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SUPPLEMENT No. 10

AEROLOGY No. 5

FREE-AIR DATA AT DREXEL AEROLOGICAL STATION JANUARY, FEBRUARY, MARCH, APRIL, MAY, AND JUNE, 1917

BY

THE AEROLOGICAL DIVISION, WILLIS RAY GREGG, In Charge

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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. p. 3.)

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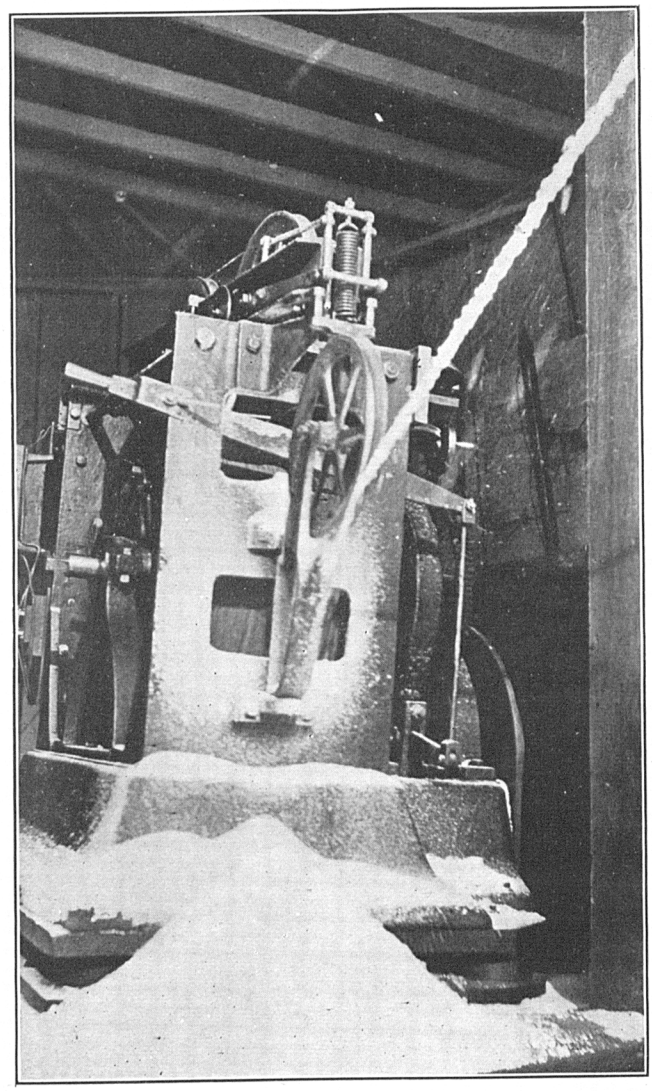

FIG. 1.—Formation of rime or "rauhreif" on kite wire at Drexel, Nebr., February, 1917. (Photo by B. J. Sherry.)

FREE-AIR DATA AT DREXEL AEROLOGICAL STATION, JANUARY TO JUNE, 1917, INCLUSIVE.

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

GENERAL STATEMENT.

During the six months January to June, 1917, inclusive, kite flights were made at Drexel on all but one day, May 14, when the wind was too light for flying. In all, 249 observations were obtained, and the average altitude reached was 2,959 meters. The number of flights and their mean altitudes for the different months are given in Table 1.

TABLE 1.—*Monthly distribution and mean altitudes attained in kite flights during the period, January to June, 1917, inclusive.*

	January.	February.	March.	April.	May.	June.
Number of flights	46	38	44	36	40	45
Mean altitude (meters)	2,940	2,984	3,172	2,859	2,927	2,855

SPECIAL NOTES ON KITE FLIGHTS.

By the Official in Charge and others at Drexel, with comments thereon.

January 31.—"Bright parhelia were observed 22½° to the right and to the left of the sun at 8:34 a. m., ending 11:54 a. m. At 8:46 a. m. there began simultaneously a bright solar halo of 22° radius, one of 46° radius and a circumzenithal arc. These phenomena were brightest from 9:30 to 10:10 a. m., disappeared from 10:54 to 11:08 a. m., reappearing at the latter time but lacking their former brilliancy. The circumzenithal arc and the 46° halo ended at 11:54 a. m. The 22° halo ended at 12:08 p. m. During the entire time it was observed the 46° halo was comparatively dim. In the afternoon from 2:12 to 4:45 p. m. the 22°-halo, parhelia and circumzenithal arc were again visible."—*C. S. L.*

February 7–8 series, No. 5.—During this flight light snow fell from low-lying stratus clouds and the wire, kites, and strings attaching the kites to the wire were heavily coated with "frost." This is not an infrequent occurrence at Drexel, nor was it at Mount Weather, Va., during the winter months, but the total amount of deposit in this case seems to make it of more than passing interest. "The 'frost' as it broke from the wire, while the latter was being reeled in, and that on the kites and kite strings was collected and weighed, with the following results: Amount on 3,000 meters of wire, 18 kg.; on three kites 4⅓ kg.; on two kite strings, each about 30 meters in length, ⅔ kg.; total, 23 kg. The 'frost' collected on the windward side of the kites and gave the appearance of having been packed by the wind; in places it was 5 mm. in thickness. This 'frost' had a 'grain' similar to that of the spruce wood of which the framework of the kites is made. The 'frost' on the wire varied in thickness from 1½ to 8 mm. and was very compact, due to the influence of the wind."—*B. J. S.*

This deposit is undoubtedly one of rime or "rauhreif," as it is crystalline in structure and white or frost-like in appearance. Its formation took place in the clouds, as is shown by the fact that 1,000 meters of wire, that portion extending from the ground to the cloud base, had no deposit whatever. Similar formations have often been observed at Mount Weather, Va., during fog, i. e., a low-lying cloud layer, and one such deposit on a twig has been described in the MONTHLY WEATHER REVIEW, volume 45, No. 1, page 19. The illustration there given shows how the rime is built out to the windward of the object on which the deposit is made. As already stated, this building out to windward occurs also with kites, but not with the kite wire, because the latter does not continuously present the same surface only to the wind. Figure 1 shows the appearance, relative thickness and, to a limited extent, the structure of this rime deposit as observed at Drexel, Nebr. The pile of "snow" at the base of the reel gives some idea of the amount of this deposit that may occur.

March 12.—"Snow fell from 7:24 to 7:50 a. m., began again at 8:48 a. m., changed to sleet at 10:45 a. m., to rain and snow at 12:30 p. m., and to light rain at 1:35 p. m., the rain continuing during the remainder of the day. Thunder was first heard to the east of the station at 8:33 a. m., and at 9:23 a. m. the first flash of lightning was observed. Thunder and lightning continued until 1:15 p. m., when the last thunder was heard to the southwest of the station.

"The kite flight was begun at 8:20 a. m., and as the kites ascended, very high values of atmospheric potential were indicated, until at an altitude of 2,000 meters (1,600 meters above the surface) the limit of the voltmeter, 50,000 volts, was exceeded. Whenever the switch connecting the kite reel with the ground was opened a steady stream of brilliant sparks jumped across the insulation that separates the reel from the ground. This distance is approximately 10 centimeters. At 9:23 a. m., with 4,000 meters of wire out there was a diffused flash of lightning, three kites broke away, and most of the wire was either destroyed or rendered unfit for use. One of the observers was touching the reel at the time, but felt no electric shock. Another had one hand on the wire and likewise felt no shock, but his hand was slightly burned where it touched the wire, and he reported that the wire was incandescent and that steam rose from it at the time of the flash. The effects on

different parts of the wire are indicated in Table 2, lengths being counted from the head kite:

TABLE 2.—*Effects on different portions of wire struck by lightning, Mar. 12, 1917.*

Length from head kite.	Diameter of wire.	Condition.
Meters.	*Inches.*	
0 to 800	0.036	Destroyed.
800 to 1,600	.040	Brittle like glass.
1,600 to 1,900	.040	Dark blue.
1,900 to 2,075	.040	Yellowish brown and dark blue.
2,075 to 2,260	.040	Very dark blue.
2,260 to 3,600	.040	Apparently not affected.
3,600 to 3,680	.044	Light brown.
3,680 to 3,800	.044	Dark brown.
3,800 to 4,000	.044	Dark brown to dark blue.

"The string attaching the head kite to the wire was burned. The 'splice' or galvanized-iron wire by means of which the second kite was attached to the main wire was not affected, but the latter was fused and welded to it. The main wire is known as 'piano steel.'"—*B. J. S.*

This thunderstorm occurred on the border between a HIGH central over Lake Superior and a LOW over New Mexico. It had none of the characteristics of the "line" type of thunderstorm, the sky being overcast during the entire day with low stratus clouds and the surface meteorological records showing but little variation from what would have been expected had the storm not occurred. The temperature did not vary 2° (C) during the entire day, and the pressure showed only a slight, gradual rise in the early part of the storm and fell rather abruptly during the latter part. Moreover, the storm moved from east to west with the wind circulation, due to the pressure distribution. It was therefore undoubtedly one of the so-called "cyclonic" type of thunderstorm.

The tabulated data, Table 7, and graphs 1 and 2 in figure 2, indicate that the low stratus layer was approximately 500 meters in thickness, and that it was characterized by high humidity and low temperatures. Above it there was a sharp inversion of temperature and very low humidity. The temperature then fell at nearly the adiabatic rate and the humidity continued low up to what is believed to have been a higher layer of stratus or strato-cumulus at about 2,400 meters altitude. In this cloud layer the temperature fell less rapidly and the humidity increased nearly to 100 per cent.

The surface-data sheet at Drexel shows that after 9:11 a. m., when the highest altitude was reached, about 900 meters of wire were reeled in and the head kite had therefore been brought to a lower altitude by 9:23 a. m., when the wire was struck by lightning. It is believed that this altitude was about 2,400 meters, or in other words, that the head kite was in the base of the higher cloud layer. On this assumption the third graph in figure 2 represents the kite wire at the time it was struck by lightning. The crosses show the lengths of the wire variously affected by the electric charge, as given in Table 2. It is of interest to note that that portion of the wire within the lower stratus cloud, *F–G* in the figure, showed no ill effects from the lightning, whereas that portion between the base of this cloud and the earth, *G* to *J* in the figure, was considerably affected, in spite of the fact that it was wire of larger diameter and therefore of less resistance. The wire in the dry air between the two cloud layers, *A* to *F* in the figure, was either entirely destroyed or rendered unfit for use. It is evident that the electric charge originated in the upper cloud layer, and that much of it passed along the wire into the lower cloud; a portion of it continued to the earth, did not affect the wire in the cloud, because of the moisture on it, but did injure the wire in the drier air below the cloud layer. This incident illustrates one of the dangers to which an aviator would be subject when flying during a thunderstorm, namely, the possibility of the aeroplane forming a part of the path of a discharge. The danger is even greater in the case of a kite-balloon connected to the ground by a cable.

May 7.—"The wind aloft has been from the north to east for the last four days, the most persistent north to east wind that we have experienced at Drexel." During this period a well-developed LOW moved from Texas northeastward to New England, and pressure was high over the Northwest. In general, under similar pressure distribution, the winds aloft are too light for kite flights.[1]

The data for these days, Table 9, show that, although the winds were light, they nevertheless were sufficiently strong to sustain kites. A few cases of the kind occurred also at Mount Weather, Va.[2]

FREE-AIR TEMPERATURES.

Table 3 contains mean temperatures at different levels, as observed at Drexel during the period January to June, 1917, inclusive; also, the means for the two years, 1916 and 1917; the 5-year means, as observed at Mount Weather, Va., and the differences between the Drexel and Mount Weather means. The figures show that in the winter months temperatures are much lower at Drexel than at Mount Weather from the surface to about the 1,500-meter level. Above that level in these months and at all altitudes in the other months differences are comparatively small.

[1] MONTHLY WEATHER REVIEW SUPPLEMENT 8, p. 7.
[2] *Bulletin of the Mount Weather Observatory, Vol. 4, p. 46, and vol. 6, pp. 148 and 153.*

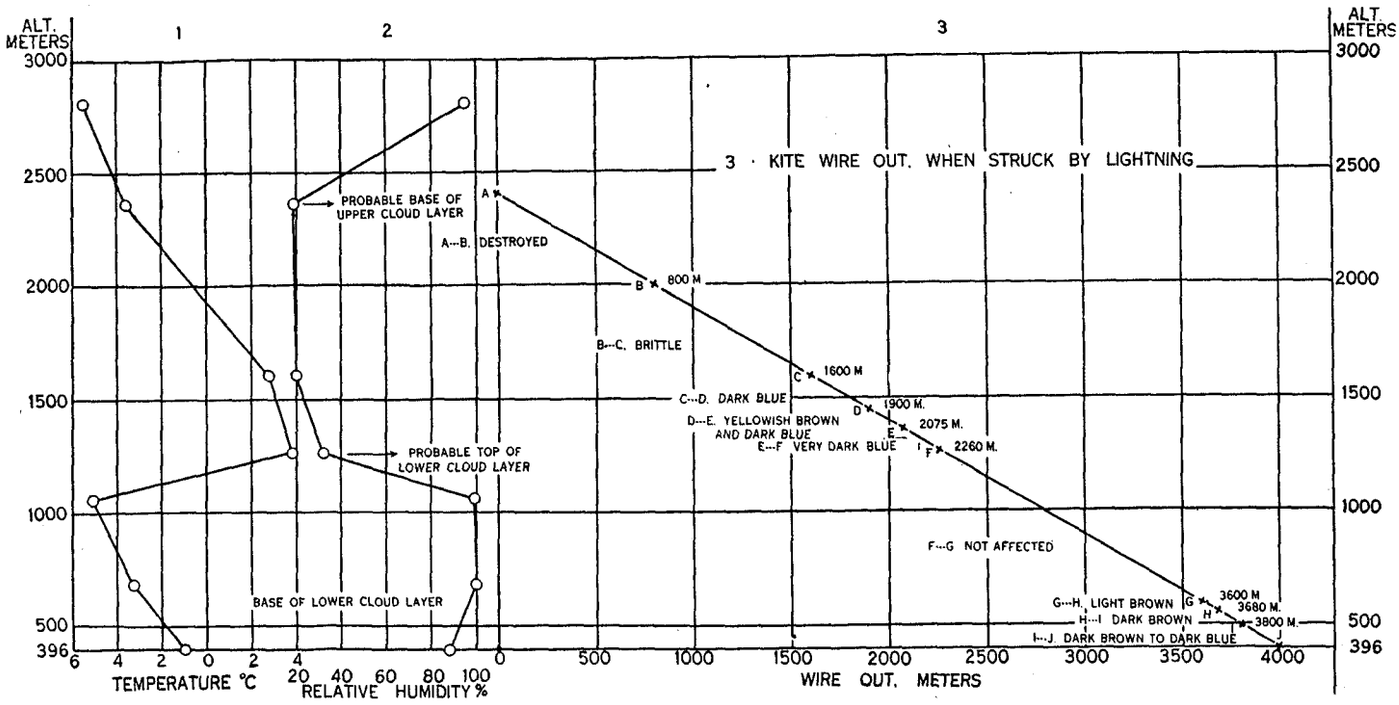

FIG. 2.—Relation between atmospheric temperature and humidity and the effects of lightning on kite wire during thunderstorm of March 12, 1917, Drexel, Nebr.

TABLE 3.—*Mean monthly temperature at Drexel, for January to June, 1917; January to June, 1916 and 1917; and comparison of latter with 5-year means at Mount Weather, Va.*

Altitude.	JANUARY.				FEBRUARY.				MARCH.			
	Drexel.		Mount Weather, 5-year mean.	Departures.	Drexel.		Mount Weather, 5-year mean.	Departures.	Drexel.		Mount Weather, 5-year mean.	Departures.
	1917.	2-year mean.			1917.	2-year mean.			1917.	2-year mean.		
meters.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.
396	a − 6.2	− 7.2	.....	.....	b − 6.9	− 5.4	.....	.....	c 3.0	3.4	.....	.....
500	− 6.1	− 7.4	g − 1.3	− 6.1	− 7.5	− 5.8	g − 0.8	−5.0	2.5	2.8	g 4.6	−1.8
750	− 5.6	− 7.2	− 1.7	− 5.5	− 8.6	− 6.4	− 1.6	−4.8	1.1	1.8	3.5	−1.7
1,000	− 4.7	− 5.7	− 2.0	− 3.7	− 8.4	− 5.8	− 2.4	−3.4	0.1	1.2	2.5	−1.3
1,250	− 4.7	− 4.8	− 2.5	− 2.3	− 7.1	− 4.4	− 2.9	−1.5	− 0.1	1.2	1.6	−0.4
1,500	− 4.9	− 4.6	− 2.9	− 1.7	− 6.5	− 4.2	− 3.4	−0.8	− 0.9	0.8	0.7	+0.1
1,750	− 5.4	− 4.6	− 3.4	− 1.2	− 6.5	− 4.1	− 4.1	0.0	− 1.8	0.1	− 0.3	+0.4
2,000	− 5.9	− 5.0	− 4.0	− 1.0	− 7.2	− 4.6	− 4.8	+0.2	− 2.8	− 0.9	− 1.3	+0.4
2,250	− 6.7	− 5.8	− 4.7	− 1.1	− 8.0	− 5.4	− 5.6	+0.2	− 3.7	− 2.0	− 2.4	+0.4
2,500	− 7.6	− 6.7	− 5.7	− 1.0	− 9.0	− 6.5	− 6.8	+0.3	− 4.8	− 3.4	− 3.6	+0.2
2,750	− 8.8	− 7.8	− 6.8	− 1.0	−10.1	− 7.6	− 7.8	+0.2	− 6.0	− 4.9	− 4.9	0.0
3,000	−10.0	− 9.0	− 8.2	− 0.8	−11.0	− 8.9	− 9.0	+0.1	− 7.3	− 6.4	− 6.2	−0.2
3,250	−11.1	−10.1	− 9.6	− 0.5	−12.0	−10.2	−10.5	+0.3	− 8.5	− 7.8	− 7.6	−0.2
3,500	−12.0	−11.1	−10.9	− 0.2	−13.3	−11.6	−12.0	+0.4	− 9.6	− 9.2	− 8.9	−0.3
3,750	−13.0	−12.1	−12.2	+ 0.1	−14.7	−13.0	−13.3	+0.3	−10.5	−10.6	−10.3	−0.3
4,000	−14.1	−13.3	−13.6	+ 0.3	−16.1	−14.2	−14.8	+0.6	−11.8	−11.8	−11.8	0.0
4,250	−14.9	−14.2	−15.0	+ 0.8	−17.7	−15.6	−16.3	+0.7	−12.8	−13.2	−13.5	+0.3
4,500	.....	−15.5	−16.4	+ 0.9	.....	.....	.....	.....	.....	.....	.....	.....
4,750	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Altitude.	APRIL.				MAY.				JUNE.			
	Drexel.		Mount Weather, 5-year mean.	Departures.	Drexel.		Mount Weather, 5-year mean.	Departures.	Drexel.		Mount Weather, 5-year mean.	Departures.
	1917.	2-year mean.			1917.	2-year mean.			1917.	2-year mean.		
meters.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.	°C.
396	d 8.4	9.0	.....	.....	e 14.6	16.0	.....	.....	f 21.0	20.8	.....	.....
500	7.8	8.2	g 10.4	−2.2	14.4	15.6	g 17.0	−1.4	20.5	20.0	g 19.7	+0.3
750	6.2	6.4	8.8	−2.4	12.7	13.8	15.2	−1.4	19.1	18.2	18.2	0.0
1,000	5.0	4.8	7.4	−2.6	10.9	12.2	13.4	−1.2	17.7	16.5	16.7	−0.2
1,250	3.9	3.4	6.1	−2.7	9.5	10.6	11.6	−1.0	16.1	15.0	15.2	−0.2
1,500	2.9	2.2	4.6	−2.4	8.0	9.2	9.9	−0.7	15.2	13.7	13.7	0.0
1,750	2.0	1.0	3.1	−2.1	6.7	7.7	8.3	−0.6	13.7	12.3	12.3	0.0
2,000	1.1	− 0.3	1.7	−2.0	5.3	6.4	6.6	−0.2	12.2	10.7	10.8	−0.1
2,250	− 0.2	− 1.6	0.4	−2.0	3.9	4.9	5.0	−0.1	10.4	9.0	9.4	−0.4
2,500	− 1.4	− 2.8	− 0.9	−1.9	2.4	3.4	3.5	−0.1	8.7	7.4	8.0	−0.6
2,750	− 2.7	− 4.0	− 2.2	−1.8	1.0	1.8	2.0	−0.2	7.2	5.9	6.6	−0.7
3,000	− 4.1	− 5.4	− 3.6	−1.8	− 0.3	0.2	0.5	−0.3	5.7	4.4	5.1	−0.7
3,250	− 5.6	− 6.8	− 5.1	−1.7	− 1.0	− 1.0	− 1.0	0.0	4.1	2.9	3.5	−0.6
3,500	− 7.1	− 8.4	− 6.7	−1.7	− 2.2	− 2.4	− 2.6	+0.2	2.4	1.3	1.9	−0.6
3,750	− 8.8	−10.2	− 8.2	−2.0	− 3.4	− 3.6	− 4.1	+0.5	1.0	−0.1	0.3	−0.4
4,000	−10.3	−11.9	− 9.7	−2.2	− 4.8	− 4.6	− 5.7	+1.1	−0.5	−1.8	−1.5	−0.3
4,250	−11.7	−13.6	−11.4	−2.2	− 6.2	− 6.0	− 7.3	+1.3	−1.9	−3.4	−3.3	−0.1
4,500	−12.9	−15.1	−13.0	−2.1	− 7.6	− 7.4	− 9.1	+1.7	−3.2	−5.0	−4.9	−0.1
4,750	−14.1	−16.3	−14.5	−1.8	− 9.6	− 9.4	−11.1	+1.7	−4.5	−6.3	−6.3	0.0
5,000	−16.1	−18.3	−16.0	−2.3	−11.7	−11.5	−13.1	+1.6	.....	.....	.....	.....

a Actual 24-hour mean temperature, −6.8° C.
b Actual 24-hour mean temperature, −6.8° C.
c Actual 24-hour mean temperature, 2.2° C.
d Actual 24-hour mean temperature, 7.9° C.
e Actual 24-hour mean temperature, 13.3° C.
f Actual 24-hour mean temperature, 19.6° C.
g At surface, 526 meters above sea level.

DIURNAL SERIES OBSERVATIONS.

During the six months 9 series of observations of diurnal variations were made. The number of observations and the average altitudes reached in each series are shown in Table 4.

TABLE 4.—*Number of observations and average altitudes reached in diurnal series, January to June, 1917, inclusive.*

Dates of series.	Number of flights.	Mean altitudes attained.
1917.		*meters.*
January 18-19	8	3,108
January 30-31	7	2,398
February 7-8	8	2,154
March 8-9	7	3,362
March 23-24	9	3,376
April 23-24	7	2,776
May 8-9	8	3,123
June 13-14	9	2,733
June 29-30	6	2,567

The duration of each series and the temperatures observed are shown in figures 3 to 11. Weather conditions, except pressure distribution, and all other observed data may be found in Tables 5 to 10.

Pressures and winds during the series flights.

At the beginning of the series of January 18–19, a pronounced HIGH (1,044 mb.) was central over southern Idaho, with a HIGH of less intensity (1,034 mb.) over western Kansas, and pressure was relatively low (1,015 mb.) over the Canadian Northwest. The first HIGH remained practically stationary, but diminished greatly in energy (1,025 mb.) by the end of the series. In the meantime the second HIGH moved southeastward to Texas, thence northeastward to the middle Atlantic States (1,023 mb.) and the LOW moved southeastward

to Minnesota and increased somewhat in intensity (1,010 mb.). With the advance of the northwestern LOW the winds, both surface and aloft, changed from northwesterly to southwesterly and back to westerly.

Most of the records in the series of January 30–31 were to comparatively low altitudes, but they are of considerable interest because obtained during the approach of a pronounced cold wave. On the morning of the 30th high pressure (1,030 mb.) was central north of Montana, and a LOW (998 mb.) over Wyoming. The HIGH remained practically stationary but increased greatly in intensity (1,051 mb.); the LOW moved southeastward to Oklahoma, thence northeastward to the lower Lakes Region. Under the influence of the LOW, as it passed eastward, the surface winds backed from easterly to north-northwesterly; aloft, they veered from south-southwesterly to northwesterly. Figure 4 indicates very low temperatures to considerable altitudes during the latter part of the series, a condition that continued through February 2 (Table 6).

During the series of February 7–8 a HIGH (1,033 mb.) was central over southern Idaho. Low pressure (996 mb.) central north of Lake Superior, moved eastward and diminished in intensity (1,003 mb.). Surface winds veered from southwesterly to northerly; aloft, from west northwesterly to north-northwesterly.

The series of March 8–9 consisted of 7 excellent flights, made during a period of rapidly changing conditions of surface pressure distribution. At the beginning of this series a well developed LOW (1,000 mb.) central over the upper Lakes, caused northwesterly winds both at the surface and at higher levels. This LOW moved eastward and, after 6 p. m., ceased to influence conditions at Drexel. Moderately high pressure (about 1,025 mb.) moved eastward from Wyoming to the Middle Atlantic States and a LOW (1,016 mb.) central north of Washington, moved southeastward to Wyoming. Surface winds veered from northwesterly to southerly; aloft they backed from northwesterly to south-southwesterly.

At the beginning of the series of March 23–24 low pressure (996 mb.) was central over eastern Iowa and high pressure (1,030 mb.) over Utah. The LOW moved rapidly eastward, the HIGH remaining practically stationary. Another LOW (996 mb.) central north of Montana, also moved eastward and increased in intensity (990 mb.). Surface winds were westerly, with a northerly component during the early part of the series, under the influence of the eastern LOW, and with a southerly component later, under the influence of the approaching western LOW. Winds aloft meanwhile were west-northwest backing to west-southwest.

During the night of the series of April 23–24 records were obtained to low altitudes only because of light winds aloft. Near the surface, however, they were strong. This condition, often observed at Drexel during the approach of a LOW at night, is more fully referred to in Supplement No. 8, page 7. During the series under consideration a moderate LOW (1,008 mb.) moved from New Mexico to Texas. Pressure was relatively high (about 1,020 mb.) over the Pacific coast States, and a moderate HIGH (1,024 mb.) was central over the upper Lakes. As the LOW passed eastward, surface winds changed from easterly to northerly, and were too light for flying from 8 a. m. to noon of the 24th. Winds aloft backed from southwesterly to southerly and later veered to northwesterly.

At the beginning of the series of May 8–9 a moderate HIGH (1,028 mb.) was central over western Nebraska. This HIGH moved southeastward to Arkansas and diminished somewhat in energy (1,019 mb.). Under the influence of this HIGH the surface winds backed from northwesterly to west-southwesterly; those at higher levels from northwesterly to westerly. In general, there was but little change in the pressure conditions over the middle West; hence, the temperature gradient, figure 9, except near the surface, was remarkably uniform throughout the series.

During the series of June 13–14 high pressure (about 1,035 mb.) was central over Wyoming. A moderate LOW (1,008 mb.) moved from north of the Dakotas eastward to eastern Ontario. Winds, both surface and aloft, varied from north-northwesterly to west-northwesterly.

The series of June 29–30 consisted of 6 flights, the last 3 of which were to low altitudes only, because of strong winds aloft. At the beginning of this series a ridge of moderately high pressure (1,018 mb.) extended from Minnesota to the western Gulf States. This high pressure passed eastward and increased slightly in intensity (1,021 mb.). A LOW (1,002 mb.) meanwhile moved from north of Montana to South Dakota. Surface winds were southeast, veering to southwest; aloft, west-southwest throughout the series.

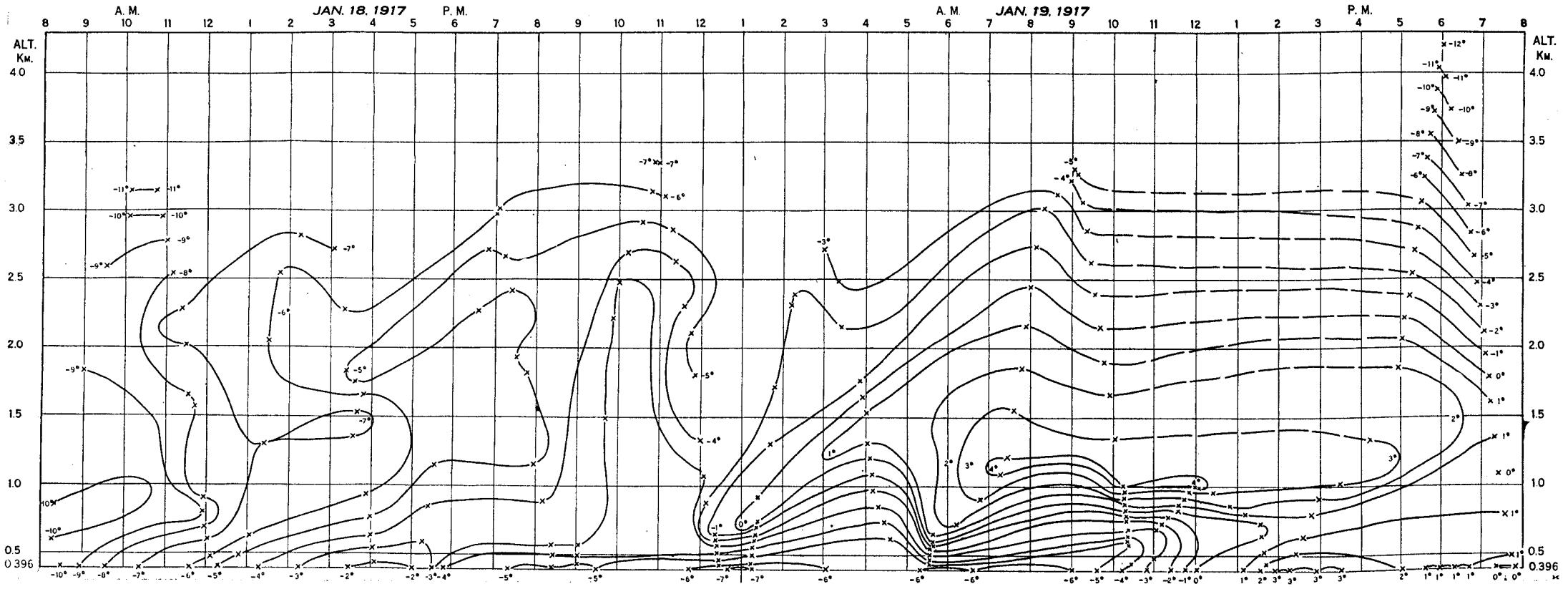

FIG. 3.—Free-air temperatures, ° C., above Drexel Aerological Station, observed January 18–19, 1917.

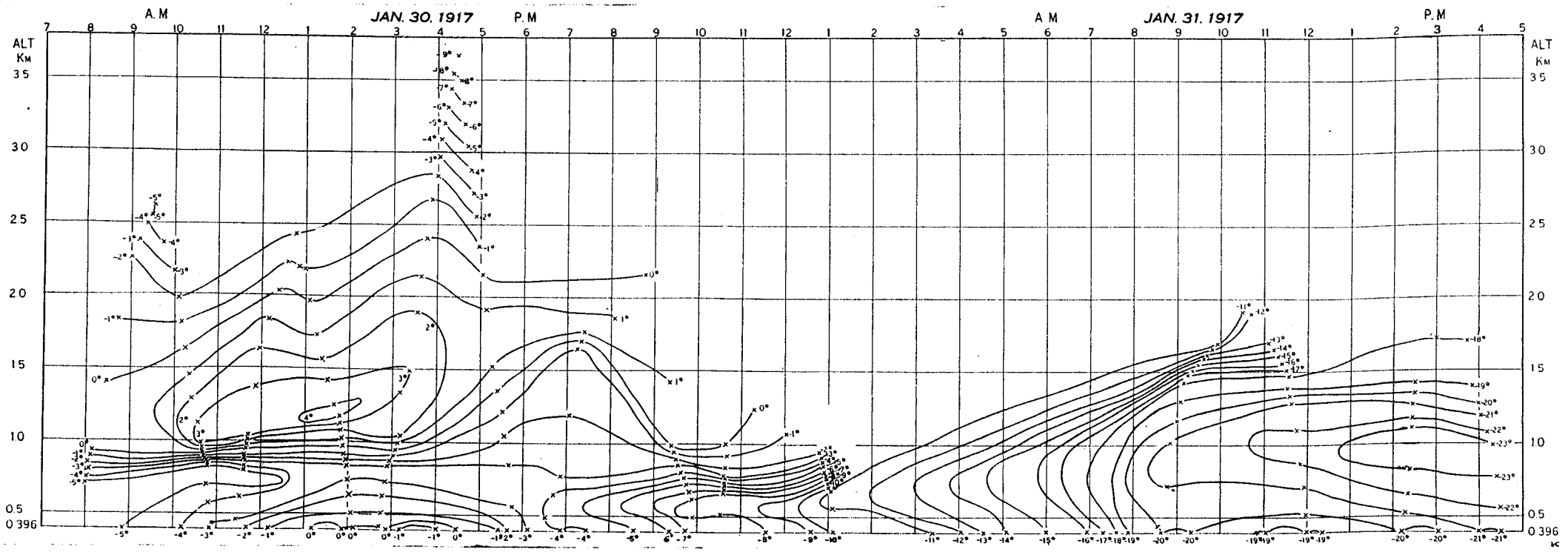

FIG. 4.—Free-air temperatures, ° C., above Drexel Aerological Station, observed January 30–31, 1917.

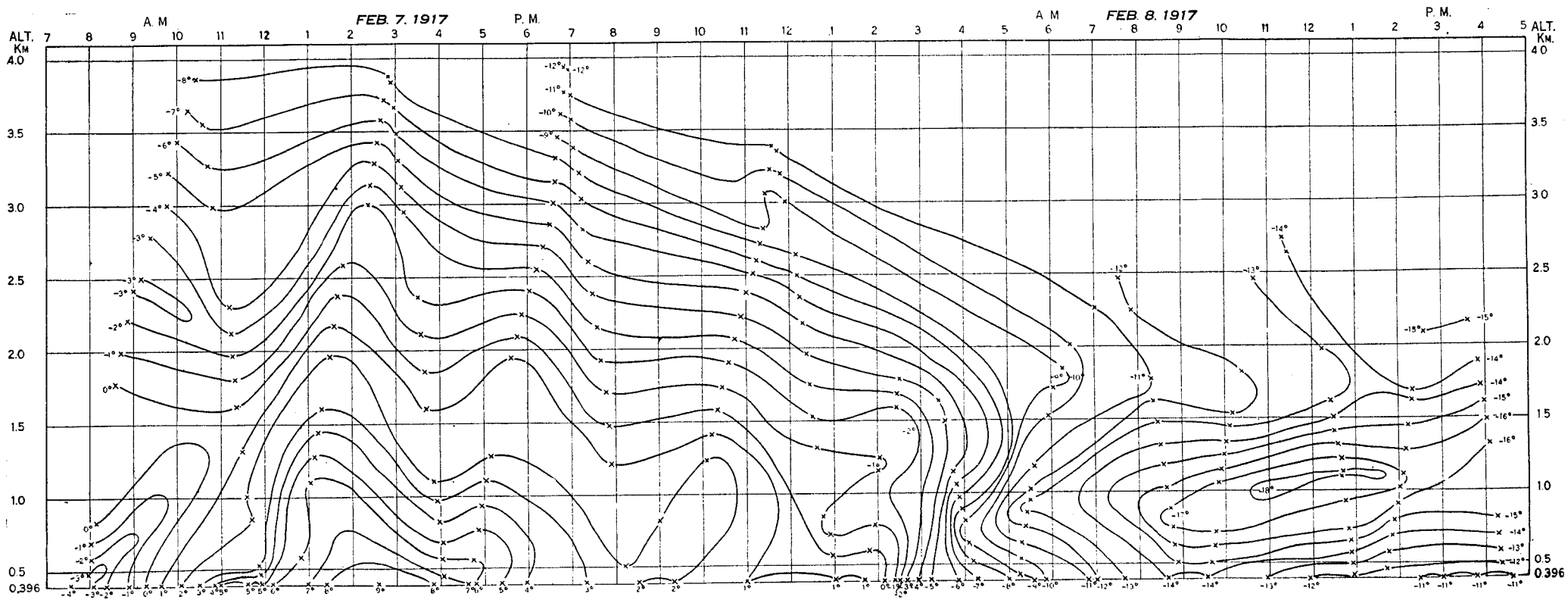

FIG. 5.—Free-air temperatures, ° C., above Drexel Aerological Station, observed February 7–8, 1917.

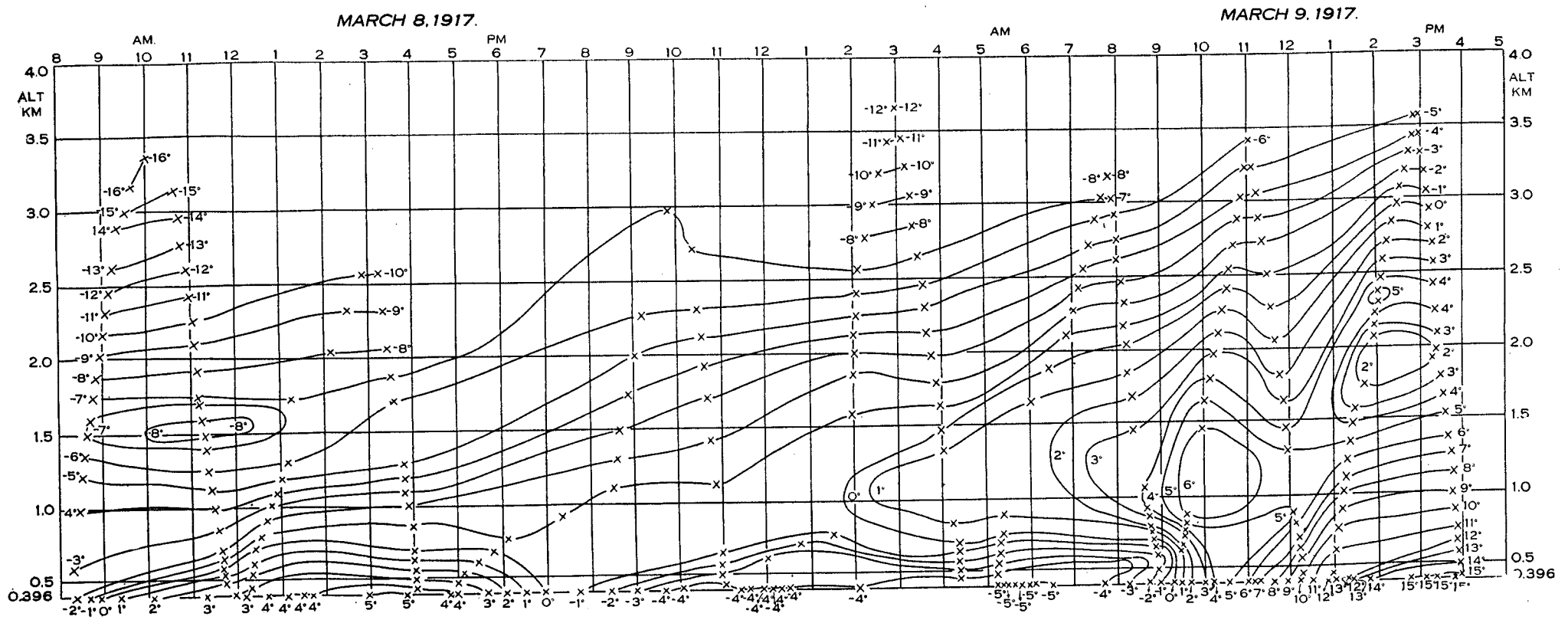

FIG. 6.—Free-air temperatures, ° C., above Drexel Aerological Station, observed March 8–9, 1917.

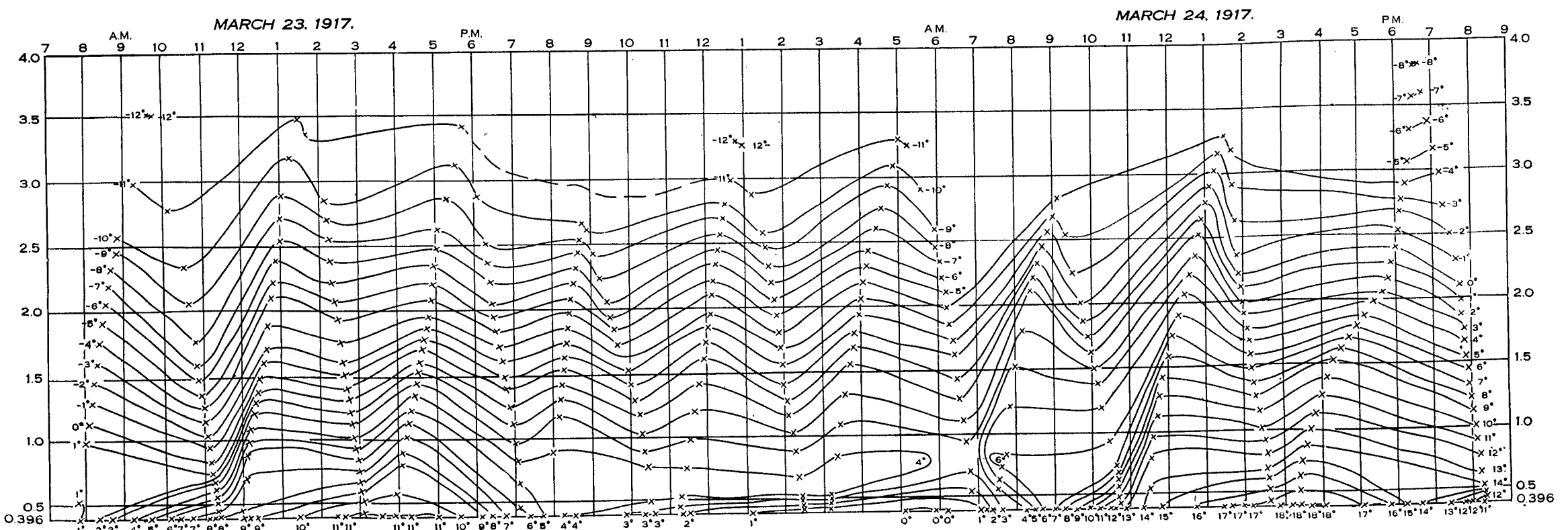

FIG. 7.—Free-air temperatures, ° C., above Drexel Aerological Station, observed March 23–24, 1917.

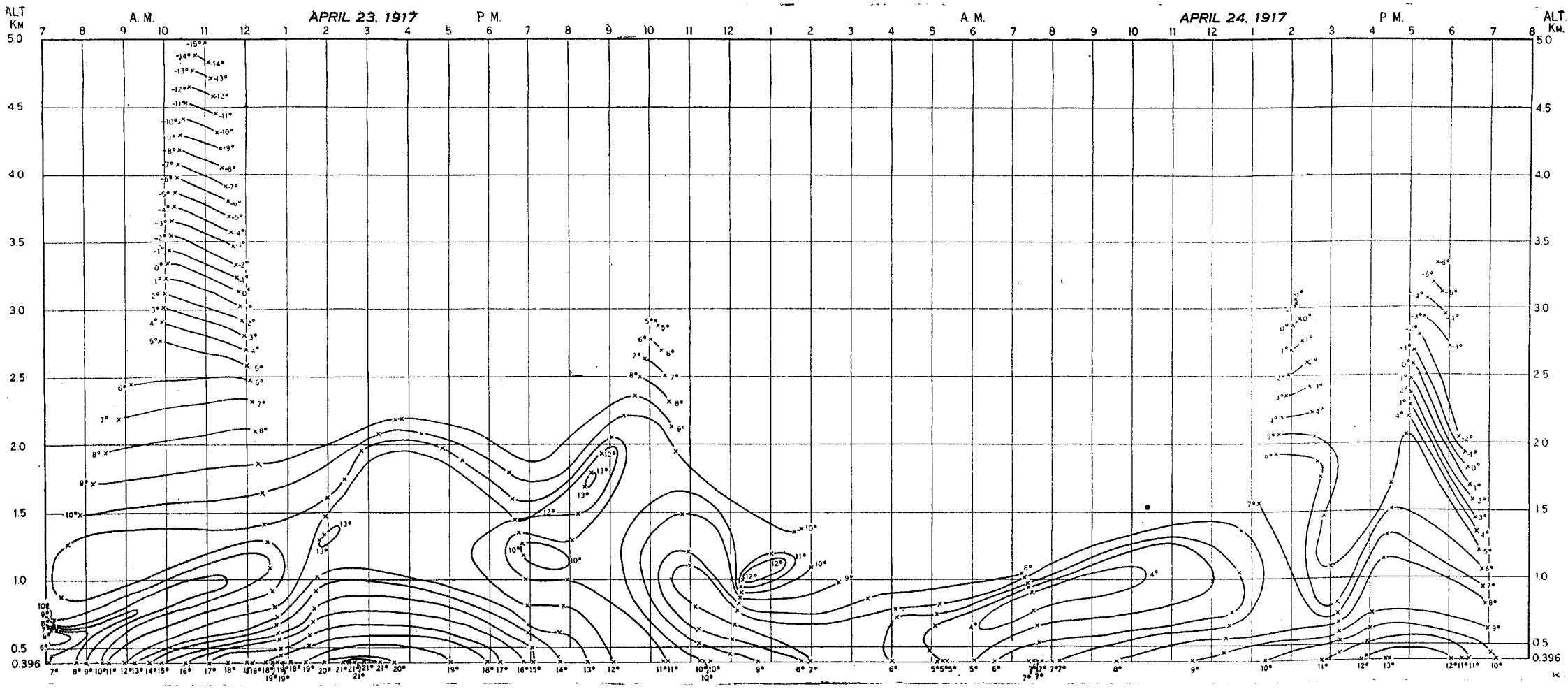

FIG. 8.—Free-air temperatures, ° C., above Drexel Aerological Station, observed April 23-24, 1917.

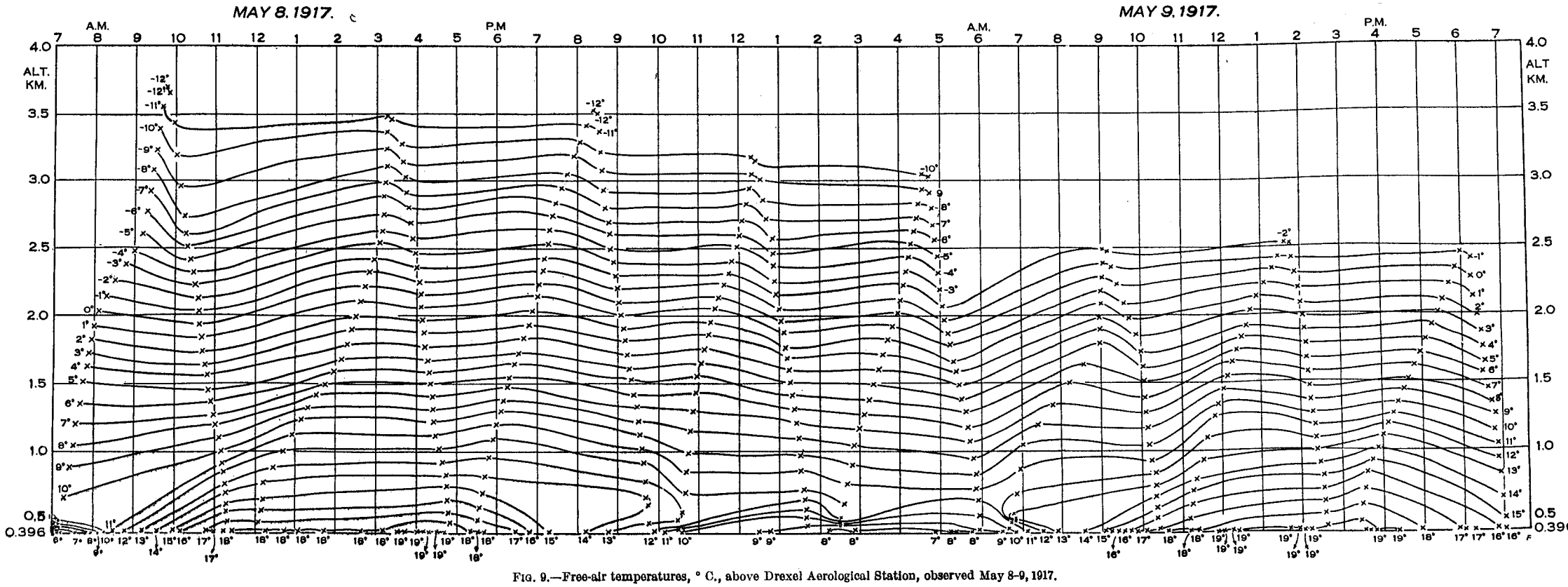

FIG. 9.—Free-air temperatures, ° C., above Drexel Aerological Station, observed May 8-9, 1917.

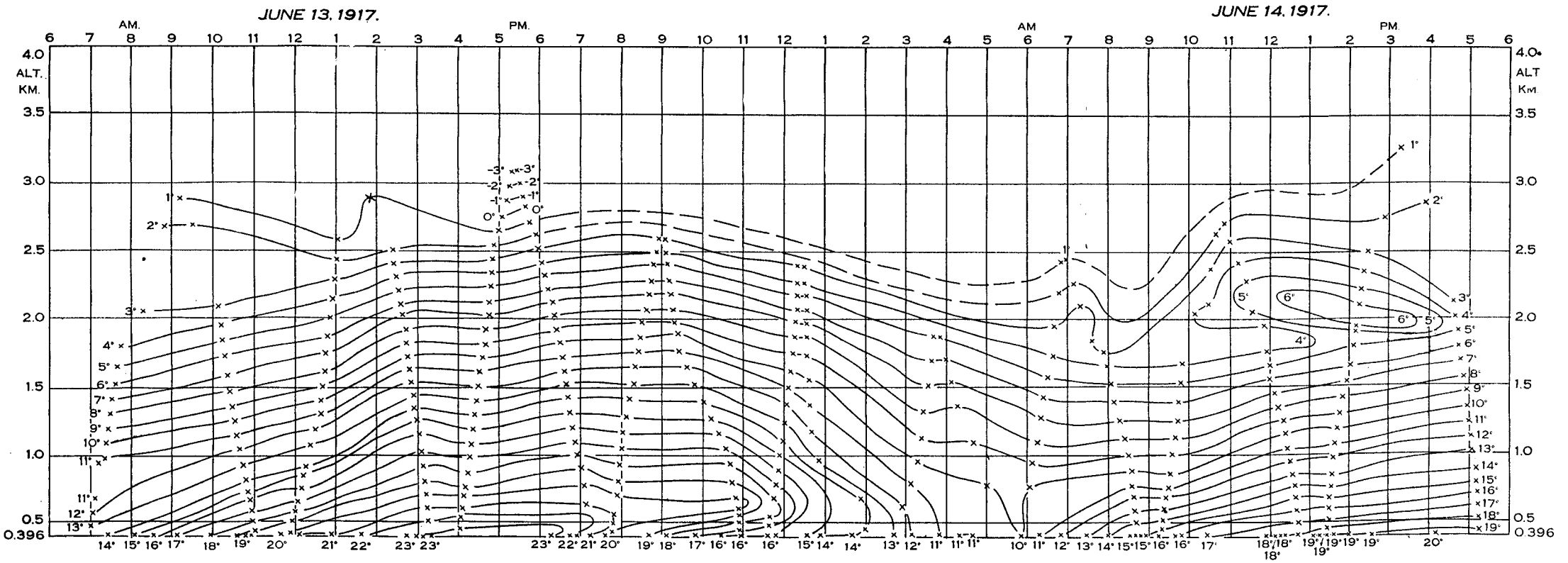

FIG. 10.—Free-air temperatures, ° C., above Drexel Aerological Station, observed June 13-14, 1917.

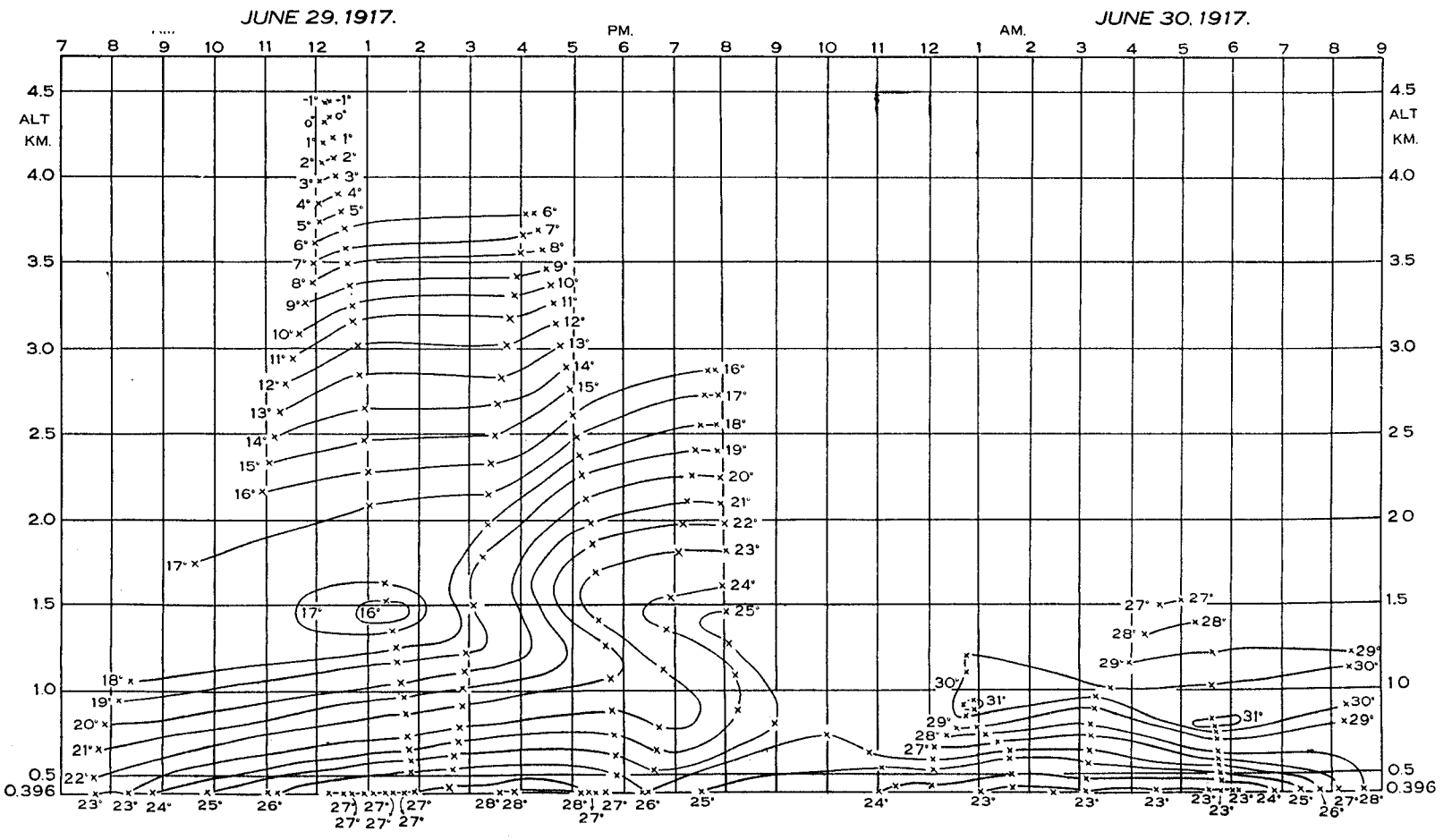

FIG. 11.—Free-air temperatures, ° C., above Drexel Aerological Station, observed June 29-30, 1917.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917.*

January 1, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
8:30	969.1	−6.9	70	w.	8.5	396	969.1	−6.9	.....	70	2.39	w.	8.5	388	.....	Cloudless.
						500	955.6	−5.2	.....	63	2.48	w.	10.8	490	0	
						750	926.5	−1.1	.....	48	2.67	nw.	16.3	735	0	
8:40	969.3	−6.9	70	w.	7.2	776	923.7	−0.7	−1.63	46	2.65	nw.	16.9	761	0	
						1,000	898.3	2.3	.....	41	2.96	wnw.	17.1	980	610	
8:46	969.4	−6.8	70	w.	6.7	1,070	890.7	3.3	−1.36	39	3.02	wnw.	17.2	1,049	800	
						1,250	870.4	2.8	.....	36	2.69	wnw.	16.4	1,225	1,280	
						1,500	844.0	2.1	.....	32	2.28	wnw.	15.2	1,470	1,960	
9:03	969.6	−6.6	71	w.	4.5	1,625	831.6	1.7	0.29	30	2.07	wnw.	14.6	1,593	2,300	
						1,750	818.2	1.0	.....	29	1.91	wnw.	14.9	1,715	2,710	
						2,000	793.7	−0.5	.....	28	1.64	wnw.	15.6	1,960	3,530	
9:26	969.7	−6.1	70	w.	4.9	2,213	773.0	−1.7	0.58	27	1.43	wnw.	16.1	2,169	4,200	
						2,250	768.8	−1.7	.....	26	1.38	wnw.	16.6	2,205	4,320	
9:31	969.8	−5.9	69	w.	4.9	2,440	751.3	−1.7	0.00	22	1.17	wnw.	18.9	2,391	4,920	
						2,500	745.2	−2.2	.....	22	1.12	wnw.	19.3	2,450	5,100	
						2,750	721.0	−4.3	.....	25	1.06	wnw.	21.2	2,694	.....	
9:54	969.9	−5.1	71	w.	4.0	2,926	705.4	−5.8	0.75	26	0.98	wnw.	22.5	2,867	.....	
						2,750	722.1	−4.6	.....	25	1.04	wnw.	20.8	2,694	5,030	
						2,500	744.3	−3.0	.....	23	1.09	wnw.	18.5	2,450	4,330	
10:34	969.9	−4.0	66	nw.	4.9	2,258	768.4	−1.4	−0.93	21	1.14	wnw.	16.2	2,213	4,400	
						2,250	769.1	−1.5	.....	21	1.13	wnw.	16.1	2,205	4,380	
10:41	969.9	−3.9	66	wnw.	4.5	2,151	778.7	−2.4	0.71	19	0.95	wnw.	15.3	2,108	4,200	
						2,000	793.7	−1.3	.....	22	1.21	wnw.	14.8	1,960	3,910	
						1,750	819.2	0.5	.....	26	1.65	wnw.	13.9	1,715	3,440	
10:55	969.9	−3.2	61	w.	3.6	1,675	826.8	1.0	0.24	27	1.77	wnw.	13.6	1,642	3,300	
						1,500	844.7	1.4	.....	28	1.89	wnw.	13.4	1,470	2,700	
						1,250	871.1	2.0	.....	30	2.19	nw.	13.2	1,225	1,880	
11:10	969.8	−2.9	61	nw.	4.0	1,015	897.0	2.6	−2.20	32	2.36	nw.	13.0	995	1,220	
						1,000	898.3	2.3	.....	33	2.38	nw.	12.7	980	1,180	
11:18	969.8	−2.7	62	nw.	3.6	792	922.4	−2.3	−0.25	42	2.12	nw.	8.8	777	590	
						750	927.1	−2.4	.....	43	2.15	nw.	8.2	735	530	
11:23	969.7	−2.5	64	nw.	4.0	511	955.8	−3.0	0.52	46	2.18	nw.	5.1	501	170	
						500	957.2	−2.9	.....	48	2.30	nw.	5.0	490	150	
11:25	969.7	−2.4	65	nw.	4.5	396	969.7	−2.4	.....	65	3.25	nw.	4.5	388	.....	Cloudless.

January 2, 1917.

A. M.																
8:06	960.8	−4.3	86	ssw.	8.9	396	960.8	−4.3	.....	86	3.66	ssw.	8.9	388	.....	7/10 Ci. St., wsw.
						500	948.1	0.0	.....	62	3.79	sw.	11.5	490	0	
8:08	960.7	−4.2	86	ssw.	8.9	630	933.1	5.4	−4.14	31	2.78	wsw.	14.7	618	0	
						750	919.9	5.5	.....	24	2.17	wsw.	14.0	735	0	
8:17	960.7	−4.1	88	ssw.	10.7	800	913.9	5.6	−0.06	21	1.91	wsw.	13.7	784	0	2/10 Ci., wsw.; 7/10 Ci. St., wsw.
						1,000	891.2	4.8	.....	23	1.98	wsw.	13.9	980	250	
						1,250	863.7	3.7	.....	24	1.91	wsw.	14.0	1,225	870	
						1,500	837.5	2.7	.....	26	1.93	sw.	14.2	1,470	1,700	
						1,750	812.2	1.6	.....	28	1.92	sw.	14.4	1,715	2,490	
8:56	960.4	−4.6	90	ssw.	6.3	1,848	802.8	1.2	0.42	29	1.93	sw.	14.5	1,811	2,800	4/10 Ci., wsw.; 3/10 Ci. St., wsw.
						2,000	787.5	0.2	.....	28	1.74	sw.	14.0	1,960	3,360	
						2,250	763.7	−1.3	.....	25	1.37	sw.	13.2	2,205	4,320	
9:36	960.2	−2.5	80	s.	5.4	2,372	751.9	−2.1	0.63	24	1.23	sw.	12.8	2,324	5,000	6/10 Ci., wsw.; 3/10 Ci. St., wsw.
						2,500	739.9	−2.7	.....	24	1.17	sw.	14.0	2,450	5,520	
						2,750	716.9	−3.9	.....	23	1.01	sw.	16.2	2,694	6,530	
						3,000	694.2	−5.1	.....	23	0.92	sw.	18.5	2,939	7,540	
10:22	960.0	−1.3	84	ssw.	4.0	3,239	673.7	−6.3	0.48	22	0.79	sw.	20.7	3,173	8,500	
						3,250	672.5	−6.3	.....	22	0.79	sw.	20.8	3,184	8,540	
						3,500	651.0	−7.0	.....	17	0.57	sw.	22.3	3,429	.....	
10:46	959.9	−0.6	80	ssw.	2.7	3,540	647.7	−7.1	0.02	16	0.54	sw.	22.6	3,468	.....	
						3,500	651.0	−7.1	.....	18	0.60	sw.	21.8	3,429	.....	
						3,250	671.6	−7.1	.....	25	0.84	wsw.	17.1	3,184	7,100	
11:12	959.3	−0.1	75	ssw.	4.0	3,173	678.1	−7.1	0.56	27	0.90	wsw.	15.6	3,109	6,800	
						3,000	693.0	−5.1	.....	28	1.11	wsw.	15.0	2,939	6,120	
						2,750	715.0	−4.7	.....	29	1.19	sw.	14.1	2,694	5,130	
						2,500	737.8	−3.4	.....	30	1.38	sw.	13.2	2,450	4,230	
11:25	958.8	0.1	74	sw.	3.6	2,345	753.0	−2.5	0.63	31	1.54	sw.	12.7	2,298	3,890	3/10 Ci. St., wsw.
						2,250	761.8	−1.9	.....	30	1.57	sw.	12.3	2,205	1,190	
						2,000	785.6	−0.3	.....	29	1.73	sw.	11.3	1,960	1,120	
						1,750	810.5	1.2	.....	27	1.80	wsw.	10.3	1,715	1,050	
						1,500	836.0	2.8	.....	25	1.87	wsw.	9.4	1,470	980	
11:46	958.0	0.6	73	ssw.	5.8	1,487	837.6	2.9	0.30	25	1.88	wsw.	9.3	1,458	980	
						1,250	862.0	3.6	.....	25	1.98	wsw.	9.0	1,225	910	
						1,000	888.2	4.4	.....	26	2.18	wsw.	8.7	980	640	
11:54	957.6	0.9	72	ssw.	8.9	786	912.6	5.0	−0.97	26	2.27	wsw.	8.4	771	410	
						750	916.7	4.4	.....	30	2.51	wsw.	8.1	735	380	
						500	945.5	2.2	.....	58	4.15	sw.	5.8	490	110	
NOON	957.4	1.2	70	ssw.	4.9	396	957.4	1.2	.....	70	4.66	ssw.	4.9	388	.....	Few Ci. St., wsw.

January 3, 1917 (No. 1).

A. M.																
8:15	959.0	−5.0	86	ssw.	5.8	396	959.0	− 5.0	.....	86	3.45	ssw.	5.8	388	.....	4/10 Ci., wsw.; 4/10 Ci. St., wsw.
						500	946.1	− 1.9	.....	67	3.50	ssw.	8.3	490	0	
8:20	959.1	−5.1	84	ssw.	6.7	653	928.7	2.6	−2.96	38	2.80	sw.	12.0	640	0	
						750	917.0	2.8	.....	35	2.61	sw.	11.4	735	0	
						1,000	888.7	3.2	.....	28	2.15	wsw.	9.7	980	430	
8:38	959.4	−5.8	87	sw.	6.7	1,155	872.9	3.4	−0.12	23	1.79	wsw.	8.7	1,132	700	
						1,250	861.4	2.9	.....	23	1.73	wsw.	9.4	1,225	940	
						1,500	835.2	1.6	.....	23	1.58	wsw.	11.2	1,470	1,570	2/10 Ci. Cu., wsw.; 4/10 A. Cu., wsw.
						1,750	810.2	0.4	.....	24	1.51	w.	13.0	1,715	2,610	
						2,000	785.9	− 0.9	.....	24	1.36	w.	14.7	1,960	3,900	
9:11	960.0	−3.5	82	sw.	8.5	2,078	779.0	− 1.3	0.51	24	1.32	w.	15.3	2,036	4,300	
						2,250	761.6	− 2.4	.....	26	1.30	w.	15.4	2,205	5,340	
						2,500	737.9	− 4.0	.....	29	1.27	w.	15.6	2,450	6,300	

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 3, 1917 (No. 1)—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	Δt / 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
.....	.....	.....	.....	.....	.....	2,750	715.3	− 5.7	.....	32	1.21	wsw.	15.9	2,694	7,320	
.....	.....	.....	.....	.....	.....	3,000	693.5	− 7.4	.....	35	1.14	wsw.	16.1	2,939	8,420	2/10 Ci. Cu., wsw.
.....	.....	.....	.....	.....	.....	3,250	672.2	− 9.0	.....	38	1.08	wsw.	16.3	3,184	10,220	
10:35	960.6	−1.1	69	ssw.	6.3	3,381	660.4	− 9.9	0.66	40	1.05	wsw.	16.4	3,312	11,360	
.....	.....	.....	.....	.....	.....	3,500	651.0	−10.3	.....	38	0.96	wsw.	.....	3,429	12,390	
.....	.....	.....	.....	.....	.....	3,750	630.0	−11.2	.....	34	0.79	wsw.	.....	3,673	14,530	
.....	.....	.....	.....	.....	.....	4,000	609.7	−12.2	.....	29	0.62	wsw.	.....	3,918	15,740	
.....	.....	.....	.....	.....	.....	4,250	589.9	−13.2	.....	25	0.48	wsw.	.....	4,162	16,950	
11:14	960.3	−0.1	69	ssw.	6.3	4,363	580.4	−13.6	0.34	23	0.43	wsw.	.....	4,273	17,500	
.....	.....	.....	.....	.....	.....	4,250	589.9	−13.3	.....	24	0.46	wsw.	.....	4,162	.....	
.....	.....	.....	.....	.....	.....	4,000	609.3	−12.6	.....	26	0.53	wsw.	.....	3,918	.....	
.....	.....	.....	.....	.....	.....	3,750	629.0	−11.8	.....	28	0.62	wsw.	.....	3,673	.....	1/10 Ci. Cu., wsw.
.....	.....	.....	.....	.....	.....	3,500	649.1	−10.9	.....	30	0.72	wsw.	.....	3,429	.....	
11:55	959.8	1.6	65	sw.	5.8	3,283	667.9	−10.4	0.68	32	0.80	wsw.	.....	3,216	9,790	
.....	.....	.....	.....	.....	.....	3,250	670.6	−10.2	.....	32	0.82	wsw.	.....	3,184	9,570	
.....	.....	.....	.....	.....	.....	3,000	692.0	− 8.5	.....	31	0.92	wsw.	.....	2,939	7,900	
.....	.....	.....	.....	.....	.....	2,750	714.5	− 6.8	.....	34	1.17	wsw.	.....	2,694	6,240	
.....	.....	.....	.....	.....	.....	2,500	737.7	− 5.1	.....	35	1.39	wsw.	.....	2,450	5,180	1/10 Ci. Cu., wsw.
.....	.....	.....	.....	.....	.....	2,250	761.6	− 3.4	.....	36	1.66	w.	.....	2,205	4,210	
.....	.....	.....	.....	.....	.....	2,000	786.1	− 1.8	.....	37	1.95	w.	.....	1,960	3,500	
.....	.....	.....	.....	.....	.....	1,750	811.6	− 0.1	.....	38	2.30	w.	.....	1,715	2,800	
P. M.																
12:39	959.5	2.7	55	sw.	4.5	1,680	819.0	0.4	0.63	39	2.45	w.	13.7	1,647	2,600	
.....	.....	.....	.....	.....	.....	1,500	837.1	1.5	.....	36	2.45	w.	13.3	1,470	2,130	Cloudless.
.....	.....	.....	.....	.....	.....	1,250	863.5	3.1	.....	32	2.44	wsw.	12.8	1,225	1,420	
.....	.....	.....	.....	.....	.....	1,000	890.2	4.7	.....	27	2.31	wsw.	12.4	980	620	
12:56	959.4	3.1	53	sw	4.0	967	894.3	4.9	0.00	26	2.25	wsw.	12.3	948	520	
.....	.....	.....	.....	.....	.....	750	918.8	4.9	.....	27	2.34	sw.	11.2	735	0	
1:07	959.3	3.4	52	sw.	4.0	581	937.7	4.9	−0.81	28	2.42	sw.	10.3	570	0	
.....	.....	.....	.....	.....	.....	500	947.1	4.2	.....	39	3.22	sw.	7.5	490	0	
1:10	959.3	3.4	52	sw.	4.0	396	959.3	3.4	.....	52	4.06	sw.	4.0	388	.....	Cloudless.

January 3, 1917 (No. 2).

P. M.																
1:44	958.9	3.8	57	ssw.	7.2	396	958.9	3.8	.....	57	4.57	ssw.	7.2	386	.....	Few Ci., nw.
.....	.....	.....	.....	.....	.....	500	946.7	4.5	.....	50	4.21	ssw.	8.8	490	0	
.....	.....	.....	.....	.....	.....	750	918.5	6.0	.....	34	3.18	wsw.	12.8	735	0	
1:58	958.7	4.1	61	ssw.	6.3	904	901.0	7.0	−0.63	24	2.40	wsw.	15.2	886	380	
.....	.....	.....	.....	.....	.....	1,000	890.4	6.4	.....	25	2.40	wsw.	15.2	980	630	
.....	.....	.....	.....	.....	.....	1,250	863.0	4.8	.....	29	2.49	wsw.	15.1	1,225	1,250	1/10 Ci., nw.
.....	.....	.....	.....	.....	.....	1,500	837.0	3.2	.....	33	2.54	wsw.	15.0	1,470	1,780	
2:20	958.7	4.7	60	ssw.	5.4	1,675	819.7	2.1	0.64	35	2.49	wsw.	14.9	1,642	2,160	
.....	.....	.....	.....	.....	.....	1,750	811.0	1.6	.....	35	2.40	wsw.	15.4	1,715	2,370	
.....	.....	.....	.....	.....	.....	2,000	786.3	− 0.1	.....	35	2.12	wsw.	16.9	1,960	3,050	
.....	.....	.....	.....	.....	.....	2,250	762.5	− 1.9	.....	35	1.83	wsw.	18.5	2,205	3,730	
2:35	958.7	5.0	56	ssw.	4.9	2,299	758.2	− 2.2	0.69	35	1.78	wsw.	18.8	2,253	3,840	
.....	.....	.....	.....	.....	.....	2,500	737.8	− 3.5	.....	35	1.60	wsw.	18.5	2,450	4,210	2/10 Ci., nw.
.....	.....	.....	.....	.....	.....	2,750	715.3	− 5.1	.....	35	1.39	wsw.	18.2	2,694	4,670	
.....	.....	.....	.....	.....	.....	3,000	693.0	− 6.7	.....	36	1.25	w.	17.9	2,939	5,160	
.....	.....	.....	.....	.....	.....	3,250	671.7	− 8.3	.....	36	1.09	w.	17.6	3,184	5,730	
.....	.....	.....	.....	.....	.....	3,500	650.0	− 9.9	.....	36	0.94	w.	17.3	3,429	6,300	
3:24	958.7	5.3	59	ssw.	4.5	3,547	646.6	−10.2	0.64	36	0.92	w.	17.2	3,474	6,400	4/10 Ci., nw.
.....	.....	.....	.....	.....	.....	3,500	650.0	− 9.9	.....	36	0.94	w.	17.2	3,429	6,220	
.....	.....	.....	.....	.....	.....	3,250	672.8	− 8.3	.....	36	1.09	w.	16.9	3,184	5,290	
.....	.....	.....	.....	.....	.....	3,000	694.4	− 6.8	.....	37	1.27	w.	16.7	2,939	4,450	
.....	.....	.....	.....	.....	.....	2,750	717.0	− 5.2	.....	37	1.46	wsw.	16.5	2,694	3,840	
.....	.....	.....	.....	.....	.....	2,500	739.2	− 3.6	.....	38	1.72	wsw.	16.3	2,450	3,240	
3:50	958.7	5.2	59	ssw.	5.4	2,320	755.9	− 2.5	0.56	38	1.88	wsw.	16.1	2,273	2,800	
.....	.....	.....	.....	.....	.....	2,250	761.6	− 2.1	.....	38	1.72	wsw.	15.9	2,205	2,670	
.....	.....	.....	.....	.....	.....	2,000	786.3	− 0.7	.....	38	2.19	w.	15.4	1,960	2,220	
.....	.....	.....	.....	.....	.....	1,750	812.0	0.7	.....	38	2.44	w.	14.8	1,715	1,790	
4:03	958.8	4.9	63	s.	8.9	1,731	813.8	0.8	0.61	38	2.46	w.	14.8	1,697	1,740	
.....	.....	.....	.....	.....	.....	1,500	837.8	2.2	.....	35	2.51	w.	14.5	1,470	1,060	
.....	.....	.....	.....	.....	.....	1,250	863.7	3.7	.....	32	2.55	wsw.	14.1	1,225	340	6/10 Ci., wnw.
.....	.....	.....	.....	.....	.....	1,000	890.4	5.3	.....	29	2.58	wsw.	13.8	980	180	
.....	.....	.....	.....	.....	.....	750	919.1	6.8	.....	26	2.57	sw.	13.4	735	0	
4:24	959.1	4.9	61	ssw.	5.4	601	935.4	7.7	−1.61	24	2.52	sw.	13.2	589	0	
.....	.....	.....	.....	.....	.....	500	948.1	6.1	.....	43	4.05	sw.	9.1	490	0	
4:28	959.2	4.4	63	ssw.	4.9	396	959.2	4.4	.....	63	5.27	ssw.	4.9	386	.....	

January 3, 1917 (No. 3).

P. M.																
5:00	959.8	3.2	68	wsw.	4.5	396	959.8	3.2	.....	68	5.23	wsw.	4.5	386	.....	4/10 Ci., w.
.....	.....	.....	.....	.....	.....	500	946.8	4.0	.....	58	4.72	wsw.	7.3	490	0	
.....	.....	.....	.....	.....	.....	750	918.7	5.8	.....	32	2.95	wsw.	14.1	735	0	
5:08	959.8	3.0	69	wnw.	4.0	783	915.1	6.0	−0.72	29	2.71	wsw.	15.0	768	0	
.....	.....	.....	.....	.....	.....	1,000	891.2	5.1	.....	29	2.55	wsw.	14.0	980	330	
.....	.....	.....	.....	.....	.....	1,250	864.1	4.0	.....	29	2.36	wsw.	12.9	1,225	720	
5:30	959.8	2.3	70	w.	3.6	1,372	851.2	3.5	0.42	29	2.28	wsw.	12.3	1,345	820	
.....	.....	.....	.....	.....	.....	1,500	837.7	2.8	.....	30	2.24	wsw.	11.9	1,470	910	
.....	.....	.....	.....	.....	.....	1,750	812.2	1.3	.....	33	2.06	w.	11.0	1,715	.....	
6:23	959.8	1.9	71	ssw.	1.8	1,818	805.5	0.9	0.46	34	2.22	w.	10.8	1,782	.....	
.....	.....	.....	.....	.....	.....	1,750	812.2	1.1	.....	33	2.17	w.	10.4	1,715	.....	
.....	.....	.....	.....	.....	.....	1,500	837.7	2.0	.....	31	2.19	wsw.	8.9	1,470	.....	
.....	.....	.....	.....	.....	.....	1,250	863.4	2.8	.....	28	2.09	wsw.	7.4	1,225	.....	Lunar halo began at 7:00 p. m.,
7:05	959.8	1.2	76	ese.	2.2	1,219	867.2	2.9	0.32	28	2.11	wsw.	7.2	1,195	.....	continued at end of flight.
.....	.....	.....	.....	.....	.....	1,000	890.2	3.6	.....	29	2.29	wsw.	6.4	980	.....	
.....	.....	.....	.....	.....	.....	750	919.1	4.4	.....	31	2.59	sw.	5.4	735	.....	
7:13	959.9	0.8	76	se.	3.1	693	925.3	4.6	−1.35	31	2.63	sw.	5.2	680	.....	
.....	.....	.....	.....	.....	.....	500	948.0	2.0	.....	58	4.09	s.	4.7	490	.....	
7:27	960.1	0.6	73	se.	4.5	396	960.1	0.6	.....	73	4.66	se.	4.5	386	.....	4/10 Ci., w.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 4, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
8:06	962.1	−2.6	84	ne.	5.4	396	962.1	−2.6	.....	84	4.13	ne.	5.4	388	.....	10/10 St.Cu., wsw.
.....	.....	.....	.....	.....	.....	500	949.6	−1.3	.....	74	4.06	ne.	7.8	490	0	
.....	.....	.....	.....	.....	.....	750	920.1	2.0	.....	50	3.53	ene.	13.4	735	0	
8:10	962.1	−2.8	87	ne.	4.0	757	919.7	2.1	−1.30	49	3.48	ene.	13.6	742	0	
.....	.....	.....	.....	.....	.....	1,000	891.9	2.2	.....	40	2.86	ene.	11.5	980	270	6/10Ci.St.,wsw.;4/10St.Cu.,wsw.
8:23	962.1	−2.8	87	ne.	4.0	1,041	887.9	2.2	−0.04	39	2.79	ene.	11.1	1,021	320	
.....	.....	.....	.....	.....	.....	1,250	864.9	1.4	.....	40	2.70	ene.	10.6	1,225	610	7/10A.Cu.,wsw.;3/10St.Cu.,wsw.
.....	.....	.....	.....	.....	.....	1,500	838.7	0.5	.....	40	2.53	ene.	10.1	1,470	1,100	
.....	.....	.....	.....	.....	.....	1,750	813.0	−0.4	.....	41	2.42	ene.	9.6	1,715	2,160	3/10 Ci., wsw.; 3/10 Ci. Cu., wsw.,
9:46	962.6	−2.4	83	ne.	4.9	1,778	810.5	−0.5	0.37	41	2.40	ene.	9.5	1,743	2,190	2/10 A. Cu., wsw.
.....	.....	.....	.....	.....	.....	2,000	787.7	−2.6	.....	47	2.31	ene.	8.2	1,960	2,450	3/10Ci.St.,wsw.;4/10A.Cu.,wsw.
P. M.																
12:31	962.1	−1.0	74	ne.	4.9	2,253	762.7	−4.9	0.93	53	2.15	ne.	6.8	2,208	3,000	9/10 Ci.St., wsw.
.....	.....	.....	.....	.....	.....	2,500	739.3	−6.1	.....	56	2.04	ene.	5.9	2,450	2,400	
.....	.....	.....	.....	.....	.....	2,750	716.2	−7.3	.....	58	1.91	e.	5.1	2,694	.....	Partial solar halo 10:34 a. m. to
12:38	962.1	−0.8	72	ne.	4.5	2,892	702.9	−8.0	0.44	60	1.86	ese.	4.6	2,834	.....	end of flight.
.....	.....	.....	.....	.....	.....	2,750	715.5	−7.4	.....	59	1.92	ese.	5.5	2.694	.....	
.....	.....	.....	.....	.....	.....	2,500	738.0	−6.5	.....	58	2.05	e.	7.2	2,450	2,400	
.....	.....	.....	.....	.....	.....	2,250	761.7	−5.5	.....	57	2.19	ene.	8.8	2,205	2,530	
1:01	961.8	−0.6	73	nne.	3.6	2,149	771.9	−5.1	0.69	56	2.23	ne.	9.5	2,106	2,590	
.....	.....	.....	.....	.....	.....	2,000	786.2	−4.1	.....	54	2.34	ne.	9.4	1,960	2,450	
.....	.....	.....	.....	.....	.....	1,750	810.8	−2.4	.....	51	2.55	ne.	9.3	1,715	2,140	
.....	.....	.....	.....	.....	.....	1,500	837.0	−0.6	.....	47	2.73	ne.	9.2	1,470	1,690	
1:20	961.6	−0.7	74	nne.	4.0	1,334	855.5	0.5	0.28	45	2.85	ne.	9.2	1,308	1,300	
.....	.....	.....	.....	.....	.....	1,250	863.8	0.7	.....	45	2.89	ne.	9.4	1,225	1,100	
.....	.....	.....	.....	.....	.....	1,000	891.0	1.4	.....	45	3.04	ne.	10.1	980	520	
1:39	961.3	−0.8	72	n.	4.5	771	917.1	2.1	−3.03	45	3.20	ne.	10.8	756	160	
.....	.....	.....	.....	.....	.....	750	920.1	1.5	.....	47	3.20	ne.	10.6	735	150	
1:41	961.3	−0.8	72	n.	4.5	616	935.1	−2.6	0.82	61	3.00	ne.	9.4	604	90	
.....	.....	.....	.....	.....	.....	500	948.6	−1.7	.....	67	3.55	nne.	6.8	490	40	
1:44	961.3	−0.8	72	n.	4.5	396	961.3	−0.8	.....	72	4.11	n.	4.5	388	.....	9/10 Ci. St., wsw.

January 5, 1917.

A. M.																
8:03	969.6	−10.2	100	nnw.	2.2	396	969.6	−10.2	.....	100	2.55	nnw.	2.2	388	.....	Cloudless.
.....	.....	.....	.....	.....	.....	500	956.4	−8.0	.....	87	2.56	n.	3.8	490	0	
.....	.....	.....	.....	.....	.....	750	925.9	−2.6	.....	56	2.58	n.	7.7	735	0	
8:20	969.8	−9.7	100	nnw.	2.7	840	916.4	−0.7	−2.14	45	2.59	n.	9.1	824	160	
.....	.....	.....	.....	.....	.....	1,000	898.2	−0.4	.....	44	2.61	n.	10.3	980	540	
8:31	970.0	−8.9	94	nnw.	3.1	1,228	873.6	0.0	−0.18	43	2.63	n.	12.0	1,204	1,930	
.....	.....	.....	.....	.....	.....	1,250	870.8	−0.1	.....	43	2.61	n.	12.0	1,225	1,970	
.....	.....	.....	.....	.....	.....	1,500	843.7	−1.3	.....	42	2.34	n.	11.7	1,470	2,410	
.....	.....	.....	.....	.....	.....	1,750	818.0	−2.4	.....	41	2.07	nnw.	11.5	1,715	3,010	
9:00	970.3	−8.0	97	nnw.	3.1	1,999	793.0	−3.6	0.47	40	1.81	nnw.	11.2	1,959	3,900	
.....	.....	.....	.....	.....	.....	2,250	768.0	−4.7	.....	36	1.51	nw.	11.0	2,205	3,960	
.....	.....	.....	.....	.....	.....	2,500	744.0	−5.8	.....	31	1.21	nw.	10.8	2,450	4,690	
10:25	970.9	−5.1	90	nw.	2.2	2,689	726.9	−6.6	0.42	28	0.98	wnw.	10.6	2,635	4,300	
.....	.....	.....	.....	.....	.....	2,500	744.1	−5.8	.....	29	1.08	wnw.	11.0	2,450	3,500	
.....	.....	.....	.....	.....	.....	2,250	768.9	−4.8	.....	29	1.21	wnw.	11.6	2,205	2,570	
P. M.																
12:16	970.7	−2.4	70	ssw.	1.3	2,089	784.8	−4.2	0.48	30	1.29	wnw.	11.9	2,047	2,200	
.....	.....	.....	.....	.....	.....	2,000	793.2	−3.8	.....	31	1.39	wnw.	11.7	1,960	.....	
.....	.....	.....	.....	.....	.....	1,750	818.6	−2.6	.....	33	1.69	wnw.	11.0	1,715	.....	
.....	.....	.....	.....	.....	.....	1,500	845.0	−1.4	.....	36	1.98	w.	10.3	1,470	.....	
12:45	970.5	−2.0	71	sw.	1.3	1,386	857.5	−0.8	0.27	37	2.11	w.	10.0	1,359	.....	
.....	.....	.....	.....	.....	.....	1,250	872.1	−0.4	.....	37	2.20	w.	9.2	1,225	.....	
.....	.....	.....	.....	.....	.....	1,000	899.8	0.2	.....	38	2.37	wsw.	7.8	980	.....	
.....	.....	.....	.....	.....	.....	750	928.7	0.9	.....	39	2.54	wsw.	6.4	735	.....	
1:12	970.1	−1.6	69	sw.	2.7	685	935.6	1.1	−1.84	39	2.58	wsw.	6.0	672	.....	
.....	.....	.....	.....	.....	.....	500	958.2	−2.3	.....	49	2.45	sw.	3.9	490	.....	
1:14	970.1	−1.5	68	sw.	2.7	479	960.0	−2.7	1.45	50	2.44	sw.	3.6	470	.....	
1:16	970.1	−1.5	68	sw.	2.7	396	970.1	−1.5	.....	68	3.67	sw.	2.7	388	.....	Cloudless.

January 6, 1917.

A.M.																
8:30	963.2	−0.8	72	sw.	8.5	396	963.2	−0.8	.....	72	4.11	sw.	8.5	388	.....	2/10 Ci.St., w.; 2/10 A.Cu.,w.
.....	.....	.....	.....	.....	.....	500	951.3	0.4	.....	63	3.96	sw.	10.1	490	140	
.....	.....	.....	.....	.....	.....	750	922.0	3.4	.....	40	3.12	wsw.	13.9	735	480	
8:37	963.1	−0.8	72	sw.	7.6	778	918.4	3.7	−1.18	38	3.02	wsw.	14.3	763	520	
.....	.....	.....	.....	.....	.....	1,000	893.5	7.2	.....	24	2.44	wsw.	11.7	980	1,050	
8:43	963.0	−0.8	72	sw.	8.9	1,088	884.2	8.6	−1.58	19	2.12	wsw.	10.7	1,067	1,260	
.....	.....	.....	.....	.....	.....	1,250	865.7	7.9	.....	18	1.92	wsw.	11.4	1,225	1,740	
.....	.....	.....	.....	.....	.....	1,500	839.2	6.9	.....	16	1.59	wsw.	12.5	1,470	2,570	
.....	.....	.....	.....	.....	.....	1,750	814.5	5.9	.....	13	1.21	w.	13.5	1,715	3,370	3/10 Ci.St.,w.; 1/10 A.Cu.,w.
.....	.....	.....	.....	.....	.....	2,000	790.2	4.9	.....	11	0.95	w	14.6	1,960	4,170	
9:24	962.9	−0.2	72	wsw.	8.0	2,163	775.3	4.2	0.41	10	0.82	w.	15.3	2,123	4,390	
.....	.....	.....	.....	.....	.....	2,250	767.3	3.4	.....	11	0.86	w.	15.2	2,205	4,610	
.....	.....	.....	.....	.....	.....	2,500	744.3	1.1	.....	15	0.99	w.	15.0	2,450	5,230	
9:42	963.0	0.3	69	wsw.	8.9	2,753	720.7	−1.3	0.93	19	1.04	w.	14.8	2,697	5,910	
.....	.....	.....	.....	.....	.....	3,000	699.8	−2.7	.....	20	0.98	w.	17.5	2,939	7,040	
.....	.....	.....	.....	.....	.....	3,250	678.0	−4.0	.....	21	0.92	w.	20.3	3,184	8,180	
.....	.....	.....	.....	.....	.....	3,500	656.8	−5.3	.....	22	0.86	w.	23.0	3,429	9,320	
.....	.....	.....	.....	.....	.....	3,750	636.0	−6.7	.....	22	0.76	w.	25.7	3,673	12,860	
10:35	962.9	1.3	66	wsw.	8.0	3,913	621.6	−7.7	0.52	23	0.73	w.	27.4	3,833	.....	2/10 Ci.St., w.
.....	.....	.....	.....	.....	.....	3,750	635.0	−6.9	.....	23	0.78	w.	26.2	3,673	13,740	
.....	.....	.....	.....	.....	.....	3,500	655.1	−5.6	.....	23	0.88	w.	24.2	3,429	11,560	
.....	.....	.....	.....	.....	.....	3,250	676.2	−4.4	.....	22	0.93	w.	22.3	3,184	9,380	
.....	.....	.....	.....	.....	.....	3,000	698.0	−3.1	.....	22	1.04	w.	20.4	2,939	7,190	
11:25	962.7	2.0	64	wsw.	9.4	2,932	704.0	−2.8	0.68	22	1.06	w.	19.9	2,873	6,600	
.....	.....	.....	.....	.....	.....	2,750	720.2	−1.6	.....	22	1.18	w.	19.4	2,694	6,000	
.....	.....	.....	.....	.....	.....	2,500	742.6	0.1	.....	22	1.35	w.	18.7	2,450	5,170	4/10 Ci.,w.; 3/10 Ci.St.,w.
.....	.....	.....	.....	.....	.....	2,250	765.7	1.8	.....	21	1.46	w.	18.1	2,205	4,390	

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 6, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
.....	.....	.....	.....	.....	.....	2,000	789.9	3.5	.....	21	1.65	w.	17.4	1,960	3,810	
.....	.....	.....	.....	.....	.....	1,750	815.1	5.3	.....	21	1.87	w.	16.7	1,715	3,230	
11:51	962.5	2.7	59	wsw.	8.0	1,699	820.1	5.6	0.11	21	1.91	w.	16.6	1,665	3,110	
.....	.....	.....	.....	.....	.....	1,500	840.6	5.8	.....	21	1.94	w.	15.2	1,470	2,560	
11:59	962.5	2.8	60	wsw.	5.4	1,320	859.1	6.0	−0.46	21	1.96	w.	14.0	1,294	2,030	
.....	.....	.....	.....	.....	.....	1,250	867.0	5.7	.....	23	2.11	w.	13.3	1,225	1,830	
.....	.....	.....	.....	.....	.....	1,000	893.5	4.5	.....	29	2.44	w.	11.0	980	1,370	
.....	.....	.....	.....	.....	.....	750	921.4	3.4	.....	36	2.81	w.	8.6	735	870	
P. M.																
12:19	962.5	2.9	63	w.	5.4	585	940.2	2.6	0.21	40	2.95	w.	7.1	574	460	
.....	.....	.....	.....	.....	.....	500	950.0	2.7	.....	50	3.71	w.	6.3	490	250	
12:21	962.5	3.0	63	w.	5.4	396	962.5	3.0	.....	63	4.78	w.	5.4	388	.....	3/10 Ci.,w.; 2/10 Ci.St.,w.

January 7, 1917.

