.	17.3	
11:03	967.6	23.2	33	w.	7.6	2,333	773.5	9.7	−1.14	20	2.41	w.	18.4	8/10 Ci.St., ne.
						2,250	781.5	8.8	.....	20	2.27	w.	16.9	
11:07	967.5	23.4	34	w.	7.6	2,175	788.4	7.9	0.98	21	2.24	w.	15.6	
						2,000	805.6	9.6	.....	30	3.58	w.	15.7	
						1,750	830.0	12.1	.....	43	6.07	w.	15.8	
						1,500	855.2	14.5	.....	56	9.25	w.	15.9	
11:22	967.3	24.0	33	w.	7.6	1,482	857.1	14.7	0.83	57	9.54	w.	15.9	
						1,250	881.0	16.6	.....	53	10.01	w.	14.9	
						1,000	907.2	18.0	.....	49	10.11	w.	13.8	
11:40	967.1	24.8	34	w.	7.2	857	922.2	19.9	1.14	46	10.69	w.	13.2	
						750	934.0	21.1	.....	43	10.76	w.	11.3	
						500	961.0	24.0	.....	36	10.74	w.	10.3	
11:47	967.1	24.6	34	w.	9.8	444	967.1	24.6	.....	34	10.52	w.	9.8	8/10 Ci.St., ne.

September 27, 1918 (No. 2).

P. M.														
12:15	966.7	25.6	32	w.	9.8	444	966.7	25.6	.....	32	10.51	w.	9.8	8/10 Ci.St., ne.
						500	960.9	24.6	.....	32	9.90	w.	10.2	
12:21	966.5	25.0	33	w.	8.0	727	935.4	20.4	1.84	34	8.15	w.	11.7	
						750	933.0	20.2	.....	34	8.05	w.	11.7	
						1,000	906.0	18.1	.....	40	8.31	w.	11.7	
						1,250	880.0	16.0	.....	46	8.36	w.	11.8	
12:44	966.2	25.5	30	w.	9.8	1,439	860.4	14.4	0.84	59	8.20	w.	11.8	
						1,500	854.8	13.7	.....	52	8.15	w.	11.9	
						1,750	829.9	11.2	.....	60	7.98	w.	12.2	
						2,000	805.0	8.6	.....	68	7.60	wnw.	12.4	
						2,250	780.9	6.0	.....	77	7.20	wnw.	12.8	
1:00	965.9	25.9	33	w.	7.2	2,293	776.3	5.6	1.03	78	7.10	wnw.	12.8	
						2,500	757.0	5.1	.....	66	5.80	wnw.	13.7	
						2,750	733.9	4.5	.....	51	4.29	wnw.	14.8	
						3,000	711.0	3.9	.....	37	2.99	wnw.	16.0	

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 27, 1918 (No. 2)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
1:26	965.3	25.9	33	wnw.	8.5	3,078	704.4	3.7	0.24	32	2.55	wnw.	16.3	
						3,250	689.5	2.8		31	2.32	wnw.	16.2	
						3,500	668.3	1.6		30	2.06	wnw.	16.0	
						3,750	648.0	0.3		29	1.81	wnw.	15.8	
						4,000	628.0	−0.9		28	1.59	wnw.	15.6	
1:58	964.5	26.2	28	wnw.	10.7	4,030	625.9	−1.1	0.50	28	1.56	wnw.	15.6	
						4,000	628.0	−1.0		28	1.57	wnw.	15.6	
						3,750	648.0	0.3		30	1.87	wnw.	16.1	
						3,500	668.3	1.6		32	2.20	wnw.	16.5	
						3,250	689.5	2.8		34	2.54	wnw.	16.9	
						3,000	711.0	4.0		35	2.85	wnw.	17.3	
2:58	963.8	26.6	29	wnw.	10.7	2,797	729.0	5.1	0.68	37	3.25	wnw.	17.7	
						2,750	733.0	5.4		39	3.50	wnw.	17.6	
						2,500	756.0	7.1		50	5.04	wnw.	17.0	
						2,250	779.5	8.8		60	6.80	wnw.	16.4	
3:25	963.7	25.9	34	wnw.	11.2	2,121	791.5	9.7	0.86	66	7.94	wnw.	16.1	
						2,000	803.4	10.7		64	8.24	wnw.	15.8	
						1,750	827.9	12.9		60	8.93	wnw.	15.3	
3:39	963.6	25.5	31	wnw.	11.2	1,573	845.0	14.4	0.94	57	9.35	wnw.	14.9	
						1,500	852.8	15.1		56	9.61	wnw.	14.7	
						1,250	878.0	17.4		51	10.13	wnw.	13.9	
						1,000	904.0	19.8		47	10.86	wnw.	13.2	
3:55	963.5	25.7	31	wnw.	7.2	878	916.7	20.9	1.22	45	11.12	wnw.	12.8	
						750	930.8	21.5		41	10.52	wnw.	11.6	
						500	957.7	25.5		33	10.77	wnw.	9.4	
4:04	963.5	26.2	31	wnw.	8.9	444	963.5	26.2		31	10.55	wnw.	8.9	4/10 Ci., n.; 2/10 Ci.St., n.; 2/10 A.St., n.

September 27, 1918 (No. 3).

P. M.														
4:26	963.3	25.5	32	wnw.	11.2	444	963.3	25.5		32	10.44	wnw.	11.2	4/10 Ci., n.; 2/10 Ci.St., n.; 2/10 A.St., n.
						500	957.6	24.8		33	10.33	wnw.	12.3	
						750	930.5	21.9		36	9.46	wnw.	17.1	
4:34	963.3	25.5	32	wnw.	10.3	764	928.5	21.7	1.19	36	9.35	wnw.	17.4	
						1,000	904.0	19.3		42	9.40	wnw.	17.5	
						1,250	877.9	16.8		49	9.37	wnw.	17.7	
4:46	963.2	25.6	34	wnw.	8.9	1,292	873.2	16.4	1.00	50	9.32	wnw.	17.7	
						1,500	852.0	14.1		59	9.49	wnw.	18.0	
						1,750	826.9	11.4		70	9.44	wnw.	18.4	
5:04	963.1	24.6	35	wnw.	9.4	1,858	816.1	10.2	1.10	75	9.34	wnw.	18.6	
						2,000	802.4	9.3		73	8.56	wnw.	19.6	
						2,250	778.6	7.8		68	6.14	wnw.	21.4	
						2,500	755.4	6.3		63	6.02	wnw.	23.2	
						2,750	732.8	4.7		59	5.04	wnw.	25.0	
5:19	963.1	23.7	37	wnw.	11.2	2,964	713.3	3.4	0.61	55	4.29	wnw.	26.6	
						3,000	710.4	3.3		54	4.18	wnw.	26.1	
						3,250	689.0	2.9		43	3.24	wnw.	22.9	
						3,500	668.5	2.5		33	2.41	wnw.	19.6	
5:36	963.1	22.6	39	wnw.	8.0	3,596	660.3	2.3	0.36	29	2.09	wnw.	18.4	
						3,500	668.5	2.8		29	2.17	wnw.	18.3	2/10 Ci.St., n.; kites broke away.
6:02	963.1	21.8	42	wnw.	5.8	3,255	688.9	4.2		30	2.48	wnw.	17.9	

September 28, 1918 (No. 1).

A. M.														
8:20	967.4	10.4	60	n.	6.7	444	967.4	10.4		60	7.57	n.	6.7	Cloudless.
						500	960.8	10.4		60	7.57	n.	6.7	
8:38	967.6	11.3	56	n.	5.8	635	945.7	10.3	0.05	58	7.27	nne.	6.5	
						750	933.0	9.7		57	6.86	nne.	5.8	
						1,000	905.8	8.5		56	6.22	nne.	4.2	
9:47	967.9	14.6	40	nne.	5.8	1,169	887.3	7.6	0.56	55	5.74	nne.	3.1	
						1,000	905.8	8.6		56	6.26	nne.	3.5	
9:49	967.9	14.7	40	nne.	6.3	934	912.9	9.0	1.23	56	6.43	nne.	3.6	
						750	933.0	11.2		50	6.65	nne.	4.6	
						500	961.7	14.3		41	6.68	nne.	6.0	
9:53	967.9	15.0	39	nne.	6.3	444	967.9	15.0		39	6.65	nne.	6.3	1/10 Ci.Cu., s.

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P. M.														
1:42	965.8	19.0	35	nnw.	7.6	444	965.8	19.0		35	7.69	nnw.	7.6	3/10 St.Cu., nw.
						500	959.8	18.4		35	7.41	nnw.	8.2	
						750	932.0	15.7		36	6.42	nw.	10.6	
1:50	965.7	19.2	31	nnw.	6.7	785	927.9	15.3	1.09	36	6.26	nw.	11.0	
						1,000	904.7	13.1		40	6.03	nw.	10.0	
						1,250	878.0	10.5		45	5.72	nw.	8.8	
2:17	965.3	19.6	31	nw.	7.6	1,379	863.9	9.2	1.04	48	5.59	nw.	8.2	
						1,250	877.0	10.6		46	5.88	nw.	8.3	
						1,000	903.6	13.2		44	6.67	nw.	8.6	
2:45	965.0	19.5	31	nw.	8.5	793	926.3	15.4	1.26	41	7.18	nw.	8.8	
						750	930.8	15.9		40	7.23	nw.	8.8	
						500	958.5	19.1		33	7.30	nw.	8.9	
2:56	964.8	19.8	31	nw.	8.9	444	964.8	19.8		31	7.16	nw.	8.9	

TABLE 12.—*Free-air data from kite flights at Ellendale Aerological Station, September, 1918*—Continued.

September 29, 1918.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
7:00	966.2	5.8	81	nne.	6.3	444	966.2	5.8	.....	81	7.47	nne.	6.3	2/10 Ci.St., nw.; 8/10 St., ne.
						500	960.0	5.4	.....	83	7.45	nne.	7.4	
						750	931.0	3.7	.....	90	7.16	ne.	12.3	
7:07	966.3	5.8	81	nne.	5.8	850	919.3	3.0	0.69	93	7.05	ne.	14.2	Altitude of St. base about 850 m
						1,000	903.0	2.8	.....	87	6.50	ne.	12.2	
						1,250	875.8	2.4	.....	76	5.52	ne.	8.8	
7:30	966.7	6.2	84	ne.	9.4	1,315	868.5	2.3	0.15	73	5.26	ne.	7.9	
						1,500	849.8	3.2	.....	61	4.69	ne.	8.4	
						1,750	823.7	4.4	.....	44	3.68	ne.	9.2	
						2,000	798.5	5.6	.....	27	2.46	ne.	9.9	
7:44	966.9	6.2	84	ne.	9.4	2,037	794.6	5.8	−0.48	25	2.30	ne.	10.0	
						2,250	774.0	5.7	.....	20	1.83	nne.	11.2	
						2,500	750.7	2.8	.....	19	1.42	n.	12.5	
						2,750	728.0	1.1	.....	15	0.99	nnw.	13.9	
						3,000	705.7	−0.5	.....	11	0.64	nw.	15.2	10/10 St., ne.
8:36	967.8	6.3	83	ne.	8.0	3,101	696.8	−1.2	0.54	10	0.55	nw.	15.8	
						3,000	706.4	−0.8	.....	12	0.69	nw.	15.4	
						2,750	729.1	0.3	.....	19	1.19	nw.	14.5	
						2,500	751.8	1.4	.....	25	1.69	nw.	13.5	
9:36	968.4	7.5	76	ne.	9.4	2,341	766.1	2.1	0.32	29	2.06	nw.	12.9	
						2,250	775.0	2.4	.....	29	2.11	nw.	12.1	
						2,000	799.0	3.2	.....	28	2.15	nw.	10.1	
9:45	968.5	7.5	76	ne.	9.4	1,787	820.5	3.9	−1.44	27	2.18	nw.	8.3	
						1,750	824.0	3.4	.....	32	2.50	nw.	9.1	
9:50	968.5	7.5	73	ne.	8.5	1,578	842.0	0.9	0.33	56	3.65	nw.	13.1	Altitude of St. base about 950 m.
						1,500	850.0	1.1	.....	59	3.91	nw.	12.6	
						1,250	876.8	2.0	.....	67	4.73	n.	10.8	
						1,000	904.2	2.8	.....	76	5.68	nne.	9.1	
10:02	968.6	8.0	70	ne.	9.8	786	929.0	3.5	1.32	83	6.52	ne.	7.6	
						750	933.0	4.0	.....	82	6.67	ne.	7.6	
						500	962.0	7.3	.....	72	7.37	ne.	7.3	
10:09	968.6	8.0	70	ne.	7.2	444	968.6	8.0	.....	70	7.51	ne.	7.2	10/10 St., ne.

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A. M.														
6:33	974.0	1.7	90	nw.	5.8	444	974.0	1.7	.....	90	6.22	nw.	5.8	2/10 Ci.St., w.
						500	967.8	1.9	.....	89	6.24	nw.	5.7	
						750	938.0	2.7	.....	85	6.31	nnw.	5.3	
7:56	974.3	2.6	81	nnw.	4.9	805	931.8	3.2	−0.33	82	6.31	n.	5.1	
						1,000	909.4	2.4	.....	78	5.66	n.	5.4	
						1,250	881.7	1.8	.....	76	4.59	n.	5.7	
8:28	974.3	5.4	75	n.	4.5	1,479	857.1	0.4	0.38	71	4.47	n.	6.2	
						1,250	881.7	1.2	.....	74	4.93	n.	6.0	
						1,000	909.4	2.0	.....	77	5.44	n.	5.8	
						750	938.0	2.8	.....	80	5.98	nne.	5.5	
8:38	974.3	6.0	73	nne.	3.6	637	951.5	3.2	1.45	81	6.23	nne.	5.4	
						500	967.8	5.2	.....	75	6.64	n.	4.1	
8:43	974.3	6.0	73	n.	3.6	444	974.3	6.0	.....	73	6.83	n.	3.6	2/10 Ci.St., w.

September 30, 1918 (No. 2).

P. M.														
6:11	970.2	9.6	40	ssw.	4.5	444	970.2	9.6	.....	40	4.78	ssw.	4.5	Few A.St., nw.
						500	964.4	9.4	.....	41	4.83	ssw.	5.1	
						750	935.4	8.7	.....	44	4.95	ssw.	7.7	
6:18	970.1	8.9	44	ssw.	4.9	761	933.7	8.7	0.28	44	4.95	ssw.	7.8	
						1,000	906.5	6.4	.....	48	4.61	ssw.	10.3	
						1,250	878.9	4.1	.....	51	4.18	sw.	13.0	
						1,500	852.0	3.1	.....	53	4.04	sw.	14.0	
6:40	969.8	7.0	49	ssw.	4.9	1,510	851.0	1.6	0.95	55	3.77	sw.	15.7	
						1,750	825.5	−0.8	.....	61	3.48	sw.	14.9	
						2,000	800.4	−3.2	.....	67	3.10	sw.	14.0	
6:54	969.7	6.1	47	ssw.	4.9	2,118	788.2	−4.4	0.99	70	2.95	sw.	13.6	
						2,250	775.1	−3.4	.....	52	2.39	sw.	12.8	
7:26	969.2	4.8	53	ssw.	4.5	2,495	750.8	−1.4	−0.80	19	1.03	sw.	11.4	Aurora from 7:25 to 8:40 p. m.
						2,750	726.2	−3.0	.....	18	0.86	sw.	12.2	
						3,000	703.2	−4.6	.....	18	0.75	sw.	12.7	
						3,250	681.3	−6.2	.....	17	0.62	sw.	13.4	
						3,500	660.0	−7.8	.....	17	0.54	sw.	14.1	
7:57	968.6	3.8	54	ssw.	4.9	3,663	646.4	−8.8	0.60	16	0.46	sw.	14.5	
						3,500	660.0	−7.9	.....	16	0.50	sw.	14.1	
						3,250	681.3	−6.5	.....	17	0.60	sw.	13.5	
						3,000	703.2	−5.0	.....	17	0.68	sw.	12.8	
						2,750	726.2	−3.6	.....	18	0.81	sw.	12.2	
						2,500	750.0	−2.2	.....	18	0.92	sw.	11.5	
						2,250	774.0	−0.8	.....	19	1.08	sw.	10.9	
8:23	968.6	3.8	54	ssw.	5.4	2,215	777.7	−0.6	−2.87	19	1.10	sw.	10.8	
8:30	968.6	3.7	56	ssw.	5.4	2,079	791.2	−4.5	0.89	56	2.35	sw.	18.3	
						2,000	799.5	−3.8	.....	57	2.53	sw.	18.1	
						1,750	825.5	−1.6	.....	59	3.16	sw.	17.4	
						1,500	851.4	0.7	.....	62	3.99	ssw.	16.7	
						1,250	877.7	2.9	.....	64	4.82	ssw.	16.0	
8:45	968.6	2.5	60	ssw.	4.9	1,194	883.8	3.4	1.13	65	5.07	ssw.	15.8	
						1,000	905.0	5.6	.....	58	5.28	ssw.	16.4	
						750	933.6	8.4	.....	49	5.40	ssw.	17.1	
9:01	968.6	2.7	58	ssw.	5.8	744	933.7	8.5	−1.83	49	5.44	ssw.	17.1	
						500	962.5	4.0	.....	56	4.55	ssw.	8.7	
9:08	968.6	3.0	58	ssw.	6.7	444	968.6	3.0	.....	58	4.40	ssw.	6.7	3/10 A.St., nw.

TABLE 13.—*Free-air data from kite flights at Royal Center Aerological Station, July, 1918.*

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
July 12, 1918.														
P. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	
6:58	994.6	20.0	56	nnw.	4.5	225	994.6	20.0		56	13.09	nnw.	4.5	2/10 A.St., n.; 1/10 Cu., n.
						250	992.0	19.9				nnw.	4.8	
						500	964.0	18.4				nnw.	7.6	
7:04	994.6	19.0	74	nnw.	4.0	642	947.5	17.6	0.58			nnw.	9.2	
						750	936.2	16.9				n.	8.6	
						1,000	908.6	15.3				nne.	7.3	
						1,250	882.0	13.6				ne.	6.0	2/10 A.St., n.; 1/10 St.Cu., n.
7:28	994.6	18.2	71	nnw.	4.0	1,271	879.8	13.5	0.65			ne.	5.9	
						1,500	856.0	11.5				ne.	5.2	
8:19	994.7	17.3	70	n.	4.0	1,707	835.0	9.6	0.83			ne.	4.5	
						1,500	856.0	11.2				ne.	5.1	
						1,250	882.0	13.1				ne.	5.8	
						1,000	908.6	15.0				nne.	6.5	
						750	935.5	16.9				nne.	7.2	
8:57	994.9	15.8	76	n.	3.1	631	948.9	17.8	0.49			nne.	7.5	
						500	963.2	18.4				nne.	11.0	
9:00	994.9	15.7	77	n.	3.1	447	969.5	18.7	−1.41			nne.	12.4	
						250	991.2	15.9				n.	4.1	
9:04	994.9	15.6	79	n.	3.1	225	994.9	15.6		79	14.00	n.	3.1	1/10 A.St., n.
July 13, 1918.														
P. M.														
6:22	991.5	22.8	64	n.	1.8	225	991.5	22.8		64	17.77	n.	1.8	9/10 St.Cu., nw.
						250	988.8	22.7				n.	2.3	
6:27	991.5	22.5	63	n.	1.8	494	961.4	21.8	0.37			n.	7.0	
						500	960.7	21.7				n.	7.0	6/10 St., n.; 4/10 St.Cu., n.
						750	932.9	19.3				nne.	6.4	10/10 St.Cu., n.
						1,000	906.4	16.8				ne.	5.8	
8:23	992.1	19.6	70	n.	2.7	1,089	897.1	15.9	0.99			ne.	5.6	
						1,250	880.1	14.6				ne.	4.8	
						1,500	854.4	12.6				ne.	3.7	
8:29	992.2	19.4	71	n.	2.7	1,752	829.1	10.5	0.77			ne.	2.5	
						1,500	854.4	12.3				ne.	3.7	
						1,250	880.1	14.2				ne.	4.9	
						1,000	906.4	16.0				ne.	6.1	
						750	932.9	17.8				ne.	7.3	
						500	960.8	19.6				ne.	8.4	
9:09	992.5	19.4	71	n.	3.1	255	989.2	21.4	−7.86			ne.	9.6	
9:15	992.5	19.2	69	n.	3.1	225	992.5	19.2		69	15.35	n.	3.1	
July 15, 1918.														
P. M.														
5:25	990.8	22.5	73	w.	3.6	225	990.8	22.5		73	19.90	w.	3.6	2/10 A.St., w.; 8/10 St., w.
						250	988.2	22.4		72	19.50	w.	3.8	
						500	960.5	21.3		66	16.72	sse.	5.6	
5:40	990.8	22.0	73	w.	3.6	542	955.4	21.1	0.44	65	16.27	se.	5.9	
						750	933.0	19.9		61	14.18	se.	6.8	3/10 A.St., w; 7/10 St., w.
6:22	990.8	21.4	72	w.	1.3	977	908.4	18.5	0.60	56	11.93	sse.	7.8	
						1,000	906.0	18.4		57	12.06	sse.	7.8	
						1,250	879.6	16.8		62	11.86	s.	7.6	10/10 Nb., w.
						1,500	853.8	15.3		68	11.82	s.	7.3	Sprinkling rain during entire flight.
						1,750	829.2	13.7		73	11.45	ssw.	7.1	
7:40	990.6	20.1	75	wsw.	1.8	1,885	816.1	12.9	0.62	76	11.31	ssw.	7.0	
						2,000	805.1	12.1		79	11.15	ssw.	7.3	
						2,250	781.6	10.3		85	10.65	ssw.	8.0	
						2,500	758.2	9.2		89	10.36	sw.	8.5	
7:56	990.5	19.8	74	w.	0.9	2,692	740.8	7.1	0.65	96	9.69	sw.	9.3	
						2,500	758.2	9.5		91	10.80	sw.	8.8	
						2,250	780.9	10.7		87	11.20	sw.	8.4	
						2,000	804.8	12.2		82	11.65	ssw.	7.9	
						1,750	829.2	13.6		77	12.00	ssw.	7.4	
						1,500	854.4	15.1		72	12.36	ssw.	6.9	
8:13	990.5	19.5	73	n.	0.9	1,426	861.5	15.5	0.65	70	12.33	ssw.	6.7	
						1,250	879.6	16.6		65	12.28	ssw.	7.5	
						1,000	905.2	18.3		58	12.20	s.	8.6	
						750	932.0	19.9		50	11.62	s.	9.7	
8:25	990.5	19.5	72	nne.	1.8	637	944.5	20.6	−0.32	47	11.41	s.	10.2	
						500	959.9	20.2		57	13.50	se.	7.7	
						250	988.2	19.4		74	16.67	nne.	3.1	
8:30	990.5	19.3	76	nne.	2.7	225	990.5	19.3		76	17.02	nne.	2.7	10/10 Nb., w.
July 17, 1918.														
P. M.														
5:04	987.1	22.5	56	n.	5.4	225	987.1	22.5		56	15.27	n.	5.4	8/10 A.St., nw.
						250	984.9	22.3		56	15.08	n.	5.5	
						500	956.9	19.8		59	13.63	n.	6.8	
5:13	987.1	22.3	56	n.	4.9	624	942.9	18.6	0.98	60	12.86	n.	7.4	
						750	929.5	17.9		57	11.69	n.	6.8	
						1,000	902.3	16.6		52	9.82	nnw.	5.7	9/10 A.St., nw.
						1,250	876.1	15.2		47	8.12	nnw.	4.5	
7:18	987.5	18.4	71	n.	2.7	1,274	873.7	15.1	0.54	47	8.07	nnw.	4.4	10/10 A.St., nw.
						1,500	850.5	13.5		54	8.35	nnw.	3.8	
						1,750	825.3	11.8		62	8.58	nw.	3.1	
7:26	987.5	17.8	77	n.	2.7	1,920	808.8	10.6	0.68	68	8.69	nw.	2.6	
						1,750	825.3	11.7		66	9.08	nw.	3.3	
						1,500	850.1	13.4		62	9.53	nw.	4.3	
						1,250	875.6	15.1		59	10.12	nnw.	5.4	9/10 A.St., nw.
8:11	987.6	17.0	82	n.	2.7	998	902.6	16.8	0.34	55	10.52	nnw.	6.4	
						750	929.5	17.6		53	10.67	n.	7.6	
8:19	987.6	16.9	80	n.	1.3	611	944.3	18.1	−0.34	52	10.80	n.	8.2	
						500	956.9	17.7		60	12.15	n.	6.2	
						250	984.9	16.9		78	15.02	n.	1.9	
8:25	987.6	16.8	80	n.	1.3	225	987.6	16.8		80	15.30	n.	1.3	

TABLE 13.—*Free-air data from kite flights at Royal Center Aerological Station, July, 1918*—Continued.