P. M.																
1:40	977.2	−0.9	59	sw.	4.5	396	977.2	− 0.9	.....	59	3.35	sw.	4.5	388	.....	2/10 Ci.St., w.; 3/10 A.Cu.,w.
.....	.....	.....	.....	.....	.....	500	964.1	− 2.0	.....	62	3.21	sw.	6.8	490	0	
1:50	977.1	−1.0	59	sw.	5.8	616	950.4	− 3.3	1.09	66	3.06	ssw.	9.3	604	0	
.....	.....	.....	.....	.....	.....	750	934.7	− 2.7	.....	61	2.98	ssw.	9.8	715	0	
.....	.....	.....	.....	.....	.....	1,000	906.2	− 1.6	.....	52	2.78	sw.	10.8	980	1,580	
.....	.....	.....	.....	.....	.....	1,250	877.1	− 0.6	.....	43	2.50	wsw.	11.7	1,225	2,620	4/10 Ci., w.; 2/10 Ci. St., w.
2:30	976.7	−0.3	59	sw.	5.4	1,448	855.8	0.3	−0.43	36	2.25	wsw.	12.5	1,419	3,040	
.....	.....	.....	.....	.....	.....	1,500	850.0	0.0	.....	37	2.26	wsw.	12.6	1,470	3,160	
.....	.....	.....	.....	.....	.....	1,750	823.3	− 1.2	.....	40	2.21	wsw.	12.8	1,715	3,590	
.....	.....	.....	.....	.....	.....	2,000	797.1	− 2.5	.....	44	2.18	wsw.	13.1	1,960	3,940	
.....	.....	.....	.....	.....	.....	2,250	773.0	− 3.7	.....	48	2.15	w	13.4	2,205	4,610	
.....	.....	.....	.....	.....	.....	2,500	748.6	− 5.0	.....	52	2.09	w.	13.6	2,450	5,320	
3:05	976.3	0.8	56	sw.	4.0	2,668	733.4	− 5.8	0.50	54	2.02	w.	13.8	2,614	6,100	
.....	.....	.....	.....	.....	.....	2,750	725.6	− 6.3	.....	55	1.97	w.	14.7	2,694	6,330	
.....	.....	.....	.....	.....	.....	3,000	703.2	− 7.8	.....	56	1.76	w.	17.3	2,939	7,040	
.....	.....	.....	.....	.....	.....	3,250	681.5	− 9.3	.....	58	1.60	w.	20.0	3,184	7,760	
.....	.....	.....	.....	.....	.....	3,500	659.4	−10.8	.....	60	1.45	w.	22.7	3,429	8,550	
.....	.....	.....	.....	.....	.....	3,750	637.9	−12.3	.....	61	1.29	w.	25.3	3,673	9,430	
3:40	975.9	1.9	53	ssw.	4.5	3,852	629.0	−12.9	0.58	62	1.24	w.	26.4	3,773	.....	
.....	.....	.....	.....	.....	.....	3,750	637.7	−12.3	.....	61	1.29	w.	25.5	3,673	9,280	3/10 Ci., w.; 1/10 A. St. w.
.....	.....	.....	.....	.....	.....	3,500	658.8	−10.9	.....	59	1.41	w.	23.4	3,429	7,940	
.....	.....	.....	.....	.....	.....	3,250	680.3	− 9.4	.....	57	1.56	w.	21.2	3,184	6,590	
.....	.....	.....	.....	.....	.....	3,000	702.5	− 8.0	.....	55	1.70	w.	19.1	2,939	5,240	
.....	.....	.....	.....	.....	.....	2,750	725.6	− 6.6	.....	53	1.86	w.	17.0	2,694	4,140	
.....	.....	.....	.....	.....	.....	2,500	748.6	− 5.1	.....	50	1.99	w.	14.8	2,450	3,580	1/10 Ci. St. w.
4:25	975.4	0.8	57	ssw.	4.5	2,324	766.2	− 4.1	0.52	49	2.12	w.	13.3	2,277	3,200	
.....	.....	.....	.....	.....	.....	2,250	773.0	− 3.7	.....	48	2.15	w.	13.2	2,205	3,010	
.....	.....	.....	.....	.....	.....	2,000	797.1	− 2.5	.....	45	2.23	w.	12.7	1,960	2,490	
.....	.....	.....	.....	.....	.....	1,750	823.0	− 1.3	.....	41	2.25	wsw.	12.2	1,715	1,940	
.....	.....	.....	.....	.....	.....	1,500	849.9	0.0	.....	38	2.32	wsw.	11.8	1,470	1,210	
4:40	975.2	0.3	57	ssw.	4.9	1,375	863.2	0.6	0.08	36	2.30	wsw.	11.5	1,348	920	
.....	.....	.....	.....	.....	.....	1,250	876.8	0.7	.....	34	2.19	wsw.	11.6	1,225	640	
.....	.....	.....	.....	.....	.....	1,000	904.1	0.9	.....	31	2.02	wsw.	11.9	980	200	
4:55	975.1	−0.2	60	sw.	3.6	754	932.4	1.1	−0.82	27	1.79	wsw.	12.1	739	0	
4:58	975.0	−0.4	61	sw.	3.6	547	956.8	− 0.6	0.07	43	2.50	sw.	7.7	536	0	
.....	.....	.....	.....	.....	.....	500	962.0	− 0.6	.....	49	2.85	sw.	6.4	490	0	
5:00	975.0	−0.5	62	sw.	3.6	396	975.0	− 0.5	.....	62	3.63	sw.	3.6	388	.....	Few Ci. St., w.

January 8, 1917 (No. 1).

A.M.																
8:16	966.0	−4.2	88	sw.	5.4	396	966.0	−4.2	.....	88	3.78	sw.	5.4	386	.....	Cloudless.
.....	.....	.....	.....	.....	.....	500	953.0	1.2	.....	62	4.12	w.	12.6	490	0	
8:18	966.0	−3.9	88	sw.	5.4	595	942.4	6.1	−5.18	39	3.67	wnw.	19.2	583	0	
.....	.....	.....	.....	.....	.....	750	924.0	5.8	.....	34	3.13	wnw.	20.1	735	0	
.....	.....	.....	.....	.....	.....	1,000	896.1	5.3	.....	25	2.23	w.	21.4	980	260	
8:37	965.8	−2.8	84	sw.	5.8	1,211	873.8	4.9	0.19	18	1.56	w.	22.6	1,187	490	
.....	.....	.....	.....	.....	.....	1,250	869.2	4.8	.....	18	1.55	w.	22.7	1,225	630	
.....	.....	.....	.....	.....	.....	1,500	843.5	4.2	.....	15	1.24	w.	23.4	1,470	1,560	
.....	.....	.....	.....	.....	.....	1,750	818.1	3.5	.....	12	0.94	w.	21.0	1,715	2,450	
.....	.....	.....	.....	.....	.....	2,000	793.2	2.9	.....	10	0.75	w.	24.7	1,960	3,330	
9:12	965.4	−2.0	79	sw.	5.4	2,191	773.9	2.4	0.26	8	0.58	w.	25.2	2,147	3,900	
.....	.....	.....	.....	.....	.....	2,000	792.6	2.9	.....	8	0.60	w.	24.1	1,960	3,350	
.....	.....	.....	.....	.....	.....	1,750	817.4	3.5	.....	8	0.63	w.	22.6	1,715	2,630	
.....	.....	.....	.....	.....	.....	1,500	843.2	4.2	.....	7	0.58	wnw.	21.2	1,470	1,180	Cloudless.
9:51	965.2	−1.3	76	sw.	6.3	1,263	867.5	4.8	0.00	7	0.60	wnw.	19.8	1,238	410	
.....	.....	.....	.....	.....	.....	1,250	869.0	4.8	.....	7	0.60	wnw.	19.7	1,225	370	
.....	.....	.....	.....	.....	.....	1,000	895.4	4.8	.....	10	0.86	wnw.	18.1	980	110	
10:05	965.2	−0.8	74	sw.	5.8	833	914.2	4.8	−1.12	12	1.03	wnw.	17.1	817	0	
.....	.....	.....	.....	.....	.....	750	923.7	4.0	.....	22	1.73	wnw.	15.3	735	0	
.....	.....	.....	.....	.....	.....	500	952.8	1.1	.....	57	3.77	wsw.	8.9	490	0	
10:14	965.2	−0.1	71	wsw.	6.3	396	965.2	−0.1	.....	71	4.30	wsw.	6.3	386	.....	Few Ci.St., near horizon.

January 8, 1917 (No. 2).

P. M.																
12:49	964.0	4.8	50	w.	8.5	396	964.0	4.8	.....	50	4.13	w.	8.[illegible]	386	.....	3/10 Ci.St., wnw.
.....	.....	.....	.....	.....	.....	500	952.0	5.2	.....	44	3.89	w.	10.1	490	90	
.....	.....	.....	.....	.....	.....	750	922.9	6.1	.....	28	2.64	nw.	14.0	735	320	
1:04	963.8	5.0	54	w.	6.3	817	915.2	6.3	−0.36	24	2.29	nw.	15.0	801	380	
.....	.....	.....	.....	.....	.....	1,000	894.3	5.7	.....	27	2.47	nw.	14.9	980	780	
.....	.....	.....	.....	.....	.....	1,250	867.0	4.8	.....	32	2.75	wnw.	14.7	1,225	1,320	
.....	.....	.....	.....	.....	.....	1,500	841.7	4.0	.....	36	2.93	wnw.	14.5	1,470	1,980	3/10Ci.,wnw.; few Ci.St., wnw.
1:26	963.7	5.4	49	w.	7.6	1,668	824.6	3.4	0.34	39	3.04	wnw.	14.4	1,635	2,370	
.....	.....	.....	.....	.....	.....	1,750	815.5	3.0	.....	39	2.96	wnw.	14.2	1,715	2,500	
.....	.....	.....	.....	.....	.....	2,000	799.4	1.8	.....	41	2.85	wnw.	13.7	1,960	2,880	1/10 Ci.St., wnw.
.....	.....	.....	.....	.....	.....	2,250	766.7	0.7	.....	42	2.70	wnw.	13.2	2,205	3,260	
1:50	963.6	6.0	48	w.	4.5	2,503	743.3	−0.5	0.47	43	2.52	wnw.	12.7	2,453	4,100	

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 8, 1917 (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.	Potential. Gravity.	Potential. Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						2,750	720.5	−2.1	.....	59	3.03	wnw.	12.8	2,694	4,390	2/10 Ci.St., wnw.
2:23	963.6	6.5	50	w.	4.5	2,997	698.5	−3.7	0.65	74	3.32	wnw.	12.9	2,936	5,100	2/10 Ci., wnw.; 2/10Ci.St.,wnw.
						3,250	676.4	−4.8	.....	79	3.22	wnw.	15.5	3,184	5,480	
						3,500	655.0	−5.9	.....	84	3.12	wnw.	18.1	3,429	5,240	
						3,750	644.1	−7.0	.....	89	3.01	wnw.	20.7	3,673	.....	
2:44	963.7	7.0	50	w.	4.0	3,759	633.5	−7.0	0.35	89	3.01	wnw.	20.8	3,682	.....	
						3,750	644.1	−7.0	.....	89	3.01	wnw.	20.8	3,673	.....	
						3,500	655.0	−6.3	.....	83	2.98	wnw.	20.1	3,429	5,020	
						3,250	675.2	−5.6	.....	77	2.93	wnw.	19.4	3,184	4,880	
						3,000	696.8	−4.9	.....	71	2.88	wnw.	18.7	2,939	4,730	
3:04	963.8	7.0	48	wnw.	4.5	2,945	701.8	−4.8	0.41	70	2.86	wnw.	18.6	2,885	4,700	
						2,750	719.0	−4.0	.....	72	3.15	wnw.	18.0	2,694	4,350	
						2,500	741.3	−3.0	.....	73	3.47	wnw.	17.2	2,450	3,900	
						2,250	765.2	−1.9	.....	75	3.92	wnw.	16.5	2,205	3,450	
3:20	963.9	6.6	51	wnw.	3.6	2,168	774.1	−1.6	0.46	76	4.07	wnw.	16.2	2,125	3,300	4/10Ci.St.,wnw.;3/10A.St.,wnw.
						2,000	790.0	−0.8	.....	73	4.17	wnw.	16.3	1,960	2,910	
						1,750	815.5	0.3	.....	68	4.24	nw.	16.4	1,715	2,430	
3:31	964.0	6.6	51	w.	3.6	1,603	830.6	1.0	0.48	65	4.27	nw.	16.4	1,574	2,000	
						1,500	841.9	1.5	.....	61	4.15	nw.	16.2	1,470	1,920	
						1,250	867.8	2.7	.....	51	3.78	nw.	15.8	1,225	1,570	
						1,000	895.2	3.9	.....	42	3.39	nw.	15.4	980	650	
3:54	964.2	6.8	54	w.	3.6	822	915.2	4.8	0.52	35	3.01	nw.	15.1	806	0	
						750	924.0	5.2	.....	38	3.36	nw.	13.2	735	0	
						500	952.7	6.5	.....	47	4.55	wnw.	6.4	490	0	
4:00	964.2	7.0	51	w.	3.6	396	964.2	7.0	.....	51	5.11	w.	3.6	386	.....	4/10Ci.St.,wnw.;5/10A.St.,wnw.

January 9, 1917.

8:12	959.7	1.2	69	wsw.	6.3	396	959.7	1.2	.....	69	4.60	wsw.	6.3	388	.....	2/10A.St.,nw.; 6/10 A.Cu., nw.
						500	947.7	3.1	.....	61	4.65	wsw.	9.4	490	0	
8:16	959.6	1.2	69	wsw.	6.3	667	928.1	6.2	−1.85	47	4.46	w.	14.4	654	0	
						750	919.3	6.2	.....	45	4.27	w.	14.7	735	0	
8:27	959.5	1.1	69	wsw.	6.7	987	892.5	6.1	0.03	39	3.67	w.	15.4	968	300	
						1,000	890.9	6.0	.....	39	3.65	w.	15.5	980	320	
						1,250	863.7	5.0	.....	43	3.75	w.	16.6	1,225	750	
						1,500	837.5	4.0	.....	46	3.74	wnw.	17.7	1,470	1,520	
8:52	959.2	0.9	74	wsw.	6.3	1,700	817.4	3.2	0.41	49	3.77	wnw.	18.6	1,666	2,100	
						1,750	812.5	2.9	.....	50	3.76	wnw.	19.1	1,715	2,180	2/10A.St.,nw.; 8/10 A.Cu., nw.
						2,000	787.2	1.4	.....	54	3.65	wnw.	21.6	1,960	2,600	
						2,250	763.5	−0.1	.....	59	3.58	wnw.	24.2	2,205	3,400	
						2,500	739.5	−1.6	.....	63	3.37	wnw.	26.7	2,450	4,250	
9:24	958.9	1.8	71	sw.	4.5	2,560	734.2	−2.0	0.53	64	3.31	wnw.	27.3	2,508	4,500	4/10A.Cu.,nw.; 6/10St.Cu.,wnw
						2,500	739.4	−1.7	.....	63	3.34	wnw.	26.9	2,450	4,310	
						2,250	763.0	−0.6	.....	59	3.43	wnw.	25.3	2,205	3,510	
						2,000	786.1	0.5	.....	55	3.48	wnw.	23.7	1,960	2,710	
						1,750	811.0	1.7	.....	50	3.46	w.	22.1	1,715	1,920	
						1,500	836.4	2.8	.....	46	3.44	w.	20.4	1,470	1,390	
10:02	958.7	2.4	70	sw.	4.9	1,308	857.5	3.7	0.49	43	3.42	w.	19.2	1,282	1,010	
						1,250	863.0	4.0	.....	43	3.50	w.	19.1	1,225	900	
						1,000	889.8	5.2	.....	41	3.63	wsw.	18.5	980	430	
10:13	958.6	2.6	69	sw.	5.4	775	915.3	6.3	−0.08	39	3.72	wsw.	18.0	760	0	
						750	917.8	6.3	.....	39	3.72	wsw.	17.8	735	0	
10:20	958.5	2.9	67	sw.	6.7	525	943.5	6.1	−2.40	43	4.05	wsw.	16.2	515	0	
						500	946.1	5.5	.....	47	4.24	wsw.	14.1	490	0	
10:26	958.4	3.0	66	sw.	5.4	396	958.4	3.0	.....	66	5.00	sw.	5.4	386	.....	4/10A.Cu.,nw.;6/10St.Cu.,wnw.

January 10, 1917 (No. 1).

A. M.																
11:08	970.1	−6.8	67	nnw.	8.9	396	970.1	− 6.8	.....	67	2.30	nnw.	8.9	388	.....	2/10 A.Cu., nw.; few St.Cu., nnw.
						500	958.7	− 8.0	.....	68	2.11	nnw.	10.6	490	190	
11:15	971.6	−6.2	61	nnw.	8.5	741	929.3	−10.8	1.16	70	1.69	nnw.	14.4	727	650	
						750	927.8	−10.8	.....	70	1.69	nnw.	14.5	735	660	
11:20	971.6	−6.4	62	nnw.	8.5	974	901.3	−12.6	0.77	75	1.54	nnw.	18.3	955	1,680	
						1,000	897.7	−12.5	.....	75	1.55	nnw.	19.2	980	1,860	
11:30	971.6	−6.6	63	nnw.	8.5	1,157	879.9	−12.0	−0.42	72	1.56	nnw.	24.5	1,134	3,000	
						1,000	897.7	−12.8	.....	77	1.56	nnw.	19.7	980	2,140	
11:45	971.6	−6.7	58	nnw.	9.8	964	902.5	−13.0	0.56	78	1.54	nnw.	18.6	945	1,950	
11:53	971.6	−7.0	59	nnw.	10.7	751	928.0	−11.9	1.38	75	1.64	nnw.	17.4	736	780	
						500	959.1	− 8.4	.....	66	1.97	nnw.	11.1	490	230	
NOON	971.6	−7.0	62	nnw.	8.5	396	971.6	− 7.0	.....	62	2.10	nnw.	8.5	388	.....	3/10 Ci., nw.; 1/10 St. Cu., nnw.

January 10, 1917 (No. 2).

P. M.																
3:11	973.7	−7.2	58	nnw.	8.9	396	973.7	− 7.2	.....	58	1.93	nnw.	8.9	388	.....	5/10 St.Cu., nnw.
						500	960.8	− 8.2	.....	60	1.82	nnw.	11.6	490	450	
						750	930.9	−10.5	.....	65	1.61	nnw.	18.0	735	1,540	
3:21	973.7	−7.4	55	nnw.	8.9	788	925.7	−10.9	0.94	66	1.58	nnw.	19.0	773	1,700	
						1,000	900.5	−12.1	.....	68	1.46	nnw.	20.6	980	3,480	
3:30	973.8	−7.6	56	nnw.	9.4	1,240	872.5	−13.4	0.55	70	1.34	nnw.	22.5	1,216	5,500	9/10 St.Cu., nnw.
						1,250	871.4	−13.4	.....	70	1.34	nnw.	22.4	1,225	5,540	
						1,500	842.7	−12.5	.....	74	1.53	nnw.	24.7	1,470	6,400	
3:48	973.9	−7.6	62	nnw.	6.7	1,557	836.9	−12.4	−0.54	75	1.57	nnw.	25.2	1,526	6,500	
						1,500	842.7	−12.8	.....	76	1.54	nnw.	24.1	1,470	6,190	
4:10	974.1	−7.7	63	nnw.	5.8	1,273	868.8	−14.6	0.49	81	1.39	nnw.	19.8	1,248	4,940	
						1,250	871.4	−14.5	.....	81	1.40	nnw.	19.4	1,225	4,820	
						1,000	900.5	−13.3	.....	76	1.47	nnw.	15.2	980	2,890	
4:25	974.3	−7.8	60	nnw.	6.3	801	924.4	−12.3	0.85	73	1.54	nnw.	11.8	785	1,320	
						750	931.2	−11.9	.....	72	1.58	nnw.	11.3	735	1,180	
						500	962.1	− 8.9	.....	64	1.83	nnw.	7.2	490	270	
4:30	974.4	−8.0	62	n.	6.3	396	974.4	− 8.0	.....	62	1.92	n.	6.3	388	.....	9/10 St.Cu., nnw.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station January 1917*—Continued.

January 11, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
1:19	972.2	−8.8	51	sse.	4.5	396	972.2	− 8.8	.....	51	1.47	sse.	4.5	388	.....	10/10 A.Cu., wnw.
						500	959.1	− 9.6	.....	53	1.43	sse.	5.6	490	200	
						750	928.2	−11.5	.....	57	1.29	sse.	8.3	735	1,100	
1:43	971.3	−7.8	48	sse.	5.4	764	926.1	−11.6	0.76	57	1.28	sse.	8.5	749	1,230	
						1,000	898.0	− 9.7	.....	60	1.60	ssw.	9.3	980	3,310	
1:52	970.9	−7.4	50	sse.	5.4	1,214	873.2	− 8.0	−0.80	62	1.92	sw.	10.0	1,190	5,200	
						1,250	869.1	− 7.9	.....	62	1.93	sw.	10.8	1,225	5,360	7/10 A.Cu., wnw.
						1,500	841.2	− 7.0	.....	60	2.03	ssw.	16.0	1,470	6,460	
						1,750	815.0	− 6.2	.....	59	2.14	wsw.	21.2	1,715	7,660	
2:19	969.8	−6.7	43	sse.	6.3	1,883	800.9	− 5.7	−0.34	58	2.19	w.	24.0	1,846	8,540	
						2,000	789.8	− 6.0	.....	59	2.17	w.	24.3	1,960	9,870	
						2,250	765.0	− 6.7	.....	61	2.12	w.	25.0	2,205	12,720	
						2,500	741.2	− 7.4	.....	64	2.09	wnw.	25.7	2,450	15,500	
						2,750	717.1	− 8.0	.....	66	2.05	wnw.	26.4	2,694	18,020	
						3,000	694.0	− 8.7	.....	68	1.98	wnw.	27.1	2,939	20,200	7/10 A.Cu., wnw.
2:43	968.9	−6.4	35	s.	8.0	3,077	687.0	− 8.9	0.28	69	1.97	wnw.	27.3	3,015	20,500	
						3,000	694.0	− 8.7	.....	70	2.04	wnw.	26.3	2,939	19,500	
						2,750	717.1	− 8.0	.....	72	2.23	w.	23.1	2,694	16,370	1/10Ci.St.,nw.;1/10A.Cu.,wnw.
3:19	967.9	−5.8	40	s.	6.7	2,591	731.3	− 7.5	0.41	74	2.39	w.	21.0	2,539	14,400	
						2,500	741.2	− 7.1	.....	72	2.41	w.	20.9	2,450	13,800	
						2,250	763.8	− 6.1	.....	66	2.41	w.	20.8	2,205	12,150	
						2,000	788.0	− 5.1	.....	61	2.43	wsw.	20.7	1,960	9,420	
3:41	967.5	−6.0	41	s.	5.4	1,828	805.6	− 4.4	−0.08	57	2.41	wsw.	20.6	1,792	7,900	
						1,750	813.6	− 4.5	.....	55	2.30	wsw.	20.2	1,715	7,510	Few Ci.St., nw.
						1,500	839.3	− 4.7	.....	51	2.10	sw.	19.1	1,470	6,250	
						1,250	866.5	− 4.9	.....	46	1.86	ssw.	18.0	1,225	4,930	
3:56	967.3	−6.4	42	sse.	8.5	1,103	883.2	− 5.0	−1.67	43	1.72	ssw.	17.3	1,081	4,110	
						1,000	894.9	− 6.7	.....	47	1.63	ssw.	15.8	980	3,530	
4:05	967.1	−6.5	41	s.	6.3	797	918.4	−10.1	0.82	55	1.41	s.	12.8	781	2,400	
						750	924.4	− 9.7	.....	53	1.42	s.	12.0	735	2,120	
						500	954.7	− 7.7	.....	44	1.40	sse.	8.0	490	620	
4:11	966.9	−6.8	40	sse.	6.3	396	966.9	− 6.8	.....	40	1.38	sse.	6.3	388	.....	Few Ci.St., nw.

January 12, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.																
8:48	973.0	− 8.8	70	n.	7.2	396	973.0	− 8.8	.....	70	2.02	n.	7.2	388	.....	10/10St.,n.
						500	960.0	− 9.7	.....	74	1.98	n.	9.0	490	1,090	
						750	929.1	−11.7	.....	83	1.85	n.	13.2	735	3,710	Light snow 8:52 to 9:52 a. m.
8:58	973.9	−9.0	75	n.	7.6	759	928.5	−11.8	0.83	83	1.83	n.	13.4	744	3,800	
						1,000	899.0	−13.9	.....	87	1.59	n.	14.7	980	6,700	St. base at about 900 meters.
						1,250	870.5	−15.2	.....	89	1.44	n.	15.5	1,225	9,200	
9:14	973.5	−9.0	72	n.	8.0	1,296	865.5	−15.6	0.71	90	1.40	n.	15.7	1,270	9,310	
						1,500	842.1	−14.5	.....	85	1.47	n.	13.5	1,470	9,740	4/10 A.Cu.,w.; 6/10St.,n.
						1,750	815.1	−13.2	.....	79	1.54	n.	10.8	1,715	9,460	
10:26	974.3	−9.2	66	n.	6.3	1,958	793.8	−12.1	−0.53	74	1.59	n.	8.6	1,919	8,800	3/10 Ci.,wsw.; 4/10St.Cu.,w.
						2,000	789.0	−12.2	.....	75	1.60	n.	8.7	1,960	8,830	
						2,250	764.1	−12.7	.....	78	1.59	n.	9.2	2,205	8,990	
						2,500	739.6	−13.2	.....	81	1.60	n.	9.8	2,450	9,000	
						2,750	715.8	−13.7	.....	84	1.56	nnw.	10.3	2,694	9,250	
						3,000	692.7	−14.2	.....	87	1.55	nnw.	10.8	2,939	10,680	
						3,250	670.8	−14.7	.....	90	1.53	nnw.	11.4	3,184	.....	
11:59	974.7	−10.0	54	n.	10.3	3,366	659.7	−14.9	0.22	92	1.54	nnw.	11.6	3,297	.....	
						3,250	670.8	−14.6	.....	89	1.52	nnw.	11.6	3,184	.....	
						3,000	692.7	−14.0	.....	83	1.50	nnw.	11.5	2,939	9,960	
						2,750	715.5	−13.4	.....	78	1.49	nnw.	11.4	2,694	8,600	
						2,500	738.7	−12.8	.....	62	1.25	n.	11.3	2,450	7,240	
						2,250	763.0	−12.1	.....	56	1.20	n.	11.3	2,205	6,650	3/10 Ci.,wsw.; 5/10A.Cu.,w.
P. M.																
12:21	974.6	−10.1	58	n.	10.3	2,032	785.6	−11.6	−0.68	51	1.15	n.	11.2	1,991	6,290	
						2,000	788.6	−11.8	.....	52	1.15	n.	11.3	1,960	6,230	
						1,750	815.1	−13.5	.....	56	1.06	n.	12.0	1,715	5,840	
						1,500	842.8	−15.2	.....	61	0.98	n.	12.7	1,470	6,190	Light snow 12:46 to 12:53 p. m.
						1,250	871.2	−16.9	.....	66	0.91	n.	13.4	1,225	7,810	
12:54	974.3	−10.5	70	nnw.	10.3	1,240	871.7	−17.0	0.57	66	0.90	n.	13.4	1,218	7,130	
						1,000	900.0	−15.9	.....	69	1.05	n.	13.4	980	1,770	
1:14	974.3	− 9.7	51	n.	10.3	806	923.3	−14.5	1.02	72	1.25	n.	13.3	790	0	
						750	929.9	−13.9	.....	70	1.28	n.	12.6	735	0	
						500	962.0	−11.4	.....	60	1.37	n.	9.7	490	0	
1:20	974.3	−10.3	56	n.	8.5	396	974.3	−10.3	.....	56	1.42	n.	8.5	388	.....	5/10 Ci.St.,wsw.; 4/10A.Cu.,w.

January 13, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.																
8:07	978.4	−18.8	74	wnw.	4.0	396	978.4	−18.8	.....	74	0.85	wnw.	4.0	388	.....	Cloudless.
						500	965.0	−19.3	.....	72	0.79	wnw.	8.2	490	0	
						750	933.2	−20.5	.....	66	0.65	nw.	18.4	735	0	
8:13	978.5	−18.8	74	wnw.	4.5	757	932.0	−20.5	0.47	66	0.65	nw.	18.7	742	0	
						1,000	901.6	−19.5	..	68	0.73	nw.	16.8	980	2,980	
8:26	978.5	−18.2	70	wnw.	4.5	1,212	876.8	−18.7	−0.40	69	0.80	nw.	15.2	1,188	5,660	
						1,250	871.5	−18.7	.....	69	0.80	nw.	15.2	1,225	6,140	
						1,500	842.9	−18.8	.....	68	0.78	nw.	16.7	1,470	9,260	
						1,750	815.8	−19.0	.....	66	0.75	wnw.	18.0	1,715	(*)	
8:52	978.7	−17.8	70	wnw.	8.0	1,799	810.6	−19.0	0.05	66	0.75	wnw.	18.2	1,763	(*)	
						2,000	788.4	−19.0	.....	65	0.73	wnw.	18.1	1,960	(*)	
						2,250	761.5	−20.0	.....	65	0.67	wnw.	18.1	2,205	(*)	
						2,500	736.3	−20.0	.....	64	0.66	wnw.	18.0	2,450	(*)	
						2,750	713.0	−20.0	.....	63	0.65	wnw.	17.9	2,694	(*)	
						3,000	690.0	−21.0	.....	63	0.59	w.	17.9	2,939	(*)	
						3,250	666.9	−21.0	.....	62	0.58	w.	17.8	3,184	(*)	
						3,500	645.0	−21.0	.....	61	0.57	w.	17.7	3,429	(*)	
						3,750	623.7	−22.0	.....	60	0.50	w.	17.6	3,673	(*)	
10:47	979.1	−16.2	58	nw.	8.0	3,875	612.7	−22.0	0.14	60	0.50	w.	17.6	3,795	31,000	
						3,750	623.7	−21.8	.....	60	0.52	w.	17.9	3,673	(*)	

* Over 10,000 volts.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 13, 1917—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.	Potential. Gravity.	Potential. Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*	m	*m. p. s.*	*10^5 ergs.*	*volts.*	
.....	.....	.....	.....	.....	.....	3,500	645.0	−21.5	.....	61	0.54	w.	18.4	3,429	(*)	
.....	.....	.....	.....	.....	.....	3,250	666.9	−21.1	.....	61	0.56	w.	18.9	3,184	(*)	
.....	.....	.....	.....	.....	.....	3,000	690.0	−20.8	.....	61	0.58	wnw.	19.5	2,939	(*)	
.....	.....	.....	.....	.....	.....	2,750	713.0	−20.4	.....	62	0.61	wnw.	20.0	2,694	(*)	
.....	.....	.....	.....	.....	.....	2,500	736.3	−20.1	.....	62	0.63	nw.	20.5	2,450	(*)	
.....	.....	.....	.....	.....	.....	2,250	761.5	−19.7	.....	62	0.66	nw.	21.1	2,205	(*)	
.....	.....	.....	.....	.....	.....	2,000	787.5	−19.4	.....	63	0.69	nw.	21.6	1,960	(*)	
11:58	978.0	−15.0	62	nw.	6.7	1,816	808.3	−19.1	−0.21	63	0.70	nw.	22.0	1,780	(*)	
.....	.....	.....	.....	.....	.....	1,750	815.5	−19.2	.....	64	0.71	nw.	20.9	1,715	(*)	
.....	.....	.....	.....	.....	.....	1,500	843.4	−19.8	.....	67	0.70	nw.	16.9	1,470	(*)	
P. M.																
12:11	977.8	−14.4	53	nw.	6.7	1,286	868.1	−20.2	0.36	69	0.70	nw.	13.5	1,261	8,440	
.....	.....	.....	.....	.....	.....	1,250	872.8	−20.1	.....	69	0.70	nw.	13.3	1,225	7,190	
.....	.....	.....	.....	.....	.....	1,000	902.7	−19.1	.....	70	0.78	wnw.	11.5	980	4,610	
12:25	977.5	−14.2	48	wnw.	6.3	764	930.8	−18.3	1.17	70	0.85	wnw.	9.9	749	2,170	
.....	.....	.....	.....	.....	.....	750	933.2	−18.1	.....	69	0.85	wnw.	9.8	735	2,020	
.....	.....	.....	.....	.....	.....	500	964.5	−15.1	.....	53	0.86	wnw.	7.3	490	550	
12:33	977.3	−14.0	47	wnw.	6.3	396	977.3	−14.0	.....	47	0.85	wnw.	6.3	388	.....	Cloudless.

January 14, 1917.

A. M.																
8:17	980.7	−18.2	88	ene.	4.0	396	980.7	−18.2	.....	88	1.07	ene.	4.0	388	.....	9/10 Ci., w.
.....	.....	.....	.....	.....	.....	500	967.5	−17.2	.....	83	1.11	ene.	5.0	490	300	
8:21	980.8	−17.8	86	ene.	4.0	695	942.5	−15.4	−0.94	73	1.16	e.	6.8	681	860	
.....	.....	.....	.....	.....	.....	750	935.3	−15.2	.....	71	1.15	e.	6.6	735	1,600	10/10 Ci., w.
.....	.....	.....	.....	.....	.....	1,000	904.7	−14.3	.....	62	1.09	se.	5.7	980	.....	
.....	.....	.....	.....	.....	.....	1,250	876.3	−3.51	.....	54	1.02	sse.	4.9	1,225	(*)	
P. M.																
1:53	983.1	−10.6	49	ne.	7.2	1,417	859.8	−12.9	−0.35	48	0.96	s.	4.3	1,389	(*)	
.....	.....	.....	.....	.....	.....	1,500	849.0	−13.2	.....	51	0.99	s.	4.8	1,470	(*)	
.....	.....	.....	.....	.....	.....	1,750	822.4	−13.9	.....	59	1.08	ssw.	6.4	1,715	(*)	22°-halo, 9:12 a. m. to 5:12 p. m.
.....	.....	.....	.....	.....	.....	2,000	796.6	−14.7	.....	68	1.16	ssw.	7.9	1,960	(*)	
4:11	983.6	−10.4	52	ene.	6.7	2,240	771.7	−15.4	0.31	76	1.21	sw.	9.4	2,195	(*)	
.....	.....	.....	.....	.....	.....	2,250	771.0	−15.4	.....	76	1.21	sw.	9.5	2,205	(*)	
.....	.....	.....	.....	.....	.....	2,500	745.5	−14.9	.....	68	1.14	wsw.	10.9	2,450	(*)	
4:33	983.8	−11.2	56	ne.	6.3	2,687	727.7	−14.6	−0.16	63	1.08	wsw.	12.0	2,633	(*)	
.....	.....	.....	.....	.....	.....	2,500	745.5	−14.9	.....	66	1.10	wsw.	10.1	2,450	(*)	
.....	.....	.....	.....	.....	.....	2,250	771.0	−15.2	.....	71	1.15	wsw.	7.6	2,205	(*)	
4:40	983.9	−11.3	56	ne.	6.3	2,189	777.3	−15.3	0.44	72	1.15	wsw.	7.0	2,145	(*)	5/10 Ci., w.; 5/10 Ci. St., w.
.....	.....	.....	.....	.....	.....	2,000	796.7	−14.5	.....	67	1.16	sw.	6.9	1,960	(*)	
.....	.....	.....	.....	.....	.....	1,750	823.0	−13.3	.....	61	1.18	ssw.	6.8	1,715	(*)	
.....	.....	.....	.....	.....	.....	1,500	851.5	−12.2	.....	55	1.17	s.	6.7	1,470	(*)	
4:55	984.0	−11.5	64	ne.	5.4	1,380	864.6	−11.7	−0.67	52	1.16	s.	6.6	1,353	8,000	
.....	.....	.....	.....	.....	.....	1,250	879.1	−12.6	.....	55	1.13	sse.	6.9	1,225	4,980	
.....	.....	.....	.....	.....	.....	1,000	909.0	−14.3	.....	60	1.06	ese.	7.5	980	3,550	
5:03	984.1	−11.8	57	ene.	4.9	860	925.9	−15.2	0.69	63	1.02	e.	7.8	843	2,450	
.....	.....	.....	.....	.....	.....	750	939.8	−14.4	.....	63	1.10	e.	7.1	735	1,480	
.....	.....	.....	.....	.....	.....	500	970.7	−12.7	.....	62	1.26	ene.	5.6	490	320	
5:12	984.2	−12.0	62	ene.	4.9	396	984.2	−12.0	.....	62	1.35	ene.	4.9	388	.....	5/10 Ci., w.; 5/10 Ci. St., w.

January 15, 1917.

A. M.																
8:48	990.6	−14.6	100	ene.	6.3	396	990.6	−14.6	.....	100	1.71	ene.	6.3	388	.....	10/10 St.s.
.....	.....	.....	.....	.....	.....	500	977.4	−14.9	.....	90	1.50	ene.	7.5	490	1,190	Light snow began during night,
8:53	990.6	−14.5	100	e.	6.3	588	965.8	−15.2	0.31	82	1.33	ese.	8.6	576	2,190	and continued at end of flight.
.....	.....	.....	.....	.....	.....	750	944.8	−12.7	.....	82	1.67	sse.	8.2	735	3,210	
9:03	990.6	−14.2	100	e.	5.8	843	933.9	−11.2	−1.57	82	1.91	s.	8.0	827	7,200	
.....	.....	.....	.....	.....	.....	1,000	911.3	−11.8	.....	82	1.81	s.	8.2	980	(†)	
.....	.....	.....	.....	.....	.....	1,250	880.0	−12.8	.....	82	1.66	s.	8.5	1,225	(†)	10/10 St.s.
.....	.....	.....	.....	.....	.....	1,500	850.1	−13.7	.....	82	1.53	s.	8.8	1,470	(†)	
.....	.....	.....	.....	.....	.....	1,750	822.9	−14.7	.....	82	1.39	s.	9.1	1,715	(†)	
.....	.....	.....	.....	.....	.....	2,000	796.5	−15.6	.....	83	1.29	s.	9.4	1,960	(†)	
.....	.....	.....	.....	.....	.....	2,250	773.7	−16.5	.....	83	1.19	s.	9.7	2,205	(†)	
.....	.....	.....	.....	.....	.....	2,500	750.2	−17.5	.....	83	1.08	s.	10.0	2,450	(†)	
.....	.....	.....	.....	.....	.....	2,750	726.0	−18.4	.....	83	1.00	s.	10.4	2,694	(†)	
10:29	991.7	−13.1	90	e.	4.5	2,786	723.3	−18.6	0.38	83	0.98	s.	10.4	2,730	(†)	6/10 Ci.Cu., sw.; 4/10 St., s.
.....	.....	.....	.....	.....	.....	3,000	702.2	−18.8	.....	83	0.95	s.	9.5	2,939	(†)	
.....	.....	.....	.....	.....	.....	3,250	679.5	−19.1	.....	83	0.93	s.	8.4	3,184	(†)	10/10 St.s.
P. M.																
12:48	991.6	−11.2	86	ene.	3.6	3,498	657.5	−19.3	0.10	83	0.91	s.	7.4	3,427	(†)	
12:57	991.6	−11.0	78	ene.	3.1	3,641	644.9	−18.1	−0.72	83	1.02	s.	6.4	3,567	(†)	
.....	.....	.....	.....	.....	.....	3,500	657.3	−18.9	.....	82	0.93	s.	7.5	3,429	(†)	
1:04	991.6	−11.2	81	ene.	3.1	3,419	663.9	−19.4	0.05	82	0.89	s.	8.2	3,349	(†)	
.....	.....	.....	.....	.....	.....	3,250	679.5	−19.3	.....	82	0.90	s.	7.6	3,184	(†)	
.....	.....	.....	.....	.....	.....	3,000	702.2	−19.2	.....	83	0.92	s.	6.6	2,939	(†)	
.....	.....	.....	.....	.....	.....	2,750	726.1	−19.0	.....	83	0.94	s.	5.7	2,694	(†)	
1:15	991.5	−10.9	83	e.	4.0	2,682	733.2	−19.0	0.34	83	0.94	s.	5.4	2,628	(†)	
.....	.....	.....	.....	.....	.....	2,500	750.5	−18.4	.....	83	1.00	s.	5.6	2,450	(†)	
.....	.....	.....	.....	.....	.....	2,250	775.6	−17.5	.....	84	1.09	s.	5.8	2,205	(†)	
.....	.....	.....	.....	.....	.....	2,000	801.7	−16.7	.....	84	1.18	sse.	6.1	1,960	(†)	
.....	.....	.....	.....	.....	.....	1,750	829.3	−15.8	.....	85	1.30	sse.	6.3	1,715	(†)	
1:35	991.4	−10.7	77	e.	4.5	1,664	839.3	−15.5	0.51	85	1.33	sse.	6.4	1,631	(†)	10/10 St.s.
.....	.....	.....	.....	.....	.....	1,500	857.2	−14.7	.....	85	1.45	sse.	6.4	1,470	(†)	
.....	.....	.....	.....	.....	.....	1,250	885.6	−13.4	.....	86	1.64	s.	6.5	1,225	7,350	
.....	.....	.....	.....	.....	.....	1,000	915.0	−12.1	.....	87	1.87	s.	6.6	980	6,020	
2:07	991.3	−10.4	80	e.	4.5	862	932.6	−11.4	−0.97	87	1.99	s.	6.6	845	6,700	
.....	.....	.....	.....	.....	.....	750	946.3	−12.5	.....	86	1.78	se.	5.9	735	4,680	
2:16	991.3	−11.3	83	e.	4.9	624	962.0	−13.7	0.92	85	1.58	e.	5.1	612	2,410	
.....	.....	.....	.....	.....	.....	500	978.5	−12.6	.....	85	1.74	ene.	5.3	490	850	
2:24	991.3	−11.6	85	ene.	5.4	396	991.3	−11.6	.....	85	1.91	ene.	5.4	388	.....	4/10 Ci.St., s.w.; Few St., s.

* Above 10,000 volts. † More than 11,000 volts.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 16, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
8:23	990.1	−13.1	92	ssw.	4.9	396	990.1	−13.1	.....	92	1.80	ssw.	4.9	388	.....	Cloudless.
						500	977.0	−11.9	.....	89	1.95	sw.	5.5	490	420	
8:40	990.0	−12.9	92	ssw.	4.9	613	962.3	−10.7	−1.11	85	2.07	wsw.	6.1	601	1,470	
						750	945.2	−11.1	.....	86	2.02	wsw.	6.3	735	2,400	
						1,000	913.7	−11.9	.....	88	1.93	wsw.	6.7	980	4,100	
						1,250	884.4	−12.6	.....	91	1.87	wsw.	7.2	1,225	5,800	
9:12	989.7	−12.6	92	ssw.	5.8	1,398	868.5	−13.1	0.31	92	1.80	wsw.	7.4	1,370	6,800	
						1,500	855.9	−12.5	.....	90	1.86	wsw.	8.3	1,470	7,400	
						1,750	837.5	−10.9	.....	84	2.01	wsw.	10.7	1,715	8,870	
						2,000	801.2	− 9.3	.....	78	2.15	w.	12.9	1,960	10,330	
						2,250	776.7	− 7.7	.....	72	2.29	w.	15.3	2,205	(*)	
9:46	989.1	−12.8	92	ssw.	4.5	2,497	752.6	− 6.1	−0.64	66	2.41	w.	17.6	2,447	(*)	
						2,750	729.0	− 6.7	.....	56	1.94	w.	15.1	2,694	(*)	
9:51	989.1	−12.9	92	ssw.	4.0	2,768	727.1	− 6.8	0.27	55	1.89	w.	14.9	2,712	(*)	
						2,750	728.9	− 6.7	.....	55	1.91	w.	14.9	2,694	(*)	
						2,500	752.0	− 6.0	.....	55	2.02	wsw.	14.4	2,450	(*)	
9:56	989.0	−13.0	92	ssw.	4.9	2,486	753.8	− 6.0	−0.58	55	2.02	wsw.	14.4	2,436	(*)	
						2,250	775.8	− 7.4	.....	62	2.02	wsw.	13.7	2,205	(*)	
						2,000	800.3	− 8.8	.....	68	1.97	wsw.	13.0	1,960	(*)	
						1,750	836.8	−10.3	.....	75	1.90	wsw.	12.2	1,715	(*)	
						1,500	855.0	−11.7	.....	82	1.83	wsw.	11.5	1,470	6,310	
10:13	988.8	−13.2	93	ssw.	4.9	1,326	875.8	−12.7	0.30	87	1.77	wsw.	11.0	1,300	5,950	
						1,250	884.4	−12.5	.....	87	1.80	wsw.	10.8	1,225	5,760	
						1,000	913.7	−11.7	.....	87	1.94	wsw.	10.1	980	5,120	
						750	944.6	−11.0	.....	88	2.09	wsw.	9.4	735	3,860	
10:25	988.7	−13.2	96	ssw.	4.5	624	959.8	−10.6	−1.14	88	2.16	wsw.	9.0	612	2,930	
						500	975.2	−12.0	.....	92	2.00	sw.	6.5	490	2,130	
10:29	988.7	−13.2	96	ssw.	4.5	396	988.7	−13.2	.....	96	1.87	ssw.	4.5	388	.....	Cloudless.

January 17, 1917.

A. M.																
8:31	980.4	−9.1	94	ssw.	5.8	396	980.4	− 9.1	.....	94	2.64	ssw.	5.8	388	.....	10/10 St., wsw.
						500	967.5	− 9.0	.....	90	2.56	ssw.	6.9	490	780	
						750	938.1	− 8.8	.....	80	2.31	sw.	9.7	735	1,170	
						1,000	908.0	− 8.6	.....	70	2.06	wsw.	12.4	980	2,520	
8:48	980.2	−8.8	94	ssw.	6.7	1,091	896.1	− 8.5	−0.09	67	1.98	wsw.	13.4	1,070	4,460	
						1,250	877.7	− 8.9	.....	73	2.09	wsw.	12.9	1,225	6,450	
						1,500	849.0	− 9.7	.....	83	2.22	wsw.	12.1	1,470	8,820	St. base about 1,150 meters.
						1,750	822.0	−10.4	.....	92	2.31	wsw.	11.4	1,715	(*)	
9:23	979.7	−8.4	90	ssw.	5.8	1,799	817.4	−10.5	0.28	94	2.33	wsw.	11.2	1,763	(*)	
						2,000	796.3	− 4.5	.....	42	1.76	wsw.	15.7	1,960	(*)	
9:49	979.3	−8.0	88	ssw.	6.7	2,135	782.7	− 0.5	−2.98	36	2.11	wsw.	16.2	2,092	(*)	
						2,250	771.9	− 0.5	.....	32	1.88	wsw.	16.2	2,205	(*)	
9:58	979.1	−7.8	86	ssw.	8.0	2,266	770.1	− 0.5	0.00	31	1.82	wsw.	16.2	2,221	(*)	Light snow 9:58 to 11:05 a. m.
						2,250	771.9	− 0.5	.....	31	1.82	wsw.	15.9	2,205	(*)	
10:06	979.0	−7.7	84	ssw.	6.3	2,124	783.8	− 0.5	−2.44	27	1.58	wsw.	13.9	2,082	(*)	
						2,000	796.3	− 3.5	.....	41	1.87	wsw.	14.2	1,960	(*)	
						1,750	822.0	− 9.6	.....	69	1.86	wsw.	14.9	1,715	(*)	
10:18	978.8	−7.5	83	ssw.	6.3	1,726	824.4	−10.2	0.37	72	1.84	wsw.	15.0	1,692	11,000	
						1,500	849.0	− 9.4	.....	80	2.19	wsw.	13.9	1,470	9,210	St. base about 950 meters.
						1,250	876.3	− 8.5	.....	89	2.63	wsw.	12.6	1,225	7,420	
10:46	978.3	−7.2	78	ssw.	8.5	1,100	893.5	− 7.9	−0.32	94	2.93	wsw.	11.9	1,078	7,170	
						1,000	904.7	− 8.2	.....	90	2.74	wsw.	12.2	980	5,350	
						750	935.2	− 9.0	.....	81	2.30	wsw.	12.8	735	2,500	
11:01	978.0	−7.0	75	ssw.	8.9	724	937.7	− 9.1	0.64	80	2.25	wsw.	12.9	720	2,200	
						500	965.0	− 7.7	.....	77	2.45	sw.	11.4	490	1,520	
11:08	977.7	−7.0	75	ssw.	10.7	396	977.7	− 7.0	.....	75	2.54	ssw.	10.7	388	.....	1/10 St.Cu., wsw.

January 18, 1917 series (No. 1).

A. M.																
8:06	979.5	−9.4	84	nnw.	4.5	396	979.5	− 9.4	.....	84	2.30	nnw.	4.5	388	.....	3/10 St., nnw.
						500	967.0	− 9.7	.....	85	2.27	nnw.	8.0	490	780	
						750	935.6	−10.5	.....	86	2.13	nnw.	16.3	735	1,170	
8:16	979.6	−9.8	84	nnw.	5.8	770	933.2	−10.6	0.32	86	2.12	nnw.	17.0	755	1,200	
8:21	979.6	−9.8	84	nnw.	4.0	959	910.4	− 9.2	−0.74	75	2.09	nnw.	18.3	940	2,350	1/10 A. Cu., w.
						1,000	904.7	− 9.2	.....	75	2.09	nnw.	18.3	980	2,590	
						1,250	876.0	− 9.3	.....	72	1.99	nnw.	18.0	1,225	4,870	
						1,500	848.8	− 9.5	.....	70	1.90	nnw.	17.8	1,470	8,690	
8:44	979.9	−9.5	84	nnw.	4.0	1,605	837.8	− 9.5	0.05	69	1.87	nnw.	17.7	1,573	8,900	
						1,750	822.9	− 9.2	.....	60	1.67	nnw.	18.3	1,715	8,900	
						2,000	796.5	− 8.6	.....	46	1.35	nw.	19.3	1,960	9,650	
9:07	980.1	−8.8	78	nnw.	4.0	2,213	775.0	− 8.1	−0.23	33	1.01	nw.	20.1	2,169	12,850	
						2,250	771.6	− 8.2	.....	32	0.97	nw.	20.1	2,205	13,400	
						2,500	746.8	− 8.8	.....	22	0.64	nw.	20.1	2,450	14,990	
						2,750	723.5	− 9.4	.....	12	0.33	nw.	20.2	2,694	16,490	Cloudless.
10:04	979.7	−7.6	74	nw.	3.6	2,931	706.7	− 9.9	0.25	5	0.13	nw.	20.2	2,872	17,800	
						3,000	700.0	−10.2	.....	5	0.13	nw.	20.3	2,939	17,990	
						3,250	678.0	−11.3	.....	5	0.12	nw.	20.7	3,184	18,680	
10:30	979.4	−6.9	70	nnw.	4.5	3,403	664.5	−11.9	0.44	5	0.11	nw.	21.0	3,334	.....	
						3,250	678.0	−11.2	.....	5	0.12	nw.	21.3	3,184	15,940	
						3,000	700.0	−10.0	.....	4	0.10	nw.	21.8	2,939	14,180	
						2,750	723.5	− 8.9	.....	4	0.11	nw.	22.3	2,694	12,420	
11:07	979.1	−6.2	66	nw.	3.6	2,691	728.8	− 8.6	0.38	4	0.12	nw.	22.4	2,637	12,000	
						2,500	746.8	− 7.9	.....	6	0.19	nw.	20.7	2,450	9,570	
						2,250	771.6	− 6.9	.....	8	0.27	nw.	18.5	2,205	6,930	
11:26	978.9	−6.1	65	nw.	3.6	2,166	779.5	− 6.6	−0.27	9	0.32	nw.	17.7	2,123	6,300	
						2,000	796.5	− 7.1	.....	13	0.44	nw.	15.9	1,960	5,600	
						1,750	822.4	− 7.7	.....	18	0.57	nw.	13.2	1,715	4,550	

* More than 11,000 volts.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 18, 1917, 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.	Potential. Gravity.	Potential. Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
11:35	978.9	−6.0	68	nw.	4.5	1,617	836.6	− 8.1	1.50	21	0.64	nw.	11.7	1,585	3,990	
						1,500	848.8	− 7.9		26	0.81	nw.	12.4	1,470	3,630	
						1,250	876.1	− 7.6		35	1.12	nw.	14.0	1,225	3,040	
						1,000	904.7	− 7.2		45	1.49	nw.	15.6	980	1,590	
11:53	978.7	−5.6	71	wnw.	4.9	949	911.6	− 7.1	−1.72	47	1.57	nw.	15.9	930	1,280	
11:56	978.7	−5.6	68	wnw.	4.9	821	926.8	− 9.3	0.94	50	1.63	nw.	9.9	805	510	
						750	935.6	− 8.6		60	1.76	nw.	9.0	735	120	
						500	965.8	− 6.3		65	2.33	wnw.	5.8	490	0	
P. M.																
12:05	978.4	−5.3	67	wnw.	4.5	396	978.4	− 5.3		67	2.62	wnw.	4.5	388		Cloudless.

January 18, 1917, series (No. 2).

P. M.																
12:42	978.0	−4.4	65	wnw.	4.5	396	978.0	−4.4		65	2.74	wnw.	4.5	388		Cloudless.
						500	965.4	−5.1		69	2.75	wnw.	5.7	490	0	
1:05	977.6	−4.4	63	wnw.	5.8	667	944.4	−6.3	0.70	75	2.69	wnw.	7.5	654	440	
						750	934.5	−6.4		74	2.63	wnw.	8.1	735	990	
						1,000	904.6	−6.7		71	2.46	wnw.	10.1	980	2,640	
						1,250	876.3	−7.0		68	2.30	nw.	12.0	1,225	4,290	
						1,500	848.0	−7.3		66	2.17	nw.	14.0	1,470	5,780	
1:29	977.4	−3.9	62	wnw.	5.8	1,609	837.0	−7.4	0.12	65	2.12	nw.	14.8	1,577	6,370	
						1,750	820.9	−6.9		56	2.91	nw.	15.5	1,715	7,030	
						3,000	795.6	−6.1		41	1.50	nw.	16.8	1,960	7,970	
						2,250	770.8	−5.3		26	1.02	nw.	18.1	2,205	8,900	
1:51	977.1	−3.4	65	nw.	5.8	2,300	765.9	−5.1	−0.33	23	0.92	nw.	18.4	2,254	9,040	
						2,500	746.5	−5.8		20	0.75	nw.	18.5	2,450	9,430	
						2,750	723.1	−6.7		16	0.56	nw.	18.7	2,694	9,910	
						3,000	700.1	−7.6		12	0.39	nw.	23.1	2,939	12,030	
2:21	976.9	−2.8	61	nw.	5.4	3,042	696.5	−7.8	0.36	11	0.35	nw.	23.4	2,980	12,570	1/10 Ci., w.
						3,250	678.4	−7.5		8	0.26	nw.	24.2	3,184	14,680	
2:42	976.8	−2.6	58	nw.	5.4	3,353	669.3	−7.4	−0.13	6	0.20	nw.	24.6	3,285	15,000	
						3,250	678.4	−7.5		5	0.16	nw.	23.6	3,184	14,160	
3:01	976.7	−2.3	56	nw.	5.8	3,056	695.4	−7.8	0.23	4	0.13	nw.	21.6	2,994	12,570	
						3,000	699.9	−7.7		4	0.13	nw.	21.5	2,939	12,110	
						2,750	722.0	−7.1		6	0.20	nw.	20.9	2,694	10,460	
						2,500	744.6	−6.5		8	0.28	nw.	20.4	2,450	8,820	
						2,250	768.7	−6.0		10	0.37	nw.	19.9	2,205	7,600	
						2,000	794.0	−5.4		12	0.47	nw.	19.4	1,960	6,800	
3:28	976.7	−2.0	61	wnw.	4.5	1,787	817.9	−4.9	−0.78	14	0.57	nw.	18.9	1,751	6,000	
						1,750	822.0	−5.2		16	0.63	nw.	18.9	1,715	6,000	
3:37	976.7	−1.9	61	wnw.	4.9	1,506	847.9	−7.1	0.07	32	1.07	nw.	18.9	1,476	4,650	
						1,500	848.0	−7.1		32	1.07	nw.	18.9	1,470	4,600	
						1,250	875.8	−6.9		59	2.01	wnw.	14.2	1,225	3,180	
3:50	976.7	−1.9	59	w.	4.5	1,051	898.6	−6.8	0.62	80	2.75	wnw.	10.5	1,030	2,200	
						1,000	904.4	−6.5		79	2.79	wnw.	9.9	980	1,950	
						750	933.5	−4.9		72	2.92	w.	6.9	735	0	
4:00	976.7	−1.7	59	w.	4.5	663	944.4	−4.4	1.05	70	2.95	w.	5.8	650		
						500	964.0	−2.7		63	3.07	w.	5.0	490		
4:04	976.7	−1.6	58	w.	4.5	396	976.7	−1.6		58	3.10	w.	4.5	388		1/10 Ci., w.

January 18, 1917, series (No. 3).

P. M.																
5:15	975.8	−2.2	61	sw.	1.8	396	975.8	−2.2		61	3.10	sw.	1.8	388		1.10 Ci., w.
						500	963.0	−2.6		64	3.15	sw.	4.0	490	0	
						750	933.3	−3.7		71	3.18	wsw.	9.4	735	0	
5:23	975.7	−2.8	64	sw.	2.7	772	930.4	−3.8	0.43	72	3.20	wsw.	9.9	757	0	
						1,000	903.6	−5.0		73	2.93	w.	12.2	980	1,100	
5:35	975.6	−3.3	67	sw.	3.6	1,255	874.9	−6.3	0.52	75	2.69	wnw.	14.8	1,230	2,340	
						1,500	847.5	−5.8		54	2.03	wnw.	18.6	1,470	3,450	
						1,750	821.1	−5.3		33	1.29	wnw.	22.4	1,715	4,860	1/10 Ci., w.
6:08	975.2	−4.4	72	ssw.	5.4	1,790	816.8	−5.2	−0.21	29	1.14	wnw.	23.0	1,754	5,040	
						2,000	794.9	−5.4		19	0.74	wnw.	22.7	1,960	6,000	
6:30	975.0	−4.5	70	ssw.	4.9	2,176	777.4	−5.5		11	0.42	wnw.	22.4	2,133	6,800	
						2,250	769.0	−5.1		10	0.40	wnw.	21.2	2,205	7,100	
6:37	974.9	−4.5	72	ssw.	4.9	2,434	752.3	−4.0	−0.08	9	0.39	wnw.	18.3	2,385	7,840	
						2,500	746.0	−4.2		8	0.34	wnw.	18.5	2,450	8,110	
						2,750	724.7	−5.1		6	0.24	wnw.	19.1	2,694	9,120	
						3,000	704.3	−6.0		4	0.15	wnw.	19.7	2,939		
7:05	974.6	−4.8	76	ssw.	4.9	3,087	692.2	−6.3	0.32	3	0.11	wnw.	19.9	3,025		
						3,000	703.8	−6.0		3	0.11	wnw.	19.9	2,939		Cloudless.
						2,750	723.9	−5.3		2	0.08	wnw.	20.1	2,694	8,950	
7:24	974.4	−5.0	76	ssw.	5.4	2,525	743.2	−4.6	−0.32	1	0.04	wnw.	20.2	2,474	7,800	
						2,500	745.4	−4.7		1	0.04	wnw.	20.1	2,450	7,670	
						2,250	769.6	−5.5		1	0.04	wnw.	19.2	2,205	6,690	
7:29	974.4	−5.1	76	ssw.	5.8	2,183	776.2	−5.7	0.27	1	0.04	wnw.	19.0	2,139	6,060	
						2,000	794.2	−5.2		4	0.16	wnw.	21.2	1,960	5,750	
7:35	974.3	−5.2	76	ssw.	6.7	1,883	806.3	−4.9	−0.18	6	0.24	wnw.	22.6	1,846	5,310	
						1,750	820.0	−5.1		13	0.52	wnw.	19.9	1,715	4,800	
						1,500	846.7	−5.6		26	0.99	w.	14.8	1,470	3,550	
8:04	973.9	−5.0	76	ssw.	7.2	1,386	858.9	−5.8	0.36	32	1.20	w.	12.5	1,359	2,200	
						1,250	874.1	−5.3		39	1.52	w.	13.8	1,225	2,490	
						1,000	901.6	−4.4		53	2.24	wsw.	16.2	980	1,770	
						750	930.8	−3.5		66	3.01	sw.	18.6	735	1,090	
8:23	973.6	−5.2	81	ssw.	6.7	583	950.9	−2.9	−1.23	75	3.60	sw.	20.2	572	850	
						500	960.7	−3.9		78	3.44	sw.	14.2	490	730	
8:25	973.8	−5.2	81	ssw.	6.7	396	973.8	−5.2		81	3.19	ssw.	6.7	388		Cloudless.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 18–19, 1917, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
9:01	973.0	−5.6	85	SSW.	8.9	396	973.0	−5.6	.....	85	3.24	SSW.	8.9	388	.....	Cloudless.
						500	960.1	−4.0	.....	79	3.45	SW.	13.1	490	820	
9:03	973.0	−5.7	85	SSW.	6.7	566	952.2	−3.0	−1.53	76	3.61	SW.	15.8	555	920	
						750	929.8	−2.9	.....	62	2.98	SW.	13.9	735	1,210	
						1,000	901.0	−2.7	.....	44	2.15	WSW.	11.3	980	1,780	
						1,250	873.0	−2.6	.....	25	1.23	WSW.	8.8	1,225	2,480	
9:40	972.5	−5.2	86	SSW.	8.0	1,256	872.4	−2.6	−0.06	25	1.23	WSW.	8.7	1,231	2,500	
						1,500	846.0	−3.0	.....	22	1.05	WSW.	12.0	1,470	3,670	
						1,750	819.9	−3.4	.....	19	0.87	W.	15.4	1,715	5,160	
9:55	972.4	−5.5	88	SSW.	8.0	1,983	795.6	−3.8	0.17	16	0.71	W.	18.5	1,944	6,330	
						2,000	794.0	−3.7	.....	16	0.72	W.	18.7	1,960	6,390	
						2,250	769.2	−2.9	.....	10	0.48	WNW.	21.1	2,205	7,290	
10:02	972.3	−5.5	88	SW.	8.0	2,356	758.9	−2.5	−0.35	8	0.40	WNW.	22.1	2,309	7,670	
						2,500	744.8	−2.6	.....	7	0.34	WNW.	21.6	2,450	7,830	
						2,750	721.6	−4.3	.....	6	0.26	WNW.	20.6	2,694	9,110	
						3,000	699.4	−5.4	.....	4	0.16	W.	19.6	2,939	10,330	
						3,250	677.5	−6.5	.....	2	0.07	W.	18.7	3,184	10,700	
10:56	972.3	−5.6	87	SW.	8.0	3,459	659.4	−7.5	0.44	1	0.03	W.	17.9	3,388	.....	
						3,250	677.0	−6.6	.....	1	0.04	W.	18.3	3,184	10,260	
						3,000	698.3	−5.6	.....	1	0.04	W.	18.7	2,939	9,560	
						2,750	720.7	−4.5	.....	1	0.04	W.	19.1	2,694	8,370	
						2,500	744.1	−3.5	.....	1	0.05	W.	19.5	2,450	6,910	
11:34	972.3	−5.7	87	SW.	7.2	2,448	749.8	−3.3	−0.50	1	0.05	W.	19.6	2,399	6,600	
						2,250	768.7	−4.3	.....	1	0.04	W.	16.8	2,205	5,460	
11:47	972.3	−6.2	90	SW.	6.7	2,025	791.0	−5.4	0.20	2	0.08	W.	13.6	1,984	4,510	
						2,000	794.0	−5.3	.....	2	0.08	W.	13.5	1,960	4,400	
						1,750	819.9	−4.8	.....	6	0.24	W.	12.7	1,715	3,350	
						1,500	846.0	−4.3	.....	9	0.38	W.	11.8	1,470	2,370	
						1,250	873.0	−3.8	.....	13	0.58	W.	10.9	1,225	1,560	
A. M.																
12:03	972.2	−6.4	92	SW.	6.7	1,233	874.9	−3.8	0.50	13	0.58	W.	10.9	1,209	1,500	
						1,000	901.0	−2.6	.....	25	1.23	W.	14.0	980	1,030	
						750	929.8	−1.4	.....	37	2.01	WSW.	17.3	735	700	
12:22	971.8	−6.3	90	SW.	6.7	652	940.7	−0.9	−2.19	42	2.38	WSW.	18.6	639	0	
						500	958.7	−4.2	.....	72	3.10	SW.	11.8	490	0	
12:27	971.7	−6.5	92	SW.	7.2	396	971.7	−6.5	.....	92	3.25	SW.	7.2	388	.....	Cloudless.

January 19, 1917, series (No. 5).

A. M.																
1:13	970.6	−7.0	92	SSW.	6.7	396	970.6	−7.0	.....	92	3.11	SSW.	6.7	388	.....	Cloudless.
						500	958.0	−4.9	.....	75	3.04	SW.	10.8	490	0	
1:24	970.4	−6.9	89	SSW.	8.9	755	927.2	0.4	−2.06	34	2.14	WSW.	20.9	740	0	
						1,000	898.8	−0.1	.....	30	1.82	WSW.	20.4	980	750	
						1,250	871.1	−0.8	.....	25	1.43	WSW.	20.0	1,225	1,530	
1:45	969.9	−6.7	92	SSW.	8.9	1,451	849.6	−1.1	0.22	22	1.23	WSW.	19.6	1,422	2,800	
						1,500	844.5	−1.2	.....	22	1.22	WSW.	19.5	1,470	3,010	
						1,750	818.2	−2.0	.....	21	1.09	WSW.	18.7	1,715	3,890	
2:00	969.6	−6.6	89	SW.	9.8	1,988	793.8	−2.7	0.30	21	1.02	WSW.	18.0	1,948	5,140	
						2,000	792.4	−2.7	.....	21	1.02	WSW.	17.9	1,960	5,190	
						2,250	767.8	−2.1	.....	13	0.67	WSW.	16.3	2,205	6,210	
2:16	969.4	−6.5	88	SW.	9.4	2,350	758.2	−1.9	−0.37	10	0.52	WSW.	15.7	2,303	6,600	
						2,500	743.5	−2.2	.....	6	0.31	WSW.	17.2	2,450	7,190	
2:44	969.1	−6.1	86	SW.	11.6	2,685	726.6	−2.6	0.21	2	0.10	WSW.	19.1	2,631	.....	
						2,750	721.0	−2.7	.....	2	0.10	WSW.	20.3	2,694	.....	
3:00	968.9	−6.0	87	SW.	10.7	2,832	713.2	−2.8	0.17	1	0.05	WSW.	21.8	2,775	.....	
						2,750	721.0	−3.0	.....	1	0.05	WSW.	21.1	2,694	.....	
3:20	968.7	−5.8	82	SW.	11.6	2,587	735.6	−3.3	0.30	1	0.05	WSW.	19.6	2,535	.....	
						2,500	743.5	−3.0	.....	1	0.05	WSW.	19.1	2,450	7,140	
						2,250	767.8	−2.3	.....	2	0.10	WSW.	17.8	2,205	5,930	
3:27	968.6	−5.8	82	SW.	11.2	2,157	776.5	−2.0	0.12	2	0.10	WSW.	17.3	2,114	5,480	
						2,000	792.0	−1.8	.....	5	0.26	WSW.	17.0	1,960	4,890	
3:50	968.3	−5.7	80	SW.	10.7	1,829	809.0	−1.6	0.38	9	0.48	WSW.	16.6	1,793	4,350	
						1,750	816.7	−1.3	.....	9	0.49	WSW.	17.1	1,715	4,050	
						1,500	841.8	−0.4	.....	10	0.59	WSW.	18.5	1,470	2,840	
						1,250	868.6	0.6	.....	12	0.77	WSW.	19.9	1,225	1,630	
						1,000	896.2	1.6	.....	13	0.89	WSW.	21.4	980	430	
4:13	967.9	−5.6	80	SW.	10.7	912	906.8	1.9	−2.16	13	0.91	WSW.	21.9	894	0	
						750	925.0	−1.6	.....	32	1.71	WSW.	20.9	735	0	
4:37	967.4	−5.8	80	SW.	12.1	569	946.4	−5.5	−0.12	53	2.04	WSW.	19.7	558	0	
						500	953.9	−5.6	.....	64	2.44	WSW.	17.0	490	0	
4:42	967.3	−5.7	80	SW.	13.0	396	967.3	−5.7	.....	80	3.02	SW.	13.0	388	.....	Cloudless.

January 19, 1917, series (No. 6).

A. M.																
5:30	966.2	−5.8	80	SW.	14.3	396	966.2	−5.8	.....	80	3.00	SW.	14.3	388	.....	Cloudless.
						500	953.8	−3.0	.....	66	3.14	SW.	18.6	490	0	
5:39	966.0	−5.8	80	SW.	13.9	675	932.6	1.8	−2.72	42	2.92	WSW.	25.9	662	0	
						750	923.9	2.2	.....	38	2.72	WSW.	24.6	735	470	
						1,000	894.9	3.5	.....	24	1.88	W.	20.3	980	730	
7:20	965.2	−6.6	84	WSW.	8.9	1,145	879.3	4.3	−0.53	16	1.33	W.	17.9	1,122	3,400	
						1,250	867.1	4.0	.....	15	1.22	W.	18.0	1,225	3,930	
						1,500	840.6	3.2	.....	14	1.08	W.	18.4	1,470	3,980	
						1,750	815.3	2.3	.....	13	0.94	W.	18.7	1,715	5,620	
						2,000	790.8	1.5	.....	11	0.75	W.	19.1	1,960	6,930	
7:50	965.2	−6.9	81	WSW.	9.8	2,014	789.7	1.5	0.32	11	0.75	W.	19.1	1,974	7,000	
						2,250	766.9	0.7	.....	13	0.84	W.	19.1	2,205	8,490	
						2,500	743.4	−0.2	.....	14	0.84	W.	19.1	2,450	10,950	
						2,750	721.0	−1.1	.....	16	0.89	WNW.	19.0	2,694	12,080	
						3,000	698.5	−2.0	.....	18	0.93	WNW.	19.0	2,939	13,960	
8:20	965.1	−6.6	80	WSW.	10.3	3,006	697.8	−2.0	0.35	18	0.93	WNW.	19.0	2,945	.....	
						3,250	676.4	−4.3	.....	28	1.19	WNW.	19.7	3,184	.....	
9:08	964.8	−5.7	76	WSW.	7.6	3,402	662.8	−5.7	0.71	34	1.29	WNW.	20.1	3,333	.....	
						3,250	675.2	−5.0	.....	32	1.28	WNW.	20.2	3,184	.....	

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 19, 1917, series (No. 6)—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
.....	.....	.....	.....	.....	.....	3,000	696.8	−3.7	.....	29	1.30	wnw.	20.3	2,939	13,850	
.....	.....	.....	.....	.....	.....	2,750	719.4	−2.5	.....	25	1.24	wnw.	20.4	2,694	11,220	
9:26	964.8	−5.3	78	wsw.	10.3	2,729	721.2	−2.4	0.41	25	1.25	wnw.	20.4	2,674	11,000	
.....	.....	.....	.....	.....	.....	2,500	742.0	−1.5	.....	23	1.24	wnw.	19.2	2,450	8,650	
.....	.....	.....	.....	.....	.....	2,250	765.4	−0.4	.....	22	1.30	wnw.	18.0	2,205	6,490	
.....	.....	.....	.....	.....	.....	2,000	790.0	0.6	.....	20	1.28	wnw.	16.7	1,960	4,460	
.....	.....	.....	.....	.....	.....	1,750	815.3	1.6	.....	18	1,23	wnw.	15.5	1,715	3,770	
9:57	964.8	−4.4	77	wsw.	9.8	1,581	832.5	2.3	0.30	17	1.23	wnw.	14.6	1,550	3,300	
.....	.....	.....	.....	.....	.....	1,500	840.6	2.5	.....	17	1.24	wnw.	14.1	1,470	3,030	
.....	.....	.....	.....	.....	.....	1,250	866.7	3.3	.....	17	1.32	w.	12.8	1,225	2,200	
10:11	964.7	−4.0	76	wsw.	8.9	1,008	893.1	4.0	−2.16	17	1.38	w.	11.4	988	1,330	
.....	.....	.....	.....	.....	.....	1,000	894.0	3.8	.....	17	1.36	w.	11.4	980	1,300	
.....	.....	.....	.....	.....	.....	750	922.7	−1.6	.....	27	1.44	wsw.	11.3	735	640	
10:22	964.7	−3.7	74	sw.	9.8	587	941.6	−5.1	0.73	33	1.31	wsw.	11.2	575	420	
.....	.....	.....	.....	.....	.....	500	951.8	−4.5	.....	52	2.18	wsw.	10.6	490	350	
10:24	964.7	−3.7	75	sw.	9.8	396	964.7	−3.7	.....	75	3.36	sw.	9.8	388	.....	Cloudless.

January 19, 1917, series (No. 7).

A. M.																
10:59	964.5	−2.7	70	sw.	8.5	396	964.5	−2.7	.....	70	3.42	sw.	8.5	388	.....	Cloudless.
.....	.....	.....	.....	.....	.....	500	951.5	−3.1	.....	73	3.44	sw.	9.4	490	640	
11:03	964.5	−2.5	68	sw.	9.4	655	933.3	−3.7	0.39	77	3.45	wsw.	10.7	642	840	
.....	.....	.....	.....	.....	.....	750	922.2	−2.1	.....	66	3.39	wsw.	9.6	735	1,220	
.....	.....	.....	.....	.....	.....	1,000	893.5	2.3	.....	36	2.60	wsw.	6.5	980	1,940	
P. M.																
12:02	963.8	−0.1	61	sw.	6.7	1,135	878.7	4.6	−1.45	20	1.70	wsw.	4.9	1,113	.....	
.....	.....	.....	.....	.....	.....	1,000	893.5	3.0	.....	31	2.35	wsw.	5.5	980	1,790	
.....	.....	.....	.....	.....	.....	750	921.4	0.1	.....	51	3.14	wsw.	6.6	735	1,800	
1:35	962.9	2.0	62	wsw.	7.2	690	928.2	−0.6	1.02	56	3.25	wsw.	6.9	677	0	
.....	.....	.....	.....	.....	.....	500	950.2	−1.3	.....	59	3.23	wsw.	6.8	490	0	
1:40	962.9	2.4	61	wsw.	6.7	396	962.9	2.4	.....	61	4.43	wsw.	6.7	388	.....	Few Ci.St., wnw.

January 19, 1917, series (No. 8).

P. M.																
2:15	962.9	3.0	54	w.	4.9	396	962.9	3.0	.....	54	4.09	w.	4.9	388	.....	Few Ci.St., wnw.
.....	.....	.....	.....	.....	.....	500	951.0	2.1	.....	55	3.91	w.	5.9	490	0	
2:44	963.0	2.8	57	w.	2.2	722	924.7	0.2	0.86	57	3.53	w.	8.0	708	280	
.....	.....	.....	.....	.....	.....	750	921.9	0.5	.....	54	3.36	w.	7.8	735	350	
.....	.....	.....	.....	.....	.....	1,000	893.7	2.9	.....	23	1.73	nw.	6.3	980	1,020	
3:31	963.1	3.3	52	w.	3.1	1,063	886.6	3.5	−0.97	15	1.18	nw.	5.9	1,042	1,160	
.....	.....	.....	.....	.....	.....	1,250	866.5	3.1	.....	15	1.14	nw.	6.7	1,225	1,570	
.....	.....	.....	.....	.....	.....	1,500	839.8	2.7	.....	15	1.11	wnw.	4.0	1,470	2,110	
.....	.....	.....	.....	.....	.....	1,750	814.7	2.2	.....	15	1.07	wnw.	2.8	1,715	2,670	
4:56	962.8	2.2	62	wsw.	2.7	1,914	797.7	1.9	0.19	15	1.05	wnw.	9.7	1,876	3,020	
.....	.....	.....	.....	.....	.....	2,000	790.0	1.4	.....	17	1.15	wnw.	10.1	1,960	3,200	
.....	.....	.....	.....	.....	.....	2,250	765.6	− 0.3	.....	21	1.25	wnw.	11.2	2,205	3,850	
.....	.....	.....	.....	.....	.....	2,500	742.2	− 1.8	.....	26	1.37	wnw.	12.2	2,450	4,490	
5:19	962.9	1.5	75	wsw.	1.8	2,561	735.7	− 2.2	0.63	27	1.37	wnw.	12.5	2,509	5,100	
.....	.....	.....	.....	.....	.....	2,750	719.4	− 3.3	.....	30	1.39	wnw.	13.0	2,694	5,160	
.....	.....	.....	.....	.....	.....	3,000	696.8	− 4.7	.....	34	1.40	wnw.	13.8	2,939	5,860	
5:35	963.0	1.2	69	wsw.	1.8	3,222	676.8	− 6.0	0.57	37	1.36	wnw.	14.4	3,157	6,480	
.....	.....	.....	.....	.....	.....	3,250	674.0	− 6.2	.....	37	1.34	wnw.	14.6	3,184	6,560	
.....	.....	.....	.....	.....	.....	3,500	652.3	− 7.7	.....	38	1.21	wnw.	16.6	3,429	7,260	
.....	.....	.....	.....	.....	.....	3,750	632.0	− 9.2	.....	39	1.09	w.	18.7	3,673	7,760	
.....	.....	.....	.....	.....	.....	4,000	612.1	−10.8	.....	39	0.94	w.	20.7	3,918	8,660	
6:02	963.1	1.3	61	wsw.	1.8	4,197	596.2	−12.0	0.52	40	0.87	w.	22.3	4,110	.....	Few Ci.St., wnw.
.....	.....	.....	.....	.....	.....	4,000	610.6	−11.2	.....	42	0.98	w.	20.5	3,918	7,540	
.....	.....	.....	.....	.....	.....	3,750	630.0	−10.1	.....	44	1.13	w.	18.1	3,673	7,330	
.....	.....	.....	.....	.....	.....	3,500	650.0	− 9.0	.....	46	1.31	wnw.	15.8	3,429	6,440	
.....	.....	.....	.....	.....	.....	3,250	671.5	− 8.0	.....	48	1.49	wnw.	13.4	3,184	5,650	
6:39	963.4	1.0	60	w.	2.2	3,066	688.9	− 7.2	0.54	49	1.63	wnw.	11.7	3,004	5,070	
.....	.....	.....	.....	.....	.....	3,000	693.6	− 6.8	.....	47	1.62	wnw.	11.7	2,939	4,860	
.....	.....	.....	.....	.....	.....	2,750	716.7	− 5.5	.....	42	1.61	wnw.	11.9	2,694	4,290	
.....	.....	.....	.....	.....	.....	2,500	740.0	− 4.1	.....	36	1.56	nw.	12.0	2,450	3,740	
6:58	963.5	0.2	64	w.	3.1	2,254	764.1	− 2.8	0.59	30	1.45	nw.	12.2	2,209	3,200	
.....	.....	.....	.....	.....	.....	2,000	788.5	− 1.3	.....	29	1.59	nw.	11.6	1,960	2,720	
.....	.....	.....	.....	.....	.....	1,750	813.8	0.2	.....	27	1.67	nw.	11.0	1,715	2,240	
7:15	963.6	0.4	62	wnw.	2.7	1,505	839.5	1.6	−0.37	26	1.78	nw.	10.4	1,475	1,640	
.....	.....	.....	.....	.....	.....	1,250	866.5	0.6	.....	34	2.17	nnw.	12.4	1,225	930	
7:27	963.6	−0.3	66	wnw.	3.1	1,076	885.3	0.0	0.34	39	2.38	nnw.	13.7	1,055	520	
.....	.....	.....	.....	.....	.....	1,000	893.7	0.3	.....	40	2.50	nnw.	12.8	980	350	
.....	.....	.....	.....	.....	.....	750	921.9	0.8	.....	42	2.72	nw.	10.2	735	0	
7:42	963.7	−0.3	65	w.	3.6	541	946.5	1.8	−0.13	47	3.27	wnw.	7.7	530	0	
.....	.....	.....	.....	.....	.....	500	951.5	1.3	.....	52	3.49	wnw.	6.5	490	0	
7:46	963.7	−0.1	64	w.	3.6	396	963.7	− 0.1	.....	64	3.88	w.	3.6	388	.....	Cloudless.

January 20, 1917.

A. M.																
8:33	971.3	−8.0	100	ne.	4.0	396	971.3	−8.0	.....	100	3.10	ne.	4.0	388	.....	10/10 St., ne., base at 600 meters.
.....	.....	.....	.....	.....	.....	500	958.6	−8.4	.....	100	2.99	ne.	5.9	490	940	
8:39	971.4	−8.0	100	ne.	5.4	693	935.0	−9.2	0.40	99	2.76	ne.	9.4	680	2,690	4/10 Ci., wsw.; 6/10 St., ne.
.....	.....	.....	.....	.....	.....	750	928.5	−6.8	.....	80	2.75	ne.	8.2	735	3,310	
9:12	971.7	−8.0	94	ne.	6.3	846	917.1	−2.7	−4.25	48	2.34	ne.	6.1	829	5,000	7/10 Ci., wsw.; few St., ne.
.....	.....	.....	.....	.....	.....	1,000	899.3	−2.9	.....	41	1.97	ene.	6.6	980	7,270	
P. M.																
12:34	969.9	−4.6	67	e.	6.7	1,212	874.3	−3.2	1.37	32	1.50	ese.	7.0	1,188	.....	
.....	.....	.....	.....	.....	.....	1,250	870.2	−3.2	.....	33	1.54	ese.	7.0	1,225	6,850	
.....	.....	.....	.....	.....	.....	1,500	842.0	−3.1	.....	40	1.88	se.	7.1	1,470	6,320	5/10 Ci., wsw.; 3/10 Ci. Cu., wsw.; few St., ne.
1:55	968.3	−3.7	68	e.	6.3	1,664	824.4	−3.1	−0.02	45	2.12	se.	7.2	1,631	5,960	
.....	.....	.....	.....	.....	.....	1,750	815.0	−3.2	.....	45	2.11	se.	6.9	1,715	5,910	3/10 Ci. St., wsw.; 6/10 St. Cu., wsw.
.....	.....	.....	.....	.....	.....	2,000	788.5	−3.5	.....	46	2.10	sse.	6.0	1,960	8,910	

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 20, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
2:15	968.0	−3.0	64	e.	6.3	2,133	776.6	−3.7	0.13	47	2.11	sse.	5.5	2,189	10,500	3/10 C. St., wsw.; 7/10 A. Cu., wsw. at 1:56 p. m.
						2,250	764.6	−3.6		43	1.94	sse.	6.8	2,205	11,460	
2:18	968.0	−3.1	65	e.	7.2	2,489	742.4	−3.4	−0.08	35	1.61	sse.	9.5	2,441	13,430	
						2,500	741.3	−3.5		35	1.60	sse.	9.6	2,450	13,520	Part of 22° halo, 11:18 a. m. to 1:35 p. m.
						2,750	718.8	−5.1		39	1.55	s.	12.5	2,694	15,580	
						3,000	696.7	−6.7		44	1.53	ssw.	15.3	2,939	17,640	
						3,250	674.5	−8.3		48	1.45	sw.	18.1	3,184	19,690	
2:27	967.9	−3.1	66	e.	5.8	3,361	664.2	−9.0	0.62	50	1.42	sw.	19.4	3,293		
						3,250	673.8	−8.3		48	1.45	sw.	18.8	3,184	19,400	
						3,000	695.4	−6.9		46	1.57	sw.	17.6	2,939	15,360	
						2,750	718.0	−5.4		37	1.44	ssw.	16.3	2,694	12,080	
						2,500	741.3	−3.9		31	1.37	ssw.	15.1	2,450	9,600	
2:50	967.7	−3.0	67	e.	6.3	2,484	742.4	−3.8	−0.10	31	1.38	ssw.	15.0	2,434	9,470	
						2,250	765.2	−4.2		32	1.38	s.	9.9	2,205	7,380	
2:57	967.6	−3.0	68	e.	7.2	2,163	773.1	−4.4	0.19	32	1.35	s.	8.0	2,120	6,600	
						2,000	789.7	−4.1		31	1.34	sse.	8.0	1,960	6,110	
						1,750	815.0	−3.6		29	1.31	se.	9.3	1,715	5,350	
3:09	967.5	−3.4	69	ene.	6.3	1,518	838.8	−3.2	−0.41	28	1.31	ese.	10.0	1,488	4,810	
						1,500	840.8	−3.3		29	1.35	ese.	10.0	1,470	4,780	
						1,250	867.7	−4.3		44	1.87	ese.	9.6	1,225	4,360	
						1,000	895.3	−5.3		58	2.27	ese.	9.1	980	2,740	
						750	924.8	−6.3		73	2.62	ese.	8.7	735	1,470	
3:28	967.2	−3.6	68	e.	6.7	738	926.0	−6.4	0.79	74	2.63	ese.	8.7	724	1,420	
						500	955.0	−4.5		70	2.93	e.	7.3	490	430	
3:33	967.1	−3.7	68	e.	6.7	396	967.1	−3.7		68	3.05	e.	6.7	388		10/10 A. Cu., sw.

January 21, 1917.

A. M.																
8:36	941.6	−5.8	98	nnw.	4.9	396	941.6	−5.8		98	3.68	nnw.	4.9	388		10/10 St., nnw.
						500	928.8	−6.5		99	3.49	nnw.	6.7	490	680	Misting, freezing as it falls.
8:40	941.8	−5.9	98	nnw.	5.8	638	913.0	−7.5	0.70	100	3.23	nnw.	9.1	625	1,580	St. at 600 meters.
						750	900.1	−7.3		100	3.29	nnw.		735	3,750	Mist changed to snow at 8:50 and continued.
9:01	942.8	−6.0	95	nw.	8.0	890	884.8	−7.1	−0.16	100	3.35	nw.		873	5,790	
						1,000	872.2	−5.9		100	3.71	nw.		980	7,860	
9:04	942.9	−6.0	95	nw.	7.2	1,061	865.8	−5.2	−1.11	100	3.94	nw.		1,040	9,000	
						1,250	845.1	−5.3		100	3.91	wnw.		1,225	16,790	
9:20	943.5	−6.1	95	nnw.	7.6	1,437	825.9	−5.3	0.03	100	3.91	wnw.		1,409	24,500	
						1,500	818.7	−5.7		100	3.75	wnw.		1,470	12,580	
9:30	943.8	−6.2	95	nw.	9.4	1,708	798.0	−6.9	0.59	100	3.41	w.		1,674		10/10 St., nnw. base about 650 m., at 10:05 700.
10:30																Kites broke away.

January 22, 1917.

P. M.																
4:24	975.0	−16.6	84	ssw.	4.9	396	975.0	−16.6		84	1.19	ssw.	4.9	388		Cloudless.
						500	961.7	−17.4		87	1.15	ssw.	6.0	490	0	
						750	929.3	−19.4		95	1.04	sw.	8.5	735	1,800	
4:55	974.7	−17.0	89	ssw.	5.4	910	909.7	−20.6	0.78	100	0.97	wsw.	10.1	892	3,520	
						1,000	898.4	−18.4		95	1.14	wsw.	10.0	980	4,490	
4:57	974.7	−17.0	89	ssw.	5.4	1,128	883.6	−15.3	−2.43	88	1.41	wsw.	9.8	1,106	5,860	
						1,250	869.1	−15.8		86	1.32	wsw.	11.1	1,225	7,180	
						1,500	841.0	−16.7		81	1.14	w.	13.7	1,470	8,640	
5:09	974.5	−16.8	87	ssw.	4.5	1,574	832.6	−17.0	0.38	80	1.10	w.	14.5	1,543	9,020	
5:18	974.4	−17.1	96	ssw.	4.0	1,688	820.1	−17.1	0.09	82	1.11	w.	15.6	1,654	(*)	
						1,750	813.5	−16.8		81	1.13	w.	16.5	1,715	(*)	
5:20	974.3	−17.2	100	ssw.	4.0	1,926	794.3	−15.8	−0.55	77	1.18	w.	19.0	1,888	(*)	
						2,000	787.0	−16.0		75	1.12	w.	18.8	1,960	(*)	
						2,250	761.3	−16.7		66	0.93	w.	18.2	2,205	(*)	
						2,500	736.4	−17.4		58	0.77	w.	17.7	2,450	(*)	
5:38	974.0	−18.0	88	ssw.	4.0	2,524	733.7	−17.5	0.32	57	0.74	w.	17.6	2,473	(*)	
						2,500	736.4	−17.4		57	0.75	w.	17.6	2,450	(*)	
						2,250	761.3	−16.5		56	0.80	w.	17.6	2,205	(*)	
						2,000	787.0	−15.6		55	0.86	w.	17.5	1,960	(*)	
6:02	973.6	−18.4	94	ssw.	3.6	1,863	800.9	−15.1	0.04	55	0.90	w.	17.5	1,829	(*)	
						1,750	813.5	−15.1		59	0.96	w.	16.5	1,715	(*)	
6:13	973.5	−18.5	94	s.	4.0	1,630	825.8	−15.0	−0.65	64	1.06	w.	15.4	1,598	9,400	
						1,500	840.7	−15.8		65	0.99	wsw.	13.6	1,470	9,400	
6:18	973.4	−18.4	98	s.	4.0	1,445	846.3	−16.2	0.22	65	0.96	wsw.	12.8	1,418	9,400	
						1,250	868.2	−15.8		65	0.99	sw.	11.9	1,225	9,070	
6:32	973.3	−18.5	100	sse.	3.6	1,028	894.2	−15.3	−0.70	66	1.06	ssw.	10.9	1,008	6,760	
						1,000	897.0	−16.1		67	1.00	ssw.	10.8	980	6,470	
6:34	973.3	−18.5	100	sse.	3.6	899	909.7	−18.9	0.06	69	0.79	ssw.	10.4	881	5,420	
						750	926.8	−18.8		78	0.90	ssw.	8.2	735	3,840	
						500	960.0	−18.7		93	1.08	s.	4.6	490	1,120	
6:48	973.1	−18.6	100	s.	3.1	396	973.1	−18.6		100	1.18	s.	3.1	388		Cloudless.

January 23, 1917.

A. M.																
8:18	966.0	−13.2	87	sw.	7.6	396	966.0	−13.2		87	1.70	sw.	7.6	388		Few A.Cu., wsw.
						500	953.0	−12.8		84	1.70	sw.	15.7	490	400	
8:20	966.0	−13.2	87	sw.	8.0	519	950.6	−12.7	−0.41	84	1.71	sw.	17.2	509	470	
						750	922.5	− 7.5		55	1.73	w.	16.5	735	1,360	
8:32	966.1	−13.1	88	sw.	7.6	893	905.8	− 4.3	−2.25	37	1.58	w.	16.0	876	2,590	Cloudless.
						1,000	894.5	− 4.6		34	1.41	w.	16.1	980	3,670	
8:40	966.1	−13.0	88	sw.	8.0	1,229	868.1	− 5.3	0.29	29	1.13	wsw.	16.2	1,205	6,000	
						1,250	865.5	− 5.4		29	1.13	wsw.	16.3	1,225		
						1,500	838.6	− 6.9		32	1.09	wsw.	16.9	1,470	(*)	
						1,750	812.5	− 8.4		35	1.05	wsw.	17.6	1,715	(*)	
10:30	966.7	−10.3	85	sw.	9.8	1,923	794.6	− 9.4	0.59	37	1.01	wsw.	18.0	1,885	(*)	1/10 Ci.St., w.