July 18, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
4:49	985.2	26.0	46	nw.	4.5	225	985.2	26.0	.....	46	15.47	nw.	4.5	1/10 Cu., nw.
						250	982.8	25.7	.....	46	15.19	nw.	4.7	Cloudless.
						500	954.8	22.4	.....	46	12.46	nnw.	7.1	
5:05	985.1	25.7	48	nw.	5.3	537	950.8	21.9	1.32	50	13.14	nnw.	7.5	
						750	927.1	19.9	.....	58	13.48	nnw.	6.8	
						1,000	900.4	17.3	.....	67	13.23	n.	6.0	
						1,250	874.6	14.9	.....	75	12.70	n.	5.1	
6:21	985.1	23.4	52	nnw.	4.5	1,349	864.8	13.9	0.99	79	12.55	n.	4.8	
						1,500	849.4	13.2	.....	81	12.29	n.	4.9	
						1,750	824.3	12.0	.....	83	11.64	n.	5.0	
						2,000	800.1	10.8	.....	86	11.14	n.	5.1	Bright moonlight.
6:56	985.1	21.7	61	nnw.	3.3	*2,117	789.2	10.3	0.47	87	10.90	n.	5.2	Cloudless.

* Kites broke away at 7:08 p. m.

July 20, 1918.

P. M.														
7:00	991.2	26.0	62	ese.	3.6	225	991.2	26.0	.....	62	20.84	ese	3.6	1/10 A.St., ne.; 3/10 Ci.St., w.
						250	988.6	26.0	.....	60	20.17	ese.	3.8	
						500	961.0	26.1	.....	40	13.53	se.	6.2	
7:17	991.3	25.3	63	ese.	3.6	511	959.7	26.1	−0.35	39	13.19	se.	6.3	
						750	934.1	24.3	.....	42	12.76	se.	5.7	Few Ci.St., on horizon.
						1,000	908.7	22.4	.....	46	12.46	sse.	5.0	Bright moonlight.
8:52	992.1	23.8	63	se.	4.0	1,164	891.4	21.2	0.75	48	12.09	sse.	4.6	
						1,250	882.9	20.5	.....	49	11.82	sse.	4.6	
						1,500	857.4	18.6	.....	51	10.93	sse.	4.6	
						1,750	832.4	16.7	.....	53	10.08	sse.	4.7	
						2,000	808.7	14.8	.....	55	9.26	sse.	4.7	
9:00	992.2	23.8	63	se.	4.0	2,027	806.1	14.6	0.80	55	9.14	sse.	4.7	
						2,000	808.7	14.8	.....	55	9.26	sse.	4.8	
						1,750	832.4	16.9	.....	52	10.01	se.	5.3	
						1,500	857.4	19.0	.....	49	10.77	se.	5.8	
						1,250	882.9	21.0	.....	46	11.44	se.	6.4	
						1,000	908.8	23.1	.....	44	12.44	ese.	6.9	
9:30	992.2	23.2	61	e.	3.6	952	913.8	23.5	0.82	43	12.45	ese.	7.0	
						750	934.9	25.2	.....	41	13.14	ese.	7.4	
						500	962.0	27.2	.....	38	13.71	ese.	7.9	
9:42	992.2	23.0	63	e.	3.6	357	977.7	28.4	−4.15	37	14.32	ese.	8.2	
						250	989.4	24.0	.....	59	17.61	ese.	4.4	
9:44	992.2	23.0	64	e.	3.6	225	992.2	23.0	.....	64	17.98	ese.	3.6	Cloudless.

July 21, 1918.

P. M.														
4:46	991.2	31.0	47	se.	1.8	225	991.2	31.0	.....	47	21.12	se.	1.8	9/10 A.St., nw.
						250	988.5	30.8	.....	47	20.88	se.	2.1	
						500	961.5	28.8	.....	42	16.64	sse.	5.4	
5:03	991.2	30.8	47	se.	1.8	656	944.6	27.4	0.84	39	14.24	s.	7.4	3/10 Ci.St., nw.; 6/10 A.St., nw.
						750	934.3	26.5	.....	41	14.20	s.	7.2	
						1,000	907.9	24.1	.....	48	14.41	s.	6.8	7/10 Ci.St., nw.
						1,250	881.6	21.6	.....	54	13.93	ssw.	6.4	
7:30	991.4	25.2	64	se.	3.1	1,415	865.0	20.0	0.97	58	13.56	ssw.	6.1	
						1,500	856.6	19.3	.....	59	13.21	ssw.	6.0	
						1,750	831.8	17.2	.....	62	12.16	ssw.	5.7	
						2,000	807.7	15.2	.....	65	11.23	ssw.	5.4	
						2,250	784.5	13.1	.....	67	10.10	sw.	5.0	
						2,500	761.9	11.0	.....	70	9.19	sw.	4.7	
8:05	991.6	24.2	68	se.	2.7	2,674	746.0	9.6	0.80	72	8.60	sw.	4.5	
						2,500	761.9	10.9	.....	71	9.26	sw.	4.9	
						2,250	784.8	12.9	.....	69	10.27	sw.	5.4	
						2,000	808.6	14.8	.....	68	11.44	ssw.	6.0	
						1,750	832.5	16.8	.....	66	12.63	ssw.	6.2	
8:29	991.8	24.0	67	se.	2.7	1,733	834.3	16.9	0.84	66	12.70	ssw.	6.6	
						1,500	856.7	18.9	.....	64	13.98	ssw.	6.9	
						1,250	881.6	21.0	.....	63	15.67	ssw.	7.2	
						1,000	907.9	23.1	.....	61	17.24	s.	7.4	
						750	934.7	25.2	.....	59	18.92	s.	7.7	
8:55	992.1	24.0	67	se.	2.2	608	950.1	26.4	−0.66	58	19.97	s.	7.9	
						500	962.1	25.9	.....	61	20.39	sse.	6.3	
						250	989.6	24.2	.....	66	19.93	se.	2.5	
9:02	992.2	24.1	67	se.	2.2	225	992.2	24.1	.....	67	20.11	se.	2.2	5/10 A.St., nw.

July 22, 1918.

P. M.														
7:02	991.9	24.8	79	sse.	2.2	225	991.9	24.8	.....	79	24.73	sse.	2.2	3/10 A.St., n.
						250	989.4	24.7	.....	79	24.58	sse.	2.3	
						500	962.3	23.8	.....	77	22.71	sse.	3.3	
						750	935.1	22.9	.....	76	21.23	sse.	4.4	
8:02	992.2	23.5	83	sse.	2.7	904	918.3	22.3	0.28	75	20.20	sse.	5.0	
						750	935.1	22.6	.....	77	21.12	sse.	4.3	
						500	962.3	23.1	.....	79	22.33	sse.	3.1	
						250	989.7	23.6	.....	82	23.89	sse.	1.9	
8:11	992.3	23.6	82	sse.	1.8	225	992.3	23.6	.....	82	23.89	sse.	1.8	Cloudless.

TABLE 13.—*Free-air data from kite flights at Royal Center Aerological Station, July, 1918*—Continued.

July 23, 1918.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
6:59	990.2	23.3	80	nne.	5.8	225	990.2	23.3	.....	80	22.89	nne.	5.8	8/10 Cu., nw.; rain from 5:35 to 6:30 p. m.; first thunder at 4:30 p. m.; last thunder in ne., 8:45 p. m.; rain from 8:05 to 8:50 p. m.
						250	987.5	23.6	.....	78	22.72	nne.	6.2	
7:02	990.2	23.2	81	nne.	5.8	433	967.3	26.3	−1.45	57	19.51	nne.	9.5	
						500	960.2	26.0	.....	57	19.16	nne.	8.9	
						750	933.5	25.1	.....	56	17.85	nne.	6.5	
						1,000	907.0	24.1	.....	54	16.21	nne.	4.1	
8:17	990.3	23.7	73	n.	2.2	1,105	896.2	23.7	0.51	54	15.83	nne.	3.1	
						1,000	907.0	24.4	.....	53	16.19	nne.	3.7	
						750	933.4	25.9	.....	51	17.04	nne.	5.1	
8:35	990.4	23.5	76	nnw.	1.3	624	946.8	26.7	0.17	50	17.52	nne.	5.8	
						500	960.1	26.9	.....	52	18.43	nne.	4.8	
8:42	990.4	23.1	80	nnw.	3.1	384	972.8	27.1	−2.61	53	19.01	nne.	3.8	
						250	987.7	22.4	.....	76	20.59	nnw.	3.2	
8:43	990.4	23.0	80	nnw.	3.1	225	990.4	23.0	.....	80	22.48	nnw.	3.1	10/10 St.Cu., nw.

July 24, 1918.

A. M.														
7:15	990.6	23.8	79	ssw.	2.7	225	990.6	23.8	.....	79	23.30	wsw.	2.7	3/10 Ci.Cu., w.; 4/10 Ci.St., w.
						250	987.4	23.8	.....	78	23.00	wsw.	3.0	
						500	960.0	23.7	.....	73	21.40	wsw.	6.8	
7:20	990.6	23.8	80	ssw.	3.6	676	941.1	23.7	0.02	69	20.22	wsw.	9.4	
						750	932.9	23.3	.....	68	19.45	wsw.	9.1	
						1,000	906.9	22.1	.....	65	17.29	wsw.	7.9	7/10 A.Cu., w.
8:05	990.8	24.8	79	sw.	3.6	1,212	885.2	21.0	0.50	62	15.42	wsw.	6.9	
						1,250	881.7	20.8	.....	62	15.23	wsw.	6.9	
						1,500	856.7	19.2	.....	66	14.68	wsw.	7.1	
						1,750	831.7	17.6	.....	69	13.89	sw.	7.3	7/10 A.Cu., w.
10:19	990.4	29.2	60	wsw.	4.9	1,934	813.8	16.4	0.59	71	13.24	sw.	7.4	
						1,750	831.7	17.4	.....	72	14.31	sw.	6.9	
						1,500	856.7	18.8	.....	72	15.62	sw.	6.2	
						1,250	881.7	20.1	.....	73	17.18	wsw.	5.5	
						1,000	906.9	21.5	.....	74	18.98	wsw.	4.9	
						750	932.8	22.9	.....	75	20.95	wsw.	4.2	
10:50	990.2	29.0	60	wsw.	4.5	689	939.7	23.2	1.39	75	21.33	wsw.	4.0	
						500	959.9	25.8	.....	69	22.93	wsw.	4.0	
						250	987.3	29.3	.....	61	24.87	wsw.	4.0	
11:07	990.1	29.6	60	wsw.	4.0	225	990.1	29.6	.....	60	24.89	wsw.	4.0	6/10 A.Cu., w.

July 25, 1918.

P. M.														
12:39	987.3	33.1	50	ssw.	4.0	225	987.3	33.1	.....	50	25.30	ssw.	4.0	6/10 Cu., sw.; thunder in nw., 12:48 p. m.; last thunder in ne., at 2:30 p. m.
						250	984.8	32.7	.....	50	24.74	ssw.	4.1	
12:42	987.3	33.1	50	ssw.	3.6	434	964.8	29.9	1.06	51	21.52	ssw.	5.0	
						500	957.3	29.4	.....	53	21.73	sw.	5.0	
						750	930.8	27.6	.....	58	21.43	w.	4.9	
						1,000	904.7	25.7	.....	62	20.48	nnw.	4.9	
1:39	986.9	33.6	47	ssw.	5.4	1,013	903.7	25.6	1.19	62	20.36	nnw.	4.9	
						1,000	904.7	25.6	.....	62	20.36	nnw.	4.9	
						750	930.2	26.0	.....	61	20.51	nnw.	4.2	
2:43	986.8	29.5	58	s.	1.3	645	941.4	26.2	0.86	61	20.75	nnw.	3.9	
						500	956.3	27.4	.....	60	21.91	wnw.	3.0	4/10 Cu.Nb., nw.; 4/10 Cu., nnw.
						250	983.8	29.6	.....	57	23.64	s.	1.4	
2:45	986.8	29.8	57	s.	1.3	225	986.8	29.8	.....	57	23.92	s.	1.3	

July 26, 1918.

A. M.														
7:08	990.1	24.8	85	sse.	3.6	225	990.1	24.8	.....	85	26.61	sse.	3.6	1/10 Cu., w.
						250	987.3	24.9	.....	84	26.45	sse.	3.7	
7:25	989.9	25.4	82	s.	2.2	488	961.0	25.4	−0.23	72	23.36	ssw.	4.8	
						500	959.8	25.4	.....	72	23.36	ssw.	4.9	
						750	932.9	24.7	.....	66	20.54	ssw.	6.6	
7:44	989.7	26.1	81	s.	4.0	945	912.3	24.1	0.28	61	18.31	ssw.	7.7	
						1,000	906.3	23.6	.....	62	18.06	ssw.	7.7	
						1,250	880.5	21.6	.....	67	17.29	ssw.	7.7	
						1,500	855.7	19.5	.....	71	16.10	ssw.	7.6	3/10 Ci.Cu., w.
8:08	989.5	26.8	81	s.	3.6	1,599	846.0	18.7	0.83	73	15.75	ssw.	7.6	
						1,750	831.2	17.7	.....	71	14.38	ssw.	6.8	
9:08	989.5	29.1	72	sw.	3.1	1,963	810.8	16.2	0.62	69	12.71	sw.	5.6	2/10 Ci., w.
10:18	989.4	30.8	67	sw.	3.1	1,801	825.9	17.1	0.16	66	12.87	sw.	6.4	
						1,750	830.8	17.2	.....	71	13.93	sw.	6.6	
10:24	989.3	31.0	67	sw.	2.7	1,608	844.8	17.4	0.76	84	16.69	sw.	7.3	
						1,500	854.8	18.2	.....	82	17.14	sw.	7.1	
						1,250	879.3	20.1	.....	77	18.12	ssw.	6.6	
						1,000	905.5	22.0	.....	73	19.30	ssw.	6.1	
						750	932.8	23.9	.....	68	20.17	s.	5.6	1/10 Cu., w.; 2/10 Ci.St., w.
10:36	989.3	30.6	68	s.	3.1	651	943.2	24.7	1.53	66	20.54	s.	5.4	
						500	959.7	27.0	.....	66	23.54	s.	4.6	
						250	986.9	30.9	.....	66	29.50	ssw.	3.2	
10:43	989.2	31.2	66	ssw.	3.1	225	989.2	31.2	.....	66	30.00	ssw.	3.1	

TABLE 13.—*Free-air data from kite flights at Royal Center Aerological Station, July, 1918*—Continued.

July 27, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
5:27	991.0	30.4	62	n.	6.7	225	991.0	30.4	.....	62	26.93	n.	6.7	2/10 Cu., n.
						250	988.6	30.1	.....	62	26.47	n.	6.8	
						500	960.9	27.0	.....	67	23.89	n.	7.6	
5:42	991.1	29.8	63	n.	5.8	611	949.1	25.6	1.25	69	22.66	n.	8.0	
						750	934.2	24.4	.....	71	21.70	n.	7.5	4/10 Cu., ne.
						1,000	908.2	22.2	.....	74	19.81	nne.	6.5	5/10 Cu., ne.
7:45	991.7	25.6	74	n.	3.1	1,171	890.5	20.7	0.88	76	18.56	ne.	5.9	
						1,250	882.7	20.3	.....	73	17.39	ne.	5.8	
						1,500	857.3	18.9	.....	65	14.20	ne.	5.6	
						1,750	832.4	17.6	.....	57	11.47	ne.	5.4	
						2,000	808.7	16.3	.....	49	9.08	ne.	5.1	
8:01	991.9	25.0	77	n.	2.7	2,234	786.6	15.0	0.54	42	7.16	ne.	4.9	
						2,000	808.7	16.3	.....	47	8.71	ne.	5.7	Few A.St., on horizon.
						1,750	832.4	17.6	.....	52	10.47	ne.	6.5	
						1,500	856.8	19.0	.....	57	12.52	ne.	7.3	
8:46	991.9	24.0	80	n.	2.7	1,299	877.5	20.1	0.75	61	14.35	ne.	8.0	
						1,250	881.6	20.5	.....	61	14.71	ne.	8.1	
						1,000	907.2	22.3	.....	61	16.43	ne.	8.4	
						750	933.6	24.2	.....	62	18.72	ne.	8.7	
9:12	991.8	23.7	81	n.	1.8	589	951.8	25.4	−0.55	62	20.12	ne.	8.9	
						500	961.0	24.9	.....	67	21.10	ne.	7.0	
						250	988.8	23.5	.....	80	23.17	n.	1.6	
9:18	991.8	23.4	81	n.	1.1	225	991.8	23.4	.....	81	23.31	n.	1.1	Cloudless.

July 29, 1918.

P. M.														
1:38	986.4	27.8	64	wnw.	4.5	225	986.4	27.8	.....	64	23.92	wnw.	4.5	7/10 Cu., w.
						250	983.7	27.4	.....	64	23.37	wnw.	4.5	
1:51	986.2	27.0	68	wnw.	3.6	436	963.3	25.1	1.29	67	21.35	wnw.	4.8	
						500	956.3	24.5	.....	68	20.91	wnw.	4.7	
						750	929.1	22.3	.....	74	19.93	wnw.	4.2	
						1,000	902.7	20.1	.....	80	18.82	nw.	3.8	7/10 A.St., nw.; few Cu., nw.
						1,250	876.9	17.9	.....	85	17.43	nw.	3.3	
3:45	986.3	26.1	61	nnw.	3.1	1,411	860.6	16.5	0.88	89	16.71	nw.	3.0	
						1,500	851.8	16.2	.....	86	15.84	nw.	3.4	
						1,750	826.7	15.2	.....	76	13.13	nw.	4.4	
						2,000	802.1	14.2	.....	66	10.69	nw.	5.5	
						2,250	777.8	13.3	.....	56	8.55	wnw.	6.5	
						2,500	755.9	12.3	.....	46	6.58	wnw.	7.5	
4:25	986.6	25.4	60	nnw.	4.9	2,685	739.5	11.6	0.39	39	5.33	wnw.	8.3	7/10 A.St., nw.
						2,500	755.9	12.3	.....	36	5.15	wnw.	7.9	
4:40	986.7	25.2	61	nnw.	4.9	2,285	775.1	13.2	−0.43	33	5.01	w.	7.4	
						2,250	777.4	11.7	.....	32	4.40	w.	8.4	
4:46	986.7	25.5	60	nnw.	6.3	2,236	780.0	11.1	0.49	32	4.23	w.	8.8	
						2,000	802.6	12.3	.....	67	9.59	w.	8.3	
4:59	986.8	26.0	57	nnw.	6.7	1,872	815.0	12.9	0.61	86	12.80	w.	8.1	
						1,750	826.8	13.6	.....	83	12.93	wnw.	8.5	
						1,500	851.8	15.2	.....	77	13.30	nw.	9.3	
5:15	987.0	25.8	56	nnw.	4.0	1,414	860.6	15.7	0.75	75	13.38	nw.	9.6	
						1,250	877.3	16.9	.....	71	13.67	nw.	9.4	
						1,000	903.0	18.8	.....	65	14.10	nnw.	9.1	
						750	929.3	20.7	.....	60	14.65	nnw.	8.8	
						500	957.6	22.6	.....	54	14.81	n.	8.5	
5:43	987.3	25.0	57	n.	5.4	468	960.5	22.8	0.82	53	14.71	n.	8.5	
						250	985.1	24.6	.....	58	17.95	n.	4.9	
5:50	987.4	24.8	58	n.	4.5	225	987.4	24.8	.....	58	18.16	n.	4.5	3/10 A.St., nw.

July 30, 1918.

A. M.														
7:05	993.2	12.9	82	n.	5.8	225	993.2	12.9	.....	82	12.20	n.	5.8	3/10 Cu., ne.
						250	990.5	12.6	.....	83	12.11	n.	5.8	
						500	961.1	9.7	.....	95	11.43	nne.	6.2	
7:14	993.2	13.0	79	nne.	6.7	601	949.8	8.5	1.18	100	11.10	nne.	6.3	9/10 St.Cu., ne.
						750	932.9	7.7	.....	100	10.51	nne.	6.1	
7:46	993.2	13.3	79	nne.	1.8	935	912.2	6.6	0.57	100	9.75	nne.	5.9	Altitude of St.Cu. base about 800 m.
						1,000	905.4	7.3	.....	92	9.41	nne.	6.1	
						1,250	877.8	9.9	.....	63	7.69	nne.	7.0	
8:00	993.2	13.5	80	n.	5.4	1,349	867.7	11.0	−1.06	51	6.70	nne.	7.4	
						1,500	851.7	10.9	.....	.....	.....	nne.	7.4	
						1,750	826.2	10.8	.....	.....	.....	nne.	7.3	
						2,000	802.1	10.6	.....	.....	.....	nne.	7.3	
						2,250	778.8	10.5	.....	.....	.....	n.	7.3	
						2,500	756.4	10.3	.....	.....	.....	n.	7.2	5/10 St.Cu., ne.
11:05	993.2	16.9	72	nne.	5.8	2,743	734.4	10.2	0.37	.....	.....	n.	7.2	
						2,500	756.4	10.6	.....	.....	.....	n	7.1	
						2,250	779.7	11.0	.....	.....	.....	n.	6.9	
						2,000	803.4	11.5	.....	.....	.....	nne.	6.8	
						1,750	828.1	11.9	.....	.....	.....	nne.	6.6	
11:50	993.0	18.1	70	nne.	1.8	1,695	833.3	12.0	−0.65	37	5.19	nne.	6.6	
						1,500	853.0	10.7	.....	58	7.46	nne.	6.4	
						1,250	878.8	9.1	.....	86	9.94	ne.	6.2	
P. M.														
12:08	992.8	18.7	62	nne.	5.4	1,122	892.4	8.3	0.77	100	10.95	ne.	6.1	
						1,000	905.4	9.2	.....	96	11.17	ne.	5.8	
						750	932.9	11.2	.....	87	11.57	nne.	5.1	
12:28	992.7	17.5	71	nne.	5.8	602	949.8	12.3	1.47	82	11.73	nne.	4.7	
						500	961.1	13.8	.....	78	12.31	nne.	4.2	
						250	989.7	17.5	.....	68	13.60	nne.	2.8	
12:34	992.7	17.8	67	nne.	2.7	225	992.7	17.8	.....	67	13.65	nne.	2.7	5/10 Cu., ne.