* Over 10,000 volts.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 23, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						2,000	787.0	− 9.8	.....	38	1.00	wsw.	17.9	1,960	(*)	1/10 Ci.St.,w.
						2,250	762.1	−11.3	.....	41	0.95	wsw.	17.5	2,205	(*)	
						2,500	737.9	−12.7	.....	44	0.90	w.	17.2	2,450	(*)	
						2,750	714.5	−14.2	.....	47	0.84	w.	16.8	2,694	(*)	4/10 Ci.St.,w.
11:45	966.4	− 8.7	81	wsw.	9.8	2,958	693.9	−15.4	0.58	50	0.80	w.	16.5	2,898	(*)	3/10 Ci.,w.; 3/10Ci.St.,w.
						3,000	691.4	−15.4	.....	50	0.80	w.	16.9	2,939	(*)	
						3,250	678.5	−15.3	.....	50	0.80	w.	19.5	3,184	(*)	
						3,500	646.3	−15.2	.....	50	0.81	w.	22.1	3,429	(*)	
P. M.																
12:25	966.1	− 7.6	80	wsw.	8.5	3,709	628.1	−15.1	0.04	50	0.82	w.	24.3	3,633	(*)	
						3,750	625.0	−15.1	.....	48	0.78	w.	24.3	3,673	(*)	4/10 Ci.,w.; 4/10 Ci.St.,w.
						4,000	604.7	−15.5	.....	39	0.61	w.	24.4	3,918	(*)	
12:51	965.9	− 6.5	70	wsw.	8.9	4,250	584.6	−15.7	0.06	29	0.45	w.	24.4	4,164	(*)	
						4,000	604.7	−15.2	.....	28	0.45	w.	23.6	3,918	(*)	
						3,750	625.0	−14.6	.....	27	0.46	w.	22.8	3,673	(*)	
1:17	965.9	− 5.6	77	wsw.	7.2	3,697	629.2	−14.5	−0.16	27	0.47	w.	22.6	3,621	(*)	
						3,500	646.1	−14.8	.....	30	0.50	w.	20.3	3,429	(*)	
1:25	965.9	− 5.6	75	wsw.	7.6	3,324	661.2	−15.1	0.27	32	0.52	w.	18.0	3,256	(*)	
						3,250	668.0	−14.9	.....	33	0.55	w.	17.7	3,184	(*)	
						3,000	690.2	−14.3	.....	38	0.67	w.	16.9	2,939	(*)	
						2,750	713.4	−13.6	.....	43	0.81	w.	16.0	2,694	(*)	
						2,500	737.1	−13.0	.....	48	0.95	w.	15.2	2,450	(*)	
1:43	965.9	− 5.4	75	wsw.	7.6	2,427	744.1	−12.8	0.67	49	0.99	w.	14.9	2 378	10,000	
						2,250	762.3	−11.7	.....	48	1.07	w.	14.9	2,205	8,940	
						2,000	786.0	− 9.9	.....	46	1.21	w.	14.9	1,960	7,440	
						1,750	811.8	− 8.2	.....	44	1.34	w.	14.8	1,715	5,990	
						1,500	838.6	− 6.6	.....	42	1.47	w.	14.8	1,470	5,020	
2:09	966.0	− 5.0	76	wsw.	8.0	1,313	859.4	− 5.3	0.03	41	1.60	w.	14.8	1,287	4,300	
						1,250	866.4	− 5.1	.....	41	1.63	w.	14.3	1,225	4,020	
2:17	966.0	− 5.1	76	wsw.	6.3	1,021	891.9	− 4.4	−0.81	39	1.65	wsw.	12.4	1,001	2,980	
						1,000	893.0	− 4.6	.....	40	1.66	wsw.	12.2	980	2,890	
						750	923.4	− 6.8	.....	52	1.79	wsw.	9.5	735	1,690	
2:30	966.1	− 5.0	76	wsw.	7.6	661	933.9	− 7.3	0.94	54	1.78	wsw.	8.9	648	1,270	
						500	953.0	− 5.8	.....	67	2.51	wsw.	5.4	490	500	
2:34	966.1	− 4.8	76	wsw.	3.1	396	966.1	− 4.8	.....	76	3.10	wsw.	3.1	388	.....	4/10 Ci.,w.; 4/10 Ci.St.,w.

January 24, 1917.

A. M.																
8:10	975.1	−15.4	100	wnw.	4.5	396	975.1	−15.4	.....	100	1.59	wnw.	4.5	388	.....	
						500	962.7	−12.3	.....	90	1.90	wnw.	4.9	490	0	
8:35	975.4	−14.6	100	wnw.	4.0	631	945.9	− 8.3	−3.02	76	2.30	nw.	5.5	619	710	
						750	931.7	− 8.7	.....	80	2.33	nw.	6.8	735	1,560	
						1,000	902.0	− 9.3	.....	88	2.42	nw.	9.4	980	3,150	
						1,250	873.5	−10.4	.....	97	2.43	nw.	12.0	1,225	4,800	
8:51	975.6	−13.3	100	wnw.	4.0	1,265	871.7	−10.5	0.35	97	2.41	nw.	12.2	1,240	5,030	
8:55	975.6	−13.1	100	wnw.	4.0	1,485	847.3	−10.0	−0.23	86	2.24	nw.	13.1	1,456	6,890	
						1,500	845.5	−10.1	.....	85	2.18	nw.	13.2	1,470	7,030	
						1,750	818.3	−11.2	.....	76	1.77	nw.	14.1	1,715	(*)	
						2,000	792.1	−12.3	.....	65	1.37	nw.	15.1	1,960	(*)	1/10 A.Cu.,wsw.
9:29	975.8	−10.8	100	wsw.	3.1	2,237	768.0	−13.4	0.46	57	1.09	nw.	16.0	2,192	(*)	
						2,250	766.9	−13.5	.....	57	1.08	nw.	16.0	2,205	(*)	
						2,500	742.4	−14.5	.....	57	0.99	nw.	16.9	2,450	(*)	
						2,750	718.1	−15.5	.....	57	0.89	nw.	17.7	2,694	(*)	
						3,000	695.0	−16.5	.....	57	0.82	wnw.	18.5	2,939	18,050	
						3,250	672.0	−17.5	.....	57	0.74	wnw.	19.3	3,184	20,000	Few A.Cu.,wsw.
10:18	975.8	− 8.4	85	sw.	4.5	3,318	665.3	−17.8	0.35	57	0.72	wnw.	19.5	3,250	.....	
						3,250	672.0	−17.6	.....	57	0.74	wnw.	19.3	3,184	18,050	
						3,000	694.7	−16.9	.....	57	0.79	wnw.	18.8	2,939	16,960	
						2,750	717.6	−16.2	.....	57	0.84	wnw.	18.2	2,694	13,910	
						2,500	741.1	−15.5	.....	57	0.89	wnw.	17.6	2,450	10,340	
						2,250	765.7	−14.7	.....	57	0.97	wnw.	17.0	2,205	9,220	Cloudless.
10:58	975.3	−9.0	91	w.	4.5	2,163	772.4	−14.5	0.61	57	0.99	wnw.	16.8	2,120	7,900	
						2,000	791.2	−13.5	.....	60	1.13	wnw.	16.8	1,960	6,980	
						1,750	817.1	−12.0	.....	65	1.41	nw.	16.7	1,715	5,560	
						1,500	844.4	−10.5	.....	70	1.74	nw.	16.6	1,470	4,070	
11:18	975.1	−7.8	91	w.	4.0	1,405	855.8	− 9.9	−0.62	72	1.89	nw.	16.6	1,377	3,440	
						1,250	872.9	−10.1	.....	77	1.98	nw.	14.0	1,225	2,460	
11:27	975.0	−6.7	89	w.	3.6	1,164	882.8	−10.4	0.23	80	2.01	nw.	12.3	1,141	2,210	
						1,000	902.0	−10.0	.....	82	2.13	wnw.	11.1	980	1,720	
						750	931.7	− 9.4	.....	85	2.33	w.	9.4	735	1,010	
11:43	974.9	−5.7	85	wsw.	4.5	558	954.9	− 9.0	2.10	88	2.50	wsw.	8.0	547	460	
						500	961.3	− 7.8	.....	86	2.71	wsw.	6.7	490	300	
11:45	974.8	−5.6	83	wsw.	4.5	396	974.8	− 5.6	.....	83	3.16	wsw.	4.5	388	.....	Cloudless.

January 25, 1917.

A. M.																
8:00	967.6	−9.1	100	w.	4.9	396	967.6	− 9.1	.....	100	2.81	w.	4.9	388	.....	2/10 A.Cu.,nw.
						500	954.8	− 6.7	.....	83	2.88	wnw.	10.5	490	310	
8:05	967.6	−8.8	97	w.	4.5	587	944.2	− 4.6	−2.36	68	2.82	nw.	15.3	575	580	
						750	925.7	− 4.8	.....	71	2.90	nw.	16.2	735	1,150	
						1,000	896.3	− 5.0	.....	76	3.05	wnw.	17.5	980	3,360	
						1,250	868.7	− 5.3	.....	81	3.17	wnw.	19.0	1,225	5,090	
8:28	967.7	−8.1	88	w.	4.0	1,395	852.2	− 5.4	0.10	84	3.26	wnw.	19.6	1,367	6,220	
						1,500	842.0	− 6.1	.....	84	3.07	wnw.	20.4	1,470	7,030	
						1,750	814.9	− 8.0	.....	85	2.64	wnw.	22.4	1,715	8,880	
						2,000	788.3	− 9.7	.....	86	2.30	wnw.	24.3	1,960	10,450	
						2,250	762.7	−11.5	.....	87	1.97	nw.	26.2	2,205	13,750	1/10 A.Cu.,nw.
						2,500	737.8	−13.2	.....	88	1.72	nw.	28.1	2,450	16,000	
9:25	968.0	−6.3	82	nw.	5.4	2,633	725.4	−14.2	0.63	88	1.57	nw.	29.1	2,580	18,500	
						2,500	738.1	−13.4	.....	87	1.66	nw.	27.6	2,450	17,020	2/10 A.Cu.,nw.
						2,250	763.0	−12.1	.....	86	1.85	nw.	24.8	2,205	14,220	
						2,000	788.3	−10.7	.....	84	2.05	nw.	22.0	1,960	11,460	

*More than 10,000 volts.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 25, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						1,750	814.8	− 9.6		83	2.23	nw.	19.7	1,715	8,780	
10:20	968.7	−6.6	78	nw.	4.5	1,583	831.6	− 8.4	0.44	82	2.45	nw.	17.2	1,552	7,000	3/10 A.Cu.,nw.
						1,500	840.6	− 8.0		83	2.57	nw.	17.4	1,470	6,720	
						1,250	867.4	− 6.9		84	2.86	nnw.	18.0	1,225	5,880	
10:35	969.0	−8.4	82	n.	4.9	1,037	892.0	− 6.0	−0.91	86	3.16	nnw.	18.6	1,017	4,820	8/10 A.Cu.,nw.
						1,000	896.0	− 6.3		86	2.73	nnw.	18.4	980	4,620	
						750	925.7	− 8.6		85	2.50	n.	17.4	735	3,320	
10:48	969.3	−9.5	86	n.	4.5	577	946.8	−10.2	0.33	84	2.14	n.	16.6	566	1,710	
						500	956.5	− 9.9		85	2.23	n.	11.4	490	980	
10:50	969.4	−9.6	87	n.	4.5	396	969.4	− 9.6		87	2.34	n.	4.5	388		2/10A.Cu.,nw.; 4/10 St.Cu.,nnw.

January 26, 1917.

A. M.																
8:50	964.8	−9.8	77	se.	5.8	396	964.8	− 9.8		77	2.03	se.	5.8	388		6/10 A. Cu., w.
						500	952.5	−10.5		81	2.01	sse.	8.4	490	2,260	
						750	921.7	−12.0		90	1.95	ssw.	14.8	735	6,960	
9:02	964.8	−9.7	77	se.	7.2	799	915.5	−12.4	0.65	92	1.92	ssw.	16.0	783	6,280	
						1,000	892.1	− 9.4		86	2.36	ssw.	15.8	980	10,280	
9:10	964.8	−9.3	78	se.	8.0	1,248	864.0	− 5.7	−1.49	78	2.95	sw.	15.6	1,223	13,730	
						1,500	836.8	− 5.3		74	2.89	sw.	13.9	1,470	24,040	
						1,750	810.3	− 5.0		70	2.81	wsw.	12.3	1,715	24,530	
						2,000	785.0	− 4.6		65	2.70	wsw.	10.6	1,960	25,010	
						2,250	760.9	− 1.3		61	3.34	w.	8.9	2,205	25,490	3/10 A. Cu., w.
9:52	964.8	−8.5	71	se.	7.2	2,377	748.4	− 4.1	−0.14	59	2.55	w.	8.1	2,329	25,740	
						2,500	737.0	− 5.0		64	2.57	w.	10.0	2,450	25,980	A. Cu. base at about 2,900 m.
						2,750	714.3	− 6.7		74	2.57	w.	13.8	2,694	26,460	
						3,000	691.8	− 8.4		84	2.51	w.	17.6	2,939	26,950	
10:07	964.8	−8.5	72	se.	7.6	3,097	682.6	− 9.1	0.69	88	2.47	w.	19.1	3,034	27,270	
						3,250	670.0	−10.0		83	2.16	w.	19.6	3,184	27,850	
						3,500	648.1	−11.6		74	1.67	w.	20.5	3,429	28,800	
						3,750	626.9	−13.2		65	1.27	w.	21.3	3,673	29,750	
10:30	964.6	−8.1	74	se.	7.6	4,005	606.0	−14.8	0.58	56	0.94	w.	22.2	3,923		8/10 St.Cu.,w.; base about 2,050 m.
						3,750	626.7	−13.4		58	1.11	w.	21.2	3,673	28,710	
						3,500	647.3	−12.1		60	1.29	w.	20.2	3,429	24,870	
						3,250	668.5	−10.8		62	1.50	w.	19.1	3,184	24,340	
10:55	964.5	−7.6	71	ese.	5.8	3,091	682.6	− 9.9	0.65	63	1.65	w.	18.5	3,028	24,000	
						3,000	690.5	− 9.3		63	1.74	w.	18.3	2,939	23,170	
						2,750	713.2	− 7.7		64	2.04	w.	17.7	2,694	20,900	
						2,500	736.7	− 6.1		64	2.34	w.	16.2	2,450	18,620	
11:06	964.5	−7.5	71	se.	7.2	2,460	740.4	− 5.8	−0.58	64	2.40	w.	17.1	2,411	18,260	
11:10	964.5	−7.6	71	se.	8.0	2,269	758.6	− 6.9	0.40	100	3.41	w.	15.1	2,224	17,500	
						2,250	760.5	− 6.8		100	3.44	w.	15.1	2,205	17,500	St. Cu. base at about 2,150 m
						2,000	785.0	− 5.8		100	3.75	w.	14.7	1,960	16,540	
						1,750	810.3	− 4.8		99	4.04	w.	14.2	1,715	14,850	
						1,500	836.8	− 3.8		99	4.40	w.	13.8	1,470	11,430	5/10 St.Cu.,w.; 5/10St.,w.
11:36	964.3	−6.6	68	se.	7.2	1,429	844.3	− 3.5	−1.42	99	4.51	w.	13.7	1,401	9,980	
						1,250	863.9	− 6.1		94	3.43	sw.	12.3	1,225	6,730	
						1,000	892.1	− 9.6		88	2.37	s.	10.2	980	4,760	
11:49	964.3	−7.3	71	se.	5.8	895	904.0	−11.1	0.74	85	2.00	sse.	9.4	877		
						750	921.7	−10.0		81	2.11	sse.	8.1	735		
						500	951.5	− 8.2		75	2.28	se.	5.8	490		
11:59	964.2	−7.4	72	se.	4.9	396	964.2	− 7.4		72	2.35	se.	4.9	388		10/10 St., w.

January 27, 1917.

P. M.																
12:20	967.2	−4.2	94	se.	3.6	396	967.2	− 4.2		94	4.04	se.	3.6	388		5/10 St., sse.
						500	954.6	− 3.4		89	4.09	sse.	5.2	490	490	
						750	924.7	− 1.5		78	4.20	ssw.	9.0	735	1,680	
12:49	966.7	−2.5	90	se.	4.5	806	918.1	− 1.1	−0.76	76	4.23	ssw.	9.8	790	1,950	
						1,000	895.8	− 1.1		80	4.46	ssw.	12.1	980	3,460	Cloudless.
1:05	966.5	−1.4	82	s.	4.0	1,199	874.0	− 1.2	0.03	84	4.65	sw.	14.4	1,175	5,010	
						1,250	868.3	− 1.4		82	4.46	sw.	14.4	1,225	5,410	
						1,500	841.0	− 2.4		71	3.55	wsw.	14.5	1,470	7,650	
						1,750	815.1	− 3.4		60	2.76	wsw.	14.7	1,715	9,380	
						2,000	789.5	− 4.4		48	2.03	wsw.	14.8	1,960	10,870	
						2,250	765.1	− 5.3		37	1.45	w.	14.9	2,205	12,370	
						2,500	741.1	− 6.4		26	0.93	w.	15.0	2,450	15,300	
1:45	966.3	−0.7	73	sse.	4.9	2,506	740.8	− 6.4	0.40	26	0.93	w.	15.0	2,456	15,300	
						2,750	717.8	− 8.0		24	0.74	w.	17.3	2,694	15,440	
						3,000	695.0	− 9.7		22	0.59	wnw.	19.6	2,939	15,590	
2:05	966.1	0.0	71	s.	4.5	3,183	678.7	−10.9	0.66	21	0.50	wnw.	21.3	3,118	15,700	
						3,250	673.0	−10.6		18	0.44	wnw.	22.0	3,184		2/10 Ci., wnw.
2:31	965.7	0.5	68	s.	3.6	3,394	660.3	− 9.9	−0.47	13	0.34	wnw.	23.6	3,325		
						3,500	651.2	−10.1		16	0.41	wnw.	22.1	3,429		
2:41	965.5	1.1	68	s.	5.4	3,645	638.9	−10.3	0.23	19	0.48	wnw.	20.0	3,570		
						3,500	650.3	− 9.9		20	0.52	wnw.	21.3	3,429		
						3,250	672.1	− 9.1		22	0.63	wnw.	23.5	3,184		
2:52	965.3	1.4	65	s.	4.0	3,173	678.7	− 8.9	−0.39	23	0.66	wnw.	24.2	3,109	14,290	
						3,000	694.0	− 9.6		26	0.70	wnw.	22.1	2,939	10,490	
2:58	965.2	1.6	64	s.	4.0	2,966	697.3	− 9.7	0.59	27	0.72	wnw.	21.7	2,906	10,220	
						2,750	717.0	− 8.4		26	0.78	wnw.	20.8	2,694	8,470	
						2,500	740.3	− 7.0		25	0.85	w.	19.0	2,450	6,500	4/10 Ci., wnw.
						2,250	764.8	− 5.5		24	0.92	w.	18.6	2,205	5,680	
3:21	965.2	2.2	61	s.	4.5	2,098	779.5	− 4.6	0.57	23	0.95	w.	17.9	2,056	5,200	
						2,000	789.3	− 4.0		24	1.05	w.	17.5	1,960	4,870	
						1,750	815.1	− 2.7		26	1.27	w.	16.5	1,715	4,010	
						1,500	841.0	− 1.2		29	1.60	wsw.	15.5	1,470	3,250	
						1,250	867.8	0.2		31	1.92	wsw.	14.4	1,225	2,590	
3:40	965.2	3.1	54	s.	4.0	1,240	869.0	0.3	0.00	31	1.93	wsw.	14.4	1,216	2,560	
						1,000	895.6	0.3		50	3.12	sw.	14.7	980	1,540	
						750	923.8	0.3		69	4.31	ssw.	15.0	735	650	
3:55	965.2	2.6	65	s.	3.6	633	937.3	0.3	0.07	78	4.87	s.	15.1	621	440	
						500	952.7	1.6		72	4.94	s.	8.6	490	190	
3:57	965.2	2.6	67	s.	3.6	396	965.2	2.6		67	4.94	s.	3.6	388		5/10 Ci., wnw.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 28, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
7:45	959.3	1.0	70	sw.	8.9	396	959.3	1.0	.....	70	4.60	sw.	8.9	388	.....	1/10 Ci., wsw.
						500	947.2	2.8	.....	57	4.26	wsw.	9.4	490	0	
						750	918.7	7.1	.....	27	2.72	wnw.	10.8	735	0	
8:00	959.4	0.8	82	sw.	8.9	814	911.2	8.2	−1.72	19	2.07	wnw.	11.1	798	0	
						1,000	891.7	7.9	.....	16	1.70	wnw.	11.3	980	0	
8:07	959.4	0.8	86	sw.	8.9	1,142	875.8	7.6	0.18	14	1.46	wnw.	11.4	1,120	0	
						1,250	865.1	7.0	.....	14	1.40	wnw.	11.8	1,225	390	
						1,500	839.0	5.7	.....	14	1.28	w.	12.8	1,470	1,310	
						1,750	813.9	4.3	.....	15	1.25	w.	13.8	1,715	1,710	
						2,000	789.0	3.0	.....	15	1.14	wsw.	14.7	1,960	2,470	
9:25	959.8	1.3	72	sw.	9.8	2,122	777.0	2.3	0.54	15	1.08	wsw.	15.2	2,080	2,900	
						2,250	764.7	2.4	.....	15	1.09	wsw.	19.4	2,205	3,350	
9:29	959.8	1.4	71	sw.	8.5	2,313	758.7	2.4	−0.52	15	1.09	wsw.	21.5	2,267	3,570	
						2,500	741.0	1.2	.....	16	1.07	wsw.	21.8	2,450	4,230	
						2,750	718.2	−0.3	.....	16	0.95	wsw.	22.1	2,694	5,110	
						3,000	696.1	−1.9	.....	17	0.89	wsw.	22.4	2,939	6,080	
						3,250	674.8	−3.5	.....	18	0.82	wsw.	22.8	3,184	6,930	
						3,500	653.5	−5.1	.....	19	0.76	wsw.	23.1	3,429	7,780	
10:02	959.8	2.1	69	sw.	8.5	3,507	653.2	−5.1	0.60	19	0.76	wsw.	23.1	3,435	7,800	
						3,500	653.5	−5.1	.....	19	0.76	wsw.	23.1	3,429	7,770	
						3,250	674.8	−3.6	.....	18	0.81	wsw.	23.2	3,184	6,870	
						3,000	696.1	−2.2	.....	17	0.87	wsw.	23.4	2,939	5,970	
						2,750	718.2	−0.7	.....	17	0.98	wsw.	23.5	2,694	5,060	
						2,500	741.0	0.7	.....	16	1.03	wsw.	23.7	2,450	4,150	
						2,250	764.7	2.1	.....	15	1.07	wsw.	23.8	2,205	3,230	
10:47	960.0	2.8	67	sw.	6.3	2,241	765.6	2.2	0.17	15	1.07	wsw.	23.8	2,196	3,200	
						2,000	788.7	2.6	.....	15	1.11	wsw.	17.2	1,960	2,700	
11:04	960.1	3.2	66	sw.	5.4	1,895	799.2	2.8	0.56	15	1.12	wsw.	14.3	1,857	2,480	
						1,750	813.3	3.6	.....	15	1.19	wsw.	13.4	1,715	2,170	
						1,500	839.0	5.0	.....	14	1.22	wsw.	11.8	1,470	1,530	
						1,250	865.1	6.4	.....	14	1.35	wsw.	10.3	1,225	740	
11:22	959.8	3.6	64	sw.	6.3	1,146	875.8	7.0	0.22	14	1.40	wsw.	9.6	1,123	410	
						1,000	891.0	7.5	.....	14	1.45	wsw.	8.9	980	0	
11:29	959.8	3.7	64	sw.	6.7	785	915.0	7.8	0.00	13	1.38	w.	8.4	770	0	
						750	918.7	7.8	.....	13	1.38	w.	9.3	735	0	
11:37	959.7	3.8	65	sw.	4.9	694	925.2	7.8	−2.96	13	1.38	wsw.	10.7	681	0	
11:40	959.6	3.8	66	sw.	4.9	569	939.4	4.1	−0.17	25	2.05	wsw.	7.6	558	0	
						500	947.2	4.0	.....	41	3.33	wsw.	6.9	490	0	
11:42	959.6	3.8	66	sw.	5.8	396	959.6	3.8	.....	66	5.29	sw.	5.8	388	.....	1/10 Ci., wsw.

January 29, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.																
8:00	962.1	−4.0	96	n.	3.6	396	962.1	−4.0	.....	96	4.20	n.	3.6	388	.....	2/10 Ci., near horizon.
						500	949.4	−3.8	.....	85	3.77	n.	9.8	490	0	
8:03	962.2	−4.1	95	n.	3.6	617	935.7	−3.5	−0.23	73	3.33	n.	16.8	605	0	
						750	920.5	2.0	.....	60	4.24	nnw.	14.3	735	690	
8:09	962.3	−4.2	94	n.	3.6	773	917.7	2.9	−0.41	46	3.46	nnw.	13.9	758	730	
8:22	962.6	−4.0	91	nnw.	5.4	855	908.8	5.4	−3.05	35	3.14	nw.	11.0	838	2,200	
						1,000	892.9	4.7	.....	36	3.07	nw.	13.4	980	2,400	
						1,250	865.7	3.6	.....	38	3.01	nw.	17.5	1,225	2,760	8/10 St., nnw.
						1,500	840.2	2.4	.....	39	2.83	nw.	21.6	1,470	3,700	
						1,750	814.1	1.3	.....	41	2.75	wnw.	25.7	1,715	5,890	
						2,000	789.0	0.2	.....	43	2.67	wnw.	29.8	1,960	7,830	
9:06	963.6	−4.2	91	nnw.	5.8	2,210	768.9	−0.8	0.51	44	2.51	wnw.	33.2	2,166	9,100	
						2,000	789.0	0.4	.....	41	2.58	wnw.	29.6	1,960	7,720	
						1,750	814.7	1.8	.....	36	2.51	nw.	25.4	1,715	5,590	
						1,500	839.5	3.2	.....	32	2.46	nw.	21.1	1,470	3,400	6/10 St., nw.
9:48	964.5	−4.3	87	n.	4.0	1,420	848.6	3.6	0.05	31	2.45	nw.	19.8	1,392	2,700	
						1,250	866.6	3.7	.....	34	2.71	nw.	16.6	1,225	2,070	
10:04	964.8	−4.2	82	n.	3.1	1,026	891.0	3.8	−3.37	37	2.99	nnw.	12.5	996	1,170	
						1,000	893.7	2.9	.....	41	3.09	nnw.	12.2	980	1,110	
						750	922.2	−5.5	.....	77	2.96	n.	9.7	735	530	
10:13	964.9	−3.8	82	n.	3.1	735	924.1	−6.0	0.65	79	2.91	n.	9.6	721	510	
						500	952.1	−4.5	.....	80	3.35	n.	5.1	490	150	
10:16	964.9	−3.8	80	n.	3.1	396	964.9	−3.8	.....	80	3.55	n.	3.1	388	.....	Cloudless.

January 30, 1917, series (No. 1).

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.																
7:55	966.9	−5.4	86	e.	6.7	396	966.9	−5.4	.....	86	3.34	e.	6.7	388	.....	3/10 Ci., wsw.; 4/10 A.Cu., wsw.
						500	954.0	−5.4	.....	85	3.30	ese.	10.4	490	590	
7:58	966.1	−5.4	88	e.	5.4	675	933.1	−5.5	0.04	83	3.19	se.	16.7	662	1,570	
						750	924.1	−3.6	.....	75	3.39	se.	15.0	735	2,030	
8:10	966.8	−5.4	86	e.	6.7	971	898.8	1.9	−2.50	52	3.65	se.	10.1	952	2,700	
						1,000	895.2	1.8	.....	52	3.62	se.	10.3	980	2,700	
						1,250	867.8	1.1	.....	52	3.44	sse.	12.5	1,225	3,180	
						1,500	841.0	0.3	.....	52	3.24	sse.	14.6	1,470	4,420	
						1,750	815.6	−0.4	.....	52	3.07	s.	16.7	1,715	5,650	
						2,000	790.1	−1.2	.....	52	2.88	s.	18.9	1,960	6,880	
						2,250	765.8	−2.0	.....	52	2.69	ssw.	21.0	2,205	8,130	
9:01	966.5	−5.0	84	e.	8.9	2,264	764.5	−2.0	0.30	52	2.69	ssw.	21.1	2,219	8,200	
						2,500	741.7	−4.0	.....	60	1.75	ssw.	23.6	2,450	11,210	
9:33	966.3	−4.4	77	e.	8.5	2,719	721.6	−5.8	0.67	67	2.51	ssw.	25.9	2,664	14,000	
						2,500	741.7	−4.7	.....	63	2.60	ssw.	27.1	2,450	10,720	
						2,250	765.8	−3.5	.....	58	2.64	s.	28.4	2,205	8,820	
10:01	966.2	−4.2	74	ese.	8.0	2,015	788.6	−2.3	0.50	53	2.67	s.	29.7	1,975	8,500	3/10 Ci., wsw.; 3/10 Ci.St., wsw.
						2,000	790.0	−1.6	.....	52	2.78	s.	28.0	1,960	8,460	
						1,750	814.6	−1.0	.....	50	2.81	s.	26.8	1,715	7,880	
						1,500	839.5	0.3	.....	48	3.00	sse.	24.0	1,470	7,200	
						1,250	866.7	1.5	.....	46	3.13	sse.	21.3	1,225	6,010	
						1,000	894.9	2.7	.....	43	3.19	sse.	18.5	980	4,430	
10:35	966.2	−3.5	73	e.	6.7	989	896.3	2.8	−4.83	43	3.21	sse.	18.4	970	4,360	
10:43	966.2	−3.2	74	e.	6.7	813	916.5	−5.7	0.70	80	3.02	se.	16.0	797	3,200	
						750	924.1	−5.3	.....	75	2.93	se.	15.6	735	2,720	
						500	953.5	−3.5	.....	72	3.28	e.	9.0	490	800	
10:50	966.2	−2.8	69	e.	6.7	396	966.2	−2.8	.....	69	3.34	e.	6.7	388	.....	2/10 Ci., wsw.; 2/10 Ci.St., wsw.

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 30, 1917, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
11:24	965.2	−2.7	72	e.	7.2	396	965.2	−2.7	.....	72	3.51	e.	7.2	388	.....	3/10 Ci., wsw.; 1/10 Ci. St., wsw.
.....	.....	.....	.....	.....	.....	500	952.2	−3.3	.....	75	3.48	e.	9.1	490	950	
.....	.....	.....	.....	.....	.....	750	922.8	−4.8	.....	82	3.35	ese.	13.8	735	3,230	
11:33	964.9	−2.5	70	e.	8.5	783	918.8	−5.0	0.59	83	3.33	ese.	14.4	768	3,530	
.....	.....	.....	.....	.....	.....	1,000	894.1	1.6	.....	52	3.57	se.	15.5	980	5,420	
11:41	964.6	−2.0	66	e.	9.4	1,071	885.9	3.8	−3.05	42	3.37	sse.	15.8	1,050	6,030	
.....	.....	.....	.....	.....	.....	1,250	865.9	3.3	.....	38	2.94	sse.	18.9	1,225	8,190	
.....	.....	.....	.....	.....	.....	1,500	838.7	2.7	.....	33	2.45	s.	23.2	1,470	12,650	
11:57	963.9	−1.4	62	e.	8.9	1,520	836.5	2.6	0.27	33	2.43	s.	23.5	1,490	13,000	
.....	.....	.....	.....	.....	.....	1,750	813.0	1.4	.....	38	2.57	s.	23.4	1,715	13,970	
.....	.....	.....	.....	.....	.....	2,000	787.6	0.2	.....	44	2.73	ssw.	23.2	1,960	15,050	1/10 Ci. St., w.
.....	.....	.....	.....	.....	.....	2,250	763.2	−1.1	.....	49	2.73	ssw.	23.1	2,205	16,460	
P. M.																
12:45	962.3	−0.3	63	e.	7.6	2,426	746.6	−2.0	0.47	53	2.74	ssw.	23.0	2,377	.....	
.....	.....	.....	.....	.....	.....	2,250	763.2	−1.3	.....	49	2.69	ssw.	23.6	2,205	16,430	
.....	.....	.....	.....	.....	.....	2,000	787.1	−0.2	.....	44	2.64	s.	24.5	1,960	14,940	
1:13	961.4	0.2	65	e.	7.6	1,795	807.7	0.7	0.59	39	2.51	s.	25.2	1,759	13,760	
.....	.....	.....	.....	.....	.....	1,750	811.8	1.0	.....	39	2.56	s.	25.3	1,715	13,530	
.....	.....	.....	.....	.....	.....	1,500	836.8	2.5	.....	37	2.70	sse.	25.9	1,470	12,270	
.....	.....	.....	.....	.....	.....	1,250	862.8	3.9	.....	35	2.83	se.	26.5	1,225	8,780	
1:46	960.5	0.2	66	e.	8.5	1,189	869.6	4.3	−2.02	35	2.91	se.	26.7	1,166	7,900	
.....	.....	.....	.....	.....	.....	1,000	890.0	0.5	.....	58	3.67	se.	18.9	980	5,510	
1:56	960.2	−0.2	67	e.	7.6	802	912.4	−3.5	0.86	83	3.78	ese.	10.7	786	3,000	
.....	.....	.....	.....	.....	.....	750	918.7	−3.1	.....	81	3.82	ese.	10.3	735	2,620	
.....	.....	.....	.....	.....	.....	500	947.5	−0.9	.....	71	4.03	e.	8.4	490	770	
2:04	960.0	0.0	67	e.	7.6	396	960.0	0.0	.....	67	3.52	e.	7.6	388	.....	1/10 Ci. St., w.

January 30, 1917, series (No. 3).

P. M.																
2:39	959.2	0.2	71	e.	8.5	396	959.2	0.2	.....	71	4.40	e.	8.5	388	.....	1/10 Ci. St., w.
.....	.....	.....	.....	.....	.....	500	947.0	−0.9	.....	76	4.31	e.	10.2	496	660	
.....	.....	.....	.....	.....	.....	750	917.5	−3.4	.....	89	4.09	ese.	14.2	735	2,240	
2:52	958.9	0.1	71	e.	12.1	792	912.3	−3.8	1.01	91	4.04	ese.	14.9	777	2,500	
.....	.....	.....	.....	.....	.....	1,000	888.4	0.2	.....	68	4.22	sse.	20.0	980	4,540	
2:58	958.7	0.8	68	e.	13.4	1,130	874.4	2.0	−1.72	54	3.81	s.	23.2	1,108	5,810	
.....	.....	.....	.....	.....	.....	1,250	861.3	2.5	.....	54	3.95	s.	22.1	1,225	6,870	
3:12	958.7	1.0	68	e.	13.4	1,400	845.9	3.2	−0.44	53	4.08	s.	20.7	1,372	7,970	Few Ci., w.; few St. Cu., se.
.....	.....	.....	.....	.....	.....	1,500	835.5	3.0	.....	50	3.79	s.	20.7	1,470	8,520	
.....	.....	.....	.....	.....	.....	1,750	810.1	2.4	.....	44	3.19	ssw.	20.8	1,715	9,220	
3:31	958.7	1.2	66	e.	12.5	1,849	800.2	2.2	0.22	41	2.94	ssw.	20.8	1,812	9,500	
.....	.....	.....	.....	.....	.....	2,000	785.0	1.6	.....	39	2.68	ssw.	20.8	1,960	10,760	
.....	.....	.....	.....	.....	.....	2,250	761.1	0.6	.....	36	2.30	sw.	20.8	2,205	12,860	
.....	.....	.....	.....	.....	.....	2,500	737.4	−0.4	.....	33	1.95	sw.	20.8	2,450	15,000	
.....	.....	.....	.....	.....	.....	2,750	714.8	−1.4	.....	30	1.63	wsw.	20.8	2,694	15,240	
3:58	958.7	1.0	69	e.	14.3	2,810	709.8	−1.6	0.40	29	1.55	wsw.	20.8	2,753	15,300	Few Ci., w.
.....	.....	.....	.....	.....	.....	3,000	692.4	−3.3	.....	32	1.48	wsw.	21.0	2,939	16,710	
.....	.....	.....	.....	.....	.....	3,250	670.7	−5.4	.....	36	1.40	w.	21.3	3,184	18,580	
.....	.....	.....	.....	.....	.....	3,500	649.5	−7.5	.....	39	1.26	w.	21.6	3,429	20,440	
4:26	958.7	0.4	69	e.	10.7	3,680	634.6	−9.1	0.75	42	1.18	w.	21.8	3,605	.....	
.....	.....	.....	.....	.....	.....	3,500	649.0	−8.0	.....	40	1.24	w.	21.0	3,429	.....	
.....	.....	.....	.....	.....	.....	3,250	669.6	−6.4	.....	37	1.32	w.	19.8	3,184	.....	
.....	.....	.....	.....	.....	.....	3,000	691.1	−4.8	.....	35	1.43	wsw.	18.7	2,939	13,290	
.....	.....	.....	.....	.....	.....	2,750	713.3	−3.2	.....	32	1.50	wsw.	17.6	2,694	12,510	2/10 Ci., w.
4:54	958.7	−0.4	71	e.	13.4	2,584	728.9	−2.1	0.48	30	1.54	wsw.	16.8	2,532	12,000	
.....	.....	.....	.....	.....	.....	2,500	736.4	−1.7	.....	30	1.59	wsw.	17.2	2,450	11,400	
.....	.....	.....	.....	.....	.....	2,250	760.2	−0.5	.....	32	1.88	wsw.	18.3	2,205	9,620	
.....	.....	.....	.....	.....	.....	2,000	784.8	0.7	.....	33	2.12	wsw.	19.4	1,960	7,840	
5:06	958.7	−0.8	74	ene.	14.3	1,981	786.1	0.8	0.34	33	2.14	wsw.	19.5	1,942	7,700	
.....	.....	.....	.....	.....	.....	1,750	809.9	1.6	.....	34	2.33	wsw.	16.9	1,715	6,880	
5:13	958.8	−0.8	74	ene.	10.3	1,661	818.0	1.9	−0.68	35	2.45	wsw.	15.9	1,628	6,560	
.....	.....	.....	.....	.....	.....	1,500	835.2	0.8	.....	54	3.49	sw.	17.9	1,470	5,580	
5:29	958.9	−1.2	78	ne.	10.3	1,278	858.2	−0.7	−0.54	81	4.67	s.	20.6	1,253	4,000	
.....	.....	.....	.....	.....	.....	1,250	861.3	−0.8	.....	81	4.63	se.	20.1	1,225	3,840	
.....	.....	.....	.....	.....	.....	1,000	887.8	−2.2	.....	85	4.33	ese.	15.6	980	2,380	
.....	.....	.....	.....	.....	.....	750	916.8	−3.5	.....	89	4.06	ene.	11.1	735	930	
5:41	959.0	−2.1	81	ne.	9.8	736	918.7	−3.6	0.35	89	4.02	ene.	10.8	722	670	
.....	.....	.....	.....	.....	.....	500	946.8	−2.8	.....	85	4.11	ene.	7.3	490	210	
5:48	959.0	−2.4	83	ne.	5.8	396	959.0	−2.4	.....	83	4.15	ne.	5.8	388	.....	2/10 Ci., w.

January 30, 1917, series (No. 4).

P. M.																
6:29	959.2	−3.6	84	ne.	7.6	396	959.2	−3.6	.....	84	3.80	ne.	7.6	388	.....	2/10 Ci., w.
.....	.....	.....	.....	.....	.....	500	946.2	−4.1	.....	87	3.77	ne.	8.2	490	430	
6:32	959.3	−3.6	84	ne.	8.0	584	936.7	−4.5	0.48	89	3.73	ne.	8.7	573	780	
.....	.....	.....	.....	.....	.....	750	917.0	−3.2	.....	86	4.02	e.	7.8	735	1,540	
7:05	959.4	−4.0	84	ne.	6.7	882	902.1	−2.1	−0.80	83	4.26	ese.	7.1	865	3,140	
.....	.....	.....	.....	.....	.....	1,000	889.3	−2.1	.....	80	4.10	ese.	7.2	980	3,590	
.....	.....	.....	.....	.....	.....	1,250	861.2	−2.0	.....	73	3.77	se.	7.3	1,225	4,550	
.....	.....	.....	.....	.....	.....	1,500	834.2	−1.9	.....	66	3.45	sse.	7.5	1,470	5,510	
7:21	959.3	−4.0	82	ene.	7.6	1,649	819.1	−1.8	−0.04	62	3.26	s.	7.6	1,616	6,080	
.....	.....	.....	.....	.....	.....	1,750	808.9	0.6	.....	46	2.93	s.	7.3	1,715	6,470	
7:24	959.3	−4.0	82	ene.	8.9	1,778	806.0	1.3	−0.24	41	2.75	s.	7.2	1,743	6,570	
.....	.....	.....	.....	.....	.....	2,000	783.2	0.5	.....	39	2.47	s.	7.1	1,960	7,050	
8:49	958.8	−5.2	90	ene.	7.6	2,227	761.7	−0.2	0.34	36	2.16	ssw.	6.9	2,182	9,800	
.....	.....	.....	.....	.....	.....	2,000	783.0	0.6	.....	35	2.23	s.	6.0	1,960	9,020	
.....	.....	.....	.....	.....	.....	1,750	807.8	1.4	.....	33	2.23	sse.	4.9	1,715	7,700	
9:09	958.6	−5.5	88	ne.	8.0	1,601	823.9	1.9	−0.52	32	2.24	sse.	4.3	1,569	6,000	
.....	.....	.....	.....	.....	.....	1,500	833.3	1.4	.....	48	3.24	sse.	6.1	1,470	5,570	Lunar 22°-halo, 9:15 to 9:55 p. m

TABLE 5.—*Free-air data from kite flights at Drexel Aerological Station, January, 1917*—Continued.

January 30, 1917, series (No. 4)—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.	Potential. Gravity.	Potential. Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
9:32	958.4	−6.4	89	ne.	10.7	1,258	859.4	0.1	0.12	85	5.23	se.	10.4	1,233	4,590	
						1,250	859.6	0.1		85	5.23	se.	10.4	1,225	4,560	
9:40	958.3	−6.8	91	ene.	7.2	1,004	886.9	0.4	−2.17	77	4.84	ese.	9.4	984	3,450	
						750	916.0	−5.1		88	3.50	e.	10.5	735	2,220	
9:51	958.2	−7.1	92	ne.	8.0	584	935.4	−8.7	0.80	96	2.79	ne.	11.3	573	1,180	
						500	945.1	−8.0		94	2.91	ne.	10.9	490	650	
9:54	958.2	−7.2	92	ne.	10.3	396	958.2	−7.2		92	3.05	ne.	10.3	388		10/10 Ci. St., w.

January 30-31, 1917, series (No. 5).

P. M.																
10:29	957.8	− 7.4	89	ne.	8.9	396	957.8	− 7.4		89	2.90	ne.	8.9	388		10/10 Ci.St., w.
						500	945.1	− 7.9		91	2.84	ne.	12.6	490	750	
10:31	957.7	− 7.4	89	ne.	8.9	632	929.0	− 8.6	0.51	93	2.73	ene.	17.2	620	1,700	
						750	915.3	− 8.9		89	3.92	ese.	16.0	735	2,550	
10:37	957.7	− 7.7	91	ene.	9.4	784	911.1	− 2.6	−3.95	88	4.33	ese.	15.6	769	2,800	
10:41	957.6	− 7.7	91	ene.	9.4	998	887.0	0.1	−1.26	79	4.86	se.	13.4	978	5,000	10/10 A.St., w.
11:14	957.3	− 7.8	88	ne.	8.0	1,247	859.4	0.1	0.06	81	4.98	se.	7.4	1,222	6,600	
A. M.																
12:22	957.5	− 8.5	91	nne.	7.2	1,209	863.1	− 0.4	−0.40	86	5.08	se.	3.7	1,185	5,800	Snow began 12:20 a. m. and continued.
						1,000	885.8	− 1.1		91	5.07	ene.	6.4	980	3,500	
12:49	957.9	− 9.6	94	nne.	8.9	960	890.8	− 1.4	−3.34	92	5.00	ne.	6.9	941	3,240	
						750	915.3	− 8.4		94	2.81	nne.	14.0	735	1,840	
1:02	958.1	− 9.9	93	nne.	11.2	655	926.5	−11.6	0.62	95	2.14	nne.	17.2	642	1,300	
						500	945.1	−10.6		94	2.31	nne.	12.2	490	520	
1:07	958.2	−10.0	93	nne.	8.9	396	958.2	−10.0		93	2.42	nne.	8.9	388		10/10 St., ne.

January 31, 1917, series (No. 6).

A. M.																
8:35	968.2	−19.8	100	nnw.	17.0	396	968.2	−19.8		100	1.05	nnw.	17.0	388		1/10 Ci.St., wnw.
						500	954.5	−20.2		100	1.01	nnw.	17.5	490	7,840	9/10 St., nnw.
						750	923.0	−21.2		100	0.91	nnw.	18.6	735	26,700	
8:45	968.5	−20.2	100	nnw.	12.4	913	903.0	−21.8	0.39	100	0.86	nnw.	19.4	895	27,700	
						1,000	892.5	−21.2				nnw.	18.7	980	28,220	
						1,250	863.0	−19.4				nnw.	16.5	1,225	28,340	Light snow ended at 9:00 a. m.
9:07	969.1	−20.5	100	nnw.	13.0	1,433	842.4	−18.1	−0.71			nnw.	15.0	1,405	28,000	
						1,500	835.0	−16.3				nnw.	13.5	1,470	31,390	
9:57	970.2	−19.8	100	nnw.	11.6	1,705	813.8	−10.6	−2.76			nnw.	9.0	1,671	47,300	
						1,750	808.8	−10.7				nnw.	9.2	1,715	50,000	
						2,000	782.9	−11.2				nw.	10.6	1,960	50,000	
10:35	970.7	−19.6	99	nnw.	13.4	2,214	761.8	−11.6	0.02			nw.	11.7	2,170		6/10 A.Cu., wnw.; 3/10 St., nnw.
						2,000	782.9	−11.9				nw.	11.6	1,960	39,850	
						1,750	808.8	−12.3				nw.	11.4	1,715	21,060	
11:09	971.1	−18.7	78	nnw.	13.9	1,739	810.3	−12.3	−2.03	98	2.07	nw.	11.4	1,704	20,230	
11:30	971.5	−18.6	87	nnw.	12.5	1,503	836.4	−17.1	−1.31	95	1.28	nnw.	17.6	1,473	24,000	
11:36	971.6	−18.7	87	nnw.	10.3	1,281	861.9	−21.0	−0.51	95	0.88	n.	21.2	1,256	35,500	
						1,250	865.8	−21.2		95	0.86	n.	21.1	1,225	33,470	
						1,000	895.6	−22.4		95	0.77	nnw.	20.6	980	42,050	
11:48	971.8	−18.6	91	nnw.	13.4	970	899.3	−22.6	0.59	95	0.76	nnw.	20.5	951	39,780	Light snow began at 11:48 a. m.
						750	927.0	−22.5		95	0.76	nnw.	20.2	735	23,130	
						500	958.4	−19.8		94	0.99	nnw.	12.5	490	6,480	
NOON	972.0	−19.2	94	nnw.	10.7	396	972.0	−19.2		94	1.04	nnw.	10.7	388		6/10 A.Cu., wnw.; 3/10 St., nnw.

January 31, 1917, series (No. 7).

P. M.																
2:12	973.2	−20.0	93	n.	14.3	396	973.2	−20.0		93	0.93	n.	14.3	388		8/10 St., nnw.
						500	959.8	−20.8		90	0.86	n.	16.3	490	3,840	
2:18	973.3	−20.3	100	nnw.	12.1	733	929.9	−22.6	0.77	82	0.66	nnw.	20.7	719	12,450	
						750	927.1	−22.7		82	0.65	nnw.	21.0	735	13,080	
						1,000	895.6	−23.7		86	0.61	nnw.	25.4	980	(*)	
2:26	973.4	−20.4	100	nnw.	14.3	1,038	891.9	−23.9	0.43	86	0.60	nnw.	26.1	1,018	(*)	Solar halo with parhelia and about 40° of circumzenithal arc visible at intervals from 2:12 to 4:45 p. m.
						1,250	866.1	−21.2		91	0.83	nw.	23.8	1,225	(*)	
2:33	973.6	−20.2	100	nnw.	15.2	1,437	845.2	−18.9	−1.25	95	1.08	nw.	21.8	1,409	(*)	
						1,500	838.0	−18.7		93	1.08	nw.	21.4	1,470	(*)	
						1,750	811.0	−18.0		86	1.07	nw.	19.6	1,715	(*)	
3:02	974.0	−20.0	93	nnw.	10.3	2,004	783.9	−17.2	−0.30	78	1.05	nw.	17.9	1,964	(*)	
						2,250	758.9	−17.5		85	1.11	nw.	15.5	2,205	(*)	
3:23	974.5	−20.2	99	nnw.	13.0	2,274	756.5	−17.5	0.06	86	1.12	nw.	15.3	2,229	(*)	
						2,250	758.9	−17.5		85	1.11	nw.	15.5	2,205	(*)	8/10 St., nnw.
3:31	974.7	−20.4	100	nnw.	12.5	2,031	781.6	−17.5	−0.16	71	0.92	nw.	17.1	1,990	(*)	
						2,000	784.8	−17.5		72	0.94	nw.	17.2	1,960	(*)	
						1,750	812.0	−17.9		84	1.06	nw.	18.3	1,715	(*)	
						1,500	840.0	−18.3		96	1.16	nnw.	19.4	1,470	(*)	
4:02	975.4	−21.2	100	nnw.	13.4	1,451	845.2	−18.4	−0.98	98	1.18	nnw.	19.6	1,422	19,300	
						1,250	868.9	−20.4		97	0.96	nnw.	19.9	1,225	31,470	
						1,000	899.0	−22.8		95	0.74	nnw.	20.3	980	(*)	
4:20	975.9	−21.0	100	nnw.	12.5	953	901.5	−23.3	0.13	95	0.79	nnw.	20.4	934	(*)	St. base at about 750 m.
4:26	976.0	−21.0	100	nnw.	11.6	802	923.5	−23.1	0.47	96	0.73	nnw.	18.4	786	(*)	
						750	930.4	−22.9		97	0.75	nnw.	18.3	735		
						500	962.6	−21.7		99	0.86	nnw.	15.3	490		
4:35	976.3	−21.2	100	nnw.	14.3	396	976.3	−21.2		100	0.91	nnw.	14.3	388		9/10 St., nnw.

*More than 50,000 volts.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917.*

February 1, 1917 (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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
8:09	989.6	−30.2	100	nnw.	8.0	396	989.6	−30.2	.....	100	0.36	nnw.	8.0	388	.....	Cloudless.
						500	975.3	−30.5	.....	100	0.35	nnw.	14.6	490	.....	
8:18	989.7	−30.0	100	nnw.	8.9	700	948.2	−31.2	0.33	100	0.33	nnw.	27.4	686	.....	
						750	942.1	−31.1	.....	100	0.33	nnw.	26.1	735	3,830	
8:28	989.7	−30.0	100	nnw.	11.2	855	927.8	−30.8	−0.26	100	0.34	nnw.	22.5	838	5,980	
						1,000	909.4	−28.2	.....	91	0.41	nnw.	23.6	980	.....	
8:33	989.8	−30.0	100	nnw.	11.2	1,071	900.1	−26.9	−1.81	87	0.45	nnw.	24.1	1,050	(*)	
						1,250	878.3	−26.3	.....	82	0.45	nnw.	27.6	1,225	(*)	
						1,500	848.5	−25.5	.....	76	0.45	nnw.	32.4	1,470	(*)	
8:43	989.8	−29.8	100	nnw.	10.3	1,580	839.0	−25.2	−0.33	74	0.45	nnw.	34.0	1,549	(*)	
						1,750	819.7	−25.6	.....	75	0.44	nnw.	30.1	1,715	(*)	
						2,000	791.6	−26.1	.....	77	0.43	nw.	24.3	1,960	(*)	
						2,250	764.7	−26.7	.....	79	0.41	nw.	18.6	2,205	(*)	
9:30	990.3	−29.2	100	nnw.	10.3	2,304	759.4	−26.8	0.22	79	0.41	nw.	17.3	2,258	(*)	
						2,500	739.1	−26.0	.....	71	0.39	nw.	18.5	2,450	(*)	
9:45	990.4	−29.1	100	nnw.	8.9	2,565	732.5	−25.8	−0.32	68	0.39	nw.	18.9	2,513	(*)	
						2,500	739.1	−26.0	.....	68	0.38	nw.	18.3	2,450	(*)	
10:00	990.6	−28.8	100	nnw.	8.9	2,302	759.4	−26.5	0.14	66	0.35	nw.	16.4	2,256	(*)	
						2,250	764.7	−26.4	.....	.....	.....	nw.	16.9	2,205	(*)	
						2,000	791.7	−26.1	.....	.....	.....	nw.	19.6	1,960	(*)	
						1,750	819.9	−25.6	.....	.....	.....	nnw.	22.2	1,715	(*)	
10:27	990.7	−27.9	85	nnw.	9.8	1,677	828.4	−25.6	−0.14	.....	.....	nnw.	23.0	1,644	(*)	
						1,500	848.6	−25.9	.....	.....	.....	nnw.	22.5	1,470	(*)	
10:40	990.8	−28.2	100	nnw.	11.2	1,258	877.8	−26.2	−2.50	.....	.....	nnw.	21.8	1,233	(*)	
						1,250	878.4	−26.4	.....	.....	.....	nnw.	21.8	1,225	(*)	
10:45	990.8	−27.8	100	nnw.	11.2	1,058	902.6	−31.2	−0.26	.....	.....	nnw.	22.0	1,037	(*)	
						1,000	910.3	−31.3	.....	.....	.....	nnw.	19.3	980	.....	
10:56	990.9	−27.5	100	nnw.	7.6	943	917.7	−31.5	0.75	.....	.....	nnw.	16.6	925	.....	
						750	943.7	−30.1	.....	.....	.....	nnw.	14.4	735	.....	
						500	977.1	−28.2	.....	.....	.....	nnw.	11.5	490	.....	
11:11	990.8	−27.4	100	nnw.	10.3	396	990.8	−27.4	.....	100	0.49	nnw.	10.3	388	.....	Cloudless.

February 1, 1917 (No. 2).

P. M.																
12:50	989.7	−25.6	100	nnw.	8.0	396	989.7	−25.6	.....	100	0.59	nnw.	8.0	388	.....	Cloudless.
						500	975.4	−26.4	.....	97	0.54	nnw.	8.8	490	.....	
						750	942.1	−28.4	.....	91	0.40	nw.	10.8	735	.....	
12:55	989.6	−25.9	94	nnw.	10.3	756	941.3	−28.4	0.78	91	0.40	nw.	10.8	741	11,000	4/10 St.Cu., nw., very thin. Clear sky visible through clouds.
						1,000	909.8	−28.9	.....	98	0.42	nnw.	18.8	980	(*)	
1:04	989.6	−25.6	80	nnw.	10.7	1,050	903.5	−29.0	0.20	100	0.42	nnw.	20.4	1,029	(*)	
						1,250	878.9	−27.5	.....	87	0.41	nnw.	21.9	1,225	(*)	
						1,500	848.7	−25.6	.....	70	0.39	nnw.	23.9	1,470	(*)	
1:25	989.3	−25.5	87	nw.	11.6	1,748	820.1	−23.7	−0.76	54	0.38	nnw.	25.8	1,713	(*)	Very faint 22°-halo began 12:53 p. m., and continued to end of flight, with faint parhelia to right and left of sun.
						2,000	791.3	−24.0	.....	51	0.35	nnw.	27.4	1,960	(*)	
						2,250	763.2	−24.2	.....	48	0.33	nw.	28.9	2,205	(*)	
						2,500	734.8	−24.5	.....	45	0.30	nw.	30.5	2,450	(*)	
2:00	988.9	−25.8	74	nw.	10.7	2,534	730.6	−24.5	0.13	45	0.30	nw.	30.7	2,483	(*)	
						2,500	734.8	−24.4	.....	45	0.30	nw.	30.2	2,450	(*)	
						2,250	763.2	−24.1	.....	43	0.30	nw.	26.5	2,205	(*)	
						2,000	791.2	−23.7	.....	42	0.30	nw.	22.9	1,960	(*)	
						1,750	819.9	−23.3	.....	40	0.30	nw.	19.2	1,715	(*)	
2:33	988.9	−25.1	77	nw.	7.2	1,694	825.9	−23.2	−0.94	40	0.30	nw.	18.4	1,660	(*)	
						1,500	848.5	−25.0	.....	49	0.30	nw.	18.2	1,470	(*)	
						1,250	878.2	−27.4	.....	62	0.29	nnw.	18.0	1,225	(*)	St.Cu. base at about 1,950 m
3:17	989.0	−25.3	83	nw.	9.8	1,055	902.2	−29.2	0.30	71	0.29	nnw.	17.8	1,034	(*)	
						1,000	909.1	−29.0	.....	74	0.31	nnw.	16.2	980	(*)	
3:23	989.0	−25.0	75	nw.	7.6	821	932.4	−28.5	0.73	82	0.36	nw.	11.1	805	(*)	
						750	941.5	−28.0	.....	83	0.39	nw.	10.6	735	.....	
						500	975.2	−26.2	.....	86	0.48	nw.	8.8	490	.....	
3:34	989.1	−25.4	87	nw.	8.0	396	989.1	−25.4	.....	87	0.52	nw.	8.0	388	.....	4/10 St.Cu., nw.

February 2, 1917.

A. M.																
8:06	992.3	−30.2	100	nnw.	4.9	396	992.3	−30.2	.....	100	0.36	nnw.	4.9	388	.....	Cloudless from 7:17 a. m. to about 10:28, after which a few Ci. appeared along western horizon.
						500	977.8	−30.4	.....	98	0.35	nnw.	.....	490	.....	
8:08	992.2	−30.2	100	nnw.	5.4	629	960.2	−30.6	0.17	95	0.33	nnw.	.....	617	.....	
						750	944.3	−29.4	.....	96	0.39	nnw.	.....	735	.....	
8:16	992.2	−30.2	100	nw.	8.5	802	937.2	−28.9	−0.98	97	0.41	nnw.	.....	786	5,400	
						1,000	911.8	−28.2	.....	93	0.42	nnw.	.....	980	(*)	
						1,250	880.6	−27.3	.....	87	0.43	nnw.	.....	1,225	(*)	
8:45	992.0	−29.5	100	nw.	6.7	1,378	864.8	−26.9	−0.35	84	0.43	nnw.	.....	1,351	(*)	
						1,500	.....	−25.9	.....	.....	.....	nnw.	.....	1,470	(*)	
						1,750	.....	−23.8	.....	.....	.....	nnw.	.....	1,715	(*)	
9:26	991.8	−29.0	100	nnw.	6.3	a 1,861	.....	−22.9	−0.62	.....	.....	nnw.	.....	1,824	(*)	
						1,750	.....	−23.4	.....	.....	.....	nnw.	.....	1,715	(*)	
						1,500	.....	−24.4	.....	.....	.....	n.	.....	1,470	(*)	
						1,250	.....	−25.4	.....	.....	.....	n.	.....	1,225	(*)	
10:03	991.6	−28.0	100	nne.	6.3	a 1,178	.....	−25.7	−1.09	.....	.....	n.	.....	1,155	(*)	
						1,000	.....	−27.6	.....	.....	.....	n.	.....	980	(*)	
10:16	981.5	−28.0	100	n.	7.2	774	.....	−30.1	0.56	.....	.....	n.	.....	759	2,200	
						750	.....	−30.0	.....	.....	.....	n.	.....	735	.....	
						500	.....	−28.6	.....	.....	.....	n.	.....	490	.....	
10:28	991.5	−28.0	100	n.	7.2	396	991.5	−28.0	.....	100	0.46	n.	7.2	388	.....	

a Altitude computed from angle.

* More than 10,000 volts.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 3, 1917.

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.	Potential. Gravity.	Potential. Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
8:10	970.9	−14.1	68	sw.	7.2	396	970.9	−14.1	.....	68	1.22	sw.	7.2	388	.....	1/10A.Cu.,nw.
						500	957.8	−11.1	.....	64	1.59	wsw.	8.8	490	.....	
						750	927.3	− 4.0	.....	56	2.48	nw.	12.6	735	.....	
8:20	970.9	−13.1	68	sw.	5.8	775	924.6	− 3.2	−2.88	55	2.57	nw.	13.0	760	1,680	
						1,000	898.4	− 1.3	.....	52	2.87	nnw.	18.6	980	3,890	
8:26	970.9	−12.8	70	sw.	6.7	1,039	894.2	− 1.0	−0.83	52	2.92	nnw.	19.6	1,019	4,280	2/10Ci.,nw.,2/10A.Cu.,nw.
						1,250	870.7	− 1.6	.....	59	3.14	nnw.	18.5	1,225	6,350	
						1,500	843.8	− 2.3	.....	68	3.40	nw.	17.2	1,470	9,050	
8:41	970.9	−12.0	69	sw.	4.9	1,588	834.8	− 2.6	0.29	71	3.49	nw.	16.8	1,556	10,000	
						1,750	817.5	− 3.6	.....	73	3.31	nw.	17.0	1,715	(*)	
						2,000	792.0	− 5.1	.....	76	3.04	nw.	17.4	1,960	(*)	1/10A.Cu.,nw.
						2,250	767.0	− 6.7	.....	78	2.76	nw.	17.8	2,205	(*)	
						2,500	743.1	− 8.2	.....	81	2.49	nw.	18.2	2,450	(*)	
9:17	970.7	−10.8	68	sw.	6.3	2,658	728.2	− 9.2	0.62	83	2.32	nw.	18.4	2,604	(*)	
						2,750	719.7	− 9.6	.....	84	2.26	nw.	18.3	2,694	(*)	2/10A.Cu.,nw.
						3,000	696.8	−10.8	.....	85	2.09	nw.	18.1	2,939	(*)	
						3,250	674.6	−11.9	.....	87	1.92	nw.	17.9	3,184	(*)	
						3,500	652.6	−13.1	.....	88	1.75	nw.	17.7	3,429	(*)	
9:55	970.3	− 9.0	58	wsw.	6.3	3,657	638.6	−13.8	0.42	89	1.64	nw.	17.6	3,582	(*)	
						3,500	652.6	−13.2	.....	89	1.75	nw.	18.2	3,429	(*)	1/10A.Cu.,w.
						3,250	674.5	−12.3	.....	89	1.92	nw.	19.1	3,184	(*)	
						3,000	696.5	−11.4	.....	90	2.09	nw.	20.0	2,939	(*)	
						2,750	719.1	−10.5	.....	90	2.26	nw.	21.0	2,694	(*)	
10:31	970.5	− 7.2	50	wsw.	5.4	2,637	729.4	−10.0	0.65	90	2.34	nw.	21.4	2,584	10,000	
						2,500	742.1	− 9.1	.....	88	2.48	nw.	21.0	2,450	9,920	
						2,250	766.2	− 7.5	.....	84	2.74	nw.	20.2	2,205	9,470	
						2,000	791.1	− 5.8	.....	80	3.00	nw.	19.4	1,960	7,840	
						1,750	817.3	− 4.2	.....	76	3.26	nw.	18.6	1,715	6,220	
11:02	970.6	− 7.8	77	wnw.	4.5	1,640	828.8	− 3.5	0.26	74	3.37	nw.	18.2	1,607	5,500	
						1,500	843.6	− 3.1	.....	70	3.28	nw.	16.7	1,470	4,470	
						1,250	870.7	− 2.5	.....	64	3.13	nw.	14.1	1,225	2,620	
						1,000	898.6	− 1.8	.....	57	2.97	wnw.	11.5	980	1,520	
11:26	970.2	− 5.4	50	w.	4.9	796	922.1	− 1.3	−2.24	52	2.85	wnw.	9.4	780	860	
						750	927.6	− 2.3	.....	53	2.67	wnw.	8.9	735	.....	
11:31	970.2	− 5.2	49	w.	4.9	559	950.3	− 6.6	0.98	55	1.92	wnw.	6.7	548	.....	
						500	957.6	− 6.0	.....	53	2.51	w.	6.1	490	.....	
11:34	970.1	− 5.0	47	w.	4.9	396	970.1	− 5.0	.....	47	1.88	w.	4.9	388	.....	Few A.Cu., nw.

February 4, 1917.

P. M.																
4:02	980.6	−18.3	88	nw.	10.7	396	980.6	−18.3	.....	88	1.06	nw.	10.7	388	.....	10/10 St., nw.
						500	967.2	−18.8	.....	87	1.01	nw.	12.4	490	.....	Snow falling, beginning of flight, ending at 4:30 p. m.
						750	935.0	−19.9	.....	85	0.88	nw.	16.5	735	.....	
4:09	980.6	−18.3	88	nnw.	4.9	816	926.7	−20.2	0.45	84	0.85	nw.	17.6	800	(*)	Arc of 22°-halo and circumzenithal arc 46° above sun, visible from 4:02 to 4:10 p. m.
						1,000	904.3	−21.1	.....	86	0.79	nw.	35.0	980	(*)	
4:13	980.6	−18.4	88	nw.	6.3	1,032	900.1	−21.2	0.46	86	0.78	nw.	38.0	1,012	(*)	
						1,250	974.8	−17.1	.....	87	1.27	nw.	35.0	1,225	(*)	
4:43	980.5	−18.1	88	nw.	8.9	1,476	848.3	−12.9	−1.91	89	1.78	nnw.	31.8	1,447	(*)	St. base ranged from about 750 to 800 m. during flight.
						1,250	874.1	−17.3	.....	95	1.32	nnw.	27.1	1,225	(*)	
5:11	980.5	−18.0	88	nnw.	10.7	1,040	898.9	−21.4	0.49	100	0.90	nnw.	22.8	1,020	(*)	
						1,000	903.6	−21.2	.....	100	0.91	nnw.	21.4	980	(*)	
5:32	980.7	−18.0	88	nnw.	8.5	797	929.2	−20.2	0.55	98	0.99	nnw.	14.3	781	(*)	
						750	934.5	−19.9	.....	97	1.00	nnw.	13.6	735	.....	
						500	966.9	−18.6	.....	91	1.06	nnw.	9.6	490	.....	
5:36	980.7	−18.0	88	nnw.	8.0	396	980.7	−18.0	.....	88	1.09	nnw.	8.0	388	.....	10/10 St., nnw.

February 5, 1917.

A. M.																
8:13	978.4	−14.8	100	nw.	3.6	396	978.4	−14.8	.....	100	1.68	nw.	3.6	388	.....	10/10 St., nw.
						500	965.9	−14.9	.....	100	1.66	nw.	10.2	490	.....	Light snow began during night and continued at end of flight.
8:17	978.4	−14.7	100	nw.	5.8	681	942.2	−15.2	0.14	100	1.62	nnw.	21.7	668	8,200	
						750	935.3	−13.8	.....	90	1.60	nnw.	20.6	735	8,760	
						1,000	904.0	− 8.9	.....	55	1.53	n.	16.7	980	(†)	St. base about 600m.
8:25	978.4	−14.7	100	nw.	5.4	1,027	900.4	− 8.4	−1.97	51	1.52	n.	16.3	1,007	(†)	
						1,250	874.5	− 7.5	.....	40	1.23	n.	15.0	1,225	(†)	
						1,500	846.8	− 6.6	.....	27	0.90	nnw.	13.6	1,470	(†)	
8:42	978.4	−14.6	100	nw.	2.2	1,678	828.4	− 5.9	−0.38	18	0.67	nnw.	12.6	1,645	(†)	
						1,750	821.0	− 6.1	.....	16	0.61	nnw.	12.9	1,715	(†)	
						2,000	795.1	− 6.7	.....	10	0.38	nnw.	13.9	1,960	(†)	
						2,250	770.1	− 7.3	.....	4	0.16	nnw.	14.9	2,205	(†)	10/10 St.,nw.
9:19	978.5	−14.6	100	nw.	5.4	2,396	755.8	− 7.7	0.25	1	0.03	nnw.	15.5	2,348	(†)	
						2,500	746.2	− 8.3	.....	1	0.03	nnw.	15.5	2,450	(†)	
						2,750	722.3	− 9.6	.....	1	0.02	nnw.	15.5	2,694	(†)	
10:01	978.7	−14.0	100	nw.	3.6	2,977	701.3	−10.8	0.53	1	0.02	nnw.	15.5	2,917	(†)	6/10 St.,nnw.
						3,000	699.7	−10.9	.....	1	0.02	nnw.	15.5	2,939	(†)	
						3,250	677.3	−12.5	.....	1	0.02	nnw.	16.1	3,184	(†)	
						3,500	655.0	−14.0	.....	1	0.02	nnw.	16.6	3,429	(†)	
10:36	978.7	−13.1	96	nw.	4.0	3,611	645.4	−14.7	0.56	1	0.02	nnw.	16.8	3,537	(†)	3/10Ci., nnw.,1/10St.,nnw.
						3,500	655.8	−14.1	.....	1	0.02	nnw.	16.6	3,429	(†)	
						3,250	678.0	−12.8	.....	1	0.02	nnw.	16.1	3,184	(†)	
						3,000	700.1	−11.7	.....	1	0.02	nnw.	15.6	2,939	(†)	
10:55	978.7	−11.6	96	nw.	2.7	2,873	711.2	−10.9	0.49	1	0.02	nnw.	15.3	2,815	(†)	
						2,750	723.3	−10.3	.....	1	0.02	nnw.	14.5	2,694	(†)	
						2,500	747.0	− 9.1	.....	1	0.03	nw.	13.0	2,450	8,610	
						2,250	771.0	− 7.9	.....	1	0.03	nw.	11.4	2,205	7,290	
11:29	978.6	−11.8	92	nw.	4.5	2,172	778.5	− 7.5	0.28	1	0.03	nw.	11.0	2,129	6,880	
						2,000	795.8	− 7.0	.....	1	0.03	nw.	10.3	1,960	5,960	

* More than 10,000 volts.

† Over 19,000 volts.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 5, 1917—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						1,750	821.7	− 6.3		1	0.04	nnw.	9.3	1,715	4,640	
						1,500	848.3	− 5.6		1	0.04	nnw.	8.3	1,470	3,310	
11:41	978.5	−11.7	92	nw.	4.5	1,387	860.8	− 5.3	−0.23	1	0.04	nnw.	7.9	1,360	2,970	
						1,250	876.0	− 5.6		1	0.04	nnw.	8.4	1,225	2,660	
						1,000	904.6	− 6.2		1	0.04	n.	9.3	980	1,770	
11:50	978.5	−11.1	93	wnw.	4.5	990	905.4	− 6.2	−4.03	1	0.04	n.	9.3	971	1,720	
11:56	978.4	−10.9	92	wnw.	3.6	809	926.9	−13.5	0.58	14	0.26	n.	6.0	793		
						750	933.7	−13.2		25	0.52	n.	5.7	735		
						500	965.2	−11.7		70	1.63	nw.	4.2	490		
P. M.																
12:01	978.4	−11.1	89	wnw.	3.6	396	978.4	−11.1		89	2.09	wnw.	3.6	388		3/10 Ci., nnw., 2/10 A. Cu., nnw.

February 6, 1917.

A. M.																
9:27	969.2	−1.2	74	wnw.	5.4	396	969.2	−1.2		74	4.09	wnw.	5.4	388		10/10 St. Cu., nnw.
						500	957.0	−1.4		80	4.36	nw.	8.9	490		
9:30	969.3	−1.1	73	nw.	5.4	699	933.1	−1.7	0.17	92	4.88	nw.	15.7	685		
						750	927.3	−0.7		94	5.42	nnw.	15.4	735		
9:32	969.3	−1.0	72	nw.	5.4	798	921.6	0.3	−2.02	95	5.93	nnw.	15.2	782	700	
						1,000	898.6	−0.4		98	5.74	nnw.	13.6	980	2,100	
9:45	969.4	−0.6	75	nw.	4.9	1,181	878.7	−1.1	0.37	100	5.57	nnw.	12.2	1,158	3,340	St. Cu. base about 1,050 m.
						1,250	871.2	−0.2		90	5.29	nnw.	13.5	1,225	3,820	
10:00	969.6	−0.6	75	nnw.	4.5	1,390	856.3	1.6	−1.29	69	4.73	nnw.	16.2	1,363	4,630	
						1,500	844.9	1.2		67	4.50	nnw.	16.2	1,470	5,250	
						1,750	819.1	0.4		62	3.99	nnw.	16.2	1,715	6,660	
						2,000	793.9	−0.4		57	3.48	nnw.	16.1	1,960	8,030	
						2,250	769.1	−1.2		53	2.97	nnw.	16.1	2,205	9,410	
10:21	970.0	−0.6	73	nnw.	7.2	2,448	750.5	−1.9	0.33	49	2.56	nnw.	16.1	2,399	10,500	
						2,500	745.3	−2.2		49	2.51	nnw.	16.1	2,450	11,010	10/10 St., nnw.
						2,750	722.4	−3.8		49	2.24	nnw.	15.9	2,694	13,450	St. base about 750 m.
						3,000	700.2	−5.3		49	1.98	nw.	15.7	2,939	15,980	
						3,250	677.4	−6.9		49	1.72	nw.	15.5	3,184	15,640	
11:04	970.6	−0.4	79	nw.	4.9	3,478	658.7	−8.3	0.56	49	1.48	nw.	15.3	3,407		
						3,250	677.9	−7.2		49	1.68	nw.	15.5	3,184	14 520	
						3,000	700.6	−5.9		50	1.90	nw.	15.8	2,939	12,160	
						2,750	723.0	−4.7		50	2.13	nnw.	16.1	2,694	9,800	
						2,500	746.0	−3.4		51	2.35	nnw.	16.4	2,450	7,440	
11:26	970.7	−0.2	81	nw.	4.5	2,454	750.5	−3.2	0.51	51	2.39	nnw.	16.4	2,405	7,000	St. base about 750 m.
						2,250	769.7	−2.2		53	2.79	nnw.	16.1	2,205	6,570	
						2,000	794.1	−0.9		56	3.27	nnw.	15.8	1,960	6,050	
						1,750	819.6	0.4		58	3.75	nnw.	15.4	1,715	5,520	
						1,500	845.5	1.7		61	4.23	nnw.	15.1	1,470	4,600	
11:46	970.8	0.0	81	nnw.	5.4	1,376	858.8	2.3	−0.28	62	4.47	nnw.	14.9	1,349	4,140	
						1,250	872.4	1.9		72	5.05	nnw.	15.0	1,225	3,660	
11:54	970.9	0.1	80	nnw.	7.2	1,090	889.9	1.5	−3.47	85	5.79	nnw.	15.2	1,069	2,730	
						1,000	900.1	−1.6		92	4.89	nnw.	15.9	980	2,070	
11:56	970.9	0.0	81	nnw.	7.2	966	903.8	−2.8	0.22	94	4.55	nnw.	16.2	947	1,820	
P. M.																
12:01	970.9	0.1	81	nnw.	5.4	788	924.2	−2.4	0.71	94	4.70	nnw.	12.6	773	500	
						750	928.5	−2.1		93	4.73	nnw.	12.5	735		
						500	958.8	−0.4		84	4.94	nw.	7.3	490		
12:11	970.8	0.4	80	nw.	5.4	396	970.8	0.4		80	5.03	nw.	5.4	388		10/10 St., nnw.; base about 700 m.

February 7, 1917, series (No. 1).

A. M.																
7:57	970.9	−3.8	94	sw.	4.5	396	970.9	−3.8		94	4.17	sw.	4.5	388		7/10 Ci., wnw.
						500	958.4	−2.8		88	4.26	wsw.	8.2	490	0	
8:01	970.9	−3.3	96	wsw.	1.0	729	931.0	−0.5	−0.99	75	4.40	nw.	16.5	715	0	
						750	928.7	−0.4		72	4.26	nw.	16.5	735	0	
8:10	970.9	−2.6	95	sw.	3.1	918	909.3	0.6	−0.58	48	3.06	nnw.	16.8	900	140	
						1,000	900.3	0.6		46	2.93	nnw.	16.7	980	260	
						1,250	872.7	0.4		49	2.52	nnw.	16.4	1,225	630	
						1,500	845.7	0.3		34	2.12	nw.	16.2	1,470	970	
8:32	970.7	−1.6	90	sw.	6.3	1,746	820.4	0.2	0.05	28	1.74	nw.	15.9	1,711	1,420	
						2,000	795.0	−1.0		25	1.40	nw.	15.9	1,960	1,960	
						2,250	770.2	−2.2		22	1.12	wnw.	16.0	2,205	2,360	
8:59	970.6	−0.7	82	sw.	6.7	2,442	751.9	−3.1	0.47	20	0.94	wnw.	16.0	2,393	2,640	3/10 Ci., wnw.
						2,500	746.2	−3.0		17	0.81	wnw.	15.1	2,450	2,720	
9:22	970.2	0.3	81	sw.	6.3	2,705	727.1	−2.6	−0.19	6	0.30	nw.	12.0	2,650	2,980	
						2,750	723.0	−2.8				nw.	12.2	2,694	3,050	
						3,000	700.2	−4.0				nw.	13.6	2,939	3,400	
						3,250	678.7	−5.2				nw.	14.9	3,184	3,760	
						3,500	657.2	−6.3				wnw.	16.3	3,429	4,110	
						3,750	636.3	−7.5				wnw.	17.6	3,673	4,470	
10:26	969.4	3.0	64	sw.	7.6	3,859	627.1	−8.0	0.40			wnw.	18.2	3,780		6/10 Ci., wnw.; cloud thickening.
						3,750	636.3	−7.6				wnw.	17.7	3,673	4,400	
						3,500	657.1	−6.8				wnw.	16.6	3,429	3,850	
						3,250	678.2	−5.9				wnw.	15.4	3,184	3,300	
						3,000	699.8	−5.1				wnw.	14.3	2,939	2,750	
10:50	969.3	4.1	68	wsw.	7.2	2,824	714.8	−4.5	0.06			wnw.	13.5	2,767	2,480	
						2,750	722.0	−4.5				wnw.	13.9	2,694	2,460	
						2,500	745.3	−4.3				wnw.	15.4	2,450	2,360	
11:10	969.2	5.3	60	wsw.	6.7	2,322	762.2	−4.2	0.61			wnw.	16.4	2,275	2,190	
						2,250	769.3	−3.8				wnw.	16.5	2,205	2,120	
						2,000	794.2	−2.2				wnw.	16.7	1,960	1,870	
						1,750	819.9	−0.7				nw.	17.0	1,715	1,630	
11:21	969.1	5.6	59	w.	7.6	1,633	831.2	0.0	0.31			nw.	17.1	1,470	1,420	
						1,500	845.4	0.4				nw.	16.5	1,601	1,510	
						1,250	872.5	1.2				wnw.	15.5	1,225	1,250	

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 7, 1917, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						1,000	899.9	2.0	.....	.....	.....	wnw.	14.4	980	300	
11:43	969.0	5.2	60	w.	7.2	920	903.1	2.2	−0.31	38	2.72	wnw.	14.1	902	0	Faint solar halo of 22° radius from 11:38 a. m. to 12:10 p. m.
						750	927.7	1.7	.....	51	3.52	w.	12.5	735	0	
11:52	968.9	5.3	59	w.	7.6	597	945.2	1.2	1.99	62	4.13	w.	11.0	585	0	
						500	956.8	3.1	.....	61	4.65	w.	9.8	490	0	
11:55	968.9	5.2	60	w.	8.5	396	968.9	5.2	.....	60	5.31	w.	8.5	388	.....	6/10 Ci., wnw.

February 7, 1917, series (No. 2).

P. M.																
12:43	968.0	6.4	58	wsw.	7.2	396	968.0	6.4	.....	58	5.57	wsw	7.2	388	.....	6/10 Ci., wnw.
						500	956.2	6.1	.....	57	5.37	wsw.	8.2	490	0	
						750	926.8	5.5	.....	56	5.06	w.	10.5	735	570	
1:01	967.6	7.2	57	wsw.	5.8	809	920.0	5.4	0.24	56	5.02	wnw.	11.0	793	700	
						1,000	898.8	5.8	.....	51	4.70	wnw.	10.7	980	1,140	
1:02	967.6	7.2	57	wsw.	5.8	1,094	888.5	6.0	−0.21	48	4.49	wnw.	10.5	1,077	1,350	
						1,250	872.3	5.1	.....	47	4.13	wnw.	11.8	1,225	1,340	
						1,500	845.6	3.6	.....	45	3.56	wnw.	13.9	1,470	1,600	
1:20	967.5	7.8	54	wsw.	7.6	1,709	823.8	2.4	0.59	43	3.12	wnw.	15.6	1,675	1,800	6/10 Ci., wnw.
						1,750	819.7	2.4	.....	41	2.98	wnw.	15.7	1,715	1,900	
1:27	967.4	8.2	54	wsw.	5.8	1,907	803.7	2.2	0.10	34	2.43	wnw.	16.1	1,869	2,280	
						2,000	794.5	1.8	.....	32	2.23	wnw.	16.0	1,960	2,510	
						2,250	770.2	0.6	.....	25	1.60	wnw.	15.9	2,205	3,110	
						2,500	746.6	−0.6	.....	19	1.10	wnw.	15.7	2,450	3,450	
						2,750	723.6	−1.8	.....	12	0.63	wnw.	15.5	2,694	3,770	
1:52	967.3	8.6	54	wsw.	7.6	2,756	722.8	−1.8	0.47	12	0.63	wnw.	15.5	2,700	3,780	4/10 Ci., wnw.; 3/10 Ci. St., wnw.
2:19	967.2	8.9	53	w.	6.3	2,904	709.5	−1.4	−0.27	4	0.22	wnw.	14.8	2,845	3,970	
						3,000	700.6	−2.1	.....	5	0.26	wnw.	14.8	2,939	4,110	
						3,250	679.0	−3.8	.....	9	0.40	wnw.	14.8	3.184	4,480	
						3,500	657.6	−5.5	.....	13	0.50	wnw.	14.9	3,429	4,840	
						3,750	637.0	−7.3	.....	17	0.56	wnw.	14.9	3,673	.....	
2:51	967.2	8.6	50	wnw.	5.4	3,913	623.4	−8.4	0.62	19	0.57	wnw.	14.9	3,833	.....	
						3,750	637.0	−7.5	.....	18	0.58	wnw.	14.9	3,673	.....	
						3,500	657.5	−6.1	.....	17	0.62	wnw.	15.0	3,429	4,790	
						3,250	678.2	−4.7	.....	15	0.62	wnw.	15.1	3,184	4,300	
						3,000	699.8	−3.3	.....	14	0.65	wnw.	15.1	2,939	3,810	
3:11	967.1	8.5	50	wnw.	5.4	2,788	718.4	−2.1	0.02	13	0.67	wnw.	15.2	2,732	3,400	
						2,750	721.9	−2.1	.....	13	0.67	wnw.	15.0	2,694	3,130	
						2,500	745.0	−2.0	.....	13	0.67	wnw.	13.4	2,450	2,800	
3:29	967.1	8.4	51	wnw.	6.3	2,362	757.7	−2.0	0.39	13	0.67	wnw.	13.0	2,315	2,700	2/10 Ci., wnw.; 5/10 Ci. St., wnw.
						2,250	768.8	−1.6	.....	15	0.80	wnw.	13.1	2,205	2,550	
						2,000	793.0	−0.6	.....	20	1.16	wnw.	13.5	1,960	2,200	
						1,750	818.0	0.4	.....	25	1.57	wnw.	13.8	1,715	1,830	
						1,500	844.0	1.3	.....	30	2.01	wnw.	14.1	1,470	1,210	
3:44	967.0	8.2	51	wnw.	5.8	1,384	856.3	1.8	−0.09	32	3.23	wnw.	14.3	1,357	920	
						1,250	870.8	1.7	.....	40	2.76	wnw.	12.9	1,225	920	
3:51	966.9	8.0	52	wnw.	3.6	1,152	881.0	1.6	0.70	45	3.09	wnw.	11.8	1,129	760	
						1,000	898.0	2.7	.....	50	3.71	wnw.	10.5	980	490	
						750	926.5	4.4	.....	57	4.77	wnw.	8.4	735	50	
4:00	966.9	7.6	53	wnw.	4.0	723	929.0	4.6	0.89	58	4.92	wnw.	8.2	709	0	
						500	954.7	6.6	.....	57	5.56	wnw.	5.1	490	0	4/10 Ci., wnw.
4:05	966.9	7.5	56	wnw.	3.6	396	966.9	7.5	.....	56	5.81	wnw.	3.6	388	.....	1/10 Ci. St., wnw.

February 7, 1917, series (No. 3).

P. M.																
4:40	966.9	6.8	58	wnw.	4.0	396	966.9	6.8	.....	58	5.73	wnw.	4.0	388	.....	4/10 Ci., wnw.; 2/10 Ci. St., wnw.
						500	954.8	6.3	.....	59	5.63	wnw.	6.2	490	0	
						750	925.9	5.1	.....	60	5.27	wnw.	11.4	735	0	
4:52	966.9	6.4	59	wnw.	5.8	767	923.9	5.0	0.49	60	5.23	wnw.	11.8	752	0	
						1,000	897.9	3.6	.....	60	4.75	wnw.	13.2	980	490	
						1,250	871.0	2.1	.....	59	4.19	nw.	14.8	1,225	1,010	
5:08	966.9	5.6	64	nw.	2.2	1,282	867.1	1.9	0.60	59	4.14	nw.	15.0	1,257	1,080	3/10 Ci., wnw.; 4/10 Ci. St., wnw.
						1,500	844.3	1.6	.....	54	3.70	nw.	14.7	1,470	1,260	
						1,750	818.4	1.3	.....	48	3.22	wnw.	14.3	1,715	1,480	
5:37	966.9	4.5	66	nw.	3.1	1,922	800.6	1.1	0.12	44	2.91	wnw.	14.0	1,884	1,760	
						2,000	793.3	0.6	.....	44	2.81	wnw.	14.3	1,960	1,910	
						2,250	768.7	− 1.1	.....	43	2.40	wnw.	15.3	2,205	2,340	
						2,500	744.4	− 2.7	.....	43	2.10	nw.	16.3	2,450	2,610	
						2,750	721.2	− 4.3	.....	43	1.83	nw.	17.2	2,694	2,940	
						3,000	698.3	− 6.0	.....	42	1.55	nw.	18.2	2,939	3,120	
6:38	967.1	3.6	70	nw.	5.8	3,077	691.6	− 6.5	0.66	42	1.48	nw.	18.5	3,015	3,200	5/10 Ci. St., wnw.; 3/10 A. St., wnw.
						3,250	676.5	− 7.6	.....	43	1.38	nw.	18.6	3,184	3,790	
						3,500	655.0	− 9.2	.....	44	1.23	nw.	18.7	3,429	4,070	
						3,750	634.4	−10.8	.....	45	1.09	nw.	18.8	3,673	.....	
6:53	967.2	3.5	70	nw.	2.7	3,993	614.3	−12.4	0.60	46	0.96	nw.	18.9	3,911	.....	
						3,750	634.4	−10.9	.....	44	1.05	nw.	18.5	3,673	.....	
						3,500	655.0	− 9.7	.....	42	1.12	nw.	18.0	3,429	3,780	
						3,250	676.5	− 8.3	.....	40	1.21	nw.	17.6	3,184	3,170	
						3,000	698.2	− 6.9	.....	38	1.30	nw.	17.1	2,939	2,560	
7:13	967.2	3.3	70	nnw.	4.0	2,935	703.7	− 6.5	0.45	37	1.31	nw.	17.0	2,875	2,400	5/10 Ci. St., wnw.; 2/10 A. St., wnw.
						2,750	720.7	− 5.7	.....	40	1.51	nw.	15.7	2,694	2,140	
						2,500	743.9	− 4.6	.....	44	1.83	nw.	13.9	2,450	1,780	
7:30	967.2	2.8	72	nw.	4.5	2,376	755.5	− 4.0	0.44	46	2.01	nw.	13.0	2,328	1,600	
						2,250	767.5	− 3.4	.....	47	2.16	nw.	13.0	2,205	1,470	
						2,000	792.2	− 2.3	.....	49	2.47	nw.	12.9	1,960	1,220	
						1,750	817.4	− 1.2	.....	51	2.82	nw.	12.8	1.715	940	
						1,500	843.3	− 0.1	.....	53	3.21	nw.	12.8	1,470	550	
7:53	967.2	2.6	72	nw.	3.1	1,312	863.3	0.7	0.28	55	3.54	nw.	12.7	1,286	260	
						1,250	870.5	0.9	.....	56	3.65	nw.	12.4	1,225	230	
						1,000	897.9	1.6	.....	58	3.98	nw.	10.9	980	90	

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 7, 1917, 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.	Potential. Gravity.	Potential. Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
8:00	967.2	2.2	76	nw.	3.1	956	902.2	1.7	−0.32	58	4.01	nw.	10.7	937	70	
8:05	967.2	2.2	74	nw.	2.7	832	916.2	1.3	0.21	62	4.16	nw.	15.3	816	0	
						750	925.9	1.5		65	4.43	nw.	12.9	735	0	
						500	955.2	2.0		73	5.15	nw.	5.7	490	0	
8:13	967.2	2.2	76	nw.	2.7	396	967.2	2.2		76	5.44	nw.	2.7	388		8/10Ci.St.,wnw.;1/10A.St.,wnw.

February 7-8, 1917, series (No. 4).

P. M.																
8:53	967.2	1.6	78	nw.	2.7	396	967.2	1.6		78	5.35	nw.	2.7	388		8/10Ci.St.,wnw.;1/10A.St.wnw.
						500	955.2	1.7		76	5.25	nw.	5.8	490	0	
						750	925.9	1.9		72	5.05	nw.	13.2	735	0	
8:58	967.2	1.6	78	nw.	3.1	777	922.6	1.9	−0.08	72	5.05	nw.	14.0	762	0	10/10 Ci. St., wnw.
						1,000	897.0	2.3		57	4.11	nnw.	15.3	980	220	
10:01	966.5	1.4	79	nw.	3.1	1,143	881.0	2.6	−0.19	48	3.54	nnw.	16.2	1,121	100	
						1,250	869.6	1.9		48	3.36	nnw.	16.1	1,225	20	Faint 22°-halo which began previous to flight ended 10:28 p. m
						1,500	843.0	0.4		49	3.08	nnw.	15.9	1,470	180	
						1,750	817.0	− 1.1		50	2.78	nnw.	15.7	1,715	340	
						2,000	791.7	− 2.6		51	2.51	nw.	15.5	1,960	970	
						2,250	767.3	− 4.2		52	2.24	nw.	15.3	2,205	1,510	
11:00	967.2	1.0	82	nw.	3.6	2,384	754.5	− 5.0	0.61	52	2.09	nw.	15.2	2,336	1,800	10/10 A. Cu., wnw.
						2,500	743.5	− 6.1		61	2.23	nw.	15.3	2,450	2,030	
						2,750	720.1	− 8.4		82	2.45	nw.	15.6	2,694	2,540	
11:25	967.2	1.1	82	nw.	2.2	2,816	714.1	− 9.0	0.93	87	2.47	nw.	15.7	2,759	2,670	
						3,000	697.3	− 8.9		86	2.46	nw.	21.8	2,939	3,040	
11:28	967.2	1.1	82	nw.	2.2	3,047	693.2	− 8.9	−0.04	85	2.43	nw.	23.4	2,985	3,140	
						3,250	675.3	−10.2		85	2.17	nw.	23.0	3,184	3,550	
						3,500	653.0	−11.8		85	1.88	nw.	22.6	3,429		
11:38	967.2	1.1	82	nw.	3.1	3,508	652.1	−11.8	0.60	85	1.88	nw.	22.6	3,436		
						3,500	653.0	−11.8		85	1.88	nw.	22.6	3,429		
						3,250	674.3	−10.4		89	2.23	nw.	22.2	3,184	3,390	
						3,000	696.2	− 9.0		93	2.64	nw.	21.7	2,939	2,580	
11:58	967.2	1.1	82	nnw.	2.7	2,934	701.9	− 8.6	−0.05	94	2.76	nw.	21.6	2,875	2,360	
						2,750	718.7	− 8.7		94	2.74	wnw.	19.3	2,694	2,040	
A. M.																
12:06	967.2	1.0	83	nnw.	3.6	2,739	719.7	− 8.7	0.67	94	2.74	wnw.	19.2	2,684	2,030	
						2,500	742.2	− 7.1		81	2.71	wnw.	18.2	2,450	1,750	
						2,250	766.3	− 5.4		67	2.60	wnw.	17.2	2,205	1,460	
12:15	967.3	1.0	82	nnw.	3.1	2,231	768.1	− 5.3	0.46	66	2.58	wnw.	17.1	2,186	1,440	
						2,000	790.8	− 4.2		64	2.75	wnw.	15.6	1,960	1,220	
						1,750	816.0	− 3.1		63	2.97	wnw.	14.0	1,715	980	
						1,500	842.3	− 1.9		61	3.18	nw.	12.4	1,470	750	
						1,250	869.5	− 0.8		59	3.37	nw.	10.9	1,225	140	
12:38	967.5	1.1	81	nnw.	4.0	1,177	877.3	− 0.4	0.05	59	3.49	nw.	10.4	1,154	0	
						1,000	897.0	− 0.3		71	4.23	nnw.	11.9	980	0	
12:46	967.5	1.1	81	nnw.	4.0	987	893.6	− 0.3	−0.45	72	4.29	nnw.	12.0	968	0	
12:54	967.6	1.1	82	nnw.	3.1	766	923.9	− 1.3	0.61	90	4.93	n.	16.5	751	0	
						750	925.9	− 1.2		90	4.98	n.	15.7	735	0	
						500	955.2	0.4		84	5.28	nnw.	7.0	490	0	
1:01	967.6	1.0	82	nnw.	3.6	396	967.6	1.0		82	5.39	nnw.	3.6	388		10/10 St. Cu., wnw.