TABLE 14.—*Free-air data from kite flights at Royal Center Aerological Station August, 1918.*

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
August 2, 1918.														
P. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
6:18	988.1	22.0	90	ene.	3.1	225	988.1	22.0	.....	90	23.80	ene.	3.1	9/10 St.Cu., w.
						250	984.8	22.1	.....	86	22.88	ene.	3.3	
6:23	988.1	22.0	90	ene.	3.1	496	958.0	23.6	−0.59	44	12.82	e.	5.2	
						750	931.2	22.0	.....	48	12.69	se.	5.6	
						1,000	905.0	20.5	.....	51	12.30	sse.	6.1	3/10 A.St., w.; 5/10 St.Cu., w.
						1,250	879.0	19.0	.....	55	12.08	ssw.	6.5	
8:13	988.6	20.8	90	ene.	2.2	1,261	877.4	18.9	0.61	55	12.01	ssw.	6.5	
						1,500	854.0	17.2	.....	61	11.97	sw.	6.9	
						1,750	830.0	15.5	.....	68	11.97	wsw.	7.4	
						2,000	806.3	13.7	.....	74	11.60	wsw.	7.8	
						2,250	783.0	12.0	.....	81	11.36	w.	8.3	
						2,500	759.7	10.2	.....	87	10.83	wnw.	8.7	
						2,750	736.2	8.5	.....	94	10.43	nw.	9.2	4/10 St.Cu., w.
9:12	988.8	20.0	89	ene.	2.7	2,863	725.7	7.7	0.68	97.	10.19	nw.	9.4	
						2,750	736.2	8.5	.....	94	10.43	wnw.	9.8	
						2,500	759.7	10.1	.....	87	10.75	w.	9.1	
						2,250	783.0	11.8	.....	81	11.21	wsw.	8.9	
						2,000	806.3	13.5	.....	74	11.45	sw.	8.8	
						1,750	830.0	15.1	.....	68	11.67	ssw.	8.6	
9:54	988.8	19.6	91	n.	2.2	1,532	850.2	16.6	0.66	62	11.71	s.	8.4	
						1,500	854.0	16.8	.....	62	11.86	s.	8.3	
						1,250	879.0	18.5	.....	58	12.35	se.	7.6	
						1,000	905.0	20.1	.....	54	12.71	ese.	6.9	
						750	931.3	21.7	.....	50	12.98	ene.	6.2	
10:27	989.1	19.4	93	n.	1.8	542	953.8	23.1	−1.21	47	13.29	ne.	5.6	
						500	958.4	22.6	.....	53	14.54	ne.	5.1	
						250	986.3	19.6	.....	91	20.76	n.	2.1	
10:31	989.2	19.3	94	n.	1.8	225	989.2	19.3	.....	94	21.05	n.	1.8	5/10 St.Cu., w.
August 3, 1918.														
A. M.														
5:56	989.1	17.6	82	e.	8.9	225	989.1	17.6	.....	82	16.51	e.	8.9	1/10 Ci.nw.; 5/10 A.St., nw.
						250	986.1	17.8	.....	81	16.51	e.	9.0	
						500	958.6	20.1	.....	68	16.00	ese.	9.9	
						750	931.0	22.3	.....	55	14.81	se.	10.8	
6:00	989.1	17.5	83	e.	8.0	771	928.7	22.5	−0.90	54	14.72	se.	10.9	
						1,000	904.9	21.2	.....	56	14.10	sse.	10.2	
						1,250	878 8	19.7	.....	57	13.08	s.	9.5	
						1,500	853.1	18 2	.....	59	12 33	ssw.	8.8	
6:38	988.9	18.1	82	e.	7.6	1,627	840.7	17.5	0.58	60	12.00	sw.	8.4	
						1,750	828.3	16.9	.....	64	12.32	sw.	7.9	3/10 Ci.Cu., w.
						2,000	804.4	15.6	.....	73	12.94	sw.	6.9	
						2,250	781.2	14.4	.....	82	13.45	sw.	5.8	
8:28	988.3	21.0	75	se.	7.6	2,260	780.5	14.3	0.51	82	13.37	sw.	5.8	
						2,500	758.9	12.4	.....	85	12.24	sw.	7.2	
						2,750	736.7	10.5	.....	88	11.18	sw.	8.4	
						3,000	714.8	8.6	.....	92	10.28	sw.	9.7	
8:50	988.2	22.2	73	se.	7.6	3,102	705.9	7.8	0.75	93	9.84	sw.	10.2	
						3,000	714.8	8.5	.....	94	10.43	sw.	10.9	
						2,750	736.0	10.4	.....	98	12.36	sw.	12.5	5/10 A.Cu., w.
9:15	988.0	22.8	70	se.	7.6	2,721	738.6	10.6	0.72	98	12.52	sw.	12.7	
						2,500	758.1	12.2	.....	91	12.93	sw.	11.9	
						2,250	781.2	14.0	.....	82	13.10	ssw.	10.9	
						2,000	804.3	15.8	.....	74	13.28	ssw.	10.0	
						1,750	827.6	17.6	.....	66	13.29	ssw.	9.0	
						1,500	852.0	19.4	.....	57	12.84	s.	8.1	
						1,250	877.0	21.2	.....	49	12.34	s.	7.1	
10:00	987.5	24.6	68	se.	5.8	1,167	886.1	21.8	−0.48	46	12.02	s.	6.8	
						1,000	903.1	21.0	.....	57	14.18	s.	6.6	
						750	929.9	19.8	.....	73	16.86	sse.	6.2	
10:15	987.4	25.2	65	se.	5.4	672	938.2	19.4	1.35	78	17.57	sse.	6.1	
						500	957.1	21.7	.....	73	18.95	sse.	6.0	
						250	984.3	25.1	.....	65	20.72	se.	5.8	
10:24	987.6	25.4	64	se.	5.8	225	987.6	25.4	.....	64	20.77	se.	5.8	Few A.St., w.
August 4, 1918.														
A. M.														
6:30	984.4	22.3	90	sse.	2.7	225	984.4	22.3	.....	90	24.24	sse.	2.7	5/10 Ci., nw.
						250	981.4	22.8	.....	86	23.87	sse.	3.0	
6:34	984.4	22.5	89	sse.	2.2	365	969.0	25.6	−2.39	67	22 00	sw.	4.5	
						500	954.4	26.4	.....	62	21.35	ssw.	4.9	
7:00	984.4	23.7	84	sse.	2.7	584	945.5	26.9	−0.62	59	20.92	ssw.	5.2	
						500	954.4	26.4	.....	64	22 04	ssw.	4.4	
						250	981.4	24.7	.....	80	24.90	sse.	2.0	
7:22	984.4	24.6	81	sse.	1.8	225	984.4	24.6	.....	81	25.06	sse.	1.8	9/10 St.Cu., wnw.
August 5, 1918.														
P. M.														
12:13	984.6	37.4	30	wsw.	3.6	225	984.6	37.4	.....	30	19.25	wsw.	3.6	3/10 Ci., nw.
						250	981.5	37.2	.....	30	19.04	wsw.	3.8	
						500	955.4	34.5	.....	31	16 96	wsw.	6.4	
12:20	984.5	37.5	29	wsw.	7.6	653	939 4	32 8	1.08	31	15.43	wsw.	7.9	
						750	929.7	32.1	.....	31	14.83	wsw.	8.3	
						1,000	904 0	30 3	.....	31	13.39	wsw.	9.4	
						1,250	879.0	28.5	.....	31	12.07	wsw.	10.4	
						1,500	854.0	26.7	.....	31	10.86	wsw.	11.5	

TABLE 14.—*Free-air data from kite flights at Royal Center Aerological Station August, 1918*—Continued.

August 5, 1918—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	mb.	°C.	%		m. p. s.	m.	mb.	°C.		%	mb.		m. p. s.	
12:45	984.2	38.0	32	wsw.	5.8	1,626	841.9	25.8	0.72	31	10.30	wsw.	12.0	
						1,750	830.0	25.1		30	9.56	wsw.	12.5	
						2,000	806.0	23.7		29	8.50	sw.	13.4	
						2,250	783.4	22.3		28	7.54	sw.	14.4	
1:04	984.1	37.8	30	w.	7.2	2,329	776.7	21.9	0.55	28	7.36	sw.	14.7	
						2,500	761.3	20.0		31	7.25	sw.	15.5	
						2,750	739.9	17.8		34	6.93	sw.	16.4	
						3,000	718.3	15.7		37	6.60	sw.	17.3	3/10 Ci., nw.
1:31	984.3	38.1	29	w.	3.6	3,195	702.3	14.4	0.83	39	6.40	sw.	17.8	
						3,000	718.4	16.0		37	6.73	sw.	17.4	
						2,750	740.0	17.9		34	6.97	sw.	17.0	
						2,500	761.7	19.9		31	7.20	sw.	16.5	
2:08	984.4	38.4	29	w.	8.0	2,304	779.2	21.5	0.54	29	7.44	sw.	16.1	
						2,250	783.9	21.8		30	7.84	sw.	15.8	
						2,000	806.4	23.1		32	9.05	sw.	14.4	
						1,750	830.6	24.5		35	10.76	wsw.	12.9	
2:29	984.3	38.2	32	w.	7.6	1,601	844.5	25.3	0.88	36	11.61	wsw.	12.1	
						1,500	854.9	26.2		35	11.91	wsw.	12.1	
						1,250	878.9	28.4		34	13.16	wsw.	12.1	
						1,000	903.9	30.6		33	14.50	wsw.	12.2	
						750	928.9	32.8		32	15.92	wsw.	12.2	
2:54	984.1	38.0	30	w.	10.7	598	944.9	34.1	1.08	31	16.59	wsw.	12.2	
						500	954.8	35.2		31	17.63	wsw.	11.1	
						250	980.9	37.9		32	21.09	w.	8.3	
3:05	984.1	38.1	32	w.	8.0	225	984.1	38.1		32	21.32	w.	8.0	5/10 Ci., nw.

August 6, 1918.

A. M.														
8:33	989.8	32.4	49	sw.	4.9	225	989.8	32.4		49	23.84	sw.	4.9	7/10 A.Cu., w.
						250	987.7	32.2		49	23.57	sw.		
						500	960.0	30.1		49	20.92	wsw.		
8:47	989.7	32.2	51	sw.	4.5	719	936.8	28.3	0.83	49	18.86	w.		
8:50	989.6	32.2	50	sw.	4.9	743	934.1	30.1	−7.50	44	18.78	w.		
						750	933.0	30.1		44	18.78	w.		
						1,000	907.0	28.5		43	16.74	w.		
						1,250	882.2	27.0		42	14.98	w.		
						1,500	858.0	25.5		41	13.38	w.		1/10 Ci.Cu., w.; 6/10 A Cu. w.
9:10	989.5	32.8	48	sw.	2.7	1,527	855.1	25.3	0.61	40	12.90	w.	10.4	
						1,750	833.9	23.6		41	11.94	wsw.	9.4	
						2,000	810.2	21.7		43	11.16	wsw.	8.4	
10:50	989.2	35.2	44	sw.	4.0	2,225	789.6	20.0	0.76	44	10.29	sw.	7.4	
						2,250	787.1	19.8		44	10.16	sw.	7.6	
						2,500	764.6	17.7		49	9.92	sw.	9.2	
						2,750	742.3	15.5		53	9.33	wsw.	10.8	
11:23	989.0	35.8	41	ssw.	2.2	2,943	725.8	13.9	0.85	56	8.89	wsw.	12.1	
						3,000	720.7	13.5		57	8.82	wsw.	12.4	
						3,250	699.8	11.7		59	8.11	w.	13.9	
						3,500	679.8	9.9		61	7.44	w.	15.4	
						3,750	659.9	8.2		63	6.85	w.	16.9	
						4,000	640.1	6.4		65	6.25	wnw.	18.4	
12:00 NOON	988.8	36.7	38	ssw.	5.8	4,167	626.9	5.2	0.66	67	5.93	wnw.	19.4	
						4,000	640.1	6.4		67	6.44	wnw.	19.5	
						3,750	659.9	8.1		66	7.13	w.	19.7	
						3,500	679.8	9.9		66	8.05	w.	19.8	
						3,250	699.8	11.6		66	9.02	w.	20.0	
						3,000	720.7	13.4		65	9.99	wsw.	20.2	
P. M.														
12:47	988.0	37.0	35	ssw.	6.7	2,770	740.4	15.0	0.81	65	11.08	wsw.	20.3	Cloudless.
						2,750	742.3	15.2		65	11.23	wsw.	20.2	
						2,500	764.6	17.2		60	11.77	wsw.	18.9	
						2,250	787.1	19.2		55	12.24	sw.	17.6	
						2,000	809.7	21.3		50	12.66	sw.	16.3	
1:11	987.7	37.5	32	ssw.	2.7	1,825	825.9	22.7	0.94	47	12.97	sw.	15.4	
						1,750	832.4	23.4		46	13.24	sw.	14.9	
						1,500	856.5	25.8		44	14.62	sw.	13.4	
						1,250	881.5	28.1		41	15.59	sw.	11.9	
						1,000	907.0	30.5		39	17.04	ssw.	10.4	
						750	933.0	32.9		36	18.01	ssw.	8.9	
						500	959.3	35.2		34	19.34	ssw.	7.4	
						250	985.3	37.8		31	20.32	ssw.	5.9	
2:01	987.5	37.8	31	ssw.	5.8	225	987.5	37.8		31	20.32	ssw.	5.8	Cloudless.

August 7, 1918, series (No. 1.)

A. M.														
7:35	990.2	28.5	48	sw.	3.1	225	990.2	28.5		48	18.68	sw.	3.1	5/10 A.Cu., sw.
						250	987.2	28.4		48	18.58	sw.	3.7	
						500	959.7	27.0		54	19.26	wsw.	10.7	
7:38	990.2	28.8	53	sw.	3.1	509	959.3	27.0	0.53	54	19.26	wsw.	11.0	
7:41	990.2	29.0	58	sw.	4.5	688	940.1	27.7	−0.39	45	16.72	wsw.	11.8	
						750	933.1	27.3		46	16.70	wsw.	11.8	
						1,000	907.1	25.4		50	16.22	wsw.	12.0	2/10 Ci., sw.; 3/10 Ci.St., sw.
						1,250	881.2	23.6		53	15.44	wsw.	12.1	
						1,500	856.3	21.8		57	14.89	wsw.	12.3	
						1,750	832.4	20.0		61	14.26	wsw.	12.5	
8:34	990.2	29.6	57	sw.	4.0	1,988	810.1	18.3	0.72	64	13.46	wsw.	12.6	
						2,000	808.8	18.3		63	13.25	wsw.	12.5	

TABLE 14.—*Free-air data from kite flights at Royal Center Aerological Station August, 1918*—Continued.

August 7, 1918, series (No. 1)—Continued.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
8:40	990.2	29.8	56	sw.	4.5	2,175	792.6	17.6	0.37	54	10.87	wsw.	11.2	
						2,250	786.0	17.2		53	10.40	wsw.	11.3	
						2,500	763.6	15.7		50	8.92	sw.	11.6	
						2,750	741.2	14.3		48	7.82	sw.	11.9	
9:26	990.2	31.5	48	sw.	4.5	2,796	737.1	14.0	0.58	47	7.51	sw.	12.0	
						3,000	719.4	12.6		51	7.44	sw.	13.8	
						3,250	698.3	10.8		56	7.25	sw.	16.1	
						3,500	677.8	9.1		60	6.94	sw.	18.3	
9:54	990.2	32.0	49	sw.	4.9	3,643	666.6	8.1	0.70	63	6.80	sw.	19.6	
						3,750	657.9	7.4		62	6.39	sw.	19.0	
						4,000	638.8	5.8		60	5.53	sw.	17.6	
						4,250	619.3	4.2		57	4.70	sw.	16.2	
						4,500	599.7	2.6		55	4.05	sw.	14.8	3/10 A.St., w.
10:56	989.9	33.5	41	sw.	3.6	4,633	589.9	1.8	0.66	54	3.76	sw.	14.0	
						4,500	599.7	2.7		55	4.08	sw.	14.4	
						4,250	618.7	4.4		55	4.60	sw.	15.1	
						4,000	638.0	6.0		56	5.24	sw.	15.8	
						3,750	657.1	7.7		57	5.99	ssw.	16.3	
						3,500	676.9	9.3		58	6.80	ssw.	17.3	
P. M.														
12:03	989.1	34.6	36	sw.	5.4	3,327	690.4	10.5	0.28	59	7.49	ssw.	17.8	
						3,250	697.1	10.7		61	7.85	ssw.	17.0	
						3,000	718.5	11.4		66	8.90	ssw.	14.6	
						2,750	740.3	12.1		72	10.17	ssw.	12.1	
						2,500	762.5	12.8		77	11.38	sw.	9.7	
						2,250	784.8	13.6		82	12.78	sw.	7.2	5/10 Ci.Cu., sw.
12:39	988.9	34.8	34	ssw.	4.9	2,127	796.3	13.9	1.26	85	13.50	sw.	6.0	
						2,000	807.9	15.5		81	14.26	sw.	6.3	
						1,750	831.7	18.7		72	15.53	sw.	6.8	
						1,500	856.1	21.8		64	16.72	sw.	7.3	
12:55	988.8	34.8	33	sw.	4.9	1,445	862.0	22.5	1.03	62	16.90	sw.	7.4	
						1,250	881.0	24.5		57	17.53	sw.	7.4	
						1,000	906.9	27.1		50	17.94	sw.	7.3	
						750	932.8	29.7		43	17.94	sw.	7.3	
1:20	988.6	35.8	34	sw.	4.9	680	940.1	30.4	1.15	41	17.81	sw.	7.3	
						500	959.1	32.5		38	18.59	sw.	6.7	
						250	985.5	35.3		33	18.87	sw.	5.9	
1:24	988.5	35.6	33	sw.	5.8	225	988.5	35.6		33	19.19	sw.	5.8	2/10 Ci.Cu., sw.

August 7, 1918, series (No. 2).

P. M.														
2:02	988.1	36.0	35	ssw.	6.3	225	988.1	36.0		35	20.80	ssw.	6.3	2/10 Ci.Cu., sw.
						250	985.8	35.7		35	20.46	ssw.	6.4	
						500	958.9	32.9		36	18.01	sw.	7.1	
2:15	988.0	36.0	34	ssw.	4.0	744	933.0	30.1	1.14	37	15.80	sw.	7.8	
						750	932.5	30.0		37	15.70	sw.	7.8	
						1,000	906.7	27.7		42	15.60	sw.	8.3	
						1,250	881.3	25.3		47	15.16	sw.	8.7	7/10 A.Cu., sw.
						1,500	856.2	22.9		52	14.52	sw.	9.2	
3:23	987.5	35.2	35	ssw.	4.5	1,583	847.6	22.1	0.95	54	14.36	sw.	9.3	
						1,750	832.0	20.6		61	14.80	sw.	9.5	
						2,000	808.2	18.4		70	14.81	sw.	9.8	
						2,250	785.1	16.2		80	14.74	sw.	10.1	
4:14	987.3	34.7	39	s.	2.7	2,371	773.6	15.1	0.89	85	14.59	sw.	10.2	
						2,500	762.9	14.6		75	12.46	sw.	10.6	
						2,750	740.8	13.7		54	8.47	sw.	11.5	
4:22	987.2	34.5	40	s.	5.8	2,927	723.6	13.0	0.38	40	5.99	sw.	12.1	
						3,000	719.1	12.6		40	5.84	sw.	12.0	
						3,250	697.7	11.3		38	5.09	sw.	11.6	
						3,500	676.7	10.0		37	4.54	sw.	11.2	
						3,750	656.2	8.7		35	3.94	sw.	10.8	
5:06	986.8	34.1	40	s.	4.0	3,801	651.7	8.4	0.54	35	3.86	sw.	10.7	
						3,750	656.2	8.7		35	3.94	sw.	10.7	
						3,500	676.4	10.1		36	4.45	sw.	10.8	
						3,250	696.7	11.5		37	5.02	sw.	10.9	
						3,000	717.8	12.9		37	5.51	sw.	11.0	
						2,750	739.1	14.3		38	6.19	sw.	11.1	
						2,500	761.4	15.7		39	6.96	sw.	11.2	1/10 Ci.Cu., sw.; 2/10 Ci.St., sw.
5:43	986.8	32.7	53	s.	3.1	2,443	766.2	16.0	0.43	39	7.09	sw.	11.2	
						2,250	783.8	16.8		55	11.03	sw.	10.5	
						2,000	807.2	17.9		75	15.38	sw.	9.7	
5:55	986.8	32.3	52	s.	3.1	1,879	818.6	18.4	0.92	85	17.99	sw.	9.3	
						1,750	831.2	19.6		81	18.48	sw.	9.4	
						1,500	855.7	21.9		72	18.92	sw.	9.7	
						1,250	880.4	24.2		64	19.33	sw.	10.0	
						1,000	905.4	26.5		56	19.39	sw.	10.3	
						750	931.0	28.8		48	19.01	sw.	10.5	
6:30	986.8	31.0	51	s.	3.1	612	945.2	30.1	0.18	43	18.36	sw.	10.7	1/10 Ci.Cu., sw.; 4/10 Ci.St., sw.
						500	957.4	30.3		46	19.86	s sw.	8.1	
						250	984.2	30.8		51	22.66	s.	2.3	
6:38	986.8	30.8	52	s.	1.8	225	986.8	30.8		52	23.10	s.	1.8	1/10 Ci., n.; 1/10 Ci.Cu., nw.

August 7, 1918, series (No. 3).