February 8, 1917, series (No. 5).

A. M.																
1:42	967.8	1.0	82	nnw.	4.5	396	967.8	1.0		82	5.39	nnw.	4.5	388		10/10 St. Cu., wnw.
						500	955.5	0.5		85	5.38	nnw.	6.4	490	0	
						750	926.2	−0.8		92	5.25	n.	11.0	735	0	
1:57	967.9	0.7	86	n.	4.0	909	907.9	−1.6	0.51	97	5.19	nne.	13.9	891	480	
						1,000	897.6	−1.4		90	4.90	nne.	14.1	980	830	
2:03	968.0	0.7	88	n.	4.0	1,201	875.3	−0.9	−0.24	74	4.20	nne.	14.4	1,177	1,600	Light snow began 2:13 a. m.
						1,250	870.4	−1.0		75	4.22	nne.	14.4	1,225	1,780	
						1,500	843.0	−1.8		77	4.05	nnw.	14.2	1,470	2,680	10/10 St., n.
2:25	968.4	−0.4	91	nnw.	9.8	1,588	833.8	−2.0	0.28	78	4.03	nnw.	14.1	1,556	3,000	
						1,750	816.9	−3.7		90	4.03	nnw.	14.3	1,715	3,550	
2:34	968.6	−2.1	95	n.	10.7	1,839	807.7	−4.6	1.04	96	3.98	nnw.	14.4	1,802	3,850	
2:51	969.0	−3.7	87	n.	9.8	1,937	797.2	−4.6		94	3.90	nnw.	15.5	1,898		
3:17	969.5	−5.2	82	nne.	8.5	1,785	812.4	−4.6	0.39	92	3.82	n.	17.4	1,749	3,920	
						1,750	816.3	−4.5		92	3.85	n.	17.0	1,715	3,700	
3:24	969.6	−5.6	81	nne.	10.7	1,556	836.2	−3.7	−0.42	94	4.21	nne.	14.7	1,525	2,540	
						1,500	842.3	−3.9		94	4.15	nne.	15.1	1,470	2,200	
3:30	969.8	−5.8	81	nne.	12.1	1,341	859.3	−4.6	0.21	94	3.90	nne.	16.3	1,315	1,260	
						1,250	869.7	−4.4		93	3.92	nne.	14.0	1,225	710	
3:42	970.0	−5.8	84	nne.	8.0	1,198	875.3	−4.3	−1.18	92	3.92	nne.	12.7	1,174	400	
						1,000	897.6	−6.6		91	3.18	nne.	14.5	980	0	
						750	926.9	−9.6		90	2.42	nne.	16.7	735	0	
4:02	970.3	−6.7	79	nne.	9.4	739	928.3	−9.7	0.79	90	2.40	nne.	16.8	725	0	
						500	957.5	−7.8		82	2.58	nne.	13.2	490	0	
4:14	970.6	−7.0	78	nne.	11.6	396	970.6	−7.0		78	2.64	nne.	11.6	388		10/10 St., nne.

February 8, 1917, series (No. 6).

A. M.																
5:13	971.9	− 8.7	81	nne.	6.7	396	971.9	− 8.7		81	2.36	nne.	6.7	388		10/10 St. Cu., nw.
						500	959.2	− 9.6		84	2.26	nne.	8.4	490	0	Light snow 5:18 to 7:10 a. m.
						750	928.9	−11.9		92	2.01	n.	12.5	735	0	
5:30	972.3	− 8.8	81	n.	8.9	912	909.1	−13.4	0.91	97	1.85	n.	15.2	894	410	
						1,000	899.0	−12.6		91	1.87	n.	17.4	980	740	
5:36	972.4	− 9.0	82	n.	8.0	1,170	878.9	−11.1	−0.89	78	1.83	n.	21.6	1,147	1,390	
						1,250	870.0	−10.9		83	1.98	n.	22.5	1,225	1,720	5/10 A. Cu., nw.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 8, 1917, series (No. 6)—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
5:55	972.9	−10.0	87	n.	6.7	1,381	855.4	−10.7	−0.19	90	2.20	nnw.	24.0	1,354	2,400	2/10 A. Cu., nw.
						1,500	842.6	−10.1		89	2.29	nnw.	24.7	1,470	3,430	
						1,750	815.9	− 8.8		85	2.46	nnw.	26.2	1,715	5,180	
6:04	973.1	−10.4	86	n.	7.6	1,784	812.1	− 8.6	−0.52	85	2.50	nnw.	26.4	1,749	5,170	
6:25	973.5	−10.6	85	n.	6.7	1,955	794.6	− 9.8	0.29	90	2.38	nnw.	26.7	1,916	5,110	1/10 A. Cu., nw.
						2,000	790.1	−10.0		83	2.16	nnw.	26.5	1,960	5,090	Few A. Cu., nw.
						2,250	764.9	−11.0		44	1.04	nw.	25.1	2,205	5,000	
7:31	974.3	−12.9	73	n.	6.7	2,486	740.8	−11.9	−0.48	7	0.15	nw.	23.9	2,436		
7:48	974.3	−13.3	82	n.	6.3	2,376	751.0	−12.5	0.41	5	0.10	nw.	23.0	2,328	6,170	
						2,250	763.9	−12.0		7	0.15	nw.	23.0	2,205	5,910	
8:04	974.3	−13.2	79	n.	6.3	2,034	785.3	−11.1		10	0.24	nw.	22.9	1,993	5,460	
						2,000	789.2	−11.1		10	0.24	nw.	22.8	1,960	5,390	
8:16	974.4	−13.5	83	n.	7.2	1,777	812.1	−11.0	−0.66	13	0.31	nnw.	22.5	1,742	4,690	
						1,750	815.2	−11.2		13	0.30	nnw.	22.2	1,715	4,590	Few A. Cu., nw.
						1,500	841.9	−12.8		17	0.34	nnw.	19.7	1,470	3,600	
						1,250	869.9	−14.5		20	0.35	n.	17.1	1,225	2,330	
8:34	974.5	−13.8	73	n.	6.3	1,184	877.7	−14.9	−0.69	21	0.35	n.	16.4	1,161	2,000	
						1,000	899.0	−16.2		26	0.38	n.	13.7	980	1,030	
8:43	974.6	−14.2	78	n.	6.7	805	923.1	−17.5	0.81	31	0.40	n.	10.8	789	0	
						750	929.9	−17.1		37	0.50	n.	10.4	735	0	
						500	962.0	−15.0		66	1.09	n.	8.7	490	0	
8:53	974.7	−14.2	78	n.	8.0	396	974.7	−14.2		78	1.39	n.	8.0	388		

February 8, 1917, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.																
9:36	975.1	−14.0	64	n.	5.4	396	975.1	−14.0		64	1.16	n.	5.4	388		Cloudless.
						500	962.0	−15.0		68	1.12	n.	6.5	490	90	
						750	930.5	−17.4		79	1.04	n.	9.2	735	310	
9:46	975.2	−13.7	65	n.	5.8	773	927.6	−17.6	0.95	80	1.03	n.	9.4	758	330	
9:50	975.2	−13.8	65	n.	6.7	1,002	899.7	−17.5	−0.04	76	0.99	n.	15.7	982	1,840	
						1,250	870.8	−14.9				n.	17.6	1,225	3,390	
						1,500	842.5	−12.4				nnw.	19.4	1,470	4,820	
10:11	975.3	−13.6	58	n.	6.7	1,564	835.5	−11.7	−1.03			nnw.	19.9	1,533	5,200	
						1,750	815.5	−11.9				nnw.	21.1	1,715	6,400	
						2,000	789.2	−12.2				nnw.	22.8	1,960	8,000	
						2,250	764.0	−12.6				nnw.	24.4	2,205	9,570	Cloudless.
10:37	975.3	−13.2	62	n.	5.8	2,371	751.8	−12.7	0.12			nnw.	25.2	2,323	10,200	
						2,500	739.3	−13.2				nnw.	27.7	2,450	13,540	
						2,750	715.3	−14.0				nnw.	32.7	2,694	15,700	
11:22	975.2	−12.6	56	n.	6.3	2,823	708.1	−14.3	0.26			nnw.	34.1	2,766	16,000	
						2,750	715.3	−14.2				nnw.	32.5	2,694	15,280	
						2,500	739.3	−13.8				nnw.	27.0	2,450	11,780	
P. M.																
12:06	975.0	−11.7	58	n.	4.5	2,285	759.7	−13.4	0.13			nnw.	22.2	2,239	8,780	Few A. St., nnw.
						2,250	763.4	−13.4				nnw.	22.0	2,205	8,290	
						2,000	788.5	−13.0				nnw.	20.5	1,960	6,610	
						1,750	814.9	−12.7				nnw.	19.0	1,715	5,100	
12:26	974.9	−11.5	48	nnw.	7.2	1,646	825.9	−12.6	−1.22			nnw.	18.4	1,613	4,470	
						1,500	842.1	−14.1				nnw.	15.9	1,470	3,880	
						1,250	870.4	−16.7				nnw.	11.8	1,225	2,980	
12:42	974.8	−11.4	50	nnw.	5.8	1,116	885.9	−18.1	0.46	24	0.30	nnw.	9.5	1,094	2,500	1/10 Ci., nnw.; 1/10 A. St. nnw.
						1,000	900.0	−17.4		28	0.39	nnw.	9.4	980	1,770	
						750	930.5	−16.1		36	0.54	nnw.	9.0	735	190	
12:50	974.8	−11.4	55	n.	5.8	720	934.0	−15.9	1.23	37	0.56	nnw.	9.0	706	0	
						500	962.0	−13.2		50	0.98	n.	7.2	490	0	
12:59	974.7	−11.9	56	n.	6.3	396	974.7	−11.9		56	1.23	n.	6.3	388		

February 8, 1917, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.																
1:40	974.2	−11.5	63	nnw.	3.6	396	974.2	−11.5		63	1.49	nnw.	3.6	388		9/10 A. St., nnw. 22°-halo.
						500	961.2	−12.4		64	1.34	nnw.	5.0	490	0	
						750	930.0	−14.6		66	1.13	nnw.	8.2	735	480	
						1,000	899.4	−16.8		68	0.95	nnw.	11.5	980	2,490	
2:02	974.0	−11.3	49	nnw.	4.9	1,056	892.9	−17.3	0.88	68	0.90	nnw.	12.2	1,035	2,940	
						1,250	870.2	−16.2		58	0.86	nnw.	14.7	1,225	4,150	
						1,500	841.4	−14.7		45	0.76	nw.	18.0	1,470	5,170	
2:19	973.7	−11.2	52	n.	5.4	1,635	826.6	−13.9	−0.59	38	0.70	nw.	19.8	1,603	5,720	
						1,750	814.0	−14.2		37	0.66	nw.	20.3	1,715	6,200	
						2,000	787.4	−14.8		36	0.60	nw.	21.5	1,960	7,260	Halo ended 2:30 p. m.
2:37	973.4	−11.0	57	n.	4.0	2,174	769.5	−15.2	0.24	35	0.57	nw.	22.3	2,131	8,000	
						2,250	761.7	−15.3				nw.	22.3	2,205	8,700	
						2,500	737.0	−15.6				nw.	22.4	2,450	11,020	9/10 A. St., nnw.
2:57	973.0	−10.9	54	n.	5.4	2,713	716.5	−15.8	0.12			nw.	22.5	2,658	13,000	
						2,500	737.0	−15.5				nw.	22.6	2,450	10,860	
						2,250	761.3	−15.2				nw.	22.8	2,205	8,350	
3:36	972.6	−10.8	58	nnw.	4.0	2,215	764.9	−15.2	0.36			nw.	22.8	2,171	8,000	
						2,000	787.0	−14.4				nw.	22.4	1,960	6,700	
3:54	972.4	−11.2	56	nnw.	4.5	1,769	811.2	−13.6	−0.85			nnw.	22.0	1,734	5,300	
						1,750	813.3	−13.8				nnw.	21.7	1,715	5,210	
						1,500	840.2	−15.9				nnw.	17.5	1,470	4,040	
4:04	972.3	−11.3	59	nnw.	4.5	1,441	847.1	−16.4	0.36			nnw.	16.5	1,413	3,760	
						1,250	868.6	−15.7				nnw.	13.9	1,225	2,900	
4:15	972.4	−11.4	62	nnw.	4.0	1,075	889.1	−15.1	−0.37	26	0.42	nnw.	11.5	1,054	2,300	
						1,000	898.0	−15.4		29	0.46	nnw.	11.5	980	2,050	
4:17	972.4	−11.4	63	nnw.	4.0	885	911.8	−15.8	0.94	33	0.50	nnw.	11.5	868	1,660	
						750	928.7	−14.5		40	0.69	nnw.	9.7	735	1,200	
						500	959.8	−12.2		54	1.15	nnw.	6.3	490	350	
4:25	972.4	−11.2	60	nnw.	4.9	396	972.4	−11.2		60	1.40	nnw.	4.9	388		4/10 A. St., nw.; 5/10 A. Cu., nw

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 9, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
8:39	975.5	−17.6	94	wnw.	3.6	396	975.5	−17.6	.....	94	1.21	wnw.	3.6	388	.....	8/10 A. Cu., nnw.
						500	962.2	−17.8	.....	95	1.21	wnw.	4.6	490	0	
8:56	975.9	−17.4	94	wnw.	3.1	646	943.8	−18.2	0.24	97	1.18	nw.	5.9	633	0	
						750	931.2	−17.1	.....	85	1.15	nw.	6.5	735	730	
						1,000	901.0	−14.4	.....	55	0.96	nnw.	7.9	980	2,490	
10:22	976.1	−14.4	75	wnw.	4.5	1,217	875.5	−12.1	−1.20	29	0.62	nnw.	9.2	1,193	.....	7/10 A. Cu., nw.
						1,000	900.3	−15.0	.....	42	0.69	nw.	7.6	980	3,940	
11:23	975.3	−12.8	67	wnw.	3.1	788	925.9	−17.8	1.38	54	0.69	nw.	6.0	773	3,210	3/10 A. Cu., nw.
						750	930.4	−17.3	.....	55	0.73	nw.	5.7	735	3,060	
						500	961.8	−13.8	.....	62	1.14	wnw.	3.9	490	1,240	
11:41	975.0	−12.4	65	wnw.	3.1	396	975.0	−12.4	.....	65	1.36	wnw.	3.1	388	.....	

February 10, 1917.

A. M.																
8:01	977.0	−14.0	91	nnw.	2.2	396	977.0	−14.0	.....	91	1.65	nnw.	2.2	388	.....	2 Ci. St., nw.
						500	963.0	−14.6	.....	92	1.57	nnw.	3.7	490	400	
8:06	977.1	−13.9	95	nnw.	2.2	699	938.7	−15.7	0.56	94	1.46	n.	6.6	685	1,170	
						750	931.3	−15.6	.....	93	1.45	n.	7.0	735	1,370	
						1,000	902.0	−14.9	.....	88	1.47	nnw.	8.8	980	3,820	
8:25	977.4	−13.7	92	nnw.	1.3	1,100	890.6	−14.7	−0.25	86	1.46	nnw.	9.5	1,078	4,470	
						1,250	873.6	−14.0	.....	85	1.54	nnw.	12.1	1,225	5,440	
						1,500	845.5	−12.8	.....	84	1.70	nnw.	16.4	1,470	7,070	
						1,750	818.4	−11.6	.....	82	1.84	nnw.	20.8	1,715	8,520	
8:43	977.7	−13.4	87	nnw.	1.3	1,954	796.6	−10.6	−0.48	81	1.99	nnw.	24.3	1,915	9,630	2 Ci., nw.
						2,000	791.4	−10.6	.....	.....	.....	nnw.	24.0	1,960	9,880	
						2,250	766.3	−10.4	.....	.....	.....	nnw.	22.2	2,205	15,080	
9:02	978.0	−13.2	84	nnw.	1.3	2,295	762.1	−10.4	−0.06	.....	.....	nnw.	21.9	2,249	15,530	
						2,500	742.0	−11.2	.....	.....	.....	nnw.	22.8	2,450	17,570	
						2,750	718.9	−12.1	.....	.....	.....	nw.	24.0	2,694	19,310	
						3,000	695.4	−13.0	.....	.....	.....	nw.	25.1	2,939	20,900	
9:40	978.3	−12.9	77	nnw.	1.3	3,110	685.4	−13.4	0.36	.....	.....	nw.	25.6	3,407	.....	
						3,000	695.4	−13.0	.....	.....	.....	nw.	25.3	2,939	20,800	
						2,750	719.0	−12.1	.....	.....	.....	nw.	24.5	2,694	17,680	
						2,500	742.3	−11.2	.....	.....	.....	nnw.	23.7	2,450	14,530	
10:16	978.6	−12.5	73	nnw.	1.8	2,322	759.9	−10.6	0.05	.....	.....	nnw.	23.2	2,375	12,170	
						2,250	767.1	−10.6	.....	.....	.....	nnw.	22.8	2,205	11,110	
						2,000	792.6	−10.4	.....	.....	.....	nnw.	21.3	1,960	8,450	
10:41	978.9	−11.4	61	nnw.	2.2	1,953	797.7	−10.4	−0.31	10	0.25	nnw.	21.0	1,914	8,160	
						1,750	819.2	−11.0	.....	31	0.73	nnw.	19.2	1,715	6,890	
						1,500	846.2	−11.8	.....	57	1.26	nnw.	16.9	1,470	5,300	
11:01	979.1	−11.2	64	nnw.	1.8	1,469	849.9	−11.9	−1.02	60	1.31	nnw.	16.6	1,440	5,100	
						1,250	874.3	−14.1	.....	54	0.97	nnw.	14.5	1,225	3,640	
						1,000	903.1	−16.7	.....	48	0.68	nnw.	12.1	980	2,410	
11:16	979.1	−11.2	61	nnw.	1.3	967	906.9	−17.0	0.53	47	0.64	nnw.	11.8	948	2,250	
11:24	979.1	−11.0	64	nnw.	1.3	779	931.0	−16.0	1.36	65	0.98	nnw.	11.3	764	1,350	
						750	934.6	−15.6	.....	64	1.00	nnw.	10.6	735	1,250	
						500	966.2	−12.2	.....	60	1.28	nnw.	4.4	490	370	
11:36	979.1	−10.8	58	nnw.	1.8	396	979.1	−10.8	.....	58	1.40	nnw.	1.8	388	.....	Few Ci., nw.

February 11, 1917.

A. M.																
7:31	988.7	−18.8	94	nnw.	3.1	396	988.7	−18.8	.....	94	1.08	nnw.	3.1	388	.....	1/10 Ci. near horizon.
						500	975.2	−19.1	.....	94	1.05	nnw.	5.3	490	0	
						750	943.0	−19.9	.....	94	0.98	n.	10.6	735	0	
7:41	988.8	−18.8	94	n.	3.1	792	937.4	−20.0	0.30	94	0.97	n.	11.5	777	0	
						1,000	911.9	−17.5	.....	79	1.03	n.	12.3	980	1,910	
8:01	988.9	−18.5	88	n.	3.6	1,228	884.7	−14.8	−1.19	63	1.06	nnw.	13.1	1,204	4,000	
						1,250	882.0	−14.7	.....	62	1.05	nnw.	13.4	1,225	4,220	
						1,500	853.6	−13.6	.....	52	0.98	nnw.	16.5	1,470	6,650	
						1,750	826.2	−12.5	.....	43	0.89	nnw.	19.7	1,715	8,660	
						2,000	799.9	−11.3	.....	33	0.76	nnw.	22.8	1,960	10,290	
8:38	989.1	−18.0	81	n.	4.9	2,073	792.1	−11.0	−0.45	30	0.71	nnw.	23.7	2,032	11,660	
						2,250	774.0	−11.2	.....	.....	.....	nnw.	21.4	2,205	13,570	
9:06	989.2	−17.4	83	n.	3.1	2,298	769.3	−11.2	0.09	.....	.....	nnw.	20.8	2,252	16,500	
						2,500	749.3	−12.0	.....	.....	.....	nnw.	21.7	2,450	18,260	
						2,750	725.6	−13.0	.....	.....	.....	nnw.	22.8	2,694	20,430	Few Ci. near horizon.
						3,000	702.7	−14.1	.....	.....	.....	nw.	24.0	2,939	22,310	
						3,250	680.1	−15.1	.....	.....	.....	nw.	25.1	3,184	24,080	
10:04	989.6	−16.4	69	n.	4.5	3,380	668.0	−15.6	0.42	.....	.....	nw.	25.7	3,311	25,000	
						3,250	680.1	−15.0	.....	.....	.....	nw.	25.1	3,184	23,580	
						3,000	702.8	−14.0	.....	.....	.....	nw.	24.0	2,939	20,860	
						2,750	726.2	−12.9	.....	.....	.....	nnw.	22.9	2,694	18,150	
						2,500	750.1	−11.8	.....	.....	.....	nnw.	21.8	2,450	15,500	
10:49	990.1	−15.2	72	n.	3.6	2,309	769.3	−11.0	−0.20	29	0.69	nnw.	20.9	2,263	13,500	
						2,250	775.1	−11.1	.....	28	0.66	nnw.	20.1	2,205	12,500	
						2,000	801.2	−11.6	.....	21	0.47	nnw.	16.8	1,960	8,340	
11:10	990.2	−14.8	67	n.	3.6	1,957	805.8	−11.7	−0.25	20	0.45	nnw.	16.2	1,918	7,780	
						1,750	828.0	−12.1	.....	20	0.47	nnw.	13.3	1,715	5,100	
						1,500	855.6	−12.7	.....	24	0.49	n.	9.8	1,470	4,030	
11:25	990.2	−14.7	72	nne.	3.1	1,265	882.2	−13.2	−1.32	26	0.51	n.	6.5	1,240	3,310	
						1,250	884.0	−13.5	.....	26	0.49	n.	6.5	1,225	3,270	
						1,000	913.4	−17.7	.....	31	0.40	n.	7.3	980	2,410	
11:33	990.2	−14.6	70	nne.	2.7	920	923.5	−19.0	0.95	32	0.36	n.	7.6	902	2,090	
						750	945.0	−17.4	.....	42	0.55	nne.	6.1	735	1,410	
						500	977.3	−15.0	.....	58	0.96	ne.	4.0	490	420	
11:50	990.2	−14.0	64	ne.	3.1	396	990.2	−14.0	.....	64	1.16	ne.	3.1	388	.....	Few Ci. near horizon.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 12, 1917.

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.	Potential. Gravity.	Potential. Electric.		
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*		
7:51	982.4	−10.8	61	s.	8.0	396	982.4	−10.8	.....	61	1.48	s.	8.0	388	.....		4/10 C.St., wnw.; 3/10 A.Cu., wnw.
						500	969.3	−11.0	.....	56	1.33	s.	16.2	490	590		
7:54	982.5	−10.8	61	s.	8.0	568	960.8	−11.2	0.23	52	1.21	s.	21.6	557	970		
						750	938.2	− 9.9	.....	46	1.21	s.	21.1	735	2,000		
8:02	982.5	−10.8	58	s.	8.0	785	933.9	− 9.6	−0.74	45	1.21	s.	21.0	770	2,200		
						1,000	908.0	− 7.8	.....	35	1.10	ssw.	19.8	980	4,150		
8:16	982.3	−10.6	69	s.	8.0	1,137	892.3	− 6.6	−0.85	29	1.02	ssw.	19.0	1,115	5,400		
						1,250	879.7	− 5.9	.....	30	1.11	ssw.	19.0	1,225	6,420		
						1,500	852.3	− 4.4	.....	32	1.35	sw.	18.9	1,470	8,670		7/10 Ci., wnw.
8:24	982.2	−10.4	58	s.	8.5	1,515	850.6	− 4.3	−0.61	32	1.36	sw.	18.9	1,485	8,800		
						1,750	825.5	− 4.2	.....	45	1.94	sw.	14.9	1,715	10,460		
						2,000	799.9	− 4.1	.....	59	2.55	wsw.	10.6	1,960	(*)		
9:10	981.7	−9.0	48	s.	8.9	2,065	793.0	− 4.1	−0.04	63	2.73	wsw.	9.5	2,024	(*)		
						2,250	774.2	− 4.6	.....	64	2.66	wsw.	11.2	2,205	(*)		
						2,500	750.0	− 5.3	.....	65	2.54	wsw.	13.5	2,450	(*)		
						2,750	726.6	− 5.9	.....	66	2.45	w.	15.7	2,694	(*)		3/10 Ci., wnw.
						3,000	704.0	− 6.6	.....	68	2.38	w.	18.0	2,939	(*)		
9:30	981.4	− 8.5	51	s.	10.7	3,251	681.5	− 7.3	0.27	69	2.27	w.	20.3	3,185	(*)		
						3,500	660.4	− 8.3	.....	63	1.90	w.	20.6	3,429	(*)		4/10 Ci., wnw.
						3,750	639.7	− 9.2	.....	57	1.59	w.	20.8	3,673	(*)		
10:13	980.9	− 6.9	45	s.	11.2	3,932	624.4	− 9.9	0.36	52	1.36	w.	21.0	3,851	(*)		
						3,750	639.7	− 9.3	.....	54	1.49	w.	20.9	3,673	(*)		
						3,500	660.6	− 8.5	.....	57	1.69	w.	20.8	3,429	(*)		
10:46	980.6	− 5.6	39	s.	8.5	3,295	678.2	− 7.8	0.60	59	1.86	w.	20.7	3,228	(*)		2/10 Ci., wnw.; 4/10 Ci. St., wnw.
						3,250	682.0	− 7.5	.....	58	1.87	w.	20.6	3,184	(*)		
						3,000	704.2	− 6.0	.....	51	1.88	w.	20.0	2,939	(*)		
						2,750	727.1	− 4.6	.....	45	1.87	wsw.	19.4	2,694	(*)		
						2,500	750.7	− 3.1	.....	38	1.79	wsw.	18.8	2,450	(*)		
11:24	980.1	− 4.5	40	s.	11.6	2,422	757.7	− 2.6	0.24	36	1.77	wsw.	18.6	2,373	(*)		
						2,250	775.1	− 2.2	.....	40	2.04	wsw.	19.3	2,205	(*)		
						2,000	799.9	− 1.6	.....	46	2.46	sw.	20.3	1,960	(*)		7/10 Ci. St., wnw.
11:43	979.9	− 4.2	44	s.	10.3	1,763	823.2	− 1.0	−0.59	51	2.87	sw.	21.3	1,728	9,720		
						1,750	825.2	− 1.8	.....	47	2.47	sw.	23.0	1,715	9,660		
						1,500	850.7	− 2.6	.....	43	2.12	sw.	24.8	1,470	8,210		
						1,250	877.9	− 4.0	.....	35	1.53	sw.	28.1	1,225	6,140		
P. M.																	
12:10	979.3	− 3.8	30	ssw.	12.1	1,173	886.1	− 4.5	−4.50	33	1.38	sw.	29.1	1,150	5,500		
12:14	979.2	− 3.6	32	ssw.	12.5	1,064	898.6	− 9.4	0.30	34	0.93	ssw.	21.4	1,043	4,210		
						1,000	906.0	− 9.2	.....	35	0.98	ssw.	19.4	980	3,450		
12:24	978.8	− 3.4	37	s.	11.6	827	926.3	− 8.7	1.37	39	1.13	s.	14.0	811	1,390		
						750	935.7	− 7.6	.....	37	1.19	s.	13.2	735	1,140		
						500	966.2	− 4.2	.....	30	1.29	s.	10.5	490	340		
12:33	978.4	− 2.8	27	s.	9.4	396	978.4	− 2.8	.....	27	1.31	s.	9.4	388	.....		

February 13, 1917.

A. M.																
8:00	973.0	−6.2	74	n.	3.6	396	973.0	− 6.2	.....	74	2.68	n.	3.6	388	.....	7/10 Ci., w.; 1/10 Ci. St., w.; 1/10 St. n.
						500	960.3	− 5.9	.....	75	2.78	n.	12.2	490	1,100	
8:01	973.0	−6.2	74	n.	3.6	532	956.2	− 5.8	−0.30	75	2.81	n.	14.9	522	1,440	
8:06	973.1	−6.1	74	n.	3.6	715	934.4	− 2.9	−1.58	59	2.83	n.	10.6	701	3,640	
						750	930.2	− 2.8	.....	60	2.90	n.	10.6	735	4,400	St. base at about 1,250.
						1,000	901.5	− 2.4	.....	64	3.20	n.	10.4	980	6,060	
						1,250	873.7	− 1.9	.....	69	3.60	n.	10.2	1,225	8,490	
						1,500	847.0	− 1.4	.....	74	4.03	n.	10.0	1,470	9,090	6/10 Ci. St., w.; 3/10 St., n.
9:10	974.0	−4.8	74	n.	5.8	1,579	839.0	− 1.3	−0.19	75	4.11	n.	9.9	1,548	9,520	3/10 Ci. St., w.; 6/10 St., n.
						1,750	821.4	− 1.8	.....	74	3.89	n.	10.1	1,715	10,260	
						2,000	795.8	− 2.5	.....	72	3.57	n.	10.3	1,960	11,340	St. base at about 1,150 m.
						2,250	771.2	− 3.2	.....	71	3.32	nnw.	10.6	2,205	13,550	Light snow began 10:08 a. m.
10:10	974.5	−3.2	72	n.	7.2	2,497	747.8	− 3.9	0.28	69	3.04	nnw.	10.8	2,447	13,570	1/10 Ci. St., w.; 9/10 St., n.
						2,750	724.3	− 5.2	.....	67	2.64	nnw.	12.7	2,694	14,880	
						3,000	701.2	− 6.5	.....	64	2.26	nnw.	14.6	2,939	16,500	
						3,250	679.3	− 7.8	.....	62	1.95	nnw.	16.6	3,184	.....	
						3,500	658.0	− 9.1	.....	59	1.66	nnw.	18.4	3,429	.....	
						3,750	636.9	−10.4	.....	57	1.43	nnw.	20.4	3,673	.....	
10:29	974.8	−2.8	74	n.	5.8	3,859	627.5	−11.0	0.48	56	1.33	nnw.	21.2	3,780	.....	1/10 Ci. St., w.; 9/10 St., n.
						3,750	636.9	−10.5	.....	56	1.39	nnw.	20.3	3,673	.....	St. base at about 1,100 m.
						3,500	658.0	− 9.4	.....	57	1.56	nnw.	18.3	3,429	.....	
						3,250	679.3	− 8.3	.....	57	1.72	nnw.	16.3	3,184	.....	
						3,000	701.2	− 7.2	.....	58	1.93	nnw.	14.2	2,939	14,880	
						2,750	724.5	− 6.0	.....	59	2.17	nnw.	12.2	2,694	13,030	
11:01	975.3	−2.3	70	n.	5.4	2,563	741.1	− 5.2	0.25	59	2.32	nnw.	10.7	2,511	11,650	
						2,500	747.3	− 5.0	.....	60	2.41	nnw.	10.7	2,450	11,190	
						2,250	771.6	− 4.4	.....	66	2.79	nnw.	10.8	2,205	9,380	
						2,000	796.5	− 3.8	.....	71	3.15	nnw.	10.8	1,960	7,580	
						1,750	822.3	− 3.2	.....	76	3.56	nnw.	10.9	1,715	5,810	
11:26	975.5	−2.5	72	n.	7.2	1,530	845.0	− 2.6	−0.16	81	3.99	nnw.	10.9	1,500	4,300	
						1,500	848.3	− 2.6	.....	81	3.99	nnw.	11.0	1,470	4,180	
						1,250	875.6	− 3.0	.....	85	4.04	nnw.	11.6	1,225	3,110	St. base at about 1,150 m.
						1,000	903.9	− 3.4	.....	89	4.09	n.	12.2	980	1,290	
11:44	975.6	−1.9	71	n.	5.4	952	909.1	− 3.5	− 2.08	90	4.10	n.	12.3	933	940	
11:47	975.6	−1.9	71	n.	5.4	822	924.3	− 6.2	0.99	88	3.19	n.	13.0	806	0	
						750	933.3	− 5.5	.....	84	3.23	n.	11.9	735	0	
						500	963.3	− 3.0	.....	72	3.42	n.	8.2	490	0	Light snow ended 11:55 a. m.
11:57	975.7	−2.0	67	n.	6.7	396	975.7	− 2.0	.....	67	3.46	n.	6.7	388	.....	10/10 St., n.

* Over 11,500 volts.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 14, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
10:44	973.9	−1.8	75	w.	4.5	396	973.9	−1.8	.....	75	3.94	w.	4.5	388	.....	Few Ci.St., w.
.....	.....	.....	.....	.....	.....	500	961.2	−1.7	.....	71	3.76	w.	6.2	490	130	
.....	.....	.....	.....	.....	.....	750	931.3	−1.5	.....	60	3.23	wnw.	10.4	735	440	
10:55	973.4	−1.2	72	w.	4.5	811	923.9	−1.4	0.10	58	3.16	wnw.	11.4	795	520	
.....	.....	.....	.....	.....	.....	1,000	902.0	−1.6	.....	58	3.10	nw.	10.5	980	930	
11:15	973.1	+0.2	65	w.	4.5	1,088	892.3	−1.7	−0.11	58	3.07	nw.	10.1	1,067	1,130	
.....	.....	.....	.....	.....	.....	1,250	874.2	−2.0	.....	53	2.74	nw.	10.3	1,225	1,590	
.....	.....	.....	.....	.....	.....	1,500	846.5	−2.5	.....	45	2.23	nw.	10.6	1,470	2,400	
.....	.....	.....	.....	.....	.....	1,750	820.4	−3.0	.....	37	1.76.	nw.	11.0	1,715	3,240	
.....	.....	.....	.....	.....	.....	2,000	795.1	−3.4	.....	30	1.38	nw.	11.3	1,960	4,150	3/10 Ci., wsw.
11:57	972.6	2.0	55	wnw.	4.9	2,243	771.2	−3.9	0.19	22	0.97	nw.	11.6	2,198	4,300	
.....	.....	.....	.....	.....	.....	2,250	770.4	−3.9	.....	22	0.97	nw.	11.6	2,205	4,310	
.....	.....	.....	.....	.....	.....	2,500	746.3	−4.4	.....	17	0.72	nw.	12.6	2,450	4,810	
.....	.....	.....	.....	.....	.....	2,750	722.7	−4.9	.....	12	0.49	wnw.	13.5	2,694	5,300	1/10 Ci., wsw.
P. M.																
12:50	971.8	3.7	46	wnw.	5.8	2,885	710.3	−5.2	0.20	9	0.35	wnw.	14.0	2,827	5,650	
.....	.....	.....	.....	.....	.....	3,000	700.2	−5.7	.....	11	0.42	wnw.	14.2	2,939	5,990	
.....	.....	.....	.....	.....	.....	3,250	678.0	−6.9	.....	15	0.51	wnw.	14.6	3,184	6,730	
.....	.....	.....	.....	.....	.....	3,500	656.3	−8.1	.....	20	0.61	wnw.	15.0	3,429	7,480	
1:13	971.5	4.4	44	w.	5.4	3,508	655.8	−8.1	0.47	30	0.61	wnw.	15.0	3,436	7,500	
.....	.....	.....	.....	.....	.....	3,750	635.4	−9.8	.....	19	0.50	wnw.	15.4	3,673	7,900	
.....	.....	.....	.....	.....	.....	4,000	615.0	−11.5	.....	19	0.43	wnw.	15.8	3,918	.....	
.....	.....	.....	.....	.....	.....	4,250	595.1	−13.2	.....	18	0.35	wnw.	16.1	4,162	.....	
2:32	971.1	4.8	45	w.	4.0	4,284	592.0	−13.4	0.62	18	0.34	wnw.	16.2	4,196	.....	Few Ci., wsw.
.....	.....	.....	.....	.....	.....	4,250	595.1	−13.2	.....	18	0.35	wnw.	16.2	4,162	.....	
.....	.....	.....	.....	.....	.....	4,000	614.8	−11.8	.....	17	0.39	wnw.	15.8	3,918	.....	
.....	.....	.....	.....	.....	.....	3,750	634.4	−10.5	.....	15	0.37	wnw.	15.5	3,673	7,710	
.....	.....	.....	.....	.....	.....	3,500	654.8	−9.1	.....	14	0.40	wnw.	15.2	3,429	6,280	
2:50	971.0	5.1	43	wnw.	3.6	3,485	655.8	−9.0	0.37	14	0.40	wnw.	15.2	3,414	6,270	
.....	.....	.....	.....	.....	.....	3,250	676.0	−8.1	.....	13	0.40	nw.	15.0	3,184	5,580	
2:58	970.9	5.3	44	wnw.	5.4	3,048	693.8	−7.4	.....	12	0.39	nw.	14.8	2,986	5,010	Few Ci., wsw.; few Cu., nw.
.....	.....	.....	.....	.....	.....	3,000	698.0	−7.4	.....	12	0.39	nw.	14.6	2,939	4,880	
.....	.....	.....	.....	.....	.....	2,750	721.0	−7.4	.....	13	0.42	nw.	13.7	2,694	4,180	
.....	.....	.....	.....	.....	.....	2,500	744.7	−7.4	.....	14	0.46	nw.	12.9	2,450	3,480	
3:12	970.8	5.3	44	wnw.	4.5	2,341	759.8	−7.4	0.47	14	0.46	nw.	12.3	2,294	3,140	
.....	.....	.....	.....	.....	.....	2,250	768.9	−7.0	.....	16	0.54	nw.	11.9	2,205	3,000	
.....	.....	.....	.....	.....	.....	2,000	793.8	−5.8	.....	22	0.83	nw.	10.7	1,960	2,590	
.....	.....	.....	.....	.....	.....	1,750	819.2	−4.6	.....	27	1.12	nw.	9.5	1,715	2,190	
.....	.....	.....	.....	.....	.....	1,500	845.3	−3.4	.....	33	1.52	wnw.	8.4	1,470	1,790	
.....	.....	.....	.....	.....	.....	1,250	872.8	−2.2	.....	38	1.93	wnw.	7.2	1,225	1,380	
3:26	970.8	5.4	44	w.	4.0	1,119	887.2	−1.6	0.84	41	2.19	wnw.	6.6	1,097	1,170	
.....	.....	.....	.....	.....	.....	1,000	900.3	−0.6	.....	44	2.56	wnw.	6.4	980	980	
.....	.....	.....	.....	.....	.....	750	929.4	+1.5	.....	50	3.40	wnw.	6.1	735	570	
3:40	970.7	5.4	44	wnw.	4.0	642	941.8	2.4	1.22	53	3.85	wnw.	5.9	629	400	
.....	.....	.....	.....	.....	.....	500	958.8	4.1	.....	48	3.93	wnw.	5.1	490	170	
3:44	970.7	5.4	44	wnw.	4.5	396	970.7	5.4	.....	44	3.95	wnw.	4.5	388	.....	Few Ci. St., wsw.

February 15, 1917 (No. 1).

A. M.																
8:00	969.2	−5.0	88	nw.	4.9	396	969.2	−5.0	.....	88	3.53	nw.	4.9	388	.....	10/10 St., nw.
.....	.....	.....	.....	.....	.....	500	956.8	−5.7	.....	90	3.40	nw.	7.2	490	230	
.....	.....	.....	.....	.....	.....	750	926.7	−7.5	.....	96	3.10	nw.	12.7	735	770	Base of St. clouds about 800 m.
8:09	969.2	−5.0	84	nw.	6.7	793	921.2	−7.8	0.71	97	3.06	nw.	13.7	778	860	
.....	.....	.....	.....	.....	.....	1,000	897.2	−9.1	.....	94	2.64	nw.	12.7	980	3,090	
8:26	969.2	−4.8	81	nw.	8.0	1,241	869.5	−10.6	0.63	90	2.21	nw.	11.6	1,217	4,780	
.....	.....	.....	.....	.....	.....	1,250	868.8	−10.4	.....	90	2.26	nw.	11.4	1,225	4,810	
8:30	969.2	−5.0	83	nw.	7.6	1,373	854.7	−8.1	−0.67	90	2.76	nw.	9.0	1,346	5,200	
8:46	969.2	−4.7	82	nw.	6.3	1,306	862.1	−11.1	0.55	88	2.07	nw.	9.9	1,280	2,640	
.....	.....	.....	.....	.....	.....	1,250	868.4	−10.8	.....	88	2.13	nw.	9.5	1,225	1,770	
.....	.....	.....	.....	.....	.....	1,000	896.4	−9.4	.....	88	2.41	nw.	7.9	980	1,570	
9:13	969.1	−4.6	86	nw.	6.7	815	918.6	−8.4	0.93	88	2.63	nw.	6.7	799	1,240	
.....	.....	.....	.....	.....	.....	750	926.2	−7.8	.....	87	2.74	nw.	6.3	735	1,050	
.....	.....	.....	.....	.....	.....	500	956.6	−5.5	.....	83	3.19	nw.	4.7	490	310	
9:23	969.0	−4.5	82	nw.	4.0	396	969.0	−4.5	.....	82	3.44	nw.	4.0	388	.....	10/10 St., nw.

February 15, 1917 (No. 2).

P. M.																
12:33	967.0	−2.6	70	wnw.	8.0	396	967.0	−2.6	.....	70	3.44	wnw.	8.0	388	.....	10/10 St. Cu., wnw.
.....	.....	.....	.....	.....	.....	500	954.4	−3.6	.....	75	3.39	wnw.	8.7	490	0	
12:53	966.6	−2.0	65	wnw.	7.2	693	930.9	−5.4	0.94	83	3.22	wnw.	10.1	680	0	
.....	.....	.....	.....	.....	.....	750	924.3	−5.8	.....	84	3.15	wnw.	10.2	735	0	
.....	.....	.....	.....	.....	.....	1,000	894.8	−7.5	.....	87	2.81	wnw.	10.8	980	1,260	9/10 St. Cu., wnw.; base of A. Cu. clouds about 1,150 m.
1:15	966.1	−1.2	61	wnw.	7.6	1,172	875.2	−8.7	0.69	90	2.62	wnw.	11.2	1,149	2,250	
.....	.....	.....	.....	.....	.....	1,250	867.1	−5.7	.....	55	2.08	nw.	13.8	1,225	2,700	
1:22	965.9	−1.2	60	wnw.	5.4	1,303	860.4	−3.6	−0.39	31	1.40	nw.	15.5	1,277	3,000	
.....	.....	.....	.....	.....	.....	1,500	840.0	−4.1	.....	27	1.17	nw.	15.8	1,470	3,410	
.....	.....	.....	.....	.....	.....	1,750	814.0	−4.8	.....	21	0.86	nw.	16.2	1,715	3,920	5/10 St. Cu., wnw.
.....	.....	.....	.....	.....	.....	2,000	788.1	−5.5	.....	16	0.61	nw.	16.7	1,960	4,580	
.....	.....	.....	.....	.....	.....	2,250	763.2	−6.2	.....	10	0.36	nw.	17.1	2,205	5,140	
1:50	965.1	0.2	57	nw.	8.0	2,501	738.5	−6.9	0.29	5	0.17	nw.	17.5	2,451	5,500	
.....	.....	.....	.....	.....	.....	2,750	715.6	−8.6	.....	5	0.15	nw.	17.7	2,694	5,050	
.....	.....	.....	.....	.....	.....	3,000	692.9	−10.3	.....	6	0.15	nw.	17.9	2,939	4,240	
.....	.....	.....	.....	.....	.....	3,250	670.1	−12.1	.....	6	0.13	nw.	18.1	3,184	5,460	
.....	.....	.....	.....	.....	.....	3,500	648.1	−13.8	.....	7	0.13	nw.	18.3	3,429	7,190	
2:34	964.1	1.5	53	wnw.	7.2	3,530	645.3	−14.0	0.62	7	0.13	nw.	18.3	3,479	7,400	
.....	.....	.....	.....	.....	.....	3,500	648.1	−13.8	.....	8	0.15	nw.	18.3	3,429	7,320	
.....	.....	.....	.....	.....	.....	3,250	670.0	−12.5	.....	14	0.29	nw.	18.0	3,184	6,650	Few St. Cu., wnw.
.....	.....	.....	.....	.....	.....	3,000	691.9	−11.1	.....	20	0.47	nw.	17.8	2,939	5,980	
.....	.....	.....	.....	.....	.....	2,750	714.2	−9.7	.....	26	0.69	nw.	17.5	2,694	4,860	Cloudless.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 15; 1917 (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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						2,500	737.9	− 8.3		32	0.97	nw.	17.3	2,450	4,270	
3:10	963.4	2.3	47	wnw.	8.9	2,406	746.4	− 7.8	0.36	34	1.07	nw.	17.2	2,358	4,160	
						2,250	762.5	− 7.2		34	1.13	nw.	17.7	2,205	3,840	
						2,000	786.4	− 6.3		34	1.22	nw.	18.5	1,960	3,250	Few A. Cu., nw.
						1,750	812.0	− 5.4		34	1.32	nw.	19.3	1,715	2,670	
3:31	963.1	2.8	46	wnw.	6.3	1,575	830.0	− 4.8	−0.89	34	1.39	nw.	19.9	1,544	2,230	
						1,500	838.0	− 5.1		38	1.51	nw.	18.2	1,470	2,030	
3:35	963.1	2.8	46	wnw.	6.7	1,372	851.8	− 5.6	0.59	46	1.75	wnw.	15.4	1,345	1,700	
						1,250	865.0	− 4.9		48	1.94	wnw.	14.6	1,225	1,380	
						1,000	892.9	− 3.4		52	2.39	wnw.	13.0	980	650	
3:54	962.9	3.2	46	wnw.	7.6	778	918.1	− 2.1	0.34	56	2.87	wnw.	11.5	762	0	
						750	921.8	− 1.7		55	2.92	wnw.	11.2	735	0	
						500	950.8	2.1		49	3.48	wnw.	8.4	490	0	
4:00	962.8	3.4	46	wnw.	7.2	396	962.8	3.4		46	3.59	wnw.	7.2	388		Few A. Cu., nw.

February 16, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.																
7:48	957.5	−2.9	87	sw.	6.3	396	957.5	−2.9		87	4.18	sw.	6.3	388		Few Ci. St., wnw.
						500	945.2	0.2		76	4.63	wsw.	13.2	490	0	
7:51	957.4	−2.9	87	sw.	6.3	573	936.5	2.4	−2.99	68	4.94	sw.	18.1	562	0	
						750	916.2	2.2		68	4.85	wsw.	18.7	735	0	
8:02	957.3	−2.8	87	sw.	8.0	796	910.8	2.1	0.13	68	4.83	wsw.	18.8	780	0	
						1,000	888.0	1.8		64	4.50	wsw.	18.3	980	640	
						1,250	860.6	1.5		60	4.09	w.	17.6	1,225	1,400	
						1,500	834.4	1.2		55	3.68	w.	17.0	1,470	1,970	
8:28	956.6	−1.6	82	sw.	8.0	1,662	817.7	1.0	0.13	52	3.42	w.	16.6	1,629	2,450	
						1,750	809.0	0.3		53	3.32	w.	17.2	1,715	2,750	1/10 Ci. St., wnw.
						2,000	784.0	−1.5		57	3.04	w.	19.1	1,960	3,600	
						2,250	759.6	−3.4		60	2.77	w.	20.9	2,205	4,350	
						2,500	735.6	−5.3		63	2.48	w.	22.8	2,450	5,100	
8:55	955.8	0.0	73	sw.	8.0	2,636	722.9	−6.3	0.75	65	2.33	w.	23.8	2,583	5,520	3/10 Ci., wnw.
						2,750	712.6	−5.6		54	2.04	w.	23.1	2,694	5,880	
8:59	955.7	0.0	74	sw.	8.0	2,846	703.9	−5.0	−0.62	45	1.80	w.	22.5	2,788	6,190	
						3,000	689.9	−5.2		35	1.37	w.	21.7	2,939	6,680	
9:07	955.6	0.1	80	sw.	6.7	3,100	680.7	−5.3	0.30	28	1.09	w.	21.1	3,037	7,000	
						3,000	689.9	−4.8		25	1.00	w.	21.7	2,939	6,490	
9:27	955.3	1.1	76	sw.	7.2	2,821	705.0	−4.0	−0.54	19	0.83	w.	22.9	2,764	5,580	
						2,750	711.7	−4.4		25	1.03	w.	22.7	2,694	5,200	
9:36	955.1	1.8	69	sw.	7.2	2,599	725.1	−5.2	0.62	37	1.46	w.	22.4	2,547	4,870	
						2,500	734.5	−4.6		38	1.60	w.	22.3	2,450	4,660	22°-halo, 9:21–9:41.
						2,250	758.8	−3.0		39	1.96	w.	21.9	2,205	4,110	
						2,000	783.7	−1.5		41	2.31	wsw.	21.6	1,960	3,560	
						1,750	809.6	0.0		43	2.67	wsw.	21.2	1,715	3,030	Few Ci., wnw.
10:11	954.4	4.4	66	sw.	9.8	1,596	822.5	1.0	0.37	44	2.89	wsw.	21.0	1,564	2,700	Cloudless.
						1,500	834.9	1.4		43	2.92	wsw.	21.1	1,470	2,440	
						1,250	860.3	2.3		42	3.01	wsw.	21.3	1,225	1,760	
						1,000	886.2	3.2		40	3.09	wsw.	21.5	980	760	
10:35	953.9	5.6	60	sw.	10.7	817	905.7	3.9	0.34	39	3.15	wsw.	21.6	801	0	
						750	913.3	3.7		46	3.66	wsw.	21.8	735	0	
10:46	953.6	6.3	57	sw.	12.1	668	922.3	3.4	1.32	55	4.29	sw.	22.0	655	0	
						500	942.0	5.6		55	5.04	sw.	15.9	490	0	
10:55	953.4	7.0	55	sw.	13.4	396	953.4	7.0		55	5.51	sw.	13.4	388		Cloudless.

February 17, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.																
7:57	959.7	−5.4	70	nnw.	10.3	396	959.7	− 5.4		70	2.72	nnw.	10.3	388		2/10 A. Cu., w.; 3/10 St. Cu., w.;
						500	947.0	− 6.6		72	2.52	nnw.	12.3	490	0	4/10 A. cu., w.; 1/10 St. Cu., w.
8:02	959.9	−5.5	71	nnw.	9.4	748	917.5	− 9.4	1.42	76	2.08	n.	17.1	733	0	
						1,000	887.5	−10.6		77	1.89	n.	20.1	980	1,220	
8:06	960.0	−5.7	73	nnw.	8.5	1,029	884.8	−10.7	0.46	77	1.88	n.	20.4	1,009	1,440	
						1,250	859.8	− 7.5		66	2.13	n.	22.1	1,225	2,340	
8:17	960.3	−6.2	69	nnw.	10.7	1,488	834.4	− 4.1	−1.44	51	2.21	nnw.	23.9	1,459	2,780	7/10 A. Cu., w.
						1,500	833.0	− 4.1		49	2.12	nnw.	23.6	1,470	2,800	
						1,750	808.0	− 3.7		15	0.67	nnw.	16.7	1,715	3,150	3/10 A. Cu., w.
9:26	962.2	−6.4	70	n.	8.5	1,823	801.2	− 3.3	−0.24	5	0.23	nnw.	14.7	1,787	3,800	1/10 A. Cu., w.
						2,000	783.4	− 4.2		10	0.43	nw.	14.9	1,960	4,580	
						2,250	759.6	− 5.6		17	0.65	nw.	15.1	2,205	5,790	
						2,500	735.9	− 6.9		24	0.82	nw.	15.4	2,450	6,900	Few A. Cu., w.; few St. Cu., nnw
						2,750	712.8	− 8.2		32	0.97	nnw.	15.6	2,694	8,120	
						3,000	689.3	− 9.5		39	1.06	wnw.	15.9	2,939	8,860	
10:13	963.4	−5.7	65	n.	7.6	3,011	688.3	− 9.6	0.48	39	1.05	wnw.	15.9	2,950	9,400	
						3,000	689.3	− 9.6		39	1.05	wnw.	15.9	2,939	8,770	
						2,750	712.8	− 8.5		34	1.01	wnw.	15.9	2,694	7,330	
						2,500	735.9	− 7.8		28	0.88	wnw.	15.9	2,450	5,890	
						2,250	759.6	− 6.3		23	0.83	nw.	15.8	2,205	5,260	
						2,000	783.4	− 5.2		18	0.71	nw.	15.8	1,960	4,540	
10:37	964.0	−6.2	64	n.	8.5	1,952	788.4	− 5.0	−0.03	17	0.68	nw.	15.8	1,913	4,400	
						1,750	809.0	− 5.1		19	0.76	nnw.	17.0	1,715	3,890	
10:48	964.2	−6.5	59	n.	9.8	1,565	828.4	− 5.1	−4.61	21	0.84	nnw.	18.1	1,534	3,410	
						1,500	835.3	− 8.0		24	0.74	nnw.	19.3	1,470	3,260	
10:50	964.3	−6.4	58	n.	9.8	1,476	838.0	− 9.1	−0.73	25	0.70	nnw.	19.8	1,447	3,200	
						1,250	863.0	−10.8		35	0.85	n.	18.8	1,225	2,400	
11:09	964.8	−6.2	60	n.	10.7	997	892.3	−12.6	0.65	46	0.94	n.	17.7	977	1,010	
11:18	965.0	−6.2	58	n.	10.3	830	912.5	−11.7	1.41	67	1.49	n.	16.9	814	0	
						750	922.1	−10.6		65	1.60	n.	15.7	735	0	
						500	952.4	− 7.1		58	2.10	n.	11.9	490	0	
11:24	965.2	−5.6	55	n.	10.3	396	965.2	− 5.6		55	2.10	n.	10.3	388		1/10 Ci., w.; few St. Cu., n.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 18, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
7:50	973.8	−13.0	75	ene.	5.4	396	973.8	−13.0	.....	75	1.48	ene.	5.4	388	.....	6/10 Ci. St., w.
						500	961.0	−13.8	.....	78	1.44	ene.	5.8	490	0	5/10 Ci. St., w.; 4/10 A. Cu., wsw.
						750	929.5	−15.7	.....	85	1.32	ne.	6.7	735	990	
8:17	973.9	−13.2	79	ene.	6.3	872	914.4	−16.6	0.76	88	1.25	ne.	7.2	855	2,150	
						1,000	899.5	−14.5	.....	83	1.44	ene.	8.2	980	3,380	
						1,250	870.0	−10.9	.....	73	1.74	ese.	10.1	1,225	5,320	
8:36	973.8	−13.0	84	ne.	6.3	1,387	854.7	− 8.8	−1.51	67	1.94	se.	11.2	1,360	6,070	
						1,500	842.3	− 9.4	.....	65	1.78	se.	10.7	1,470	6,850	
						1,750	815.6	−10.8	.....	61	1.48	s.	9.6	1,715	9,220	
8:54	973.6	−12.7	75	ne.	6.7	1,895	800.1	−11.6	0.55	58	1.30	s.	9.0	1,857	11,000	3/10 Ci. St., w.; 6/10 A. Cu., wsw.
						2,000	789.3	−10.4	.....	71	1.78	ssw.	9.0	1,960	12,460	
10:08	973.3	−11.2	65	ene.	2.7	2,188	770.2	− 9.5	−0.72	95	2.57	wsw.	9.0	2,144	19,580	4/10 C. St., w. 2/10 Ci. St., wsw.
						2,250	764.0	− 9.8	.....	95	2.51	wsw.	9.5	2,205	20,570	
						2,500	738.8	−10.9	.....	95	2.27	wsw.	11.6	2,450	24,520	
						2,750	715.2	−12.0	.....	95	2.06	wsw.	13.7	2,694	28,470	
10:19	973.2	−11.5	69	ne.	6.7	2,948	697.5	−12.9	0.45	95	1.90	wsw.	15.3	2,888	31,600	
						3,000	692.6	−12.7	.....	94	1.92	wsw.	15.3	2,939	32,410	
10:20	973.2	−11.5	69	ne.	6.7	3,145	680.1	−12.3	−0.30	93	1.96	wsw.	15.3	3,081	34,700	
						3,250	671.2	−12.6	.....	91	1.87	wsw.	15.7	3,184	36,350	
						3,500	649.6	−13.5	.....	86	1.63	wsw.	16.8	3,429	.....	
10:27	973.2	−11.5	69	ne.	7.2	3,606	640.5	−13.8	0.38	84	1.55	wsw.	17.2	3,532	.....	A.Cu. base about 3,550. m.
						3,500	649.6	−13.3	.....	85	1.64	wsw.	17.1	3,429	.....	
						3,250	671.2	−12.2	.....	89	1.89	wsw.	16.9	3,184	.....	
10:59	973.0	−10.7	62	ne.	7.2	3,128	682.2	−11.7	−0.33	90	2.01	wsw.	16.8	3,064	27,950	
						3,000	693.2	−12.2	.....	92	1.96	wsw.	15.2	2,939	26,650	
11:06	972.9	−10.2	59	ene.	7.2	2,919	700.8	−12.5	0.49	93	1.93	wsw.	14.2	2,860	25,830	4/10 Ci., w.; few Ci. St., w.
						2,750	716.1	−11.7	.....	91	2.03	wsw.	13.7	2,694	24,160	
						2,500	739.3	−10.5	.....	89	2.21	wsw.	12.9	2,450	22,150	
						2,250	764.0	− 9.2	.....	87	2.43	sw.	12.2	2,205	20,140	
						2,000	789.3	− 8.0	.....	85	2.64	sw.	11.4	1,960	18,200	
11:41	972.5	− 9.4	55	ene.	6.3	1,933	796.6	− 7.7	−0.39	84	2.67	sw.	11.2	1,895	17,700	
						1,750	815.6	− 8.4	.....	75	2.24	ssw.	10.5	1,715	16,330	
11:51	972.4	− 8.0	48	e.	6.3	1,553	836.6	− 9.2	0.33	65	1.81	s.	9.7	1,522	14,150	
						1,500	842.3	− 9.0	.....	62	1.76	s.	10.0	1,470	13,520	
						1,250	870.0	− 8.2	.....	46	1.40	sse.	11.3	1,225	9,970	
P. M.																
12:00	972.3	− 7.2	45	e.	5.8	1,158	880.5	− 7.9	−2.24	40	1.25	se.	11.6	1,135	8,700	
						1,000	898.8	−11.5	.....	41	0.93	ese.	9.8	980	6,900	
12:05	972.2	− 8.6	48	e.	5.8	865	914.4	−14.5	1.22	42	0.73	e.	8.2	848	4,360	
						750	928.5	−13.1	.....	44	0.86	e.	7.5	735	4,050	
						500	959.0	−10.1	.....	49	1.26	e.	6.0	490	1,190	4/10 Ci., w.; 2/10 Ci. St., w.; 1/10 A. Cu., wsw.
12:19	971.9	− 8.8	51	e.	5.4	396	971.9	− 8.8	.....	51	1.47	e.	5.4	388	.....	

February 19, 1917.

A. M.																
10:48	966.2	−7.2	86	n.	4.0	396	966.2	− 7.2	.....	86	2.86	n.	4.0	388	.....	Cloudless.
						500	953.5	− 7.9	.....	88	2.75	nnw.	5.8	490	810	
10:56	966.4	−6.9	84	n.	3.1	589	942.8	− 9.2	1.03	92	2.57	nw.	9.0	577	1,500	
10:59	966.5	−6.9	84	nnw.	3.1	739	924.8	− 8.0	−0.80	95	2.94	nw.	8.1	725	2,670	
						750	923.9	− 8.0	.....	95	2.94	nw.	8.1	735	2.750	
						1,000	894.1	− 8.9	.....	98	3.04	nnw.	9.3	980	4,210	
11:16	966.6	−6.7	83	nnw.	4.5	1,186	873.0	− 9.5	0.34	100	2.71	nnw.	10.1	1,163	5,200	
						1,250	866.0	− 9.1	.....	97	2.73	nnw.	11.1	1,225	6,350	
						1,500	838.5	− 7.2	.....	85	2.82	nw.	15.0	1,470	7,600	
						1,750	812.3	− 6.4	.....	73	2.60	nw.	18.9	1,715	8,900	
11:45	966.8	−6.6	81	nw.	4.9	1,805	806.4	− 6.1	−0.55	70	2.56	nw.	19.8	1,769	9,190	
						2,000	786.8	− 6.5	.....	56	1.98	nw.	22.7	1,960	11,020	
						2,250	762.0	− 7.1	.....	48	1.61	wnw.	26.5	2,205	12,710	
P. M.																
12:24	967.2	−6.0	74	nw.	5.8	2,410	746.5	− 7.4	0.21	26	0.85	wnw.	28.9	2,362	16,000	
						2,500	688.1	− 8.0	.....	24	0.74	w.	28.7	2,450	16,300	
1:00	967.6	−6.0	74	nnw.	6.3	2,668	721.7	− 9.0	0.38	20	0.57	w.	28.3	2,614	.....	Cloudless.
						2,500	688.1	− 8.8	.....	24	0.70	w.	27.6	2,450	.....	
						2,250	762.0	− 8.4	.....	30	0.90	w.	26.5	2,205	13,180	
1:30	967.9	−6.2	71	nnw.	7.6	2,240	762.4	− 8.4	−1.09	30	0.90	w.	26.5	2,195	13,020	
1:35	968.0	−6.4	71	nnw.	6.3	2,112	775.0	− 9.8	0.17	45	1.19	w.	23.8	2,070	11,040	
						2,000	786.8	− 9.6	.....	53	1.43	w.	21.9	1,960	9,700	
						1,750	812.7	− 9.2	.....	71	1.98	w.	17.6	1,715	8,020	
1:58	968.2	−6.2	72	n.	4.5	1,584	830.2	− 8.9	−0.42	83	2.37	w.	12.8	1,553	6,900	
						1,500	839.3	− 9.3	.....	83	2.29	w.	12.7	1,470	6,390	
						1,250	867.0	−10.3	.....	84	2.13	nnw.	12.5	1,225	4,880	
						1,000	895.4	−11.3	.....	84	1.94	nw.	12.3	980	3,190	
2:15	968.3	−6.6	70	n.	5.8	987	896.9	−11.4	0.40	84	1.92	nw.	12.3	968	2,100	3/10 Ci. St., wsw.
2:23	968.4	−6.6	71	n.	5.8	785	921.0	−10.6	1.03	94	2.31	nw.	12.0	770	1,640	4/10 Ci. St., wsw.
						750	925.3	−10.2	.....	92	2.35	nw.	11.4	735	1,490	
						500	956.0	− 7.7	.....	77	2.47	nnw.	7.2	490	440	
2:30	968.5	−6.6	71	nnw.	5.4	396	968.5	− 6.6	.....	71	2.48	nnw.	5.4	388	.....	8/10 Ci. St., wsw.

February 20, 1917.

P. M.																
1:35	969.3	−7.2	67	sse.	4.0	396	969.3	− 7.2	.....	67	2.22	sse.	4.0	388	.....	Cloudless, light haze.
						500	957.0	− 8.2	.....	67	2.04	sse.	4.9	490	1,510	
						750	926.1	−10.6	.....	66	1.62	sse.	6.9	735	5,030	
1:49	968.9	−6.6	63	sse.	4.0	835	915.5	−11.4	0.96	66	1.51	sse.	7.6	819	5,870	
						1,000	896.3	− 7.6	.....	59	1.89	ssw.	12.9	980	7,490	
2:06	968.6	−5.2	62	sse.	4.9	1,061	889.1	− 6.2	−2.30	56	2.03	ssw.	14.9	1,040	8,100	
						1,250	868.3	− 5.4	.....	53	2.06	ssw.	12.9	1,225	10,170	
						1,500	840.8	− 4.3	.....	49	2.09	sw.	10.2	1,470	13,430	

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 20, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
2:38	968.3	−4.0	55	sse.	4.0	1,575	832.8	− 4.0	−0.43	48	2.10	sw.	9.4	1,544	14,220	
						1,750	814.5	− 4.8		45	1.84	sw.	11.2	1,715	16,000	
						2,000	789.0	− 6.0		42	1.55	sw.	13.7	1,960	18,370	
						2,250	764.2	− 7.1		38	1.27	wsw.	14.3	2,205	20,050	
						2,500	740.2	− 8.2		35	1.06	wsw.	18.8	2,450	21,730	
2:58	968.2	−2.8	53	s.	4.0	2,666	724.8	− 9.0	0.46	32	0.91	wsw.	20.5	2,612	22,850	
						2,750	717.5	− 9.6		32	0.86	wsw.	20.7	2,694	23,420	
						3,000	694.5	−11.3		31	0.72	wsw.	21.1	2,939	24,910	
						3,250	672.4	−13.0		31	0.61	w.	21.6	3,184	26,300	
						3,500	650.1	−14.7		30	0.51	w.	22.0	3,429	26,500	
3:34	967.2	−2.6	54	s.	4.0	3,528	647.6	−14.9	0.68	30	0.50	w.	22.1	3,456	26,500	Cloudless.
						3,500	650.1	−14.7		30	0.51	w.	22.0	3,429	26,240	
						3,250	672.4	−13.0		30	0.59	w.	21.5	3,184	23,910	
						3,000	694.5	−11.2		30	0.72	w.	20.9	2,939	21,580	
						2,750	717.5	− 9.5		31	0.84	wsw.	20.4	2,694	19,300	
						2,500	740.2	− 7.8		31	0.98	wsw.	19.8	2,450	17,310	
4:11	967.0	−2.0	46	sse.	4.5	2,358	754.0	− 6.8	0.61	31	1.07	wsw.	19.5	2,311	16,200	
						2,250	764.2	− 6.2		30	1.09	wsw.	18.1	2,205	15,140	
						2,000	789.0	− 4.7		29	1.19	sw.	17.4	1,960	12,700	
						1,750	814.5	− 3.2		27	1.26	sw.	15.9	1,715	10,550	
						1,500	840.8	− 1.7		25	1.32	ssw.	14.4	1,470	8,550	
4:29	966.7	−2.0	44	sse.	5.8	1,472	843.6	− 1.5	−0.31	25	1.35	ssw.	14.2	1,443	8,370	Few Ci. St., on sw. horizon.
						1,250	867.2	− 2.2		36	1.83	s.	12.5	1,225	7,000	
4:36	966.6	−2.4	44	s.	4.0	1,119	881.6	− 2.6	−2.62	43	2.12	s.	11.5	1,097	5,630	
						1,000	894.8	− 5.8		44	1.65	s.	11.2	980	4,700	
4:37	966.6	−2.5	45	s.	4.0	932	902.9	− 7.6	0.93	44	1.41	s.	11.0	914	3,290	
						750	924.1	− 5.9		44	1.63	s.	8.3	735	1,850	
						500	954.0	− 3.6		45	2.03	sse.	4.6	490	540	
4:46	966.4	−2.6	45	sse.	3.1	396	966.4	− 2.6		45	2.21	sse.	3.1	388		Few Ci. St., w.

February 21, 1917.

A. M.																
7:56	966.8	−4.0	70	nw.	9.8	396	966.8	− 4.0		70	3.06	nw.	9.8	388		4/10 St.Cu., w.
						500	954.5	− 4.6		71	2.95	nw.	12.3	490	430	
						750	925.0	− 5.9		74	2.75	nnw.	18.2	735	1,420	
8:06	967.1	−4.4	74	nnw.	8.0	960	900.0	− 7.0	0.53	77	2.60	nnw.	23.2	941	2,540	
						1,000	895.2	− 5.7		73	2.76	nnw.	23.7	980	2,760	
8:11	967.3	−4.3	74	nnw.	7.6	1,116	882.6	− 1.9	−3.27	60	3.13	nnw.	25.2	1,094	3,400	1/10 St.Cu., w.
						1,250	868.0	− 2.4		56	2.80	nnw.	24.8	1,225	4,440	
						1,500	841.4	− 3.2		49	2.29	nw.	24.0	1,470	5,240	
9:00	969.2	−4.3	65	nnw.	6.3	1,717	819.7	− 4.0	0.35	43	1.88	nw.	23.4	1,683	6,000	Few Ci.St., w.
						1,750	816.2	− 4.3		41	1.75	nw.	23.5	1,715	6,050	
						2,000	791.6	− 6.5		30	1.06	nw.	24.1	1,960	6,420	
10:42	972.5	−3.6	65	nw.	8.0	2,184	774.6	− 8.2	0.90	21	0.64	nw.	24.5	2,140	5,720	
						2,250	767.7	− 8.7		20	0.58	nw.	24.2	2,205	6,010	
						2,500	744.5	−10.7		16	0.39	nw.	23.3	2,450	7,110	
						2,750	721.5	−12.7		12	0.24	wnw.	22.3	2,694	8,210	
						3,000	698.4	−14.7		8	0.13	wnw.	21.4	2,939	8,760	
P. M.																
12:52	975.2	−2.2	53	nw.	6.7	3,175	682.3	−16.1	0.80	5	0.07	wnw.	20.7	3,110	9,000	
						3,000	698.4	−14.7		4	0.07	wnw.	20.2	2,939	8,270	
						2,750	722.3	−12.7		4	0.08	wnw.	19.5	2,694	7,230	
						2,500	745.8	−10.8		3	0.07	nw.	18.7	2,450	6,190	
						2,250	770.2	− 8.8		2	0.06	nw.	18.0	2,205	5,140	
1:40	974.9	−1.7	53	nw.	5.8	2,215	773.5	− 8.5	0.59	2	0.06	nw.	17.9	2,171	5,000	
						2,000	795.7	− 7.2		5	0.17	nw.	18.0	1,960	4,570	
						1,750	820.7	− 5.8		8	0.30	nw.	18.1	1,715	3,720	
						1,500	847.4	− 4.3		11	0.47	nw.	18.2	1,470	2,830	
2:14	974.8	−1.6	50	nw.	4.5	1,380	860.5	− 3.6	−0.05	13	0.59	nw.	18.2	1,353	2,320	
						1,250	875.0	− 3.6		18	0.81	nw.	17.6	1,225	1,810	
2:27	974.9	−1.8	50	nnw.	4.0	1,068	895.1	− 3.7	−1.01	26	1.16	nnw.	16.8	1,047	1,270	
						1,000	902.9	− 4.4		28	1.21	nnw.	14.1	980	1,060	
2:30	974.9	−1.9	49	nnw.	4.9	840	921.5	− 6.0	0.95	34	1.25	nnw.	7.6	824	580	
						750	932.0	− 5.1		38	1.51	nnw.	6.9	735	310	
						500	962.3	− 2.8		48	2.32	nnw.	4.8	490	0	
2:41	974.9	−1.8	52	nnw.	4.0	396	974.9	− 1.8		52	2.74	nnw.	4.0	388		1/10 Ci., w.

February 22, 1917.

P. M.																
1:23	957.4	11.4	30	sw.	8.9	396	957.4	11.4		30	4.04	sw.	8.9	388		22°-halo 11:10 a. m. to 3:00 p. m.
						500	946.0	10.8		31	4.01	sw.	9.5	490	180	
						750	917.5	9.3		33	3.87	sw.	11.1	735	620	6/10 A.St., w.
1:30	957.2	11.4	28	sw.	13.4	802	911.5	9.0	0.59	34	3.90	sw.	11.4	786	700	
						1,000	890.0	7.9		38	4.05	sw.	12.5	980	1,960	
						1,250	863.5	6.4		44	4.23	wsw.	13.9	1,225	3,550	
1:44	956.9	11.7	30	ssw.	10.7	1,291	858.7	6.2	0.57	45	4.27	wsw.	14.1	1,267	3,810	
						1,500	837.5	9.3		32	3.75	wsw.	13.1	1,470	5,130	
1:50	956.7	11.8	30	sw.	10.7	1,517	835.4	9.6	−1.50	31	3.70	wsw.	13.0	1,487	5,240	8/10 A.St., w.
2:05	956.3	11.6	31	sw.	10.3	1,650	822.1	9.3	0.28	29	3.40	w.	13.2	1,617	6,200	
						1,500	837.5	9.8		28	3.39	w.	10.9	1,470	7,950	
2:16	956.1	11.7	31	sw.	9.8	1,470	840.3	9.9	−0.03	28	3.42	w.	10.4	1,441	8,060	
						1,250	862.7	9.8		27	3.27	sw.	13.3	1,225	8,490	
3:52	955.4	12.2	36	sw.	3.6	1,152	872.4	9.8	0.29	26	3.15	ssw.	14.6	1,129	3,100	
						1,000	889.0	10.2		26	3.24	ssw.	12.3	980	2,120	
3:57	955.4	12.2	33	sw.	3.6	777	912.8	10.9	0.29	26	3.39	ssw.	8.9	762	680	
						750	915.8	11.0		27	3.55	ssw.	8.5	735	630	
						500	943.7	11.7		35	4.81	sw.	5.0	490	190	
4:01	955.4	12.0	38	sw.	3.6	396	955.4	12.0		38	5.33	sw.	3.6	388		10/10 A.St., w.

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 23, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
8:00	970.9	−14.4	82	n.	4.9	396	970.9	−14.4	.....	82	1.43	n.	4.9	388	.....	4/10 A.Cu., w.
.....	.....	.....	.....	.....	.....	500	957.9	−15.2	.....	84	1.36	n.	7.2	490	570	Parhelia 22°, 7:57 to 9:15 a. m.
.....	.....	.....	.....	.....	.....	750	926.7	−16.9	.....	88	1.21	n.	12.7	735	1,940	
8:12	971.1	−14.4	82	n.	5.4	833	916.3	−17.6	0.73	90	1.16	n.	14.7	817	2,400	
.....	.....	.....	.....	.....	.....	1,000	896.5	− 9.2	.....	72	2.01	n.	14.0	980	4,990	
8:15	971.2	−14.4	82	n.	6.3	1,103	884.9	− 4.1	−5.00	61	2.64	n.	13.5	1,081	6,580	3/10 A.Cu., w.
.....	.....	.....	.....	.....	.....	1,250	868.3	− 4.1	.....	54	2.34	n.	12.4	1,225	7,820	
.....	.....	.....	.....	.....	.....	1,500	842.4	− 4.0	.....	42	1.83	nnw.	10.5	1,470	9,740	
9:18	972.1	−12.8	76	nne.	5.8	1,720	819.3	− 3.9	−0.03	32	1.41	nnw.	8.8	1,686	14,000	1/10 A.Cu., w.
.....	.....	.....	.....	.....	.....	1,750	816.4	− 4.0	.....	32	1.40	nnw.	9.1	1,715	14,000	
.....	.....	.....	.....	.....	.....	2,000	790.6	− 4.4	.....	36	1.52	nnw.	11.3	1,960	15,900	
.....	.....	.....	.....	.....	.....	2,250	765.9	− 4.9	.....	40	1.62	nw.	13.5	2,205	17,940	
.....	.....	.....	.....	.....	.....	2,500	741.7	− 5.3	.....	44	1.72	nw.	15.4	2,450	19,970	
9:30	972.2	−12.4	73	nne.	5.8	2,664	726.7	− 5.6	0.18	47	1.79	nw.	17.1	2,610	21,330	
.....	.....	.....	.....	.....	.....	2,750	718.8	− 6.1	.....	50	1.82	nw.	17.7	2,694	21,830	
.....	.....	.....	.....	.....	.....	3,000	696.3	− 7.4	.....	60	1.96	wnw.	19.5	2,939	24,040	
.....	.....	.....	.....	.....	.....	3,250	674.4	− 8.8	.....	70	2.02	w.	21.4	3,184	25,650	
10:15	972.3	−11.6	63	n.	4.0	3,475	654.7	−10.0	0.45	79	2.05	w.	23.0	3,404	27,000	2/10 A.Cu., w.
.....	.....	.....	.....	.....	.....	3,250	674.4	− 9.2	.....	78	2.18	w.	21.6	3,184	21,570	
.....	.....	.....	.....	.....	.....	3,000	696.3	− 8.3	.....	77	2.33	wnw.	20.1	2,939	17,000	
.....	.....	.....	.....	.....	.....	2,750	718.8	− 7.4	.....	76	2.48	wnw.	18.6	2,694	14,670	
11:11	972.2	−10.2	60	n.	3.6	2,671	725.6	− 7.1	0.16	76	2.55	wnw.	18.1	2,617	13,930	4/10 A.Cu., w.
.....	.....	.....	.....	.....	.....	2,500	741.7	− 6.8	.....	69	2.37	wnw.	17.2	2,450	12,340	
.....	.....	.....	.....	.....	.....	2,250	765.9	− 6.4	.....	59	2.10	nw.	15.9	2,205	10,030	6/10 A.Cu., w.
11:27	972.2	− 9.3	58	nne.	4.9	2,234	767.3	− 6.4	0.39	58	2.06	nw.	15.8	2,189	9,890	
.....	.....	.....	.....	.....	.....	2,000	790.6	− 5.5	.....	50	1.92	nw.	13.6	1,960	7,750	
.....	.....	.....	.....	.....	.....	1,750	816.4	− 4.5	.....	42	1.76	nnw.	11.1	1,715	5,470	
.....	.....	.....	.....	.....	.....	1,500	842.4	− 3.5	.....	34	1.56	n.	8.7	1,470	3,310	
11:37	972.1	− 9.5	59	n.	3.6	1,444	848.1	− 3.3	−0.57	32	1.48	n.	8.2	1,416	3,090	2/10 Ci.St., w.; 5/10 A.Cu., w.
11:41	972.1	− 9.4	61	n.	3.6	1,268	867.6	− 4.3	−6.50	35	1.49	n.	7.2	1,243	2,420	
.....	.....	.....	.....	.....	.....	1,250	869.5	− 5.5	.....	36	1.38	n.	7.1	1,225	2,350	
11:43	972.1	− 9.2	59	n.	3.6	1,091	887.4	−15.8	1.01	47	0.72	n.	6.1	1,070	1,740	
.....	.....	.....	.....	.....	.....	1,000	898.5	−14.9	.....	48	0.80	n.	5.8	980	1,390	
.....	.....	.....	.....	.....	.....	750	928.9	−12.4	.....	50	1.04	n.	5.1	735	740	
.....	.....	.....	.....	.....	.....	500	959.5	− 9.8	.....	53	1.40	n.	4.3	490	220	
11:53	972.0	− 8.8	54	n.	4.0	396	972.0	− 8.8	.....	54	1.56	n.	4.0	388	.....	4/10 A.Cu., w.

February 24, 1917.

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.	Gravity.	Electric.	Remarks.
P. M.																
1:13	975.8	−1.5	46	sse.	4.0	396	975.8	−1.5	.....	46	2.48	sse.	4.0	388	.....	Few Ci. s.; 8/10 A. Cu., w.
.....	.....	.....	.....	.....	.....	500	963.4	−2.4	.....	50	2.50	sse.	4.5	490	480	
.....	.....	.....	.....	.....	.....	750	933.0	−4.5	.....	60	2.51	s.	5.7	735	1,740	
2:23	974.5	0.6	48	s.	4.9	992	903.8	−6.5	0.84	69	2.44	s.	6.8	973	3,360	
.....	.....	.....	.....	.....	.....	1,000	902.8	−6.3	.....	68	2.44	s.	6.9	980	3,420	
.....	.....	.....	.....	.....	.....	1,250	874.2	−1.0	.....	39	2.19	s.	10.6	1,225	5,330	
3:09	973.4	1.2	50	sse.	5.4	1,262	872.5	−0.7	−2.15	38	2.19	s.	10.8	1,237	5,430	8/10 Ci. St., w.
.....	.....	.....	.....	.....	.....	1,500	846.5	−0.7	.....	38	2.19	ssw.	13.2	1,470	6,630	
3:15	973.4	2.4	49	sse.	5.4	1,742	821.5	−0.8	0.02	39	2.23	sw.	15.6	1,707	7,260	
.....	.....	.....	.....	.....	.....	1,750	820.9	−0.8	.....	39	2.23	sw.	15.7	1,715	7,280	
.....	.....	.....	.....	.....	.....	2,000	795.4	−1.2	.....	43	2.38	sw.	17.3	1,960	7,940	
.....	.....	.....	.....	.....	.....	2,250	770.9	−1.6	.....	46	2.46	sw.	19.0	2,205	10,490	
3:26	973.2	2.0	48	sse.	4.5	2,303	765.6	−1.7	0.16	47	2.49	sw.	19.4	2,257	11,070	2/10 Ci., w.; 4/10 Ci. St., w.; 2/10 Ci. Cu., w.
.....	.....	.....	.....	.....	.....	2,500	747.0	−1.7	.....	44	2.33	sw.	23.6	2,450	13,220	
3:40	972.9	1.6	48	sse.	4.0	2,736	725.0	−1.8	−0.36	40	2.10	wsw.	28.7	2,681	.....	
.....	.....	.....	.....	.....	.....	2,500	747.0	−2.0	.....	44	2.27	sw.	22.5	2,450	.....	
4:04	972.5	1.0	52	sse.	4.5	2,328	763.4	−2.1	0.43	47	2.41	sw.	18.0	2,281	11,500	
.....	.....	.....	.....	.....	.....	2,250	770.9	−1.8	.....	47	2.47	sw.	17.9	2,205	10,850	
.....	.....	.....	.....	.....	.....	2,000	795.4	−0.7	.....	47	2.71	sw.	17.7	1,960	8,740	
.....	.....	.....	.....	.....	.....	1,750	820.9	0.4	.....	47	2.96	sw.	17.5	1,715	6,640	
4:10	972.3	1.0	52	se.	4.5	1,719	823.8	0.5	0.02	47	2.98	sw.	17.5	1,685	6,380	1/10 Ci., w.; 1/10 Ci. Cu., w.; 7/10 A. St., w.
.....	.....	.....	.....	.....	.....	1,500	846.5	0.6	.....	43	2.74	ssw.	15.0	1,470	5,250	
4:25	972.0	1.4	50	se.	5.8	1,257	872.5	0.6	−1.18	38	2.42	s.	12.3	1,232	4,200	
.....	.....	.....	.....	.....	.....	1,250	873.5	0.5	.....	38	2.41	s.	12.3	1,225	4,160	
.....	.....	.....	.....	.....	.....	1,000	900.5	−2.4	.....	47	2.35	sse.	12.3	980	2,690	
4:29	971.8	0.9	54	se.	6.3	951	906.3	−3.0	0.36	49	2.33	sse.	12.3	932	2,400	
.....	.....	.....	.....	.....	.....	750	929.0	−2.3	.....	57	2.87	se.	7.6	735	1,320	
4:34	971.7	0.6	51	se.	5.8	730	931.8	−2.2	0.84	58	2.95	se.	7.1	716	1,100	
.....	.....	.....	.....	.....	.....	500	959.0	−0.3	.....	56	3.34	se.	6.8	490	340	
4:38	971.6	0.6	55	se.	6.7	396	971.6	0.6	.....	55	3.51	se.	6.7	388	.....	7/10A.St.,w.;3/10A.Cu.,w.

February 25, 1917.

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.	Gravity.	Electric.	Remarks.
A. M.																
7:31	959.7	−3.4	73	sse.	5.8	396	959.7	−3.4	.....	73	3.36	sse.	5.8	388	.....	8/10 Ci. St., wnw.
.....	.....	.....	.....	.....	.....	500	947.4	−0.3	.....	68	4.05	s.	11.5	490	1,290	
7:35	959.7	−3.4	73	sse.	6.3	655	929.2	4.2	−2.93	60	4.95	sw.	20.1	642	3,420	
.....	.....	.....	.....	.....	.....	750	918.9	5.2	.....	55	4.87	sw.	19.2	735	4,700	
.....	.....	.....	.....	.....	.....	1,000	891.2	8.0	.....	41	4.40	sw.	16.7	980	6,640	
.....	.....	.....	.....	.....	.....	1,250	864.5	10.7	.....	27	3.47	sw.	14.2	1,225	8,230	
8:01	959.4	−2.7	69	s.	6.3	1,271	862.0	10.9	−10.9	26	3.39	sw.	14.0	1,246	8,360	
.....	.....	.....	.....	.....	.....	1,500	838.6	10.5	.....	25	3.18	sw.	15.4	1,470	9,690	
8:06	959.3	−2.4	70	s.	5.4	1,535	835.0	10.4	0.19	25	3.15	sw.	15.6	1,504	9,900	
.....	.....	.....	.....	.....	.....	1,750	814.0	9.6	.....	26	3.11	sw.	15.6	1,715	12,200	
.....	.....	.....	.....	.....	.....	2,000	789.5	8.7	.....	27	3.04	wsw.	15.6	1,960	14,610	
.....	.....	.....	.....	.....	.....	2,250	765.8	7.7	.....	28	2.94	wsw.	15.6	2,205	15,400	
8:30	959.0	−0.8	64	s.	5.8	2,282	762.9	7.6	0.37	28	2.92	wsw.	15.6	2,236	15,500	5/10 Ci. St., wnw.; 4/10 A. Cu. wnw.
.....	.....	.....	.....	.....	.....	2,500	742.5	6.4	.....	30	2.88	wsw.	16.3	2,450	15,770	
.....	.....	.....	.....	.....	.....	2,750	720.1	5.0	.....	32	2.79	wsw.	17.1	2,694	16,270	
.....	.....	.....	.....	.....	.....	3,000	698.3	3.6	.....	35	2.77	wsw.	17.8	2,939	17,450	
.....	.....	.....	.....	.....	.....	3,250	677.5	2.2	.....	37	2.65	wsw.	18.6	3,184	18,620	
9:20	958.4	1.9	53	s.	10.7	3,437	662.2	1.2	0.55	39	2.60	wsw.	19.2	3,367	19,500	3/10 Ci. St., wnw.; 4/10 A. Cu., wnw.
.....	.....	.....	.....	.....	.....	3,500	656.7	0.7	.....	39	2.51	wsw.	19.6	3,429	19,680	
.....	.....	.....	.....	.....	.....	3,750	636.5	−1.2	.....	37	2.05	wsw.	21.2	3,673	20,420	

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 25, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						4,000	616.9	−3.1		35	1.65	w.	22.9	3,918	21,160	
						4,250	597.5	−5.0		33	1.32	w.	24.5	4,162	21,900	
10:25	957.5	4.8	49	sw.	8.9	4,404	585.0	−6.2	0.62	32	1.16	w.	25.5	4,313		
						4,250	597.5	−5.5		33	1.27	w.	24.7	4,162		
						4,000	616.9	−4.3		35	1.49	w.	23.5	3,918		
						3,750	636.3	−3.1		36	1.70	w.	22.3	3,673		
						3,500	655.7	−2.0		38	1.96	w.	21.1	3,429		2/10Ci.,wnw.;5/10A.Cu.,wnw.
						3,250	676.0	−0.8		40	2.28	w.	19.9	3,184		
						3,000	696.8	0.4		41	2.58	w.	18.6	2,939		
11:37	956.2	8.5	39	sw.	8.0	2,891	706.2	0.9	0.65	42	2.74	w.	18.1	2,833	8,000	
						2,750	718.5	1.8		41	2.85	w.	17.5	2,694	7,240	
						2,500	741.0	3.4		39	3.04	w.	16.5	2,450	5,890	
						2,250	764.3	5.0		38	3.31	w.	15.4	2,205	5,060	
						2,000	787.9	6.5		36	3.48	w.	14.4	1,960	4,260	
						1,750	812.5	8.3		34	3.72	w.	13.3	1,715	3,460	
P. M.																
12:08	955.5	10.2	34	sw.	7.2	1,605	826.5	9.2	0.78	33	3.84	w.	12.7	1,573	3,000	1/10Ci.,wnw.; 1/10 A.Cu.,wnw.
						1,500	837.2	10.0		31	3.81	w.	12.9	1,470	2,700	
						1,250	862.3	12.0		28	3.93	w.	13.5	1,225	2,000	
12:21	955.1	11.4	32	sw.	7.6	1,145	873.3	12.8	0.49	26	3.84	w.	13.7	1,122	1,700	
						1,000	888.4	13.5		24	3.71	w.	12.3	980	1,300	
12:32	954.8	11.6	32	sw.	8.0	820	907.4	14.4	−2.29	22	3.61	w.	10.5	804	810	
						750	915.1	12.8		24	3.55	w.	10.2	735	680	
12:35	954.7	11.[illegible]	32	sw.	8.0	645	926.6	10.4	0.78	26	3.28	wsw.	9.8	632	480	
						500	942.9	11.4		29	3.91	sw.	8.8	490	200	1/10 Ci., wnw.
12:38	954.6	12.2	32	sw.	8.0	396	954.6	12.2		32	4.55	sw.	8.0	388		2/10 Ci. St., wnw.

February 26, 1917 (No. 1).

A. M.																
9:18	966.3	−7.8	80	n.	6.7	396	966.3	−7.8		80	2.52	n.	6.7	388		5/10A.Cu.,w.;4/10St.Cu.,nnw.
						500	953.9	−8.8		82	2.37	n.	8.1	490	280	
						750	923.3	−11.1		88	2.07	nnw.	11.3	753	980	
9:29	966.5	−7.9	79	nnw.	7.2	849	911.2	−12.0	0.93	90	1.95	nnw.	12.6	832	1,620	
						1,000	893.7	−10.8		88	2.13	nnw.	12.4	980	3,040	
9:43	966.8	−7.9	80	nnw.	8.0	1,211	869.7	−9.1	−0.80	85	2.39	nnw.	12.1	1,187	4,910	Light snow began 9:50 a. m.
						1,250	865.5	−8.4		84	2.51	nnw.	13.0	1,225	5,230	
						1,500	839.5	−3.6		79	3.57	nw.	18.4	1,470	7,230	
9:52	967.0	−7.8	79	nnw.	6.7	1,724	815.1	0.7	−1.91	74	4.76	wnw.	23.3	1,690	7,820	3/10A.Cu.,w;7/10St.Cu.w.;few St., nnw.
						1,750	813.0	0.6		75	4.78	wnw.	22.8	1,715	7,730	
						2,000	788.2	−0.5		81	4.75	w.	18.1	1,960	7,760	
10:16	967.4	−7.8	77	nnw.	8.0	2,022	785.8	−0.6	0.44	82	4.76	w.	17.7	1,982	8,100	
						2,250	764.1	−1.8		82	4.31	w.	17.5	2,205	11,560	
						2,500	740.1	−3.1		83	3.91	w.	17.3	2,450	15,360	
10:33	967.6	−7.0	78	nnw.	7.2	2,588	732.2	−3.6	0.53	83	3.75	w.	17.2	2,536	16,700	
						2,750	717.2	−4.8		85	3.47	w.	18.3	2,694	19,150	
						3,000	694.9	−6.5		89	3.14	w.	20.1	2,939	23,000	Snow ended 10:55 a. m.
10:57	967.9	−7.6	75	nnw.	8.5	3,237	673.6	−8.2	0.78	92	2.80	w.	21.7	3,171		3/10A.Cu.,w.;few St.Cu.,nnw.
						3,000	694.9	−6.3		65	2.33	w.	21.4	2,939		
						2,750	717.2	−4.3		37	1.58	w.	21.1	2,694		
11:22	968.3	−6.8	67	nnw.	7.6	2,703	721.0	−3.9	0.37	32	1.41	w.	21.0	2,649	18,500	
						2,500	740.1	−3.2		42	1.97	w.	20.3	2,450	16,700	
						2,250	764.1	−2.2		53	2.70	wnw.	19.4	2,205	13,470	
11:46	968.7	−6.2	69	nnw.	8.5	2,048	783.4	−1.5	−0.58	63	3.40	wnw.	17.7	2,007	12,570	
						2,000	788.3	−1.8		65	3.42	wnw.	17.7	1,960	11,990	4/10St.Cu.,nnw.;base at 1,100m.
						1,750	813.8	−3.2		76	3.56	wnw.	17.4	1,715	8,980	
11:59	968.9	−6.2	72	nnw.	8.5	1,702	818.6	−3.5	−1.59	78	3.56	wnw.	17.4	1,668	8,400	
P. M.																
						1,500	838.4	−6.7		79	2.74	nw.	16.5	1,470	6,840	
						1,250	867.0	−10.7		81	1.98	nw.	15.5	1,225	4,910	
12:16	969.0	−6.1	69	nnw.	8.0	1,109	883.4	−12.9	0.47	82	1.64	nnw.	14.9	1,087	3,610	8/10 St. Cu., nnw.
						1,000	895.9	−12.4		82	1.71	nnw.	13.8	980	2,550	
12:25	969.1	−6.4	73	nnw.	7.6	852	913.7	−11.7	1.38	83	1.85	nnw.	12.3	835	1,100	
						750	926.0	−10.3		79	2.00	nnw.	11.2	735	860	7/10St.Cu.,nnw.
						500	956.8	−6.8		69	2.37	nnw.	8.7	490	260	
12:31	969.1	−5.4	65	nnw.	7.6	396	969.1	−5.4		65	2.52	nnw.	7.6	388		3/10A.Cu.,wnw.;4/10St.Cu.,nnw.