P. M.														
7:29	987.1	28.5	60	s.	2.7	225	987.1	28.5		60	23.35	s.	2.7	1/10 Ci., n.; 1/10 Ci.Cu., nw.
						250	984.7	28.7		59	23.23	s.	4.0	
7:31	987.2	28.5	60	s.	2.7	430	965.0	30.5	− 0.99	47	20.53	sw.	13.9	
						500	958.0	29.9		49	20.68	sw.	13.7	
						750	932.0	27.6		55	20.32	sw.	12.9	

TABLE 14.—*Free-air data from kite flights at Royal Center Aerological Station, August, 1918*—Continued.

August 7, 1918, series (No. 3)—Continued.

Surface.						At different heights above sea.									
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
						1,000	905.9	25.4		61	19.80	sw.	12.1	
						1,250	880.2	23.1		67	18.94	sw.	11.2	
						1,500	855.0	20.9		73	18.05	sw.	10.4	
						1,750	830.3	18.6		79	16.93	sw.	9.6	
8:20	987.7	27.8	64	s.	3.1	1,820	824.0	18.0	0.90	81	16.72	sw.	9.4	
						2,000	806.6	17.1		66	12.87	sw.	9.6	
						2,250	783.4	15.8		46	8.26	sw.	9.9	
8:44	987.9	27.4	64	s.	3.1	2,368	772.8	15.2	0.51	36	6.22	sw.	10.1	
						2,500	761.1	14.4		40	6.56	sw.	9.9	
9:21	988.1	27.2	64	s.	2.7	2,684	744.6	13.4	0.57	46	7.07	sw.	9.6	Cloudless.
						2,750	739.1	12.9		47	6.99	sw.	10.0	
						3,000	717.7	11.2		52	6.92	sw.	11.3	
						3,250	696.4	9.5		57	6.77	sw.	12.6	
9:45	988.1	26.3	65	sse.	2.7	3,473	677.4	7.9	0.66	62	6.60	sw.	13.8	
						3,250	696.4	9.3		61	7.15	sw.	13.1	
						3,000	717.7	10.9		60	7.82	sw.	12.3	
						2,750	739.1	12.5		60	8.69	sw.	11.4	
						2,500	761.1	14.0		59	9.43	sw.	10.6	
						2,250	783.4	15.6		58	10.28	sw.	9.8	
10:25	988.1	25.9	64	s.	3.1	2,218	786.6	15.8	0.51	58	10.41	sw.	9.7	
						2,000	806.6	16.9		66	12.70	sw.	9.6	
10:32	988.1	25.9	64	s.	3.1	1,849	821.5	17.7	0.90	72	14.58	sw.	9.5	
						1,750	830.3	18.6		70	15.00	sw.	9.8	
						1,500	855.0	20.8		65	15.97	sw.	10.5	
						1,250	880.2	23.1		60	16.96	sw.	11.2	
						1,000	905.9	25.3		55	17.74	sw.	11.8	
						750	932.0	27.5		50	18.36	sw.	12.5	
						500	958.0	29.8		45	18.88	sw.	13.2	
11:10	988.0	25.8	64	s.	2.7	475	960.9	30.0	− 1.81	45	19.10	sw.	13.3	
						250	985.2	25.9		62	20.72	s.	4.0	
11:17	988.0	25.5	64	s.	3.1	225	988.0	25.5		64	20.89	s.	3.1	Cloudless.

August 7–8, 1918, series (No. 4).

MIDNIGHT	987.8	24.4	72	s.	2.7	225	987.8	24.4		72	22.01	s.	2.7	Cloudless.
						250	984.6	25.0		69	21.86	s.	4.1	
A. M.														
12:04	987.8	24.6	71	s.	3.1	392	969.5	28.8	−2.67	47	18.62	sw.	12.5	
						500	958.3	28.0		49	18.53	sw.	12.5	
						750	932.1	26.1		53	17.92	sw.	12.5	
						1,000	906.1	24.2		57	17.21	sw.	12.4	
						1,250	880.0	22.3		61	16.43	sw.	12.4	
12:30	987.6	24.8	69	s.	3.1	1,462	858.2	20.7	0.76	65	15.87	sw.	12.4	
						1,500	854.7	20.4		66	15.82	sw.	12.2	
						1,750	830.1	18.5		69	14.70	sw.	11.0	
						2,000	806.1	16.6		73	13.79	sw.	9.7	Cloudless.
12:56	987.5	24.7	70	s.	3.6	2,104	796.2	15.8	0 76	75	13 46	sw.	9 2	Lightning flashes on eastern horizon.
						2,250	782 8	14 9		72	12.20	sw.	10.3	
						2,500	759.8	13.5		68	10.52	sw.	12.1	
						2,750	737.0	12.0		64	8.98	sw.	13.9	
						3,000	715.3	10.5		59	7.49	sw.	15.7	
2:11	987.7	24.7	71	ssw.	3.6	3,076	709.0	10.1	0.51	58	7.17	sw.	16.2	
						3,000	715.3	10.4		60	7.57	sw.	16.3	
						2,750	737.0	11.5		66	8.96	sw.	16.4	
						2,500	759.4	12.6		73	10.65	sw.	16.6	
						2,250	782.0	13.7		79	12.39	sw.	16.7	
2:56	987.5	24.4	73	ssw.	2.2	2,016	803.7	14.7	0 81	85	14 22	sw.	16 9	
						2,000	805.1	14.8		85	14.31	sw.	17.0	
						1,750	828.8	16.8		77	14.73	sw.	18.5	
						1,500	853.4	18.9		70	15.29	sw.	20.0	
						1,250	878.6	20.9		63	15.57	wsw.	21.5	
						1,000	904.0	22.9		56	15.64	wsw.	23.0	
3:30	987.5	24.3	73	ssw.	2.7	911	913.4	23.6	0.55	53	15.44	wsw.	23.5	
						750	930.1	24.5		55	16.91	wsw.	20.5	
3:40	987.5	24.2	74	ssw.	2.7	528	954.2	25.7	−0.50	57	18.83	sw.	16.3	
						500	956.8	25.6		59	19.38	sw.	15.0	
						250	983.7	24.3		73	22.18	ssw.	3.7	
3:43	987.5	24.2	74	ssw.	2.7	225	987.5	24.2		74	22.35	ssw.	2.7	2/10 Ci., sw.

August 8, 1918, series (No. 5).

A. M.														
5:25	986.8	23.0	82	s.	2.2	225	986.8	23.0		82	23.04	s.	2.2	3/10 Ci., sw.
						250	984.1	23.1		80	22.62	s.	3.1	
						500	956.2	24.6		60	18.56	sw.	12.5	
5:31	986.8	23.2	82	s.	2.2	580	947.8	25.1	−0.59	54	17.21	wsw.	15.5	
						750	929.1	24.1		58	17.41	wsw.	15.4	
						1,000	903.0	22.6		63	17.28	sw.	15.2	
5:45	986.8	24.0	77	s.	2.7	1,054	897.9	22.3	0.59	64	17.24	sw.	15.2	
						1,250	877.7	20.9		66	16.32	sw.	14.2	
						1,500	852.8	19.2		69	15.35	sw.	12.9	
						1,750	828.3	17.4		72	14.31	sw.	11.5	
						2,000	804.3	15.7		75	13.38	sw.	10.2	
6:22	986.8	25.4	71	s.	3.6	2,043	800.4	15.4	0.70	75	13.12	sw.	10.0	
						2,250	781.0	14.2		77	12.47	sw.	11.2	
						2,500	758.5	12.7		79	11.61	sw.	12.6	
						2,750	736.0	11.2		82	10.91	sw.	14.0	
						3,000	714.5	9.7		84	10.11	sw.	15.4	
6:58	986.8	26.4	63	s.	3.6	3,173	699.9	8.7	0.59	86	9.68	sw.	16.4	
						3,250	693.6	8.4		84	9.26	sw.	16.6	
						3,500	673.1	7.4		76	7.83	sw.	17.2	
						3,750	652.9	6.4		68	6.53	ssw.	17.8	

TABLE 14.—*Free-air data from kite flights at Royal Center Aerological Station August, 1918*—Continued.

August 8, 1918, series (No. 5)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
7:35	986.6	28.1	59	ssw.	4.0	3,967	635.3	5.5	0.42	61	5.51	ssw.	18.3	1/10 Ci.Cu., sw.
						3,750	652.9	6.4		66	6.34	ssw.	17.5	
						3,500	672.8	7.5		72	7.47	sw.	16.6	
						3,250	692.7	8.6		79	8.82	sw.	15.7	
8:04	986.4	28.9	55	ssw.	4.9	3,149	701.1	9.0	0.50	81	9.30	sw.	15.3	
						3,000	713.4	9.7		81	9.74	sw.	15.4	
						2,750	735.2	11.0		81	10.64	sw.	15.5	
						2,500	757.9	12.3		82	11.73	ssw.	15.7	
						2,250	781.0	13.5		82	12.69	ssw.	15.9	
8:39	986.4	29.6	54	ssw.	5.8	2,172	788.0	13.9	0.63	82	13.02	ssw.	15.9	
						2,000	804.3	15.0		81	13.81	ssw.	15.4	
						1,750	828.3	16.6		79	14.92	ssw.	14.6	
						1,500	852.8	18.1		76	15.79	ssw.	13.9	
						1,250	877.7	19.7		74	16.98	ssw.	13.1	
9:11	986.3	30.6	51	ssw.	5.4	1,078	895.3	20.8	0.76	73	17.94	ssw.	12.6	7/10 A.Cu., sw.
						1,000	903.0	21.4		70	17.84	ssw.	12.4	
						750	929.1	23.3		59	16.88	ssw.	11.6	
9:35	986.0	30.0	53	ssw.	7.6	602	945.1	24.4	1.44	53	16.20	ssw.	11.2	
						500	955.7	25.9		53	17.71	ssw.	10.1	
						250	982.9	29.5		53	21.86	ssw.	7.4	3/10 A.Cu., sw.: 4/10 St.Cu., sw.
9:42	986.0	29.8	53	ssw.	7.2	225	986.0	29.8		53	22.24	ssw.	7.2	

August 8, 1918, series (No. 6).

A. M.														
10:24	985.5	29.6	55	ssw.	7.6	225	985.5	29.6		55	22.81	ssw.	7.6	4/10 A.Cu., sw.; 3/10 St.Cu., sw.
						250	982.7	29.3		55	22.42	ssw.	7.9	
						500	955.6	26.6		55	19.16	ssw.	10.9	
						750	928.7	23.8		55	16.22	ssw.	13.9	
10:28	985.5	29.8	56	ssw.	7.2	773	926.5	23.5	1.12	55	15.93	ssw.	14.2	
						1,000	902.5	21.6		64	16.51	ssw.	14.4	
						1,250	876.7	19.6		75	17.11	s.	14.6	Altitude of St.Cu. base about 1,900.
						1,500	851.3	17.6		85	17.11	s.	14.7	
10:54	985.2	29.2	59	s.	7.6	1,717	830.2	15.8	0.82	94	16.87	s.	14.9	
						1,750	827.0	15.6		94	16.66	s.	15.0	
						2,000	803.4	14.3		93	15.16	s.	15.9	
						2,250	780.4	13.0		93	13.93	s.	16.8	
						2,500	757.2	11.6		92	12.57	s.	17.8	Altitude of St.Cu. base about 2,350 m.
11:42	985.1	28.8	61	s.	7.6	2,677	740.9	10.7	0.53	92	11.84	s.	18.4	Kites broke away at 12:00 noon.

August 9, 1918.

P. M.														
1:42	987.2	28.6	56	w.	4.9	225	987.2	28.6		56	21.92	w.	4.9	7/10 A.Cu., w.
						250	984.0	28.3		57	21.93	w.	4.9	
						500	956.0	25.2		67	21.48	w.	4.5	
2:24	987.0	28.7	56	w.	4.9	724	932.9	22.4	1.32	76	20.59	w.	4.1	
						500	956.0	25.5		65	21.22	w.	3.2	
						250	982.9	29.0		53	21.24	w.	2.3	
3:09	986.6	29.3	52	w.	2.2	225	986.6	29.3		52	21.20	w.	2.2	4/10 A.Cu., w.; few Cu., w.

August 11, 1918.

A. M.														
6:00	988.8	24.0	82	w.	4.5	225	988.8	24.0		82	24.47	w.	4.5	6/10 Ci.Cu., w.
						250	985.5	24.0		81	24.17	w.	5.1	
						500	958.2	23.7		67	19.64	wnw.	11.7	
6:09	988.8	24.0	80	nw.	3.6	669	940.0	23.5	0.11	58	16.80	nw.	16.1	
						750	931.6	23.3		59	16.88	nw.	15.2	
						1,000	905.7	22.6		62	17.01	wnw.	12.5	
						1,250	880.3	21.9		65	17.08	wnw.	9.8	
						1,500	955.3	21.2		68	17.12	w.	7.1	8/10 St., w.
7:30	989.1	24.8	77	wnw.	3.1	1,634	841.9	20.8	0.28	70	17.20	w.	5.6	
						1,750	830.8	19.8		68	15.71	w.	6.0	
8:13	989.2	26.0	70	w.	1.8	1,964	810.5	17.9	0.88	64	13.13	wsw.	6.6	
						2,000	807.0	17.7		66	13.36	wsw.	7.0	
						2,250	783.5	16.4		79	14.73	wsw.	9.4	
8:23	989.3	26.5	68	nne.	1.3	2,337	775.7	16.0	0.37	84	15.27	wsw.	10.3	
						2,250	783.1	16.4		76	14.17		11.6	
8:35	989.3	27.0	65	n.	1.3	1,995	806.8	17.0	0.46	65	12.60		13.3	Light sprinkle of rain at 8:32 a. m.
						1,750	830.4	18.1		63	13.09		12.3	
						1,500	855.3	19.3		61	13.66		11.2	
						1,250	880.3	20.4		58	13.90		10.1	
						1,000	905.7	21.6		56	14.45		9.1	
8:45	989.4	27.1	65	nw.	1.8	867	919.8	22.2	0.77	55	14.72		8.5	
						750	931.6	23.1		57	16.11		7.3	
						500	958.7	25.0		61	19.32		4.7	
						250	986.7	26.9		65	23.04		2.0	
8:46	989.4	27.1	65	nw.	1.8	225	989.4	27.1		65	23.32	nw.	1.8	8/10 A.St., wnw.

TABLE 14.—*Free-air data from kite flights at Royal Center Aerological Station, August, 1918*—Continued.

August 12, 1918.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
12:46	988.3	36.8	36	w.	5.4	225	988.3	36.8	.....	36	22.35	w.	5.4	1/10 Cu., w
						250	986.0	36.6	.....	36	22.11	w.	5.5	
						500	959.0	34.7	.....	35	19.36	wsw.	7.0	
1:11	988.0	37.2	34	sw.	4.9	673	940.7	33.3	0.78	35	17.91	sw.	8.0	
						750	932.7	32.7	.....	36	17.81	sw.	8.0	
						1,000	907.0	30.7	.....	39	17.23	sw.	7.9	
						1,250	882.1	28.6	.....	43	16.83	sw.	7.7	
1:33	987.9	37.4	35	sw.	6.3	1,328	874.2	28.0	0.81	44	16.64	sw.	7.7	
						1,500	857.8	26.4	.....	46	15.84	sw.	8.0	
						1,750	833.7	24.0	.....	49	14.62	sw.	8.4	
						2,000	809.8	21.6	.....	53	13.67	sw.	8.9	
1:57	987.8	37.4	36	sw.	4.5	2,194	791.8	19.7	0.85	55	12.62	sw.	9.2	
2:03	987.8	37.4	36	sw.	4.9	2,018	808.0	21.1	0.95	66	16.52	sw.	8.1	
						2,000	809.8	21.3	.....	66	16.72	sw.	8.1	
						1,750	833.0	23.6	.....	59	17.19	sw.	8.2	
						1,500	856.7	26.0	.....	53	17.82	sw.	8.3	2/10 Cu., w.
2:43	987.3	36.6	34	sw.	5.8	1,334	872.9	27.6	0.88	49	18.10	sw.	8.4	
						1,250	881.0	28.3	.....	48	18.47	sw.	8.4	
						1,000	906.0	30.5	.....	43	18.78	sw.	8.2	
2:56	987.1	36.3	34	sw.	5.4	755	931.2	32.7	0.74	39	19.30	sw.	8.1	
						500	958.1	34.6	.....	37	20.36	sw.	6.8	
						250	984.5	36.4	.....	34	20.66	sw.	5.5	
3:07	987.1	36.6	34	sw.	5.4	225	987.1	36.6	.....	34	20.89	sw.	5.4	2/10 Cu., w.

August 13, 1918.

A. M.														
7:28	992.9	27.6	60	sw.	5.4	225	992.9	27.6	.....	60	22.16	sw.	5.4	Cloudless.
						250	989.9	27.5	.....	60	22.03	sw.	5.7	
						500	962.6	26.3	.....	60	20.53	w.	9.1	
						750	935.6	25.1	.....	59	18.80	nw.	12.5	
7:40	992.9	28.0	59	w.	5.8	796	930.9	24.9	0.47	59	18.58	nw.	13.1	
						1,000	909.5	23.6	.....	63	18.35	nw.	12.3	
						1,250	884.1	21.9	.....	68	17.87	wnw.	11.4	
8:09	992.8	29.0	56	w.	4.9	1,493	859.6	20.3	0.66	73	17.39	w.	10.5	
						1,500	859.0	20.3	.....	73	17.39	w.	10.5	
						1,750	834.1	19.5	.....	57	12.92	wsw.	11.1	
8:22	992.8	29.5	56	wsw.	5.4	1,836	821.4	19.1	0.31	48	10.61	wsw.	11.4	
						2,000	810.3	18.5	.....	48	10.22	wsw.	10.5	
						2,250	787.4	17.1	.....	49	9.56	sw.	8.6	
						2,500	764.2	15.9	.....	49	8.85	sw.	6.6	Few Ci., sw.
10:08	992.1	31.8	48	sw.	6.7	2,594	755.4	15.3	0.49	49	8.52	sw.	5.9	
						2,500	764.2	15.3	.....	57	9.91	sw.	6.6	
						2,250	787.0	15.5	.....	77	13.56	sw.	8.6	1/10 Cu., sw.
11:55	991.2	33.5	41	sw.	5.8	2,141	796.4	15.5	0.78	86	15.14	sw.	9.4	
						2,000	810.1	16.6	.....	82	15.49	sw.	9.5	
						1,750	834.1	18.6	.....	76	16.29	sw.	9.6	
						1,500	859.0	20.5	.....	70	16.88	sw.	9.7	
						1,250	883.3	22.5	.....	63	17.17	sw.	9.9	
						1,000	908.5	24.4	.....	57	17.42	sw.	10.0	
P. M.														
12:30	990.8	33.7	40	sw.	5.4	770	932.3	26.2	1.34	51	17.35	sw.	10.1	
						750	934.4	26.5	.....	51	17.66	sw.	9.9	
						500	961.4	29.9	.....	46	19.41	sw.	7.8	
						250	988.0	33.2	.....	41	20.86	sw.	5.6	
12:40	990.7	33.5	41	sw.	5.4	225	990.7	33.5	.....	41	21.22	sw.	5.4	3/10 Cu., sw.

August 14, 1918.

A. M.														
7:25	992.7	21.0	77	e.	1.8	225	992.7	21.0	.....	77	19.15	e.	1.8	9/10 A. St., sw.
						250	989.4	21.0	.....	76	18.90	e.	1.9	
						500	962.1	21.5	.....	62	15.90	ese.	3.1	
8:43	993.1	23.4	68	e.	4.9	696	941.0	21.9	0.23	51	13.40	se.	4.1	
						500	962.1	23.2	.....	56	15.93	ese.	4.3	
						250	990.5	24.8	.....	62	19.41	e.	4.5	
9:30	993.2	25.0	63	e.	4.5	225	993.2	25.0	.....	63	19.96	e.	4.5	10/10 A.Cu., w.

August 17, 1918.

A. M.														
8:06	993.9	17.3	95	e.	4.5	225	993.9	17.3	.....	95	18.76	e.	4.5	10/10 St., ne.
						250	990.6	17.3	.....	95	18.76	e.	4.5	Altitude of St. base about 600 m.
						500	962.5	16.9	.....	96	18.48	e.	4.7	Rain from 8:55 to 9:00 a. m.
10:42	993.3	21.3	78	e.	4.0	749	934.8	16.5	0.53	96	18.02	e.	4.9	
						500	962.1	19.1	.....	86	19.01	e.	5.1	4/10 A.Cu., w.; 4/10 St.Cu., e.
						250	990.0	21.8	.....	77	20.11	e.	5.4	
10:56	993.2	22.0	76	e.	5.4	225	993.2	22.0	.....	76	20.09	e.	5.4	2/10 A.Cu., w.; 6/10 St. Cu., e.

TABLE 14.—*Free-air data from kite flights at Royal Center Aerological Station August, 1918*—Continued.

August 18, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
6:10	994.8	20.1	73	e.	4.5	225	994.8	20.1	.....	73	17.18	e.	4.5	5/10 A.Cu., w.
						250	991.7	20.1	.....	72	16.94	e.	4.9	
						500	963.0	19.8	.....	61	14.09	e.	8.7	
6:18	994.9	20.1	73	e.	4.9	635	948.9	19.7	0.10	55	12.62	e.	10.8	
						750	935.9	19.5	.....	58	13.15	e.	9.9	4/10 A.Cu., w.
						1,000	910.0	19.1	.....	64	14.15	e.	7.9	
						1,250	884.1	18.8	.....	70	15.19	e.	5.9	
8:48	995.6	22.8	62	e.	5.4	1,291	880.1	18.7	0.15	71	15.31	e.	5.6	
						1,250	884.1	18.8	.....	71	15.41	e.	5.7	
						1,000	911.0	19.2	.....	69	15.35	e.	6.5	
						750	937.7	19.5	.....	68	15.42	e.	7.2	
						500	964.7	19.9	.....	66	15.34	e.	7.9	
9:20	995.6	23.8	63	e.	4.9	470	968.0	19.9	1.77	66	15.34	e.	8.0	
						250	992.5	23.8	.....	62	18.28	e.	2.7	
9:25	995.6	24.2	62	e.	2.2	225	995.6	24.2	.....	62	18.72	e.	2.2	6/10 Ci.St., w.

August 19, 1918.

A. M.														
7:33	997.8	19.2	72	e.	9.4	225	997.8	19.2	.....	72	16.02	e.	9.4	Cloudless.
						250	994.8	19.1	.....	73	16.14	e.	9.9	
						500	966.3	18.2	.....	80	16.72	ene.	15.2	
7:55	997.9	19.8	72	e.	9.8	623	952.9	17.7	0.38	83	16.81	ene.	17.8	
						750	938.7	18.1	.....	67	13.92	ene.	15.1	
8:02	997.9	20.0	69	e.	9.8	919	920.4	18.6	−0.30	46	9.86	ene.	11.5	
						1,000	911.7	18.5	.....	54	11.50	ene.	10.2	
8:07	997.9	20.3	69	e.	8.5	1,133	897.9	18.4	0.93	68	14.39	ene.	8.1	
						1,250	885.4	18.2	.....	64	13.38	ene.	7.7	
						1,500	860.4	17.6	.....	55	11.07	ene.	6.8	
						1,750	835.8	17.1	.....	46	8.97	ene.	6.0	
						2,000	811.6	16.6	.....	37	6.99	ene.	5.1	1/10 Ci.St., w.
10:16	997.6	23.9	54	e.	7.6	2,083	803.2	16.4	0.50	34	6.34	ene.	4.8	
						2,000	811.6	16.5	.....	34	6.38	ene.	4.9	
						1,750	835.8	16.7	.....	35	6.65	ene.	5.2	
						1,500	860.4	16.9	.....	37	7.12	ene.	5.6	
						1,250	885.4	17.1	.....	38	7.41	ene.	5.9	
						1,000	911.7	17.3	.....	39	7.70	ene.	6.2	
11:19	997.5	25.0	50	e.	6.3	945	917.7	17.3	0.23	39	7.70	ene.	6.3	
11:30	997.4	25.5	50	e.	6.7	770	936.6	17.7	0.68	71	14.38	e.	8.6	
						750	938.7	17.9	.....	70	14.36	e.	8.5	
11:40	997.4	25.7	48	e.	7.6	535	962.6	19.3	2.24	62	13.88	e.	7.1	
						500	966.3	20.1	.....	60	14.12	e.	7.1	
						250	994.7	25.7	.....	49	16.18	e.	7.2	
11:44	997.4	26.2	48	e.	7.2	225	997.4	26.2	.....	48	16.33	e.	7.2	1/10 Ci.St., w.

August 20, 1918.

A. M.														
7:15	997.6	20.0	83	se.	5.4	225	997.6	20.0	.....	83	19.41	se.	5.4	2/10 Ci.Cu., nw.
						250	994.3	20.0	.....	83	19.41	se.	5.6	
						500	966.7	19.8	.....	86	19.87	ssw.	7.5	
7:25	997.6	20.2	81	se.	4.9	592	956.2	19.7	0.82	87	19.97	ssw.	8.2	
						750	938.2	20.0	.....	80	18.70	ssw.	4.7	
8:42	997.4	22.8	76	se.	4.5	778	935.8	20.0	−0.26	79	18.47	ssw.	4.1	
						750	938.2	20.0	.....	79	18.47	ssw.	4.0	
9:17	997.2	24.2	76	se.	3.1	505	965.9	19.9	1.62	82	19.06	s.	3.3	
						250	994.3	24.0	.....	75	22.38	se.	1.9	
9:25	997.1	24.4	74	se.	1.8	225	997.1	24.4	.....	74	22.62	se.	1.8	1/10 Ci.St., w.

August 21, 1918.

A. M.														
7:53	994.9	24.0	92	sw.	3.1	225	994.9	24.0	.....	92	27.45	sw.	3.1	1/10 Cu., w.; 2/10 St., w.
						250	991.4	23.9	.....	92	27.29	sw.	3.6	
						500	963.7	23.0	.....	86	24.17	wsw.	9.3	
8:03	994.8	24.0	91	sw.	3.1	594	953.9	22.7	0.35	84	23.18	w.	11.5	
						750	936.7	22.3	.....	86	23.16	w.	10.4	Altitude of St. base about 650 m.
						1,000	910.2	21.6	.....	89	22.96	w.	8.6	
						1,250	884.3	20.9	.....	91	22.50	w.	6.8	Altitude of Cu. base about 1,150 m.
10:50	993.2	28.0	72	wsw.	3.6	1,474	861.3	20.3	0.27	94	22.39	w.	5.2	
						1,500	858.9	20.2	.....	94	22.26	w.	5.3	2/10 Cu., w.
						1,750	834.1	19.8	.....	94	21.71	w.	5.9	
						2,000	810.0	17.5	.....	94	18.80	wnw.	6.5	4/10 Cu., w.
P. M.														
12:10	993.0	28.2	71	w.	4.0	2,176	793.4	16.6	0.36	94	17.76	wnw.	7.0	
						2,000	810.0	16.9	.....	93	17.90	wnw.	6.8	
						1,750	834.1	17.4	.....	91	18.08	wnw.	6.6	
						1,500	858.9	17.9	.....	90	18.46	wnw.	6.3	
12:48	992.4	29.6	60	wsw.	4.9	1,259	882.0	18.4	0.79	88	18.62	wnw.	6.1	
						1,250	882.5	18.5	.....	88	18.74	wnw.	6.1	
						1,000	907.4	20.4	.....	81	19.42	w.	5.8	
						750	934.0	22.4	.....	74	20.05	w.	5.5	
						500	961.4	24.4	.....	67	20.48	wsw.	5.2	
1:12	992.2	30.0	61	wsw.	4.9	474	964.9	24.6	2.27	66	20.42	wsw.	5.2	
						250	989.8	29.7	.....	62	25.89	wsw.	5.4	
1:20	992.2	30.2	62	wsw.	5.4	225	992.2	30.2	.....	62	26.62	wsw.	5.4	5/10 Cu., wnw.

TABLE 14.—*Free-air data from kite flights at Royal Center Aerological Station August, 1918*—Continued.

August 22, 1918, series (No. 1).

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
7:31	992.9	24.0	88	sw.	3.1	225	992.9	24.0	.....	88	26.16	sw.	3.1	9/10 Ci.St., w.
						250	989.9	24.0	.....	88	26.26	sw.	3.5	
						500	962.5	24.3	.....	83	25.22	wsw.	7.4	
7:38	992.9	24.0	85	sw.	4.0	611	950.4	24.4	−0.10	81	24.76	w.	9.1	
						750	935.5	24.1	.....	77	23.12	w.	8.9	
7:52	992.9	24.7	83	sw.	3.1	915	918.0	23.7	0.23	73	21.40	wsw.	8.6	
						1,000	909.0	23.1	.....	75	21.20	wsw.	8.3	
						1,250	883.5	21.4	.....	83	21.16	wsw.	7.6	
						1,500	858.8	19.7	.....	90	20.66	wsw.	6.8	
8:30	992.9	25.5	80	wsw.	4.0	1,571	851.4	19.2	0.69	92	20.47	wsw.	6.6	
						1,750	834.0	18.7	.....	86	18.55	wsw.	6.7	8/10 A.St., nw.; 1/10 Cu., w.
8:56	992.9	26.2	77	wsw.	3.6	1,962	813.6	18.2	0.26	78	16.30	wsw.	6.9	
						2,000	810.0	18.0	.....	78	16.10	wsw.	6.8	
						2,250	786.5	16.9	.....	79	15.21	wsw.	6.2	Altitude of Cu. base about 2,250 m.
						2,500	764.0	15.8	.....	80	14.36	sw.	5.5	
						2,750	741.0	14.7	.....	81	13.55	sw.	4.9	8/10 A.St., nw.; 1/10 Cu., w.
10:40	992.9	28.4	65	wsw.	3.6	2,812	735.8	14.4	0.22	81	13.28	sw.	4.7	
						2,750	740.9	14.5	.....	83	13.70	sw.	4.8	
						2,500	762.7	14.7	.....	91	15.22	sw.	5.3	7/10 Cu., w.
11:18	992.8	29.1	61	wsw.	4.0	2,490	763.8	14.7	0.22	91	15.22	sw.	5.3	
						2,250	785.3	15.2	.....	92	15.89	sw.	5.4	
						2,000	808.8	15.8	.....	93	16.69	sw.	5.4	
						1,750	833.0	16.3	.....	94	17.42	wsw.	5.5	Altitude of Cu. base about 1,850
						1,500	857.7	16.9	.....	96	18.48	wsw.	5.6	
11:48	992.6	29.4	62	sw.	4.9	1,305	868.1	17.1	0.78	96	18.72	wsw.	5.6	
						1,250	883.0	18.2	.....	91	19.02	wsw.	5.4	
						1,000	909.0	20.2	.....	83	19.65	wsw.	5.0	
						750	935.5	22.1	.....	75	19.95	wsw.	4.6	
P. M.														
12:07	992.5	29.0	66	sw.	5.8	521	960.0	23.9	1.67	67	19.87	wsw.	4.3	
						500	962.5	24.3	.....	67	20.36	wsw.	4.6	
						250	988.9	28.4	.....	66	25.54	wsw.	8.2	
12:14	992.4	28.8	66	wsw.	8.5	225	992.4	28.8	.....	66	26.14	wsw.	8.5	3/10 Ci.St., w.; 4/10 Cu., w.

August 22, 1918, series (No. 2).

P. M.														
1:01	992.2	30.5	56	sw.	4.0	225	992.2	30.5	.....	56	24.46	sw.	4.0	4/10 Cu., w.; 3/10 Ci.St., w.
						250	989.2	30.4	.....	56	24.32	sw.	4.3	
						500	962.7	29.0	.....	57	22.84	sw.	6.8	
1:06	992.1	30.5	54	sw.	4.0	602	951.3	28.5	0.54	58	22.57	sw.	7.8	
						750	936.2	27.2	.....	63	22.73	sw.	7.9	
						1,000	910.3	25.1	.....	71	22.63	sw.	8.1	
						1,250	884.7	23.0	.....	78	21.92	sw.	8.2	
						1,500	859.0	20.9	.....	86	21.26	sw.	8.4	
2:27	990.7	30.7	58	sw.	4.9	1,651	843.1	19.6	0.85	91	20.76	sw.	8.5	
						1,750	833.9	19.4	.....	84	18.93	sw.	8.0	
						2,000	809.1	18.9	.....	67	14.63	sw.	6.8	
3:22	990.5	31.0	54	sw.	5.4	2,106	799.2	18.7	0.20	60	12.94	sw.	6.3	
						2,250	786.0	18.4	.....	66	13.97	sw.	5.6	6/10 Ci.St., w.
4:18	990.3	30.3	53	sw.	3.1	2,445	768.0	18.0	0.08	73	15.07	sw.	4.7	
						2,250	785.3	17.9	.....	66	13.54	sw.	6.8	
						2,000	808.0	17.8	.....	57	11.62	ssw.	9.4	
5:13	989.7	28.8	60	ssw.	2.7	1,943	812.9	17.8	0.24	55	11.21	ssw.	10.0	
						1,750	831.5	18.3	.....	64	13.46	ssw.	9.5	
5:22	989.7	28.4	60	s.	2.2	1,565	849.5	18.7	0.69	73	15.75	ssw.	9.0	
						1,500	855.5	19.2	.....	71	15.80	ssw.	9.1	
						1,250	880.4	20.9	.....	65	16.07	ssw.	9.4	
						1,000	906.2	22.6	.....	58	15.91	ssw.	9.8	
						750	933.3	24.3	.....	52	15.80	s.	10.1	
						500	959.2	26.1	.....	45	15.22	s.	10.5	
5:56	989.5	27.7	65	s.	3.1	410	969.2	26.7	0.55	43	15.07	s.	10.6	
						250	986.8	27.6	.....	62	22.90	s.	4.0	
5:58	989.5	27.7	65	s.	3.1	225	989.5	27.7	.....	65	24.15	s.	3.1	3/10 Ci., w.

August 22, 1918, series (No. 3).

P. M.														
6:36	989.3	26.0	71	s.	3.1	225	989.3	26.0	.....	71	23.87	s.	3.1	3/10 Ci., w.
						250	987.0	26.0	.....	68	22.86	s.	4.2	
6:38	989.2	26.0	70	s.	3.1	437	966.0	26.1	−0.05	48	16.23	ssw.	12.8	
						500	958.8	25.8	.....	49	16.28	ssw.	12.6	
						750	931.9	24.5	.....	53	16.30	ssw.	11.7	
						1,000	906.0	23.2	.....	57	16.21	ssw.	10.9	
						1,250	880.2	21.9	.....	62	16.29	ssw.	10.0	
						1,500	855.3	20.6	.....	66	16.02	ssw.	9.2	
7:39	989.4	24.7	71	s.	2.7	1,516	853.8	20.5	0.52	66	15.92	ssw.	9.1	
						1,750	830.7	19.8	.....	48	11.09	ssw.	8.8	
8:02	989.5	24.3	73	s.	2.2	1,863	819.9	19.4	0.32	40	9.01	ssw.	8.6	
						2,000	807.2	18.7	.....	46	9.92	ssw.	7.5	
						2,250	784.3	17.5	.....	58	11.60	ssw.	5.4	
9:51	990.4	23.4	70	s.	3.6	2,376	772.6	16.9	0.28	64	12.32	ssw.	4.4	
						2,250	783.6	17.1	.....	50	9.75	ssw.	6.5	Cloudless.
						2,000	806.1	17.3	.....	35	6.91	sw.	8.9	
10:40	990.3	23.0	74	ssw.	3.1	1,988	807.4	17.3	0.07	34	6.72	sw.	9.0	
						1,750	830.5	17.5	.....	53	10.60	sw.	9.7	
						1,500	855.3	17.6	.....	72	14.49	sw.	10.4	
10:52	990.2	23.0	74	ssw.	2.7	1,411	864.0	17.7	0.66	79	16.00	sw.	10.6	
						1,250	880.2	18.8	.....	76	16.49	sw.	11.2	

TABLE 14.—*Free-air data from kite flights at Royal Center Aerological Station August, 1918*—Continued.

August 22, 1918, series (No. 3)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
						1,000	906.0	20.4		70	16.78	sw.	12.2	
						750	932.5	22.0		65	17.19	sw.	13.2	
11:20	990.1	23.1	74	ssw.	3.6	604	948.3	23.0	0.05	62	17.42	sw.	13.8	
						500	959.8	23.1		65	18.38	sw.	10.8	
						250	987.0	23.2		72	20.48	ssw.	3.8	
11:27	990.0	23.2	73	ssw.	3.1	225	990.0	23.2		73	20.76	ssw.	3.1	Cloudless.

August 23, 1918, series (No. 4).

A. M.														
12:19	989.8	22.4	78	ssw.	3.6	225	989.8	22.4		78	21.13	ssw.	3.6	Cloudless.
						250	986.5	22.5		76	20.72	ssw.	4.8	
12:24	989.8	22.6	77	ssw.	3.6	469	962.6	23.6	−0.50	58	16.90	ssw.	16.7	
						500	959.3	23.5		59	17.09	ssw.	16.4	
						750	932.5	22.4		65	17.61	ssw.	14.3	
						1,000	906.4	21.4		71	18.10	sw.	12.2	
						1,250	880.4	20.3		77	18.34	sw.	10.0	
						1,500	855.0	19.3		84	18.81	sw.	7.9	
12:58	989.8	22.5	78	ssw.	3.6	1,512	853.8	19.2	0.42	84	18.69	sw.	7.8	
						1,750	830.8	17.9		79	16.20	sw.	6.9	
						2,000	806.6	16.4		73	13.61	sw.	5.9	Bright moonlight.
						2,250	782.7	15.0		68	11.59	sw.	4.9	
2:22	989.8	21.8	80	ssw.	2.7	2,414	767.4	14.1	0.33	64	10.30	sw.	4.3	Cloudless.
						2,250	782.3	14.3		72	11.74	sw.	5.2	2/10 Ci., nw.
						2,000	805.5	14.6		84	13.96	wsw.	6.6	4/10 Ci.Cu., wnw.
3:04	989.8	21.5	82	s.	2.7	1,863	818.5	14.7	0.51	90	15.06	wsw.	7.4	Ci.Cu changed to 4/10 A Cu , wnw
						1,750	829.9	15.3		86	14.95	wsw.	8.4	
						1,500	855.0	16.5		78	14.64	wsw.	10.5	
						1,250	879.9	17.8		70	14.27	wsw.	12.7	
						1,000	905.0	19.1		61	13.49	wsw.	14.8	
3:34	989.8	21.1	83	s.	3.1	780	928.6	20.2	0.65	54	12.79	wsw.	16.7	
						750	931.4	20.4		54	12.94	wsw.	15.6	
3:50	989.8	21.0	83	s.	2.7	518	957.1	21.9	−0.31	56	14.72	ssw.	6.8	
						500	959.3	21.8		58	15.15	ssw.	6.5	
						250	986.5	21.1		81	20.27	s.	3.0	
3:55	989.8	21.0	83	s.	2.7	225	989.8	21.0		83	20.64	s.	2.7	1/10 Ci.Cu., wnw.

August 23, 1918, series (No. 5).

A. M.														
4:30	989.8	20.9	84	s.	1.8	225	989.8	20.9		84	20.76	s.	1.8	2/10 Ci.Cu., wnw.
						250	986.8	21.0		82	20.39	s.	2.7	
						500	958.8	22.3		65	17.50	ssw.	11.9	
4:37	989.8	20.9	85	s.	3.1	635	944.4	23.0	−0.51	56	15.74	sw.	16.9	
						750	931.9	22.5		59	16.08	sw.	16.1	6/10 St.Cu., nw.
						1,000	906.0	21.3		66	16.72	sw.	14.5	
						1,250	880.4	20.1		72	16.94	wsw.	12.8	
						1,500	855.2	18.9		79	17.25	wsw.	11.2	
						1,750	830.4	17.7		86	17.42	wsw.	9.5	
5:11	989.9	21.3	83	s.	2.7	1,876	818.2	17.1	0.48	89	17.36	wsw.	8.7	
						2,000	806.7	16.5		87	16.33	wsw.	7.9	
						2,250	783.2	15.3		82	14.25	wsw.	6.3	Altitude of St.Cu. base about 1,900 m.
						2,500	759.7	14.2		77	12.47	wsw.	4.8	
6:37	990.2	22.8	81	sw.	3.1	2,559	754.8	13.9	0.30	76	12.07	wsw.	4.4	2/10 Cu., nw.
						2,500	759.4	14.0		78	12.46	wsw.	4.6	
						2,250	782.1	14.3		87	14.18	wsw.	5.5	
7:04	990.2	23.6	78	wsw.	4.5	2,148	792.0	14.4	0.26	91	14.92	wsw.	5.9	
						2,000	805.4	14.8		89	14.98	wsw.	6.6	
						1,750	829.6	15.4		86	15.05	wsw.	7.8	
						1,500	854.4	16.1		83	15.19	wsw.	8.9	
7:30	990.2	24.0	77	sw.	3.6	1,460	858.6	16.2	0.59	83	15.29	wsw.	9.1	
						1,250	879.9	17.4		79	15.70	wsw.	9.6	
						1,000	906.0	18.9		74	16.16	wsw.	10.3	
						750	932.3	20.4		69	16.54	wsw.	10.9	
7:46	990.2	24.7	77	w.	1.8	716	936.2	20.6	0.86	68	16.50	wsw.	11.0	
7:55	990.2	24.8	77	w.	1.8	541	955.3	22.1	0.86	77	20.48	wsw.	9.6	
						500	959.7	22.5		77	22.30	wsw.	8.9	
						250	987.4	24.6		77	23.82	wsw.	4.4	
8:01	990.2	24.8	77	wsw.	4.0	225	990.2	24.8		77	24.11	wsw.	4.0	7/10 St.Cu., nw.

August 23, 1918, series (No. 6).

A. M.														
8:37	990.2	26.0	72	sw.	5.4	225	990.2	26.0		72	24.21	sw.	5.4	7/10 St.Cu., nw.
						250	986.9	25.8		73	24.25	sw.	5.4	
8:48	990.2	26.0	72	wsw.	5.4	466	963.7	24.6	0.67	84	25.99	wsw.	4.9	
						500	959.7	24.5		84	25.83	wsw.	5.1	
						750	933.0	23.6		86	25.05	wsw.	6.4	
						1,000	906.7	22.6		88	24.14	wsw.	7.6	
						1,250	880.6	21.7		89	23.10	wsw.	8.9	
9:25	990.2	26.7	70	wsw.	4.5	1,499	856.2	20.8	0.37	91	22.36	wsw.	10.2	
						1,750	831.8	19.6		92	20.99	wsw.	8.6	
						2,000	808.2	18.5		92	19.60	sw.	7.0	
10:07	990.2	28.0	64	w.	4.5	2,172	792.2	17.7	0.46	93	18.83	sw.	5.9	
						2,250	785.3	17.2		93	18.25	sw.	6.4	2/10 Cu., sw.
						2,500	762.1	15.6		93	16.48	sw.	8.0	
						2,750	739.5	14.0		94	15.02	sw.	9.6	
11:47	989.9	29.4	64	wsw.	5.8	2,876	728.4	13.2	0.38	94	14.26	sw.	10.4	
						2,750	738.9	13.3		93	14.20	sw.	9.4	
						2,500	760.3	13.6		92	14.33	sw.	7.4	

TABLE 14.—*Free-air data from kite flights at Royal Center Aerological Station, August, 1918*—Continued.

August 23, 1918, series (No. 6)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
12:05	989.7	30.0	61	w.	4.9	2,452	764.8	13.7	0.40	92	14.43	sw.	7.0	
						2,250	782.7	14.5		87	14.36	sw.	7.1	
						2,000	805.8	15.5		80	14.09	sw.	7.2	
						1,750	830.0	16.5		74	13.89	sw.	7.4	
12:30	989.4	30.6	57	w.	5.4	1,678	837.2	16.8	0.05	72	13.77	sw.	7.4	
						1,500	855.5	16.9		90	17.32	sw.	9.5	
12:37	989.4	30.8	59	w.	6.3	1,463	858.8	16.9	0.85	94	18.10	sw.	9.9	
						1,250	880.6	18.7		86	18.55	sw.	10.4	
						1,000	906.7	20.8		76	18.67	sw.	10.9	
						750	933.0	23.0		67	18.83	sw.	11.4	
1:00	989.1	30.6	58	wsw.	4.9	572	951.4	24.5	1.83	60	18.45	sw.	11.8	
						500	959.7	25.8		59	19.61	sw.	10.7	
						250	986.0	30.4		57	24.76	wsw.	6.7	
1:09	989.0	30.8	57	wsw.	6.3	225	989.0	30.8		57	25.33	wsw.	6.3	4/10 Cu., sw.

August 25, 1918.

P. M.														
4:08	988.1	27.2	55	ssw.	3.1	225	988.1	27.2		55	19.84	ssw.	3.1	1/10 Ci. St.; 7/10 A. St., w.
						250	985.0	26.9		56	19.85	ssw.	3.2	
						500	957.5	23.9		69	20.47	ssw.	3.7	
5:00	987.8	25.3	64	ssw.	4.9	701	935.7	21.4	1.22	80	20.39	ssw.	4.2	
						750	930.3	21.3		77	19.50	ssw.	3.6	
6:14	987.8	22.2	70	s.	4.9	872	917.0	21.1	−0.01	68	17.02	sw.	2.1	
						750	929.8	20.9		77	19.03	ssw.	3.6	
6:37	987.8	21.4	73	s.	3.6	658	939.8	20.7	0.15	83	20.27	ssw.	4.7	
6:45	987.8	21.2	74	s.	3.6	522	954.7	20.9	0.07	60	14.83	s.	8.5	
						500	957.3	20.9		61	15.08	s.	8.1	
						250	984.3	21.1		74	18.52	s.	3.5	
6:50	987.8	21.1	75	s.	3.1	225	987.8	21.1		75	18.77	s.	3.1	5/10 Ci.St., w.