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P. M.																
1:14	969.2	−5.9	64	nnw.	9.8	396	969.2	−5.9		64	2.37	nnw.	9.8	388		FewCi.,wsw.;fewSt.Cu.,nnw.
						500	957.0	−7.1		69	2.31	nnw.	10.6	490	280	
						750	926.6	−9.8		80	2.11	nnw.	12.6	735	940	
1:23	969.2	−5.8	66	nnw.	8.5	838	915.6	−10.8	1.11	84	2.03	nnw.	13.3	822	1,170	
						1,000	896.4	−11.9		90	1.97	nnw.	13.9	980	2,860	
1:28	969.2	−5.6	67	nnw.	6.7	1,020	894.1	−12.0	0.66	91	1.97	nnw.	14.0	1,000	3,070	FewCi.,wsw.;1/10St.Cu.,nnw.
						1,250	868.0	−9.8		83	2.19	nnw.	14.3	1,225	5,060	
						1,500	840.6	−7.5		75	2.42	nw.	14.7	1,470	6,290	
						1,750	814.0	−5.1		67	2.67	wnw.	15.0	1,715	7,890	
1:57	969.2	−5.2	71	nnw.	8.9	1,928	795.7	−3.4	−0.95	61	2.81	wnw.	15.3	1,890	9,400	1/10Ci.,wsw.;2/10St.Cu.,nnw.
						2,000	788.5	−3.6		60	2.71	wnw.	15.4	1,960	8,780	
						2,250	764.0	−4.1		56	2.42	wnw.	15.9	2,205	10,960	
2:20	969.3	−5.4	70	nnw.	8.0	2,420	747.5	−4.5	0.22	53	2.22	wnw.	16.2	2,371	12,870	
						2,500	740.0	−5.2		49	1.93	wnw.	17.4	2,450	13,780	4/10Ci.St.,wsw.;fewSt.Cu.,nnw.
						2,750	716.9	−7.2		37	1.23	wnw.	21.3	2,694	15,920	Arc of 22°-halo 2:52 p. m. to 3:04 p. m.
3:31	969.6	−4.8	57	nnw.	5.8	2,993	694.9	−9.2	0.70	26	0.73	wnw.	25.1	2,932	16,500	
						2,750	716.9	−7.8		27	0.85	wnw.	22.0	2,694	11,720	
						2,500	740.0	−6.3		29	1.04	nw.	18.8	2,450	8,770	
						2,250	764.4	−4.8		31	1.26	nw.	15.7	2,205	7,070	
3:55	969.6	−5.1	60	nnw.	8.5	2,018	787.6	−3.4	0.10	32	1.47	nw.	12.7	1,978	5,500	
						2,000	789.3	−3.4		32	1.47	nw.	12.7	1,960	5,480	7/10Ci.St.,wsw.;fewSt.Cu.,nnw.
						1,750	814.9	−3.1		28	1.32	nw.	12.4	1,715	5,200	
						1,500	841.1	−2.9		24	1.15	nnw.	12.2	1,470	4,100	
4:14	969.8	−5.6	67	nnw.	5.4	1,413	850.6	−2.8	−4.29	22	1.06	nnw.	12.1	1,385	3,720	

TABLE 6.—*Free-air data from kite flights at Drexel Aerological Station, February, 1917*—Continued.

February 26, 1917 (No. 2)—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						1,250	868.8	−9.8	.....	34	0.90	nnw.	13.3	1,225	3,010	
4:20	969.8	−5.5	67	nnw.	5.4	1,261	874.0	−11.9	0.50	37	0.81	nnw.	13.6	1,177	2,800	
						1,000	897.3	−10.9	.....	57	1.36	nnw.	11.7	980	2,050	
4:30	970.0	−5.1	64	nnw.	5.4	834	916.9	−10.1	1.12	73	1.88	nnw.	10.2	818	1,430	
						750	927.2	−9.2	.....	71	1.98	nnw.	9.4	735	1,160	
						500	957.8	−6.3	.....	66	2.37	nnw.	7.5	490	340	
4:34	970.0	−5.2	64	nnw.	6.7	396	970.0	−5.2	.....	64	2.52	nnw.	6.7	388	.....	7/10Ci.St.,wsw.;fewSt.Cu.,nnw.

February 26, 1917 (No. 3).

P. M.																
5:03	970.3	−5.6	63	nnw.	5.4	396	970.3	− 5.6	.....	63	2.40	nnw.	5.4	388	.....	
						500	958.0	− 6.7	.....	68	2.36	nnw.	7.0	490	270	6/10Ci.w.;fewSt.Cu.,nnw.
						750	927.3	− 9.4	.....	80	2.19	nnw.	10.7	735	930	
5:13	970.4	−5.8	62	nnw.	7.6	782	923.3	− 9.7	1.06	82	2.19	nnw.	11.2	767	1,010	
						1,000	897.5	−11.2	.....	88	2.05	nnw.	12.4	980	2,010	
5:20	970.4	−5.9	63	nnw.	6.7	1,040	892.9	−11.5	0.70	89	2.02	nnw.	12.6	1,020	2,200	
5:25	970.4	−5.9	64	nnw.	6.7	1,172	877.9	− 4.3	−5.45	63	2.68	nnw.	11.7	1,149	2,800	5/10 Ci., w.
						1,250	869.5	− 3.8	.....	52	2.31	nnw.	11.6	1,225	3,010	
5:42	970.5	−5.9	64	nnw.	4.9	1,500	842.3	− 2.0	−0.70	16	0.83	nnw.	11.3	1,470	3,700	4/10 Ci., w.
						1,750	816.3	− 3.4	.....	15	0.69	nnw.	10.5	1,715	4,440	
						2,000	791.0	− 4.8	.....	13	0.53	nnw.	9.4	1,960	4,770	
						2,250	766.2	− 6.2	.....	12	0.43	nw.	8.8	2,205	.....	
						2,500	742.0	− 7.6	.....	10	0.32	nw.	7.9	2,450	.....	
7:00	970.9	−6.7	71	n.	4.5	2,510	741.0	− 7.7	0.56	10	0.32	nw.	7.9	2,460	.....	
						2,500	742.0	− 7.6	.....	10	0.32	nw.	7.9	2,450	.....	1/10 Ci. St., w.; Few St. Cu., nw.
						2,250	766.2	− 6.2	.....	8	0.29	nw.	7.9	2,205	.....	
						2,000	791.0	− 4.9	.....	6	0.28	nw.	7.8	1,960	4,500	
						1,750	816.3	− 3.5	.....	4	0.18	nw.	7.8	1,715	760	
8:14	971.0	−7.4	78	n.	3.6	1,686	823.0	− 3.1	.00	4	0.19	nw.	7.8	1,652	820	3/10 Ci.St., w.
						1,500	842.5	− 3.1	.....	3	0.14	nnw.	9.5	1,470	690	
9:08	971.5	−7.4	75	n.	3.1	1,452	848.3	− 3.1	−0.30	3	0.14	nnw.	9.9	1,423	670	8/10 Ci.St., w.
						1,250	870.4	− 3.7	.....	6	0.27	nnw.	10.2	1,225	600	
9:20	971.9	−7.4	75	n.	4.0	1,218	874.2	− 3.8	−2.18	7	0.31	nnw.	10.3	1,194	590	
						1,000	898.8	− 8.6	.....	12	0.35	n.	10.3	980	300	
9:24	972.0	−7.5	74	n.	3.6	879	913.1	−11.2	0.74	15	0.35	n.	10.3	862	130	
						750	928.6	−10.2	.....	30	0.76	n.	8.8	735	0	
						500	959.9	− 8.4	.....	59	1.76	n.	5.7	490	0	
9:35	972.3	−7.6	71	n.	4.5	396	972.3	− 7.6	.....	71	2.28	n.	4.5	388	.....	6/10 Ci.St., w.

February 27, 1917.

P.M.																
6:14	977.6	−1.6	48	ne.	2.7	396	977.6	−1.6	.....	48	2.57	ne.	2.7	388	.....	Few Ci., w.
						500	965.3	−2.3	.....	53	2.67	ne.	3.8	490	0	
7:01	978.4	−3.3	59	ne.	2.7	669	945.2	−3.4	0.66	60	2.76	ne.	5.7	656	0	
						750	935.5	−4.0	.....	61	2.67	ene.	5.7	735	200	
7:20	978.6	−3.8	64	ne.	2.7	1,005	905.8	−5.9	0.74	64	2.37	e.	5.8	985	1,240	
						1,250	879.0	−5.9	.....	64	2.37	e.	4.7	1,225	.....	
7:58	979.1	−4.6	70	ne.	2.7	1,261	877.1	−5.9	−0.14	64	2.37	e.	4.6	1,236	.....	
						1,250	879.0	−5.9	.....	64	2.37	e.	4.6	1,225	.....	
8:05	979.2	−4.7	71	nne.	2.7	1,053	900.7	−6.5	0.47	65	2.29	ene.	4.6	1,032	.....	
						1,000	906.5	−6.3	.....	65	2.33	ene.	4.8	980	.....	1/10 Ci., w.
						750	936.1	−5.1	.....	67	2.67	ne.	5.9	735	0	
8:16	979.4	−4.7	71	nne.	2.7	666	946.4	−4.7	0.04	67	2.76	ne.	6.2	653	0	
						500	966.9	−4.6	.....	68	2.82	nne.	4.3	490	0	
8:25	979.5	−4.6	69	nne.	3.1	396	979.5	−4.6	.....	69	2.86	nne.	3.1	388	.....	1/10 Ci., w.

February 28, 1917.

P. M.																
3:42	982.6	1.2	31	nne.	1.3	396	982.6	1.2	.....	31	2.06	nne.	1.3	388	.....	1/10 Ci.St., w.
						500	970.0	−0.1	.....	34	2.06	nne.	3.0	490	0	
4:18	982.6	1.3	34	nne.	1.3	703	945.5	−2.6	1.00	41	2.02	n.	6.3	689	220	
						750	940.0	−3.0	.....	42	2.00	n.	6.3	735	270	2/10Ci.St., w.
						1,000	911.2	−5.4	.....	48	1.86	n.	6.0	980	540	
						1,250	882.3	−7.7	.....	55	1.75	n.	5.8	1,225	990	
5:30	983.3	0.0	39	nne.	2.2	1,268	880.3	−7.9	0.94	55	1.72	n.	5.8	1,243	1,030	Parhelion 5:30 p. m.
						1,500	854.6	−9.5	.....	61	1.65	nnw.	6.2	1,470	1,790	
						1,750	827.1	−11.3	.....	68	1.57	nw.	6.7	1,715	2,650	
6:30	984.0	−1.8	50	n.	0.9	1,788	823.0	−11.6	0.71	69	1.55	nw.	6.8	1,752	2,790	
						2,000	800.3	−12.6	.....	72	1.48	nw.	8.1	1,960	3,520	2/10Ci.,w.;1/10Ci.St.,w.
						2,250	774.8	−13.7	.....	75	1.40	wnw.	9.6	2,205	.....	
						2,500	749.8	−14.9	.....	78	1.30	wnw.	11.1	2,450	.....	2/10Ci.St.,w.
7:56	984.5	−2.9	59	n.	0.9	2,657	734.4	−15.6	0.46	80	1.25	wnw.	12.0	2,603	.....	
						2,750	726.6	−15.7	.....	77	1.19	wnw.	12.0	2,694	.....	Partial lunar halo 22°, 7:30 to 9:30 p. m.
8:01	984.5	−3.1	61	n.	0.9	2,921	709.1	−15.9	0.04	72	1.09	wnw.	12.0	2,862	.....	
						2,750	726.6	−16.0	.....	79	1.18	wnw.	10.6	2,694	.....	
8:08	984.6	−3.3	64	n.	1.3	2,634	736.6	−16.0	0.55	83	1.24	wnw.	9.7	2,581	.....	
						2,500	749.8	−15.3	.....	81	1.30	wnw.	9.5	2,450	.....	
						2,250	774.8	−13.9	.....	76	1.39	nw.	9.2	2,205	.....	
						2,000	800.3	−12.5	.....	72	1.49	nnw.	8.8	1,960	2,450	
8:25	984.8	−3.5	63	nne.	1.3	1,823	819.5	−11.5	0.46	69	1.57	nnw.	8.6	1,787	2,030	
						1,750	827.1	−11.2	.....	69	1.61	nnw.	8.5	1,715	1,860	
						1,500	854.6	−10.0	.....	68	1.77	n.	8.2	1,470	1,450	
						1,250	882.8	−8.8	.....	67	1.94	n.	7.8	1,225	1,110	
8:39	985.0	−3.6	63	n.	1.8	1,241	884.0	−8.8	0.21	67	1.94	n.	7.8	1,217	1,100	
						1,000	912.2	−7.9	.....	71	2.22	n.	9.6	980	680	
						750	942.3	−6.9	.....	74	2.52	n.	11.5	735	100	
8:55	985.1	−3.9	68	n.	1.8	708	946.7	−6.7	0.77	75	2.60	n.	11.8	694	0	
						500	972.8	−5.1	.....	74	2.95	n.	5.1	490	0	
8:59	985.2	−4.3	72	n.	1.8	396	985.2	−4.3	.....	72	3.07	n.	1.8	388	.....	2/10 Ci.St., w.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917.*

March 1, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
8:50	982.5	−3.8	53	sse.	3.6	396	982.5	− 3.8	.....	53	2.35	sse.	3.6	388	.....	1/10 Ci., w.; 6/10 Ci. St., w.
						500	969.5	− 3.4	.....	44	2.02	sse.	7.7	490	220	
8:52	982.5	−3.8	53	sse.	3.6	514	967.8	− 3.4	−0.34	43	1.98	sse.	8.2	504	250	
9:05	982.5	−4.1	48	sse.	3.6	716	943.4	− 4.0	0.30	36	1.57	s.	8.2	702	680	3/10 Ci., w.; 1/10 Ci. St., w., few Cu., w.
						750	939.4	− 4.3	.....	36	1.53	s.	8.0	735	830	
						1,000	909.5	− 6.2	.....	39	1.41	ssw.	6.9	980	1,910	
9:50	982.5	−4.5	51	sse.	3.6	1,136	894.1	− 7.3	0.79	41	1.35	ssw.	6.3	1,114	2,500	
						1,250	880.8	− 7.7	.....	42	1.34	ssw.	6.2	1,225	3,400	
						1,500	852.9	− 8.6	.....	44	1.29	ssw.	5.8	1,470	3,110	
						1,750	825.8	− 9.6	.....	47	1.26	ssw.	5.5	1,715	2,820	
10:01	982.5	− 4.4	50	sse.	2.7	1,902	809.7	−10.2	0.33	49	1.25	ssw.	5.3	1,864	.....	3/10Ci., w.; fewA.Cu., w.
						1,750	825.8	− 9.8	.....	48	1.27	ssw.	5.5	1,715	2,770	
						1,500	852.9	− 9.0	.....	47	1.33	ssw.	5.8	1,470	2,920	
						1,250	880.8	− 8.3	.....	46	1.39	ssw.	6.0	1,225	3,080	
10:13	982.4	−4.5	46	sse.	2.7	1,059	902.8	− 7.8	0.85	45	1.42	ssw.	6.2	1,038	3,200	
						1,000	909.5	− 7.3	.....	44	1.45	ssw.	6.5	980	2,920	
						750	939.4	− 5.2	.....	42	1.65	s.	7.9	735	1,210	
10:20	982.4	−4.8	48	sse.	3.1	704	944.7	− 4.8	0.67	41	1.67	s.	8.2	690	1,070	
						500	969.5	− 3.4	.....	37	1.70	sse.	5.2	490	500	
10:26	982.3	−4.7	46	sse.	3.6	481	971.7	− 3.3	−1.65	37	1.72	sse.	4.9	472	410	
10:28	982.3	−4.7	46	sse.	3.6	396	982.3	− 4.7	.....	46	1.90	sse.	3.6	388	.....	Few Ci., w.

March 2, 1917.

P. M.																
6:20	977.3	−0.3	68	nnw.	3.1	396	977.3	− 0.3	.....	68	4.05	nnw.	3.1	388	.....	10/10 A. St., wnw.
						500	965.0	− 0.6	.....	72	4.18	nnw.	4.2	490	0	
6:29	977.5	−0.8	77	nnw.	3.6	623	950.1	− 0.9	0.26	76	4.31	nnw.	5.4	611	780	
						750	935.8	− 2.3	.....	83	4.18	nnw.	5.4	735	1,730	Snow began 6:42 p. m.
7:25	978.3	−1.5	94	nw.	3.6	954	911.8	− 4.6	0.84	95	3.94	nw.	5.4	935	.....	
						750	935.8	− 3.5	.....	95	4.33	nw.	4.7	735	1,270	
						500	965.5	− 2.1	.....	94	4.82	nw.	3.9	490	370	
7:29	978.3	−1.5	94	nw.	3.6	396	978.3	− 1.5	.....	94	5.07	nw.	3.6	388	.....	10/10 St., nw.

March 3, 1917.

A. M.																
8:06	987.2	−10.8	90	n.	4.0	396	987.2	−10.8	.....	90	2.18	n.	4.0	388	.....	8/10 Ci., w.
						500	973.9	−11.3	.....	98	2.03	n.	7.9	490	180	
8:11	987.3	−10.6	90	n.	4.0	638	956.6	−11.9	0.45	85	1.86	nne.	13.1	625	400	
8:13	987.3	−10.6	90	n.	4.0	753	942.5	− 9.9	−1.74	65	1.70	nne.	11.7	738	630	
						1,000	912.6	−10.7	.....	54	1.32	n.	11.6	980	1,640	
						1,250	883.7	−11.5	.....	44	1.00	nnw.	11.4	1,225	2,780	
8:39	987.4	−10.1	90	n.	5.4	1,315	876.2	−11.7	0.32	41	0.91	nnw.	11.4	1,289	3,130	9/10 Ci., w.
						1,500	855.6	−12.6	.....	42	0.86	nnw.	12.6	1,470	4,140	
						1,750	827.9	−13.8	.....	44	0.81	nw.	14.2	1,715	5,700	
						2,000	801.0	−15.0	.....	46	0.76	nw.	15.8	1,960	7,270	
9:11	987.6	− 9.1	75	n.	3.6	2,156	784.5	−15.8	0.49	47	0.72	nw.	16.8	2,113	8,800	
						2,250	774.9	−16.1	.....	46	0.69	nw.	17.0	2,205	9,900	Arc of 22°-halo, 9:46 a. m. to 10:05 a. m.
						2,500	749.3	−17.0	.....	44	0.60	nw.	17.5	2,450	12,800	
						2,750	724.9	−17.9	.....	42	0.53	nw.	18.1	2,694	15,700	
						3,000	700.8	−18.7	.....	39	0.45	wnw.	18.6	2,939	18,610	
						3,250	677.4	−19.6	.....	37	0.40	wnw.	19.2	3,184	19,790	
						3,500	655.2	−20.5	.....	35	0.34	wnw.	19.7	3,429	20,980	
10:32	987.9	− 7.8	65	nnw.	3.6	3,617	645.4	−20.9	0.35	34	0.32	wnw.	19.9	3,543	21,390	4/10 Ci., w.
						3,750	633.6	−20.7	.....	37	0.34	wnw.	20.9	3,673	21,860	
10:59	988.2	− 7.4	61	nnw.	3.1	3,931	618.5	−20.4	−0.11	40	0.40	w.	22.2	3,850	22,500	
						3,750	633.6	−20.5	.....	40	0.39	w.	23.5	3,673	21,040	
						3,500	655.2	−20.6	.....	41	0.40	wnw.	25.4	3,429	19,020	
11:41	988.2	− 6.5	58	nnw.	4.9	3,407	663.3	−20.7	0.33	41	0.39	wnw.	26.1	3,337	18,270	Cloudless.
						3,250	677.4	−20.2	.....	43	0.43	wnw.	25.0	3,184	17,030	
						3,000	700.8	−19.4	.....	46	0.50	wnw.	23.2	2,939	15,010	
						2,750	724.9	−18.6	.....	49	0.58	nw.	21.4	2,694	12,990	
						2,500	749.3	−17.7	.....	52	0.67	nw.	19.7	2,450	10,970	
						2,250	774.9	−16.8	.....	55	0.76	nw.	18.0	2,205	9,350	
						2,000	801.0	−16.0	.....	58	0.87	nnw.	16.2	1,960	7,740	
						1,750	827.9	−15.2	.....	60	0.97	nnw.	14.4	1,715	6,120	
P. M.																
12:30	988.0	− 5.8	52	n.	5.4	1,691	834.2	−15.0	0.34	61	1.01	nnw.	14.0	1,657	5,800	
						1,500	855.6	−14.4	.....	63	1.10	nnw.	13.3	1,470	5,010	
						1,250	883.7	−13.5	.....	66	1.25	nnw.	12.3	1,225	3,860	
						1,000	912.6	−12.6	.....	69	1.41	nnw.	11.3	980	2,700	
12:53	987.9	− 6.2	53	n.	6.3	781	939.9	−11.9	1.48	71	1.55	nnw.	10.5	766	1,590	
						750	943.8	−11.4	.....	69	1.58	nnw.	10.2	735	1,460	
						500	975.0	− 7.7	.....	55	1.75	n.	8.1	490	430	
12:59	987.9	− 6.2	49	n.	7.2	396	987.9	− 6.2	.....	49	1.77	n.	7.2	388	.....	2/10A.Cu.,nw.; fewSt.Cu.,nnw.

March 4, 1917.

P. M.																
8:42	978.6	−13.2	71	se.	3.1	396	978.6	−13.2	.....	71	1.38	se.	3.1	388	.....	Cloudless.
8:45	978.6	−13.3	71	se.	3.1	478	968.1	−12.8	0.44	71	1.43	se.	6.3	469	1,080	
						500	965.0	−12.9	.....	71	1.42	se.	6.2	490	1,380	
						750	933.1	−13.5	.....	70	1.32	sse.	5.0	735	4,720	
10:03	977.4	−14.6	77	se.	4.0	966	906.8	−14.0	0.25	69	1.25	s.	4.0	947	7,700	
						1,000	902.5	−14.2	.....	69	1.23	ssw.	4.0	980	7,650	
						1,250	873.1	−15.6	.....	71	1.11	sw.	3.8	1,225	7,320	
10:06	977.3	−14.8	81	se.	4.0	1,337	863.3	−16.1	0.54	71	1.06	wsw.	3.7	1,311	7,200	
						1,250	873.1	−15.7	.....	71	1.10	sw.	4.5	1,225	6,540	
						1,000	902.5	−14.4	.....	71	1.24	ssw.	6.9	980	4,660	
10:19	977.2	−14.6	77	se.	4.5	859	919.4	−13.7	0.14	71	1.32	s.	8.2	842	3,600	
						750	932.8	−13.5	.....	70	1.32	s.	7.7	735	2,830	
10:27	977.1	−14.4	73	sse.	4.5	497	964.2	−13.2	1.09	68	1.33	sse.	6.4	487	1,030	
10:29	977.1	−14.3	73	sse.	4.5	396	977.1	−14.3	.....	73	1.28	sse.	4.5	388	.....	Cloudless.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 5, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^6 *ergs.*	*volts.*	
8:01	986.6	−11.4	59	s.	8.0	396	968.6	−11.4	.....	59	1.35	s.	8.0	388	.....	7/10 A. Cu., wnw.; 2/10 St. Cu., wnw.
						500	955.6	−11.3	.....	57	1.31	s.	13.6	490	.....	
8:02	968.6	−11.4	59	s.	8.0	582	945.4	−11.3	−0.05	55	1.27	s.	18.1	571	.....	
						750	925.1	− 9.2	.....	53	1.49	s.	18.7	735	.....	
						1,000	895.0	− 6.2	.....	50	1.83	ssw.	19.5	980	10,910	
8:21	968.1	−10.6	60	s.	8.5	1,098	884.3	− 5.0	−1.22	49	1.96	ssw.	19.8	1,076	13,500	
						1,250	866.8	− 5.0	.....	45	1.81	ssw.	19.7	1,225	15,190	
						1,500	839.7	− 5.0	.....	39	1.56	sw.	19.6	1,470	17,950	
8:40	967.7	− 9.9	60	s.	8.0	1,625	826.6	− 5.0	0.00	36	1.44	sw.	19.6	1,593	19,250	
						1,750	813.4	− 4.4	.....	36	1.52	sw.	17.9	1,715	20,550	
8:42	967.6	− 9.8	60	s.	8.0	1,773	811.1	− 4.3	−0.47	36	1.53	sw.	17.6	1,738	20,790	Altitude of clouds 2,050 m.
8:56	967.3	− 9.1	59	s.	8.5	1,909	797.0	− 4.6	0.22	35	1.45	wsw.	16.5	1,871	21,750	6/10 A. Cu., wnw.; 4/10 St. Cu., wnw.
						2,000	787.0	− 5.3	.....	40	1.51	wsw.	16.2	1,960	22,080	
						2,250	762.5	− 7.2	.....	52	1.69	wsw.	15.5	2,205	23,000	
9:18	967.0	− 8.5	54	s.	10.7	2,385	749.9	− 8.2	0.76	59	1.79	wsw.	15.1	2,337	23,500	Clouds becoming lower.
						2,500	738.7	− 8.9	.....	62	1.76	wsw.	17.0	2,450	24,530	10/10 St.Cu., wsw.
						2,750	715.7	−10.5	.....	68	1.68	w.	21.2	2,694	26,770	
10:21	966.0	− 6.1	62	s.	8.9	2,995	692.9	−12.0	0.72	74	1.61	w.	25.3	2,934	.....	Altitude of clouds 3,150 m.
						2,750	715.7	−10.0	.....	64	1.64	wsw.	25.7	2,694	24,050	
						2,500	738.7	− 7.9	.....	55	1.66	wsw.	26.2	2,450	16,640	
11:20	964.9	− 3.4	47	ssw.	11.2	2,252	762.4	− 5.8	0.63	45	1.69	sw.	26.6	2,207	8,200	10/10 St.Cu., wsw.
						2,000	787.0	− 4.2	.....	40	1.69	sw.	28.5	1,960	6,650	
						1,750	812.1	− 2.6	.....	35	1.69	sw.	30.5	1,715	5,120	
11:43	964.5	− 2.4	45	ssw.	11.2	1,554	832.6	− 1.4	0.00	31	1.69	sw.	32.0	1,523	3,910	Clouds decreasing.
						1,500	838.0	− 1.4	.....	32	1.75	sw.	30.9	1,470	4,320	1/10 A.Cu.,w.; 2/10 St. Cu.,wsw.
						1,250	864.6	− 1.4	.....	37	2.01	ssw.	26.0	1,225	12,440	
11:58	964.2	− 1.9	42	ssw.	10.7	1,196	870.6	− 1.4	−9.44	38	2.07	ssw.	24.9	1,172	14,190	
P. M.																
12:15	963.6	− 1.0	43	s.	13.4	1,125	878.1	− 8.1	0.62	51	1.57	ssw.	24.6	1,103	13,120	3/10A.Cu.,w.;2/10St.Cu.,wsw.
						1,000	892.2	− 7.3	.....	51	1.68	ssw.	21.9	980	7,900	7/10 A.Cu., w.; 2/10 St.Cu.,wsw.
12:33	962.9	− 0.4	36	s.	12.5	770	918.4	− 5.9	1.36	51	1.89	s.	17.0	755	2,200	Clouds lowering.
						750	921.5	− 5.6	.....	51	1.92	s.	16.7	735	.....	8/10 St.Cu., wsw.
						500	950.8	− 2.2	.....	46	2.34	s.	12.5	490	.....	
12:40	962.6	− 0.8	44	s.	10.7	396	962.6	− 0.8	.....	44	2.51	s.	10.7	388	.....	10/10 St.Cu., wsw.

March 6, 1917 (No. 1).

A. M.																
7:57	958.1	2.3	59	sse.	7.2	396	958.1	2.3	.....	59	4.25	sse.	7.2	388	.....	2/10 A.St., wsw.; 4/10 A.Cu.; wsw.; 4/10 St.Cu., wsw.
						500	946.5	2.6	.....	56	4.13	sse.	8.8	490	860	
						750	917.7	3.2	.....	49	3.77	s.	12.5	735	2,940	
8:07	958.1	2.4	65	sse.	7.2	794	912.2	3.3	−0.25	48	3.72	s.	13.2	779	3,300	
						1,000	889.1	3.8	.....	43	3.45	sse.	9.4	980	3,440	
8:20	958.0	2.6	62	se.	8.0	1,032	885.7	3.9	−0.25	42	3.39	sse.	8.8	1,012	3,460	10/10 A.St., wsw.
						1,250	861.8	3.7	.....	43	3.42	se.	11.4	1,225	4,280	
						1,500	835.6	3.4	.....	44	3.43	ese.	14.4	1,470	5,480	
8:30	957.9	2.8	57	sse.	7.6	1,629	822.8	3.3	0.10	44	3.41	ese.	15.9	1,597	6,100	
						1,750	809.6	2.5	.....	46	3.36	ese.	16.3	1,715	6,870	
						2,000	785.7	0.8	.....	51	3.30	ese.	17.0	1,960	8,470	
8:43	957.8	3.4	52	se.	8.5	2,067	779.2	0.3	0.68	52	3.24	ese.	17.2	2,026	8,900	
						2,250	761.2	− 0.7	.....	52	3.00	ese.	18.6	2,205	10,090	
						2,500	737.7	− 2.1	.....	52	2.67	se.	20.4	2,450	11,710	
						2,750	714.7	− 3.4	.....	52	2.39	sse.	22.3	2,694	13,330	Few Ci., w.; 2/10 A.St., wsw.; 7/10 A.Cu., wsw.
						3,000	692.2	− 4.8	.....	52	2.12	sse.	24.2	2,939	14,200	
						3,250	670.2	− 6.1	.....	52	1.90	s.	26.0	3,184	14,990	
9:23	957.6	4.3	47	se.	7.6	3,315	664.8	− 6.5	0.49	52	1.84	s.	26.5	3,247	15,200	
						3,250	670.2	− 6.2	.....	51	1.85	s.	26.3	3,184	14,810	
						3,000	692.2	− 5.1	.....	49	1.95	sse.	25.7	2,939	13,300	
						2,750	714.5	− 4.0	.....	47	2.05	sse.	25.0	2,694	11,790	
						2,500	736.1	− 2.9	.....	45	2.16	se.	24.4	2,450	10,280	
						2,250	760.0	− 1.9	.....	43	2.24	se.	23.7	2,205	8,770	
10:00	957.4	5.6	44	se.	8.5	2,122	772.2	− 1.3	0.37	42	2.30	se.	23.4	2,080	8,000	
						2,000	784.0	− 0.9	.....	42	2.38	se.	23.4	1,960	7,230	
						1,750	809.3	0.1	.....	42	2.58	ese.	23.4	1,715	5,660	
10:14	957.2	5.9	39	se.	9.8	1,741	809.7	0.1	−0.08	42	2.58	ese.	23.4	1,700	5,600	4/10 A.Cu., wsw.
						1,500	835.0	− 0.1	.....	45	2.73	ese.	19.2	1,470	4,390	
						1,250	861.2	− 0.3	.....	48	2.86	se.	14.8	1,225	3,140	
10:36	956.8	6.6	38	sse.	8.5	1,031	884.4	− 0.5	0.55	50	2.93	se.	11.0	1,011	2,360	
						1,000	888.1	− 0.3	.....	50	2.98	se.	11.1	980	2,270	
10:43	956.7	6.6	38	sse.	8.0	793	911.0	0.8	1.66	53	3.43	se.	11.6	778	1,680	
						750	916.0	1.5	.....	51	3.47	se.	11.5	735	1,500	
						500	944.2	5.7	.....	41	3.76	se.	10.6	490	440	
10:50	956.6	7.4	37	se.	10.3	396	956.6	7.4	.....	37	3.81	se.	10.3	388	.....	Few Ci.St., w.

March 6, 1917 (No. 2).

A. M.																
11:34	956.1	8.2	34	sse.	8.6	396	956.1	8.2	.....	34	3.70	sse.	8.6	388	.....	Cloudless.
						500	944.5	7.2	.....	36	3.66	sse.	9.6	490	0	
						750	916.0	4.7	.....	42	3.59	sse.	11.9	735	0	
11:45	955.8	8.3	34	sse.	10.4	803	909.4	4.2	0.98	43	3.55	sse.	12.4	787	0	
						1,000	887.3	2.4	.....	48	3.48	sse.	12.3	980	1,620	
						1,250	859.9	0.1	.....	54	3.32	sse.	12.2	1,225	3,110	
						1,500	833.0	− 2.2	.....	60	3.05	sse.	12.1	1,470	2,700	
P. M.																
12:09	955.5	8.3	38	sse.	9.9	1,560	827.3	− 2.8	0.92	62	3.00	sse.	12.1	1,529	2,600	
						1,750	807.5	− 2.6	.....	59	2.90	sse.	15.7	1,715	3,990	
						2,000	782.8	− 2.4	.....	55	2.75	sse.	20.4	1,960	5,820	
12:26	955.1	8.7	35	sse.	8.1	2,061	776.5	− 2.4	−0.08	54	2.70	sse.	21.6	2,020	6,260	Few St. Cu., ssw.
						2,250	758.2	0.5	.....	52	3.05	s.	22.7	2,205	7,650	
12:32	955.0	9.0	34	sse.	7.6	2,312	752.5	1.5	−1.55	51	3.47	s.	23.0	2,266	8,100	
						2,500	735.0	1.0	.....	48	3.15	s.	23.9	2,450	8,970	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 6, 1917 (No. 2)—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						2,750	712.3	0.2	.....	44	2.73	ssw.	25.2	2,694	10,130	
12:54	954.4	9.4	33	sse.	9.4	2,831	705.2	0.0	0.29	43	2.63	ssw.	25.6	2,774	10,500	
						3,000	690.7	−1.3	.....	45	2.47	ssw.	26.6	2,939	10,260	
						3,250	669.2	−3.3	.....	47	2.18	ssw.	28.2	3,184	9,920	
						3,500	648.2	−5.3	.....	49	1.92	ssw.	29.7	3,429	9,620	
1:45	953.5	10.3	32	sse.	9.9	3,611	638.7	−6.2	0.74	50	1.81	ssw.	30.4	3,537	9,500	Few St. Cu., sse.
						3,500	648.2	−5.4	.....	49	1.90	ssw.	28.7	3,429	8,930	
						3,250	669.2	−3.7	.....	48	2.15	ssw.	24.9	3,184	7,640	
						3,000	690.7	−2.0	.....	46	2.38	s.	20.6	2,939	6,350	
2:10	953.2	10.8	33	se.	11.2	2,816	706.3	−0.8	0.67	45	2.57	s.	18.3	2,759	5,400	
						2,750	712.1	0.4	.....	44	2.77	s.	19.3	2,694	5,150	
						2,500	734.1	1.3	.....	42	2.82	s.	23.2	2,450	4,210	
2:26	953.0	10.5	35	se.	9.0	2,426	741.1	1.8	−0.90	41	2.85	s.	24.3	2,377	3,940	3/10 St. Cu., sse.
						2,250	757.1	0.2	.....	49	3.04	s.	21.1	2,205	3,270	
						2,000	781.3	−2.1	.....	59	3.03	sse.	16.6	1,960	2,320	
2:40	952.8	10.0	38	se.	9.9	1,873	794.0	−3.2	0.79	65	3.04	sse.	14.3	1,836	1,840	
						1,750	806.2	−2.2	.....	64	3.26	sse.	14.2	1,715	1,370	
						1,500	831.8	−0.3	.....	63	3.75	se.	14.0	1,470	610	
3:00	952.6	10.0	37	se.	10.8	1,251	857.9	1.7	0.91	61	4.22	se.	13.8	1,226	0	8/10 St. Cu., sse.
						1,000	884.5	4.0	.....	53	4.31	se.	13.6	980	0	
3:14	952.6	10.8	36	se.	9.9	778	909.4	6.0	1.15	46	4.30	se.	13.5	763	0	
						750	912.2	6.3	.....	45	4.30	se.	13.2	735	0	
						500	940.8	9.2	.....	39	4.54	se.	10.2	490	0	
3:22	952.6	10.4	37	se.	9.0	396	952.6	10.4	.....	37	4.67	se.	9.0	388	.....	10/10 St. Cu., sse.

March 7, 1917.

P. M.																
2:21	967.6	1.4	76	nw.	11.2	396	967.6	1.4	.....	76	5.14	nw.	11.2	388	.....	10/10 St. Cu., nw.
						500	955.3	0.6	.....	78	4.98	nw.	15.2	490	0	
						750	926.3	−1.1	.....	83	4.62	nw.	24.6	735	0	
2:28	967.7	1.5	82	nw.	13.9	761	924.6	−1.2	0.71	83	4.59	nw.	25.0	746	0	
						1,000	897.7	−3.4	.....	92	4.23	nw.	26.3	980	1,440	St. Cu. clouds at about 1,100 m.
2:33	967.8	1.4	86	nw.	10.3	1,095	886.7	−4.3	0.93	95	4.05	nw.	26.8	1,073	2,000	
						1,250	869.9	−5.3	.....	94	3.68	nw.	.....	1,225	3,120	
						1,500	842.6	−6.9	.....	92	3.14	nw.	.....	1,470	2,800	Snow flurries began 2:45 p. m.
3:03	968.2	1.6	61	nw.	10.7	1,555	836.4	−7.2	0.60	92	3.05	nw.	.....	1,524	3,500	
						1,500	842.6	−6.9	.....	92	3.14	nw.	.....	1,470	3,290	
						1,250	869.9	−5.4	.....	90	3.49	nw.	.....	1,225	2,320	
3:20	968.4	1.7	70	nw.	11.6	1,210	874.2	−5.2	0.66	90	3.55	nw.	.....	1,186	2,160	
						1,000	897.7	−3.8	.....	88	3.91	nw.	.....	980	1,350	
						750	926.5	−2.2	.....	87	4.43	nw.	.....	735	380	
3:41	968.7	1.6	84	nw.	11.6	650	938.6	−1.5	1.22	86	4.64	nw.	.....	637	0	
						500	956.2	0.3	.....	71	4.43	nw.	.....	490	0	
3:47	968.7	1.6	60	nw.	11.2	396	968.7	1.6	.....	60	4.12	nw.	11.2	388	.....	10/10 St. Cu., nw.; snow flurries ended 3:50 p. m.

March 8, 1917, series (No. 1).

A. M.																
8:11	973.5	−2.6	80	w.	9.8	396	973.5	−2.6	.....	80	3.94	w.	9.8	388	.....	Cloudless.
						500	961.3	−2.8	.....	79	3.82	w.	11.6	490	0	
						750	931.8	−3.3	.....	76	3.53	wnw.	15.8	735	0	
8:24	974.5	−1.9	83	w.	4.5	879	916.9	−3.6	0.21	74	3.34	nnw.	16.6	862	440	
						1,000	902.8	−4.1	.....	76	3.29	nnw.	18.2	980	1,060	
8:30	974.5	−1.4	80	w.	4.0	1,187	881.8	−4.9	0.42	80	3.24	nnw.	20.6	1,164	2,000	
						1,250	874.7	−5.3	.....	82	3.21	nnw.	20.8	1,225	2,340	
						1,500	847.6	−7.0	.....	90	3.04	nw.	21.5	1,470	3,710	
8:40	974.6	−1.0	77	w.	4.5	1,554	841.6	−7.4	0.78	92	3.00	nw.	21.6	1,523	4,000	
8:46	974.6	−0.8	76	w.	4.5	1,654	830.9	−6.4	−1.00	77	2.74	nw.	22.2	1,621	4,480	
						1,750	820.5	−7.1	.....	76	2.55	nw.	22.1	1,715	4,930	
						2,000	793.7	−8.8	.....	72	2.08	nw.	21.9	1,960	6,110	
						2,250	768.8	−10.5	.....	67	1.66	nw.	21.7	2,205	7,110	
						2,500	745.3	−12.3	.....	64	1.35	nw.	21.4	2,450	8,100	
9:08	974.8	+0.5	65	wnw.	5.8	2,550	740.2	−12.7	0.70	63	1.29	nw.	21.4	2,499	8,300	
						2,750	722.2	−13.8	.....	66	1.21	nw.	21.2	2,694	9,000	
						3,000	699.8	−15.1	.....	70	1.08	nw.	21.0	2,939	9,880	
9:43	975.1	+1.6	61	nw.	6.3	3,214	678.6	−16.3	0.54	74	1.14	nw.	21.1	3,149	11,140	Few Cu., nw.
						3,250	677.0	−16.2	.....	70	1.04	nw.	21.2	3,184	11,370	
						3,500	653.2	−15.7	.....	42	0.65	nw.	21.6	3,429	12,960	3/10 Cu., nw.
10:18	975.3	+2.6	52	nw.	5.8	3,506	652.9	−15.7	−0.07	41	0.64	nw.	21.6	3,434	13,000	
						3,500	653.2	−15.7	.....	41	0.64	nw.	21.5	3,429	12,970	
						3,250	675.3	−15.5	.....	56	0.88	nw.	19.0	3,184	11,800	6/10 Cu., nw.
10:35	975.3	+2.5	55	nw.	6.3	3,215	678.6	−15.5	0.57	58	0.91	nw.	18.6	3,150	11,650	
						3,000	698.0	−14.3	.....	57	1.00	nw.	18.9	2,939	10,650	
						2,750	721.5	−12.9	.....	56	1.12	nw.	19.2	2,694	9,480	
						2,500	745.5	−11.4	.....	55	1.26	nw.	19.5	2,450	8,060	
						2,250	770.0	−10.0	.....	54	1.40	nw.	19.8	2,205	6,540	8/10 Cu., nw.
11:03	975.3	+3.4	49	nw.	7.6	2,210	774.1	−9.8	0.59	54	1.43	nw.	19.8	2,166	6,300	
						2,000	794.9	−8.6	.....	65	1.91	nw.	19.8	1,960	5,570	
						1,750	821.2	−7.1	.....	78	2.61	nw.	19.8	1,715	4,710	
11:13	975.3	+2.5	51	nw.	7.2	1,704	826.1	−6.8	0.96	80	2.75	nw.	19.8	1,670	4,550	
11:15	975.3	+2.8	51	nw.	7.2	1,548	842.8	−8.3	0.75	92	2.78	nw.	16.6	1,517	3,940	
						1,500	847.8	−7.9	.....	91	2.84	nw.	16.1	1,470	3,810	
						1,250	875.8	−6.1	.....	85	3.10	nw.	12.7	1,250	2,530	
						1,000	904.1	−4.2	.....	79	3.40	nw.	9.5	980	1,350	
11:30	975.3	+3.1	54	nw.	5.8	964	908.1	−3.9	0.64	78	3.44	nw.	9.0	945	.....	
						750	933.0	−2.5	.....	69	3.42	nw.	8.4	735	.....	
11:39	975.3	+3.1	52	nnw.	5.8	715	937.2	−2.3	1.72	68	3.43	nw.	8.3	701	0	
						500	962.6	1.4	.....	54	3.65	nnw.	8.7	490	0	
11:46	975.3	+3.2	47	nnw.	8.9	396	975.3	3.2	.....	47	3.61	nnw.	8.9	388	.....	8/10 Cu., nw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 8, 1917, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ crgs.*	*volts.*	
12:16	975.2	3.5	57	nw.	6.3	396	975.2	3.5	.....	57	4.47	nw.	6.3	388	.....	8/10 Cu., nw.
						500	962.9	2.3	.....	60	4.33	nw.	7.5	490	0	
12:26	975.2	3.7	48	nw.	5.8	746	933.7	− 0.5	1.14	67	3.93	nw.	10.4	731	0	
						1,000	904.2	− 3.0	.....	77	3.66	nw.	10.9	980	1,320	
						1,250	875.9	− 5.5	.....	86	3.30	nw.	11.4	1,225	2,620	6/10 Cu., nw.
1:10	975.0	4.0	48	nw.	6.3	1,307	869.5	− 6.1	1.00	88	3.21	nw.	11.5	1,281	2,750	
						1,500	848.1	− 6.5	.....	81	2.86	nw.	13.9	1,470	3,170	
						1,750	821.5	− 7.0	.....	73	2.47	nw.	17.0	1,715	3,720	
1:20	974.8	4.1	49	nw.	5.4	1,776	818.7	− 7.1	0.21	72	2.41	nw.	17.3	1,741	3,780	5/10 Cu., nw.
2:07	974.3	4.4	47	nw.	5.4	1,998	795.3	− 7.8	0.32	52	1.64	nw.	16.6	1,958	4,700	
						2,250	770.4	− 8.8	.....	45	1.30	nw.	17.7	2,205	5,430	
						2,500	745.9	− 9.7	.....	39	1.04	wnw.	18.8	2,450	6,160	
						2,750	721.7	−10.6	.....	32	0.79	wnw.	19.9	2,694	.....	2/10 Cu., nw.
3:10	974.3	4.7	48	nw.	5.8	2,789	718.2	−10.8	0.38	31	0.75	wnw.	20.1	2,733	.....	
						2,750	721.7	−10.6	.....	32	0.79	wnw.	19.9	2,694	.....	
						2,500	745.9	− 9.6	.....	36	0.97	wnw.	18.3	2,450	4,390	
						2,250	770.4	− 8.7	.....	40	1.16	wnw.	16.8	2,205	4,120	
						2,000	795.2	− 7.7	.....	43	1.37	wnw.	15.2	1,960	3,840	
3:30	974.3	4.5	47	nw.	5.4	1,967	798.8	− 7.6	0.61	44	1.41	wnw.	15.0	1,928	2,800	
						1,750	821.5	− 6.3	.....	47	1.69	wnw.	13.4	1,715	2,560	
3:35	974.3	4.3	48	nw.	5.4	1,641	833.0	− 5.6	0.09	48	1.83	wnw.	12.6	1,608	2,440	1/10 Cu., nw.
						1,500	848.1	− 5.5	.....	61	2.34	wnw.	11.8	1,470	2,280	
3:46	974.3	4.9	49	nw.	5.0	1,304	869.5	− 5.3	1.04	78	3.05	nw.	10.8	1,278	1,780	
						1,250	875.9	− 4.7	.....	77	3.17	nw.	10.4	1,225	1,600	
						1,000	904.2	− 2.2	.....	71	3.61	nw.	8.8	770	980	
3:55	974.3	4.9	48	nw.	4.0	937	910.8	− 1.5	0.54	70	3.77	nw.	8.4	919	550	
						750	932.9	− 0.5	.....	68	3.98	nw.	8.6	735	0	
4:00	974.3	4.5	49	nw.	4.5	695	938.8	− 0.2	1.51	67	4.03	nw.	8.7	681	0	
						500	962.0	2.7	.....	55	4.08	nw.	5.6	490	0	
4:02	974.3	4.3	49	nw.	4.0	396	974.3	4.3	.....	49	4.07	nw.	4.0	388	.....	

March 8, 1917, series (No. 3).

P. M.																
4:47	974.6	4.0	50	nnw.	3.6	396	974.6	4.0	.....	50	4.06	nnw.	3.6	388	.....	Few Cu., nw.
						500	962.1	2.5	.....	57	4.17	nnw.	5.7	490	0	
5:07	974.7	3.8	51	nnw.	3.2	517	960.4	2.3	1.40	58	4.18	nnw.	6.0	507	0	
6:05	975.0	1.9	56	nnw.	2.2	755	932.2	−1.1	0.50	72	4.01	nnw.	5.4	740	170	Few Ci., nw.
						1,000	904.1	−1.0	.....	54	3.03	wnw.	9.4	980	600	
8:32	975.3	−2.2	70	nne.	2.7	1,088	894.4	−0.9	−0.06	48	2.72	wnw.	10.8	1,067	750	
						1,250	875.9	−1.8	.....	48	2.52	wnw.	11.1	1,225	1,270	
						1,500	848.5	−3.1	.....	47	2.21	w.	11.6	1,470	2,170	
8:43	975.3	−2.4	71	nne.	3.6	1,525	846.7	−3.2	0.53	47	2.20	w.	11.7	1,495	2,260	Cloudless.
						1,750	822.6	−4.1	.....	40	1.73	w.	12.2	1,715	2,930	
						2,000	796.6	−5.0	.....	33	1.32	w.	12.8	1,960	3,620	
						2,250	771.9	−5.9	.....	26	0.96	w.	13.4	2,205	4,310	
9:15	975.2	−3.2	78	nne.	3.2	2,318	765.4	−6.2	0.38	24	0.87	w.	13.6	2,271	4,500	
						2,500	747.2	−6.3	.....	20	0.72	w.	13.7	2,450	5,160	
						2,750	724.0	−6.5	.....	14	0.49	wnw.	14.0	2,694	5,700	
9:38	975.1	−3.9	81	ne.	3.2	2,786	720.6	−6.5	0.06	13	0.46	wnw.	14.0	2,730	6,190	
						3,000	700.8	−7.1	.....	10	0.34	wnw.	13.9	2,939	7,080	
						3,250	678.2	−7.8	.....	8	0.25	wnw.	13.8	3,184	8,200	
10:06	975.0	−4.0	82	ne.	3.6	3,294	674.8	−7.9	0.20	7	0.22	wnw.	13.8	3,227	8,400	Few Ci., nw.
						3,250	678.2	−7.8	.....	7	0.22	wnw.	13.7	3,184	8,270	
						3,000	700.8	−7.5	.....	6	0.19	w.	13.3	2,939	7,530	
10:20	974.9	−4.3	84	ene.	3.6	2,772	721.7	−7.2	0.24	5	0.17	w.	12.9	2,716	6,860	
						2,750	724.0	−7.1	.....	5	0.17	w.	12.9	2,694	6,790	
						2,500	747.2	−6.5	.....	6	0.21	w.	13.5	2,450	6,050	
10:28	974.9	−4.3	84	ene.	3.6	2,314	765.4	−6.1	0.51	7	0.26	w.	13.9	2,268	5,500	
						2,250	771.9	−5.8	.....	9	0.34	w.	13.9	2,205	5,130	
						2,000	796.0	−4.5	.....	17	0.71	w.	14.0	1,960	4,180	
						1,750	822.0	−3.3	.....	25	1.16	w.	14.1	1,715	3,130	Partial lunar halo of 22° radius began 10:40 p. m.
10:42	974.8	−4.6	88	ene.	3.6	1,720	825.3	−3.1	0.35	26	1.22	w.	14.1	1,686	3,000	
						1,500	848.4	−2.3	.....	29	1.46	nw.	11.8	1,470	.....	
						1,250	875.9	−1.8	.....	31	1.63	n.	9.2	1,225	.....	1/10 Ci., nw.
						1,000	903.9	−0.6	.....	36	2.09	ne.	6.6	980	.....	
10:56	974.7	−4.4	86	e.	4.0	882	917.0	−0.2	−0.33	38	2.28	ene.	5.4	865	.....	
						750	932.1	−0.7	.....	44	2.53	ene.	5.4	735	.....	
10:59	974.7	−4.4	86	e.	4.0	609	948.9	−1.1	−1.60	49	2.73	ene.	5.4	597	.....	
						500	962.0	−2.8	.....	68	3.29	e.	4.5	490	.....	
11:03	974.7	−4.5	88	e.	3.6	396	974.7	−4.5	.....	88	3.69	e.	3.6	388	.....	1/10 Ci., nw.

March 8–9, 1917, series (No. 4).

P. M.																
11:54	974.3	−4.0	84	e.	3.6	396	974.3	− 4.0	.....	84	3.67	e.	3.6	388	.....	
						500	961.7	− 3.6	.....	83	3.75	e.	5.4	490	0	
12:00	974.3	−3.8	82	ese.	3.6	595	950.1	− 3.2	−0.40	82	3.84	e.	7.0	583	0	
A. M.																
						750	931.3	− 1.2	.....	67	3.71	se.	5.7	735	0	5/10 Ci. St., nw.
1:31	973.8	−4.4	84	ese.	3.6	784	927.1	− 0.8	−1.27	64	3.65	se.	5.4	769	0	
						1,000	901.9	− 0.6	.....	58	3.37	s.	6.1	980	1,010	
						1,250	874.2	− 0.5	.....	52	3.05	ssw.	6.9	1,225	2,180	
1:56	973.6	−4.1	83	se.	5.4	1,333	865.4	− 0.4	−0.07	50	2.96	sw.	7.2	1,307	2,560	
						1,500	847.5	− 0.9	.....	50	2.84	sw.	9.2	1,470	3,810	
						1,750	821.2	− 1.6	.....	49	2.62	wsw.	12.1	1,715	4,510	
1:59	973.6	−4.1	82	se.	5.4	1,793	817.0	− 1.7	0.28	49	2.60	wsw.	12.6	1,757	4,710	
						2,000	795.9	− 3.2	.....	51	2.39	wsw.	13.0	1,960	5,680	
						2,250	771.0	− 5.1	.....	54	2.15	w.	13.5	2,205	6,850	
2:06	973.5	−4.0	82	se.	4.5	2,456	751.1	− 6.6	0.74	55	1.92	w.	13.9	2,407	7,800	
						2,500	746.8	− 6.8	.....	55	1.89	w.	14.0	2,450	7,910	
						2,750	723.2	− 7.9	.....	57	1.78	w.	14.7	2,694	8,560	
						3,000	700.6	− 9.1	.....	51	1.43	w.	15.8	2,939	9,210	
						3,250	678.3	−10.2	.....	50	1.28	w.	16.0	3,184	9,930	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 8-9, 1917, series (No. 4)—Continued.

Surface.						At different heights above sea.											Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.		
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*		
						3,500	656.2	−11.3	.....	48	1.11	w.	17.1	3,429	10,850		Lunar halo ended 2:58 a. m.
3:01	973.0	−4.3	84	ese.	5.0	3,677	641.3	−12.1	0.47	47	1.01	w.	17.2	3,602	11,500		4/10 Ci. St., nw.; 3/10 A. Cu., nw.
						3,500	656.2	−11.2	.....	48	1.12	w.	16.7	3,429	10,630		
						3,250	678.3	−10.0	.....	50	1.30	w.	16.0	3,184	9,390		
						3,000	700.6	− 8.8	.....	52	1.50	wsw.	15.3	2,939	8,350		
						2,750	723.2	− 7.6	.....	53	1.70	wsw.	14.7	2,694	7,350		7/10 A. Cu., nw.
3:38	972.7	−4.3	84	ese.	5.4	2,513	745.5	− 6.4	0.60	55	1.96	wsw.	14.0	2,463	6,400		
						2,500	746.8	− 6.3	.....	55	1.97	wsw.	14.0	2,450	6,370		
						2,250	771.0	− 4.8	.....	51	2.08	wsw.	13.3	2,205	5,750		
						2,000	795.9	− 3.3	.....	46	2.13	sw.	12.6	1,960	4,990		
						1,750	821.2	− 1.9	.....	42	2.19	sw.	12.0	1,715	4,180		
3:57	972.6	−4.4	86	se.	5.0	1,631	833.7	− 1.1	0.67	40	2.23	sw.	11.6	1,599	3,800		5/10 A. Cu., nw.
						1,500	847.5	− 0.2	.....	37	2.22	sw.	11.9	1,470	3,430		
						1,250	874.2	1.4	.....	31	2.10	ssw.	12.6	1,225	2,730		
4:06	972.6	−4.4	86	ese.	5.0	1,240	875.3	1.5	−0.12	31	2.11	ssw.	12.6	1,216	2,700		
						1,000	901.6	1.2	.....	41	2.73	ssw.	12.1	980	2,070		
						750	930.0	0.9	.....	52	3.39	s.	11.6	735	1,410		
4:20	972.5	−4.7	88	se.	5.0	744	930.9	0.9	−1.25	52	3.39	s.	11.6	730	1,390		
						500	959.8	− 3.0	.....	77	3.66	sse.	6.6	490	410		
4:25	972.5	−4.7	88	se.	4.5	396	972.5	− 4.7	.....	88	3.63	se.	4.5	388	.....		4/10 A. Cu., nw.

March 9, 1917, series (No. 5).

A. M.																	
5:13	972.3	−5.0	90	se.	4.0	396	972.3	− 5.0	.....	90	3.56	se.	4.0	388	.....		2/10Ci.,wnw.; 1/10Ci.Cu.,wnw.;
						500	966.0	− 3.5	.....	82	3.74	sse.	7.3	490	370		1/10 A. Cu., wnw.
						750	930.0	0.0	.....	64	3.91	s.	15.1	735	1,250		
5:21	972.3	−5.0	88	se.	4.5	768	927.7	0.3	−1.42	63	3.93	s.	15.7	753	1,310		
5:25	972.3	−5.0	88	se.	4.5	968	904.9	1.7	−0.70	46	3.18	s.	13.8	949	2,830		
						1,000	901.1	1.7	.....	45	3.11	s.	13.5	980	3,070		
						1,250	873.9	1.5	.....	38	2.59	s.	11.3	1,225	4,390		
						1,500	847.0	1.4	.....	31	2.10	ssw.	9.1	1,470	5,230		
5:59	972.3	−5.0	90	se.	5.4	1,562	840.6	1.4	0.05	29	1.96	ssw.	8.6	1,531	5,510		
						1,750	821.1	0.6	.....	30	1.91	ssw.	7.7	1,715	6,350		3/10Ci., wnw.; 1/10A.Cu.,wnw.
						2,000	795.4	− 0.5	.....	32	1.88	ssw.	6.5	1,960	7,890		1/10Ci., wnw.; 1/10A.Cu.,wnw.
6:56	971.6	−4.9	88	ese.	7.2	2,148	780.7	− 1.2	0.44	33	1.82	ssw.	5.8	2,105	9,970		
						2,250	770.9	− 1.9	.....	33	1.72	ssw.	6.6	2,205	9,960		
						2,500	746.3	− 3.5	.....	33	1.50	ssw.	8.4	2,450	9,940		
						2,750	723.0	− 5.2	.....	34	1.34	sw.	10.3	2,694	9,920		
						3,000	700.0	− 6.9	.....	34	1.16	sw.	12.2	2,939	9,900		
7:51	970.5	−3.8	84	ese.	8.9	3,228	680.1	− 8.4	0.68	34	1.02	sw.	13.9	3,162	.....		
						3,000	700.0	− 6.8	.....	34	1.17	sw.	12.6	2,939	9,690		1/10 Ci. St., wnw.
						2,750	723.0	− 5.1	.....	35	1.39	sw.	11.3	2,694	8,940		
						2,500	746.0	− 3.4	.....	35	1.61	ssw.	9.9	2,450	8,200		
						2,250	769.9	− 1.7	.....	36	1.91	ssw.	8.5	2,205	7,450		
8:16	970.0	−3.0	80	ese.	8.5	2,037	791.0	− 0.3	0.60	36	2.15	ssw.	7.3	1,996	6,850		
						2,000	794.0	− 0.1	.....	36	2.18	ssw.	7.5	1,960	6,740		
						1,750	819.2	1.4	.....	33	2.23	s.	8.8	1,715	5,980		
8:21	969.9	−2.8	78	se.	9.4	1,537	841.8	2.7	0.26	31	2.30	s.	9.9	1,506	3,900		
						1,500	845.2	2.8	.....	31	2.32	s.	10.4	1,470	3,960		
						1,250	872.0	3.4	.....	28	2.18	s.	14 1	1,225	4,820		
						1,000	899.0	4.1	.....	25	2.05	s.	17.7	980	3,470		
8:42	969.5	−2.0	73	se.	9.4	924	907.4	4.3	−1.90	24	1.99	s.	18.8	906	3,050		
						750	927.2	1.0	.....	36	2.37	sse.	18.7	735	2,110		
8:54	969.3	−1.3	69	se.	9.4	560	949.5	− 2.6	0.85	50	2.46	se.	18.5	549	1,000		
						500	956.8	− 2.1	.....	57	2.92	se.	14.5	490	630		
8:56	969.3	−1.2	69	se.	7.6	396	969.3	− 1.2	.....	69	3.82	se.	7.6	388	.....		2/10 Ci. St., wnw.

March 9, 1917, series (No. 6).

A. M.																	
9:26	969.1	0.8	59	se.	8.0	396	969.1	0.8	.....	59	3.82	se.	8.0	388	.....		
						500	957.8	0.8	.....	60	3.88	sse.	13.9	490	810		
9:28	969.1	1.1	59	sse.	7.6	621	942.5	0.8	0.00	62	4.01	s.	20.8	609	1,760		
						750	927.6	4.0	.....	48	3.90	s.	22.2	735	2,770		
9:35	969.0	1.5	58	sse.	7.6	853	915.7	6.5	−2.46	37	3.58	s.	23.3	836	3,420		8/10i. St., wnw.
						1,000	899.5	6.5	.....	31	3.00	s.	22.4	980	4,350		
						1,250	872.2	6.4	.....	21	2.02	sse.	20.7	1,225	5,720		
9:50	969.0	2.4	50	sse.	6.7	1,304	866.8	6.4	0.02	19	1.83	sse.	20.4	1,278	5,980		
						1,500	846.1	5.7	.....	19	1.74	s.	17.2	1,470	6,910		
10:00	968.9	2.9	49	sse.	6.7	1,560	840.0	5.6	0.31	19	1.73	s.	16.2	1,529	7,200		
						1,750	820.7	4.3	.....	24	1.99	s.	16.2	1,715	7,720		10/10 Ci. St., wnw.
						2,000	795.6	2.7	.....	30	2.23	s.	16.2	1,960	8,410		
						2,250	771.2	1.0	.....	36	2.37	ssw.	16.3	2,205	9,550		Halo, 10:12 a. m. to 12.20 p. m.
						2,500	747.4	−0.6	.....	43	2.50	ssw.	16.3	2,450	11,760		
						2,750	724.1	−2.3	.....	49	2.47	ssw.	16.3	2,694	13,620		
10:45	967.9	5.6	39	sse.	6.7	2,794	720.2	−2.6	0.66	50	2.46	ssw.	16.3	2,738	13,870		
						3,000	701.4	−3.8	.....	44	1.95	ssw.	17.1	2,939	15,030		
						3,250	679.2	−5.2	.....	37	1.46	ssw.	18.2	3,184	16,430		
11:02	967.5	6.2	38	sse.	7.2	3,450	662.2	−6.3	0.56	31	1.11	ssw.	19.0	3,380	.....		
						3,250	679.2	−5.2	.....	39	1.54	ssw.	20.1	3,184	15,880		
						3,000	701.4	−3.7	.....	48	2.15	ssw.	21.6	2,939	13 090		
						2,750	724.1	−2.3	.....	58	2.92	ssw.	23.0	2,694	10,310		
11:21	967.0	7.4	36	sse.	7.6	2,695	728.0	−2.0	0.45	60	3.10	ssw.	23.3	2,641	9,700		
						2,500	747.4	−1.1	.....	55	3.06	ssw.	23.3	2,450	8,950		
						2,250	771.2	0.0	.....	48	2.93	ssw.	23.4	2,205	7,980		
						2,000	795.0	1.1	.....	41	2.71	s.	23.4	1,960	7,010		
						1,750	819.0	2.3	.....	35	2.52	s.	23.5	1,715	6,040		
11:50	966.2	8.8	30	sse.	7.6	1,611	832.8	2.9	0.65	31	2.33	s.	23.5	1,579	5,500		
						1,500	844.0	3.6	.....	30	2.37	s.	22.4	1,470	5,030		
						1,250	870.3	5.3	.....	29	2.58	sse.	19.8	1,225	3,950		
11:56	966.0	9.7	32	sse.	7.2	1,168	879.2	5.8	−0.28	28	2.58	sse.	19.0	1,145	3,600		
						1,000	897.1	5.3	.....	29	2.58	se.	19.5	980	2,870		

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 9, 1917, (series No. 6)—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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	*°C.*	*%*		*m. p. s.*	*m.*	*mb.*	*°C.*		*%*	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
12:05	965.7	9.6	30	se.	8.9	879	910.6	5.0	1.10	31	2.70	se.	19.9	862	2,000	
						750	925.2	6.4		30	2.88	se.	16.8	735	1,260	10/10 Ci. St., wnw.
						500	953.6	9.2		27	3.14	se.	10.6	490	370	
12:20	965.2	10.3	26	se.	8.0	396	965.2	10.3		26	3.26	se.	8.0	388		
March 9, 1917, series (No. 7).																
P. M.																
12:56	963.9	12.3	22	se.	7.6	396	963.9	12.3		22	3.13	se.	7.6	388		7/10 Ci. St., wnw.
						500	952.0	11.6		23	3.14	se.	9.2	490	1,320	
						750	923.9	10.1		25	3.09	sse.	13.1	735	4,500	
1:07	963.6	13.4	22	se.	10.3	821	915.7	9.6	0.64	26	3.11	sse.	14.2	805	5,400	
						1,000	896.0	8.0		28	3.00	sse.	14.6	980	5,770	
						1,250	868.8	5.9		32	2.97	sse.	15.2	1,225	6,440	
						1,500	842.5	3.7		35	2.79	sse.	15.8	1,470	6,180	
1:30	963.0	13.4	22	sse.	11.2	1,668	825.1	2.2	0.87	37	2.65	sse.	16.2	1,635	6,000	
						1,750	816.5	1.9		39	2.73	sse.	16.5	1,715	5,860	
1:56	962.2	13.8	23	sse.	8.0	1,993	792.0	1.1	0.34	43	2.85	s.	17.0	1,953	5,450	
						2,000	791.1	1.2		43	2.86	s.	17.1	1,960	5,440	
						2,250	766.9	4.4		30	2.51	ssw.	19.7	2,205	5,020	
2:03	962.1	14.4	20	sse.	8.9	2,319	760.9	5.3	−1.29	26	2.32	ssw.	20.4	2,272	4,970	
						2,500	743.3	3.8		25	2.00	ssw.	20.3	2,450	4,880	
						2,750	721.0	1.7		23	1.59	sw.	20.1	2,694	4,750	5/10 Ci. St., wnw.
						3,000	698.9	−0.3		21	1.25	sw.	19.9	2,939	5,060	
						3,250	677.2	−2.4		19	0.95	sw.	19.7	3,184	5,650	22°-halo, 2:49—3:16 p. m.
						3,500	656.1	−4.5		18	0.75	wsw.	19.6	3,429	7,000	
2:57	961.5	14.8	21	s.	8.0	3,588	649.1	−5.2	0.81	17	0.67	wsw.	19.5	3,515		
						3,500	656.1	−4.5		17	0.71	wsw.	19.5	3,429	7,320	
						3,250	677.2	−2.5		16	0.79	wsw.	19.4	3,184	6,440	
						3,000	698.9	−0.5		16	0.94	wsw.	19.4	2,939	5,780	
						2,750	721.0	1.4		15	1.01	sw.	19.3	2,694	5,220	
						2,500	743.3	3.4		15	1.17	sw.	19.2	2,450	4,650	2/10 Ci. w.; 2/10 Ci. St., w.
3:23	961.1	15.1	21	s.	9.8	2,340	758.6	4.7	−0.68	14	1.20	sw.	19.2	2,293	4,160	
						2,250	766.9	4.1		16	1.31	sw.	17.8	2,205	3,870	
3:27						2,000	790.8	2.4		21	1.52	ssw.	14.0	1,960	3,070	
	961.0	14.9	21	ssw.	7.6	1,928	797.9	1.9	0.75	23	1.61	ssw.	12.9	1,890	2,840	
						1,750	815.1	3.2		27	2.08	s.	13.0	1,715	2,270	
3:35	960.9	14.7	21	s.	5.8	1,607	829.9	4.3	0.78	30	2.49	s.	13.0	1,575	1,820	
						1,500	840.2	5.1		30	2.64	s.	12.5	1,470	1,680	
						1,250	866.1	7.1		29	2.93	s.	11.5	1,225	1,590	
						1,000	893.2	9.1		28	3.24	s.	10.4	980	970	
3:54	960.5	15.0	23	s.	4.9	773	918.2	10.8	1.18	27	3.50	s.	9.4	758	0	
						750	920.7	11.1		27	3.57	s.	9.2	735	0	
						500	948.8	14.0		23	3.68	s.	6.5	490	0	
3:58	960.4	15.2	22	s.	5.4	396	960.4	15.2		22	3.80	s.	5.4	388		
March 10, 1917.																
A. M.																
8:07	952.3	11.0	85	ssw.	6.3	396	952.3	11.0		85	11.16	ssw.	6.3	388		
						500	940.8	11.0		88	11.55	ssw.	10.4	490	160	
						750	912.6	11.0		94	12.34	sw.	20.1	735	540	St.Cu. base about 1000m.
8:16	952.2	11.8	82	ssw.	8.0	768	910.8	11.0	0.0	94	12.34	sw.	20.8	753	560	
						1,000	885.3	10.1		82	10.14	sw.	21.2	980	1,270	
						1,250	859.4	9.2		68	7.92	wsw.	21.5	1,225	1,900	
8:31	952.1	12.6	81	ssw.	6.3	1,364	847.8	8.8	0.37	62	7.02	wsw.	21.7	1,337	2,050	
						1,500	834.1	10.2		41	5.10	wsw.	16.8	1,470	2,180	
8:44	952.1	13.0	79	sw.	7.2	1,667	817.4	12.0	−1.06	16	2.24	wsw.	10.8	1,634	2,310	2/10 Ci., wsw.; 4/10 A. Cu., sw.; 3/10 St. Cu., sw.
						1,750	809.3	11.5		15	2.04	wsw.	11.5	1,715	2,380	
						2,000	785.0	10.2		11	1.37	wsw.	13.4	1,960	2,550	
						2,250	761.6	8.8		8	0.91	wsw.	15.4	2,205	2,850	
						2,500	739.0	7.4		4	0.41	wsw.	17.3	2,450	3,150	1/10 Ci., wsw.; 8/10 St. Cu., sw.
9:20	951.9	14.1	75	w.	10.7	2,535	736.0	7.2	0.55	4	0.41	wsw.	17.6	2,484	3,190	
						2,750	717.2	5.2		4	0.35	wsw.	19.0	2,694	3,460	Base of St. Cu. cloud about 2550m.
						3,000	695.9	2.9		5	0.38	wsw.	20.6	2,939	3,760	
						3,250	674.8	0.6		5	0.32	wsw.	22.1	3,184	4,110	
						3,500	653.8	−1.8		5	0.26	wsw.	23.8	3,429	4,620	
						3,750	633.0	−4.1		6	0.26	wsw.	25.3	3,673	5,130	3/10Ci.,wsw.; 1/10 A. Cu.,wsw.; 1/10 St. Cu., sw.
10:11	951.7	13.7	72	w.	6.3	3,899	620.8	−5.5	0.84	6	0.23	wsw.	26.3	3,819		
						3,750	633.0	−4.4		7	0.30	wsw.	25.5	3,373	5,070	
						3,500	653.8	−2.5		8	0.40	wsw.	24.0	3,429	4,040	
						3,250	674.8	−0.6		8	0.46	wsw.	22.7	3,184	3,460	
						3,000	695.9	1.3		9	0.60	wsw.	21.3	2,939	3,090	
						2,750	717.2	3.1		10	0.76	wsw.	19.4	2,694	2,730	
11:01	952.0	15.0	56	w.	10.7	2,596	730.3	4.3	0.86	11	0.91	wsw.	19.0	2,544	2,500	2/10 Ci., wsw.; 1/10 Ci. St., wsw.
						2,500	739.0	5.1		10	0.88	wsw.	18.7	2,450	2,400	
						2,250	761.6	7.3		9	0.92	wsw.	17.9	2,205	2,130	
11:17	951.9	15.3	59	wsw.	8.9	2,035	781.9	9.1	0.51	7	0.81	wsw.	17.2	1,994	1,900	
						2,000	785.0	9.3		7	0.82	wsw.	17.4	1,960	1,850	
						1,750	809.3	10.5		5	0.64	sw.	18.9	1,715	1,450	
11:36	951.8	16.0	41	wsw.	8.9	1,543	829.5	11.6	−1.09	4	0.55	sw.	20.2	1,512	1,070	
						1,500	834.1	11.1		5	0.66	sw.	20.3	1,470	970	
11:40	951.7	16.0	41	wsw.	10.7	1,313	852.8	9.1	0.24	8	0.92	sw.	20.7	1,287	560	
						1,250	859.4	9.3		12	1.41	sw.	19.6	1,225	480	
						1,000	885.3	9.8		26	3.15	sw.	15.2	980	180	
11:55	951.6	15.8	36	wsw.	11.2	848	901.8	10.2	1.28	35	4.36	sw.	12.5	831	0	
						750	912.6	11.5		35	4.75	sw.	11.5	735	0	
						500	940.0	14.7		35	5.86	wsw.	9.0	490	0	
P. M.																
12:03	951.6	16.0	35	wsw.	8.0	396	951.6	16.0		35	6.36	wsw.	8.0	388		8/10 Ci. St., wsw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 11, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
7:20	965.0	0.0	78	nnw.	6.7	396	965.0	0.0	.....	78	4.77	nnw.	6.7	388	.....	10/10 St.Cu., nnw.; base, 800 m.
						500	952.1	− 0.8	.....	83	4.74	nnw.	8.4	490	0	
						750	923.2	− 2.8	.....	96	4.61	nnw.	12.6	735	0	
7:28	965.1	0.0	78	nnw.	7.6	795	917.9	− 3.1	0.78	98	4.62	nnw.	13.3	779	2,400	
						1,000	894.2	− 3.9	.....	99	4.37	nw.	12.7	980	3,720	
7:33	965.2	0.0	78	nnw.	3.6	1,040	888.9	− 4.0	0.37	99	4.33	nw.	12.6	1,020	3,980	
7:36	965.2	0.0	79	nnw.	3.6	1,199	872.7	1.4	−3.40	69	4.66	nw.	14.2	1,175	5,000	
						1,250	867.0	1.8	.....	62	4.32	nw.	13.8	1,225	5,220	
7:41	965.3	0.2	85	nnw.	5.8	1,429	848.1	3.4	−0.87	37	2.89	nw.	12.6	1,401	6,000	
						1,500	840.7	3.5	.....	30	2.36	nw.	12.1	1,470	6,430	
						1,750	815.6	3.8	.....	6	0.48	nw.	10.5	1,715	7,830	
8:10	965.7	0.4	77	nnw.	5.4	1,761	814.5	3.8	−0.12	5	0.40	nw.	10.4	1,726	7,850	
						2,000	790.7	1.9	.....	7	0.49	nw.	10.2	1,960	8,170	
						2,250	766.3	− 0.1	.....	8	0.48	nw.	9.9	2,205	8,500	
						2,500	743.1	− 2.1	.....	10	0.51	nw.	9.6	2,450	9,360	
8:36	966.3	0.5	92	nnw.	6.7	2,539	739.7	− 2.4	0.80	10	0.50	nw.	9.6	2,488	9,500	Base of clouds about 750 m.
						2,750	720.2	− 3.8	.....	13	0.58	nw.	11.8	2,694	9,150	
						3,000	697.5	− 5.6	.....	17	0.65	nw.	14.4	2,939	8,300	
						3,250	675.7	− 7.4	.....	21	0.68	wnw.	17.0	3,184	7,450	
						3,500	654.0	− 9.1	.....	25	0.70	wnw.	19.6	3,429	6,600	
9:06	967.0	0.1	74	nnw.	7.2	3,529	652.0	− 9.3	0.63	25	0.69	wnw.	19.9	3,457	13,500	
						3,500	654.0	− 9.1	.....	25	0.70	wnw.	19.6	3,429	13,210	
						3,250	675.7	− 7.7	.....	29	0.92	wnw.	17.2	3,184	10,670	
						3,000	698.0	− 6.3	.....	33	1.18	wnw.	14.8	2,939	8,180	
9:22	967.2	0.0	74	nnw.	6.7	2,821	714.1	− 5.3	0.88	35	1.37	wnw.	13.1	2,764	7,740	
						2,750	720.2	− 4.7	.....	34	1.40	wnw.	12.7	2,694	7,560	
						2,500	743.1	− 2.5	.....	31	1.54	wnw.	11.5	2,450	6,940	
						2,250	767.1	− 0.2	.....	29	1.74	wnw.	10.2	2,205	6,320	
						2,000	791.8	2.0	.....	26	1.84	wnw.	9.0	1,960	5,700	
9:35	967.3	0.0	74	nnw.	7.2	1,924	799.3	2.6	0.12	25	1.84	wnw.	8.6	1,886	5,510	Base of clouds about 700 m.
						1,750	816.8	2.8	.....	18	1.34	wnw.	9.8	1,715	5,370	
						1,500	842.2	3.1	.....	10	0.76	nw.	11.5	1,470	5,300	
9:53	967.5	−0.4	77	nnw.	5.4	1,491	843.3	3.1	−0.65	10	0.76	nw.	11.6	1,462	5,300	
						1,250	868.1	1.5	.....	34	2.32	nw.	12.2	1,225	3,010	
10:03	967.6	−0.3	78	nnw.	5.4	1,123	882.7	0.7	−5.70	47	3.02	nw.	12.6	1,101	1,800	
10:06	967.7	−0.3	78	nnw.	5.8	1,113	883.9	− 5.0	0.31	76	3.05	nw.	9.4	1,091	1,750	
						1,000	895.7	− 4.6	.....	81	3.36	nw.	9.9	980	1,180	Base of clouds about 750 m.
10:16	967.9	−0.2	78	nnw.	5.4	763	924.3	− 3.9	1.01	91	4.01	nnw.	11.0	748	0	
						750	925.5	− 3.8	.....	90	4.00	nnw.	10.8	735	0	
						500	955.5	− 1.2	.....	80	4.42	nnw.	7.0	490	0	
10:22	968.2	−0.2	76	nnw.	5.4	396	968.2	− 0.2	.....	76	4.57	nnw.	5.4	388	.....	10/10 St. Cu., nnw.

March 12, 1917.

A. M.																
8:20	972.6	−1.0	88	e.	11.6	396	972.6	−1.0	.....	88	4.95	e.	11.6	388	.....	10/10 St., e.
						500	960.0	−1.8	.....	92	4.84	e.	13.2	490	1,270	Base of St. about 600 m.
8:23	972.6	−1.0	88	e.	12.5	686	937.8	−3.3	0.79	100	4.64	e.	16.1	673	3,530	
						750	929.9	−3.6	.....	100	4.52	e.	15.9	735	4,310	
						1,000	900.6	−4.8	.....	99	4.04	e.	15.3	980	9,190	
8:30	972.6	−1.0	88	e.	10.3	1,059	894.5	−5.1	0.48	99	3.94	e.	15.2	1,038	10,390	
						1,250	873.2	3.3	.....	36	2.79	e.	15.8	1,225	10,560	
8:36	972.6	−1.0	88	e.	10.7	1,263	872.0	3.8	−4.36	32	2.57	e.	15.8	1,238	10.390	
						1,500	846.4	3.1	.....	24	1.83	e.	16.8	1,470	7,330	
8:41	972.6	−1.2	92	e.	10.3	1,604	835.2	2.8	0.29	20	1.49	e.	17.3	1,572	6,020	
						1,750	819.9	1.6	.....	20	1.37	e.	17.7	1,715	9,310	
						2,000	794.4	0.0	.....	19	1.16	ese.	18.4	1,960	(*)	
						2,250	770.2	−2.6	.....	19	0.93	ese.	19.2	2,205	(*)	Snow began 8:48 a. m.
8:58	972.6	−1.1	90	e.	10.3	2,365	759.3	−3.6	0.84	19	0.86	ese.	19.5	2,317	(*)	
						2,500	746.7	−4.2	.....	43	1.85	ese.	18.0	2,450	(*)	
						2,750	723.8	−5.3	.....	85	3.32	ese.	15.3	2,694	(*)	
9:11	973.2	−1.0	92	e.	7.2	2,807	718.6	−5.5	0.43	95	3.65	ese.	14.7	2,750	(*)	
9:23																Wire burned by electrical charge.

March 13, 1917.

P. M.																
1:06	962.5	−0.4	96	n.	4.5	396	962.5	−0.4	.....	96	5.67	n.	4.5	388	.....	10/10 St., nnw.; snow becoming heavy.
						500	950.3	−0.9	.....	97	5.40	n.	8.6	490	0	
						750	920.6	−2.2	.....	100	5.09	nnw.	18.6	735	0	Base of St. about 550 m.
1:11	962.4	−0.4	96	n.	4.9	770	918.2	−2.3	0.51	100	5.04	nnw.	19.3	755	(†)	
						1,000	891.7	−3.7	.....	100	4.48	nnw.	18.8	980	(†)	
						1,250	863.9	−5.3	.....	100	3.91	nnw.	18.3	1,225	28,650	
						1,500	837.0	−6.9	.....	100	3.41	nnw.	17.8	1,470	36,360	
1:26	962.3	−0.5	96	n.	4.9	1,553	831.2	−7.3	0.64	100	3.29	nnw.	17.7	1,522	38,000	
						1,750	810.8	−5.5	.....	100	3.84	nnw.	15.3	1,715	19,330	
1:41	962.2	−0.6	96	nnw.	5.4	1,943	791.0	−3.7	−0.92	100	4.48	nnw.	12.9	1,904	.....	
						2,000	785.4	−4.0	.....	100	4.37	nnw.	13.3	1,960	.....	
						2,250	761.0	−5.0	.....	99	3.97	nnw.	15.1	2,205	.....	
						2,500	736.9	−6.1	.....	99	3.61	nw.	16.9	2,450	.....	10/10 St., nnw.; heavy snow.
2:13	962.2	−0.6	96	nnw.	4.5	2,543	732.7	−6.3	0.50	99	3.55	nw.	17.2	2,492	.....	
						2,500	736.9	−6.3	.....	99	3.55	nw.	17.2	2,450	.....	
						2,250	761.0	−5.1	.....	99	3.94	nw.	17.2	2,205	.....	
						2,000	785.4	−5.9	.....	99	3.67	nnw.	17.1	1,960	.....	
						1,750	810.8	−5.7	.....	99	3.74	nnw.	17.1	1,715	17,160	
2:41	962.4	−0.6	96	nnw.	4.0	1,610	825.2	−5.6	−0.52	99	3.77	nnw.	17.1	1,578	12,860	
						1,500	837.0	−6.2	.....	99	3.58	nnw.	17.1	1,470	9,490	
2:43	962.4	−0.6	96	nnw.	4.0	1,417	845.8	−6.6	0.48	99	3.46	nnw.	17.1	1,389	6,950	
						1,250	863.9	−5.8	.....	98	3.68	nnw.	17.6	1,225	2,540	Snow becoming lighter.
						1,000	891.7	−4.6	.....	98	4.07	nnw.	18.4	980	3,040	Base of St. about 800 m.
3:06	962.5	−0.6	98	nnw.	5.8	770	918.2	−3.5	0.78	97	4.42	nnw.	19.1	755	3,500	
						750	920.6	−3.4	.....	97	4.46	nnw.	18.4	735	0	
						500	950.3	−1.4	.....	98	5.33	nnw.	8.9	490	0	10/10 St., nnw.
3:12	962.6	−0.6	98	nnw.	4.9	396	962.6	−0.6	.....	98	5.69	nnw.	4.9	388	.....	Light snow.

* More than 50,000 volts.

† Over 10,000 volts.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 14, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	*°C.*	*%*		*m. p. s.*	*m.*	*mb.*	*°C.*		*%*	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
7:18	973.6	−7.4	97	wnw.	5.4	396	973.6	−7.4	.....	97	3.16	wnw.	5.4	388	.....	Cloudless.
						500	961.0	−7.4	.....	95	3.10	wnw.	7.0	490	290	
						750	930.3	−7.3	.....	92	3.03	nw.	10.8	735	990	
						1,000	901.0	−7.3	.....	88	2.90	nw.	14.1	980	1,540	
7:36	973.9	−6.8	94	wnw.	6.3	1,014	899.7	−7.3	−0.02	88	2.90	nw.	14.8	994	1,570	
7:38	973.9	−6.7	92	wnw.	6.7	1,156	883.5	−5.8	−1.06	80	3.00	nw.	14.8	1,133	1,850	
						1,250	873.2	−5.8	.....	79	2.96	nw.	15.1	1,225	2,020	
						1,500	846.0	−5.9	.....	76	2.82	nw.	15.9	1,470	2,360	
						1,750	819.6	−6.0	.....	73	2.69	nw.	16.7	1,715	2,830	
8:09	974.4	−6.0	80	wnw.	6.3	1,794	814.9	−6.0	0.03	72	2.65	nw.	16.8	1,758	2,960	
						2,000	793.7	−6.8	.....	62	2.13	nw.	17.1	1,960	3,560	
						2,250	768.6	−7.7	.....	51	1.62	wnw.	17.5	2,205	4,250	Cloudless.
						2,500	744.6	−8.7	.....	40	1.16	wnw.	17.9	2,450	4,920	
8:41	975.0	−5.2	84	wnw.	5.8	2,530	741.8	−8.8	0.38	38	1.10	wnw.	17.9	2,479	5,000	
						2,750	721.2	−9.8	.....	32	0.84	wnw.	18.7	2,694	5,310	
						3,000	698.3	−10.8	.....	26	0.63	wnw.	19.6	2,939	5,640	Few Cu., nw.
						3,250	676.1	−11.9	.....	19	0.42	wnw.	20.5	3,184	5,870	
9:27	975.5	−4.8	84	wnw.	6.3	3,383	664.1	−12.5	0.38	16	0.33	wnw.	21.0	3,314	6,000	
						3,250	676.1	−12.1	.....	15	0.32	wnw.	20.3	3,184	5,420	
						3,000	698.3	−11.2	.....	14	0.33	wnw.	19.0	2,939	4,900	
						2,750	721.2	−10.4	.....	13	0.33	wnw.	17.6	2,694	4,190	
9:56	975.7	−4.4	79	wnw.	5.4	2,613	733.9	−9.9	0.38	12	0.31	wnw.	16.9	2,560	3,800	
						2,500	744.6	−9.5	.....	15	0.41	wnw.	16.7	2,450	3,610	
						2,250	768.6	−8.5	.....	22	0.65	wnw.	16.3	2,205	3,200	
						2,000	793.7	−7.6	.....	29	0.93	nw.	15.8	1,960	2,750	
						1,750	820.7	−6.6	.....	37	1.30	nw.	15.4	1,715	2,180	Few Cu., nw.
10:21	975.9	−4.1	79	nw.	5.4	1,700	825.4	−6.4	−0.07	38	1.35	nw.	15.3	1,666	2,060	
						1,500	847.0	−6.5	.....	49	1.73	nw.	14.7	1,470	1,650	
10:38	976.1	−3.7	77	nnw.	5.4	1,248	874.9	−6.7	−1.07	62	2.15	nw.	13.9	1,223	1,140	
						1,000	903.1	−9.3	.....	71	1.96	nw.	15.0	980	0	
10:44	976.2	−3.3	72	nnw.	4.9	977	906.0	−9.6	0.74	72	2.04	nw.	15.1	958	0	
						750	933.2	−7.9	.....	87	2.71	nw.	10.1	735	0	
10:50	976.3	−3.2	73	nw.	5.4	734	935.1	−7.8	1.36	88	2.77	nw.	9.7	720	0	
						500	963.8	−4.6	.....	78	3.24	nw.	6.4	490	0	
10:56	976.4	−3.2	74	nw.	4.9	396	976.4	−3.2	.....	74	3.46	nw.	4.9	388	.....	3/10 Cu., nnw.

March 15, 1917.

A. M.																
8:08	974.6	−3.8	80	e.	11.6	396	974.6	−3.8	.....	80	3.55	e.	11.6	388	.....	10/10 A.Cu., wsw.
						500	962.0	−4.3	.....	84	3.58	e.	15.7	490	0	
8:10	974.6	−3.7	78	e.	13.4	594	950.5	−4.7	0.45	88	3.63	e	19.4	582	0	
						750	932.1	−2.4	.....	68	3.40	e.	18.8	735	0	
8:21	974.6	−3.6	80	e.	13.4	998	903.3	1.2	−1.46	38	2.53	ese.	17.9	978	0	
						1,250	875.9	1.2	.....	28	1.80	se.	19.5	1,225	190	
8:29	974.5	−3.6	80	e.	12.5	1,260	874.5	1.2	0.00	28	1.86	se.	19.6	1,235	230	
						1,500	848.6	0.5	.....	34	2.15	se.	19.3	1,470	1,040	
						1,750	822.1	−0.3	.....	40	2.38	sse.	18.9	1,715	1,820	
						2,000	796.6	−1.0	.....	46	2.59	s.	18.6	1,960	2,570	
						2,250	772.0	−1.8	.....	52	2.74	ssw.	18.2	2,205	3,310	
8:57	974.3	−3.2	78	e.	13.4	2,347	762.9	−2.1	0.30	54	2.77	ssw.	18.1	2,300	3,600	10/10 St.Cu., sw.
						2,500	748.7	−3.0	.....	62	2.94	ssw.	18.0	2,450	3,980	
						2,750	725.1	−4.5	.....	75	3.14	ssw.	17.8	2,694	4,600	St.Cu. base at about 3,350 m.
						3,000	702.3	−6.0	.....	87	3.20	sw.	17.5	2,939	5,300	
9:32	974.1	−3.0	78	e.	8.9	3,170	686.9	−7.0	0.54	96	3.24	sw.	17.4	3,106	5,200	
						3,000	702.3	−6.2	.....	96	3.48	sw.	17.7	2,939	5,900	St.Cu. base at about 2,900 m.
10:03	974.0	−2.6	76	e.	12.5	2,784	721.1	−5.1	0.22	95	3.78	sw.	18.1	2,728	6,800	
						2,750	724.7	−4.9	.....	90	3.64	sw.	18.0	2,694	7,400	10/10 St., sw.
						2,500	748.0	−4.4	.....	74	3.12	sw.	17.7	2,450	11,800	Light snow began 10:16 a. m.
						2,250	772.0	−3.9	.....	58	2.56	ssw.	17.4	2,205	16,200	
10:20	973.8	−2.6	76	e.	13.0	2,184	777.8	−3.8	0.59	57	2.53	ssw.	17.4	2,140	17,370	
						2,000	796.6	−2.7	.....	57	2.29	s.	17.1	1,960	6,020	
						1,750	822.0	−1.2	.....	56	3.10	sse.	16.8	1,715	2,440	
10:31	973.6	−2.4	78	e.	12.5	1,604	836.5	−0.4	0.07	56	3.31	sse.	16.6	1,572	1,430	
						1,500	847.7	−0.3	.....	55	3.28	sse.	17.4	1,470	710	
						1,250	874.1	−0.2	.....	51	3.07	se.	19.5	1,225	0	
10:53	973.4	−2.7	79	e.	11.6	1,021	899.5	0.0	−1.34	48	2.93	ese.	21.3	1,001	0	
						1,000	902.0	−0.3	.....	49	2.92	ese.	20.9	980	0	
						750	930.5	−3.6	.....	64	2.89	e.	16.0	735	0	
11:05	973.2	−2.8	80	e.	11.6	679	939.0	−4.6	0.64	68	2.82	e.	14.6	666	0	
						500	960.6	−3.5	.....	76	3.47	e.	13.3	490	0	Light snow continued.
11:10	973.1	−2.8	80	e.	12.5	396	973.1	−2.8	.....	80	3.87	e.	12.5	388	.....	10/10 St., sw.