August 27, 1918.

A. M.														
7:07	992.2	19.0	73	e.	5.8	225	992.2	19.0		73	16.04	e.	5.8	7/10 St., sw.
						250	989.3	19.0		74	16.26	e.	6.0	
						500	961.6	19.5		85	19.27	se.	8.0	
7:14	992.3	19.0	72	e.	6.3	692	940.1	19.8	−0.17	94	21.71	sse.	9.5	
						750	934.5	19.8		94	21.71	sse.	8.9	6/10 St.Cu., sw.
						1,000	908.2	19.7		94	21.57	sse.	6.6	
						1,250	882.2	19.6		94	21.44	sse.	4.2	
8:59	992.2	22.2	64	e.	6.7	1,352	871.3	19.6	0.08	94	21.44	sse.	3.2	7/10 Ci.St., sw.
						1,250	882.2	19.7		94	21.57	sse.	3.6	Solar halo, 22° radius, from 8:42 to 9:30 a. m.
						1,000	908.2	20.1		94	22.12	sse.	4.5	
						750	934.5	20.4		94	22.53	se.	5.4	
9:56	992.2	23.3	64	e.	5.8	596	951.0	20.6	0.76	94	22.81	se.	6.0	
						500	961.6	21.3		86	21.78	ese.	5.7	
						250	989.3	23.2		67	19.05	e.	5.0	
10:03	992.2	23.4	65	e.	4.9	225	992.2	23.4		65	18.71	e.	4.9	5/10 Ci.St., sw.; 2/10 A.Cu., e.

August 28, 1918.

P. M.														
3:03	986.4	28.1	61	s.	4.9	225	986.4	28.1		61	23.20	s.	4.9	6/10 Ci.St., sw.
						250	983.0	28.1		61	23.20	s.	5.0	
						500	956.2	27.5		61	22.40	ssw.	6.1	
3:12	986.3	28.8	58	s.	4.5	553	950.8	27.4	0.21	61	22.27	ssw.	6.3	
						750	929.7	26.2		65	22.11	ssw.	7.3	
						1,000	903.3	24.7		71	22.10	sw.	8.5	
4:05	986.1	28.7	58	s.	4.0	1,237	879.7	23.3	0.60	76	21.74	sw.	9.6	
						1,250	877.8	23.2		76	21.61	sw.	9.8	
						1,500	853.0	22.2		67	17.94	sw.	13.2	
						1,750	829.0	21.1		59	14.77	wsw.	16.6	
4:33	986.3	28.1	62	ssw.	4.5	1,945	810.6	20.3	0.42	52	12.39	wsw.	19.3	
						2,000	805.3	19.9		53	12.32	wsw.	19.1	
						2,250	782.8	18.2		60	12.54	sw.	18.0	
5:08	986.4	27.8	64	ssw.	3.6	2,392	769.4	17.2	0.49	64	12.56	sw.	17.4	Light rain from 5:00 to 5:13 p. m.
						2,250	782.8	17.6		61	12.28	sw.	17.9	
						2,000	804.5	18.3		55	11.57	sw.	18.8	
5:20	986.3	27.6	65	ssw.	4.0	1,923	811.9	18.5	0.42	53	11.29	sw.	19.1	
						1,750	828.0	19.2		56	12.46	sw.	18.8	
						1,500	852.7	20.3		60	14.29	sw.	18.5	
						1,250	877.8	21.3		64	16.21	sw.	20.1	
						1,000	903.3	22.3		69	18.58	sw.	17.7	
5:47	986.2	27.5	64	ssw.	3.6	985	904.8	22.4	0.62	69	18.69	sw.	17.7	
						750	929.7	23.9		66	19.58	ssw.	15.3	
6:04	986.1	27.3	65	ssw.	4.0	664	938.5	24.4	0.59	65	19.87	ssw.	14.4	
						500	956.2	25.4		66	21.42	ssw.	10.5	
						250	983.0	26.9		67	23.75	ssw.	4.6	
6:13	986.1	27.0	67	ssw.	4.0	225	986.1	27.0		67	23.89	ssw.	4.0	1/10 A.Cu., sw.; 2/10 St.Cu., sw.

TABLE 14.—*Free-air data from kite flights at Royal Center Aerological Station, August, 1918*—Continued.

August 30, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
9:58	987.8	18.4	92	sse.	2.2	225	987.8	18.4	.....	92	19.47	sse.	2.2	10/10 St.Cu., w.
						250	984.4	18.5	.....	91	19.38	sse.	2.7	
						500	956.7	19.2	.....	79	17.58	sse.	8.7	
10:09	987.9	18.5	90	sse.	5.8	617	944.1	19.6	−0.31	74	16.88	sse.	11.5	
						750	929.9	19.5	.....	72	16.32	s.	11.0	
						1,000	903.4	19.2	.....	67	14.91	s.	10.1	
						1,250	877.2	18.9	.....	63	13.76	ssw.	9.2	
						1,500	851.8	18.7	.....	59	12.73	sw.	8.2	
10:52	988.4	19.0	91	ssw.	4.0	1,649	837.8	18.5	0.11	56	11.93	wsw.	7.7	
						1,750	827.0	17.8	.....	59	12.02	wsw.	7.9	
						2,000	803.5	16.0	.....	68	12.36	wsw.	8.3	
						2,250	780.3	14.3	.....	76	12.39	sw.	8.7	
						2,500	757.3	12.6	.....	84	12.26	sw.	9.1	9/10 A.St., w.
						2,750	735.0	10.8	.....	92	11.91	sw.	9.5	
P. M.														
1:28	986.8	22.4	79	ssw.	3.6	2,833	727.6	10.2	0.70	95	11.83	sw.	9.6	
						3,000	712.8	9.6	.....	91	10.87	sw.	11.6	
						3,250	691.0	8.7	.....	85	9.56	ssw.	14.5	
1:53	986.5	22.3	78	ssw.	4.0	3,267	689.4	8.6	0.28	85	9.49	ssw.	14.7	
						3,250	691.0	8.6	.....	85	9.49	ssw.	14.6	
						3,000	712.8	9.1	.....	83	9.59	ssw.	12.9	
						2,750	735.0	9.6	.....	81	9.68	ssw.	11.1	
						2,500	757.1	10.1	.....	78	9.64	ssw.	9.4	
						2,250	779.1	10.5	.....	76	9.65	ssw.	7.7	
						2,000	801.6	11.0	.....	74	9.72	ssw.	5.9	
2:19	986.2	22.7	78	ssw.	2.7	1,952	805.1	11.1	0.60	74	9.78	ssw.	5.6	
						1,750	825.0	12.3	.....	69	9.87	sw.	5.8	
						1,500	849.5	13.8	.....	62	9.78	wsw.	6.1	
2:33	986.1	22.5	78	s.	3.1	1,388	860.8	14.5	0.18	59	9.74	wsw.	6.2	
						1,250	875.0	14.8	.....	66	11.11	wsw.	7.0	
						1,000	901.2	15.2	.....	78	13.47	sw.	8.3	
						750	927.7	15.7	.....	89	15.88	ssw.	9.7	
2:48	985.9	23.2	76	s.	3.1	676	935 9	15.8	1.78	93	16.69	ssw.	10.1	
						500	955.0	18.9	.....	86	18.78	ssw.	7.4	
						250	982.9	23.4	.....	77	22.16	s.	3.5	
2:58	985.8	23.8	76	s.	3.1	225	985.8	23.8	.....	76	22.41	s.	3.1	1/10 A.St., sw.; 5/10 A.Cu., sw.

August 31, 1918.

A. M.														
7:45	986.9	17.0	90	nw.	3.1	225	986.9	17.0	.....	90	17.44	nw.	3.1	2/10 Ci.Cu., nw.; 7/10 St.Cu., nw.
						250	983.9	16.9	.....	91	17.52	nw.	3.3	
						500	956.0	16.0	.....	97	17.63	wnw.	5.3	
7:59	987.1	17.0	88	nw.	4.5	577	947.4	15.7	0.37	99	17.66	wnw.	5.9	
						750	927.9	14.8	.....	99	16.66	wnw.	6.6	Altitude of St. Cu., base about 550 m.
						1,000	901.7	13.6	.....	100	15.58	w.	7.7	
						1,250	875.3	12.3	.....	100	14.31	w.	8.7	
8:37	987.5	18.1	85	wnw.	4.9	1,303	869.9	12.3	0.50	100	14.31	w.	8.7	
						1,500	850.0	12.3	.....	70	10.02	w.	8.9	
8:53	987.7	18.0	84	wnw.	4.9	1,735	826.3	12.2	0.02	34	4.83	w.	9.2	
						1,750	825.1	12.2	.....	34	4.83	w.	9.2	
						2,000	801.1	11.5	.....	32	4.34	w.	9.9	
						2,250	777.4	10.8	.....	30	3.88	wnw.	10.6	
9:40	987.8	19.8	73	nw.	5.8	2,487	755.1	10.1	0.28	28	3.46	wnw.	11.2	
						2,500	754.6	10.0	.....	28	3.44	wnw.	11.2	
						2,750	732.1	9.7	.....	31	3.73	wnw.	10.5	
						3,000	710.2	7.3	.....	34	3.48	wnw.	9.8	
10:55	988.1	20.9	64	nw.	6.7	3,128	699.3	6.6	0.55	35	3.41	wnw.	9.5	
						3,250	688.8	6.2	.....	34	3.22	wnw.	10.5	8/10 Cu., nw.
						3,500	668.3	5.5	.....	32	2.89	wnw.	12.5	
						3,750	647.9	4.7	.....	29	2.48	w.	14.5	
						4,000	627.6	4.0	.....	27	2.20	w.	16.5	
11:50	988.1	21.9	58	nw.	4.0	4,087	620.8	3.7	0.20	26	2.07	w.	17.2	
						4,000	627.6	3.8	.....	26	2.09	w.	16.8	
						3,750	647.9	4.0	.....	26	2.11	w.	15.6	
						3,500	668.3	4.3	.....	26	2.16	w.	14.3	
						3,250	688.4	4.5	.....	27	2.27	w.	13.1	
						3,000	709.0	4.7	.....	27	2.31	w.	11.9	
						2,750	730.0	5.0	.....	27	2.35	w.	10.7	
P. M.														
12:30	988.7	22.6	56	nw.	6.3	2,729	731.9	5.0	0.12	27	2.35	w.	10.6	
						2,500	752.3	5.3	.....	28	2.49	wnw.	10.2	
						2,250	775.6	5.6	.....	28	2.55	wnw.	9.7	
						2,000	799.8	5.8	.....	29	2.67	nw.	9.2	
1:19	988.8	22.6	57	wnw.	7.2	1,951	804.9	5.9	0.23	29	2.69	nw.	9.1	
						1,750	824.8	6.4	.....	77	7.40	nw.	9.0	
1:29	988.8	22.3	51	wnw.	7.6	1,685	831.3	6.5	0.79	93	9.00	nw.	9.0	
						1,500	850.0	8.0	.....	86	9.23	nw.	8.7	
						1,250	876.8	9.9	.....	78	9.52	nw.	8.2	
						1,000	903.6	11.9	.....	69	9.61	nw.	7.7	
						750	930.1	13.9	.....	60	9.53	nw.	7.3	
1:56	988.8	22.5	49	nw.	5.8	606	946.0	15.0	1.90	55	9.38	nw.	7.0	
						500	957.7	17.0	.....	54	10.36	nw.	7.0	
						250	985.7	21.8	.....	53	13.84	nw.	7.2	
2:05	988.8	22.2	53	nw.	7.2	225	988.8	22.2	.....	53	14.19	nw.	7.2	2/10 Cu., nw.

TABLE 15.—*Free-air data from kite flights at Royal Center Aerological Station, September, 1918.*

September 2, 1918.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	Δt 100 m.	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
7:21	990.2	17.4	78	se.	1.8	225	990.2	17.4	.....	78	15.50	se.	1.8	9/10 A.St., sw.
						250	987.6	.....	.....	76	.....	se.	2.8	
						500	959.3	.....	.....	53	.....	sse.	13.2	
7:33	990.2	18.1	72	sse.	1.8	566	951.9	.....	.....	50	.....	sse.	15.9	
						750	931.8	.....	.....	56	.....	sse.	14.1	
						1,000	905.0	.....	.....	64	.....	sse	11.7	
7:54	990.2	18.6	71	sse.	2.7	1,101	894.3	.....	.....	67	.....	sse.	10.7	
						1,250	879.0	.....	.....	72	.....	sse.	9.7	
8:12	990.2	19.1	72	sse.	4.9	1,443	859.2	.....	.....	78	.....	sse.	8.3	
						1,500	853.3	.....	.....	75	.....	sse.	8.7	
						1,750	828.6	.....	.....	59	.....	sse.	10.6	
						2,000	804.6	.....	.....	44	.....	sse.	12.4	
						2,250	781.1	.....	.....	28	.....	sse.	14.2	
8:40	990.2	19.6	72	sse.	4.5	2,274	778.7	.....	.....	27	.....	sse.	14.4	
						2,500	758.2	.....	.....	28	.....	sse.	.....	
						2,750	736.0	.....	.....	29	.....	sse.	.....	
						3,000	714.2	.....	.....	31	.....	sse.	.....	10/10 A.St., sw.
9:11	990.1	20.1	73	sse.	4.5	3,043	710.5	.....	.....	31	.....	sse.	.....	
						3,250	692.5	.....	.....	30	.....	sse.	.....	
						3,500	671.3	.....	.....	29	.....	sse.	.....	
9:50	989.6	21.0	70	sse.	4.9	3,661	657.4	.....	.....	28	.....	sse.	.....	
						3,500	670.5	.....	.....	29	.....	sse.	.....	
						3,250	690.5	.....	.....	31	.....	sse.	.....	
10:20	989.4	21.4	69	sse.	4.9	3,061	705.8	.....	.....	33	.....	sse.	16.1	
						3,000	711.1	.....	.....	32	.....	sse.	16.0	
						2,750	732.9	.....	.....	28	.....	sse.	15.7	
						2,500	755.0	.....	.....	24	.....	sse.	15.4	
10:45	989.2	21.9	68	sse.	5.4	2,387	765.1	.....	.....	22	.....	sse.	15.3	
						2,250	778.0	.....	.....	26	.....	sse.	14.9	
						2,000	801.1	.....	.....	34	.....	sse.	14.1	
						1,750	825.0	.....	.....	41	.....	sse.	13.4	
						1,500	850.4	.....	.....	49	.....	sse.	12.6	
						1,250	876.5	.....	.....	57	.....	sse.	11.8	
11:15	988.8	22.8	63	sse.	5.8	1,206	881.2	.....	.....	58	.....	sse.	11.7	
						1,000	903.0	.....	.....	62	.....	sse.	10.0	
						750	930.0	.....	.....	66	.....	sse.	7.8	
11:30	988.6	23.4	63	sse.	5.8	603	946.4	.....	.....	69	.....	sse.	6.6	
						500	957.5	.....	.....	67	.....	sse.	6.0	
						250	986.0	.....	.....	62	.....	sse	4.6	
11:37	988.5	23.4	62	sse.	4.5	225	988.5	23.4	.....	62	18.42	sse.	4.5	9/10 A.St., sw.

September 5, 1918.

A. M.														
7:29	990.3	13.2	85	n.	2.7	225	990.3	13.2	.....	85	12.89	n.	2.7	2/10 Ci., sw.; 1/10 St.Cu., n.
						250	987.9	.....	.....	85	.....	n.	3.2	
						500	958.8	.....	.....	90	.....	nne.	8.7	
7:41	990.4	13.2	85	n.	4.9	627	944.4	.....	.....	92	.....	nne.	11.5	Altitude of Fr.Cu. base about 1,150 m.
						750	930.7	.....	.....	76	.....	nne.	12.9	
7:53	990.5	13.6	83	n.	6.3	971	906.7	.....	.....	47	.....	nne.	15.5	
						1,000	903.8	.....	.....	48	.....	nne.	15.5	
						1,250	877.5	.....	.....	58	.....	nne.	15.5	
8:19	990.6	15.0	80	n.	6.7	1,470	854.5	.....	.....	67	.....	nne.	15.5	
						1,500	851.6	.....	.....	68	.....	nne.	14.9	
						1,750	826.3	.....	.....	77	.....	nne.	10.3	
8:55	990.8	15.0	98	n.	5.8	1,928	809.0	.....	.....	84	.....	nne.	7.0	1/10 Ci.St., nw.; 3/10 Ci.Cu., nw.
						2,000	802.3	.....	.....	81	.....	nne.	6.8	
						2,250	779.0	.....	.....	70	.....	nnw.	6.3	
						2,500	756.1	.....	.....	60	.....	nw.	5.7	
11:19	991.8	18.4	70	ne.	7.2	2,546	751.8	.....	.....	58	.....	nw.	5.6	
						2,500	756.1	.....	.....	52	.....	nw.	5.6	
11:28	991.7	18.1	60	nne.	7.2	2,390	765.4	.....	.....	39	.....	nw.	5.7	
						2,250	779.0	.....	.....	45	.....	nw.	5.9	
						2,000	802.3	.....	.....	56	.....	nnw.	6.3	
						1,750	826.3	.....	.....	67	.....	n.	7.7	
						1,500	851.6	.....	.....	77	.....	nne.	7.1	
P. M.														
12:22	991.5	18.9	58	nne.	7.2	1,276	875.2	.....	.....	87	.....	nne.	7.5	
						1,250	878.0	.....	.....	86	.....	nne.	7.4	
						1,000	905.0	.....	.....	74	.....	nne.	6.6	
						750	932.1	.....	.....	63	.....	nne.	5.9	
12:36	991.5	18.8	60	nne.	6.3	628	945.8	.....	.....	57	.....	nne.	5.5	
						500	960.3	.....	.....	59	.....	nne.	6.5	
						250	989.0	.....	.....	62	.....	nne.	8.3	
12:45	991.5	18.8	62	nne.	8.5	225	991.5	18.8	.....	62	13.45	nne.	8.5	6/10 Cu., n.

September 9, 1918.

P. M.														
12:08	997.6	25.3	44	wnw.	2.2	225	997.6	25.3	.....	44	14.19	wnw.	2.2	6/10 Cu., w.
						250	994.9	.....	.....	44	.....	wnw.	2.5	
						500	967.0	.....	.....	43	.....	w	5.5	
12 20	997.5	25.7	48	w.	6.3	604	955.5	.....	.....	43	.....	w.	6.7	
						750	939.9	.....	.....	46	.....	w.	6.8	
						1,000	912.8	.....	.....	52	.....	wsw.	7.0	
						1,250	886.5	.....	.....	57	.....	wsw.	7.1	
2:30	996.9	25.5	44	wsw.	6.3	1,366	874.3	.....	.....	60	.....	wsw.	7.2	
						1,500	860.4	.....	.....	66	.....	wsw.	7.6	
						1,750	835.1	.....	.....	76	.....	wsw.	8.2	
						2,000	811.0	.....	.....	87	.....	wsw.	8.9	

TABLE 15.—*Free-air data from kite flights at Royal Center Aerological Station, September, 1918*—Continued.

September 9, 1918—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
3:32	996.9	25.8	46	w.	5.4	2,134	798.4			93		wsw.	9.3	
						2,000	811.0			89		wsw.	9.1	
						1,750	834.5			83		wsw.	8.9	
						1,500	859.3			76		wsw.	8.6	
						1,250	885.0			69		wsw.	8.3	
3:50	996.9	25.3	41	w.	4.5	1,169	893.9			67		wsw.	8.2	
						1,000	911.5			60		wsw.	8.3	
						750	938.6			49		w	8.5	
4:15	996.9	24.0	51	w.	3.1	620	952.7			44		w.	8.6	
						500	966.0			46		w.	6.8	
						250	993.8			49		w.	3.0	
4:22	996.9	24.3	49	w.	2.7	225	996.9	24.3		49	14.89	w.	2.7	2/10 Ci.St., w.; 3/10 A.Cu., w.

September 10, 1918.

A. M.														
7:27	1,003.3	13.4	93	nne.	5.4	225	1,003.3	13.4		93	14.29	nne.	5.4	10/10 St., nw.
						250	1,003.3			93		nne.	5.4	Rain from 7:35 to 8:50 a. m.
						500	971.5			89		ne.	5.2	Altitude of St. base about 450 m.
7:42	1,003.5	13.0	96	nne.	4.0	525	968.5			89		ne.	5.2	
						750	943.3			85		ene.	2.5	
10:20	1,003.7	14.0	89	nne.	4.5	890	927.8			83		e.	0.9	
						750	943.3			84		e.	1.7	
						500	971.5			85		e.	3.2	
10:29	1,003.7	14.0	89	nne.	4.5	396	983.8			86		e.	3.8	
						250	1,001.0			89		nne.	4.4	
10:39	1,003.7	14.2	89	nne.	4.5	225	1,003.7	14.2		89	14.41	nne.	4.5	10/10 St. nw.

September 11, 1918.

P. M.														
2:18	985.5	20.0	74	s.	6.3	225	985.5	20.0		74	17.30	s.	6.3	9/10 St., sw.
						250	982.9			74		s.	6.6	
						500	954.8			78		ssw.	10.1	
2:35	985.2	20.3	75	s.	5.8	664	936.5			80		sw.	12.4	
						750	927.1			79		sw.	12.9	
						1,000	900.4			77		sw.	14.3	
						1,250	874.6			74		wsw.	15.8	8/10 St.Cu., w.
2:51	984.9	20.9	75	s.	4.9	1,457	853.5			72		wsw.	17.0	
						1,500	849.4			73		wsw.	17.0	
						1,750	824.7			78		wsw.	16.9	
						2,000	800.6			84		wsw.	16.8	
3:16	984.6	21.3	73	ssw.	6.3	2,254	776.9			89		wsw.	16.8	
						2,500	754.0			90		wsw.	16.6	
						2,750	731.5			91		w.	16.5	
						3,000	709.4			92		w.	16.3	
3:52	984.4	21.9	71	ssw.	2.2	3,105	700.4			92		w.	16.2	Altitude of St. Cu. base about 1,900 m.
						3,000	709.4			92		w.	16.4	
						2,750	730.7			91		w.	16.8	
						2,500	752.5			90		wsw.	17.3	
4:09	984.4	22.1	72	sw.	4.9	2,309	769.5			90		wsw.	17.6	
						2,250	775.4			89		wsw.	17.5	
						2,000	798.8			86		wsw.	16.9	
						1,750	823.0			83		wsw.	16.3	
4:23	984.3	22.0	74	sw.	4.9	1,644	833.2			82		wsw.	16.0	
						1,500	847.8			83		wsw.	15.7	
						1,250	873.3			85		sw.	15.1	
4:36	984.2	21.3	73	sw.	4.5	1,055	893.8			87		sw.	14.7	9/10 St.Cu., w.
						1,000	899.8			86		sw.	14.0	
						750	926.5			83		ssw.	10.6	
						500	954.0			80		ssw.	7.3	
						250	981.9			76		s.	3.9	
4:47	984.2	21.1	76	s.	3.6	225	984.2	21.1		76	19.02	s.	3.6	10/10 St.Cu., w. Thunder in s. and w. at 4.48 p. m. Thunderstorm sw. of station.