March 16, 1917.

A. M.																
8:39	947.4	1.8	80	s.	13.0	396	947.4	1.8	.....	80	5.57	s.	13.0	388	.....	10/10 St.Cu., s.
						500	935.3	1.2	.....	85	5.66	s.	14.7	490	0	
						750	906.7	−0.2	.....	97	5.83	s.	18.8	735	0	
8:46	947.3	1.5	82	s.	12.1	777	903.5	−0.4	0.58	98	5.79	s.	19.2	762	0	Base of St.Cu. about 800 m.
						1,000	878.7	−2.0	.....	98	5.07	s.	19.6	980	1,100	
8:51	947.2	0.9	84	s.	13.9	1,106	866.7	−2.7	0.70	98	4.78	s.	19.8	1,084	1,470	
						1,250	851.0	−1.9	.....	78	4.07	ssw.	18.8	1,225	1,920	9/10 St.Cu., s.
9:11	946.9	−0.1	81	s.	19.2	1,369	838.0	−1.2	−0.57	61	3.37	ssw.	18.0	1,342	2,300	
						1,500	824.1	−1.5	.....	62	3.34	ssw.	18.2	1,470	2,600	
						1,750	798.8	−1.9	.....	63	3.29	ssw.	18.5	1,715	3,160	
						2,000	774.1	−2.4	.....	64	3.20	ssw.	18.9	1,960	3,730	Base of St. about 750 m.
9:26	946.7	−0.4	81	s.	10.7	2,031	770.9	−2.5	0.20	64	3.17	ssw.	18.9	1,990	3,800	
						2,250	750.0	−3.4	.....	68	3.13	ssw.	19.8	2,205	4,350	10/10 St.Cu., s.
						2,500	725.7	−4.4	.....	73	3.08	ssw.	20.8	2,450	4,980	Sleet and rain began 10:00 a. m.
10:10	945.7	−0.8	84	s.	11.2	2,640	712.5	−5.0	0.31	76	3.05	ssw.	21.4	2,587	.....	10/10 St., s.
						2,500	725.7	−4.7	.....	78	3.21	ssw.	21.2	2,450	5,680	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 16, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
.....	.....	.....	.....	.....	.....	2,250	749.1	−4.2	.....	83	3.57	ssw.	20.9	2,205	4,500	
.....	.....	.....	.....	.....	.....	2,000	772.7	−3.7	.....	87	3.90	ssw.	20.6	1,960	3,490	
.....	.....	.....	.....	.....	.....	1,750	797.0	−3.2	.....	91	4.26	ssw.	20.3	1,715	2,800	
.....	.....	.....	.....	.....	.....	1,500	821.9	−2.6	.....	96	4.72	ssw.	20.0	1,470	1,500	
10:33	944.8	−0.7	84	s.	11.2	1,429	829.4	−2.5	−0.32	97	4.81	ssw.	19.9	1,401	1,210	
.....	.....	.....	.....	.....	.....	1,250	848.0	−3.1	.....	97	4.57	ssw.	21.1	1,225	500	
10:43	944.4	−0.7	84	s.	10.7	1,020	873.0	−3.8	0.35	97	4.31	ssw.	22.6	1,000	0	
.....	.....	.....	.....	.....	.....	1,000	875.1	−3.7	.....	97	4.35	ssw.	22.4	980	0	
.....	.....	.....	.....	.....	.....	750	904.0	−2.9	.....	97	4.66	s.	19.3	735	0	
10:54	943.9	−0.6	82	s.	10.3	733	904.8	−2.8	0.65	97	4.69	s.	19.1	719	0	Base of St. about 750 m.
.....	.....	.....	.....	.....	.....	500	932.0	−1.3	.....	88	4.82	s.	14.3	490	0	
11:05	943.6	−0.6	84	s.	12.1	396	943.6	−0.6	.....	84	4.88	s.	12.1	388	.....	10/10 St., s.

March 17, 1917.

A. M.																
8:00	973.6	−4.7	79	nw.	8.9	396	973.6	− 4.7	.....	79	3.25	nw.	8.9	388	.....	Few Cu., nnw.
.....	.....	.....	.....	.....	.....	500	961.2	− 5.3	.....	83	3.25	nw.	11.1	490	0	
.....	.....	.....	.....	.....	.....	750	931.2	− 6.8	.....	91	3.13	nnw.	16.3	735	0	
8:11	973.8	−4.6	81	nw.	6.7	861	917.7	− 7.5	0.60	95	3.07	nnw.	18.6	844	150	
.....	.....	.....	.....	.....	.....	1,000	901.8	− 8.3	.....	91	2.75	nnw.	18.1	980	370	
.....	.....	.....	.....	.....	.....	1,250	873.2	− 9.6	.....	84	2.26	nnw.	17.3	1,225	830	
8:23	974.0	−4.5	80	nw.	5.4	1,404	855.7	−10.5	0.55	79	1.96	nnw.	16.8	1,376	1,210	
.....	.....	.....	.....	.....	.....	1,500	845.8	−10.5	.....	77	1.91	nnw.	16.4	1,470	1,440	
.....	.....	.....	.....	.....	.....	1,750	818.7	−10.5	.....	72	1.79	nw.	15.4	1,715	1,610	1/10 Cu., nnw.
8:56	974.6	−4.2	79	nw.	7.2	1,939	798.8	−10.5	.....	68	1.69	nw.	14.6	1,900	1,690	
.....	.....	.....	.....	.....	.....	2,000	792.3	−10.7	.....	66	1.61	nw.	14.9	1,960	1,450	
.....	.....	.....	.....	.....	.....	2,250	767.0	−11.4	.....	58	1.33	nw.	16.3	2,205	1,770	
.....	.....	.....	.....	.....	.....	2,500	742.1	−12.1	.....	50	1.08	nw.	17.7	2,450	2,100	
9:06	974.7	−4.0	77	nw.	8.0	2,656	727.5	−12.6	0.29	45	0.92	nw.	18.6	2,602	2,300	3/10 Cu., nnw.
.....	.....	.....	.....	.....	.....	2,750	718.8	−12.9	.....	48	0.96	nw.	19.8	2,694	2,410	
.....	.....	.....	.....	.....	.....	3,000	695.3	−13.8	.....	54	0.99	nw.	23.0	2,939	2,710	
.....	.....	.....	.....	.....	.....	3,250	672.8	−14.6	.....	61	1.04	nw.	26.1	3,184	3,030	3/10 St.Cu.,nw.; 4/10Cu.,nw.
.....	.....	.....	.....	.....	.....	3,500	650.1	−15.5	.....	68	1.07	nw.	29.3	3,429	.....	
9:35	974.9	−3.5	76	nw.	10.7	3,572	644.1	−15.7	0.22	70	1.08	nw.	30.2	3,499	.....	
.....	.....	.....	.....	.....	.....	3,500	650.0	−15.6	.....	68	1.06	nw.	29.2	3,429	.....	6/10 St.Cu.,nw.; 3/10Cu.,nw.
.....	.....	.....	.....	.....	.....	3,250	671.8	−15.4	.....	63	1.00	nw.	25.8	3,184	3,960	
.....	.....	.....	.....	.....	.....	3,000	694.1	−15.1	.....	57	0.93	nw.	22.3	2,939	3,670	
10:08	975.1	−3.4	75	wnw.	8.9	2,759	716.4	−14.9	0.24	52	0.87	nw.	19.0	2,703	3,400	
.....	.....	.....	.....	.....	.....	2,750	717.1	−14.9	.....	52	0.87	nw.	19.0	2,694	3,390	
.....	.....	.....	.....	.....	.....	2,500	741.1	−14.3	.....	55	0.97	nw.	18.9	2,450	3,000	7/10 St.Cu., nw.; 2/10 Cu., nw.
.....	.....	.....	.....	.....	.....	2,250	766.0	−13.7	.....	59	1.10	nw.	18.9	2,205	2,610	Base of St. Cu. 1,650 m.
.....	.....	.....	.....	.....	.....	2,000	792.0	−13.1	.....	62	1.22	nw.	18.8	1,960	2,330	
10:32	975.4	−3.1	73	wnw.	7.6	1,911	801.2	−12.9	−0.77	63	1.26	nw.	18.8	1,873	2,250	
10:36	975.4	−3.0	72	wnw.	7.2	1,756	817.5	−14.1	0.41	68	1.22	nw.	16.9	1,721	2,110	Base of St. Cu. 1,650 m.
.....	.....	.....	.....	.....	.....	1,750	818.7	−14.1	.....	68	1.22	nw.	16.9	1,715	2,100	4/10 St. Cu., nw.; 3/10 Cu., nw.
.....	.....	.....	.....	.....	.....	1,500	846.0	−13.1	.....	74	1.45	nw.	16.9	1,470	1,670	
.....	.....	.....	.....	.....	.....	1,250	874.7	−12.0	.....	81	1.76	nw.	17.0	1,225	1,060	
10:53	975.6	−3.2	72	wnw.	8.5	1,241	875.2	−12.0	0.72	81	1.76	nw.	17.0	1,217	1,040	
.....	.....	.....	.....	.....	.....	1,000	904.0	−10.3	.....	84	2.13	wnw.	14.4	980	460	
11:06	975.7	−2.4	70	nw.	6.3	812	925.3	− 8.9	0.55	86	2.46	wnw.	12.3	796	0	Base of Cu. clouds 1,650 m.
.....	.....	.....	.....	.....	.....	750	933.4	− 7.9	.....	84	2.62	wnw.	11.5	735	0	
.....	.....	.....	.....	.....	.....	500	963.2	− 4.0	.....	76	3.32	nw.	8.1	490	0	
11:12	975.7	−2.4	73	nw.	6.7	396	975.7	− 2.4	.....	73	3.50	nw.	6.7	388	.....	5/10 St.Cu., nw.; 3/10 Cu., nw.

March 18, 1917.

A. M.																
7:17	981.5	−7.2	84	nw.	4.0	396	981.5	−7.2	.....	84	2.79	nw.	4.0	388	.....	Cloudless.
.....	.....	.....	.....	.....	.....	500	969.0	−7.3	.....	83	2.73	nw.	6.3	490	260	
.....	.....	.....	.....	.....	.....	750	938.1	−7.4	.....	80	2.61	nnw.	11.9	735	900	
7:35	981.6	−7.0	82	nnw.	4.5	1,000	908.4	−7.5	0.05	78	2.52	nnw.	17.4	980	1,700	
.....	.....	.....	.....	.....	.....	1,250	879.9	−7.3	.....	54	1.78	nnw.	17.7	1,225	2,520	
.....	.....	.....	.....	.....	.....	1,500	852.2	−7.2	.....	30	1.00	nnw.	18.0	1,470	3,090	
7:57	981.8	−6.4	82	nnw.	3.6	1,594	841.8	−7.1	−0.07	21	0.70	nnw.	18.1	1,562	3,300	
.....	.....	.....	.....	.....	.....	1,750	825.6	−7.0	.....	24	0.81	nnw.	18.7	1,715	3,650	
.....	.....	.....	.....	.....	.....	2,000	799.1	−6.8	.....	29	1.00	nnw.	19.5	1,960	4,210	
.....	.....	.....	.....	.....	.....	2,250	774.1	−6.6	.....	34	1.19	nnw.	20.4	2,205	4,830	Cloudless.
.....	.....	.....	.....	.....	.....	2,500	750.0	−6.4	.....	39	1.39	nnw.	21.3	2,450	5,470	
8:35	982.0	−6.0	79	nnw.	4.9	2,579	742.4	−6.3	−0.08	41	1.47	nnw.	21.6	2,527	5,670	
.....	.....	.....	.....	.....	.....	2,750	727.1	−6.5	.....	41	1.45	nnw.	21.6	2,694	6,150	
.....	.....	.....	.....	.....	.....	3,000	704.8	−6.8	.....	41	1.41	nw.	21.6	2,939	6,520	Few Cu., nnw.
.....	.....	.....	.....	.....	.....	3,250	682.3	−7.1	.....	40	1.34	nw.	21.6	3,184	6,760	
10:05	982.5	−4.8	71	nnw.	4.5	3,443	665.6	−7.3	0.20	40	1.32	nw.	21.6	3,373	.....	
.....	.....	.....	.....	.....	.....	3,250	682.3	−6.9	.....	41	1.40	nw.	20.7	3,184	5,800	
.....	.....	.....	.....	.....	.....	3,000	705.0	−6.5	.....	42	1.48	nw.	19.4	2,939	4,990	
.....	.....	.....	.....	.....	.....	2,750	727.9	−6.0	.....	44	1.62	nw.	18.2	2,694	4,250	
.....	.....	.....	.....	.....	.....	2,500	751.1	−5.6	.....	45	1.71	nw.	17.0	2,450	3,440	
10:52	982.8	−4.1	71	n.	2.2	2,464	754.8	−5.5	−0.11	45	1.73	nw.	16.8	2,415	3,310	
.....	.....	.....	.....	.....	.....	2,250	775.1	−5.5	.....	42	1.61	nw.	15.8	2,205	2,570	
.....	.....	.....	.....	.....	.....	2,000	800.0	−5.5	.....	38	1.46	nw.	14.5	1,960	2,020	
.....	.....	.....	.....	.....	.....	1,750	826.1	−5.6	.....	35	1.33	nnw.	13.3	1,715	1,700	
.....	.....	.....	.....	.....	.....	1,500	853.1	−5.6	.....	31	1.18	nnw.	12.1	1,470	1,400	
11:26	982.7	−3.7	73	n.	1.8	1,474	856.3	−5.6	−0.42	31	1.18	nnw.	12.0	1,445	1,360	
.....	.....	.....	.....	.....	.....	1,250	880.9	−6.5	.....	31	1.09	nnw.	9.3	1,225	1,080	
11:31	982.6	−3.7	73	n.	1.8	1,001	909.6	−7.6	0.76	32	1.03	nnw.	6.4	981	780	
.....	.....	.....	.....	.....	.....	750	939.5	−5.7	.....	47	1.78	nnw.	4.5	735	450	
.....	.....	.....	.....	.....	.....	500	970.0	−3.8	.....	63	2.80	n.	2.6	490	130	
11:38	982.6	−3.0	69	n.	1.8	396	982.6	−3.0	.....	69	3.10	n.	1.8	388	.....	Few Cu., nnw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 19, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
6:46	962.5	2.2	60	ssw.	6.7	396	962.5	2.2	.....	60	4.30	ssw.	6.7	388	.....	Few Cl.St., w.
						500	950.8	2.6	.....	55	4.05	sw.	11.3	490	350	
						750	922.0	3.7	.....	43	3.42	wsw.	18.7	735	1,170	
6:55	962.5	2.2	58	wsw.	6.7	758	920.5	3.7	−0.41	43	3.42	wsw.	22.6	743	1,200	
						1,000	893.8	3.8	.....	38	3.05	w.	15.7	980	1,860	
8:10	962.5	3.4	61	wsw.	6.3	1,192	872.7	3.9	−0.05	34	2.75	wnw.	10.3	1,169	1,700	Cloudless.
						1,250	866.7	3.8	.....	33	2.65	wnw.	10.7	1,225	1,760	
						1,500	840.2	3.3	.....	28	2.17	wnw.	12.4	1,470	2,040	
						1,750	814.8	2.8	.....	23	1.72	wnw.	14.2	1,715	2,310	
						2,000	790.0	2.4	.....	18	1.31	wnw.	15.9	1,960	2,590	1/10 Ci.St., w.
						2,250	766.0	1.9	.....	13	0.91	wnw.	17.6	2,205	2,860	
9:10	962.5	5.0	58	wsw.	6.3	2,504	742.0	1.4	0.19	8	0.54	wnw.	19.4	2,454	2,980	
						2,750	719.7	−0.1	.....	8	0.48	wnw.	22.1	2,694	3,220	
						3,000	697.1	−1.7	.....	9	0.48	w.	24.8	2,939	3,570	
						3,250	675.8	−3.3	.....	9	0.42	w.	27.5	3,184	3,930	
9:32	962.5	5.8	57	w.	6.3	3,303	671.4	−3.6	0.63	9	0.41	w.	28.1	3,236	4,000	2/10 Ci.St., w.
						3,500	654.9	−4.8	.....	10	0.41	w.	27.6	3,429	4,220	
						3,750	634.0	−5.8	.....	11	0.41	w.	27.2	3,673	4,510	
						4,000	614.3	−8.0	.....	14	0.43	wsw.	26.2	3,918	4,790	
9:55	962.5	5.8	53	w.	7.2	4,189	598.5	−9.2	0.49	15	0.42	wsw.	25.7	4,103	5,000	
						4,000	614.3	−8.5	.....	15	0.44	wsw.	26.0	3,918	4,580	
						3,750	634.7	−7.6	.....	16	0.51	wsw.	26.5	3,673	3,810	
						3,500	653.8	−6.8	.....	16	0.55	w.	26.9	3,429	3,480	
						3,250	674.0	−5.9	.....	17	0.63	w.	27.3	3,184	2,920	
10:34	962.5	6.6	54	wnw.	5.4	3,198	678.9	−5.7	0.43	17	0.64	w.	27.4	3,133	2,810	
						3,000	695.6	−4.9	.....	17	0.69	w.	24.0	2,939	2,390	
						2,750	718.0	−3.8	.....	18	0.80	w.	19.6	2,694	2,150	
						2,500	741.6	−2.7	.....	18	0.88	w.	15.3	2,450	1,910	
10:50	962.5	7.4	49	wnw.	4.0	2,448	746.6	−2.5	0.56	18	0.89	w.	14.4	2,369	1,850	
						2,250	765.6	−1.4	.....	19	1.03	w.	13.4	2,205	1,650	
						2,000	790.0	0.0	.....	20	1.22	wnw.	12.2	1,960	1,390	
						1,750	814.8	1.4	.....	20	1.35	nw.	11.0	1,715	1,140	
11:10	962.5	8.0	48	nw.	4.0	1,577	832.4	2.4	0.26	21	1.52	nw.	10.2	1,546	990	
						1,500	840.2	2.6	.....	20	1.47	nw.	11.1	1,470	930	4/10 Ci.St., w.
						1,250	866.7	3.3	.....	16	1.24	nw.	13.8	1,225	720	2/10 Ci.,w; 6/10 Ci.St.,w. 22°-halo, 11:37 a. m.—12:08 p. m.
P. M.																
12:16	962.7	8.7	47	nw.	4.0	1,080	885.2	3.7	0.39	14	1.11	nw.	15.7	1,059	570	
						1,000	893.8	4.0	.....	18	1.46	nw.	13.9	980	510	
						750	922.0	5.0	.....	29	2.53	nw.	8.3	735	300	
12:23	962.7	9.0	48	nnw.	4.0	618	937.1	5.5	1.58	35	3.16	nw.	5.4	606	190	
						500	950.8	7.4	.....	41	4.22	nnw.	4.7	490	90	
12:27	962.8	9.0	46	nnw.	4.0	396	962.8	9.0	.....	46	5.28	nnw.	4.0	388	.....	9/10 Cl., wsw.

March 20, 1917.

P. M.																
7:32	965.2	8.4	52	ssw.	4.0	396	965.2	8.4	.....	52	5.73	ssw.	4.0	388	.....	Few Cl., wsw.
						500	953.3	8.8	.....	41	4.65	ssw.	5.7	490	0	
7:54	965.4	8.4	45	ssw.	4.5	547	947.9	9.0	−0.40	36	4.13	ssw.	6.5	536	0	
						750	924.9	8.4	.....	37	4.08	ssw.	5.0	735	0	Cloudless.
9:21	965.5	6.8	53	s.	4.0	921	905.8	7.9	0.29	37	3.94	ssw.	3.8	903	0	
						1,000	896.9	7.6	.....	37	3.86	ssw.	4.1	980	50	
						1,250	870.0	5.4	.....	39	3.50	ssw.	6.4	1,225	200	
						1,500	843.8	3.3	.....	40	3.10	sw.	8.6	1,470	350	
9:26	965.5	6.8	49	s.	4.0	1,751	817.6	0.8	0.64	42	2.72	sw.	11.2	1,716	.....	Few Cl.St., wsw.
						1,500	843.8	1.8	.....	42	2.92	sw.	9.5	1,470	250	
						1,250	870.0	2.9	.....	43	3.24	ssw.	7.9	1,225	0	
9:40	965.5	6.9	50	ssw.	4.9	1,044	892.0	3.7	0.64	43	3.42	ssw.	6.5	1,024	0	
						1,000	896.9	4.0	.....	42	3.41	ssw.	6.8	980	0	
9:47	965.5	6.8	50	ssw.	4.9	760	923.6	5.5	0.39	39	3.52	ssw.	8.7	745	0	
						750	924.9	5.5	.....	39	3.52	ssw.	8.6	735	0	
						500	953.3	6.5	.....	47	4.55	ssw.	6.0	490	0	
9:53	965.5	6.9	50	ssw.	4.9	396	965.5	6.9	.....	50	4.98	ssw.	4.9	388	.....	Few Cl.St., wsw.

March 21, 1917.

A. M.																
11:25	967.1	10.9	42	sse.	4.5	396	967.1	10.9	.....	42	5.48	sse.	4.5	388	.....	Cloudless.
						500	955.1	10.5	.....	43	5.46	s.	5.6	490	60	
P. M.																
12:15	966.7	12.3	42	s.	5.8	754	926.0	9.4	0.42	45	5.31	ssw.	8.3	739	340	
						1,000	898.2	8.3	.....	42	4.60	ssw.	8.8	980	810	
						1,250	871.2	7.2	.....	40	4.06	sw.	9.3	1,225	1,320	
						1,500	845.7	6.1	.....	37	3.49	sw.	9.8	1,470	1,820	
12:28	966.4	12.6	39	ssw.	5.4	1,588	836.6	5.7	0.44	34	3.11	sw.	10.0	1,556	2,000	
						1,750	820.3	4.8	.....	33	2.84	sw.	11.3	1,715	2,370	
						2,000	795.1	3.5	.....	32	2.51	wsw.	13.3	1,960	3,120	
						2,250	771.1	2.2	.....	31	2.22	wsw.	15.2	2,205	3,730	
						2,500	747.7	0.9	.....	29	1.89	wsw.	17.2	2,450	4,340	
						2,750	724.8	− 0.4	.....	28	1.65	w.	19.2	2,694	4,960	
1:07	965.8	13.6	39	ssw.	8.9	2,932	708.2	− 1.4	0.53	27	1.47	w.	20.6	2,873	5,400	
						3,000	702.1	− 1.9	.....	25	1.30	w.	22.2	2,939	5,540	
						3,250	679.8	− 3.5	.....	18	0.82	w.	27.9	3,184	6,080	
1:27	965.6	14.5	39	ssw.	8.0	3,450	662.4	− 4.9	0.52	13	0.53	w.	31.5	3,380	6,500	
						3,250	679.0	− 4.2	.....	12	0.52	w.	28.1	3,184	5,300	
						3,000	700.0	− 3.3	.....	12	0.56	w.	23.8	2,939	4,500	
						2,750	722.6	− 2.5	.....	11	0.55	w.	19.5	2,694	3,950	
2:00	965.2	15.0	35	ssw.	8.5	2,676	729.3	− 2.2	0.40	11	0.56	w.	18.2	2,622	3,790	
						2,500	745.9	− 1.5	.....	15	0.81	w.	17.3	2,450	3,410	
						2,250	770.1	− 0.5	.....	21	1.23	wsw.	16.0	2,205	2,820	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 21, 1917—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.	Potential. Gravity.	Potential. Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						2,000	794.5	0.5		26	1.65	wsw.	14.7	1,960	2,220	
						1,750	819.0	1.5		32	2.18	sw.	13.4	1,715	1,620	
2:21	965.0	15.6	33	ssw.	7.2	1,656	828.2	1.9	0.98	34	2.38	sw.	12.9	1,623	1,390	
						1,500	844.0	3.4		34	2.65	sw.	12.9	1,470	1,140	
						1,250	869.9	5.9		34	3.16	sw.	12.9	1,225	740	
						1,000	897.0	8.3		33	3.61	ssw.	12.9	980	380	
						750	924.8	10.8		33	4.27	ssw.	12.9	735	30	
2:50	964.6	16.3	29	ssw.	8.0	727	927.3	11.0	1.57	33	4.33	ssw.	12.9	713	0	
						500	952.7	14.6		32	5.32	ssw.	11.4	490	0	
2:56	964.5	16.2	31	ssw.	10.7	396	964.5	16.2		31	5.71	ssw.	10.7	388		Cloudless.

March 22, 1917.

A. M.																
7:28	958.4	5.4	72	sse.	5.4	396	958.4	5.4		72	6.46	sse.	5.4	388		3/10 Ci., w.
						500	946.7	7.0		65	6.51	sse.	11.5	490	360	
7:38	958.3	5.6	73	se.	5.8	692	924.5	9.9	−1.52	53	6.47	s.	22.8	679	1,010	
						750	918.1	10.1		52	6.43	s.	23.4	735	1,210	
7:41	958.3	5.7	73	sse.	6.3	972	893.9	11.0	−0.39	46	6.04	s.	25.5	953	2,000	
						1,000	890.7	10.9		46	6.00	s.	25.3	980	2,100	
						1,250	864.1	10.2		41	5.10	ssw.	23.8	1,225	2,970	
						1,500	838.1	9.5		37	4.39	ssw.	22.3	1,470	3,830	
7:56	958.1	6.4	72	sse.	5.8	1,519	836.9	9.4	0.29	37	4.36	ssw.	22.2	1,489	3,900	4/10 Ci., w.
						1,750	813.0	8.0		38	4.08	ssw.	21.5	1,715	4,180	
						2,000	788.5	6.5		38	3.68	ssw.	20.7	1,960	4,740	
						2,250	765.1	5.1		39	3.43	ssw.	20.0	2,205	5,250	
8:27	957.8	7.8	69	sse.	6.3	2,378	753.7	4.3	0.59	39	3.24	ssw.	19.6	2,330	5,400	
						2,500	742.4	3.7		38	3.02	ssw.	19.4	2,450	5,800	2/10 Ci., w.
						2,750	720.2	2.4		37	2.69	ssw.	18.9	2,694	6,610	
						3,000	697.9	1.1		35	2.32	ssw.	18.4	2,939	7,100	
						3,250	675.5	−0.2		33	1.98	ssw.	17.9	3,184		3/10 Ci., w.
9:49	956.8	12.0	66	s.	9.4	3,278	673.3	−0.3	0.38	33	1.97	ssw.	17.8	3,211		
						3,250	675.5	−0.3		33	1.97	ssw.	17.9	3,184		
						3,000	697.3	0.4		38	2.39	ssw.	18.6	2,939	6,090	
						2,750	719.1	1.1		42	2.78	ssw.	19.3	2,694	5,330	
						2,500	741.7	1.7		46	3.18	ssw.	20.0	2,450	4,550	
						2,250	764.8	2.3		50	3.60	ssw.	20.7	2,205	3,950	1/10 Ci., w.
10:33	956.0	13.5	66	s.	10.3	2,230	766.2	2.4	0.94	50	3.63	ssw.	20.8	2,185	3,900	
						2,000	787.8	4.6		43	3.65	ssw.	23.8	1,960	3,400	
10:49	955.6	14.0	65	s.	9.8	1,816	805.7	6.3	0.70	39	3.72	ssw.	26.2	1,780	3,000	
						1,750	812.0	6.3		39	3.72	ssw.	26.2	1,715	2,870	
						1,500	837.2	8.5		39	4.33	ssw.	26.2	1,470	2,390	
						1,250	863.0	10.2		40	4.98	s.	26.3	1,225	1,760	
11:09	955.3	15.2	64	sse.	8.0	1,083	880.1	11.4	−1.01	40	5.39	s.	26.3	1,062	1,310	
						1,000	889.0	10.6		65	8.31	s.	20.0	980	990	
11:20	955.2	15.2	65	s.	7.6	964	892.7	10.2	0.92	76	9.46	s.	17.2	945	850	
						750	916.0	12.2		71	10.09	s.	13.9	735	0	
						500	943.3	14.4		66	10.82	s.	10.2	490	0	
11:22	955.1	15.4	64	s.	8.5	396	955.1	15.4		64	11.20	s.	8.5	388		1/10 Ci., w.

March 23, 1917, series (No. 1).

A. M.																
7:40	963.4	0.6	80	wnw.	4.9	396	963.4	0.6		80	5.10	wnw.	4.9	388		3/10Ci.,sw.; 4/10 Ci.St.,sw.; 2/10 A. St., sw.
						500	951.2	0.9		77	5.02	wnw.	7.7	490	150	
						750	922.1	1.6		69	4.73	nnw.	14.6	735	540	
7:55	963.7	1.4	80	wnw.	5.8	836	912.4	1.9	−0.30	66	4.63	nnw.	16.9	820	860	
						1,000	893.9	0.9		61	3.98	nnw.	17.8	980	1,510	
						1,250	866.6	−0.7		54	3.11	nnw.	18.2	1,225	2,460	2/10Ci.St.,sw.
						1,500	840.3	−2.3		45	2.27	nw.	19.6	1,470	3,310	
						1,750	814.0	−3.9		40	1.76	nw.	22.0	1,715	4,130	
						2,000	798.3	−5.5		32	1.23	nw.	23.4	1,960	4,950	
8:30	964.2	2.5	70	nw.	7.2	2,014	787.3	−5.6	0.64	32	1.22	nw.	23.5	1,974	5,000	
						2,250	763.9	−7.4		28	0.91	nw.	20.4	2,205	5,730	Few Ci., sw.
						2,500	739.9	−9.4		23	0.63	wnw.	17.1	2,450	6,520	
8:54	964.4	3.3	70	wnw.	6.3	2,635	727.1	−10.4	0.77	21	0.53	wnw.	15.3	2,582	6,960	
						2,750	716.8	−10.6		19	0.47	wnw.	15.8	2,694	7,340	
						3,000	694.0	−11.0		15	0.36	wnw.	17.1	2,939	8,150	
						3,250	671.4	−11.5		12	0.27	wnw.	18.4	3,184	8,620	Few Ci., sw.
						3,500	649.3	−11.9		8	0.18	wnw.	19.7	3,429		
9:41	965.2	5.2	62	nw.	7.2	3,614	640.0	−12.1	0.16	6	0.13	wnw.	20.2	3,540		
						3,500	649.3	−11.9		6	0.13	wnw.	20.2	3,429		
						3,250	670.9	−11.6		7	0.16	wnw.	20.2	3,184	7,360	Cloudless.
						3,000	693.0	−11.3		7	0.16	nw.	20.1	2,939	6,120	
						2,750	715.8	−10.9		8	0.19	nw.	20.1	2,694	5,560	
10:28	965.5	6.9	50	nw.	7.6	2,510	738.3	−10.6	0.34	8	0.20	nw.	20.1	2,460	4,980	
						2,500	739.1	−10.6		8	0.20	nw.	20.1	2,450	4,950	
						2,250	763.2	−9.7		16	0.43	nw.	19.5	2,205	4,310	
						2,000	798.3	−8.9		24	0.69	nw.	18.9	1,960	3,630	
						1,750	814.0	−8.0		31	0.96	nw.	18.4	1,715	2,800	
10:52	965.5	6.8	42	nw.	7.2	1,628	827.2	−7.6	0.95	35	1.12	nw.	18.1	1,596	2,400	Few Cu., nw.
						1,500	840.3	−6.4		37	1.32	nw.	17.0	1,470	2,000	
						1,250	867.1	−4.0		40	1.75	nw.	14.8	1,225	1,220	
						1,000	895.2	−1.6		44	2.35	nw.	12.6	980	590	
11:16	965.4	7.6	38	nw.	7.2	754	923.8	0.7	1.98	47	3.02	nw.	10.5	739	0	
						500	953.3	5.7		37	3.39	nw.	8.4	490	0	
11:22	965.4	7.8	33	nw.	7.6	396	965.4	7.8		33	3.49	nw.	7.6	388		Few Cu., nw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 23, 1917, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^6 *ergs.*	*volts.*	
11:55	964.9	8.2	35	wnw.	8.9	396	964.9	8.2	.....	35	3.80	wnw.	8.9	388	.....	Few Cu., nw.
.....	.....	.....	.....	.....	.....	500	953.0	7.8	.....	35	3.70	wnw.	9.8	490	0	
.....	.....	.....	.....	.....	.....	750	924.2	6.8	.....	34	3.36	wnw.	11.9	735	0	
P. M.																
12:01	964.8	8.8	31	nw.	9.4	836	914.4	6.5	0.39	34	3.29	wnw.	12.6	820	140	
.....	.....	.....	.....	.....	.....	1,000	896.7	4.9	.....	37	3.20	wnw.	13.0	980	650	
.....	.....	.....	.....	.....	.....	1,250	869.1	2.4	.....	40	2.90	wnw.	13.5	1,225	1,450	
.....	.....	.....	.....	.....	.....	1,500	842.6	− 0.1	.....	45	2.73	wnw.	14.0	1,470	2,290	
12:34	964.6	9.0	32	wnw.	9.4	1,666	825.0	− 1.7	0.99	48	2.54	wnw.	14.4	1,633	2,690	
.....	.....	.....	.....	.....	.....	1,750	816.1	− 2.2	.....	46	2.34	wnw.	14.7	1,715	2,900	
.....	.....	.....	.....	.....	.....	2,000	790.8	− 3.7	.....	42	1.88	wnw.	15.5	1,960	3,510	
.....	.....	.....	.....	.....	.....	2,250	765.9	− 5.1	.....	37	1.47	wnw.	16.3	2,205	4,100	
.....	.....	.....	.....	.....	.....	2,500	741.7	− 6.6	.....	32	1.12	wnw.	17.1	2,450	4,600	
.....	.....	.....	.....	.....	.....	2,750	718.3	− 8.1	.....	27	0.83	wnw.	17.9	2,694	5,090	
1:02	964.5	9.0	30	wnw.	8.9	2,907	704.3	− 9.0	0.59	24	0.68	wnw.	18.4	2,848	5,600	
.....	.....	.....	.....	.....	.....	3,000	695.9	− 9.3	.....	23	0.63	wnw.	18.6	2,939	5,940	
.....	.....	.....	.....	.....	.....	3,250	673.9	−10.2	.....	20	0.51	wnw.	18.1	3,184	6,860	
.....	.....	.....	.....	.....	.....	3,500	660.8	−11.0	.....	17	0.40	w.	19.5	3,429	7,250	
1:33	964.1	10.8	28	w.	8.5	3,643	640.1	−11.5	0.26	15	0.34	w.	19.8	3,569	7,300	
.....	.....	.....	.....	.....	.....	3,500	660.8	−11.3	.....	15	0.35	w.	19.4	3,429	6,960	
.....	.....	.....	.....	.....	.....	3,250	673.4	−10.8	.....	16	0.39	wnw.	18.6	3,184	6,160	
.....	.....	.....	.....	.....	.....	3,000	695.0	−10.4	.....	17	0.43	wnw.	17.9	2,939	5,760	
2:09	963.6	10.5	28	wnw.	6.7	2,893	704.3	−10.2	0.63	17	0.43	wnw.	17.6	2,835	5,500	
.....	.....	.....	.....	.....	.....	2,750	717.1	− 9.3	.....	20	0.55	wnw.	17.6	2,694	4,960	
.....	.....	.....	.....	.....	.....	2,500	740.2	− 7.7	.....	25	0.80	wnw.	17.5	2,450	4,020	
.....	.....	.....	.....	.....	.....	2,250	764.1	− 6.1	.....	30	1.10	wnw.	17.5	2,205	3,090	
.....	.....	.....	.....	.....	.....	2,000	788.9	− 4.5	.....	35	1.47	w.	17.3	1,960	2,540	
.....	.....	.....	.....	.....	.....	1,750	814.9	− 3.6	.....	38	1.72	w.	17.3	1,715	2,150	2/10 Cu., wnw.
2:36	963.2	11.0	26	w.	8.5	1,584	832.3	− 1.9	1.05	43	2.24	w.	17.3	1,553	1,900	
.....	.....	.....	.....	.....	.....	1,500	840.9	− 1.1	.....	42	2.34	w.	17.0	1,470	1,480	
.....	.....	.....	.....	.....	.....	1,250	867.7	1.6	.....	38	2.61	w.	15.9	1,225	520	
.....	.....	.....	.....	.....	.....	1,000	894.7	4.2	.....	34	2.81	w.	14.9	980	220	
3:01	962.8	11.2	23	w.	9.8	821	914.4	6.1	1.20	31	2.92	w.	14.2	805	0	
.....	.....	.....	.....	.....	.....	750	922.8	7.0	.....	30	3.01	w.	13.3	735	0	
.....	.....	.....	.....	.....	.....	500	951.0	10.0	.....	27	3.32	w.	10.2	490	0	
3:08	962.8	11.2	26	w.	8.9	396	962.8	11.2	.....	26	3.46	w.	8.9	388	.....	4/10 Cu., wnw.

March 23, 1917, series (No. 3).

P. M.																
3:51	962.5	10.6	24	wnw.	9.4	396	962.5	10.6	.....	24	3.07	wnw.	9.4	388	.....	6/10 Cu., wnw.
.....	.....	.....	.....	.....	.....	500	950.4	10.2	.....	24	2.99	wnw.	10.4	490	0	
.....	.....	.....	.....	.....	.....	750	922.2	9.3	.....	24	2.81	w.	12.7	735	0	
4:03	962.5	11.6	29	wnw.	12.5	785	918.5	9.2	0.36	24	2.79	w.	13.0	770	0	7/10St.Cu.,wnw.
.....	.....	.....	.....	.....	.....	1,000	895.1	7.2	.....	25	2.54	w.	13.9	980	0	
.....	.....	.....	.....	.....	.....	1,250	868.6	4.8	.....	27	2.32	w.	14.9	1,225	0	8/10St.Cu.,wnw.
4:30	962.8	10.9	25	w.	8.0	1,471	844.7	2.7	0.95	28	2.08	w.	15.8	1,442	170	
.....	.....	.....	.....	.....	.....	1,500	842.0	2.4	.....	29	2.11	w.	15.9	1,470	190	
.....	.....	.....	.....	.....	.....	1,750	815.6	− 0.6	.....	38	2.21	w.	16.9	1,715	4,440	Base of St. Cu. 1,800 m.
4:50	963.0	10.5	25	wnw.	11.2	1,985	792.2	− 3.4	1.19	46	2.12	w.	17.9	1,946	10,100	
.....	.....	.....	.....	.....	.....	2,000	789.2	− 3.5	.....	46	2.10	w.	17.9	1,960	10,460	
.....	.....	.....	.....	.....	.....	2,250	760.4	− 5.3	.....	53	2.07	w.	17.6	2,205	9,200	
.....	.....	.....	.....	.....	.....	2,500	741.9	− 8.1	.....	59	1.81	wnw.	17.4	2,450	5,450	
5:06	963.2	11.4	27	wnw.	7.2	2,663	727.1	− 8.3	0.72	63	1.90	wnw.	17.2	2,609	3,000	5/10St.Cu.,wnw.
.....	.....	.....	.....	.....	.....	2,750	719.0	− 8.6	.....	64	1.88	wnw.	17.6	2,694	3,250	
.....	.....	.....	.....	.....	.....	3,000	696.5	− 9.5	.....	68	1.84	wnw.	18.6	2,939	3,960	
.....	.....	.....	.....	.....	.....	3,250	674.1	−10.4	.....	71	1.78	wnw.	19.7	3,184	4,660	
.....	.....	.....	.....	.....	.....	3,500	652.0	−11.3	.....	75	1.73	wnw.	20.8	3,429	5,340	
5:47	964.0	9.7	34	nw.	8.5	3,524	650.2	−11.4	0.29	75	1.72	wnw.	20.9	3,452	5,400	
.....	.....	.....	.....	.....	.....	3,500	652.0	−11.3	.....	75	1.73	wnw.	20.9	3,429	5,350	
.....	.....	.....	.....	.....	.....	3,250	674.1	−10.8	.....	71	1.72	wnw.	20.3	3,184	4,810	
.....	.....	.....	.....	.....	.....	3,000	696.5	−10.3	.....	66	1.67	wnw.	19.8	2,939	4,380	
.....	.....	.....	.....	.....	.....	2,750	719.0	− 9.7	.....	62	1.66	wnw.	19.3	2,694	4,060	
6:18	964.6	8.6	43	nw.	4.5	2,548	737.2	− 9.3	0.66	59	1.63	wnw.	18.9	2,497	3,800	
.....	.....	.....	.....	.....	.....	2,500	741.9	− 9.0	.....	59	1.68	wnw.	19.0	2,450	3,660	
.....	.....	.....	.....	.....	.....	2,250	761.0	− 7.3	.....	58	1.91	wnw.	19.5	2,205	2,940	
6:27	964.8	7.8	47	nw.	4.5	2,064	784.1	− 6.1	0.88	58	2.12	wnw.	19.8	2,023	2,380	
.....	.....	.....	.....	.....	.....	2,000	790.1	− 6.0	.....	57	2.10	wnw.	19.3	1,960	2,180	
.....	.....	.....	.....	.....	.....	1,750	815.6	− 3.3	.....	54	2.51	wnw.	17.5	1,715	1,400	2/10St.Cu.,wnw.
.....	.....	.....	.....	.....	.....	1,500	842.0	− 1.1	.....	51	2.84	wnw.	15.7	1,470	640	
6:56	965.4	6.6	51	wnw.	4.5	1,283	865.6	0.8	0.69	48	3.11	wnw.	14.1	1,258	0	
.....	.....	.....	.....	.....	.....	1,250	868.6	1.0	.....	48	3.15	wnw.	14.0	1,225	0	
.....	.....	.....	.....	.....	.....	1,000	896.2	2.7	.....	47	3.49	nw.	13.1	980	0	6/10St.Cu.,wnw.
7:08	965.6	6.6	49	nw.	5.4	760	923.6	4.4	0.55	47	3.93	nw.	12.3	745	0	
.....	.....	.....	.....	.....	.....	750	924.8	4.5	.....	47	3.96	nw.	12.1	735	0	
.....	.....	.....	.....	.....	.....	500	953.7	5.8	.....	48	4.43	nnw.	6.4	490	0	
7:14	965.6	6.4	49	nnw.	4.0	396	965.6	6.4	.....	49	4.71	nnw.	4.0	388	.....	Few A.Cu.,wnw.; few St. Cu., wnw.

March 23, 1917, series (No. 4).

P. M.																
7:48	965.8	4.6	58	nw.	6.3	396	965.8	4.6	.....	58	4.92	nw.	6.3	388	.....	FewA.St.,wnw.
.....	.....	.....	.....	.....	.....	500	953.7	4.6	.....	53	4.49	nw.	9.9	490	0	
7:57	965.9	4.6	58	nnw.	5.8	755	924.1	4.5	0.03	41	3.45	nw.	18.6	740	0	
8:10	965.9	4.6	57	nw.	5.8	1,000	896.8	3.6	.....	44	3.48	wnw.	17.4	980	170	
.....	.....	.....	.....	.....	.....	1,223	872.6	2.8	0.36	47	3.51	wnw.	16.3	1,201	330	
.....	.....	.....	.....	.....	.....	1,250	870.0	2.5	.....	47	3.44	wnw.	16.5	1,225	370	
.....	.....	.....	.....	.....	.....	1,500	843.8	0.2	.....	50	3.10	wnw.	17.9	1,470	720	
.....	.....	.....	.....	.....	.....	1,750	817.8	− 2.1	.....	53	2.72	wnw.	19.4	1,715	1,060	
8:26	965.9	4.4	59	wnw.	6.7	1,933	798.2	− 3.8	0.93	55	2.44	wnw.	20.5	1,895	1,610	
.....	.....	.....	.....	.....	.....	2,000	792.0	− 3.9	.....	55	2.43	wnw.	20.6	1,960	1,950	
.....	.....	.....	.....	.....	.....	2,250	766.8	− 6.5	.....	55	1.94	wnw.	23.5	2,205	2,950	
.....	.....	.....	.....	.....	.....	2,500	741.7	− 9.2	.....	54	1.51	wnw.	25.9	2,450	4,190	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 23, 1917, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁸ ergs.*	*volts.*	
						2,750	717.6	−10.6	.....	54	1.33	wnw.	28.2	2,694	.....	
8:51	965.9	4.3	59	wnw.	6.7	2,770	716.5	−10.8	0.68	54	1.31	wnw.	28.5	2,714	.....	Few A.St., wnw.
						2,750	717.6	−10.7	.....	54	1.32	wnw.	28.4	2,694	.....	
						2,500	741.5	− 9.4	.....	51	1.40	wnw.	26.9	2,450	4,360	Cloudless.
						2,250	765.3	− 8.1	.....	49	1.50	wnw.	25.5	2,205	3,610	
9:25	965.9	3.4	62	wsw.	8.5	2,049	785.5	− 7.0	0.94	47	1.59	wnw.	24.3	2,008	3,000	
						2,000	790.0	− 6.5	.....	47	1.66	wnw.	24.3	1,960	2,870	
						1,750	815.6	− 4.2	.....	44	1.89	wnw.	24.4	1,715	2,180	
						1,500	842.1	− 1.8	.....	42	2.21	wnw.	24.5	1,470	1,480	
10:03	965.9	2.7	63	sw.	12.5	1,401	852.9	− 0.9	0.76	41	2.32	wnw.	24.5	1,373	1,200	
						1,250	869.1	0.2	.....	40	2.48	wnw.	22.9	1,225	640	
						1,000	896.8	2.1	.....	39	2.77	wnw.	20.2	980	290	
						750	925.1	4.0	.....	38	3.09	wnw.	17.5	735	10	
10:27	965.9	2.2	68	sw.	10.3	742	925.4	4.1	0.37	38	3.11	wnw.	17.4	728	0	
10:31	965.9	2.5	65	wsw.	14.8	555	947.1	4.8	−1.26	38	3.27	w.	12.4	544	0	
						500	953.7	4.1	.....	47	3.85	w.	13.2	490	0	
10:34	965.9	2.8	63	wsw.	14.8	396	965.9	2.8	.....	63	4.71	wsw.	14.8	388	.....	Cloudless.

March 23–24, 1917, series (No. 5).

P. M.																
11:16	965.9	2.2	64	sw.	4.5	396	965.9	2.2	.....	64	4.58	sw.	4.5	388	.....	Cloudless.
						500	953.8	4.0	.....	53	4.31	wsw.	11.6	490	0	
11:18	965.9	2.1	64	sw.	4.0	523	950.9	4.4	−1.73	50	4.18	wsw.	13.2	513	0	
11:25	965.9	2.0	64	sw.	4.5	746	925.2	4.0	0.18	36	2.93	wnw.	12.2	732	0	1/10 A. St., wnw.
						1,000	896.9	2.9	.....	36	2.71	wnw.	13.5	980	0	
						1,250	869.7	1.8	.....	37	2.58	wnw.	14.8	1,225	650	
						1,500	843.0	0.7	.....	37	2.38	wnw.	16.1	1,470	1,600	
11:55	965.9	1.8	67	sw.	4.9	1,579	834.6	0.3	0.44	37	2.31	wnw.	16.5	1,548	1,720	
						1,750	816.8	− 1.1	.....	39	2.17	wnw.	17.1	1,715	2,300	
						2,000	791.0	− 3.2	.....	43	2.01	wnw.	17.9	1,960	3,000	
						2,250	766.1	− 5.3	.....	46	1.80	wnw.	18.8	2,205	3,740	
						2,500	742.1	− 7.4	.....	40	1.30	wnw.	19.6	2,450	4,480	
						2,750	719.2	− 9.5	.....	53	1.44	wnw.	20.5	2,694	5,220	
A. M.																
12:27	965.9	1.4	70	sw.	4.5	2,902	705.2	−10.8	0.84	55	1.33	wnw.	21.0	2,843	5,670	
						3,000	696.4	−11.1	.....	55	1.29	wnw.	20.8	2,939	5,960	2/10 A. St., wnw.
						3,250	674.0	−11.9	.....	54	1.18	wnw.	20.4	3,184	7,240	
12:53	965.9	1.4	70	sw.	4.5	3,384	661.6	−12.3	0.28	54	1.14	wnw.	20.2	3,315	8,000	
						3,250	674.0	−12.0	.....	53	1.15	wnw.	20.4	3,184	7,510	
						3,000	696.4	−11.3	.....	51	1.18	wnw.	20.9	2,939	6,600	
						2,750	719.2	−10.7	.....	48	1.17	wnw.	21.4	2,694	5,700	
1:27	965.9	0.6	73	sw.	5.8	2,613	730.8	−10.3	0.77	47	1.19	wnw.	21.6	2,560	5,200	Few A. St., wnw.
						2,500	742.1	− 9.4	.....	47	1.29	wnw.	21.3	2,450	4,910	
						2,250	766.1	− 7.5	.....	46	1.49	wnw.	20.5	2,205	4,260	
						2,000	791.0	− 5.6	.....	45	1.71	w.	19.8	1,960	3,560	
						1,750	816.8	− 3.7	.....	44	1.97	w.	18.9	1,715	2,710	
						1,500	843.0	− 1.7	.....	43	2.28	w.	18.4	1,470	1,870	
1:58	965.9	0.5	72	sw.	5.4	1,481	844.3	− 1.6	0.75	43	2.30	w.	18.3	1,452	1,800	
						1,250	869.7	0.1	.....	41	2.52	w.	16.7	1,225	1,090	
						1,000	896.9	2.0	.....	38	2.68	wsw.	14.9	980	450	
2:20	965.7	0.4	70	ssw.	5.8	800	918.9	3.5	0.35	36	2.83	wsw.	13.5	784	100	
						750	925.0	3.7	.....	36	2.87	wsw.	13.5	735	0	
2:24	965.6	0.4	69	ssw.	5.8	542	948.3	4.4	− 2.74	36	3.01	sw.	13.6	531	0	
						500	953.8	3.2	.....	46	3.54	sw.	11.4	490	0	
2:29	965.6	0.4	69	ssw.	5.8	396	965.6	0.4	.....	69	4.34	ssw.	5.8	388	.....	Few A.St., wnw.

March 24, 1917, series (No. 6).

A. M.																
3:09	965.1	0.2	69	ssw.	5.8	396	965.1	0.2	.....	69	4.28	ssw.	5.8	388	.....	2/10 A. St., wnw.
						500	953.4	3.4	.....	49	3.82	ssw.	13.5	490	0	
3:11	965.1	0.2	69	ssw.	5.8	541	947.9	4.6	−3.03	41	3.48	ssw.	16.5	530	0	
3:19	965.0	0.1	72	ssw.	5.8	753	923.6	4.4	0.09	34	2.85	sw.	15.6	738	0	
						1,000	895.8	3.4	.....	38	2.96	wsw.	16.1	980	940	
						1,250	868.0	2.3	.....	42	3.03	wsw.	16.7	1,225	1,890	
						1,500	842.0	1.3	.....	45	3.02	w.	17.2	1,470	2,850	
3:43	964.7	0.7	70	ssw.	6.3	1,539	837.8	1.1	0.42	46	3.05	w.	17.3	1,508	3,000	
						1,750	815.8	−0.6	.....	45	2.61	w.	17.1	1,715	3,870	
						2,000	788.3	−2.5	.....	45	2.23	w.	17.0	1,960	4,900	
						2,250	765.9	−4.5	.....	44	1.84	w.	16.8	2,205	5,920	
4:17	964.6	0.7	63	ssw.	6.3	2,492	742.7	−6.4	0.79	43	1.53	w.	16.6	2,442	6,900	
						2,500	742.0	−6.4	.....	43	1.53	w.	16.7	2,450	6,910	
						2,750	718.1	−7.9	.....	46	1.45	w.	18.0	2,694	8,220	
						3,000	695.0	−9.3	.....	49	1.35	wnw.	21.3	2,939	9,040	
						3,250	672.9	−10.7	.....	53	1.29	wnw.	23.6	3,184	9,740	
5:07	964.8	0.0	68	ssw.	7.6	3,369	662.3	−11.4	0.44	54	1.24	wnw.	24.7	3,300	.....	
						3,250	672.9	−11.0	.....	53	1.26	wnw.	23.3	3,184	9,910	
						3,000	694.5	−10.3	.....	51	1.29	wnw.	20.4	2,939	9,400	2/10 A. St., wnw.
						2,750	717.0	−9.6	.....	49	1.32	w.	17.6	2,694	8,410	
5:56	965.2	0.0	71	ssw.	6.3	2,598	731.5	−9.1	0.81	48	1.35	w.	15.8	2,546	7,800	
						2,500	740.0	−8.3	.....	48	1.45	w.	15.9	2,450	7,300	
						2,250	763.6	−6.3	.....	44	1.58	w.	16.3	2,205	6,030	
						2,000	790.2	−4.3	.....	41	1.75	w.	16.6	1,960	5,070	
						1,750	814.3	−2.2	.....	38	1.93	w.	16.9	1,715	4,320	1/10 Ci. St., wnw.
6:26	965.2	0.3	68	ssw.	5.4	1,610	829.4	−1.1	0.61	36	2.01	w.	17.1	1,578	3,900	
						1,500	841.0	−0.4	.....	36	2.13	w.	17.0	1,470	3,360	
						1,250	867.9	1.1	.....	36	2.38	w.	16.7	1,225	2,120	
						1,000	895.8	2.6	.....	36	2.65	wnw.	16.5	980	890	
6:48	965.2	0.6	68	sw.	5.8	820	915.9	3.7	−0.64	36	2.87	wnw.	16.3	804	0	
						750	924.3	3.3	.....	41	3.17	wnw.	14.8	735	0	
						500	953.4	1.7	.....	59	4.08	wsw.	9.4	490	0	
6:54	965.2	1.0	66	sw.	7.2	396	965.2	1.0	.....	66	4.34	sw.	7.2	388	.....	Few Ci. St., wnw.

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 24, 1917, series (No. 7).

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.	Potential. Gravity.	Potential. Electric.	
A. M.	*mb.*	*°C.*	*%*		*m. p. s.*	*m.*	*mb.*	*°C.*		*%*	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
7:26	965.2	2.2	61	wsw.	5.8	396	965.2	2.2	.....	61	4.37	wsw.	5.8	388	.....	1/10 Ci. St., wnw.
						500	953.3	3.4	.....	54	4.21	w.	10.2	490	0	
7:37	965.2	2.8	63	wsw.	5.8	748	924.4	6.2	−1.14	37	3.51	wnw.	20.7	733	0	
						1,000	895.5	5.6	.....	35	3.18	w.	18.0	980	1,700	3/10 Ci., wnw.
7:52	965.2	3.8	62	wsw.	5.4	1,183	876.6	5.1	0.25	34	2.99	wsw.	16.1	1,160	2,400	
						1,250	868.5	4.9	.....	34	2.94	wsw.	16.5	1,225	2,840	
						1,500	842.5	4.0	.....	34	2.76	wsw.	18.0	1,470	4,480	
						1,750	817.2	3.2	.....	34	2.61	w.	19.4	1,715	5,480	
						2,000	792.9	2.4	.....	34	2.47	w.	20.9	1,960	6,390	
8:21	965.3	4.3	61	wsw.	7.2	2,085	784.4	2.1	0.33	34	2.42	w.	21.4	2,043	6,700	
						2,250	769.0	0.7	.....	36	2.31	w.	22.5	2,205	7,410	5/10 Ci., wnw.
						2,500	745.5	−1.4	.....	39	2.12	w.	24.1	2,450	8,500	
						2,750	721.9	−3.4	.....	41	1.89	w.	25.7	2,694	.....	
9:10	965.5	7.6	45	w.	10.3	2,818	715.5	−4.0	0.59	42	1.84	w.	26.1	2,761	.....	
						2,750	721.9	−3.8	.....	42	1.86	w.	26.0	2,694	.....	
						2,500	745.5	−2.9	.....	41	1.97	w.	25.5	2,450	8,310	3/10 Ci., wnw.
						2,250	769.0	−2.0	.....	41	2.12	w.	25.1	2,205	7,150	
						2,000	792.9	−1.1	.....	40	2.23	w.	24.5	1,960	5,060	
9:41	965.3	9.4	37	w.	8.9	1,988	793.7	−1.1	0.80	40	2.29	w.	24.5	1,948	4,900	
						1,750	817.2	0.8	.....	36	2.33	w.	25.1	1,715	4,360	
						1,500	842.5	2.8	.....	32	2.39	wsw.	25.8	1,470	3,460	
10:13	965.0	11.2	33	wsw.	11.2	1,290	865.4	4.5	0.37	28	2.36	wsw.	26.4	1,265	2,700	
						1,250	868.5	4.6	.....	28	2.37	wsw.	25.8	1,225	2,610	
						1,000	895.5	5.6	.....	30	2.73	sw.	22.0	980	1,880	
10:40	964.7	12.8	32	wsw.	14.8	750	924.4	6.5	1.72	32	3.10	sw.	18.2	735	780	4/10 Ci., w.
						500	952.1	10.8	.....	31	4.01	wsw.	14.2	490	230	
10:46	964.7	12.6	31	wsw.	12.5	396	964.7	12.6	.....	31	4.52	wsw.	12.5	388	.....	

March 24, 1917, series (No. 8).

A. M.																
11:24	963.7	14.6	25	wsw.	12.1	396	963.7	14.6	.....	25	4.16	wsw.	12.1	388	.....	3/10 Ci., w.
						500	952.1	14.2	.....	25	4.05	wsw.	12.5	490	0	
						750	923.9	13.2	.....	26	3.94	wsw.	13.5	735	0	
11:31	963.5	14.8	24	wsw.	10.7	813	916.9	12.9	0.41	26	3.87	wsw.	13.8	797	0	
						1,000	896.1	11.7	.....	27	3.71	wsw.	14.0	980	1,120	
						1,250	870.0	10.1	.....	29	3.58	wsw.	14.2	1,225	2,350	
11:52	963.2	15.2	24	wsw.	10.3	1,438	850.5	8.9	0.64	30	3.42	wsw.	14.4	1,410	3,200	
						1,500	844.0	8.5	.....	30	3.33	wsw.	14.5	1,470	3,350	
						1,750	819.0	8.7	.....	29	3.26	wsw.	15.1	1,715	3,960	
						2,000	794.1	5.4	.....	29	2.60	w.	15.6	1,960	4,570	
						2,250	770.2	3.8	.....	28	2.25	w.	16.1	2,205	4,820	
P. M.																
12:45	962.7	16.1	26	w.	12.1	2,393	756.4	2.9	0.63	28	2.11	w.	16.4	2,345	5,050	Few Ci., w.
						2,500	746.1	2.1	.....	29	2.06	w.	16.1	2,450	5,310	
						2,750	723.4	0.1	.....	31	1.91	w.	15.4	2,694	5,910	
						3,000	700.5	−1.8	.....	33	1.74	w.	11.7	2,939	6,000	
						3,250	678.3	−3.8	.....	35	1.55	w.	14.1	3,184	.....	
1:33	962.1	17.0	24	w.	10.3	3,379	667.5	−4.8	0.64	36	1.47	w.	13.7	3,310	.....	
						3,250	678.3	−4.2	.....	36	1.55	w.	13.5	3,184	.....	
						3,000	700.3	−2.9	.....	35	1.68	w.	13.1	2,939	5,210	
						2,750	722.7	−1.6	.....	34	1.82	w.	12.7	2,694	4,820	
						2,500	745.0	−0.4	.....	33	1.95	w.	12.3	2,450	4,440	
1:55	961.9	16.8	21	w.	12.1	2,282	765.5	0.7	0.80	32	2.06	w.	11.9	2,236	4,100	
						2,250	768.9	1.0	.....	32	2.10	w.	12.0	2,205	3,900	
						2,000	792.4	2.9	.....	32	2.41	w.	12.6	1,960	3,370	
						1,750	817.0	4.9	.....	32	2.77	wsw.	13.2	1,715	2,650	
						1,500	842.6	6.9	.....	32	3.18	wsw.	13.8	1,470	1,970	
2:16	961.6	17.4	22	w.	7.2	1,364	856.7	8.0	0.85	32	3.43	wsw.	14.1	1,337	1,600	
						1,250	868.5	9.0	.....	31	2.37	wsw.	13.7	1,225	1,050	
						1,000	895.0	11.1	.....	28	3.70	wsw.	12.7	980	0	
2:36	961.4	17.4	21	w.	7.6	750	922.0	13.2	1.19	26	3.94	wsw.	11.8	735	0	
						500	950.0	16.2	.....	23	4.24	w.	10.7	490	0	
2:41	961.3	17.4	22	w.	10.3	396	961.3	17.4	.....	22	4.37	w.	10.3	388	.....	Few Ci., w.

March 24, 1917, series (No. 9).

P. M.																
3:25	961.0	18.0	21	w.	7.2	396	961.0	18.0	.....	21	4.33	w.	7.2	388	.....	Cloudless.
						500	949.0	17.1	.....	21	4.10	w.	8.7	490	0	
						750	921.8	14.9	.....	21	3.56	w.	12.3	735	0	
3:32	960.9	18.2	23	w.	7.6	771	919.3	14.7	0.88	21	3.51	w.	12.6	756	0	
						1,000	894.8	12.9	.....	24	3.57	w.	12.5	980	250	
						1,250	868.4	11.0	.....	26	3.41	wsw.	12.3	1,225	490	
						1,500	842.5	9.1	.....	29	3.35	wsw.	12.1	1,470	860	
4:22	960.7	17.8	21	w.	5.4	1,562	836.0	8.6	0.77	30	3.35	wsw.	12.1	1,531	950	Few Ci., w.
						1,750	817.3	6.5	.....	28	2.71	wsw.	11.0	1,715	1,300	
						2,000	792.5	3.7	.....	25	1.99	wsw.	9.5	1,960	1,770	2/10 Ci., w.
5:49	960.4	16.1	28	w.	4.0	2,140	778.4	2.1	1.12	24	1.71	wsw.	8.7	2,097	2,040	
						2,250	768.1	1.2	.....	25	1.67	wsw.	9.8	2,205	2,240	
						2,500	744.1	−0.8	.....	26	1.48	wsw.	12.3	2,450	1,800	
						2,750	721.0	−2.8	.....	27	1.31	wsw.	14.8	2,694	1,800	
6:20	960.3	14.8	32	w.	3.1	2,994	698.5	−4.7	0.80	28	1.15	wsw.	17.2	2,933	1,800	
						3,000	698.2	−4.7	.....	28	1.15	wsw.	17.3	2,939	1,800	
						3,250	677.0	−5.7	.....	28	1.06	wsw.	19.4	3,184	2,560	
						3,500	655.4	−6.7	.....	28	0.97	w.	21.5	3,429	3,310	
						3,750	634.5	−7.8	.....	28	0.88	w.	23.6	3,673	.....	4/10 Ci., w.
6:35	960.2	14.3	29	w.	3.1	3,883	623.3	−8.3	0.43	28	0.85	w.	24.7	3,803	.....	
						3,750	634.5	−7.7	.....	29	0.92	w.	24.6	3,673	.....	
						3,500	654.9	−6.5	.....	31	1.09	w.	23.0	3,429	3,770	
						3,250	676.0	−5.4	.....	32	1.24	w.	22.0	3,184	3,530	
						3,000	697.2	−4.2	.....	34	1.46	wsw.	20.9	2,939	3,000	
						2,750	719.8	−3.1	.....	36	1.70	wsw.	19.8	2,694	2,620	
						2,500	742.9	−1.9	.....	37	1.93	wsw.	18.7	2,450	2,300	
						2,250	766.9	−0.8	.....	40	2.28	wsw.	17.7	2,205	1,970	
7:41	960.1	12.4	31	ssw.	3.6	2,123	778.4	−0.2	0.91	40	2.40	wsw.	17.1	2,081	1,800	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 24, 1917, series (No. 9)—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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
						2,000	790.8	0.9		39	2.54	wsw.	16.9	1,960	1,650	
						1,750	815.2	3.2		35	2.69	wsw.	16.4	1,715	1,350	
						1,500	840.8	5.5		32	2.89	sw.	16.0	1,470	1,040	
						1,250	867.0	7.7		29	3.05	sw.	15.5	1,225	620	
8:03	960.1	11.7	33	ssw.	4.9	1,134	878.9	8.8	0.86	28	3.17	sw.	15.3	1,112	420	Cloudless.
						1,000	893.6	9.9		26	3.17	sw.	14.0	980	280	
						750	920.7	12.1		24	3.39	sw.	11.6	735	10	
8:19	959.9	11.3	33	ssw.	6.3	528	944.9	14.0	−2.12	21	3.36	sw.	9.4	518	0	
						500	947.8	13.4		23	3.54	sw.	8.6	490	0	
8:22	959.8	11.2	32	ssw.	5.8	396	959.8	11.2		32	4.26	ssw.	5.8	388		Cloudless.
March 25, 1917.																
A. M.																
7:08	960.5	1.2	78	e.	3.1	396	960.5	1.2		78	5.19	e.	3.1	388		7/10A.St.,w.
						500	948.2	2.2		77	5.51	e.	4.5	490	0	
7:11	960.5	1.3	79	e.	3.6	711	923.8	4.2	−0.95	76	6.27	ese.	7.2	697	0	1/10 Ci., w.;8/10A.St.,w.
						750	919.5	4.3		74	6.15	e.	6.8	735	660	
						1,000	891.8	4.6		63	5.34	nnw.	3.9	980	2,350	4/10Ci.St.,wsw.;3/10A.Cu.,sw.
P. M.																
1:31	959.9	11.0	56	ne.	2.7	1,046	886.9	4.7	−0.15	61	5.21	nw.	3.4	1,025	2,520	
						1,250	864.7	4.3		53	4.40	nnw.	5.3	1,225	3,040	
						1,500	838.5	3.7		44	3.50	nnw.	7.6	1,470	3,180	
1:58	959.8	10.4	54	ne.	3.1	1,653	822.8	3.4	0.21	38	2.96	w.	9.0	1,620	3,260	
						1,750	813.0	2.9		39	2.94	w.	9.8	1,715	3,390	
						2,000	787.8	1.5		41	2.79	w.	12.0	1,960	4,250	
						2,250	763.9	0.1		43	2.64	w.	14.2	2,205	4,950	
2:06	959.8	11.2	52	ne.	3.6	2,260	763.1	0.0	0.56	43	2.63	w.	14.3	2,215	4,970	
						2,500	740.0	−1.5		44	2.37	w.	17.4	2,450	5,470	
						2,750	717.1	−3.1		45	2.12	wsw.	20.7	2,694	5,990	
2:15	959.7	11.7	50	ne.	4.9	2,854	707.7	−3.7	0.46	46	2.06	wsw.	22.0	2,796	6,200	
						2,750	717.1	−3.7		46	2.06	wsw.	21.9	2,694	5,840	
						2,500	739.9	−2.7		46	2.24	wsw.	18.5	2,450	4,960	3/10 Ci.,sw.; 2/10 Ci.St.,sw.
						2,250	763.2	−1.9		45	2.35	w.	16.0	2,205	4,130	
						2,000	787.2	−1.2		45	2.49	w.	13.5	1,960	3,360	
2:41	959.5	11.6	50	nne.	4.0	1,787	808.5	−0.6	0.73	45	2.61	w.	11.4	1,751	2,700	
						1,750	812.1	−0.3		44	2.62	w.	11.1	1,715	2,580	
						1,500	837.7	1.5		41	2.79	wnw.	9.4	1,470	1,770	
2:49	959.5	11.6	47	ne.	4.9	1,295	859.4	3.0	0.30	38	2.88	wnw.	8.0	1,269	1,100	
						1,250	864.5	3.1		39	2.98	wnw.	8.1	1,225	1,010	
						1,000	891.8	3.9		48	3.88	wnw.	8.9	980	540	
						750	919.5	4.6		56	4.75	nne.	9.6	735	60	
3:02	959.4	12.6	49	nne.	6.7	721	922.5	4.7	2.37	57	4.87	nne.	9.7	707	0	
						500	948.0	9.9		50	6.10	ne.	6.8	490	0	
3:08	959.6	12.4	46	ne.	5.4	396	959.6	12.4		46	6.62	ne.	5.4	388		2/10 Ci.,sw.; 2/10 Ci.St., sw.
March 26, 1917.																
A. M.																
8:30	969.6	2.2	83	n.	6.7	396	969.6	2.2		83	5.94	n.	6.7	388		5/10A.St., sw.; 5/10St. Cu., n.
						500	957.0	1.7		86	5.94	n.	11.0	490	270	
8:34	969.6	2.2	83	nne.	6.7	713	932.1	0.7	0.47	91	5.85	n.	19.7	699	810	Lower St.Cu.at 800 m.
						750	928.1	0.7		90	5.79	n.	19.4	735	920	
						1,000	899.9	0.4		79	4.97	n.	17.2	980	1,310	
8:59	969.9	2.2	83	n.	7.2	1,208	876.7	0.2	0.10	71	4.40	n.	15.4	1,184	1,290	
						1,250	872.1	− 0.2		71	4.27	n.	15.3	1,225	1,050	
						1,500	845.5	− 2.4		73	3.65	n.	14.9	1,470	210	
						1,750	819.1	− 4.6		75	3.11	n.	14.5	1,715	0	
						2,000	793.5	− 6.8		77	2.65	n.	14.1	1,960	0	2/10 A.St.,sw.; 8/10St. Cu.,n.
9:21	970.3	3.0	81	n.	8.9	2,027	790.7	− 7.0	0.88	77	2.60	n.	14.1	1,986	400	
						2,250	768.5	− 8.7		79	2.30	n.	14.3	2,205	3,540	
9:42	970.6	2.9	77	n.	10.7	2,468	747.4	−10.4	0.77	81	2.03	n.	14.4	2,418	5,660	10/10St.Cu.,n.
						2,500	744.1	−10.5		80	1.98	n.	14.1	2,450	6,000	Snow from 9:53 to 10:04 a. m.
						2,750	720.2	−10.9		71	1.70	n.	11.4	2,694	7,940	
						3,000	697.0	−11.4		62	1.42	nnw.	8.8	2,939	9,240	3/10 A.St., sw.; 7/10 St. Cu., n.
11:00	972.0	5.4	56	nne.	9.4	3,250	674.6	−11.9	0.78	53	1.16	nnw.	6.2	3,184		
						3,000	697.0	−11.6		63	1.42	nnw.	8.7	2,939	9,130	
						2,750	720.2	−11.2		73	1.70	nnw.	11.1	2,694	7,510	St. Cu. at 1,900 m.
						2,500	744.1	−10.9		84	2.01	n.	13.6	2,450	7,340	
						2,250	768.5	−10.5		94	2.33	n.	16.2	2,205	6,310	
11:48	972.5	5.3	51	nne.	9.8	2,225	770.1	−10.5	0.47	95	2.36	n.	16.3	2,181	6,400	1/10 Ci.St., sw.; 2/10 A.St., sw.; 3/10 Cu., n.
						2,000	793.5	− 9.4		90	2.47	n.	16.7	1,960	5,730	
						1,750	819.1	− 8.3		85	2.57	n.	17.1	1,715	4,980	
						1,500	845.7	− 7.1		80	2.68	n.	17.5	1,470	4,060	
						1,250	873.0	− 5.9		74	2.75	n.	18.0	1,225	2,830	
P. M.																
12:10	972.7	5.7	47	n.	7.6	1,232	875.5	− 5.8	0.97	74	2.78	n.	18.0	1,208	2,740	
						1,000	901.2	− 3.6		62	2.80	n.	17.5	980	1,590	Arc of 22°-halo, 12:16 to 12:25 p.m.
12:22	972.7	5.8	47	n.	7.2	757	929.5	− 1.2	1.99	50	2.76	n.	17.0	742	380	
						750	930.0	− 1.1		50	2.79	n.	16.8	735	370	
						500	960.1	3.9		46	3.72	n.	10.3	490	110	
12:26	972.8	6.0	45	n.	7.6	396	972.8	6.0		45	4.21	n.	7.6	388		5/10Ci.St.,sw.;4/10Cu.,n.
March 27, 1917.																
A. M.																
7:31	975.3	−2.4	83	w.	4.0	396	975.3	− 2.4		83	4.15	w.	4.0	388		Cloudless.
						500	962.0	− 0.4		68	4.02	wnw.	9.6	490	0	
7:33	975.3	−2.4	79	w.	4.0	560	955.4	0.8	1.95	60	3.88	wnw.	12.9	549	0	
7:39	975.3	−2.2	77	w.	6.3	734	934.9	0.5	0.17	47	2.98	wnw.	11.7	720	0	
						750	933.0	0.4		47	2.96	wnw.	11.7	735	90	
						1,000	904.1	− 1.4		47	2.56	wnw.	10.9	980	1,550	
						1,250	876.1	− 3.1		47	2.21	wnw.	10.1	1,225	2,260	
8:24	975.3	−0.4	65	wnw.	4.9	1,343	866.1	− 3.8	0.71	47	2.09	wnw.	9.8	1,317	2,400	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 27, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	*°C.*	%		*m. p. s.*	*m.*	*mb.*	*°C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						1,500	848.5	− 4.9		46	1.86	wnw.	11.8	1,470	3,090	
						1,750	822.0	− 6.6		44	1.54	wnw.	14.9	1,715	4,190	
8:31	975.3	0.0	64	wnw.	4.9	1,992	797.2	− 8.2	0.68	43	1.31	wnw.	18.0	1,952	5,250	
						2,000	796.0	− 8.2		43	1.31	wnw.	18.0	1,960	5,280	
						2,250	770.4	− 8.8		38	1.10	wnw.	18.8	2,205	6,450	
						2,500	746.0	− 9.5		33	0.89	wnw.	19.7	2,450	7,630	
						2,750	722.3	−10.2		28	0.71	nw.	20.5	2,694	8,780	
						3,000	699.5	−10.8		23	0.56	nw.	21.3	2,939	9,850	
						3,250	677.0	−11.5		18	0.41	nw.	22.1	3,184	10,920	
9:14	975.3	2.0	58	wnw.	4.5	3,268	675.7	−11.5	0.26	18	0.41	nw.	22.2	3,201	11,000	
						3,500	655.3	−11.7		15	0.33	nw.	23.4	3,429	11,880	
						3,750	634.3	−11.8		11	0.24	wnw.	24.8	3,673	12,850	
9:48	975.3	3.2	49	w.	6.3	3,850	626.0	−11.9	0.06	10	0.22	wnw.	25.3	3,771	.....	
						3,750	634.3	−11.8		10	0.22	wnw.	24.2	3,673	12,580	
						3,500	655.3	−11.7		9	0.20	wnw.	21.4	3,429	9,780	
						3,250	677.0	−11.5		8	0.18	wnw.	18.6	3,184	8,100	
10:45	975.1	4.7	38	w.	6.3	3,200	681.1	−11.5	0.15	8	0.18	wnw.	18.0	3,135	7,880	
						3,000	699.5	−11.2		10	0.23	wnw.	17.8	2,939	7,010	
						2,750	722.3	−10.8		13	0.31	wnw.	17.4	2,694	5,920	
						2,500	746.0	−10.5		16	0.40	w.	17.1	2,450	4,840	
						2,250	770.4	−10.1		18	0.46	w.	16.8	2,205	3,750	
11:15	974.8	5.3	30	wsw.	7.2	1,996	796.1	− 9.7	0.73	21	0.56	w.	16.5	1,956	2,790	
						1,750	822.0	− 7.9		26	0.81	w.	14.0	1,715	2,060	
						1,500	848.5	− 6.1		31	1.13	w.	11.5	1,470	1,310	
						1,250	876.1	− 4.3		36	1.53	w.	9.0	1,225	840	
11:29	974.7	5.4	34	w.	5.8	1,184	883.3	− 3.8	0.82	37	1.64	w.	8.3	1,161	770	
						1,000	904.1	− 2.3		38	1.92	w.	7.4	980	580	
						750	933.0	− 0.2		39	2.34	wsw.	6.3	735	340	
11:40	974.5	5.8	30	wsw.	4.0	710	937.5	0.1	1.75	39	2.40	wsw.	6.1	696	300	
						500	962.5	3.8		34	1.51	wsw.	5.9	490	100	
11:46	974.5	5.6	32	wsw.	5.8	396	974.5	5.6		32	2.91	wsw.	5.8	388	.....	Cloudless.

March 28, 1917.

A. M.																
7:22	964.5	2.0	48	wsw.	6.7	396	964.5	2.0		48	3.39	wsw.	6.7	388	.....	2/10 Ci., wnw.
						500	952.7	4.4		46	3.85	w.	8.7	490	0	
7:30	964.5	3.3	46	wsw.	6.3	745	924.2	10.2	−2.35	35	4.36	wnw.	13.5	730	0	
						1,000	896.0	9.7		31	3.73	wnw.	13.2	980	1,280	
						1,250	869.9	9.2		27	3.14	nw.	12.8	1,225	2,360	
8:10	964.5	4.9	49	w.	6.7	1,486	845.3	8.7	0.20	24	2.70	nw.	12.5	1,457	3,180	
						1,500	844.1	8.6		24	2.68	nw.	12.5	1,470	3,230	
						1,750	819.0	7.1		29	2.93	nw.	13.1	1,715	4,170	
						2,000	794.0	5.7		34	3.11	nw.	13.7	1,960	5,100	
						2,250	770.2	4.2		39	3.22	nw.	14.2	2,205	5,850	
						2,500	746.9	2.7		44	3.26	nw.	14.8	2,450	6,840	
8:38	964.7	6.9	51	w.	4.9	2,513	745.9	2.6	0.59	44	3.24	nw.	14.8	2,463	6,890	
						2,750	724.1	1.0		45	2.96	nw.	17.4	2,694	7,730	
						3,000	702.0	−0.7		47	2.71	wnw.	20.1	2,939	8,620	
						3,250	680.9	−2.4		49	2.45	wnw.	22.8	3,184	9,510	
8:53	964.8	7.4	50	w.	5.4	3,305	676.0	−2.8	0.68	49	2.37	wnw.	23.4	3,238	9,700	
						3,500	660.0	−3.5		48	2.19	wnw.	24.3	3,429	10,140	
						3,750	639.6	−4.3		47	2.00	wnw.	25.3	3,673	11,000	
						4,000	619.1	−5.2		47	1.85	wnw.	26.4	3,918	12,330	
9:36	965.5	9.3	48	nw.	4.5	4,150	607.0	−5.7	0.24	46	1.74	wnw.	27.3	4,064	.....	
						4,000	619.0	−5.5		47	1.80	wnw.	26.5	3,918	12,280	
						3,750	638.9	−5.2		48	1.89	wnw.	25.2	3,673	10,650	
						3,500	658.6	−4.8		49	2.00	wnw.	23.9	3,429	9,010	
10:15	965.9	11.3	45	nw.	5.8	3,316	673.8	−4.6	0.47	50	2.08	wnw.	22.9	3,248	7,800	
						3,250	679.2	−4.3		50	2.13	wnw.	22.4	3,184	7,500	
						3,000	700.9	−3.1		49	2.31	wnw.	20.4	2,939	6,350	
						2,750	723.6	−1.9		48	2.51	nw.	18.4	2,694	5,200	
10:34	965.9	12.4	39	nw.	4.5	2,619	735.7	−1.3	0.68	48	2.63	nw.	17.3	2,566	4,600	
						2,500	746.0	−0.5		47	2.75	nw.	16.7	2,450	4,200	
						2,250	770.2	1.2		45	3.00	nw.	15.4	2,205	3,030	
						2,000	794.0	2.9		42	3.16	wnw.	14.1	1,960	2,570	
						1,750	819.0	4.6		40	3.39	wnw.	12.9	1,715	2,180	
11:01	965.9	13.7	39	nw.	4.5	1,521	842.9	6.2	0.17	38	3.60	wnw.	11.7	1,491	1,830	8/10 Ci., wnw.
						1,500	844.1	6.2		38	3.60	wnw.	11.5	1,470	1,770	
						1,250	870.8	6.7		38	3.73	wnw.	9.0	1,225	1,100	
						1,000	897.7	7.1		38	3.83	nw.	6.4	980	720	
11:22	966.0	14.4	38	nnw.	3.1	938	905.0	7.2	1.46	38	3.86	nw.	5.8	920	640	
						750	925.4	9.9		37	4.51	nw.	5.2	735	420	
						500	954.0	13.6		36	5.61	nnw.	4.3	490	120	
11:32	966.1	15.1	36	nnw.	4.0	396	966.1	15.1		36	6.18	nnw.	4.0	388	.....	8/10 Ci., wnw.

March 29, 1917.

P. M.																
6:03	969.6	12.0	21	ese.	4.9	396	969.6	12.0		21	2.95	ese.	4.9	388	.....	1/10 A. Cu., w.
						500	957.1	12.0		20	2.81	ese.	6.0	490	0	
6:12	969.5	11.8	20	ese.	5.4	698	935.1	11.9	0.03	18	2.51	ese.	8.2	684	0	
						750	928.4	11.7		18	2.48	ese.	8.3	735	220	
						1,000	900.4	10.5		20	2.54	se.	8.8	980	1,270	
						1,250	873.2	9.4		22	2.59	sse.	9.3	1,225	2,190	
						1,500	847.0	8.2		24	2.61	s.	9.8	1,470	2,900	
						1,750	822.0	7.1		25	2.52	ssw.	10.3	1,715	3,670	
6:53	969.0	9.8	30	se.	4.5	1,858	811.9	6.6	0.46	26	2.54	ssw.	10.5	1,821	4,000	
						2,000	797.1	6.9		30	2.98	ssw.	11.7	1,960	4,350	
7:08	968.9	9.4	29	se.	4.9	2,179	780.6	7.3	−0.22	36	3.68	sw.	13.2	2,135	4,800	
						2,250	773.4	6.8		37	3.66	sw.	13.5	2,205	4,980	
						2,500	749.9	5.1		42	3.69	sw.	14.5	2,450	5,600	
						2,750	727.1	3.3		46	3.56	w.	15.6	2,694	6,490	Few Ci., w.; few A. Cu., w.
						3,000	705.1	1.6		50	3.43	w.	16.6	2,939	7,490	
						3,250	683.7	− 0.2		55	3.31	w.	17.7	3,184	8,490	
						3,500	662.7	− 1.9		59	3.08	w.	18.8	3,429	9,400	

TABLE 7.—*Free-air data from kite flights at Drexel Aerological Station, March, 1917*—Continued.

March 29, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
7:42	969.1	8.2	33	se.	3.1	3,726	643.6	− 3.5	0.60	63	2.87	w.	19.7	3,650	.....	
						3,500	662.7	− 2.9	.....	61	2.93	w.	19.2	3,429	.....	
						3,250	683.5	− 1.1	.....	56	3.12	wsw.	17.7	3,184	7,700	
						3,000	704.9	0.1	.....	52	3.20	wsw.	16.7	2,939	6,900	
						2,750	726.5	1.3	.....	49	3.29	sw.	15.6	2,694	6,310	
						2,500	749.2	2.6	.....	45	3.32	sw.	14.6	2,450	5,730	
						2,250	773.0	3.8	.....	42	3.37	ssw.	13.6	2,205	5,190	
8:27	969.2	6.9	37	se.	3.6	2,213	776.0	4.0	−0.27	41	3.33	ssw.	13.4	2,169	5,110	Cloudless.
						2,000	796.3	3.4	.....	43	3.35	ssw.	13.3	1,960	4,660	
8:31	969.2	6.8	37	se.	4.0	1,952	801.4	3.3	0.26	43	3.33	ssw.	13.3	1,913	4,550	
						1,750	820.9	3.8	.....	38	3.05	ssw.	12.9	1,715	4,120	
						1,500	846.2	4.5	.....	31	2.61	s.	12.3	1,470	3,520	
8:46	969.2	6.5	38	se.	4.0	1,287	869.6	5.0	0.50	25	2.18	s.	11.9	1,262	3,000	
						1,250	873.0	5.2	.....	25	2.21	s.	11.9	1,225	2,820	
						1,000	900.2	6.4	.....	24	2.31	sse.	11.8	980	1,640	
						750	928.4	7.7	.....	24	2.52	sse.	11.7	735	710	
9:02	969.2	6.6	38	se.	4.5	534	953.1	8.8	−1.59	23	2.61	se.	11.6	524	270	
						500	957.1	8.2	.....	27	2.93	se.	9.9	490	210	
9:03	969.2	6.6	38	se.	4.5	396	969.2	6.6	.....	38	3.70	se.	4.5	388	.....	Cloudless.

March 30, 1917.

A. M.																
7:35	958.4	6.5	45	se.	4.5	396	958.4	6.5	.....	45	4.36	se.	4.5	388	.....	3/10 Ci., w.
						500	946.2	7.5	.....	46	4.77	sse.	8.6	490	1,210	
7:44	958.4	6.8	47	se.	5.4	748	918.4	10.0	−0.99	48	5.89	s.	18.4	733	4,100	
						1,000	890.9	14.1	.....	34	5.47	s.	13.8	980	6,550	
8:04	958.3	7.6	46	se.	6.7	1,149	875.4	16.6	−1.65	26	4.91	s.	11.1	1,126	8,000	
						1,250	862.2	16.3	.....	24	4.45	s.	10.9	1,225	8,360	
						1,500	838.9	15.7	.....	20	3.57	s.	10.3	1,470	9,270	2/10 Ci., w.; 1/10 Ci. St., w.
						1,750	814.1	15.0	.....	16	2.73	s.	9.7	1,715	10,200	
						2,000	790.1	14.3	.....	11	1.79	ssw.	9.1	1,960	11,000	
						2,250	767.2	13.7	.....	7	1.10	ssw.	8.5	2,205	11,000	
9:20	956.9	12.2	42	s.	7.2	2,430	751.5	13.2	0.27	4	0.61	ssw.	8.1	2,381	10,810	
						2,500	744.8	12.6	.....	5	0.73	ssw.	9.1	2,450	10,690	1/10 Ci., w.
						2,750	721.0	10.4	.....	8	1.01	sw.	12.6	2,694	.....	
						3,000	701.5	8.2	.....	12	1.30	wsw.	16.0	2,939	9,220	
10:41	955.7	16.7	41	ssw.	8.9	3,162	687.7	6.8	0.87	14	1.38	wsw.	18.3	3,098	9,300	
						3,250	700.0	6.0	.....	15	1.40	wsw.	18.2	3,184	9,540	1/10 Ci., w.
						3,500	659.3	3.8	.....	17	1.36	wsw.	17.9	3,429	10,220	
						3,750	639.0	1.6	.....	20	1.37	wsw.	17.5	3,673	11,120	
						4,000	619.4	− 0.6	.....	22	1.28	wsw.	17.2	3,918	.....	
11:12	955.2	18.2	41	ssw.	10.3	4,159	607.4	− 2.0	0.74	24	1.24	wsw.	17.0	4,073	.....	
						4,000	619.4	− 1.1	.....	24	1.34	wsw.	17.0	3,918	.....	
						3,750	639.0	0.4	.....	25	1.57	wsw.	17.1	3,673	10,320	
						3,500	659.0	1.9	.....	26	1.82	sw.	17.2	3,429	8,940	
11:47	954.5	20.2	38	s.	7.6	3,294	675.6	3.1	0.83	26	1.98	sw.	17.2	3,227	8,000	Few Ci.,w.: 1/10 Ci.St.,w.
						3,250	679.0	3.5	.....	26	2.04	sw.	17.2	3,184	7,850	
						3,000	699.8	5.5	.....	23	2.08	sw.	17.2	2,939	6,990	
						2,750	723.1	7.6	.....	20	2.09	sw.	17.3	2,694	6,150	
						2,500	743.0	9.7	.....	18	2.17	ssw.	17.3	2,450	5,420	
						2,250	766.0	11.8	.....	15	2.08	ssw.	17.4	2,205	4,700	
P. M.																
12:18	953.6	22.4	34	ssw.	9.8	2,113	779.0	12.9	0.57	14	2.08	ssw.	17.4	2,071	4,010	
						2,000	789.0	13.5	.....	13	2.01	ssw.	16.3	1,960	4,010	
						1,750	812.8	15.0	.....	11	1.88	ssw.	13.9	1,715	3,360	4/10 Ci.,w.
						1,500	837.1	16.4	.....	9	1.68	ssw.	11.5	1,470	2,680	1/10 Ci.St.,w.
12:40	952.8	23.2	33	s.	8.9	1,450	842.0	16.7	−0.50	9	1.71	ssw.	11.0	1,421	2,540	
						1,250	862.2	15.7	.....	21	3.75	ssw.	11.2	1,225	1,990	
12:45	952.6	23.4	31	s.	9.4	1,192	867.8	15.4	0.52	24	4.20	ssw.	11.2	1,169	1,830	7/10 Ci., w.; 2/10 Ci. St., w.
						1,000	888.1	16.4	.....	29	5.41	ssw.	11.4	980	1,320	
						750	914.6	17.7	.....	35	7.09	s.	11.6	735	660	
1:00	952.0	24.2	31	s.	11.2	731	915.8	17.8	1.91	35	7.13	s.	11.6	717	610	
						500	940.9	22.2	.....	32	8.57	ssw.	9.7	490	190	7/10 Ci., w.: 2/10 Ci. St., w.
1:06	951.9	24.2	30	ssw.	8.9	396	951.9	24.2	.....	30	9.06	ssw.	8.9	388	.....	

March 31, 1917.

A. M.																
7:43	960.7	4.6	65	n.	2.7	396	960.7	4.6	.....	65	5.51	n.	2.7	388	.....	10/10 St. Cu., nnw.
						500	948.5	4.2	.....	68	5.61	n.	7.6	490	0	
						750	919.8	3.3	.....	74	5.73	n.	19.3	735	0	
7:55	960.8	4.6	65	n.	2.7	825	911.2	3.0	0.37	76	5.76	n.	22.8	809	0	
						1,000	892.6	3.0	.....	74	5.61	n.	22.2	980	180	
						1,250	865.2	3.1	.....	71	5.42	nne.	21.3	1,225	1,000	
						1,500	838.5	3.2	.....	67	5.15	ne.	20.4	1.470	1,640	
8:20	960.9	4.6	62	n.	4.0	1,682	820.1	3.2	−0.02	65	5.00	ne.	19.8	1,649	2,100	
						1,750	813.0	2.8	.....	67	5.00	ne.	18.4	1,715	2,980	
						2,000	788.7	1.3	.....	74	4.97	ne.	13.1	1,960	6,870	
						2,250	765.5	− 0.2	.....	82	4.93	ene.	7.8	2,205	4,430	
P. M.																
12:44	964.1	6.0	56	n.	7.2	2,391	753.0	− 1.0	0.42	86	4.83	ene.	4.8	2,343	.....	
						2,250	765.7	− 0.6	.....	81	4.71	ene.	5.4	2,205	2,790	
						2,000	789.8	0.0	.....	72	4.40	ene.	6.5	1,960	2,720	
						1,750	814.4	0.6	.....	63	4.02	ne.	7.6	1,715	2,640	
1:05	964.2	5.8	58	n.	6.7	1,595	830.8	1.0	−0.17	58	3.81	ne.	8.3	1,563	2,600	
						1,500	840.0	0.8	.....	58	3.75	ne.	9.4	1,470	2,450	
						1,250	866.8	0.4	.....	57	3.59	nne.	12.3	1,225	2,050	
1:26	964.2	6.4	56	n.	5.4	1,125	881.0	0.2	0.27	57	3.53	nne.	13.7	1,103	1,600	
						1,000	894.3	0.5	.....	61	3.86	nne.	13.2	980	1,060	
1:34	964.2	6.0	55	n.	6.7	755	922.6	1.2	1.50	70	4.66	n.	12.3	740	0	
						500	951.9	5.0	.....	59	5.14	n.	10.9	490	0	
1:40	954.2	6.6	54	n.	7.6	396	964.2	6.6	.....	54	5.26	n.	7.6	388	.....	10/10 St. Cu., wsw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917.*

April 1, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁸ ergs.*	*volts.*	
7:06	968.6	3.3	65	nne.	2.7	396	968.6	3.3	.....	65	5.03	nne.	2.7	388	.....	10/10 A. St., sw.
						500	956.2	3.3	.....	65	5.03	nne.	4.1	490	0	
						750	927.8	3.6	.....	68	5.38	nne.	12.7	735	0	
7:14	968.7	3.6	64	nne.	2.7	773	924.9	3.6	−0.04	68	5.38	nne.	13.0	758	0	
						1,000	900.0	2.3	.....	69	4.97	nne.	14.0	980	840	
						1,250	872.5	0.8	.....	71	4.59	ne.	15.0	1,225	1,750	
						1,500	845.1	−0.7	.....	72	4.15	ne.	16.1	1,470	2,590	
7:48	968.8	4.6	53	n.	2.7	1,650	829.3	−1.6	0.59	73	3.91	ne.	16.7	1,617	3,100	
						1,750	818.9	−2.2	.....	73	3.72	ne.	16.6	1,715	3,380	
						2,000	793.4	−3.6	.....	75	3.39	nne.	16.4	1,960	4,020	
						2,250	769.1	−5.0	.....	76	3.05	nne.	16.2	2,205	4,870	
						2,500	745.1	−6.4	.....	77	2.74	n.	16.0	2,450	5,840	
8:25	968.9	5.2	60	n.	4.0	2,550	740.2	−6.7	0.57	77	2.67	n.	16.0	2,499	6,040	
						2,750	722.4	−6.7	.....	80	2.78	n.	13.7	2,694	6,820	10/10 A. St., sw.
						3,000	699.6	−6.8	.....	84	2.89	nnw.	10.8	2,939	7,770	
						3,250	677.8	−6.9	.....	88	3.00	nw.	7.9	3,184	8,560	A. St. base at about 3,300 m.
10:26	969.6	6.6	51	nnw.	5.4	3,450	659.8	−6.9	0.04	91	3.10	nw.	5.6	3,380	8,200	
						3,250	677.8	−6.8	.....	90	3.10	nw.	7.3	3,184	7,910	
						3,000	699.6	−6.7	.....	89	3.09	nnw.	9.4	2,939	7,450	
						2,750	721.8	−6.5	.....	87	3.07	n.	11.5	2,694	6,490	Solar halo 9:30 a. m. to 11:27 a.m.
						2,500	744.2	−6.4	.....	86	3.06	nne.	13.6	2,450	5,740	
11:08	969.1	9.4	34	nne.	4.5	2,329	760.6	−6.3	0.40	85	3.05	nne.	15.0	2,284	5,150	
						2,250	768.2	−6.0	.....	83	3.05	nne.	14.2	2,205	4,870	7/10 A. St., sw.; 2/10 Cu., nne
						2,000	792.6	−5.0	.....	77	3.09	nne.	11.9	1,960	3,960	
						1,750	818.6	−4.0	.....	71	3.10	n.	9.5	1,715	3,060	
						1,500	845.1	−2.9	.....	64	3.07	n.	7.1	1,470	2,170	
11:27	968.9	9.6	31	n.	4.5	1,364	859.6	−2.4	0.81	61	3.05	n.	5.8	1,337	1,800	
						1,250	872.5	−1.5	.....	58	3.13	n.	6.7	1,225	1,490	
						1,000	900.0	0.6	.....	53	3.38	n.	7.8	980	820	
11:50	968.7	9.0	37	n.	5.4	786	923.6	2.3	1.82	48	3.46	n.	9.4	771	0	
						750	928.0	2.6	.....	47	3.46	n.	9.0	735	0	
						500	956.9	7.5	.....	38	3.94	nnw.	6.1	490	0	
11:54	968.7	9.4	35	nnw.	4.9	396	968.7	9.4	.....	35	4.13	nnw.	4.9	388	.....	5/10 A. St., sw.; 3/10 Cu., nne.

April 2, 1917.

A. M.																
7:12	973.2	1.4	73	ssw.	6.7	396	973.2	1.4	.....	73	4.93	ssw.	6.7	388	.....	6/10 Ci.St., wsw.; 4/10 A.St., wsw.
						500	961.0	2.8	.....	70	5.22	ssw.	10.7	490	.....	
7:14	973.1	1.5	73	ssw.	5.8	570	952.4	3.7	−1.32	68	5.41	ssw.	13.4	559	0	
						750	931.8	3.2	.....	60	4.67	ssw.	12.5	735	1,300	
						1,000	902.8	2.6	.....	48	3.64	sw.	11.2	980	2,500	
						1,250	875.2	2.0	.....	36	2.62	sw.	9.7	1,225	3,380	
8:02	972.6	2.4	72	ssw.	6.3	1,366	862.8	1.7	0.26	31	2.14	sw.	9.4	1,339	3,750	7/10 A.St., wsw.; 1/10 St. Cu., sw.
						1,500	848.2	0.6	.....	36	2.20	sw.	9.6	1,470	3,880	
						1,750	822.4	− 1.4	.....	45	2.32	sw.	10.1	1,750	3,800	
						2,000	797.2	− 3.4	.....	55	2.44	sw.	10.5	1,960	5,620	
9:04	972.3	5.1	63	ssw.	8.9	2,161	780.8	− 4.7	0.81	61	2.51	sw.	10.8	2,118	6,030	6/10 A.St., wsw.; 2/10 St. Cu., sw.
						2,250	772.8	− 5.0	.....	63	2.49	sw.	11.1	2,205	6,300	
						2,500	748.6	− 6.0	.....	67	2.43	sw.	12.0	2,450	7,520	
						2,750	725.6	− 7.0	.....	71	2.37	sw.	13.0	2,694	8,740	
						3,000	702.7	− 8.0	.....	75	2.31	wsw.	13.9	2,939	9,980	
						3,250	680.1	− 8.9	.....	80	2.25	wsw.	14.8	3,184	11,640	
						3,500	658.1	− 9.9	.....	84	2.18	wsw.	15.7	3,429	13,300	
9:49	971.7	7.4	49	ssw.	9.4	3,682	642.5	−10.6	0.39	87	2.14	wsw.	16.4	3,607	13,940	
						3,750	637.2	−10.6	.....	84	2.06	wsw.	16.6	3,673	14,080	
						4,000	616.8	−10.6	.....	72	1.77	wsw.	17.5	3,918	14,580	
						4,250	597.1	−10.6	.....	55	1.35	wsw.	18.6	4,162	15,180	3/10 St.Cu., sw.
						4,500	577.8	−10.7	.....	48	1.18	w.	19.1	4,407	15,550	
						4,750	559.1	−10.7	.....	36	0.88	w.	20.0	4,651	15,910	
11:08	970.5	10.8	29	sw.	13.4	4,880	548.8	−10.7	0.01	30	0.73	w.	20.4	4,778	.....	
						4,750	559.1	−10.7	.....	32	0.79	w.	20.4	4,651	15,640	3/10 Cu., sw.
						4,500	577.7	−10.7	.....	37	0.91	w.	20.3	4,407	14,240	
						4,250	596.4	−10.7	.....	42	1.02	w.	20.3	4,162	12,850	7/10 Cu., wsw.
						4,000	615.6	−10.6	.....	46	1.14	wsw.	20.3	3,918	11,450	
						3,750	635.6	−10.6	.....	51	1.26	wsw.	20.2	3,673	10,060	
11:58	969.9	11.2	23	wsw.	11.6	3,595	647.8	−10.6	0.20	54	1.33	wsw.	20.2	3,521	9,200	
						3,500	656.3	−10.4	.....	57	1.43	wsw.	19.7	3,429	8,670	
						3,250	678.0	− 9.9	.....	65	1.71	wsw.	18.4	3,184	7,280	
						3,000	700.4	− 9.4	.....	72	2.01	wsw.	17.1	2,939	5,880	
P. M.																
12:17	969.5	12.6	21	wsw.	9.8	2,842	714.1	− 9.1	0.57	77	2.16	wsw.	16.3	2,785	5,000	
						2,750	723.2	− 8.6	.....	74	2.15	wsw.	16.2	2,694	4,620	
						2,500	746.5	− 7.2	.....	67	2.14	wsw.	15.9	2,450	3,590	
						2,250	770.5	− 5.7	.....	59	2.12	wsw.	15.6	2,205	2,950	
						2,000	795.0	− 4.3	.....	52	2.10	wsw.	15.4	1,960	2,410	
						1,750	820.4	− 2.9	.....	44	2.08	wsw.	15.1	1,715	1,860	
12:46	968.9	12.2	19	wsw.	10.7	1,678	827.6	− 2.5	0.99	42	2.08	wsw.	15.0	1,645	1,700	
						1,500	846.1	− 0.7	.....	39	2.15	wsw.	14.7	1,470	970	
						1,250	872.9	1.8	.....	34	2.25	wsw.	14.2	1,225	.....	
						1,000	900.1	4.2	.....	29	2.35	wsw.	13.7	980	.....	
1:10	968.4	11.7	21	wsw.	10.3	804	921.7	5.2	1.81	27	2.39	wsw.	13.5	788	.....	
						750	928.1	6.2	.....	26	2.46	wsw.	12.9	735	.....	
						500	957.0	10.7	.....	21	2.70	wsw.	10.1	490	.....	
1:20	968.2	12.6	19	wsw.	8.9	396	968.2	12.6	.....	19	2.77	wsw.	8.9	388	.....	9/10 Cu., wsw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917*—Continued.

April 3, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁸ ergs.*	*volts.*	
2:41	966.6	10.2	44	se.	10.7	396	966.6	10.2	.....	44	5.48	se.	10.7	388	.....	10/10 St., s.
						500	954.8	9.3	.....	48	5.63	se.	11.5	490	0	
2:48	966.6	10.2	44	se.	10.7	748	926.3	7.2	0.85	56	5.69	ese.	13.5	733	0	
						1,000	887.9	5.1	.....	64	5.63	ese.	13.6	980	820	
						1,250	870.8	2.9	.....	71	5.35	se.	13.8	1,225	2,590	
						1,500	844.5	0.8	.....	79	5.11	se.	13.9	1,470	6,240	Rain began 2:53, ended 4:00 p.m.
						1,750	818.9	−1.3	.....	86	4.71	s.	14.1	1,715	7,710	
3:19	966.5	9.4	47	se.	9.8	1,969	796.4	−3.2	0.85	93	4.35	s.	14.2	1,930	8,500	
						2,000	793.7	−3.4	.....	93	4.28	s.	14.1	1,960	8,590	
						2,250	769.1	−4.7	.....	91	3.75	s.	13.0	2,205	9,280	
						2,500	745.0	−6.1	.....	89	3.25	s.	12.0	2,450	10,020	
						2,750	721.5	−7.5	.....	88	2.84	s.	10.9	2,694	14,070	
						3,000	697.8	−8.9	.....	86	2.46	ssw.	9.9	2,939	17,820	
3:53	966.5	9.6	45	e.	10.3	3,132	686.0	−9.6	0.53	85	2.29	ssw.	9.3	3,068	.....	
						3,000	697.8	−8.9	.....	86	2.46	ssw.	10.1	2,939	17,450	
						2,750	720.8	−7.6	.....	87	2.79	ssw.	11.7	2,694	12,470	
						2,500	743.8	−6.4	.....	89	3.13	s.	13.2	2,450	10,020	
						2,250	767.8	−5.1	.....	90	3.58	s.	14.8	2,205	6,340	
4:16	966.4	9.6	47	e.	9.4	2,116	780.8	−4.4	0.70	91	3.84	s.	15.6	2,074	4,700	
						2,000	792.1	−3.6	.....	88	3.98	s.	15.5	1,960	4,090	
						1,750	817.6	−1.8	.....	80	4.21	se.	15.4	1,715	2,780	
						1,500	843.6	−0.1	.....	73	4.42	se.	15.3	1,470	2,320	
						1,250	870.4	1.7	.....	66	4.56	se.	15.1	1,225	2,870	
						1,000	887.8	3.4	.....	58	4.52	e.	15.0	980	2,120	
4:40	966.3	9.2	46	e.	9.8	820	917.7	4.7	1.06	53	4.53	e.	14.9	804	1,570	
						750	926.0	5.4	.....	52	4.66	e.	13.9	735	1,360	
						500	954.8	8.1	.....	48	5.18	e.	10.4	490	.....	
4:45	966.3	9.2	46	e.	8.9	396	966.3	9.2	.....	46	5.70	e.	8.9	388	.....	10/10 St., s.

April 4, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.																
1:09	971.3	3.6	85	nne.	11.6	396	971.3	3.6	.....	85	6.72	nne.	11.6	388	.....	10/10 St., n. Misting.
						500	959.4	2.9	.....	89	6.70	nne.	15.1	490	460	
1:15	971.3	3.9	85	nne.	14.3	750	929.8	1.1	0.71	96	6.36	n.	23.6	735	680	
						1,000	901.1	−0.1	.....	96	5.82	n.	24.3	980	4,620	
						1,250	873.9	−1.3	.....	96	5.26	n.	25.0	1,225	6,770	
1:25	971.3	3.9	85	nne.	10.7	1,352	862.6	−1.8	0.48	96	5.05	n.	25.3	1,321	7,400	
						1,500	846.7	−2.3	.....	94	4.74	n.	24.3	1,470	8,480	
						1,750	820.0	−3.1	.....	91	4.29	n.	22.7	1,715	9,630	10/10 St., n.
2:01	971.3	4.2	79	nne.	11.2	1,929	801.9	−3.7	0.22	89	3.99	n.	21.5	1,891	10,500	
						1,750	820.0	−3.4	.....	92	4.23	n.	21.1	1,715	8,440	
						1,500	846.7	−2.9	.....	96	4.61	n.	20.5	1,470	5,550	
2:33	971.3	4.4	79	nne.	11.2	1,296	868.5	−2.5	0.49	99	4.91	n.	20.0	1,270	3,200	
						1,250	873.7	−2.3	.....	98	4.94	n.	20.0	1,225	2,670	St. Cu. t, 300m. Mist ended 3:15 p.m.
						1,000	901.1	−1.1	.....	93	5.18	n.	19.8	980	0	
3:15	971.3	5.2	78	nne.	11.2	761	928.5	0.1	1.34	88	5.41	n.	19.6	746	0	
						750	929.8	0.3	.....	88	5.49	n.	19.3	735	0	
						500	959.4	3.6	.....	79	6.25	nne.	12.9	490	0	
3:22	971.3	5.0	76	nne.	10.3	396	971.3	5.0	.....	76	6.63	nne.	10.3	388	.....	10/10 St. Cu., n.

April 5, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.																
7:13	966.9	9.2	55	se.	4.8	396	966.9	9.2	.....	55	6.40	se.	4.8	388	.....	8/10 Ci. St., nw.; 1/10 A. St., nw. 1/10 A. Cu., nw.
						500	955.0	9.3	.....	52	6.09	se.	5.8	490	0	
7:20	966.9	9.1	56	se.	5.3	731	928.6	9.5	−0.09	44	5.22	sse.	7.9	717	0	
						750	926.8	9.4	.....	44	5.19	s.	8.0	735	40	
						1,000	899.0	7.6	.....	47	4.91	s.	9.5	980	650	
						1,250	872.3	5.9	.....	49	4.55	ssw.	10.9	1,225	1,480	
						1,500	845.8	4.2	.....	52	4.29	sw.	12.4	1,470	1,820	3/10 Ci. St., nw.; 7/10 A. St., nw
						1,750	820.1	2.4	.....	54	3.92	wsw.	13.9	1,715	2,240	
						2,000	794.7	0.7	.....	57	3.67	w.	15.3	1,960	2,660	
8:20	966.9	8.7	55	se.	7.2	2,100	784.9	0.0	0.07	58	3.54	w.	15.9	2,058	2,980	
						2,250	770.2	− 1.5	.....	55	2.96	w.	15.8	2,205	3,500	
						2,500	746.4	− 3.9	.....	50	2.20	w.	15.0	2,450	4,390	
						2,750	723.2	− 6.4	.....	45	1.60	wnw.	15.4	2,694	5,150	
						3,000	700.2	− 8.8	.....	40	1.16	wnw.	15.2	2,939	5,900	
8:41	966.9	8.7	53	se.	6.2	3,232	679.3	−11.1	0.93	35	0.82	wnw.	15.0	3,166	6,600	8/10 Ci. St., nw.; 1/10 Ci. Cu., nw.; 1/10 A. Cu., nw.
						3,000	700.2	− 9.1	.....	37	1.04	w.	14.3	2,939	5,510	
						2,750	722.8	− 6.9	.....	40	1.36	w.	13.5	2,694	4,350	
						2,500	745.7	− 4.7	.....	42	1.73	wsw.	12.7	2,450	3,580	
						2,250	769.2	− 2.5	.....	45	2.23	wsw.	11.9	2,205	2,810	
						2,000	793.6	− 0.3	.....	47	2.80	sw.	11.1	1,960	2,040	
9:13	966.9	7.8	58	se.	5.3	1,889	805.1	0.7	0.61	48	3.09	sw.	10.8	1,851	1,700	
						1,750	819.1	1.5	.....	46	3.13	sw.	10.8	1,715	1,580	
						1,500	845.0	3.1	.....	44	3.36	ssw.	10.8	1,470	1,360	
						1,250	871.1	4.6	.....	41	3.48	s.	10.8	1,225	1,060	
						1,000	898.4	6.1	.....	38	3.58	sse.	10.8	980	380	
9:26	966.9	7.7	58	sse.	5.8	882	911.4	6.8	0.50	37	3.66	sse.	10.8	865	60	
						750	926.4	7.5	.....	36	3.73	se.	10.8	735	0	
9:33	966.9	7.6	58	se.	6.2	641	938.5	8.0	−0.16	36	3.86	se.	10.8	628	0	
						500	955.0	7.8	.....	49	5.18	se.	8.2	490	0	
9:35	966.9	7.6	58	se.	6.2	396	966.9	7.6	.....	58	6.06	se.	6.2	388	.....	3/10 Ci. St., nw.; 2/10 Ci. Cu., nw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917*—Continued.

April 6, 1917.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
7:16	964.8	5.2	63	se.	10.3	396	964.8	5.2	.....	63	5.58	se.	10.3	388	.....	6/10 Ci. St., wnw.; 2/10 Ci. Cu., wnw.; 1/10 A.Cu., wnw.
						500	952.5	5.5	.....	58	5.24	se.	14.5	490	390	
7:23	964.8	5.4	61	se.	9.4	737	925.5	6.2	−0.29	45	4.27	se.	24.2	723	1,280	
						750	921.0	6.3	.....	44	4.20	se.	24.1	735	1,410	
						1,000	896.6	8.1	.....	35	3.78	s.	21.6	980	3,930	
7:34	964.8	5.9	59	sse.	9.8	1,067	889.1	8.6	−0.73	32	3.57	s.	20.9	1,040	4,600	
						1,250	870.0	7.3	.....	33	3.38	s.	19.9	1,225	5,480	
						1,500	843.6	5.5	.....	35	3.16	s.	18.6	1,470	6,800	3/10 Ci. St., wnw.; 6/10 A.Cu., wnw.
7:52	964.8	6.2	57	se.	11.6	1,737	819.3	3.8	0.71	37	2.97	s.	17.3	1,702	8,210	
						1,750	818.2	3.8	.....	37	2.97	s.	17.1	1,715	8,340	
8:17	964.6	7.3	53	se.	10.3	1,986	794.5	4.4	−0.24	30	2.51	ssw.	13.0	1,946	9,770	
						2,000	793.1	4.3	.....	30	2.49	ssw.	13.0	1,960	9,730	
8:40	964.4	8.1	49	sse.	12.5	2,235	769.9	2.1	1.04	32	2.28	ssw.	12.8	2,190	.....	
9:25	964.2	9.4	47	sse.	11.6	2,066	785.5	4.2	0.04	29	2.39	s.	15.6	2,025	10,220	
						2,000	792.1	4.2	.....	30	2.48	s.	16.1	1,960	9,900	
						1,750	816.5	4.1	.....	35	2.87	s.	18.1	1,715	9,110	
						1,500	841.7	4.0	.....	40	3.25	sse.	20.0	1,470	7,800	
						1,250	868.2	3.8	.....	45	3.61	sse.	22.0	1,225	6,140	
9:59	964.2	11.0	40	sse.	13.0	1,149	879.6	3.8	0.49	47	3.77	sse.	22.8	1,126	2,800	
						1,000	895.9	4.5	.....	48	4.04	sse.	20.4	980	1,700	
10:05	964.2	11.2	40	sse.	14.3	844	913.2	5.3	1.45	49	4.37	se.	17.8	828	560	
						750	924.0	6.7	.....	48	4.71	se.	16.3	735	0	
						500	952.5	10.3	.....	44	5.51	sse.	12.3	490	0	
10:13	964.1	11.8	42	sse.	10.7	396	964.1	11.8	.....	42	5.81	sse.	10.7	388	.....	3/10 Ci. St., wnw.; 1/10 A. Cu., wnw.

April 7, 1917.

P. M.																
1:48	969.5	0.3	94	ene.	16.5	396	969.5	0.3	.....	94	5.87	ene.	16.5	388	.....	10/10 St., ne.; heavy snow falling.
						500	975.0	−0.1	.....	94	5.70	ene.	18.4	490	19,470	
						750	927.8	−1.1	.....	92	5.12	ene.	23.0	735	21,580	
						1,000	899.1	−2.1	.....	91	4.67	ene.	27.5	980	7,160	
2:02	969.6	0.4	91	ene.	17.0	1,091	888.8	−2.5	0.90	91	4.51	ene.	29.2	1,070	10,570	
						1,250	871.2	−3.1	.....	91	4.29	ene.	27.2	1,225	13,220	
						1,500	844.1	−4.1	.....	91	3.94	ene.	23.9	1,470	13,800	
						1,750	817.8	−5.0	.....	90	3.61	ene.	20.7	1,715	14,380	
						2,000	792.0	−6.0	.....	90	3.31	ene.	17.5	1,960	14,960	
2:12	969.9	0.4	91	ene.	14.8	2,116	780.3	−6.4	0.32	90	3.20	ene.	16.0	2,074	.....	
						2,000	792.0	−6.1	.....	90	3.28	ene.	17.4	1,960	24,150	
						1,750	817.8	−5.5	.....	91	3.49	ene.	20.3	1,715	21,880	
						1,500	844.1	−4.9	.....	92	3.73	ene.	23.2	1,470	19,610	
						1,250	871.4	−4.3	.....	93	3.96	ene.	26.1	1,225	17,340	
2:28	970.2	0.4	92	ene.	11.6	1,103	887.7	−3.9	0.35	93	4.10	ene.	27.8	1,081	16,000	
						1,000	899.5	−3.5	.....	93	4.24	ene.	26.8	980	7,760	
						750	928.6	−2.7	.....	93	4.54	ne.	24.5	735	1,530	
2:47	970.6	0.4	92	ene.	9.8	728	931.0	−2.6	0.90	93	4.58	ne.	24.3	714	0	
						500	958.1	−0.5	.....	95	5.57	ene.	14.1	490	0	
2:53	970.7	0.4	96	ene.	9.4	396	970.7	0.4	.....	96	6.04	ene.	9.4	388	.....	10/10 St., heavy snow falling. ne.

April 8, 1917.

P. M.																
5:37	974.1	6.7	42	sse.	7.6	396	974.1	6.7	.....	42	4.12	sse.	7.6	388	.....	Cloudless.
						500	961.8	5.5	.....	45	4.06	sse.	7.5	490	0	
						750	932.7	2.6	.....	51	3.76	sse.	7.4	735	0	
6:22	973.9	5.6	54	sse.	8.5	824	923.8	1.7	1.17	53	3.66	sse.	7.3	808	80	
						1,000	903.8	0.4	.....	53	3.33	sse.	7.2	980	530	
						1,250	875.6	−1.5	.....	54	2.91	s.	7.1	1,225	1,490	
7:20	973.6	3.5	66	sse.	6.3	1,351	864.5	−2.2	0.74	54	2.75	s.	7.1	1,324	1,320	
8:11	973.7	2.4	70	sse.	8.0	1,468	851.8	−0.2	−1.71	21	1.26	s.	7.0	1,439	2,400	
						1,500	848.1	−0.3	.....	21	1.25	s.	6.9	1,470	2,400	
						1,750	822.5	−0.9	.....	20	1.13	s.	6.1	1,715	2,356	
8:13	973.7	2.4	70	sse.	8.0	1,883	808.6	−1.2	0.24	20	1.11	s.	5.7	1,846	2,340	
						2,000	797.0	−1.0	.....	18	1.01	ssw.	5.2	1,960	2,320	
8:18	973.7	2.2	70	sse.	8.0	2,108	786.3	−0.9	−0.24	17	0.96	ssw.	4.7	2,066	2,300	
						2,000	797.0	−1.3	.....	16	0.88	ssw.	6.0	1,960	2,150	
8:29	973.8	1.9	71	sse.	8.9	1,942	802.9	−1.5	0.35	15	0.81	ssw.	6.7	1,903	2,060	
						1,750	822.7	−0.8	.....	15	0.86	ssw.	6.8	1,715	1,740	
						1,500	848.9	0.0	.....	14	0.86	s.	6.9	1,470	1,340	
8:41	973.9	1.8	71	sse.	8.5	1,481	850.7	0.1	−0.45	14	0.86	s.	6.9	1,452	1,310	
						1,250	875.4	−0.9	.....	34	1.93	s.	9.0	1,225	1,130	
8:51	973.9	1.7	71	sse.	9.8	1,169	884.4	−1.3	0.50	41	2.25	s.	9.8	1,146	1,100	
						1,000	903.1	−0.5	.....	44	2.58	s.	8.7	980	560	
						750	931.8	0.8	.....	49	3.17	sse.	7.0	735	0	
9:03	974.0	1.4	71	sse.	10.3	569	953.3	1.7	−0.17	53	3.66	sse.	5.8	558	0	
						500	961.4	1.6	.....	60	4.12	sse.	7.8	490	0	
9:05	974.0	1.4	70	sse.	10.7	396	974.0	1.4	.....	70	4.73	sse.	10.7	388	.....	Cloudless.

April 9, 1917.

A. M.																
7:22	971.2	−0.2	72	s.	8.0	396	971.2	−0.2	.....	72	4.33	s.	8.0	388	.....	Few A. Cu., nw.
						500	958.6	−0.5	.....	71	4.16	s.	14.2	490	700	
7:24	971.1	−0.1	72	s.	8.9	568	950.4	−0.7	0.29	71	4.09	s.	18.2	557	1,160	
7:31	971.1	0.2	69	s.	10.3	738	930.6	3.0	−2.18	42	3.18	s.	16.2	724	2,300	
						750	929.3	3.0	.....	42	3.18	s.	16.2	735	2,390	
						1,000	900.7	2.5	.....	41	3.00	s.	17.0	980	4,270	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917*—Continued.

April 9, 1917—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^6 *ergs.*	*volts.*	
7:41	971.0	0.4	71	s.	7.6	1,048	895.5	2.4	0.19	41	2.98	s.	17.1	1,027	4,640	
						1,250	873.5	3.0		40	3.03	ssw.	15.6	1,225	5,660	
						1,500	847.0	3.8		38	3.05	sw.	13.8	1,470	6,470	
						1,750	821.5	4.5		36	3.03	wsw.	12.0	1,715	7,730	
8:09	970.9	0.8	72	s.	8.0	1,772	819.0	4.6	−0.30	36	3.05	wsw.	11.8	1,737	7,850	
						2,000	796.8	3.8		38	3.05	wsw.	11.4	1,960	8,860	
						2,250	772.9	3.0		40	3.03	wsw.	10.9	2,205	9,600	1/10 A.Cu., nw.
8:47	970.7	2.3	63	s.	9.4	2,433	755.5	2.4	0.33	41	2.98	wsw.	10.6	2,384	10,360	
						2,500	749.1	2.4		40	2.90	wsw.	10.7	2,450	11,040	
						2,750	726.3	2.5		35	2.56	wsw.	10.8	2,694	11,330	2/10 Ci.,nw.; 1/10 A.Cu., nw.
9:18	970.5	3.0	61	s.	8.9	2,961	707.7	2.5	−0.02	31	2.27	wsw.	11.0	2,901	11,770	
						3,000	704.4	2.2		32	2.29	wsw.	11.0	2,939	11,850	
						3,250	683.2	0.5		36	2.28	wsw.	11.0	3,184	12,370	
						3,500	662.3	−1.2		41	2.27	w.	10.9	3,429		
10:11	970.1	4.9	61	s.	10.3	3,623	651.7	−2.1	0.70	43	2.21	w.	10.9	3,549		
						3,500	662.2	−1.2		41	2.27	w.	11.4	3,429		
						3,250	682.6	0.5		36	2.28	w.	12.4	3,184	10,840	
						3,000	703.4	2.2		31	2.22	wsw.	13.4	2,939	10,470	
10:50	969.4	6.8	59	s.	9.8	2,758	725.0	3.9	−1.25	26	2.10	wsw.	14.4	2,702	10,110	Few Ci., nw.
						2,750	725.2	3.8		27	2.17	wsw.	14.7	2,694	10,100	
10:56	969.3	7.0	59	s.	10.3	2,686	731.4	3.0	0.27	31	2.35	wsw.	16.8	2,632	10,000	
						2,500	748.4	3.5		32	2.51	wsw.	16.2	2,450	9,150	
						2,250	772.2	4.2		33	2.72	sw.	15.4	2,205	8,000	
						2,000	795.9	4.9		34	2.94	ssw.	14.6	1,960	7,220	
11:17	968.8	7.8	58	s.	9.4	1,844	811.1	5.3	−0.40	35	3.12	ssw.	14.1	1,807	6,730	
						1,750	820.1	4.9		35	3.03	ssw.	17.7	1,715	6,440	
11:25	968.7	8.3	56	s.	10.3	1,642	831.5	4.5	0.21	36	3.03	ssw.	21.8	1,609	6,100	
						1,500	845.4	4.8		34	2.92	ssw.	20.9	1,470	5,460	
						1,250	872.2	5.3		30	2.67	s.	19.4	1,225	4,330	
11:37	968.4	8.9	56	s.	10.3	1,176	880.2	5.5	−0.52	29	2.62	s.	19.0	1,153	4,000	
						1,000	899.6	4.6		41	3.48	sse.	17.4	980	3,120	
11:41	968.3	9.2	54	s.	10.3	852	916.0	3.8	1.23	51	4.09	sse.	16.1	835	2,380	
						750	928.0	5.1		52	4.57	sse.	15.1	735	1,860	
						500	956.2	8.1		54	5.83	s.	12.6	490	550	
11:51	968.1	9.4	55	s.	11.6	396	968.1	9.4		55	6.48	s.	11.6	388		1/10 Ci., nw.

April 10, 1917.

P. M.																
6:59	959.4	18.9	37	nw.	8.5	396	959.4	18.9		37	8.08	nw.	8.5	388		4/10 Ci., wnw.; 1/10 St. Cu., wsw.; light haze.
						500	947.6	18.1		38	7.89	nw.	10.2	490	0	
7:07	959.6	17.4	43	nw.	9.8	735	922.2	16.4	0.74	41	7.65	nw.	14.2	721	0	
						750	920.2	16.3		41	7.60	nw.	14.0	735	0	
						1,000	893.4	15.3		42	7.30	w.	10.7	980	0	
7:29	960.1	15.8	46	nw.	7.6	1,233	869.8	14.4	0.40	42	6.89	wsw.	7.7	1,209	850	
						1,250	867.1	14.2		42	6.80	wsw.	7.8	1,225	930	
						1,500	842.0	11.9		47	6.55	wsw.	9.5	1,470	2,130	
						1,750	817.6	9.7		52	6.26	wsw.	11.1	1,715	2,230	
						2,000	743.8	7.4		57	5.87	sw.	12.8	1,960	2,340	
						2,250	770.0	5.1		62	5.45	sw.	14.4	2,205	2,450	
						2,500	746.2	2.8		67	5.00	sw.	16.1	2,450		1/10 Ci., wsw.; light haze.
8:32	961.9	12.5	53	nnw.	8.5	2,670	730.5	1.2	0.82	70	4.66	sw.	17.2	2,616		
						2,500	745.8	2.4		67	4.86	sw.	16.5	2,450		
						2,250	769.0	4.2		62	5.12	sw.	15.5	2,205	1,880	
						2,000	742.8	6.0		58	5.42	wsw.	14.5	1,960	1,530	
9:01	962.8	11.6	54	nw.	7.2	1,791	813.5	7.5	0.39	54	5.60	wsw.	13.7	1,755	1,240	
						1,750	817.8	7.7		53	5.57	wsw.	13.5	1,715	1,170	
						1,500	843.0	8.4		50	5.51	w.	12.0	1,470	770	
						1,250	869.0	9.6		46	5.50	wnw.	10.5	1,225	370	
9:11	963.0	11.3	56	nnw.	7.2	1,172	876.8	9.9	−0.82	45	5.49	wnw.	10.0	1,149	310	
						1,000	895.2	8.5		54	5.99	wnw.	12.7	980	160	
9:17	963.1	11.2	55	nnw.	6.3	854	911.3	7.3	0.76	62	6.34	nw.	14.9	837	50	
						750	922.9	8.1		61	6.59	nw.	12.8	735	0	
						500	951.1	10.0		57	7.00	nnw.	7.9	490	0	
9:24	963.2	10.8	56	nnw.	5.8	396	963.2	10.8		56	7.25	nnw.	5.8	388		Few Ci., wsw.; light haze.

April 11, 1917.

P. M.																
1:17	969.7	12.6	46	nne.	4.5	396	969.7	12.6		46	6.71	nne.	4.5	388		
						500	957.8	11.7		48	6.60	n.	5.5	490	0	
1:30	969.5	12.6	45	n.	4.5	750	929.3	9.5	0.88	53	6.29	nnw.	7.7	735	0	3/10 Ci. St., w.
						1,000	901.5	7.3		59	6.04	nnw.	7.8	980	0	
						1,250	874.2	5.0		65	5.67	nnw.	7.9	1,225	0	
2:28	969.1	12.7	45	n.	3.6	1,260	873.2	4.9	0.90	65	5.63	nnw.	7.9	1,235	0	1/10 Ci. St., w.; 5/10 Ci. Cu., w.
						1,500	848.1	5.8		58	5.35	nnw.	5.7	1,470	2,000	
						1,750	822.6	6.8		50	4.94	nw.	3.2	1,715		
4:27	968.7	12.5	41	nne.	6.7	1,846	812.6	7.2	−0.34	47	4.78	nw.	2.6	1,809		4/10 Ci. St., w.; 1/10 A. Cu., w.
						1,750	822.2	6.9		49	4.88	nnw.	3.8	1,715		
						1,500	847.9	6.1		56	5.28	n.	6.8	1,470	1,870	
4:54	968.9	12.4	42	nne.	4.5	1,256	873.2	5.4	0.61	61	5.47	nne.	9.8	1,231	1,460	7/10 A. Cu., w.
						1,250	874.0	5.4		61	5.47	nne.	9.8	1,225	1,440	
						1,000	900.7	7.0		55	5.51	n.	10.8	980	740	
5:08	968.9	12.2	42	nne.	4.5	765	926.8	8.4	1.03	50	5.51	n.	11.8	750	0	
						750	928.2	8.6		50	5.58	n.	11.4	735	0	
						500	956.1	11.1		44	5.81	nne.	5.2	490	0	
5:13	968.9	12.2	42	nne.	2.7	396	968.9	12.2		42	5.97	nne.	2.7	388		5/10 A. Cu., w.; 4/10 St. Cu., w.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917*—Continued.

April 12, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
7:28	972.3	1.4	84	ne.	6.7	396	972.3	1.4	.....	84	5.68	ne.	6.7	388	.....	8/10 Ci. St., wsw.; 2/10 A. Cu., wsw.
						500	959.6	1.2	.....	81	5.39	ne.	7.9	490	450	
						750	930.4	0.7	.....	74	4.76	ne.	10.8	735	1,530	
7:46	972.3	1.9	82	ne.	7.2	905	912.7	0.4	0.20	70	4.40	ne.	12.5	887	2,560	
						1,000	902.0	1.6	.....	57	3.91	ne.	11.1	980	3,200	22°-halo, 7:52—8:15 a. m.
						1,250	874.9	4.9	.....	23	1.99	nne.	7.5	1,225	4,600	
8:05	972.3	2.2	82	ne.	7.6	1,271	872.4	5.2	−1.31	20	1.77	nne.	7.2	1,246	4,690	
						1,500	848.4	4.6	.....	.....	.....	nne.	7.2	1,470	5,620	
						1,750	823.0	4.0	.....	.....	.....	nne.	7.1	1,715	6,540	4/10 Ci. St., wsw.; 6/10 A. St., wsw.; 6/10 A. St., wsw.; 4/10 A. Cu., wsw.
						2,000	797.8	3.4	.....	.....	.....	nne.	7.1	1,960	7,440	
9:30	972.3	5.7	64	nne.	5.4	2,065	791.6	3.2	0.25	(*)	a 0.54	nne.	7.1	2,024	7,680	
						2,250	773.6	2.0	.....	.....	.....	nne.	7.2	2,205	7,850	
						2,500	750.0	0.5	.....	.....	.....	nne.	7.4	2,450	8,350	
11:44	971.4	9.5	45	ne.	6.7	2,609	739.9	− 0.2	0.62	(*)	a 0.42	nne.	7.5	2,556	8,700	
						2,750	727.0	− 0.8	.....	.....	.....	nne.	7.8	2,694	8,570	
						3,000	704.3	− 2.1	.....	.....	.....	nne.	8.6	2,939	8,260	
						3,250	682.5	− 3.3	.....	.....	.....	nne.	9.3	3,184	7,970	
						3,500	661.3	− 4.5	.....	.....	.....	nne.	10.1	3,429	7,860	
11:58	971.3	10.0	44	ne.	7.2	3,658	647.6	− 5.3	0.44	(*)	a 0.27	nne.	10.5	3,583	7,500	6/10 A. St., wsw.; 3/10 A. Cu., wsw.
						3,500	661.2	− 4.7	.....	.....	.....	nne.	10.0	3,429	7,100	
						3,250	682.2	− 3.7	.....	.....	.....	nne.	9.3	3,184	6,470	
						3,000	703.9	− 2.7	.....	.....	.....	ne.	8.5	2,934	5,910	
						2,750	726.1	− 1.9	.....	.....	.....	ne.	7.8	2,694	5,550	2/10 Ci. St., wsw.; 5/10 A. St. wsw.
P. M.																
12:23	971.1	10.6	44	ne.	7.2	2,574	742.0	− 1.2	0.76	(*)	a 0.39	ne.	7.3	2,522	5,300	
						2,500	749.0	− 0.6	.....	.....	.....	ne.	7.2	2,450	5,180	
						2,250	772.6	1.3	.....	.....	.....	ne.	6.9	2,205	4,840	
						2,000	796.6	3.1	.....	.....	.....	ne.	6.6	1,960	4,490	
12:54	970.9	11.0	42	ne.	5.4	1,848	811.8	4.3	−0.89	(*)	a 0.58	ne.	6.4	1,811	4,100	
						1,750	822.0	3.4	.....	.....	.....	ne.	6.8	1,715	3,780	3/10 Ci.St., wsw.; 2/10 A. St., wsw.
						1,500	847.5	1.2	.....	.....	.....	ne.	7.8	1,470	2,970	
1:06	970.9	12.0	42	ne.	7.2	1,388	859.6	0.2	0.78	18	1.12	ne.	8.2	1,361	2,600	
						1,250	874.0	1.3	.....	26	1.74	ne.	8.3	1,225	1,400	
						1,000	901.0	3.2	.....	39	3.00	ne.	8.6	980	820	
						750	929.1	5.1	.....	52	4.57	ne.	8.9	735	330	
1:26	970.7	11.4	36	ne.	6.7	719	933.4	5.4	1.86	54	4.84	ne.	8.9	705	0	
						500	958.2	9.5	.....	45	5.34	ne.	8.0	490	0	
1:32	970.7	11.4	41	ne.	7.6	396	970.7	11.4	.....	41	5.53	ne.	7.6	388	.....	3/10 Ci. St., wsw.

April 13, 1917.

A. M.																
7:22	974.8	0.6	77	ene.	3.6	396	974.8	0.6	.....	77	4.91	ene.	3.6	388	.....	6/10 Ci., nw.
						500	962.0	1.4	.....	71	4.80	e.	5.9	490	380	
7:31	974.9	2.2	72	ene.	4.5	652	944.5	2.5	−0.74	63	4.61	se.	9.2	639	920	
						750	933.3	2.2	.....	63	4.51	se.	7.9	735	.....	8/10 Ci., nw.
8:45	974.8	3.8	65	e.	4.9	960	909.1	1.5	0.62	63	4.29	se.	5.2	941	.....	
						750	933.3	3.4	.....	60	4.68	se.	4.8	735	.....	3/10 Ci., wnw.; 7/10 Ci.St., wnw.
						500	962.0	5.7	.....	56	5.13	se.	4.2	490	.....	
10:11	974.3	6.6	55	se.	4.0	396	974.3	6.6	.....	55	5.36	se.	4.0	388	.....	10/10 Ci.St., wnw.

April 14, 1917.

A. M.																
7:13	970.4	3.2	65	nne.	4.9	396	970.4	3.2	.....	65	5.00	nne.	4.9	388	.....	6/10 A.Cu., nnw.; 3/10 St.Cu., nnw.
						500	957.9	2.6	.....	66	4.86	nne.	7.3	490	480	
7:22	970.4	3.5	64	nne.	5.4	749	928.9	1.2	0.57	68	4.53	nne.	13.3	832	1,650	
						1,000	900.2	−0.2	.....	69	4.15	n.	13.4	980	3,050	
7:33	970.5	3.7	64	nne.	4.5	1,206	877.6	−1.4	0.57	69	3.75	nnw.	13.4	1,182	4,200	
						1,250	873.2	−1.8	.....	71	3.73	nnw.	13.7	1,225	4,410	
						1,500	846.4	−3.7	.....	79	3.54	nnw.	15.5	1,470	5,610	
						1,750	819.9	−5.7	.....	87	3.29	nnw.	17.3	1,715	7,030	
7:57	970.6	4.2	63	nne.	3.6	1,871	806.7	−6.6	0.78	91	3.18	nnw.	18.2	1,834	7,790	
						2,000	793.8	−7.0	.....	91	3.08	nnw.	17.3	1,960	8,600	St. Cu. base at about 2,100 m.
						2,250	768.9	−7.9	.....	91	2.84	nnw.	15.6	2,205	9,210	
8:08	970.6	4.4	62	nne.	4.0	2,302	763.5	−8.1	0.35	91	2.79	nnw.	15.3	2,256	9,330	
						2,500	744.4	−6.7	.....	65	2.26	nnw.	20.6	2,450	9,760	
8:11	970.6	4.2	62	nne.	5.4	2,518	742.6	−6.6	−0.69	62	2.17	nnw.	21.1	2,467	9,800	
						2,750	720.8	−7.2	.....	55	1.83	nnw.	21.5	2,694	10,500	
						3,000	698.1	−7.9	.....	47	1.47	nw.	21.9	2,939	11,260	
						3,250	676.0	−8.5	.....	39	1.15	wnw.	22.3	3,184	12,000	
8:44	970.6	5.2	56	n.	5.8	3,349	667.0	−8.8	0.20	36	1.04	wnw.	22.5	3,281	.....	
						3,250	676.0	−8.7	.....	38	1.11	wnw.	21.7	3,184	10,960	5/10 A.Cu., nnw.; 1/10 Cu., nnw.
						3,000	698.1	−8.3	.....	44	1.33	nw.	19.5	2,939	10,410	
						2,750	720.8	−7.9	.....	50	1.56	nw.	17.5	2,694	8,970	
						2,500	744.4	−7.6	.....	56	1.80	nnw.	15.4	2,450	7,540	4/10 A.Cu., nnw.; 3/10 Cu., nnw.
9:37	970.8	5.4	56	n.	5.4	2,374	755.8	−7.4	0.24	59	1.92	nnw.	14.3	2,326	6,800	10/10 St.Cu., nnw.
						2,250	768.7	−7.1	.....	63	2.11	nnw.	13.2	2,205	6,320	
						2,000	793.8	−6.5	.....	70	2.47	nnw.	11.0	1,960	5,360	
9:50	970.8	5.5	58	nnw.	5.8	1,780	815.7	−6.0	−0.43	76	2.80	nnw.	9.0	1,745	4,520	Higher St.Cu. base at 1,500 m.
						1,750	819.4	−6.1	.....	79	2.88	nnw.	9.1	1,715	4,400	Lower St.Cu. base at 1,250 m.
9:58	970.9	5.6	58	nnw.	7.6	1,619	832.7	−6.7	0.77	94	3.26	nnw.	9.4	1,587	3,900	
						1,500	845.6	−5.8	.....	90	3.38	nnw.	9.6	1,470	3,390	
						1,250	873.1	−3.9	.....	81	3.57	nnw.	9.9	1,225	2,320	
						1,000	901.0	−1.9	.....	72	3.76	nnw.	10.2	980	1,460	
10:24	970.9	5.6	57	nw.	8.5	805	922.9	−0.4	1.61	65	3.84	nnw.	10.5	789	860	
						750	929.2	0.5	.....	63	3.99	nnw.	9.9	735	740	
						500	958.6	4.6	.....	55	4.66	n.	7.0	490	220	
10:32	970.9	6.2	52	n.	5.8	396	970.9	6.2	.....	52	4.93	n.	5.8	388	.....	10/10 St. Cu., nnw.

* From 9:30 a. m. to 12:54 p. m. pen ran off sheet. Humidity below 7 per cent.

a Vapor pressure based on 7 per cent relative humidity.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917*—Continued.

April 15, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
9:11	970.2	2.8	60	se.	3.6	396	970.2	2.8	.....	60	4.48	se.	3.6	388	.....	10/10 A. St., w.
						500	957.8	2.5	.....	59	4.31	se.	4.3	490	0	
						750	929.0	1.9	.....	56	3.93	se.	6.0	735	520	
9:43	970.0	3.4	52	sse.	4.5	851	916.9	1.6	0.26	55	3.77	se.	6.7	834	1,040	
						1,000	900.4	0.6	.....	69	4.40	sse.	6.5	980	3,090	
11:35	969.2	6.4	46	se.	5.4	1,181	879.6	−0.6	0.67	85	4.94	sse.	6.2	1,158	3,460	
						1,250	872.2	−0.6	.....	86	5.00	sse.	6.4	1,225	3,560	
						1,500	844.6	−0.5	.....	89	5.22	sse.	7.3	1,470	3,880	10/10 A. St., w.
						1,750	858.0	−0.4	.....	92	5.44	s.	8.1	1,715	4,190	
P. M.																
1:42	967.5	5.8	57	s.	6.3	1,946	797.9	−0.3	0.04	95	5.66	s.	8.8	1,907	4,000	Rain 12:23—12:57 p. m.
						2,000	782.0	−0.5	.....	95	5.57	s.	9.0	1,960	4,080	Rain began 1:30 p. m.
						2,250	767.4	−1.5	.....	94	5.07	s.	9.7	2,205	4,480	
						2,500	743.8	−2.5	.....	93	4.61	s.	10.5	2,450	4,870	
						2,750	721.2	−3.4	.....	92	4.23	s.	11.2	2,694	5,270	
						3,000	698.9	−4.4	.....	91	3.84	s.	12.0	2,939	.....	
1:52	967.3	5.6	61	s.	6.7	3,102	689.6	−4.8	0.36	91	3.71	s.	12.3	3,039	.....	
						3,000	698.5	−4.5	.....	92	3.85	s.	12.4	2,939	.....	
						2,750	720.8	−3.6	.....	94	4.25	s.	12.7	2,694	5,340	
						2,500	743.7	−2.8	.....	95	4.60	sse.	13.0	2,450	5,740	
						2,250	767.4	−1.9	.....	97	5.06	sse.	13.3	2,205	6,150	
2:08	967.1	5.4	67	se.	6.3	2,147	777.8	−1.6	0.23	98	5.24	sse.	13.4	2,104	6,310	
						2,000	781.9	−1.3	.....	96	5.26	sse.	12.9	1,960	5,250	2/10 A.St., w.; 8/10 St.,w.
						1,750	856.9	−0.7	.....	92	5.30	se.	12.2	1,715	4,580	
						1,500	843.1	−0.1	.....	88	5.33	e.	11.4	1,470	4,330	
2:30	966.8	5.9	62	ese.	7.6	1,333	860.8	0.3	0.20	86	5.37	e.	10.9	1,307	4,010	Rain ended 2:31 p. m.
						1,250	869.9	0.5	.....	82	5.19	e.	10.9	1,225	3,540	
						1,000	897.2	1.0	.....	70	4.60	e.	10.7	980	2,110	
2:36	966.8	6.0	64	ese.	7.2	825	916.9	1.3	1.10	62	4.16	e.	10.6	809	1,100	10/10 St., sw.
						750	925.5	2.1	.....	62	4.41	e.	10.0	735	.....	
						500	954.6	4.9	.....	64	5.54	ese.	8.0	490	.....	
2:39	966.8	6.0	64	ese.	7.2	396	966.8	6.0	.....	64	5.98	ese.	7.2	388	.....	

April 16, 1917.

A. M.																
10:33	961.9	9.4	78	ese.	13.4	396	961.9	9.4	.....	78	9.20	ese.	13.4	388	.....	10/10 St., s. Stratus base at about 1,350 m.
						500	950.0	8.8	.....	79	8.95	ese.	17.2	490	300	
						750	921.9	7.4	.....	81	8.34	ese.	26.3	735	1,030	
10:41	961.9	9.6	79	ese.	13.4	762	920.2	7.3	0.57	81	8.29	ese.	26.7	747	1,070	
						1,000	894.4	7.7	.....	83	9.98	sse.	35.1	980	2,830	
10:46	961.9	9.6	78	ese.	13.0	1,006	893.6	9.8	−1.02	83	10.06	sse.	35.3	986	2,870	
						1,250	867.9	8.9	.....	91	10.37	s.	26.8	1,225	3,660	
						1,500	841.6	8.0	.....	99	10.62	ssw.	18.0	1,470	4,710	10/10 St., s.
11:13	961.8	9.4	80	ese.	13.0	1,542	837.4	7.8	0.37	100	10.58	ssw.	16.6	1,511	5,000	
						1,750	816.4	6.9	.....	100	9.95	ssw.	15.3	1,715	5,820	
						2,000	792.0	5.9	.....	100	9.29	sw.	13.7	1,960	6,440	Stratus base at about 1,250 m.
11:56	961.8	9.8	78	se.	13.4	2,199	773.2	5.1	0.41	100	8.79	sw.	12.5	2,155	6,940	
						2,250	768.2	5.4	.....	90	8.07	sw.	13.2	2,205	7,070	
11:59	961.8	9.9	78	se.	16.3	2,468	747.9	6.6	−0.56	45	4.39	sw.	16.3	2,418	7,610	
						2,500	744.8	6.5	.....	44	4.26	sw.	16.5	2,450	7,690	
						2,750	722.3	5.5	.....	39	3.52	sw.	18.2	2,694	8,310	
						3,000	700.8	4.4	.....	34	2.85	sw.	19.8	2,939	8,950	
P. M.																
12:13	961.8	10.1	78	se.	12.1	3,224	682.1	3.5	0.49	30	2.36	sw.	21.3	3,159	.....	
						3,000	701.1	4.8	.....	30	2.58	sw.	21.0	2,939	8,630	
						2,750	722.8	6.2	.....	30	2.84	sw.	20.7	2,694	7,200	
						2,500	745.4	7.7	.....	30	3.15	sw.	20.3	2,450	5,770	10/10 St., sw.
12:47	961.8	10.4	76	se.	12.1	2,248	768.8	9.1	−1.56	30	3.47	sw.	20.0	2,203	4,640	
12:50	961.8	10.4	77	se.	11.2	2,049	787.7	6.0	0.35	96	8.98	ssw.	13.3	2,008	3,960	
						2,000	792.0	6.2	.....	96	9.10	ssw.	13.5	1,960	3,790	
						1,750	816.4	7.0	.....	97	9.72	ssw.	14.4	1,715	2,930	
						1,500	841.6	7.9	.....	98	10.44	ssw.	15.4	1,470	2,660	Stratus base at about 1,550 m.
1:07	961.8	10.5	80	se.	13.9	1,444	847.9	8.1	0.45	98	10.58	ssw.	15.6	1,416	2,600	
						1,250	867.9	9.0	.....	93	10.68	s.	15.8	1,225	1,910	
						1,000	894.4	10.1	.....	86	10.63	s.	20.1	980	880	
1:27	961.8	10.6	77	se.	9.8	797	916.5	11.0	−1.19	80	10.50	sse.	22.2	781	0	
						750	921.9	10.4	.....	81	10.21	sse.	20.6	735	0	
1:30	961.8	10.7	78	se.	13.4	663	931.3	9.4	0.52	84	9.90	se.	17.5	650	0	
						500	950.0	10.3	.....	80	10.02	se.	15.0	490	0	
1:32	961.8	10.8	78	se.	13.4	396	961.8	10.8	.....	78	10.10	se.	13.4	388	.....	10/10 St., sw.

April 17, 1917.

A. M.																
8:56	969.6	10.2	92	e.	4.9	396	969.6	10.2	.....	92	11.45	e.	4.9	388	.....	10/10 St., s.
						500	957.8	11.9	.....	95	13.23	ese.	5.8	490	0	
8:59	969.6	10.7	89	e.	4.9	546	952.5	12.6	−1.60	96	14.01	se.	6.2	535	0	
						750	929.8	12.5	.....	97	14.35	sse.	9.3	735	100	
						1,000	902.4	12.3	.....	99	14.17	s.	12.9	980	620	St. base at about 1,000 m.
9:19	969.5	11.5	88	e.	5.4	1,178	883.3	12.2	0.06	100	14.21	ssw.	15.8	1,155	990	
						1,250	875.8	12.0	.....	100	14.03	ssw.	15.0	1,225	1,130	
						1,500	850.3	11.2	.....	100	13.30	ssw.	12.4	1,470	1,540	
9:37	969.4	12.2	87	e.	4.9	1,677	832.3	10.6	0.32	100	12.78	ssw.	10.6	1,644	1,660	
						1,750	825.4	11.3	.....	79	10.58	ssw.	11.3	1,715	1,710	
9:44	969.3	12.2	86	e.	5.4	1,917	808.5	12.8	−0.92	31	4.58	ssw.	13.0	1,879	1,840	
						2,000	800.8	12.3	.....	31	4.44	ssw.	13.3	1,960	2,000	
						2,250	777.0	10.7	.....	32	4.12	ssw.	14.2	2,205	2,470	
						2,500	754.0	9.1	.....	33	3.81	sw.	15.1	2,450	2,930	
10:05	969.2	13.7	83	e.	5.4	2,697	736.5	7.8	0.64	33	3.49	sw.	15.8	2,643	3,300	
						2,750	731.8	7.3	.....	34	3.48	sw.	16.0	2,694	3,290	
						3,000	709.8	5.0	.....	37	3.23	sw.	16.7	2,939	3,250	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917*—Continued.

April 17, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10³ ergs.*	*volts.*	
						3,250	688.3	2.6		40	2.95	sw.	17.4	3,184	3,200	
						3,500	667.1	0.3		43	2.68	sw.	18.1	3,429	3,280	10/10 St., s.
						3,750	646.8	−2.1		46	2.36	sw.	18.8	3,673	3,480	
10:55	969.2	15.5	81	se.	5.8	3,946	631.0	−3.9	0.90	49	2.16	sw.	19.4	3,865		
						3,750	646.8	−2.2		46	2.34	sw.	18.6	3,673	3,460	
						3,500	667.6	−0.1		43	2.61	sw.	17.3	3,429	2,980	
						3,250	688.4	2.0		39	2.75	ssw.	16.1	3,184	2,500	St. Cu., observed above St.
						3,000	709.8	4.1		36	2.95	ssw.	14.9	2,939	2,020	St. Cu. base at about 1,650 m.
11:20	969.1	17.8	76	sse.	6.3	2,953	713.9	4.5	0.98	35	2.95	ssw.	14.7	2,893	1,960	
						2,750	731.8	6.5		33	3.19	ssw.	15.1	2,694	1,730	
						2,500	754.3	8.9		32	3.65	s.	15.7	2,450	1,440	
						2,250	777.2	11.4		30	4.01	s.	16.2	2,205	1,170	
11:48	969.0	18.2	77	sse.	5.8	2,027	798.3	13.6	−1.27	28	4.36	s.	16.7	1,986	1,000	
						2,000	801.2	13.3		35	5.34	s.	16.5	1,960	980	
11:50	969.0	18.2	77	sse.	5.8	1,783	822.1	10.5	0.35	90	11.43	s.	14.8	1,748	819	
						1,750	825.6	10.6		91	12.27	s.	15.0	1,715	780	
						1,500	850.3	11.5		96	13.02	s.	16.7	1,470	450	
P. M.																
12:10	968.7	19.0	78	sse.	8.0	1,294	871.5	12.2	0.44	100	14.21	s.	18.1	1,269	0	
						1,250	876.3	12.4		99	14.26	s.	17.7	1,225	0	
						1,000	902.4	13.5		94	14.54	sse.	15.6	980	0	
12:23	968.5	19.9	76	sse.	5.8	776	926.5	14.5	1.55	89	14.69	sse.	13.7	761	0	St. base at about 1,050 m.
						750	929.1	14.9		88	14.91	sse.	13.3	735	0	
						500	956.3	18.8		79	17.14	sse.	9.3	490	0	5/10 St.Cu., s.; 4/10 St., s.
12:29	968.4	20.4	75	sse.	7.6	396	968.4	20.4		75	17.98	sse.	7.6	388		

April 18, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.																
8:07	965.1	16.6	87	s.	2.7	396	965.1	16.6		87	16.43	s.	2.7	388		4/10 Ci. St., sw.; 3/10 A. Cu., sw.
						500	953.1	17.8		73	14.88	s.	6.4	490	0	
						750	926.1	20.6		41	9.95	ssw.	15.1	735	0	
8:21	964.8	18.7	65	s.	7.2	877	912.4	22.0	−1.12	24	6.35	ssw.	19.6	860	0	
						1,000	899.3	21.2		23	5.79	ssw.	18.4	980	0	
						1,250	873.6	19.6		21	4.79	ssw.	16.0	1,225	0	
						1,500	848.1	18.0		20	4.13	ssw.	13.6	1,470	660	
8:56	964.3	21.8	47	wsw.	13.4	1,622	836.4	17.2	0.64	19	3.73	ssw.	12.4	1,590	1,040	
						1,750	823.6	15.8		23	4.13	ssw.	12.0	1,715	1,160	8/10 A. St., sw.; 2/10 A. Cu., sw.
						2,000	799.8	13.0		31	4.64	ssw.	11.1	1,960	1,400	
						2,250	776.5	10.3		39	4.89	ssw.	10.2	2,205	1,640	
						2,500	753.5	7.6		47	4.91	ssw.	9.4	2,450	1,910	
9:55	964.8	23.6	45	wsw.	13.9	2,695	736.2	5.5	1.09	53	4.79	ssw.	8.7	2,641	2,400	
						2,750	731.2	5.0		52	4.53	ssw.	8.9	2,694	3,140	
						3,000	709.1	2.9		49	3.69	ssw.	10.0	2,939	3,570	
						3,250	687.2	0.8		46	2.98	sw.	11.1	3,184	4,000	
10:58	965.2	24.4	43	sw.	10.7	3,490	666.9	−1.3	0.80	43	2.36	sw.	12.2	3,419		
						3,250	687.2	0.4		44	2.77	sw.	13.4	3,184	3,990	
						3,000	708.2	2.3		45	3.24	sw.	14.6	2,939	3,580	
						2,750	730.0	4.1		46	3.77	sw.	15.8	2,694	3,120	
						2,500	752.3	5.9		47	4.37	sw.	17.1	2,450	2,690	
						2,250	775.4	7.7		48	5.04	sw.	18.3	2,205	2,380	
P. M.																
12:01	964.8	25.6	41	ssw.	8.9	2,187	781.2	8.2	0.78	48	5.22	sw.	18.6	2,143	2,300	5/10 A. St., sw.; 3/10 A. Cu., sw.
						2,000	799.1	9.7		49	5.89	sw.	18.1	1,960	2,050	
						1,750	823.4	11.6		50	6.84	sw.	17.3	1,715	1,710	
						1,500	848.1	13.5		51	7.89	sw.	16.6	1,470	1,350	
						1,250	873.2	15.5		53	9.33	sw.	15.9	1,225	840	
12:32	964.6	26.5	37	sw.	12.5	1,196	879.1	15.9	0.76	53	9.58	sw.	15.7	1,172	730	
						1,000	898.8	17.3		48	9.54	sw.	14.2	980	390	
12:46	964.6	27.4	36	sw.	9.4	776	923.3	19.0	2.20	43	9.45	sw.	12.4	761	0	
						750	925.4	19.6		42	9.70	sw.	12.4	735	0	
						500	952.9	25.0		37	11.94	sw.	12.2	490	0	
12:53	964.5	27.6	35	sw.	12.1	396	964.5	27.6		35	12.93	sw.	12.1	388		7/10 Ci. St., sw.; 2/10 A. Cu., sw

April 19, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.																
9:13	960.3	17.0	87	se.	6.3	396	960.3	17.0		87	16.86	se.	6.3	388		6/10A.Cu., ssw.;3/10St.Cu.,ssw.
						500	948.8	17.0		79	15.31	se.	7.6	490	0	
						750	921.5	17.1		61	11.90	sse.	10.8	735	150	
9:28	960.3	17.8	85	se.	7.2	833	912.4	17.1	−0.02	55	10.72	sse.	11.8	817	290	
						1,000	894.6	15.9		57	10.30	sse.	13.4	980	580	
						1,250	869.0	14.1		59	9.29	s.	15.9	1,225	780	
						1,500	843.2	12.3		61	8.73	s.	18.3	1,470	940	
9:46	960.2	19.4	86	se.	8.0	1,560	837.3	11.9	0.72	62	8.64	s.	18.9	1,529	980	
						1,750	818.6	10.8		61	7.90	s.	17.2	1,715	1,110	
						2,000	794.4	9.4		60	7.07	ssw.	14.9	1,960	1,280	
10:15	959.9	20.0	78	se.	6.7	2,152	779.8	8.6	0.56	60	6.70	ssw.	13.5	2,109	1,420	
						2,250	770.8	7.9		59	6.28	ssw.	13.6	2,205	1,550	Halo 10:12 to 11:19 a. m.
						2,500	747.5	6.3		55	5.25	ssw.	13.8	2,450	1,850	
						2,750	725.0	4.6		51	4.32	ssw.	14.0	2,694	2,110	
						3,000	703.1	3.0		47	3.56	ssw.	14.2	2,939	2,570	8/10Ci.St.,ssw.; 1/10 Cu.,ssw.
						3,250	681.4	1.3		44	2.95	ssw.	14.3	3,184	2,780	
						3,500	660.1	−0.3		40	2.38	ssw.	14.5	3,429	2,740	
						3,750	639.8	−2.0		36	1.81	ssw.	14.7	3,673	2,710	
11:44	958.6	22.6	55	s.	6.7	3,840	632.1	−2.6	0.71	35	1.72	ssw.	14.8	3,701	2,700	
						3,750	639.8	−2.2		38	1.93	ssw.	14.9	3,673	2,600	
						3,500	659.8	−1.2		45	2.49	ssw.	15.1	3,429	2,380	
						3,250	680.4	−0.1		53	3.21	ssw.	15.3	3,184	2,200	
						3,000	701.6	0.9		60	3.91	ssw.	15.5	2,939	2,010	
						2,750	723.2	2.0		68	4.80	ssw.	15.7	2,694	1,860	6/10Ci.,ssw.;2/10Ci.St.,ssw.;1/10 Cu., ssw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917*—Continued.

April 19, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
H. M.	*mb.*	°*C.*	%	s.	*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10 erns.*	*volts.*	
12:16	958.1	22.8	53	s.	5.8	2,538	742.3	2.9	0.82	74	5.57	ssw.	15.9	2,487	1,680	
						2,500	745.3	3.2		75	5.77	ssw.	15.8	2,450	1,650	
						2,250	768.6	5.3		79	7.04	ssw.	15.1	2,205	1,070	
						2,000	792.1	7.3		83	8.49	ssw.	14.4	1,960	740	
12:35	957.8	23.1	51	sse.	5.4	1,781	813.4	9.1	0.80	86	9.94	ssw.	13.8	1,746	460	
						1,750	816.6	9.3		85	9.96	ssw.	13.5	1,715		
						1,500	841.8	11.3		79	10.58	s.	11.4	1,470		
						1,250	867.0	13.3		73	11.07	s.	9.2	1,225		Solar halo observed a few minutes following 12:22 p. m.
						1,000	892.8	15.3		67	11.64	sse.	7.1	980		
12:45	957.6	22.6	51	sse.	4.5	801	913.6	16.9	1.48	62	11.94	sse.	5.4	785		
						750	919.3	17.7		61	12.35	sse.	5.3	735		
						500	946.0	21.4		55	14.02	sse.	4.7	490		
12:52	957.5	22.9	52	sse.	4.5	396	957.5	22.9		52	14.52	sse.	4.5	388		5/10 Ci., ssw.; 3/10 Ci. St., ssw.; 1/10 Cu., ssw.
April 20, 1917.																
P. M.																
2:06	962.6	7.0	66	nnw.	11.6	396	962.6	7.0		66	6.61	nnw.	11.6	388		3/10 St. Cu., nnw.; 7/10 St., nnw.
						500	950.4	6.3		65	6.21	nnw.	15.1	490	0	
2:12	962.7	7.3	63	nnw.	11.6	720	925.5	4.7	0.71	64	5.47	nnw.	22.5	706	0	
						750	922.0	4.4		64	5.36	nnw.	22.3	735	0	6/10 St. Cu., nnw.; 4/10 St., nnw.
						1,000	894.3	2.0		67	4.73	nnw.	20.9	980	0	
2:46	963.3	8.6	59	nnw.	10.7	1,253	866.9	−0.5	0.98	70	4.10	nnw.	19.5	1,228	0	
						1,500	841.0	−2.0		79	4.08	nnw.	23.9	1,470	680	1/10 Ci., nnw.; 7/10 St. Cu., nnw.
3:13	963.7	10.0	58	nnw.	8.5	1,686	821.9	−3.2	0.62	85	3.98	nnw.	27.3	1,652	1,260	
						1,750	815.0	−3.1		77	3.63	nnw.	27.3	1,715	1,380	
						2,000	789.5	−2.9		45	2.16	nnw.	27.5	1,960	1,810	
3:25	963.8	10.0	54	nnw.	9.8	2,150	774.8	−2.8	0.04	26	1.26	nnw.	27.6	2,107	2,000	
						2,000	789.5	−2.8		38	1.84	nnw.	27.0	1,960	1,700	St. Cu. base at about 1,550 m.
						1,750	815.0	−2.8		58	2.81	nnw.	26.0	1,715	1,200	
3:42	964.0	10.5	47	nnw.	8.9	1,688	821.9	−2.8	0.68	63	3.05	nnw.	25.7	1,654	1,080	
						1,500	841.0	−1.5		62	3.34	nnw.	24.5	1,470	700	
3:55	964.1	10.8	48	nnw.	8.9	1,264	866.9	0.1	1.13	61	3.75	nnw.	23.0	1,239	230	
						1,250	868.1	0.3		61	3.81	nnw.	22.9	1,225	210	2/10 Ci. St., nnw.; Few St. Cu., nnw.
						1,000	895.8	3.1		58	4.43	nnw.	20.5	980	0	
4:11	964.3	11.4	44	nnw.	9.8	953	901.2	3.6	1.42	57	4.51	nnw.	20.1	934	0	
						750	924.2	6.5		51	4.94	nnw.	16.9	735	0	
						500	952.7	10.0		44	5.40	nnw.	12.9	490	0	
4:22	964.4	11.5	59	nnw.	11.2	396	964.4	11.5		41	5.56	nnw.	11.2	388		2/10 Ci. St., nnw.; Few St. Cu., nnw.
April 21, 1917.																
A. M.																
6:36	967.8	6.1	76	wsw.	4.9	396	967.8	6.1		76	7.16	wsw.	4.9	388		Cloudless.
						500	955.6	9.9		59	7.20	w.	7.6	490	0	
6:39	967.8	6.2	74	wsw.	5.4	630	941.0	14.6	−3.63	37	6.15	wnw.	11.0	618	0	
						750	927.7	13.8		37	5.84	wnw.	11.0	735	190	
						1,000	900.3	12.0		36	5.05	wnw.	10.9	980	760	
						1,250	873.9	10.3		36	4.51	wnw.	10.9	1,225	1,020	
7:06	967.9	6.7	77	wsw.	4.9	1,357	862.9	9.5	0.70	36	4.27	wnw.	10.9	1,330	1,100	
						1,500	847.9	8.3		37	4.05	wnw.	11.5	1,470	1,330	
						1,750	823.1	6.3		38	3.63	wnw.	12.5	1,715	1,730	
						2,000	798.2	4.2		39	3.22	wnw.	13.5	1,960	2,220	
						2,250	774.2	2.1		40	2.84	wnw.	14.5	2,205	2,730	
7.40	967.9	7.6	74	wsw.	6.3	2,385	761.2	1.0	0.83	41	2.69	wnw.	15.0	2,337	3,000	
						2,500	750.5	0.2		42	2.60	wnw.	15.1	2,450	3,230	
						2,750	727.8	−1.6		44	2.35	wnw.	15.4	2,694	3,720	
						3,000	705.2	−3.3		45	2.09	wnw.	15.6	2,939	4,210	
						3,250	683.7	−5.1		47	1.87	nw.	15.9	3,184	4,620	
						3,500	662.2	−6.8		49	1.69	nw.	16.1	3,429	5,030	
						3,750	641.2	−8.6		51	1.50	nw.	16.4	3,673	5,440	
8:32	967.7	10.2	73	wsw.	5.8	3,783	638.4	−8.8	0.70	51	1.47	nw.	16.4	3,706	5,500	
						4,000	620.8	−10.2		51	1.30	nw.	16.3	3,918	5,840	
						4,250	600.8	−11.8		50	1.10	nw.	16.2	4,162	6,220	Cloudless.
						4,500	581.3	−13.4		50	0.96	nw.	16.1	4,407	6,240	
						4,750	562.2	−15.1		49	0.80	nw.	16.0	4,651	6,370	
9:33	967.6	14.0	58	w.	5.4	4,864	553.5	−15.8	0.58	49	0.75	nw.	15.9	4,763		
						4,750	562.2	−15.2		50	0.81	nw.	15.7	4,651	5,620	
						4,500	581.3	−13.9		51	0.93	nw.	15.3	4,407	4 560	
						4 250	600.4	−12.6		52	1.07	nw.	14.8	4 162	4,090	Few Ci., wnw.
						4,000	620.0	−11.3		53	1.22	wnw.	14.4	3,918	3,620	
						3,750	640.0	−10.0		55	1.43	wnw.	14.0	3,673	3,140	
						3,500	661.0	−8.7		56	1.63	wnw.	13.5	3,429	2,670	
10:37	967.4	18.1	53	w.	6.3	3,252	682.3	−7.4	0.93	57	1.86	wnw.	13.1	3,186	2,200	
						3,000	705.0	−5.1		54	2.15	wnw.	12.5	2,939	1,900	1/10 Ci., wnw.
						2,750	727.8	−2.7		51	2.49	wnw.	12.0	2,694	1,600	
						2,500	750.5	−0.4		47	2.78	wnw.	11.4	2,450	1,300	
						2,250	774.2	1.9		44	3.04	wnw.	10.9	2,205	1,020	
						2,000	798.1	4.3		41	3.41	wnw.	10.3	1,960	740	
11:08	967.2	19.0	48	w.	5.8	1,845	813.6	5.7	0.97	39	3.57	wnw.	10.0	1,808	560	
						1,750	822.8	6.6		38	3.70	wnw.	9.8	1,715	430	
						1,500	847.9	9.0		37	4.25	wnw.	9.2	1,470	90	
						1,250	873.9	11.4		35	4.72	w.	8.6	1,225	0	
11:31	967.0	19.7	45	w.	5.8	1,099	890.0	12.9	0.67	34	5.06	w.	8.3	1,077	0	
						1,000	900.3	13.6		37	5.76	w.	7.8	980	0	
						750	927.7	15.2		44	7.60	wsw.	6.7	735	0	
11:40	967.0	20.1	42	wsw.	4.9	664	937.2	15.8	1.79	47	8.44	wsw.	6.3	651	0	
						500	955.4	18.7		43	9.28	w.	5.7	490	0	
11:46	967.0	20.6	40	w.	5.4	396	967.0	20.6		40	9.71	w.	5.4	388		5/10 Ci., wnw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917*—Continued.

April 22, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
6:34	964.2	10.8	66	wsw.	5.8	396	964.2	10.8	.....	66	8.55	wsw.	5.8	388	.....	4/10 Ci. St., wnw., 4/10 A. St., wnw.; 1/10 A. Cu., wnw.
						500	952.0	14.7	.....	50	8.29	w.	7.6	490	0	
6:41	964.2	11.3	66	sw.	5.4	623	938.7	19.4	−4.28	32	7.21	w.	9.7	611	0	
						750	924.9	18.8	.....	30	6.47	w.	11.0	735	180	
						1,000	897.8	17.7	.....	27	5.44	w.	13.7	980	470	
6:58	964.2	11.3	64	sw.	4.9	1,146	883.0	17.0	0.44	25	4.84	w.	15.2	1,123	680	
						1,250	872.1	16.1	.....	27	4.94	w.	15.2	1,225	810	
						1,500	846.6	14.0	.....	31	4.95	w.	15.1	1,470	1,100	
						1,750	821.8	11.9	.....	35	4.88	w.	15.0	1,715	1,340	3/10 Ci. St., wnw.; 3/10 A. Cu., wnw.
						2,000	797.0	9.8	.....	39	4.73	w.	15.0	1,960	1,650	
						2,250	773.4	7.6	.....	43	4.49	w.	14.9	2,205	2,040	
8:09	964.1	14.8	55	s.	5.4	2,279	771.2	7.4	0.85	44	4.53	w.	14.9	2,233	2,110	
						2,500	750.1	5.3	.....	48	4.28	w.	15.9	2,450	2,620	
						2,750	727.9	3.0	.....	52	3.94	w.	17.1	2,694	3,040	4/10 Ci., wnw.; 1/10 Ci. St., wnw.; few A. Cu., wnw.
						3,000	705.5	0.6	.....	56	3.57	w.	18.3	2,939	3,440	
						3,250	684.1	−1.7	.....	61	3.23	w.	19.5	3,184	3,840	
						3,500	663.0	−4.1	.....	65	2.81	w.	20.6	3,429	4,240	
8:45	963.9	17.0	53	s.	5.8	3,723	644.6	−6.2	0.94	69	2.50	w.	21.7	3,647	4,600	
						3,750	642.1	−6.4	.....	69	2.46	w.	21.9	3,673	4,640	
						4,000	622.1	−8.7	.....	71	2.07	w.	23.4	3,918	5,020	
						4,250	602.2	−11.0	.....	74	1.75	w.	24.9	4,162	5,400	
9:16	964.0	17.9	52	ssw.	5.8	4,424	588.9	−12.6	0.90	75	1.54	w.	25.9	4,333	.....	
						4,250	602.2	−11.1	.....	72	1.69	w.	25.1	4,162	5,210	
						4,000	621.4	−8.8	.....	68	1.97	w.	24.0	3,918	4,500	
						3,750	641.8	−6.6	.....	64	2.24	w.	22.8	3,673	3,780	1/10 Ci. St., wnw.; 1/10 A. Cu., wnw.
						3,500	662.1	−4.4	.....	60	2.53	w.	22.7	3,429	3,070	
						3,250	683.7	−2.2	.....	56	2.85	w.	20.5	3,184	2,530	
						3,000	705.5	0.1	.....	52	3.20	w.	19.4	2,939	2,200	
10:12	964.4	19.4	47	sw.	5.8	2,783	725.2	2.0	0.90	48	3.39	w.	18.4	2,727	1,910	
						2,750	728.0	2.3	.....	48	3.46	w.	18.3	2,694	1,870	
						2,500	751.1	4.6	.....	45	3.82	w.	17.5	2,450	1,540	
						2,250	774.6	6.8	.....	42	4.15	w.	16.7	2,205	1,210	
						2,000	798.1	9.1	.....	39	4.51	wsw.	15.9	1,960	830	
						1,750	822.1	11.3	.....	36	4.82	wsw.	15.0	1,715	390	
10:43	964.0	20.3	43	wsw.	7.2	1,523	844.6	13.4	0.83	33	5.07	wsw.	14.3	1,493	0	
						1,500	846.6	13.6	.....	33	5.14	wsw.	14.2	1,470	0	
						1,250	871.9	15.7	.....	30	5.35	w.	13.4	1,225	0	
10:54	963.9	21.2	42	sw.	5.4	1,064	891.4	17.2	−0.04	28	5.49	w.	12.7	1,043	0	
						1,000	897.8	17.2	.....	31	6.08	w.	11.8	980	0	
11:02	963.8	21.8	43	sw.	5.4	770	922.7	17.1	1.33	40	7.80	wsw.	8.8	755	0	
						750	924.8	17.4	.....	40	8.00	wsw.	8.6	735	0	
						500	951.9	20.8	.....	41	10.07	wsw.	6.3	490	0	
11:07	963.7	22.2	41	wsw.	5.4	396	963.7	22.2	.....	41	10.98	wsw.	5.4	388	.....	1/10 Ci., wnw.; 2/10 A. Cu., w.

April 23, 1917, series (No. 1).

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.																
7:08	967.8	7.4	82	ene.	8.0	396	967.8	7.4	.....	82	8.45	ene.	8.0	388	.....	4/10 Ci., w.; 2/10 A. St., wsw.; 2/10 A. Cu., wsw.
						500	955.9	6.4	.....	85	8.17	ene.	12.7	490	210	
7:10	967.7	7.5	82	ene.	8.9	621	941.6	5.2	0.98	89	7.88	e.	18.2	609	460	
7:12	967.7	7.6	82	ene.	8.9	719	930.4	10.5	−5.41	70	8.89	e.	15.4	705	660	
						750	927.0	10.6	.....	68	8.69	e.	15.3	735	730	
						1,000	899.5	11.4	.....	49	6.61	e.	14.5	980	1,330	
7:31	967.4	7.7	82	e.	8.9	1,106	888.1	11.7	−0.31	41	5.64	e.	14.2	1,084	1,580	
						1,250	872.8	11.1	.....	43	5.68	e.	13.4	1,225	1,920	
						1,500	846.7	10.0	.....	45	5.53	ese.	12.1	1,470	2,500	
						1,750	821.7	8.9	.....	48	5.47	se.	10.7	1,715	3,210	
						2,000	797.4	7.8	.....	51	5.40	se.	9.3	1,960	3,140	
						2,250	773.9	6.7	.....	53	5.20	sse.	8.0	2,205	2,860	
9:05	967.2	12.8	67	ene.	5.8	2,299	769.2	6.5	0.44	54	5.23	sse.	7.7	2,253	2,800	
						2,500	750.4	5.9	.....	49	4.55	s.	8.8	2,450	4,970	
						2,750	728.2	5.1	.....	43	3.78	sw.	10.2	2,694	5,050	
9:54	966.9	15.1	61	ese.	8.5	2,815	722.2	4.9	0.31	42	3.64	sw.	10.6	2,758	5,070	
						3,000	705.6	3.2	.....	46	3.54	sw.	11.3	2,939	5,120	
						3,250	683.9	0.8	.....	50	3.24	sw.	12.2	3,184	5,200	
						3,500	662.8	−1.5	.....	55	2.96	sw.	13.2	3,429	5,640	
						3,750	642.6	−3.8	.....	60	2.66	wsw.	14.1	3,673	6,090	
						4,000	622.6	−6.2	.....	65	2.35	wsw.	15.0	3,918	6,540	4/10 Ci., w.; 4/10 Ci., St., w.
						4,250	603.3	−8.5	.....	69	2.04	wsw.	16.0	4,162	7,000	
10:25	966.7	15.7	60	e.	6.7	4,334	596.9	−9.3	0.93	71	1.96	wsw.	16.3	4,244	7,150	
						4,500	584.1	−10.7	.....	69	1.68	wsw.	17.2	4,407	7,470	
						4,750	565.4	−12.8	.....	65	1.31	wsw.	18.6	4,651	7,960	
						5,000	546.9	−14.9	.....	62	1.04	w.	20.0	4,896	8,150	
10:56	966.5	16.8	58	ene.	8.0	5,188	533.5	−16.5	0.80	59	0.84	w.	21.1	5,079	8,200	
						5,000	546.8	−15.1	.....	59	0.96	w.	20.2	4,896	6,730	
						4,750	565.1	−13.2	.....	60	1.17	w.	19.0	4,651	6,210	
						4,500	583.6	−11.3	.....	61	1.41	wsw.	17.9	4,407	5,990	
						4,250	602.8	−9.4	.....	62	1.70	wsw.	16.5	4,162	5,760	
						4,000	622.3	−7.5	.....	63	2.03	wsw.	15.5	3,918	5,540	
11:32	966.2	18.3	53	e.	7.6	3,848	634.4	−6.4	0.91	63	2.24	wsw.	14.8	3,769	4,400	
						3,750	642.4	−5.5	.....	61	2.34	wsw.	14.6	3,673	4,210	
						3,500	662.8	−3.2	.....	56	2.62	wsw.	14.2	3,429	3,710	
						3,250	683.8	−1.0	.....	51	2.87	sw.	13.8	3,184	3,240	
						3,000	705.2	1.3	.....	47	3.15	sw.	13.4	2,939	2,910	
						2,750	727.1	3.5	.....	42	3.30	ssw.	13.0	2,694	2,570	
						2,500	749.6	5.8	.....	37	3.41	ssw.	12.6	2,450	2,230	
P. M.																
12:02	965.8	18.3	53	e.	8.5	2,401	759.3	6.7	0.44	35	3.43	ssw.	12.4	2,353	2,100	3/10 Ci. St., w.; 6/10 A. St., w.
						2,250	773.2	7.4	.....	36	3.71	s.	13.0	2,205	1,920	
						2,000	797.2	8.5	.....	38	4.22	sse.	14.0	1,960	1,620	
						1,750	821.4	9.6	.....	39	4.66	se.	15.0	1,715	1,220	
						1,500	846.0	10.7	.....	41	5.28	ese.	15.9	1,470	1,080	
12:30	965.0	18.2	54	e.	10.3	1,331	863.3	11.4	−0.56	42	5.66	e.	16.6	1,305	980	
						1,250	871.6	10.9	.....	47	6.13	e.	15.6	1,225	830	
12:34	964.9	18.8	51	e.	11.6	1,083	889.3	10.0	0.96	56	6.88	e.	13.5	1,062	510	
						1,000	897.6	10.8	.....	59	7.64	e.	13.0	980	350	
12:40	964.8	19.1	49	e.	12.1	816	918.1	11.6	1.67	63	8.61	e.	12.5	800	0	
						750	925.0	12.7	.....	61	8.96	e.	12.2	735	0	
						500	952.8	16.4	.....	55	10.26	e.	11.1	490	0	
12:48	964.5	18.6	52	e.	10.7	396	964.5	18.6	.....	52	11.14	e.	10.7	388	.....	1/10 Ci. St., w.; 1/10 A. St., w.; 1/10 A. Cu., wsw.

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917*—Continued.

April 23, 1917, series (No. 2).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Potential. Gravity.	Potential. Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
1:26	964.0	19.1	50	ese.	11.2	396	964.0	19.1	.....	50	11.06	ese.	11.2	388	.....	3/10Ci.St.,w;2/10A.St.,w.
						500	952.3	18.1	.....	53	11.01	ese.	11.5	490	0	
						750	924.8	15.5	.....	62	10.92	e.	12.2	735	0	
1:37	964.0	19.6	51	e.	8.9	764	923.3	15.4	1.01	62	10.85	e.	12.2	749	0	
						1,000	897.7	13.3	.....	65	9.93	e.	11.9	980	680	
1:44	963.9	19.2	51	e.	10.3	1,131	883.8	12.2	0.87	66	9.38	e.	11.7	1,109	1,050	
						1,250	871.1	12.8	.....	54	7.98	ese.	13.1	1,225	1,350	
1:55	963.8	20.2	52	e.	10.3	1,324	863.9	13.1	−0.47	47	7.09	ese.	14.0	1,298	1,480	
						1,500	845.7	11.9	.....	47	6.55	ese.	12.8	1,470	1,790	
2:01	963.8	20.5	50	e.	10.3	1,677	828.2	10.6	0.71	48	6.13	ese.	11.5	1,644	2,100	4/10Ci.St.,w.;1/10A.St.,w.
						1,750	821.0	11.0	.....	47	6.17	se.	9.3	1,715	1,910	
2:21	963.7	21.0	47	e.	7.6	1,885	807.9	11.7	−0.53	45	6.19	sse.	8.0	1,847	1,800	
						2,000	796.4	10.8	.....	46	5.96	sse.	7.5	1,960	2,500	
						2,250	772.4	8.7	.....	49	5.51	sse.	6.4	2,205	.....	
3:44	963.0	19.8	51	e.	7.2	2,262	771.1	8.6	0.81	49	5.47	sse.	6.3	2,217	.....	10/10 A. St., wsw.
						2,250	772.4	8.7	.....	49	5.51	sse.	6.3	2,205	.....	
						2,000	794.7	10.7	.....	46	5.92	sse.	6.2	1,960	.....	
5:00	962.1	19.0	54	ene.	8.5	1,911	803.4	11.4	−1.15	45	6.07	sse.	6.1	1,873	.....	
6:30	962.2	16.5	63	e.	9.8	1,780	815.8	9.9	0.61	51	6.22	se.	9.7	1,745	1,900	
						1,750	818.6	10.1	.....	51	6.30	se.	9.7	1,715	1,800	
						1,500	843.5	11.6	.....	53	7.24	ese.	9.8	1,470	1,410	
6:38	962.1	16.4	63	e.	10.7	1,437	850.0	12.0	−1.19	53	7.44	ese.	9.8	1,409	1,350	
						1,250	868.8	9.8	.....	83	10.06	ese.	12.9	1,225	1,050	
6:48	961.9	16.2	64	e.	8.9	1,243	869.7	9.7	0.54	84	10.11	ese.	13.0	1,219	1,030	
						1,000	895.0	11.0	.....	78	10.24	e.	14.4	980	750	
6:58	961.8	15.4	67	e.	10.3	784	918.5	12.2	0.75	73	10.37	e.	15.6	769	0	
						750	922.3	12.5	.....	72	10.43	e.	15.2	735	0	
						500	950.1	14.3	.....	69	11.25	e.	12.4	490	0	2/10Ci.St., w.; 3/10 A.St., wsw.;
7:04	961.9	15.1	67	e.	11.2	396	961.9	15.1	.....	67	11.50	e.	11.2	388	.....	1/10 A. Cu., wsw.

April 23, 1917, series (No. 3).

P. M.																
7:42	962.5	14.2	70	ene.	7.6	396	962.5	14.2	.....	70	11.33	ene.	7.6	388	.....	1/10 Ci.St.,w.; 4/10 Ci.St.,wsw.,
						500	950.6	13.7	.....	75	11.76	ene.	9.9	490	100	few A.Cu.,wsw.
7:50	962.6	13.7	73	ene.	8.5	738	924.2	12.4	0.53	86	12.38	e.	15.2	724	330	
						750	922.9	12.3	.....	86	12.31	e.	15.2	735	360	
						1,000	895.5	11.0	.....	93	12.21	ese.	14.3	980	1,090	
7:56	962.7	13.6	72	ene.	8.9	1,141	880.9	10.3	0.52	97	12.15	ese.	13.8	1,119	1,500	
						1,250	869.7	10.8	.....	86	11.14	ese.	12.9	1,225	1,680	
						1,500	844.1	12.1	.....	61	8.61	se.	11.0	1,470	2,110	1/10Ci.St.,w.; 2/10A.St.,wsw.,
8:31	963.0	12.9	75	ene.	10.7	1,746	819.5	13.3	−0.50	37	5.65	se.	9.0	1,711	2,850	
						2,000	794.7	11.5	.....	36	4.89	sse.	8.4	1,960	3,390	
						2,250	771.1	9.8	.....	34	4.12	sse.	7.9	2,205	3,920	
9:40	963.4	11.5	78	e.	9.4	2,429	754.8	8.5	0.70	33	3.66	s.	7.5	2,830	3,880	
						2,500	748.0	8.0	.....	33	3.54	s.	7.3	2,450	3,820	10/10A.St.,wsw.
						2,750	725.6	6.2	.....	34	3.22	s.	6.5	2,694	3,610	
						3,000	703.5	4.5	.....	35	2.95	s.	5.7	2,939	.....	
10:11	963.5	11.1	78	e.	11.2	3,009	702.6	4.4	0.62	35	2.93	s.	5.7	2,948	.....	
						3,000	703.5	4.5	.....	35	2.95	s.	5.8	2,939	.....	
						2,750	725.1	5.8	.....	41	3.78	s.	7.5	2,694	4,910	5/10A.St.,wsw.; 5/10St..Calm.
						2,500	747.0	7.1	.....	47	4.74	sse.	9.2	2,450	3,530	
						2,250	769.9	8.4	.....	52	5.73	sse.	10.9	2,205	3,150	
						2,000	793.8	9.8	.....	58	7.03	se.	12.6	1,960	2,770	
10:39	963.5	10.8	78	e.	10.7	1,955	798.1	10.0	−0.20	59	7.25	se.	12.9	1,916	2,700	
						1,750	818.2	9.6	.....	68	8.13	se.	14.3	1,715	2,390	
						1,500	843.5	9.1	.....	80	9.25	ese.	16.0	1,470	1,980	
10:57	963.5	10.4	77	e.	10.7	1,271	866.7	8.6	−0.98	90	10.05	ese.	17.5	1,246	1,600	
						1,250	869.0	8.4	.....	91	10.03	ese.	17.9	1,225	1,530	
11:01	963.5	10.3	76	e.	11.6	1,037	891.5	6.3	0.03	96	9.17	e.	21.6	1,017	780	
						1,000	895.4	6.4	.....	94	9.03	e.	21.2	980	650	
11:09	963.4	10.2	76	e.	11.2	816	915.6	7.0	0.71	83	8.32	e.	19.5	800	0	
						750	923.1	7.5	.....	82	8.50	e.	18.1	735	0	
						500	951.7	9.3	.....	78	9.14	e.	12.9	490	0	
11:15	963.4	10.0	77	e.	10.7	396	963.4	10.0	.....	77	9.46	e.	10.7	388	.....	4/10Ci.St.,w.; 5/10A.St.,wsw.

April 23–24, 1917, series (No. 4).