September 12, 1918, series (No. 1).

A. M.														
8:11	983.1	12.9	96	w.	6.3	225	983.1	12.9		96	14.28	w.	6.3	10/10 St., w.
						250	980.8			96		w.	6.6	
						500	952.4			96		w.	9.4	Altitude of St. base about 600 m.
8:35	983.2	12.9	90	w.	6.7	584	942.4			96		w.	10.4	
						750	924.5			91		w.	10.3	
						1,000	897.7			84		w.	10.2	
9:00	983.4	13.6	87	w.	7.6	1,254	870.5			76		w.	10.1	
						1,500	845.6			73		w.	9.6	
						1,750	820.7			70		w.	9.2	
						2,000	796.4			67		w.	8.7	
						2,250	772.5			63		w.	8.2	3/10 A.St., w.; 6/10., St. w.; few Cu., w.
9:54	983.7	14.3	83	nw.	7.6	2,364	762.0			62		w.	8.0	
						2,500	749.0			62		w.	8.7	
						2,750	726.3			62		w.	9.9	
10:20	983.6	14.0	81	nw.	8.5	2,778	724.2			62		w.	10.0	
						3,000	704.2			66		w.	10.6	
						3,250	683.3			71		w.	11.2	
						3,500	663.1			75		w.	11.8	
11:05	983.4	14.4	79	nw.	6.3	3,599	655.2			77		w.	12.1	3/10 Ci., w.; 1/10 Ci.St., nw.; 6/10 Cu., w.
						3,750	643.0			82		w.	13.7	
						4,000	623.3			89		w.	16.3	

TABLE 15.—*Free air-data from kite flights at Royal Center Aerological Station, September, 1918*—Continued.

September 12, 1918, series (No. 1)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	
11:17	983.5	14.6	80	wnw.	8.5	4,054	619.5			91		w.	16.9	
						4,250	603.3			72		w.	16.0	
						4,500	583.3			47		w.	14.8	
11:58	983.7	15.0	78	wnw.	11.2	4,619	573.7			35		w.	14.2	
						4,500	582.2			34		w.	15.0	
						4,250	600.0			32		w.	16.7	
						4,000	618.0			29		w.	18.5	
P. M.														
12:50	983.7	15.0	73	wnw.	9.4	3,864	627.5			28		w.	19.4	
						3,750	637.0			46		w.	17.5	
						3,500	657.0			86		w.	13.3	
1:05	983.8	14.4	68	wnw.	8.9	3,478	658.7			90		w.	12.9	
						3,250	677.9			90		w.	13.0	10/10 St.Cu.,w.
						3,000	699.8			89		w.	13.0	
						2,750	722.0			89		w.	13.1	
1:50	984.5	14.3	70	wnw.	9.4	2,657	730.3			89		w.	13.1	
						2,500	745.3			90		w.	12.9	
						2,250	769.0			91		wnw.	12.6	
						2,000	793.2			92		wnw.	12.3	
2:03	984.7	14.8	68	wnw.	8.9	1,872	805.6			92		wnw.	12.2	
						1,750	818.0			91		wnw.	12.3	
						1,500	843.4			89		wnw.	12.4	
						1,250	869.5			87		wnw.	12.6	
						1,000	896.4			85		wnw.	12.7	
						750	924.5			83		wnw.	12.8	
2:26	984.9	13.5	71	wnw.	9.4	655	935.6			82		wnw.	12.9	
						500	953.2			78		wnw.	11.1	
						250	982.0			71		wnw.	8.3	
2:35	984.9	13.1	70	wnw.	8.0	225	984.9	13.1		70	10.56	wnw.	8.0	3/10 Cu.,w.; 7/10 A.St.,w.

September 12, 1918, series (No. 2).

P. M.														
3:09	984.8	13.6	74	w.	7.6	225	984.8	13.6		74	11.53	w.	7.6	10/10 A.St.
						250	982.4			75		w.	7.6	
						500	953.7			81		wnw.	8.0	
3:19	984.8	13.6	70	wnw.	8.5	664	934.9			85		wnw.	8.2	
						750	925.9			86		wnw.	8.5	
						1,000	898.3			89		wnw.	9.5	Altitude of A.St. base about 1,150 m.
						1,250	872.0			93		wnw.	10.5	
3:40	985.0	13.4	76	wnw.	8.0	1,281	868.6			93		wnw.	10.6	
						1,500	846.2			92		wnw.	12.0	
						1,750	820.8			90		wnw.	13.6	
						2,000	796.3			88		wnw.	15.1	
4:01	985.1	13.6	74	wnw.	6.7	2,025	793.8			88		wnw.	15.3	
						2,250	772.4			93		wnw.	12.7	
						2,500	749.3			99		w.	9.8	
4:21	985.1	13.5	75	wnw.	4.5	2,565	743.1			100		w.	9.0	
						2,750	726.5			89		w.	11.1	
						3,000	704.4			72		wsw.	14.1	
						3,250	682.9			57		wsw.	17.1	
4:48	985.1	13.4	76	w.	6.7	3,386	671.2			48		wsw.	18.7	
						3,500	661.9			46		wsw.	18.7	6/10 A.Cu.,wnw.; 4/10 St.Cu.,w.
						3,750	641.4			42		wsw.	18.8	
5:19	985.3	13.2	73	w.	6.3	3,881	630.5			40		wsw.	18.8	
						3,750	641.0			41		wsw.	18.8	
						3,500	661.0			42		wsw.	18.8	
						3,250	681.4			44		wsw.	18.8	
						3,000	702.5			46		wsw.	18.8	Sprinkling from 5:30 to 5:35 p. m.
5:44	985.6	13.0	76	w.	5.4	2,947	706.8			46		wsw.	18.8	
						2,750	724.7			56		wsw.	18.1	
						2,500	747.4			68		wsw.	17.3	
						2,250	770.8			80		wsw.	16.6	
						2,000	795.0			93		wsw.	15.8	
5:58	985.8	12.8	78	w.	4.5	1,910	803.8			97		wsw.	15.5	
						1,750	820.0			95		wsw.	14.5	
						1,500	845.5			93		wsw.	12.8	
						1,250	871.5			90		wsw.	11.2	
						1,000	898.3			88		w.	9.6	
						750	925.9			85		w.	7.9	
						500	954.5			83		w.	6.3	
						250	983.9			80		w.	4.7	
6:35	986.2	12.5	80	w.	4.5	225	986.2	12.5		80	11.59	w.	4.5	9/10 St.Cu.,w.

September 12, 1918, series (No. 3).

P. M.														
7:27	986.6	13.1	85	w.	1.8	225	986.6	13.1		85	12.82	w.	1.8	10/10 St.Cu.,w.
						250	984.0			85		w.	2.3	
						500	955.2			84		wnw.	7.3	
7:40	986.7	12.1	83	w	4.0	557	948.6			84		wnw.	8.5	
						750	927.0			86		wnw.	8.3	
						1,000	899.3			88		wnw.	8.0	
						1,250	872.9			91		nw.	7.6	
						1,500	847.3			93		nw.	7.5	
8:19	986.9	12.1	82	w	5.8	1,618	835.2			94		nw.	7.4	
						1,750	822.4			95		nw.	8.2	
						2,000	798.0			96		nw.	9.7	
9:08	987.2	11.9	80	w.	4.5	2,221	776.3			97		nw.	11.0	
						2,250	773.9			97		nw.	11.2	

TABLE 15.—*Free-air data from kite flights at Royal Center Aerological Station, September, 1918*—Continued.

September 12, 1918, series (No. 3)—Continued.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
						2,500	750.4			95		nw.	12.9	
						2,750	727.6			94		nw.	14.5	
						3,000	705.2			93		nw.	16.2	
9:33	987.3	11.5	85	w.	4.0	3,105	696.0			92		nw.	16.9	10/10 St.Cu.,w.
						3,000	705.2			92		nw.	16.0	
						2,750	727.0			93		nw.	13.8	
						2,500	749.3			94		nw.	11.7	
						2,250	772.7			95		nw.	9.6	
10:01	987.5	10.8	88	w.	3.1	2,011	795.0			96		nw.	7.5	
						2,000	796.7			96		nw.	7.5	
						1,750	821.4			92		nw.	7.3	
						1,500	846.8			88		nw.	7.2	
						1,250	872.9			85		nw.	7.0	
10:20	987.5	10.0	89	w.	3.1	1,199	877.7			84		nw.	7.0	
						1,000	899.3			84		wnw.	8.0	
						750	927.0			84		wsw.	9.2	
10:29	987.5	9.8	90	w.	2.7	619	941.8			84		sw.	9.8	
						500	955.2			86		wsw.	7.6	
						250	985.0			90		w.	3.1	
10:36	987.5	9.8	90	w.	2.7	225	987.5	9.8		90	10.91	w	2.7	Few A.St.,w.

September 13, 1918, series (No. 4).

A. M.														
1:13	987.6	7.0	97	w.	2.7	225	987.6	7.0		97	9.72	w.	2.7	Cloudless.
						250	985.2			96		w.	3.1	
						500	955.8			83		wnw.	7.0	
1:30	987.6	6.8	95	w.	2.0	594	944.6			78		nnw.	8.5	
						750	927.0			76		nnw.	8.0	
						1,000	899.3			74		nw.	7.2	
						1,250	873.0			72		wnw.	6.4	
4:37	988.3	6.0	97	ssw.	3.1	1,422	854.8			70		wnw.	5.9	
						1,500	847.0			68		wnw.	6.4	
						1,750	821.8			62		wnw.	8.0	
						2,000	797.3			56		wnw.	9.6	
						2,250	773.6			50		wnw.	11.2	
4:52	988.4	6.0	97	ssw.	3.1	2,462	753.4			45		wnw.	12.5	
						2,500	750.5			44		wnw.	12.6	
						2,750	728.0			40		nw.	12.9	
						3,000	706.2			35		nw.	13.2	
						3,250	685.0			30		nw.	13.6	
						3,500	664.0			25		nnw.	13.9	
5:43	988.7	6.1	97	sw.	2.7	3,576	657.9			24		nnw.	14.0	1/10 Ci.,w.; 1/10 Ci.St.,w.
						3,500	664.0			25		nnw.	13.9	
						3,250	685.0			27		nnw.	13.7	
						3,000	706.2			30		nnw.	13.5	
						2,750	728.0			32		nw.	13.3	
						2,500	750.5			35		nw.	13.1	
						2,250	773.6			37		nw.	12.9	
6:30	989.0	8.3	94	sw.	2.7	2,187	779.4			38		nw.	12.9	
						2,000	797.3			42		nw.	12.5	
						1,750	822.1			47		nw.	11.9	
						1,500	848.0			53		nw.	11.3	
						1,250	874.0			58		wnw.	10.7	
						1,000	900.8			63		wnw.	10.2	
						750	928.8			68		wnw.	9.6	
7:00	989.1	8.9	92	sw.	1.8	582	947.4			72		wnw.	9.2	
						500	957.3			77		w.	7.8	
						250	987.0			92		sw.	3.5	
7:18	989.1	9.5	93	sw.	3.1	225	989.1	9.5		93	11.04	sw.	3.1	10/10 St.Cu.,w.

September 13, 1918, series (No. 5).

A. M.														
10:14	989.5	15.4	67	w.	5.8	225	989.5	15.4		67	11.72	w.	5.8	10/10 St.Cu., w.
						250	986.9			68		w.	5.9	
						500	958.4			74		wsw.	6.6	
10:38	989.5	16.0	63	w.	5.4	641	942.3			78		wsw.	7.0	
						750	930.4			71		wsw.	7.4	
						1,000	903.2			55		wnw.	8.2	Altitude of St.Cu. base about 1,250 m.
						1,250	876.6			38		nw.	9.0	Altitude of Cu. base about 1,350 m.
11:27	989.3	16.2	67	wsw.	5.4	1,329	863.0			33		nw.	9.3	
						1,500	850.0			40		nw.	9.7	
						1,750	825.5			50		wnw.	10.3	
						2,000	801.2			61		w.	11.0	
						2,250	777.9			71		w.	11.6	
						2,500	755.1			81		wsw.	12.2	
11:58	989.1	17.6	61	wsw.	3.6	2,661	740.3			88		wsw.	12.6	
						2,750	732.7			81		wsw.	13.0	Ci.St., nw.; Cu., w.
						3,000	710.6			62		w.	14.2	
						3,250	689.4			42		wnw.	15.4	
P. M.														
12:27	988.8	17.9	66	wsw.	4.0	3,429	674.3			28		wnw.	16.3	
						3,500	668.5			32		wnw.		
						3,750	648.4			44		wnw.		
						4,000	628.9			56		wnw.		
1:02	988.5	18.2	60	wsw.	4.0	4,078	622.2			60		wnw.		
						4,000	628.9			58		wnw.		
						3,750	648.4			52		wnw.		
						3,500	668.0			44		wnw.		

TABLE 15.—*Free-air data from kite flights at Royal Center Aerological Station, September, 1918*—Continued.

September 13, 1918, series (No. 5)—Continued.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	
						3,250	688.4			40		wnw.		
						3,000	709.0			32		wnw.		
						2,750	730.7			28		wnw.		
2:10	988.1	19.2	56	sw.	4.5	2,577	745.1			24		wnw.	10.4	
2:15	988.1	19.3	55	sw.	4.5	2,539	748.7			55		wnw.	8.5	
						2,500	752.7			55		wnw.	8.4	
						2,250	775.3			52		wnw.	7.9	
						2,000	798.8			49		w.	7.4	
						1,750	823.2			47		w.	7.0	
						1,500	849.0			44		wsw.	6.5	
2:31	988.1	19.0	58	sw.	4.5	1,366	862.8			43		wsw.	6.2	
						1,250	875.2			47		wsw.	6.5	
						1,000	902.2			51		wsw.	7.1	
						750	929.5			56		wsw.	7.7	
2:43	988.1	19.4	55	sw.	3.6	520	954.7			61		wsw.	8.2	
						500	957.0			60		wsw.	7.9	
						250	985.3			53		w.	4.8	
2:52	988.1	19.8	52	w.	4.5	225	988.1	19.8		52	12.01	w.	4.5	2/10 Ci., wnw.; 2/10 Ci.St., w.

September 14, 1918.

P. M.														
12:45	985.4	25.0	50	sw.	4.0	225	985.4	25.0		50	15.84	sw.	4.0	5/10 A.St., nw.
						250	982.9			50		sw.	4.2	
						500	955.0			55		sw.	6.3	
1:01	985.4	24.9	51	sw.	4.9	566	948.0			56		sw.	6.9	
						750	928.3			55		sw.	8.6	
						1,000	902.0			54		wsw.	10.9	
1:25	985.3	24.3	52	sw.	5.8	1,128	888.9			53		wsw.	12.1	8/10 A.Cu., nw.
						1,250	876.0			51		wsw.	12.6	
						1,500	851.0			48		sww.	13.7	
						1,750	826.6			44		wsw.	14.7	
1:48	985.2	23.8	56	ssw.	3.1	1,974	805.7			41		wsw.	15.7	
						2,000	803.3			42		wsw.	15.5	
						2,250	780.4			47		wsw.	13.2	
						2,500	758.1			53		wsw.	11.0	
						2,750	736.4			59		wsw.	8.8	
2:34	984.9	25.0	56	sw.	5.4	2,873	725.4			62		wsw.	7.7	
						3,000	714.3			63		wsw.	8.9	
						3,250	692.4			65		sw.	11.2	1/10 Ci.Cu., w.; 5/10 A.Cu., w.
3:05	984.7	24.5	51	ssw.	3.6	3,404	678.7			66		sw.	12.7	
						3,250	692.0			65		sw.	12.5	
						3,000	712.5			64		sw.	12.1	
						2,750	733.7			62		sw.	11.7	
3:26	984.7	24.2	55	ssw.	3.6	2,530	750.9			61		sw.	11.3	
						2,500	754.8			61		sw.	11.4	
						2,250	777.0			57		sw.	12.1	
						2,000	800.3			54		sw.	12.9	
						1,750	823.9			50		sw.	13.7	
3:42	984.7	23.9	52	ssw.	4.0	1,604	838.4			48		sw.	14.1	
						1,500	848.2			48		sw.	13.6	
						1,250	873.5			49		sw.	12.2	
						1,000	900.0			50		ssw.	10.9	
						750	927.0			51		ssw.	9.6	
3:59	984.7	23.1	52	ssw.	2.7	619	941.2			52		ssw.	8.9	
						500	954.0			53		ssw.	7.0	
						250	981.9			55		ssw.	3.1	
4:07	984.6	22.8	55	ssw.	2.7	225	984.6	22.8		55	15.27	ssw.	2.7	10/10 St.Cu., sw.

September 15, 1918.

A. M.														
6:08	981.7	18.0	73	ssw.	3.1	225	981.7	18.0		73	15.07	ssw.	3.1	9/10 St.Cu., w.
						250	979.0			73		ssw.	4.3	
						500	951.3			68		sw.	17.5	
6:18	981.8	18.0	73	sw.	3.1	625	937.2			65		wsw.	24.1	
						750	924.0			69		wsw.	21.5	
						1,000	897.7			77		w.	16.4	
6:48	981.9	17.7	77	wsw.	5.4	1,194	877.3			83		w.	12.4	
						1,250	871.8			81		w.	13.0	
						1,500	846.5			73		wsw.	15.9	
						1,750	822.0			66		wsw.	18.7	
						2,000	798.4			58		sw.	21.5	
7:43	982.0	18.9	72	sw.	4.0	2,187	781.0			52		sw.	23.6	7/10 A.St., w.; 3/10 A.Cu., w.
						2,250	775.3			54		sw.		
						2,500	752.4			61		sw.		
8:23	982.2	18.6	75	wsw.	4.0	2,698	734.3			66		sw.		
						2,500	752.4			70		sw.		10/10 St.Cu., w.
						2,250	774.5			74		sw.		Rain from 8:50 to 9:15 a. m.
9:00	982.4	18.3	79	wsw.	3.6	2,117	786.0			76		sw.	17.4	Altitude of St.Cu. base about 650 m.
						2,000	797.4			72		sw.	15.1	
						1,750	820.8			65		wsw.	10.1	
9:20	982.4	18.2	81	wsw.	3.6	1,595	836.1			60		w.	7.0	
						1,500	845.3			63		w.	7.0	
						1,250	870.7			71		w.	6.9	
						1,000	896.7			78		wnw.	6.8	
						750	923.5			86		wnw.	6.8	
9:37	982.4	18.4	79	w.	3.6	579	942.6			91		wnw.	6.8	
						500	951.3			88		wnw.	6.1	
						250	980.0			80		w.	3.8	
9:44	982.4	18.4	79	w.	3.6	225	982.4	18.4		79	16.72	w.	3.6	10/10 St.Cu., w.

TABLE 15.—*Free-air data from kite flights at Royal Center Aerological Station, September, 1918*—Continued.

September 16, 1918.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
9:16	986.9	13.4	85	ne.	3.6	225	986.9	13.4		85	13.06	ne.	3.6	10/10 St., nw.
						250	984.0			85		ne.	4.0	
						500	956.0			89		ene.	8.3	Rain from 9:32 to 10:15 a. m.
9:33	987.0	13.3	83	ne.	4.0	671	936.3			91		e.	11.2	1/10 Nb., ne.; 9/10 St., n.
						750	927.8			91		e.	10.3	Rain began 10:40 a. m. and continued at end of flight, becoming heavy.
						1,000	900.0			92		ese.	8.6	Altitude of St. base about 1,250 m.
11:17	986.5	11.5	92	ne.	4.9	1,230	875.0			92		ese.	5.0	
						1,250	873.0			92		ese.	5.0	10/10 St., ne.
						1,500	847.0			92		se.	4.7	
11:27	986.6	11.1	95	ne.	4.9	1,743	822.4			92		se.	4.5	
						1,500	847.0			92		e.	4.8	
						1,250	873.0			92		ne.	5.1	
11:44	986.7	11.0	96	n.	5.4	1,129	885.5			92		nne.	5.2	
						1,000	899.5			92		nne.	6.0	
						750	927.0			92		n.	7.5	
11:52	986.7	11.2	98	n.	3.6	628	940.4			92		n.	8.2	
						500	955.4			93		n.	7.9	
						250	983.8			96		n.	7.3	
P. M.														
12:03	986.8	11.0	96	n.	7.2	225	986.8	11.0		96	12.60	n.	7.2	10/10 Nb., n.

September 18, 1918.

Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.														
9:35	982.3	15.0	80	ssw.	6.3	225	982.3	15.0		80	13.64	ssw.	8.0	2/10 Cu., w.; 8/10 St.Cu., w.
						250	979.6			81		ssw.	8.2	
						500	951.1			86		ssw.	10.5	
9:44	982.2	15.0	86	ssw.	6.7	531	947.5			87		ssw.	10.8	
						750	923.0			87		ssw.	11.9	
						1,000	895.8			87		sw.	13.3	
10:06	981.9	15.5	83	ssw.	8.0	1,230	871.6			87		sw.	14.6	
						1,250	869.4			87		sw.	14.8	
						1,500	843.5			90		sw.	16.7	
						1,750	818.6			92		sw.	18.6	
						2,000	794.5			95		sw.	20.6	
10:35	981.6	15.5	82	ssw.	8.5	2,135	781.8			96		sw.	21.6	Rain from 10:35 to 11:05 a. m.
						2,250	770.7			95		sw.		
						2,500	747.3			92		sw.		
						2,750	724.5			90		wsw.		
						3,000	702.6			87		wsw.		10/10 St.Cu., sw.
11:29	981.4	15.9	81	sw.	8.5	3,031	700.2			87		wsw.		Light sprinkle of rain at 11:48 a. m.
						3,000	702.6			87		wsw.		
						2,750	724.5			90		wsw.		
						2,500	746.5			93		wsw.		
						2,250	769.0			96		wsw.		
P. M.														
12:03	981.4	15.0	79	wsw.	9.4	2,177	775.6			97		wsw.		
						2,000	792.7			97		wsw.		
						1,750	817.0			90		sw.		
						1,500	842.4			86		sw.		
12:53	981.7	16.1	70	wsw.	9.4	1,455	847.1			85		sw.	17.4	
						1,250	868.3			82		sw.	17.7	
						1,000	894.7			78		wsw.	18.1	
						750	922.0			73		wsw.	18.5	
1:05	981.8	17.1	64	wsw.	12.1	599	939.3			71		wsw.	18.7	
						500	950.4			69		wsw.	16.7	
						250	978.9			64		wsw.	11.7	
1:13	981.9	17.1	64	wsw.	11.2	225	981.9	17.1		64	12.48	wsw.	11.2	6/10 St.Cu., w.

September 20, 1918.

Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.														
7:32	994.1	4.8	89	w.	5.8	225	994.1	4.8		89	7.65	w.	5.8	1/10 A.St., nw.
						250	991.3			89		w.	6.0	
						500	961.5			85		wnw.	8.0	
7:47	994.1	5.0	86	w.	4.5	613	948.3			84		wnw.	8.9	
						750	932.4			85		nw.	8.4	
						1,000	904.4			88		nnw.	7.5	
						1,250	878.0			90		n.	6.6	
8:18	994.5	6.8	79	w.	4.9	1,330	869.1			91		n.	6.3	7/10 St.Cu., nw.; few Cu., nw.
						1,500	851.5			84		n.	6.6	Altitude of St.Cu. base about 1,300 m.
						1,750	826.2			75		n.	7.1	
9:00	995.2	6.9	78	nw.	5.4	2,001	801.0			65		n.	7.5	9/10 St.Cu., nw.
						2,250	777.0			42		n.	7.2	
9:25	995.1	7.6	78	wnw.	5.8	2,386	763.7			30		n.	7.0	
9:40	995.0	7.9	78	wnw.	6.3	2,387	763.7			71		n.	7.0	
						2,500	753.3			58		n.	7.1	
10:00	994.9	8.3	79	w.	3.1	2,515	751.7			56		n.	7.1	
						2,750	730.2			55		n.	7.5	
						3,000	707.6			55		n.	8.0	
						3,250	686.2			54		n.	8.4	
10:15	995.0	8.7	74	w.	5.8	3,446	669.3			54		n.	8.8	
						3,250	686.2			57		n.	8.3	
						3,000	707.2			61		n.	7.8	
10:28	995.0	9.2	74	w.	6.7	2,837	721.4			64		n.	7.4	
						2,750	729.2			67		n.	7.4	
						2,500	752.2			74		n.	7.4	
						2,250	776.0			81		nnw.	7.3	

TABLE 15.—*Free-air data from kite flights at Royal Center Aerological Station, September, 1918*—Continued.

September 20, 1918—Continued.

Surface.						At different heights above sea.								
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Remarks.
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
10:41	995.1	9.4	73	wnw.	3.1	2,042	796.0			87		nnw.	7.3	
						2,000	800.5			87		nnw.	7.3	
						1,750	825.7			88		nnw.	7.6	
						1,500	851.5			89		nnw.	7.9	
11:00	995.2	10.1	72	wnw.	7.6	1,383	863.9			90		nnw.	8.0	
						1,250	878.0			89		nnw.	7.8	
						1,000	905.2			88		nw.	7.5	
						750	933.5			87		wnw.	7.1	
11:21	995.2	10.0	70	wnw.	3.6	577	953.7			86		wnw.	6.9	
						500	962.7			84		wnw.	6.9	
						250	992.5			76		wnw.	6.7	
11:29	995.2	10.0	75	wnw.	6.7	225	995.2	10.0		75	8.84	wnw.	6.7	10/10 St.Cu., nw.

September 21, 1918.

A. M.														
7:36	1,000.7	8.7	80	w.	6.3	225	1,000.7	8.7		80	9.00	w.	6.3	8/10 A.Cu., nw.
						250	998.0			78		w.	7.2	
						500	968.5			58		wnw.	17.4	
7:49	1,000.7	10.0	62	nw.	5.8	637	952.4			47		wnw.	22.9	
						750	939.7			52		wnw.	20.7	
						1,000	911.5			64		wnw.	15.9	
						1,250	884.1			76		nw.	11.0	
8:20	1,000.8	9.7	65	nw.	5.8	1,395	868.8			83		nw.	8.2	8/10 St.Cu., nw.; few Cu., nw.
						1,500	858.0			84		nw.	8.3	
						1,750	832.2			85		nw.	8.7	Altitude of St.Cu. base about 2,000 m.
						2,000	807.5			86		nw.	9.0	
						2,250	783.3			88		nw.	9.4	
10:25	1,001.3	11.7	58	nw.	6.7	2,264	781.9			88		nw.	9.4	
						2,500	759.5			76		nw.		
						2,750	736.6			63		nw.		
						3,000	714.0			50		nw.		
						3,250	691.8			37		nw.		
10:54	1,001.3	11.9	57	nnw.	7.2	3,458	674.6			26		nw.		
						3,250	691.8			27		nw.		
						3,000	713.4			28		wnw.		
						2,750	736.0			30		wnw.		
11:32	1,001.5	11.8	60	nnw.	5.4	2,674	742.7			30		wnw.	11.4	
						2,500	759.0			41		wnw.	10.8	
						2,250	783.3			57		wnw.	9.9	
						2,000	807.5			74		nw.	9.1	
11:44	1,001.6	11.9	54	n.	4.0	1,779	829.4			88		nw.	8.3	
						1,750	832.2			87		nw.	8.2	
						1,500	858.0			82		nw.	7.4	
						1,250	885.5			76		wnw.	6.5	
11:57	1,001.7	12.6	55	nw.	4.9	1,211	889.6			75		wnw.	6.4	
						1,000	913.0			71		wnw.	6.2	
						750	941.5			67		wnw.	5.9	
						500	970.0			62		nw.	5.7	
						250	999.2			57		nw.	5.4	
P. M.														
12:15	1,001.6	12.2	57	nw.	5.4	225	1,001.6	12.2		57	8.10	nw.	5.4	9/10 St.Cu., nw.

September 23, 1918.

A. M.														
9:52	999.1	16.0	67	ssw.	4.9	225	999.1	16.0		67	12.18	ssw.	4.9	Few Ci., w.
						250	996.7			67		ssw.	5.0	
						500	967.4			67		sw.	6.4	
10:06	999.0	16.4	61	ssw.	4.9	616	954.1			67		sw.	7.0	
						750	938.7			68		sw.	7.8	
						1,000	910.4			70		ssw.	9.3	
P. M.														
1:18	996.9	18.9	65	sw.	4.0	1,127	896.7			71		ssw.	10.0	
						1,000	910.4			68		ssw.	9.0	
						750	937.8			61		ssw.	7.0	
1:24	996.9	19.0	66	sw.	4.9	589	955.5			57		ssw.	5.7	
						500	965.8			55		ssw.	5.5	
						250	994.5			50		sw.	5.0	
1:31	996.9	19.3	49	sw.	4.9	225	996.9	19.3		49	10.97	sw.	4.9	Cloudless.

September 26, 1918 (No. 1).

A. M.														
8:06	996.3	7.8	65	nne.	8.9	225	996.3	7.8		65	6.88	nne.	8.9	3/10 Ci.St., nw.
						250	993.8			66		nne.	9.2	
						500	964.0			74		n.	12.2	
8:15	996.4	7.8	65	nne.	7.6	596	952.7			77		nnw.	13.4	
						750	934.8			71		nnw.	13.5	
						1,000	906.7			62		nnw.	13.8	
						1,250	880.0			52		n.	14.0	
						1,500	854.0			43		n.	14.2	
						1,750	828.7			34		n.	14.5	
8:50	996.6	9.0	66	nne.	8.0	1,899	813.5			28		n.	14.6	
						2,000	803.7			28		n.	15.0	

TABLE 15.—*Free-air data from kite flights at Royal Center Aerological Station, September, 1918*—Continued.

September 26, 1918 (No. 1)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
A. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
						2,250	779.7			26		n.	15.8	
						2,500	756.5			25		nnw.	16.7	
						2,750	733.8			24		nnw.	17.6	
9:30	996.8	9.6	65	nne.	8.9	2,764	732.3			24		nnw.	17.6	
						3,000	711.3			24		nnw.		Altitude of A.St. base about 3,100 m.
						3,250	690.0			24		nw.		
						3,500	669.3			24		nw.		
10:40	996.7	11.8	68	nne.	10.3	3,538	665.8			24		nw.		
						3,500	669.3			24		nw.		
						3,250	690.0			24		nw.		
						3,000	711.0			24		nw.		
11:15	996.7	12.1	67	nne.	8.0	2,957	714.2			24		nw.	8.6	
						2,750	732.8			24		nw.	8.4	
						2,500	755.2			24		nw.	8.1	
						2,250	778.7			24		nw.	7.8	
						2,000	803.0			24		nw.	7.5	
						1,750	828.0			24		nw.	7.2	
11:33	996.8	12.3	68	nne.	7.2	1,707	832.3			24		nw.	7.1	
						1,500	853.5			27		nw.	7.4	
						1,250	880.0			30		nnw.	7.8	
						1,000	907.3			34		nnw.	8.2	
						750	936.1			37		n.	8.6	
11:54	996.9	13.0	65	n.	8.5	591	954.1			39		n.	8.8	
						500	965.2			42		n.	8.7	
						250	994.2			51		n.	8.5	
11:59	996.9	13.4	52	n.	8.5	225	996.9	13.4		52	7.99	n.	8.5	2/10 Ci.St., n.; few A.St., nw.

September 26, 1918 (No. 2).

P. M.														
12:39	996.7	14.0	48	n.	9.4	225	996.7	14.0		48	7.67	n.	9.4	2/10 Ci.St., nw.
						250	994.0			48		n.	9.5	
						500	965.0			51		nnw.	10.6	
12:55	996.6	14.8	46	n.	8.0	618	951.2			52		nnw.	11.1	
						750	936.1			56		nnw.	11.0	
						1,000	908.6			63		nnw.	10.9	
						1,250	882.0			71		nnw.	10.7	
1:37	996.4	14.8	55	nne.	7.2	1,260	880.8			71		nnw.	10.7	
						1,500	856.0			60		nnw.	11.2	
						1,750	830.2			48		n.	11.8	
2:17	996.4	14.1	61	nne.	6.7	1,930	812.2			39		n.	12.2	
						2,000	805.1			38		n.	12.5	
						2,250	780.7			35		n.	13.5	
						2,500	757.3			32		nnw.	14.5	
						2,750	735.1			29		nnw.	15.6	
2:47	996.5	13.9	65	nne.	8.0	2,907	721.3			27		nnw.	16.2	
						3,000	713.4			26		nnw.		
						3,250	692.3			24		nw.		
3:15	996.6	13.8	69	nne.	8.0	3,495	671.5			22		nw.		
						3,250	691.7			22		nw.		
3:38	996.6	13.1	70	nne.	8.0	3,077	705.9			22		nw.		
						3,000	712.8			22		nw.		
						2,750	734.5			22		nw.		
						2,500	756.9			22		nw.		
						2,250	780.0			22		nw.		
3:55	996.6	13.1	70	nne.	7.2	2,167	788.5			22		nw.	10.5	
						2,000	804.7			23		nw.	10.4	
						1,750	829.8			24		nw.	10.1	
4:06	996.7	12.5	68	nne.	8.0	1,498	855.0			26		nw.	9.9	
						1,250	882.0			39		nw.	10.1	
						1,000	908.6			52		nw.	10.3	
						750	936.1			66		nw.	10.5	
4:28	996.9	12.0	65	nne.	9.4	593	954.0			74		nw.	10.6	
						500	965.0			71		nnw.	9.6	
						250	994.4			62		nne.	6.9	
4:36	997.0	11.8	61	nne.	6.7	225	997.0	11.8		61	8.44	nne.	6.7	2/10 Ci.St., nw.; 1/10 St.Cu., nw.

September 26, 1918 (No. 3).

P. M.														
5:23	997.4	10.5	66	nnw.	6.3	225	997.4	10.5		66	8.38	nnw.	6.3	3/10 Ci.St., nw.
						250	995.0			67		nnw.	6.5	
						500	965.5			74		nnw.	8.5	
5:32	997.5	9.8	69	nnw.	5.4	622	951.0			77		nnw.	9.5	
						750	936.9			79		nnw.	9.7	
						1,000	908.8			84		nnw.	10.1	
5:47	997.5	9.3	73	n.	4.9	1,065	901.4			85		nnw.	10.2	
						1,250	881.5			73		nnw.	10.8	
						1,500	855.0			55		n.	11.6	
6:07	997.7	8.8	69	n.	4.5	1,697	834.4			41		n.	12.2	
						1,750	829.3			40		n.	12.3	
						2,000	804.3			36		n.	12.8	
						2,250	780.0			32		n.	13.3	
6:28	997.9	8.0	75	n.	3.6	2,288	767.0			30		n.	13.6	
						2,500	756.6			29		n.		2/10 Ci.St., nw.
						2,750	733.8			27		n.		
						3,000	712.0			26		n.		
						3,250	690.8			24		n.		
						3,500	669.7			22		n.		
7:12	998.4	7.2	81	n.	3.6	3,538	666.4			22		n.		
						3,500	669.7			22		n.		

TABLE 15.—*Free air-data from kite flights at Royal Center Aerological Station, September, 1918*—Continued.

September 26, 1918 (No. 3)—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
						3,250	690.8			22		n.		
						3,000	712.0			22		n.		
						2,750	733.8			22		n.		
7:36	998.5	7.0	80	n.	4.0	2,531	753.6			22		n.	9.5	
						2,500	756.6			22		n.	9.5	
						2,250	780.0			23		n.	9.2	
						2,000	804.3			23		n.	8.9	
7:53	998.6	6.6	82	n.	4.0	1,821	821.9			24		n.	8.7	
						1,750	829.3			25		n.	8.7	
						1,500	855.0			28		n.	8.6	
						1,250	881.5			31		n.	8.5	
8:07	998.6	6.3	84	nnw.	3.6	1,114	896.2			33		n.	8.4	
						1,000	908.8			44		n.	8.8	
						750	936.9			67		nnw.	9.6	
8:19	998.7	6.1	86	nnw.	3.1	616	952.4			80		nnw.	10.0	
						500	965.8			82		nnw.	7.9	
						250	996.2			86		nnw.	3.5	
8:25	998.8	6.1	86	nnw.	3.1	225	998.8	6.1		86	8.10	nnw.	3.1	Cloudless.

September 26-27, 1918 (No. 4).

P. M.														
9:00	999.0	5.9	88	n.	3.6	225	999.0	5.9		88	8.18	n.	3.6	Cloudless.
						250	996.2			88		n.	4.2	
						500	966.7			87		n.	10.9	
9:10	999.0	5.6	90	n.	3.6	600	954.4			87		n.	13.6	
						750	937.3			75		n.	12.6	
						1,000	908.7			55		nnw.	11.0	
9:25	999.0	5.4	92	nw.	3.6	1,060	900.9			49		nnw.	10.5	
						1,250	881.0			47		nnw.	10.7	
						1,500	854.7			44		nnw.	11.0	
9:47	999.0	5.2	89	nw.	3.6	1,575	846.6			43		nnw.	11.1	
						1,750	829.0			38		nnw.	10.2	
						2,000	803.5			32		n.	8.9	
11:02	998.6	5.0	90	nnw.	2.0	2,207	782.8			26		n.	7.8	
						2,250	778.5			26		n.	8.4	
						2,500	754.7			25		n.	11.7	
						2,750	732.0			24		n.	15.1	
						3,000	710.1			23		n.	18.4	
11:12	998.6	5.0	87	nnw.	2.0	3,149	697.0			23		n.	20.4	
						3,000	710.1			23		n.	19.0	
						2,750	732.0			24		n.	16.5	
						2,500	754.7			25		nne.	14.0	
						2,250	778.5			25		nne.	11.5	
11:33	998.6	4.8	89	n.	1.8	2,025	800.3			26		nne.	9.2	
						2,000	803.0			26		nne.	9.3	
						1,750	828.5			30		n.	10.3	
						1,500	854.7			34		n.	11.2	
						1,250	881.0			37		nnw.	12.2	
11:56	998.6	3.7	89	w.	1.3	1,148	891.7			39		nnw.	12.6	
						1,000	908.2			50		nnw.	11.7	
						750	936.6			70		nw.	10.2	
A. M.														
12:06	998.6	3.4	94	sw.	1.8	618	951.7			80		nw.	9.4	
						500	965.9			83		w.	7.0	
						250	995.7			88		s.	1.8	Light fog.
12:13	998.6	2.8	89	s.	1.3	225	998.6	2.8		89	6.65	s.	1.3	Cloudless.

September 27, 1918.

P. M.														
2:39	993.7	19.0	98	w.	4.9	225	993.7	19.0		98	21.53	w.	4.9	Few A.St.
						250	991.0			94		w.	5.0	
						500	962.4			53		w.	6.3	
2:51	993.6	19.5	87	w.	2.7	584	952.8			39		w.	6.7	
						750	934.5			41		w.	7.2	
						1,000	907.0			45		w.	7.8	
4:00	992.9	18.7	45	w.	5.8	1,201	884.8			48		w.	8.4	
						1,250	880.0			47		w.	8.5	
						1,500	853.6			40		wnw.	8.8	
						1,750	828.5			33		wnw.	9.2	
4:27	992.7	18.0	45	w.	4.9	1,991	804.8			27		nw.	9.5	
						2,000	804.0			27		nw.	9.5	
						2,250	780.5			37		nw.	9.0	
						2,500	757.0			47		nw.	8.5	
5:01	992.5	16.8	51	w.	3.6	2,679	740.7			54		nw.	8.2	
						2,750	734.4			54		nw.	8.6	
						3,000	712.5			54		nw.	9.8	
						3,250	691.0			53		nw.	11.1	
						3,500	670.5			53		nw.	12.3	
						3,750	649.7			53		nw.	13.6	Few Ci.St. on nw. horizon.
6:04	992.5	13.2	52	sw.	3.1	3,756	649.4			53		nw.	13.6	
						3,750	649.7			53		nw.	13.6	
						3,500	670.5			51		nw.	12.4	
						3,250	691.0			48		nw.	11.2	
						3,000	712.5			46		nw.	10.0	
						2,750	734.4			44		wnw.	8.8	
						2,500	756.7			41		wnw.	7.6	
						2,250	779.2			39		wnw.	6.4	

TABLE 15.—*Free-air data from kite flights at Royal Center Aerological Station, September, 1918*—Continued.

September 27, 1918—Continued.

Surface.						At different heights above sea.								Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	
P. M.	*mb.*	° *C.*	%		*m. p. s.*	*m.*	*mb.*	° *C.*		%	*mb.*		*m. p. s.*	
6:33	992.5	12.3	55	ssw.	5.8	2,145	788.6			38		wnw.	5.9	
						2,000	802.8			35		wnw.	6.1	
						1,750	827.4			30		w.	6.4	
						1,500	852.8			26		w.	6.8	
6:48	992.5	12.1	57	sw.	6.7	1,472	855.1			25		w.	6.8	
						1,250	879.0			30		w.	7.7	
						1,000	905.7			35		w.	8.8	
						750	932.8			40		w.	9.8	
7:12	992.5	11.5	57	sw.	1.8	700	937.8			41		w.	10.0	Cloudless.
						500	960.7			48		sw.	7.3	
						250	989.7			56		ssw.	3.9	
7:18	992.5	11.5	57	ssw.	3.6	225	992.5	11.5		57	7.73	ssw.	3.6	

September 28, 1918.

A. M.														
7:25	986.3	11.4	63	sw.	6.3	225	986.3	11.4		63	8.49	sw.	6.3	Cloudness.
						250	983.1			62		sw.	6.7	
						500	954.6			47		wsw.	11.0	
7:34	986.2	12.2	63	sw.	5.8	716	930.8			35		w.	14.7	
						750	927.0			35		w.	14.7	
						1,000	900.2			34		w.	14.4	
						1,250	874.2			33		w.	14.2	
7:52	986.1	13.2	57	w.	5.8	1,431	855.7			32		w.	14.0	
						1,500	848.7			33		w.	14.0	
						1,750	823.7			35		w.	14.2	
						2,000	799.7			37		wnw.	14.4	
						2,250	776.6			39		wnw.	14.6	
8:18	985.9	14.8	56	wsw.	5.4	2,431	760.3			40		wnw.	14.7	
						2,500	754.0			40		wnw.	14.1	
						2,750	731.5			38		wnw.	12.1	
						3,000	710.0			37		wnw.	10.1	
9:32	975.2	19.3	53	wsw.	5.8	3,243	689.2			36		wnw.	8.1	
						3,000	710.0			37		wnw.	10.2	
						2,750	731.5			38		wnw.	12.4	
						2,500	753.0			39		wnw.	14.5	
10:02	985.1	20.0	59	wsw.	6.3	2,443	757.8			39		wnw.	15.0	
						2,250	775.4			40		wnw.	14.3	
						2,000	798.8			42		wnw.	13.4	
						1,750	822.9			43		wnw.	12.5	
10:17	984.8	20.6	48	wsw.	4.9	1,649	832.7			44		wnw.	12.1	
						1,500	847.7			44		wnw.	11.2	
						1,250	873.1			45		w.	9.8	
						1,000	899.4			46		w	8.3	
						750	926.1			47		wsw.	6.8	
10:32	984.6	21.0	56	wsw.	5.8	647	937.6			47		wsw.	6.2	
						500	953.6			49		wsw.	6.4	
						250	981.5			53		wsw.	6.7	
10:38	984.5	21.0	53	wsw.	6.7	225	984.5	21.0		53	13.18	wsw.	6.7	Few A. St.

September 30, 1918.

A. M.														
7:43	993.2	9.8	68	ne.	4.0	225	993.2	9.8		68	8.24	ne.	4.0	4/10 Ci.Cu., nw.; 3/10 A.Cu., nw.
						250	990.1			67		ne.	4.4	
						500	961.0			59		ne.	9.0	
7:50	993.3	9.8	79	ne.	4.9	612	948.3			55		ne.	11.1	
						750	932.5			65		ne.	9.9	
						1,000	905.5			83		ne.	7.6	
9:45	994.1	11.0	78	ne.	5.8	1,226	881.8			100		ne.	5.6	Sprinkling from 9:45 to 10:25 a. m.
						1,250	879.0			99		ne.	5.8	
						1,500	853.7			89		nne.	7.3	
						1,750	828.5			80		nne.	8.9	
						2,000	803.9			70		n.	10.5	
9:52	994.2	11.0	78	ne.	5.4	2,199	784.4			62		n.	11.8	
						2,250	779.7			65		n.	12.3	
						2,500	756.1			79		nnw.	14.8	
						2,750	733.4			93		nw.	17.3	
9:59	994.2	11.1	77	nnw.	5.4	2,873	722.1			100		wnw.	18.5	
						2,750	733.4			92		wnw.	18.1	9/10 A.St., w.
						2,500	755.3			76		wnw.	17.2	
						2,250	778.5			60		w.	16.3	
10:32	994.4	11.5	62	sw.	7.2	2,012	800.6			45		w.	15.4	
						2,000	802.3			46		w.	15.2	
						1,750	826.9			63		nw.	11.0	
						1,500	852.4			80		n.	6.8	
10:48	994.5	11.5	73	ne.	6.3	1,345	868.8			90		ne.	4.2	
						1,250	879.0			86		ne.	4.5	
						1,000	906.0			77		ne.	5.2	
						750	933.8			67		ne.	5.9	
11:00	994.6	11.2	67	ne.	5.8	586	952.4			61		ne.	6.4	
						500	962.5			63		ne.	6.2	
						250	992.1			69		ne.	5.5	
11:07	994.7	11.2	70	ne.	5.4	225	994.7	11.2		70	9.31	ne.	5.4	10/10 St., w.