P. M.																
11:57	963.1	9.5	76	e.	10.7	396	963.1	9.5	.....	76	9.02	e.	10.7	388	.....	4/10 Ci. St., w.; 5/10 St., wsw.
						500	951.0	8.6	.....	79	8.82	e.	13.1	490	0	
A. M.																
12:06	963.1	9.4	75	e.	8.9	740	923.8	6.4	0.90	87	8.36	e.	18.5	726	0	
						750	922.5	6.6	.....	86	8.38	e.	18.2	735	70	
12:18	963.0	9.3	73	e.	10.3	993	895.9	12.0	−2.21	66	9.26	se.	11.1	974	1,700	
						1,000	895.0	12.0	.....	66	9.26	se.	11.0	980	1,700	
						1,250	868.2	10.6	.....	78	9.97	sse.	6.0	1,225	2,250	4/10 Ci.St., w.; 1/10 A.St., wsw.
1:46	962.6	8.0	72	se.	10.3	1,428	850.0	9.7	0.48	87	10.47	sse.	2.5	1,400	.....	
						1,250	868.1	10.5	.....	81	10.29	sse.	5.5	1,225	2,440	
1:59	962.5	7.8	68	se.	10.3	1,177	875.8	10.8	−0.14	79	10.23	sse.	6.7	1,154	.....	
						1,000	893.8	9.7	.....	87	10.47	se.	13.0	980	1,530	
4:07	961.8	5.6	80	ese.	5.8	824	912.8	7.6	−1.12	95	9.92	ese.	19.2	808	890	
						750	921.0	6.4	.....	91	8.75	ese.	17.3	735	740	
4:12	961.8	5.5	80	ese.	5.8	672	929.9	5.1	0.14	87	7.65	ese.	15.4	659	570	
						500	949.3	5.3	.....	83	7.40	ese.	9.4	490	220	
4:16	961.8	5.5	80	ese.	5.8	396	961.8	5.5	.....	80	7.22	ese.	5.8	388	.....	2/10 Ci.St., w.

April 24, 1917, series (No. 5).

A. M.																
5:00	961.8	5.2	83	e.	4.9	396	961.8	5.2	.....	83	7.35	e.	4.9	388	.....	3/10 C.St., w.
						500	949.2	5.1	.....	87	7.65	e.	9.2	490	350	
5:03	961.8	5.2	83	e.	4.0	635	934.0	4.7	0.15	95	8.11	se.	19.0	622	1,130	
						750	921.0	6.6	.....	98	9.56	se.	17.7	735	1,280	
5:11	961.9	5.0	83	e.	3.6	767	919.2	6.9	−1.67	98	9.75	se.	16.3	752	1,290	
						1,000	893.6	7.9	.....	84	8.95	sse.	1.9	980	.....	3/10 A.St., wsw.; 7/10 St., se.
7:15	962.2	6.8	82	e.	4.9	1,043	889.2	8.1	−1.08	82	8.86	sse.	1.1	1,023	.....	
						1,000	893.6	6.8	.....	86	8.50	se.	3.0	980	.....	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917*—Continued.

April 24, 1917, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
7:32	962.3	7.0	80	ese.	4.9	879	907.1	3.3	0.77	97	7.51	ese.	8.2	862	2,010	
						750	921.5	4.0		93	7.56	ese.	8.1	735	1,390	
						500	950.1	6.2		85	8.06	ese.	8.0	490	410	
7:43	962.4	7.0	82	ese.	8.0	396	962.4	7.0		82	8.22	ese.	8.0	388		10/10 St., se.

April 24, 1917, series (No. 6).

P. M.																
12:17	963.5	9.4	76	nnw.	3.1	396	963.5	9.4		76	8.96	nnw.	3.1	388		10/10 St., nw.
						500	951.4	8.4		82	9.04	nnw.	4.9	490	0	
						750	923.4	6.1		95	8.95	nw.	9.2	735	710	
12:35	963.5	9.1	76	nnw.	3.6	830	914.0	5.3	0.94	99	8.82	nw.	10.6	814	1,010	St. base at about 800 m.
						1,000	895.6	5.9		98	9.10	nw.	10.7	980	1,670	
						1,250	868.9	6.7		96	9.42	nw.	10.9	1,225	1,960	
12:47	963.5	9.3	74	nnw.	4.0	1,404	852.3	7.2	−0.33	95	9.65	nw..	11.0	1,376	1,620	
						1,500	842.7	7.1		93	9.38	nw.	10.1	1,470	1,420	
						1,750	817.4	6.8		89	8.79	nw.	7.8	1,715	3,520	
1:36	963.7	10.5	74	nnw.	4.9	1,827	809.8	6.7	0.12	88	8.63	nw.	7.1	1,791	3,920	
						2,000	793.0	5.5		89	8.04	nw.	8.1	1,960	4,600	
						2,250	769.2	3.8		89	7.14	nw.	9.5	2,205	5,570	
1:56	963.8	10.3	70	nnw.	4.5	2,447	750.8	2.4	0.69	90	6.53	nw.	10.6	2,398	6,340	10/10 St., nw.
						2,500	745.9	2.1		89	6.33	nw.	10.7	2,450	6,540	
						2,750	723.4	1.7		86	5.94	nw.	11.1	2,694	7,520	
						3,000	700.9	−0.7		83	4.78	wnw.	11.5	2,939		
2:08	963.9	10.3	72	n.	4.5	3,165	685.9	−1.6	0.48	81	4.33	wnw.	11.8	3,101		
						3,000	700.3	−0.9		80	4.54	wnw.	12.4	2,939		
						2,750	722.6	0.1		78	4.80	wnw.	13.3	2,694	7,620	
						2,500	745.2	1.1		76	5.03	nw.	14.3	2,450	7,400	
2:31	964.0	10.6	71	n.	4.0	2,333	760.7	1.8	0.78	75	5.22	nw.	14.9	2,286	5,860	
						2,250	768.3	2.5		71	5.19	nw.	14.8	2,205	5,460	
						2,000	792.1	4.4		58	4.85	nw.	14.7	1,960	4,660	
2:42	964.1	10.6	71	n.	4.5	1,836	808.7	5.7	−0.06	50	4.58	nw.	14.6	1,799	4,210	
						1,750	816.5	5.6		76	6.92	nw.	12.9	1,715	3,970	
2:52	974.1	11.0	70	n.	4.5	1,521	840.7	5.5	−0.97	86	7.77	nw.	12.2	1,491	3,250	St. base at about 1,200 m.
						1,500	842.2	5.3		87	7.75	nw.	12.2	1,470	3,180	
2:53	964.2	11.1	70	n.	4.5	1,387	854.6	4.2	0.25	93	7.67	nw.	12.2	1,360	2,810	
						1,250	868.9	4.6		91	7.72	nw.	11.6	1,225	2,370	
						1,000	895.6	5.3		88	7.84	nnw.	10.6	980	1,070	
3:11	964.2	11.4	68	n.	4.5	827	915.3	5.8	1.37	86	7.93	nnw.	9.9	811	0	2/10 A. Cu., w.; 8/10 St., nw.
						750	923.6	6.9		83	8.26	nnw.	9.0	735	0	
						500	952.1	10.3		72	9.02	nnw.	6.1	490	0	
3:17	964.2	11.7	68	nnw.	4.9	396	964.2	11.7		68	9.35	nnw.	4.9	388		

April 24, 1917, series (No. 7).

P. M.																
3:54	964.5	12.0	68	n.	4.9	396	964.5	12.0		68	9.54	n.	4.9	388		Few A.Cu.,w.;9/10St.,nw.
						500	952.3	11.1		71	9.38	n.	7.2	490	0	
4:05	964.5	12.7	63	n.	5.8	737	925.8	9.0	0.88	78	8.95	n.	12.4	723	0	6/10 A.Cu.,w.;2/10St.,nw.
						750	924.1	9.0		77	8.84	n.	12.7	735	50	
						1,000	896.6	8.5		54	5.99	nnw.	17.9	980	990	
4:22	964.4	12.6	63	nne.	6.3	1,108	885.1	8.3	0.19	44	4.82	nnw.	20.2	1,086	1,400	
						1,250	869.9	7.5		45	4.67	nnw.	19.4	1,225	1,950	
						1,500	844.0	6.1		47	4.43	nw.	18.0	1,470	2,640	
						1,750	818.7	4.7		49	4.18	nw.	16.6	1,715	3,000	
4:41	964.3	12.6	60	n.	5.4	1,841	809.2	4.2	0.56	50	4.12	nw.	16.1	1,804	3,120	6/10 A. Cu., w.
						2,000	793.7	4.7		40	3.42	wnw.	15.8	1,960	3,330	
4:58	964.2	12.2	60	n.	6.3	2,078	785.8	5.0	−0.34	35	3.05	wnw.	15.7	2,036	3,440	
						2,250	759.2	3.3		37	2.86	wnw.	16.1	2,205	3,730	
						2,500	746.0	0.9		39	2.54	w.	19.2	2,450	4,170	
5:09	964.2	12.2	61	n.	4.5	2,736	724.4	−1.4	0.97	41	2.23	w.	21.1	2,681	4,600	8/10 A. Cu., w.
						2,750	723.4	−1.5		42	2.26	w.	21.2	2,694	4,620	
						3,000	700.8	−3.4		52	2.39	w.	22.3	2,939	5,110	
						3,250	678.8	−5.3		63	2.46	w.	23.4	3,184	5,370	Few Ci.St., w.; 2/10 A.St., w;
5:42	964.4	12.6	61	n.	3.6	3,337	671.2	−6.0	0.65	67	2.47	w.	23.8	3,269	5,500	1/10 A.Cu., w.
						3,250	678.2	−5.5		65	2.50	w.	22.8	3,184	5,380	
						3,000	699.2	−4.2		58	2.49	wnw.	19.9	2,939	5,050	
6:01	964.5	12.2	63	n.	4.0	2,789	718.0	−3.1	0.17	52	2.45	wnw.	17.4	2,733	4,500	
						2,750	721.1	−3.0		53	2.52	wnw.	17.4	2,694	4,430	
						2,500	743.9	−2.6		59	2.90	wnw.	17.4	2,450	4,010	
						2,250	758.0	−2.2		64	3.26	nw.	17.4	2,205	3,590	
6:25	964.4	11.0	67	nne.	3.6	2,034	789.1	−1.8	0.82	70	3.68	nw.	17.4	1,993	3,210	
						2,000	792.7	−1.5		70	3.77	nw.	17.5	1,960	3,150	
						1,750	818.5	0.5		71	4.49	nw.	18.1	1,715	2,710	
						1,500	844.3	2.6		71	5.23	nnw.	18.7	1,470	2,220	
						1,250	870.6	4.6		72	6.11	nnw.	19.3	1,225	1,590	
6:46	965.0	10.7	69	ne.	3.1	1,200	875.7	5.0	0.99	72	6.28	nnw.	19.4	1,176	1,470	
						1,000	897.3	6.9		73	7.26	nnw.	14.7	980	900	
6:57	965.2	10.5	70	nne.	3.1	775	922.2	8.2	0.53	75	8.15	nnw.	9.4	760	260	
						750	925.0	8.3		75	8.21	nnw.	9.0	735	240	
						500	953.6	9.7		73	8.78	nne.	4.5	490	70	
7:03	965.2	10.2	72	ne.	2.7	396	965.2	10.2		72	8.96	ne.	2.7	388		3/10 Ci., w.

April 25, 1917.

P. M.																
12:38	968.5	5.8	63	nnw.	11.6	396	968.5	5.8		63	5.81	nnw.	11.6	388		10/10 St.Cu., nw.
						500	956.4	4.6		69	5.85	nnw.	13.2	490	840	
12:46	968.5	5.5	64	nnw.	8.9	713	931.4	2.2	1.14	82	5.87	nw.	17.5	699	1,200	
						750	927.5	1.9		83	5.82	nw.	17.4	735	1,320	St.Cu. base at about 1,100 m.
						1,000	899.0	0.1		88	5.41	nw.	16.8	980	2,150	
						1,250	871.1	−1.7		93	4.93	nw.	16.2	1,225	4,420	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917*—Continued.

April 25, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
12:55	968.6	5.6	65	nnw.	8.9	1,396	855.4	−2.8	0.73	96	4.65	nw.	15.9	1,368	5,920	
						1,500	844.0	−2.7		86	4.20	nw.	17.0	1,470	6,850	
						1,750	817.5	−2.6		64	3.15	nw.	19.8	1,715	8,240	
1:07	968.6	5.8	65	nnw.	8.9	1,963	796.3	−2.5	−0.05	44	2.18	nw.	22.1	1,924	9,410	
						2,000	791.9	−2.7		43	2.10	nw.	22.2	1,960	9,610	
						2,250	767.4	−3.9		35	1.51	nw.	23.0	2,205	10,300	
						2,500	743.9	−5.0		27	1.08	nw.	24.1	2,450	11,000	
						2,750	720.9	−6.2		19	0.69	nw.	25.1	2,694	11,950	
1:42	968.8	6.1	60	nnw.	8.5	2,785	717.4	−6.4	1.16	18	0.64	nw.	25.2	2,729	11,800	
						2,750	720.9	−6.0		17	0.63	nw.	25.2	2,694	11,540	
1:59	968.9	6.0	60	nnw.	8.5	2,640	730.4	−4.7	0.07	14	0.58	nw.	25.4	2,587	10,710	
						2,500	743.9	−4.6		21	0.87	nw.	24.9	2,450	9,650	
						2,250	767.8	−4.4		34	1.43	nw.	23.9	2,205	8,210	
						2,000	792.2	−4.2		47	2.02	nw.	23.0	1,960	7,040	
2:34	968.9	6.8	55	nnw.	8.5	1,826	809.8	−4.1	−1.61	56	2.42	nw.	22.3	1,790	4,120	
						1,750	817.5	−5.3		80	3.13	nw.	20.6	1,715	3,850	
2:36	968.9	6.7	55	nnw.	8.5	1,739	818.8	−5.5	0.44	84	3.23	nw.	20.4	1,704	3,810	
						1,500	844.0	−4.5		85	3.56	nw.	19.3	1,470	2,960	St.Cu. base at about 1,600 m.
						1,250	871.1	−3.4		86	3.96	nw.	18.2	1,225	2,240	
2:54	968.9	6.8	54	nnw.	8.0	1,237	872.8	−3.3	0.95	86	3.99	nw.	18.1	1,213	2,200	
						1,000	899.0	−1.1		73	4.07	nw.	17.0	980	1,100	
3:07	969.0	6.6	54	nnw.	7.6	793	922.8	0.9	1.44	62	4.04	nw.	16.1	778	0	
						750	927.6	1.5		61	4.15	nw.	15.2	735	0	
						500	956.6	5.1		56	4.92	nnw.	9.9	490	0	
3:13	969.0	6.6	54	nnw.	7.6	396	969.0	6.6		54	5.26	nnw.	7.6	388		10/10 St.Cu., nw.

April 26, 1917.

A. M.																
9:22	922.7	4.1	64	ne.	3.6	396	972.7	4.1		64	5.24	ne.	3.6	388		4/10 A. St., w.; 6/10 St. Cu., w.
						500	960.4	3.3		63	4.88	ne.	4.4	490	0	
						750	931.1	1.5		62	4.22	ne.	6.4	735	0	
						1,000	902.2	−0.4		61	3.61	nne.	8.3	980	0	8/10 A. St., w.; 2/10 St. Cu., w
9:57	972.3	4.6	59	nne.	4.0	1,165	883.7	−1.6	0.74	60	3.21	nne.	9.6	1,142	0	
						1,250	874.4	−1.7		65	3.44	nne.	8.7	1,225	530	Light snow began 10:33 a. m.
						1,500	847.4	−2.1		80	4.10	n.	6.0	1,470	1,860	
11:03	972.1	4.4	61	nne.	3.1	1,667	829.8	−2.3	0.14	90	4.54	n.	4.2	1,634	780	10/10 St., nnw.
						1,750	821.1	−1.7		92	4.88	n.	4.7	1,715	310	St. base at 1,650 m.
11:07	972.2	4.2	60	nne.	3.1	1,887	806.9	−0.8	−1.25	94	5.37	nnw.	5.4	1,849		
						1,750	820.8	−2.5		90	4.46	n.	5.4	1,715	560	
11:11	972.2	4.2	61	nne.	1.8	1,685	827.5	−3.3	−0.02	88	4.08	nne.	5.4	1,651	1,530	
						1,500	847.0	−3.3		84	3.89	nne.	5.4	1,470	9,690	
11:20	972.4	4.3	63	nne.	1.8	1,262	873.0	−3.4	0.83	79	3.63	nne.	5.5	1,237	20,000	
						1,250	874.4	−3.3		79	3.67	nne.	5.5	1,225		
						1,000	902.2	−1.2		75	4.15	nne.	4.8	980		
						750	931.1	0.9		71	4.63	ne.	4.1	735		
						500	960.4	2.9		68	5.12	ne.	3.4	490		
11:31	972.7	3.8	66	ne.	3.1	396	972.7	3.8		66	5.29	ne.	3.1	388		10/10 St., nnw.

April 27, 1917 (No. 1).

A. M.																
8:52	971.7	0.8	94	ene.	8.9	396	971.7	0.8		94	6.08	ene.	8.9	388		10/10 St., ene.; light snow falling.
						500	959.3	0.7		95	6.11	ene.	11.5	490	510	St. base at about 550 m.
						750	929.6	0.4		96	6.04	ene.	17.9	735	1,750	
8:59	971.6	0.9	94	ene.	7.2	777	926.6	0.4	0.10	96	6.04	ene.	18.6	762	1,880	
						1,000	900.9	−0.8		96	5.48	ene.	20.8	980	2,980	
9:02	971.6	0.9	94	ene.	9.8	1,104	889.4	−1.4	0.55	96	5.22	ene.	21.8	1,082	3,500	
						1,250	873.4	−0.4		94	5.56	ene.	18.4	1,225	3,390	
9:04	971.6	0.9	94	ene.	9.8	1,312	866.7	0.0	0.67	93	5.68	ene.	16.9	1,286	3,350	
						1,500	846.4	−0.1		94	5.70	ene.	14.7	1,470	2,060	Snow changed to sleet.
						1,750	820.2	−0.3		96	5.70	e.	11.8	1,715	1,470	
						2,000	794.8	−0.5		98	5.74	e.	8.9	1,960		Sleet changed to light rain.
9:53	971.3	1.2	91	ene.	8.9	2,148	780.5	−0.6	0.07	99	5.75	e.	7.2	2,105		10/10 St., e.
						2,250	770.8	0.7		91	5.85	e.	7.6	2,205		Clouds lifting.
10:02	971.3	1.2	91	ene.	9.8	2,359	760.5	2.2	−1.10	83	5.94	e.	8.1	2,312		
						2,250	770.9	1.3		89	5.97	e.	6.7	2,205		
10:12	971.3	1.2	93	ene.	8.9	2,104	785.0	0.0	0.12	96	5.87	e.	4.9	2,062		
						2,000	795.2	0.1		94	5.78	e.	6.4	1,960		Light rain ended 10:22 a. m.
						1,750	820.2	0.4		90	5.66	e.	10.0	1,715	1,220	
10:34	971.3	1.4	89	ene.	8.0	1,528	843.3	0.7	−0.70	86	5.53	e.	13.2	1,498	1,240	
						1,500	845.9	0.5		86	5.44	e.	14.1	1,470	1,180	
10:44	971.3	1.5	89	ene.	8.0	1,256	872.6	−1.2	0.16	82	4.53	e.	21.9	1,231	690	St. base at about 750 m.
						1,250	873.4	−1.2		82	4.53	e.	21.8	1,225	680	
						1,000	900.9	−0.8		89	5.08	ene.	19.6	980	230	
10:57	971.3	1.6	88	ene.	9.4	873	915.3	−0.6	0.46	92	5.35	ene.	18.4	856	0	
						750	929.5	0.0		91	5.56	ene.	16.0	785	0	
						500	950.9	1.1		89	5.89	ene.	11.0	490	0	
11:02	971.3	1.6	88	ene.	8.9	396	971.3	1.6		88	6.04	ene.	8.9	388		10/10 St., e.

April 27, 1917 (No. 2).

A. M.																
11:48	971.3	2.0	83	ene.	8.9	396	971.3	2.0		83	5.86	ene.	8.9	388		10/10 St., e.
						500	958.8	1.7		82	5.67	ene.	10.5	490	0	
						750	929.9	0.9		80	5.22	ene.	14.3	735	0	
						1,000	901.1	0.1		78	4.80	ene.	18.2	980	0	
11:59	971.3	2.0	83	ene.	8.9	1,068	893.5	−0.1	0.31	77	4.67	ene.	19.2	1,047	0	
						1,250	873.4	0.6		93	5.93	e.	15.8	1,225	0	

TABLE 8.—*Free-air data from kite flights at Drexel Aerological Station, April, 1917*—Continued.

April 27, 1917 (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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
12:05	971.3	2.0	83	ene.	8.9	1,298	868.3	0.8	0.39	97	6.28	e.	14.9	1,272	0	St. base at about 1,300 m.
						1,500	846.7	0.6		98	6.25	e.	13.2	1,470	0	
						1,750	821.1	0.4		99	6.23	ese.	11.1	1,715	0	
						2,000	796.0	0.2		100	6.20	ese.	9.1	1,960	0	10/10 St., e.
12:58	970.9	2.3	83	ene.	9.4	2,080	787.8	0.1	0.09	100	6.15	ese.	8.4	2,038	150	
1:02	970.9	2.3	83	ene.	8.9	2,226	773.3	2.3	1.51	98	7.07	ese.	8.9	2,181	810	10/10 St., ese.
						2,250	770.9	2.3		98	7.07	ese.	8.9	2,205	920	
						2,500	745.2	1.9		98	6.87	se.	9.0	2,450	3,000	
						2,750	720.0	1.6		98	6.72	se.	9.2	2,694		
						3,000	694.3	1.0		98	6.44	sse.	9.3	2,939		
1:21	970.8	2.4	84	ene.	6.3	3,147	689.5	0.8	0.16	98	6.34	sse.	9.4	3,083		
						3,000	694.3	1.0		98	6.44	sse.	10.5	2,939		Began sprinkling at 1:23 p. m.
						2,750	720.4	1.5		98	6.67	se.	12.4	2,694		
						2,500	746.1	1.9		98	6.87	se.	14.3	2,450	3,870	
1:35	970.7	2.6	82	ene.	6.7	2,481	749.1	1.9	−0.95	98	6.87	se.	14.4	2,431	3,860	
1:38	970.7	2.7	82	ene.	7.2	2,271	768.9	−0.1	0.11	98	5.94	ese.	13.5	2,226	3,800	
						2,250	771.3	−0.1		98	5.94	ese.	13.6	2,205	3,690	Rain ended 1:44 p. m.
						2,000	796.0	0.2		96	5.95	ese.	14.3	1,960	2,430	
						1,750	820.7	0.5		94	5.95	e.	15.1	1,715	980	St. base at about 1,900 m.
						1,500	846.3	0.7		91	5.85	e.	15.8	1,470	1,120	
2:00	970.6	2.4	84	ene.	7.2	1,338	863.6	0.9	−0.40	90	5.87	e.	16.3	1,312	1,330	
						1,250	872.8	0.5		89	5.63	e.	17.2	1,225	1,090	
2:06	970.6	2.6	85	ene.	7.2	1,139	885.0	0.1	0.36	87	5.35	e.	17.9	1,117	790	
						1,000	900.2	0.6		86	5.49	e.	15.6	980	410	
						750	928.8	1.5		85	5.79	ene.	11.4	735	0	
						500	957.8	2.4		84	6.10	ene.	7.1	490	0	
2:22	970.6	2.8	84	ene.	5.4	396	970.6	2.8		84	6.27	ene.	5.4	388		10/10 St., ese.

April 28, 1917.

P. M.																
1:05	962.9	1.8	94	ene.	7.2	396	962.9	1.8		94	6.54	ene.	7.2	388		10/10 St., ene.; light rain falling.
						500	951.0	1.3		95	6.37	ene.	9.9	490	1,480	St. base at about 600 m.
						750	921.6	0.1		96	5.90	ene.	16.3	735	7,750	
1:20	963.1	1.4	94	ene.	4.0	902	904.2	−0.7	0.49	97	5.59	ene.	20.2	884	3,120	
						1,000	893.8	−1.1		97	5.40	ene.	21.1	980	10,550	Snow began 1:30 p. m.
						1,250	866.2	−2.2		95	4.84	ese.	23.4	1,225		
1:36	963.4	1.1	94	ne.	3.6	1,352	854.6	−2.6	0.33	95	4.67	ese.	24.3	1,325		
						1,250	866.1	−2.4		95	4.75	ese.	22.9	1,225		
						1,000	893.2	−1.8		97	5.10	ene.	19.4	980	22,310	St. base about 500 m.
2:25	963.5	0.6	96	n.	4.5	937	900.5	−1.6	0.37	97	5.19	ene.	18.5	919	9,000	
						750	921.8	−0.9		97	5.50	ne.	13.7	735	6,950	
						500	951.0	0.0		96	5.87	nne.	7.2	490	940	
2:43	963.3	0.4	96	nne.	4.5	396	963.3	0.4		96	6.04	nne.	4.5	388		10/10 St., nne.

April 29, 1917.

A. M.																
7:52	969.2	2.2	90	nnw.	3.6	396	969.2	2.2		90	6.44	nnw.	3.6	388		10/10 St., nnw.
						500	956.7	1.0		95	6.24	nnw.	6.9	490	0	
8:03	969.2	2.2	88	nnw.	3.6	599	945.1	−0.2	1.18	100	6.01	nnw.	10.0	587	0	St. base about 700 m.
						750	927.9	−0.9		99	5.61	nnw.		735	530	
8:20	969.4	2.4	86	nnw.	4.5	1,000	898.9	−2.1	0.47	98	5.03	nnw.		980	1,400	
						1,250	871.3	−2.0		71	3.67	nnw.		1,225	1,140	
8:51	969.8	3.1	83	nnw.	4.5	1,284	867.9	−2.0	0.12	67	3.46	nnw.	7.4	1,259	1,000	8/10 St., nw.
						1,250	871.3	−2.1		72	3.69	nnw.	7.3	1,225	1,160	
10:30	970.4	4.0	79	nw.	4.9	1,086	890.5	−2.4	0.58	99	4.95	nw.	6.9	1,065	760	10/10 St., nw.
						1,000	900.0	−1.9		98	5.12	nw.	6.6	980	640	
11:34	970.1	4.9	74	wnw.	3.1	761	927.3	−0.5	1.78	96	5.63	nw.	5.8	746	310	
						750	928.9	−0.3		95	5.66	nw.	5.7	735	300	
						500	957.8	4.1		80	6.55	nw.	3.6	490	0	5/10 St., nw.
11:52	970.0	6.0	73	nw.	2.7	396	970.0	6.0		73	6.83	nw.	2.7	388		

April 30, 1917.

P. M.																
12:17	966.2	5.6	81	n.	4.0	396	966.2	5.6		81	7.37	n.	4.0	388		10/10 St., nnw.
						500	953.6	4.9		82	7.10	n.	5.8	490	0	
						750	925.0	3.1		84	6.41	nnw.	10.1	735	0	
						1,000	896.5	1.4		86	5.81	nnw.	14.4	980	0	
12:42	965.8	5.7	76	n.	4.0	1,041	892.0	1.1	0.70	86	5.69	nnw.	15.1	1,021	0	
						1,250	869.0	−0.6		89	5.17	nnw.	15.7	1,225	0	Light rain began 12:45 p. m.
12:51	965.6	5.7	77	nnw.	3.6	1,476	844.6	−2.4	0.80	93	4.65	nnw.	16.3	1,447	0	
						1,500	842.0	−2.6		93	4.58	nnw.		1,470	30	
						1,750	816.3	−4.2		92	3.96	nnw.		1,715	320	St. base at about 1,900 m.
						2,000	791.0	−5.8		91	3.41	nw.		1,960	700	
						2,250	765.2	−7.4		90	2.93	nw.		2,205	1,020	Rain ended 1:38 p. m.
2:00	965.5	7.1	73	nnw.	4.9	2,436	746.4	−8.6	0.60	89	2.62	nw.		2,387		10/10 St., nw.
						2,250	765.1	−7.6		89	2.86	nw.		2,205	1,460	
						2,000	790.4	−6.2		89	3.22	nw.		1,960	1,080	
						1,750	816.1	−4.9		88	3.56	nnw.		1,715	250	
						1,500	842.0	−3.5		88	4.01	nnw.		1,470	0	Light rain began 2:36 p. m.
						1,250	868.6	−2.1		88	4.51	nnw.		1,225	0	
2:41	965.8	5.8	76	nnw.	5.8	1,169	877.5	−1.7	0.86	88	4.66	nnw.		1,146	0	10/10 St., nnw.
						1,000	896.0	−0.2		83	4.99	nnw.		980	0	
3:04	965.9	5.8	74	nnw.	4.9	799	919.1	1.5	1.07	77	5.24	nw.	13.4	783	0	
						750	924.5	2.0		77	5.44	nw.	12.4	735	0	
						500	953.4	4.7		75	6.40	nnw.	7.5	490	0	
3:08	965.9	5.8	74	nnw.	5.4	396	965.9	5.8		74	6.82	nnw.	5.4	388		10/10 St., nnw.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917.*

May 1, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
7:32	972.8	2.6	88	nw.	6.7	396	972.8	2.6	.....	88	6.26	nw.	6.7	388	.....	4/10 A. St., wnw.; 6/10 St., nw.
7:34	972.9	2.7	85	nw.	6.7	498	932.6	4.6	−1.96	64	5.43	nw.	11.0	488	0	
						750	936.9	3.5	.....	54	4.24	nw.	11.4	735	1,560	
						1,000	902.7	2.5	.....	43	3.14	nw.	11.9	980	4,310	
7:58	973.3	2.5	87	wnw.	7.6	1,059	896.9	2.2	0.43	41	2.94	nw.	12.0	1,038	5,090	10/10 St., nw.
						1,250	876.4	0.8	.....	59	3.82	nw.	13.2	1,225	5,910	
						1,500	849.9	−1.0	.....	83	4.66	nw.	14.8	1,470	7,100	
8:05	973.3	2.5	87	wnw.	7.6	1,521	846.9	−1.2	0.74	85	4.70	nw.	14.9	1,491	7,200	
						1,750	823.8	−1.5	.....	88	4.74	nw.	16.3	1,715	6,550	
						2,000	798.0	−1.8	.....	91	4.79	wnw.	17.9	1,960	8,960	Rain began 8:17 a. m.
8:30	973.3	3.2	86	nw.	7.2	2,114	786.1	−1.9	0.12	92	4.80	wnw.	18.6	2,072	10,170	
						2,250	773.1	−2.6	.....	92	4.53	wnw.	19.5	2,205	11,620	
						2,500	748.9	−3.8	.....	91	4.04	w.	21.1	2,450	10,820	
						2,750	725.7	−5.1	.....	90	3.58	w.	22.7	2,694	6,270	
						3,000	702.7	−6.3	.....	89	3.20	wsw.	24.4	2,939	2,910	
						3,250	680.3	−7.6	.....	88	2.82	wsw.	26.0	3,184	5,320	
9:03	973.3	3.8	85	nw.	8.0	3,269	678.3	−7.7	0.44	88	2.80	wsw.	26.1	3,202	5,590	10/10 St., nw.
						3,250	680.0	−7.6	.....	88	2.82	wsw.	26.1	3,184	5,500	
						3,000	701.9	−6.7	.....	88	3.05	wsw.	25.6	2,939	5,460	St. 1,100 meters.
						2,750	724.7	−5.7	.....	89	3.36	w.	25.2	2,694	5,420	
9:36	972.9	4.6	77	wnw.	6.3	2,650	733.3	−5.3	0.29	89	3.48	w.	25.0	2,597	5,400	
						2,500	748.0	−4.9	.....	89	3.60	w.	23.1	2,450	4,040	
						2,250	772.4	−4.1	.....	90	3.90	w.	19.9	2,205	1,790	
						2,000	797.1	−3.4	.....	91	4.19	wnw.	16.7	1,960	400	
						1,750	822.4	−2.6	.....	92	4.53	wnw.	13.5	1,715	20	
10:05	972.6	4.8	80	wnw.	8.0	1,734	823.6	−2.6	0.27	92	4.53	wnw.	13.3	1,700	0	7/10 A. St., w; 3/10 St. Cu., wnw.
						1,500	848.2	−2.0	.....	80	4.14	nnw.	12.3	1,470	0	
10:19	972.5	4.9	79	wnw.	5.8	1,282	871.5	−1.4	0.77	69	3.75	n.	11.4	1,257	0	
						1,250	875.1	−1.2	.....	69	3.82	n.	11.2	1,225	0	
						1,000	902.8	0.8	.....	72	4.66	nnw.	9.6	980	0	
						750	931.1	2.7	.....	74	5.49	nw.	8.0	735	0	
						500	960.7	4.6	.....	76	6.44	wnw.	6.5	490	0	
10:37	972.4	5.4	77	wnw.	5.8	396	972.4	5.4	.....	77	6.91	wnw.	5.8	388	.....	7/10 A. St., w.; 3/10 St. Cu., wnw.

May 2, 1917.

A. M.																
11:32	972.9	8.4	64	e.	7.6	396	972.9	8.4	.....	64	7.05	e.	7.6	388	.....	9/10 A. St., sw.; 1/10 Cu., e.
						500	960.4	7.4	.....	64	6.59	e.	8.7	490	0	
11:42	972.8	8.3	64	e.	7.6	711	936.2	5.3	0.98	63	5.61	e.	11.0	697	0	
						750	932.0	5.1	.....	62	5.45	e.	10.9	735	50	
						1,000	903.6	4.1	.....	53	4.34	e.	10.2	980	360	
11:58	972.6	8.8	64	ese.	7.2	1,130	889.1	3.6	0.41	49	3.88	e.	9.9	1,108	510	
						1,250	876.1	3.0	.....	51	3.87	e.	9.5	1,225	610	
						1,500	849.4	1.8	.....	55	3.83	e.	8.7	1,470	820	
P. M.																
12:50	972.1	8.8	64	ese.	6.7	1,723	825.8	0.7	0.49	59	3.79	e.	7.9	1,689	860	10/10 A. St., sw; few Cu., e.
						1,750	823.0	0.9	.....	63	4.11	e.	7.3	1,715	980	Light rain from 2:18 p. m.
2:20	971.4	8.8	51	ese.	11.2	1,931	804.2	2.0	−0.41	90	6.35	e.	3.5	1,893	.....	5/10 A. St., sw; 5/10 Cu., e.
						1,750	822.9	1.6	.....	89	6.11	e.	6.7	1,715	.....	
						1,500	848.0	1.1	.....	88	5.83	e.	11.2	1,470	0	
2:42	971.1	8.4	58	ese.	9.8	1,478	850.2	1.1	0.58	88	5.83	e.	11.6	1,449	0	10/10 St., e.
						1,250	874.4	2.4	.....	80	5.81	e.	11.3	1,225	0	
						1,000	901.9	3.9	.....	71	5.74	e.	11.0	980	0	
3:00	970.9	7.8	61	e.	8.9	806	923.5	5.0	0.73	64	5.58	e.	10.8	790	0	
						750	930.0	5.4	.....	64	5.74	e.	10.6	735	0	
						500	958.2	7.2	.....	63	6.40	e.	9.8	490	0	
3:06	970.8	8.0	63	e.	9.4	396	970.8	8.0	.....	63	6.76	e.	9.4	388	.....	10/10 St., e.

May 3, 1917.

P. M.																
1:46	966.9	1.8	93	e.	6.3	396	966.9	1.8	.....	93	6.47	e.	6.3	388	.....	10/10 St., e.; light rain and snow at time of launching; rain ended 2:44 p. m.; light snow continued during flight. St. 600 meters.
						500	954.4	1.3	.....	94	6.31	e.	9.9	490	3,660	
1:50	966.9	1.8	93	e.	8.9	730	927.6	0.1	0.51	95	5.84	e.	17.9	716	11,570	
						750	925.2	0.1	.....	95	5.84	e.	17.6	735	12,120	
						1,000	896.7	0.0	.....	94	5.74	ese.	13.9	980	18,950	
2:18	966.9	1.9	93	e.	11.2	1,253	869.0	0.0	0.02	94	5.74	se.	10.1	1,228	5,580	
						1,500	843.0	−1.0	.....	97	5.45	se.	7.0	1,470	6,790	
2:39	966.9	2.1	93	e.	9.8	1,613	830.6	−1.4	0.22	98	5.33	se.	5.6	1,581	3,200	
						1,500	842.3	−1.3	.....	97	5.32	se.	8.7	1,470	1,240	
3:07	966.9	1.9	91	e.	8.5	1,292	864.3	−1.2	0.11	96	5.31	ese.	14.4	1,267	0	
						1,250	868.4	−1.2	.....	96	5.31	ese.	14.7	1,225	250	
						1,000	896.1	−0.9	.....	96	5.48	e.	16.5	980	1,300	
3:26	966.9	2.0	92	e.	9.8	827	916.3	−0.7	0.63	96	5.53	e.	17.8	811	1,600	
						750	925.2	−0.2	.....	95	5.71	e.	16.3	735	1,310	St. at 600 meters.
						500	954.4	1.3	.....	93	6.24	e.	11.4	490	390	
3:29	966.9	2.0	92	e.	9.4	396	966.9	2.0	.....	92	6.50	e.	9.4	388	.....	10/10 St., e.

May 4, 1917.

A. M.																
8:15	970.9	3.4	81	ne.	8.0	396	970.9	3.4	.....	81	6.32	ne.	8.0	388	.....	10/10 St., ne.
						500	958.2	3.0	.....	84	6.37	ne.	10.1	490	0	
8:27	970.9	3.8	79	ne.	3.6	707	934.3	2.2	0.39	91	6.52	ne.	14.4	693	0	
						750	929.0	2.0	.....	92	6.50	ne.	14.6	735	0	St. 1,000 meters.
						1,000	901.0	0.9	.....	94	6.13	ne.	16.1	980	0	
8:35	970.9	4.0	79	ene.	4.0	1,210	877.7	0.0	0.44	97	5.93	ne.	17.3	1,186	0	
						1,250	873.3	−0.1	.....	96	5.82	ne.	17.5	1,225	170	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 4, 1917—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
						1,500	846.6	−0.5	.....	91	5.33	ne.	18.7	1,470	1,140	
8:58	970.9	4.1	78	ne.	4.0	1,660	829.8	−0.7	0.16	87	5.01	ne.	19.4	1,627	1,320	
						1,750	820.5	−1.1	.....	86	4.79	ne.	19.1	1,715	1,420	
						2,000	794.6	−2.1	.....	83	4.26	ne.	18.3	1,960	1,710	
						2,250	769.5	−3.1	.....	81	3.82	ne.	17.2	2,205	1,960	
						2,500	745.7	−4.2	.....	78	3.35	ne.	16.4	2,450	2,150	
						2,750	722.9	−5.2	.....	76	2.99	ne.	15.9	2,694	2,340	
9:21	970.9	4.5	76	ne.	4.5	2,921	707.5	−5.9	0.41	74	2.75	ne.	15.4	2,862	2,460	
						3,000	700.5	−6.0	.....	71	2.61	ne.	15.3	2,939	2,530	
						3,250	679.0	−6.3	.....	62	2.23	ne.	14.9	3,184	2,760	
						3,500	657.5	−6.6	.....	53	1.86	nne.	14.5	3,429	2,940	
10:23	971.1	5.3	76	ne.	4.5	3,633	646.0	−6.8	0.08	48	1.65	nne.	14.3	3,559	.....	
						3,500	657.3	−6.8	.....	51	1.76	nne.	15.0	3,429	2,880	
						3,250	678.2	−6.7	.....	57	1.98	nne.	16.2	3,184	2,660	
10:45	971.2	5.8	77	ne.	5.8	3,045	696.0	−6.6	0.26	62	2.17	nne.	17.2	2,983	2,430	
						3,000	700.0	−6.5	.....	63	2.22	nne.	17.2	2,939	2,370	
						2,750	722.1	−5.8	.....	71	2.66	nne.	17.4	2,694	2,070	
						2,500	745.2	−5.2	.....	78	3.07	nne.	17.5	2,450	1,770	
						2,250	769.5	−4.5	.....	85	3.56	nne.	17.6	2,205	1,430	
						2,000	794.6	−3.8	.....	92	4.08	nne.	17.8	1,960	1,070	
11:09	971.3	6.2	76	ne.	4.9	1,797	816.0	−3.3	0.49	98	4.55	nne.	17.9	1,761	780	
						1,750	820.5	−3.1	.....	98	4.62	nne.	17.4	1,715	700	
						1,500	846.6	−1.8	.....	97	5.10	nne.	15.0	1,470	260	
						1,250	873.3	−0.5	.....	96	5.63	ne.	12.5	1,225	0	
						1,000	901.0	0.7	.....	95	6.11	ne.	10.0	980	0	St. base at 1,050 meters.
11:39	971.3	6.3	75	ne.	4.9	823	921.6	1.5	1.19	94	6.40	ne.	8.5	807	0	
						750	930.0	2.4	.....	91	6.61	ne.	7.8	735	0	
						500	959.3	5.4	.....	79	7.09	ne.	5.5	490	0	
11:46	971.3	6.6	74	ne.	4.5	396	971.3	6.6	.....	74	7.22	ne.	4.5	388	.....	10/10 St., ne.

May 5, 1917.

A. M.																
7:30	975.0	5.6	82	nne.	3.1	396	975.0	5.6	.....	82	7.46	nne.	3.1	388	.....	1/10 Ci., wnw.
						500	962.8	5.6	.....	75	6.82	nne.	5.2	490	0	
						750	934.5	5.7	.....	59	5.40	nne.	10.5	735	0	22°-parhelia to the right and left of the sun, from 5:55 a. m. to 6:28 a. m.
7:46	975.0	6.1	79	nne.	4.0	762	932.4	5.7	−0.03	58	5.31	nne.	10.7	747	0	
						1,000	905.0	3.9	.....	57	4.61	nne.	10.4	980	0	
						1,250	877.4	2.1	.....	57	4.05	nne.	10.1	1,225	310	
						1,500	851.0	0.2	.....	56	3.47	ne.	9.8	1,470	810	Cloudless.
						1,750	825.2	−1.7	.....	55	2.92	ne.	9.4	1,715	1,100	
8:25	975.1	7.6	71	ne.	4.0	1,774	823.0	−1.9	0.75	55	2.87	ne.	9.4	1,739	1,130	
						2,000	800.1	−3.1	.....	53	2.50	ne.	9.6	1,960	1,200	Few Ci., wnw.
						2,250	775.8	−4.4	.....	50	2.11	ne.	9.8	2,205	1,480	
						2,500	751.6	−5.8	.....	48	1.80	ne	10.0	2,450	1,730	
9:11	975.3	9.0	61	ne.	4.9	2,659	736.1	−6.6	0.53	46	1.61	ne.	10.1	2,605	1,940	
						2,750	728.3	−7.0	.....	48	1.62	ne.	10.1	2,694	2,020	
						3,000	705.2	−8.2	.....	53	1.61	ne.	9.9	2,939	2,170	
						3,250	682.9	−9.4	.....	59	1.62	ene.	9.8	3,184	2,330	
						3,500	661.3	−10.6	.....	64	1.57	ene.	9.7	3,429	2,600	
10:04	975.3	10.9	44	ene.	5.4	3,633	649.8	−11.2	0.47	67	1.56	ene.	9.6	3,559	2,830	
						3,750	640.1	−11.4	.....	61	1.40	ene.	8.4	3,673	2,650	Few Ci., wnw; 1/10 Cu., ene.
10:57	975.7	11.7	43	ene.	5.4	3,925	625.1	−11.8	0.17	53	1.17	ene.	6.5	3,844	.....	
						3,750	639.0	−11.5	.....	51	1.16	ene.	7.7	3,673	2,080	
11:14	975.5	11.9	43	ne.	5.4	3,558	654.9	−11.3	0.28	49	1.13	ene.	8.9	3,485	2,000	Few Ci., wnw; 2/10 Cu., ene.
						3,500	659.5	−11.1	.....	47	1.10	ene.	9.1	3,429	1,980	
						3,250	680.9	−10.4	.....	42	1.05	ene.	9.7	3,184	1,880	Few Ci., wnw.; 3/10 Cu., ene.
						3,000	703.0	− 9.7	.....	36	0.96	ene.	10.4	2,939	1,530	
						2,750	726.0	− 9.0	.....	30	0.85	ene.	11.0	2,694	1,410	Cu. base at 2,500 m.
11:47	975.2	12.6	34	ne.	4.5	2,496	751.3	− 8.3	0.90	24	0.72	ene.	11.7	2,446	1,100	
						2,250	774.0	− 6.1	.....	36	1.31	ene.	12.6	2,205	650	
						2,000	799.0	− 3.8	.....	48	2.31	ene.	13.5	1,960	200	
						1.750	826.0	− 1.6	.....	60	3.21	ene.	14.5	1,715	0	
P. M.																
12:08	975.0	12.7	35	ene.	5.8	1,686	832.3	− 1.0	0.99	63	3.54	ene.	14.7	1,653	0	
						1.500	852.0	0.8	.....	58	3.75	ene.	13.6	1,470	0	
						1,250	878.8	3.3	.....	51	3.95	ne.	12.0	1,225	0	
						1,000	906.2	5.8	.....	43	3.96	ne.	10.5	980	0	
12:37	974.8	13.6	34	ne.	8.0	845	923.4	7.3	1.40	39	3.99	ne.	9.6	828	0	
						750	933.6	8.6	.....	37	4.13	ne.	8.5	735	0	
						500	962.8	12.2	.....	33	4.69	ne.	5.7	490	0	
12:45	974.8	13.6	31	ne.	4.5	396	974.8	13.6	.....	31	4.83	ne.	4.5	388	.....	3/10 Cu., ene.

May 6, 1917.

A. M.																
7:07	977.0	4.8	65	ne.	6.3	396	977.0	4.8	.....	65	5.59	ne.	6.3	388	.....	Cloudless.
						500	964.8	6.9	.....	48	4.78	nne.	9.4	490	0	
7:11	977.1	5.0	66	nne.	6.3	538	960.2	7.6	−1.97	42	4.38	nne.	10.5	527	0	
7:25	977.2	5.4	63	nne.	5.8	743	936.8	7.4	0.10	27	2.78	n.	9.2	729	420	
						750	936.2	7.4	.....	27	2.78	n.	9.2	735	460	
						1,000	908.2	6.1	.....	27	2.54	nne.	9.5	980	1,770	
						1,250	881.0	4.8	.....	28	2.41	nne.	9.7	1,225	2,430	
						1,500	854.2	3.5	.....	28	2.20	ne.	10.0	1,470	2,480	
7:58	977.4	7.2	55	nne.	7.2	1,540	850.1	3.3	0.51	28	2.17	ne.	10.0	1,509	2,490	
						1,750	828.0	0.9	.....	25	1.63	ne.	10.2	1,715	2,770	
						2,000	802.2	−1.0	.....	22	1.24	ne.	10.3	1,960	3,170	
						2,250	777.3	−2.1	.....	20	1.03	ne.	10.4	2,205	3,560	
						2,500	753.7	−4.0	.....	17	0.74	ne.	10.5	2,450	3,920	
						2,750	730.4	−6.0	.....	14	0.52	ne.	10.7	2,694	4,280	
8:40	977.4	8.7	51	nne.	8.0	2,964	710.5	−7.6	0.76	12	0.39	ne.	10.8	2,904	4,600	
						3,000	707.3	−7.9	.....	12	0.37	ne.	10.9	2,939	4,670	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 6, 1917—Continued.

Surface.						At different heights above sea.											
Time	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						3,250	684.9	−9.6		13	0.35	ne.	11.8	3,184	5,130	
						3,500	662.6	−11.4		13	0.30	ne.	12.7	3,429	5,600	
						3,750	641.6	−13.1		14	0.27	nne.	13.6	3,673	5,980	
						4,000	621.0	−14.9		15	0.25	nne.	14.4	3,918	6,300	
						4,250	601.0	−16.7		16	0.23	nne.	15.3	4,162	6,630	
9:35	977.4	10.9	47	n.	8.9	4,399	589.3	−17.7	0.70	16	0.20	nne.	15.8	4,308	6,820	
						4,500	531.1	−17.6		15	0.19	nne.	15.2	4,407		
9:47	977.4	11.2	44	nne.	8.9	4,689	566.3	−17.5	−0.05	13	0.17	nne.	14.2	4,592		
						4,500	530.5	−17.6		14	0.18	nne.	15.5	4,407		
10:00	977.4	11.6	43	nne.	9.8	4,378	589.3	−17.6	0.50	14	0.18	nne.	16.3	4,287		
						4,250	599.7	−17.0		14	0.19	nne.	15.6	4,162		
						4,000	619.1	−15.7		13	0.20	nne.	14.3	3,918		
						3,750	639.9	−14.5		13	0.22	nne.	12.9	3,673	4,430	
						3,500	661.4	−13.2		13	0.25	ne.	11.6	3,429	4,010	
						3,250	684.1	−12.0		12	0.26	ne.	10.2	3,184	3,590	
10:24	977.4	12.0	39	ne.	9.4	3,080	699.0	−11.1	0.81	12	0.28	ne.	9.3	3,018	3,300	
						3,000	706.4	−10.4		12	0.30	ne.	9.9	2,939	3,240	
						2,750	729.3	−8.4		13	0.39	ne.	11.8	2,694	3,030	
						2,500	752.8	−6.4		14	0.50	ne.	13.8	2,450	2,750	
						2,250	777.3	−4.4		15	0.63	ne.	15.7	2,205	2,290	
						2,000	802.2	−2.2		16	0.81	ne.	17.6	1,960	1,830	
10:55	977.4	12.6	36	ne.	8.9	1,874	815.5	−1.3	0.84	17	0.93	ne.	18.6	1,837	1,600	
						1,750	828.0	−0.3		18	1.07	ne.	17.3	1,715	1,370	
						1,500	854.2	1.8		20	1.39	ne.	14.8	1,470	910	
						1,250	881.0	3.9		22	1.78	nne.	12.3	1,225	530	
						1,000	908.2	6.0		24	2.24	nne.	9.7	980	170	
11:22	977.2	13.4	35	ne.	9.4	881	921.7	7.0	1.28	25	2.50	nne.	8.5	864	0	
						750	936.2	8.7		29	3.26	nne.	7.7	735	0	
						500	964.8	11.9		36	5.01	ne.	6.1	490	0	
11:29	977.1	13.2	39	ne.	5.4	396	977.1	13.2		39	5.92	ne.	5.4	388		Cloudless.

May 7, 1917.

P. M.																
8:24	976.6	9.6	59	w.	7.6	396	976.6	9.6		59	7.05	w.	7.6	388		Cloudless.
						500	964.9	11.7		45	6.19	wnw.	8.1	490	0	
8:31	976.7	9.8	57	w.	7.6	522	962.0	12.1	−1.98	42	5.93	wnw.	8.2	512	0	
						750	936.8	10.7		40	5.15	nw.	9.0	735	0	Few Ci. St., w.
						1,000	908.4	9.2		39	4.54	nnw.	9.8	980	0	
8:49	976.9	9.4	56	w.	6.3	1,119	895.4	8.5	0.60	38	4.22	nnw.	10.2	1,097	0	
						1,250	881.2	7.2		39	3.96	nnw.	10.6	1,225	250	
						1,500	854.6	4.8		42	3.61	nw.	11.3	1,470	710	
						1,750	829.2	2.3		44	3.17	nw.	12.0	1,715	1,020	
						2,000	804.2	−0.2		46	2.76	nw.	12.7	1,960		
						2,250	779.1	−2.6		48	2.36	nnw.	13.4	2,205		
9:36	977.0	8.2	63	w.	5.4	2,300	773.7	−3.1	0.92	49	2.31	nne.	13.5	2,254		
						2,250	779.1	−2.7		48	2.34	nne.	13.3	2,205		
						2,000	803.6	−0.5		46	2.70	nne.	12.3	1,960		
						1,750	828.2	1.7		43	2.97	nne.	11.3	1,715	230	Cloudless.
						1,500	853.7	3.9		41	3.31	nne.	10.3	1,470	0	
						1,250	880.5	6.0		38	3.55	nne.	9.3	1,225	0	
9:58	977.0	7.6	63	w.	4.9	1,163	890.6	6.8	0.86	37	3.66	nne.	9.0	1,140	0	
						1,000	907.8	8.2		35	3.80	n.	9.3	980	0	
						750	935.7	10.3		33	4.13	nnw.	9.9	735	0	
10:15	977.0	8.0	62	wnw.	3.6	638	948.9	11.3	−1.32	32	4.28	nw.	10.1	625	0	
						500	964.7	9.5		49	5.82	wnw.	6.4	490	0	
10:19	977.0	8.1	61	wnw.	3.6	396	977.0	8.1		61	6.59	wnw.	3.6	388		1/10 A. Cu., nne.

May 8, 1917, series (No. 1).

A. M.																
7:06	977.0	6.0	73	wnw.	4.0	396	977.0	6.0		73	6.83	wnw.	4.0	388		Cloudless.
7:09	977.0	6.0	73	wnw.	3.6	498	964.9	10.5	−4.41	46	5.84	nw.	12.3	488	0	
						750	936.0	9.7		38	4.57	nw.	10.9	735	320	
7:20	977.0	6.4	70	wnw.	3.6	784	932.2	9.6	0.31	37	4.42	nw.	10.7	769	370	
						1,000	908.2	8.2		37	4.02	nw.	11.4	980	720	
						1,250	881.0	6.7		38	3.73	nnw.	12.2	1,225	1,090	
7:43	977.0	7.3	62	wnw.	6.3	1,498	854.9	5.1	0.63	38	3.34	nnw.	12.9	1,468	1,300	
						1,750	828.8	2.7		43	3.19	nnw.	12.4	1,715	1,500	
						2,000	803.6	0.3		49	3.06	nnw.	11.9	1,960	1,700	
8:03	977.0	8.8	60	nw.	4.5	2,006	803.2	0.2	0.96	49	3.04	nnw.	11.9	1,966	1,700	
						2,250	779.0	−2.0		56	2.90	nnw.	9.5	2,205	1,700	
						2,500	755.3	−4.2		63	2.71	nnw.	7.1	2,450	2,260	
9:13	976.9	13.4	41	nnw.	3.6	2,549	751.0	−4.6	0.88	64	2.66	nnw.	6.6	2,498	1,200	Cloudless.
						2,750	732.0	−5.9		60	2.23	nnw.	7.8	2,694		
						3,000	708.8	−7.5		55	1.78	nnw.	9.3	2,939		
						3,250	686.6	−9.1		50	1.41	nw.	10.7	3,184		
						3,500	664.6	−10.7		45	1.10	nw.	12.2	3,429		
						3,750	642.8	−12.4		40	0.84	nw.	13.7	3,673		
9:48	976.8	14.7	38	nnw.	3.6	3,771	640.7	−12.5	0.54	40	0.83	nw.	13.8	3,694		
						3,750	642.8	−12.4		40	0.84	nw.	13.7	3,673		
						3,500	663.9	−11.3		46	1.06	nw.	12.1	3,429		
						3,250	685.5	−10.3		52	1.32	nw.	10.6	3,184		
						3,000	707.5	−9.2		58	1.62	nw.	9.1	2,939		
						2,750	730.5	−8.1		64	1.96	nw.	7.6	2,694		
10:13	976.5	16.3	36	nnw.	4.9	2,696	735.9	−7.9	1.03	65	2.03	nw.	7.3	2,642		
						2,500	754.1	−5.9		62	2.30	nw.	9.5	2,450	920	
						2,250	779.0	−3.3		57	2.64	nw.	12.2	2,205	800	Few Cu. nw.
10:35	976.3	16.4	32	nnw.	4.5	2,171	786.3	−2.5	1.00	56	2.78	nw.	13.1	2,128	760	
						2,000	803.6	−0.8		55	3.14	nw.	12.1	1,960	510	
						1,750	828.8	1.7		54	3.73	nw.	10.5	1,715	150	
10:45	976.2	16.8	29	nnw.	4.5	1,611	843.2	3.1	1.11	51	4.12	nw.	9.6	1,579	0	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 8, 1917, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						1,500	854.7	4.3		44	4.24	nw.	10.1	1,470	0	
						1,250	881.0	7.1		37	4.44	nw.	11.3	1,225	0	
11:10	975.9	17.2	25	nw.	4.5	1,008	907.3	9.8	1.65	37	4.48	nw.	12.5	988	0	
						1,000	908.2	9.9		37	4.51	nw.	12.4	980	0	
						750	935.8	13.3		32	4.89	nw.	8.9	735	0	
						500	963.4	16.8		28	5.36	nw.	5.4	490	0	
11:19	975.8	18.2	26	nw.	4.0	396	975.8	18.2		26	5.43	nw.	4.0	388		3/10 Cu., nw.

May 8, 1917, series (No. 2).

P. M.																
12:03	975.3	17.6	23	nw.	4.5	396	975.3	17.6		23	4.63	nw.	4.5	388		5/10 Cu., nw.
						500	963.1	16.5		22	4.13	nw.	5.9	490	0	
12:12	975.2	17.6	22	nnw.	5.8	709	939.9	14.2	1.09	19	3.08	nnw.	8.6	695	0	
						750	935.1	13.9		19	3.02	nnw.	8.6	735	0	
						1,000	908.0	11.9		22	3.06	nw.	8.8	980	0	
12:57	975.0	18.3	21	nw.	4.5	1,133	893.3	10.9	0.78	23	3.00	nw.	8.9	1,111	20	
						1,250	881.0	9.7		25	3.01	nw.	8.9	1,225	110	
						1,500	853.6	7.0		30	3.01	wnw.	9.0	1,470	300	4/10 Cu., n.
2:09	973.9	17.8	21	wnw.	7.6	1,668	836.1	5.2	1.07	33	2.92	wnw.	9.1	1,635	420	
						1,750	827.0	4.4		34	2.85	wnw.	9.1	1,715	30	
						2,000	801.5	2.0		39	2.75	wnw.	9.0	1,960	350	
						2,250	777.2	−0.3		43	2.56	wnw.	9.0	2,205	670	
						2,500	753.2	−2.7		47	2.29	wnw.	8.9	2,450	990	
3:10	973.2	18.0	21	wnw.	5.8	2,614	742.9	−3.8	0.95	49	2.18	wnw.	8.9	2,561		
						2,750	730.0	−4.9		51	2.07	wnw.	9.6	2,694		
						3,000	707.0	−7.0		55	1.86	wnw.	10.8	2,939		
						3,250	684.9	−9.0		58	1.65	wnw.	12.1	3,184		
						3,500	662.7	−11.1		62	1.46	wnw.	13.3	3,429		
3:18	973.2	18.1	20	wnw.	5.8	3,555	658.0	−11.5	0.66	63	1.43	wnw.	13.6	3,482		
						3,500	662.7	−11.2		65	1.51	wnw.	12.8	3,429		4/10 Cu., nw.
						3,250	684.9	−10.0		76	1.98	wnw.	9.1	3,184	1,210	Cu. base at 3,200 m.
3:40	973.1	19.2	21	w.	6.3	3,215	688.1	−9.8	0.90	78	2.06	wnw.	8.6	3,150	1,180	
						3,000	707.0	−7.9		70	2.18	wnw.	8.9	2,939	1,050	
						2,750	730.0	−5.6		62	2.02	wnw.	9.3	2,694	890	
						2,500	753.2	−3.4		53	2.44	wnw.	9.6	2,450	730	
4:03	973.0	18.9	20	wnw.	8.5	2,246	777.6	−1.1	1.05	44	2.45	wnw.	10.0	2,201	580	
						2,000	801.5	1.5		39	2.64	wnw.	10.2	1,960	380	
						1,750	826.7	4.1		35	2.87	wnw.	10.4	1,715	0	
4:19	972.8	18.8	21	wnw.	6.7	1,617	840.7	5.5	1.09	32	2.89	wnw.	10.5	1,585	0	
						1,500	852.2	6.8		31	3.06	wnw.	10.5	1,470	0	
						1,250	878.7	9.5		27	3.20	wnw.	10.6	1,225	0	
4:27	972.7	18.8	20	wnw.	4.9	1,204	883.8	10.0	1.03	26	3.19	wnw.	10.6	1,180	0	
						1,000	905.2	12.1		23	3.25	wnw.	10.1	980	0	
4:45	972.5	18.8	20	wnw.	6.3	845	922.5	13.7	1.11	21	3.29	wnw.	9.7	828	0	
						750	932.8	14.8		21	3.53	wnw.	9.0	735	0	
						500	960.7	17.5		19	3.80	wnw.	7.1	490	0	
4:55	972.4	18.7	19	wnw.	6.3	396	972.4	18.7		19	4.10	wnw.	6.3	388		3/10 Cu., nw.

May 8, 1917, series (No. 3).

P. M.																
5:28	972.0	17.8	23	wnw.	6.3	396	972.0	17.8		23	4.69	wnw.	6.3	388		2/10 Cu., nw.
						500	960.2	16.7		22	4.18	wnw.	7.4	490	0	
5:38	971.9	18.4	21	wnw.	5.8	660	942.2	15.1	1.02	20	3.43	wnw.	9.2	647	0	
						750	932.0	14.4		20	3.28	wnw.	9.4	735	0	
						1,000	904.3	12.6		21	3.06	wnw.	10.0	980	0	
5:58	971.6	17.8	21	wnw.	3.6	1,158	887.6	11.5	0.72	21	2.85	wnw.	10.4	1,135	0	
						1,250	876.2	10.4		22	2.77	wnw.	10.2	1,225	0	
						1,500	851.1	7.5		26	2.70	wnw.	9.8	1,470	0	
6:26	971.6	17.2	22	wnw.	3.6	1,652	836.0	5.7	1.17	28	2.56	wnw.	9.5	1,619	260	
						1,750	825.9	4.8		29	2.49	wnw.	9.6	1,715	270	1/10 A. Cu., nw.
6:55	971.6	15.7	29	wnw.	3.6	2,001	800.6	2.4	0.95	32	2.32	wnw.	9.9	1,961	310	
						2,250	776.0	−0.1		37	2.24	wnw.	10.4	2,205	880	
						2,500	751.7	−2.7		42	2.05	wnw.	10.9	2,450	1,020	
						2,750	728.3	−5.2		47	1.85	wnw.	11.4	2,694	1,150	
7:29	971.6	14.8	31	wnw.	2.7	2,836	720.6	−6.1	1.02	49	1.79	wnw.	11.6	2,779	1,200	
						3,000	705.7	−7.5		52	1.68	wnw.	12.1	2,939	1,420	
						3,250	683.4	−9.6		56	1.51	wnw.	12.9	3,184		
						3,500	661.4	−11.7		61	1.36	wnw.	13.8	3,429		
8:27	971.8	13.9	35	w.	3.1	3,637	649.6	−12.9	0.77	63	1.26	wnw.	14.2	3,563		
						3,500	661.4	−12.0		63	1.37	wnw.	13.5	3,429		
						3,250	683.4	−10.2		63	1.61	wnw.	12.2	3,184		
						3,000	705.7	−8.5		62	1.84	wnw.	11.0	2,939	1,420	
8:42	971.9	13.3	37	w.	3.1	2,811	722.8	−7.2	1.01	62	2.06	wnw.	10.0	2,754	1,170	Cloudle
						2,750	728.3	−6.6		61	2.14	wnw.	10.0	2,694	990	
						2,500	751.7	−4.1		55	2.38	wnw.	9.9	2,450	760	
						2,250	776.0	−1.5		50	2.70	wnw.	9.8	2,205	640	
9:03	972.0	12.5	38	wnw.	3.1	2,101	790.4	0.0	1.02	47	2.87	wnw.	9.8	2,059	560	
						2,000	800.8	1.0		45	2.96	wnw.	10.1	1,960	410	
						1,750	825.9	3.6		40	3.16	wnw.	10.7	1,715	30	
						1,500	851.1	6.1		34	3.20	wnw.	11.4	1,470	0	
9:29	972.0	12.8	37	w.	3.1	1,337	868.6	7.8	0.98	31	3.28	wnw.	11.8	1,311	0	
						1,250	877.9	8.7		30	3.38	wnw.	11.9	1,225	0	
						1,000	903.2	11.1		28	3.70	w.	12.3	980	0	
9:41	972.0	12.6	37	w.	3.1	920	913.2	11.9	0.77	27	3.76	w.	12.4	902	0	
						750	932.0	13.2		26	3.94	w.	12.1	735	0	
9:45	972.0	12.5	37	w.	3.1	623	946.1	14.2	− 0.79	26	4.21	w.	11.8	611	0	
						500	960.2	13.2		32	4.85	w.	7.1	490	0	
9:48	972.0	12.4	37	w.	3.1	396	972.0	12.4		37	5.33	w.	3.1	388		Cloudless.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 8-9, 1917, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
10:30	971.8	11.4	41	w.	4.5	396	971.8	11.4	.....	41	5.53	w.	4.5	388	.....	Cloudless.
10:32	971.8	11.7	40	w.	4.0	495	960.5	13.2	−1.82	35	5.31	w.	16.2	485	0	
10:38	971.7	10.8	44	w.	3.6	655	942.1	12.2	0.62	31	4.41	w.	14.4	642	0	
						750	931.2	11.6	.....	31	4.23	w.	13.9	735	0	
						1,000	902.8	9.9	.....	32	3.90	w.	12.6	980	0	
						1,250	876.1	8.2	.....	32	3.48	w.	11.2	1,225	290	
10:58	971.6	9.9	48	w.	4.5	1,497	851.0	6.6	0.67	33	3.22	w.	9.9	1,467	810	
						1,750	823.2	4.0	.....	36	2.93	w.	9.2	1,715	1,110	
						2,000	799.2	1.4	.....	39	2.64	wnw.	8.4	1,960	1,420	
11:25	971.5	9.7	47	w.	4.5	2,072	792.6	0.7	1.03	40	2.57	wnw.	8.2	2,031	1,500	
						2,250	775.1	−1.2	.....	43	2.38	wnw.	8.7	2,205	1,990	
						2,500	751.5	−3.9	.....	46	2.03	wnw.	9.5	2,450	2,270	
A. M.																
12:01	971.3	9.5	48	w.	3.6	2,543	747.4	−4.4	1.08	47	1.98	wnw.	9.6	2,492	2,310	
						2,750	728.0	−6.3	.....	49	1.76	wnw.	9.2	2,694	.....	
						3,000	704.4	−8.5	.....	51	1.51	wnw.	8.6	2,939	.....	
						3,250	681.1	−10.7	.....	54	1.32	wnw.	8.1	3,184	.....	
12:23	971.1	9.6	47	w.	4.5	3,258	680.6	−10.8	0.80	54	1.31	wnw.	8.1	3,192	.....	
						3,250	681.1	−10.7	.....	54	1.32	wnw.	8.1	3,184	.....	
						3,000	703.5	−9.0	.....	55	1.56	wnw.	7.7	2,939	.....	
						2,750	726.2	−7.2	.....	55	1.83	wnw.	7.4	2,694	.....	
12:48	971.0	8.9	52	wnw.	4.0	2,572	743.0	−6.0	0.94	56	2.06	wnw.	7.1	2,520	1,650	
						2,500	749.6	−5.3	.....	55	2.15	wnw.	7.6	2,450	1,600	
						2,250	773.5	−3.0	.....	50	2.38	wnw.	9.5	2,205	1,440	
1:00	970.9	8.6	53	w.	4.0	2,084	790.3	−1.4	1.09	47	2.56	wnw.	10.8	2,042	1,340	
						2,000	798.0	−0.5	.....	46	2.70	wnw.	11.3	1,960	1,280	
						1,750	824.1	2.3	.....	42	3.03	wnw.	12.0	1,715	1,150	
						1,500	849.7	5.0	.....	38	3.31	wnw.	14.8	1,470	950	
1:23	970.8	8.9	52	w.	4.0	1,344	866.1	6.7	0.91	36	3.53	wnw.	15.6	1,318	810	
						1,250	876.1	7.6	.....	35	3.65	wnw.	15.8	1,225	640	
						1,000	902.8	9.8	.....	30	3.64	w.	16.4	980	190	
1:36	970.7	8.5	52	wnw.	4.0	894	914.3	10.8	0.61	30	3.88	w.	16.6	877	0	
						750	930.0	11.7	.....	30	4.12	wnw.	19.4	735	0	
1:40	970.7	8.2	53	wnw.	4.0	633	943.4	12.4	−1.81	30	4.32	wnw.	21.6	621	0	
						500	958.0	10.0	.....	43	5.28	wnw.	11.7	490	0	
1:42	970.7	8.1	53	wnw.	4.0	396	970.7	8.1	.....	53	5.72	wnw.	4.0	388	.....	Cloudless.

May 9, 1917, series (No. 5).

A. M.																
2:29	970.5	8.1	54	w.	4.0	396	970.5	8.1	.....	54	5.83	w.	4.0	388	.....	Cloudless.
2:31	970.4	8.2	54	w.	4.0	482	960.4	12.6	−5.23	39	5.69	w.	19.4	473	0	
						500	958.1	12.5	.....	38	5.51	w.	19.1	490	0	
2:38	970.4	8.1	52	w.	4.5	641	942.2	11.7	0.57	32	4.40	w.	16.9	628	0	
						750	930.1	11.0	.....	32	4.20	w.	15.9	735	190	
						1,000	902.2	9.3	.....	32	3.75	w.	13.6	980	630	
2:52	970.3	7.9	54	w	4.0	1,056	896.3	8.9	0.67	32	3.65	w.	13.1	1,035	730	
						1,250	875.2	7.1	.....	33	3.33	w.	12.1	1,225	970	
						1,500	849.1	4.9	.....	35	3.03	w.	10.9	1,470	1,300	3/10 Ci., wnw.
						1,750	823.5	2.6	.....	37	2.73	wnw.	9.7	1,715	1,920	Faint lunar halo, 22° radius
3:57	969.9	7.9	52	wsw.	4.5	1,979	800.0	0.5	0.91	39	2.47	wnw.	8.5	1,940	.....	from 3:52 a. m to 4:15 a. m.
						2,000	798.0	0.3	.....	39	2.43	wnw.	8.5	1,960	.....	
						2,250	773.1	−2.2	.....	42	2.14	wnw.	8.3	2,205	.....	
						2,500	749.0	−4.7	.....	44	1.81	wnw.	8.0	2,450	.....	
						2,750	725.6	−7.2	.....	47	1.56	nw.	7.8	2,694	.....	5/10 Ci., wnw.
						3,000	702.3	−9.6	.....	49	1.32	nw.	7.6	2,939	.....	
4:41	969.9	7.5	54	sw.	4.5	3,113	692.2	−10.7	0.91	50	1.22	nw.	7.5	3,050	.....	
						3,000	702.3	−9.8	.....	49	1.29	nw.	7.5	2,939	.....	
						2,750	725.6	−7.7	.....	48	1.53	nw.	7.5	2,694	.....	
						2,500	748.3	−5.6	.....	47	1.79	wnw.	7.5	2,450	.....	
						2,250	772.1	−3.5	.....	45	2.50	wnw.	7.5	2,205	.....	
5:05	969.9	7.2	56	wsw.	4.9	1,995	797.8	−1.4	1.04	44	2.39	wnw.	7.5	1,955	.....	8/10 Ci., wnw.
						1,750	822.0	1.2	.....	42	2.80	w.	9.9	1,715	1,340	
						1,500	847.7	3.8	.....	40	3.21	w.	12.3	1,470	880	
5:38	970.2	7.6	56	wsw.	4.5	1,286	871.3	6.0	0.88	38	3.55	wsw.	14.3	1,261	520	
						1,250	874.4	6.3	.....	38	3.63	wsw.	14.8	2,225	470	
						1,000	901.5	8.5	.....	36	4.00	wsw.	18.2	980	190	
5:52	970.2	8.6	52	wsw.	5.8	830	920.8	10.0	0.71	35	4.30	wsw.	20.5	814	0	
						750	929.7	10.6	.....	35	4.47	wsw.	20.2	735	0	
5:55	970.3	8.7	51	wsw.	5.8	662	939.6	11.2	−0.86	34	4.52	wsw.	19.8	649	0	
						500	958.1	9.8	.....	44	5.33	wsw.	11.0	490	0	
5:58	970.3	8.9	50	wsw.	5.4	396	970.3	8.9	.....	50	5.70	wsw.	5.4	388	0	6/10 Ci., wnw.

May 9, 1917, series (No. 6).

A. M.																
6:42	970.3	9.5	53	w.	4.5	396	970.3	9.5	.....	53	6.29	w.	4.5	388	.....	7/10 Ci., wnw.
						500	958.0	12.4	.....	41	5.90	w.	16.5	490	0	Solar halo, very faint, 22° ra-
6:44	970.3	9.7	51	w.	4.5	522	955.7	13.0	−2.78	38	5.69	w.	19.0	512	0	dius, began 6:22 a. m. and
6:52	970.3	10.0	50	wsw.	4.0	652	941.1	12.2	0.62	34	4.83	wsw.	17.1	639	0	continued during flight.
						750	930.0	11.6	.....	34	4.64	wsw.	16.9	735	190	Parhelion, 22° to left of sun
						1,000	902.1	10.3	.....	36	4.51	wsw.	16.4	980	670	6:22–6:25.
7:03	970.3	10.8	48	wsw.	4.0	1,088	893.1	9.8	0.55	36	4.36	wsw.	16.2	1,067	830	3/10 Ci., wnw.
						1,250	875.9	8.7	.....	36	4.05	wsw.	14.0	1,225	980	
						1,500	849.0	7.0	.....	36	3.61	w.	10.7	1,470	1,280	4/10 Ci., wnw.
						1,750	823.8	5.2	.....	36	3.19	w.	7.5	1,715	1,810	
8:59	969.9	14.6	41	sw.	3.6	1,804	818.8	4.9	0.68	36	3.12	w.	6.8	1,768	1,200	
						2,000	798.8	2.9	.....	37	2.79	w.	6.3	1,960	1,230	
						2,250	774.7	0.5	.....	38	2.41	w.	5.7	2,205	1,270	
						2,500	750.8	−2.1	.....	40	2.05	w.	5.0	2,450	.....	
9:06	969.9	15.1	42	wsw.	3.6	2,542	747.1	−2.5	0.89	40	1.98	w.	4.9	2,491	.....	4/10 Ci., wnw.
						2,500	750.8	−2.3	.....	40	2.02	w.	5.4	2,450	.....	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 9, 1917, series (No. 6)—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						2,250	774.7	−0.2		40	2.40	w.	8.7	2,205	1,270	
						2,000	798.8	1.7		40	2.76	w.	12.0	1,960	940	3/10 Ci., wnw.
9:58	969.9	18.6	24	w.	8.9	1,769	822.3	3.5	0.90	40	3.14	w.	15.0	1,734	590	
						1,750	823.8	3.7		40	3.18	w.	15.0	1,715	570	
						1,500	849.0	5.9		40	3.72	w.	14.8	1,470	330	
						1,250	875.9	8.1		39	4.21	wsw.	14.7	1,225	100	
10:09	969.8	17.4	31	wnw.	9.8	1,144	887.1	9.1	0.81	39	4.51	wsw.	14.6	1,122	0	
						1,000	902.1	10.3		41	5.14	wsw.	12.7	980	0	4/10 Ci., wnw.
10:20	969.8	17.2	36	w.	8.0	848	919.2	11.5	1.26	44	5.97	wsw.	10.8	831	0	
						750	930.0	12.8		43	6.36	wsw.	9.9	735	0	
						500	958.0	15.9		40	7.23	w.	7.6	490	0	
10:26	969.7	17.2	39	w.	6.7	396	969.7	17.2		39	7.65	w.	6.7	388		

May 9, 1917, series (No. 7).

A. M.																
11:11	969.5	18.0	35	wnw.	8.5	396	969.5	18.0		35	7.22	wnw.	8.5	388		6/10 Ci., wnw.; few Cu., wsw.
						500	957.3	16.9		36	6.93	wnw.	9.1	490	0	Solar halo, 22°, continued.
						750	930.0	14.3		38	6.19	w.	10.4	735	0	
11:20	969.5	18.6	31	wnw.	5.8	803	924.1	13.8	1.03	38	6.00	w.	10.7	787	0	6/10 Ci.St., wnw.; few Cu., wsw.
						1,000	902.3	12.6		39	5.69	w.	10.2	980	0	
11:48	969.3	18.2	32	wnw.	6.3	1,222	878.9	11.3	0.60	40	5.36	w.	9.7	1,198	330	6/10 Ci., wnw.; 2/10 Cu., wsw.
						1,250	874.5	11.0		40	5.25	w.	9.6	1,225	320	
						1,500	849.3	8.5		43	4.77	w.	8.7	1,470	220	
						1,750	823.8	5.9		45	4.18	w.	7.9	1,715	130	
						2,000	798.8	3.4		48	3.74	w.	7.9	1,960	40	5/10 Ci.St., wnw.; 5/10 Cu., wsw.
P. M.																
12:45	968.8	18.7	27	w.	7.6	2,091	790.1	2.5	1.01	49	3.58	w.	6.7	2,049	10	
						2,250	774.4	0.9		50	3.26	w.	6.6	2,205	740	
						2,500	750.4	−1.7		51	2.70	w.	6.5	2,450		
1:41	968.3	18.9	28	wsw.	7.2	2,583	742.7	−2.5	0.96	52	2.58	w.	6.4	2,531		
						2,500	750.4	−1.7		52	2.76	w.	6.8	2,450	610	5/10 Ci.St., wnw.; 3/10 Cu., wsw.
						2,250	774.4	0.5		54	3.42	wsw.	7.9	2,205	630	
2:01	968.2	19.2	27	nw.	8.5	2,053	793.4	2.3	0.97	55	3.97	wsw.	8.8	2,012	580	
						2,000	798.8	2.8		54	4.03	wsw.	8.9	1,960	570	6/10 Ci.St., wnw.; 3/10 Cu., wsw.
						1,750	823.7	5.3		49	4.37	wsw.	9.4	1,715	490	
						1,500	848.5	7.7		44	4.62	wsw.	10.0	1,470	400	
2:18	968.0	19.6	26	w.	7.2	1,247	875.4	10.1	1.07	39	4.82	wsw.	10.5	1,222	260	
2:34	967.9	19.2	25	w.	6.7	1,000	901.0	12.7		34	4.99	wsw.	9.8	980	120	
						778	925.4	15.1	1.13	29	4.98	wsw.	9.1	763	0	
						750	928.2	15.4		29	5.08	wsw.	8.9	735	0	
						500	955.9	18.2		26	5.43	w.	7.3	490	0	
2:38	967.8	19.4	25	w.	6.7	396	967.8	19.4		25	5.63	w.	6.7	388		3/10 Ci.St., wnw.; 3/10 Cu., wsw.

May 9, 1917, series (No. 8).

P. M.																
3:24	967.4	19.6	26	w.	4.9	396	967.4	19.6		26	5.93	w.	4.9	388		3/10 Ci.St., wnw.; 3/10 Cu., w.
						500	955.3	18.7		26	5.61	w.	5.8	490		Solar halo ended.
						750	927.8	16.7		27	5.13	wsw.	7.9	735		
3:40	967.3	19.8	26	wsw.	5.8	892	912.7	15.5	0.83	28	4.93	wsw.	9.1	875		
						1,000	900.4	14.2		30	4.86	wsw.	8.8	980		
						1,250	874.1	11.3		35	4.69	w.	8.1	1,225		Rain 4:25–4:26.
						1,500	848.2	8.3		40	4.83	w.	7.4	1,470		
4:35	967.2	17.4	32	nw.	4.5	1,578	840.1	7.4	1.18	42	4.33	w.	7.2	1,547		1/10 A.Cu., wnw.; 8/10St.Cu., w.
						1,750	823.0	5.7		44	4.03	w.	7.2	1,715		
						2,000	798.0	3.3		47	3.64	w.	7.3	1,960		
						2,250	774.0	0.8		50	3.24	wnw.	7.3	2,205		
						2,500	749.5	−1.6		53	2.84	wnw.	7.4	2,450		
6:08	967.2	17.2	33	w.	6.7	2,527	747.0	−1.9	0.86	53	2.77	wnw.	7.4	2,476		1/10 Ci.St., wnw.; 4/10 A.Cu. wnw.
						2,500	749.5	−1.7		53	2.81	wnw.	7.6	2,450		
						2,250	773.1	0.1		53	3.26	wnw.	9.0	2,205		
						2,000	796.9	1.9		52	3.65	w.	10.4	1,960		
6:30	967.2	16.8	34	wsw.	6.3	1,846	812.5	3.1	0.98	52	3.97	w.	11.3	1,809		
						1,750	821.8	4.0		50	4.06	w.	11.1	1,715		
						1,500	846.7	6.5		46	4.45	wsw.	10.4	1,470		
6:50	967.2	16.2	35	w.	4.9	1,247	874.0	9.0	0.97	41	4.71	wsw.	9.8	1,222		
						1,000	899.8	11.4		44	5.93	wsw.	10.6	980		
7:00	967.2	15.9	38	wsw.	5.4	874	913.9	12.6	0.61	36	5.25	wsw.	11.0	857		
						750	927.5	13.4		36	5.23	wsw.	9.3	735		
						500	955.3	14.9		37	6.27	wsw.	5.9	490		
7:05	967.3	15.5	37	wsw.	4.5	396	967.3	15.5		37	6.52	wsw.	4.5	388		4/10 A.Cu., wnw.

May 10, 1917.

P. M.																
3:40	967.8	17.8	42	nnw.	3.6	396	967.8	17.8		42	8.56	nnw.	3.6	388		2/10 A. Cu., nw., 6/10 Cu., wnw.
4:04	967.9	17.4	47	n.	5.4	500	955.8	16.9		45	8.66	nnw.	5.0	490	0	
						743	929.3	14.9	0.84	51	8.64	n.	8.4	729	0	
						750	928.8	14.8		51	8.58	n.	8.4	735	0	9/10 St. Cu., wnw.
						1,000	901.3	11.9		60	8.36	n.	8.6	980	0	
						1,250	874.2	9.0		69	7.92	nnw.	8.9	1,225	1,800	
4:34	967.9	15.8	49	nne.	6.3	1,383	800.3	7.4	0.98	74	7.62	nnw.	9.0	1,356		
						1,250	874.2	8.5		71	7.88	n.	9.1	1,225		
						1,000	900.5	10.4		65	8.20	n.	9.2	980		
4:43	967.9	15.8	49	nne.	5.4	853	916.8	11.6	0.90	62	8.47	nne.	9.3	836		
						750	927.9	12.5		59	8.55	nne.	8.3	735		
						500	955.8	14.8		53	8.92	ne.	5.9	490		
4:47	967.9	15.7	50	ne.	4.9	396	967.9	15.7		50	8.92	ne.	4.9	388		

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 11, 1917.

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.	Potential. Gravity.	Potential. Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
10:13	972.5	16.4	30	nne.	3.6	396	972.5	16.4	.....	30	5.60	nne.	3.6	388	.....	Few Cu., nne.
.....	.....	.....	.....	.....	.....	500	960.5	15.7	.....	30	5.35	nne.	3.9	490	0	
.....	.....	.....	.....	.....	.....	750	932.8	14.0	.....	31	4.95	nne.	4.6	735	0	
10:42	972.4	17.0	25	nne.	6.3	991	906.3	12.4	0.76	32	4.61	nne.	5.3	972	.....	
.....	.....	.....	.....	.....	.....	750	932.8	14.4	.....	29	4.76	nne.	4.6	735	.....	
.....	.....	.....	.....	.....	.....	500	960.5	16.5	.....	25	4.69	nne.	3.9	490	.....	
11:50	971.7	17.4	24	nne.	3.6	396	971.7	17.4	.....	24	4.77	nne.	3.6	388	.....	4/10 Cu., nnw.

May 12, 1917 (No. 1).

A. M.																
11:47	974.8	18.0	40	e.	5.4	396	974.8	18.0	.....	40	8.26	e.	5.4	388	0	Cloudless.
.....	.....	.....	.....	.....	.....	500	962.7	16.6	.....	41	7.74	e.	6.1	490	0	
11:55	974.7	18.2	39	e.	5.4	643	946.9	14.6	1.38	42	6.98	ene.	7.1	630	0	
.....	.....	.....	.....	.....	.....	750	934.7	13.9	.....	43	6.83	ene.	6.9	735	0	
.....	.....	.....	.....	.....	.....	1,000	907.3	12.4	.....	45	6.48	ene.	6.3	980	0	
P. M.																
12:46	974.2	19.2	34	nne.	3.6	1,098	896.6	11.8	0.72	46	6.37	ene.	6.1	1,076	0	1/10 Cu., n.
.....	.....	.....	.....	.....	.....	1,000	907.3	12.6	.....	45	6.57	ene.	6.0	980	0	
.....	.....	.....	.....	.....	.....	750	934.7	14.7	.....	43	7.19	ene.	5.7	735	0	
12:50	974.1	19.2	34	nne.	3.1	661	944.3	15.4	1.55	42	7.35	ene.	5.6	648	0	
.....	.....	.....	.....	.....	.....	500	962.1	17.9	.....	37	7.59	ne.	4.1	490	0	
1:09	973.9	19.5	33	nne.	3.1	396	973.9	19.5	.....	33	7.48	nne.	3.1	388	0	1/10 Cu., n.

May 12, 1917 (No. 2).

P. M.																
6:58	973.3	17.1	35	nne.	3.6	396	973.3	17.1	.....	35	6.82	nne.	3.6	388	0	Cloudless.
.....	.....	.....	.....	.....	.....	500	961.0	16.4	.....	35	6.53	nne.	4.5	490	0	
.....	.....	.....	.....	.....	.....	750	934.0	14.8	.....	36	6.06	ne.	6.7	735	0	
7:20	973.4	16.2	32	ne.	3.1	912	915.7	13.7	0.66	36	5.64	ne.	8.1	894	0	
.....	.....	.....	.....	.....	.....	1,000	906.1	12.7	.....	37	5.44	ne.	7.6	980	0	
.....	.....	.....	.....	.....	.....	1,250	879.7	9.9	.....	40	4.88	ne.	6.3	1,225	780	
8:46	974.1	11.7	51	ne.	3.6	1,307	873.4	9.3	1.09	41	4.81	ne.	6.0	1,281	890	
.....	.....	.....	.....	.....	.....	1,500	853.1	7.7	.....	43	4.52	ne.	7.4	1,470	1,030	
.....	.....	.....	.....	.....	.....	1,750	827.6	5.7	.....	47	4.31	n.	9.3	1,715	1,210	
.....	.....	.....	.....	.....	.....	2,000	802.5	3.7	.....	50	3.98	n.	11.1	1,960	1,390	
.....	.....	.....	.....	.....	.....	2,250	778.5	1.6	.....	53	3.64	nw.	13.0	2,205	1,570	
.....	.....	.....	.....	.....	.....	2,500	754.2	−0.4	.....	56	3.31	nw.	14.9	2,450	1,760	
9:00	974.3	13.0	43	ne.	3.6	2,560	748.8	−0.9	0.70	57	3.23	nw.	15.3	2,508	1,800	
.....	.....	.....	.....	.....	.....	2,500	754.2	−0.5	.....	56	3.28	nw.	14.9	2,450	1,710	
.....	.....	.....	.....	.....	.....	2,250	778.5	0.9	.....	54	3.52	n.	13.2	2,205	1,330	
.....	.....	.....	.....	.....	.....	2,000	802.5	2.4	.....	52	3.78	n.	11.6	1,960	960	
.....	.....	.....	.....	.....	.....	1,750	827.6	3.9	.....	50	4.04	ne.	9.9	1,715	620	
.....	.....	.....	.....	.....	.....	1,500	853.1	5.3	.....	47	4.19	ne.	8.2	1,470	280	
9:29	974.5	10.9	63	ene.	3.6	1,452	858.2	5.6	0.82	47	4.28	ne.	7.9	1,423	230	
.....	.....	.....	.....	.....	.....	1,250	879.7	7.3	.....	45	4.60	ne.	9.0	1,225	60	
.....	.....	.....	.....	.....	.....	1,000	906.1	9.0	.....	41	4.71	ne.	10.4	980	0	
9:45	974.6	10.1	55	ene.	3.1	882	919.4	10.3	0.71	40	5.01	ne.	11.0	865	0	
.....	.....	.....	.....	.....	.....	750	933.7	11.2	.....	38	5.05	ne.	11.5	735	0	
9:50	974.6	10.4	52	ene.	3.1	632	947.4	12.1	−0.64	37	5.22	ne.	12.0	620	0	
.....	.....	.....	.....	.....	.....	500	962.1	11.3	.....	45	6.03	ene.	9.0	490	0	
9:53	974.7	10.6	51	ene.	3.1	396	974.7	10.6	.....	51	6.52	ene.	3.1	388	0	Cloudless.

May 13, 1917.

P. M.																
7:49	977.7	15.5	36	nnw.	1.8	396	977.7	15.5	.....	36	6.34	nnw.	1.8	388	0	Cloudless.
8:17	977.8	15.0	36	nnw.	2.2	455	971.0	18.0	−4.24	29	5.99	nnw.	5.8	446	0	
.....	.....	.....	.....	.....	.....	500	966.0	17.7	.....	29	5.87	nnw.	5.9	490	0	
.....	.....	.....	.....	.....	.....	750	937.8	16.1	.....	31	5.67	nnw.	6.6	735	0	
.....	.....	.....	.....	.....	.....	1,000	910.4	13.6	.....	32	4.99	nnw.	7.2	980	0	
9:40	978.3	13.0	44	nw.	3.1	1,233	886.0	12.1	0.68	33	4.66	nnw.	7.8	1,209	0	
.....	.....	.....	.....	.....	.....	1,000	910.4	13.7	.....	33	5.17	nnw.	7.0	980	0	
.....	.....	.....	.....	.....	.....	750	937.8	15.5	.....	32	5.64	nw.	6.1	735	0	
10:04	978.4	13.3	45	nw.	3.1	554	960.4	16.8	−2.22	32	6.12	nw.	5.4	543	0	
.....	.....	.....	.....	.....	.....	500	966.0	15.6	.....	36	6.38	nw.	4.6	490	0	
10:05	978.4	13.3	45	nw.	3.1	396	978.4	13.3	.....	45	6.87	nw.	3.1	388	0	Cloudless.

May 15, 1917.

A. M.																
7:21	976.4	14.2	45	s.	3.1	396	976.4	14.2	.....	45	7.29	s.	3.1	388	0	Cloudless. Light haze continued during flight.
.....	.....	.....	.....	.....	.....	500	964.1	15.0	.....	39	6.65	s.	4.9	490	0	
7:35	976.4	14.7	41	sw.	4.5	676	944.6	16.3	−0.75	30	5.56	ssw.	7.9	663	160	
.....	.....	.....	.....	.....	.....	750	936.0	15.8	.....	30	5.38	ssw.	7.7	735	410	
.....	.....	.....	.....	.....	.....	1,000	909.0	14.2	.....	31	5.02	s.	7.2	980	1,090	
8:20	976.3	15.8	44	ssw.	6.7	1,213	886.6	12.9	0.63	32	4.76	s.	6.8	1,189	2,230	
.....	.....	.....	.....	.....	.....	1,250	882.5	12.6	.....	32	4.67	s.	6.7	1,225	2,300	
.....	.....	.....	.....	.....	.....	1,500	856.6	10.3	.....	33	4.13	ssw.	6.0	1,470	2,300	
10:49	975.4	22.0	25	ssw.	8.0	1,739	832.9	8.1	0.91	34	3.67	ssw.	5.3	1,704	1,920	
.....	.....	.....	.....	.....	.....	1,750	831.6	8.0	.....	34	3.65	ssw.	5.3	1,715	1,940	
.....	.....	.....	.....	.....	.....	2,000	806.7	6.5	.....	33	3.19	ssw.	6.0	1,960	.....	
.....	.....	.....	.....	.....	.....	2,250	782.3	4.9	.....	32	2.77	ssw.	6.6	2,205	.....	
11:06	975.2	22.4	25	ssw.	6.7	2,403	767.8	4.0	0.66	32	2.60	ssw.	7.0	2,355	.....	
.....	.....	.....	.....	.....	.....	2,250	782.3	5.1	.....	32	2.81	ssw.	7.2	2,205	.....	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 15, 1917—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.	Potential. Gravity.	Potential. Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
						2,000	805.9	6.8	.....	33	3.26	ssw.	7.4	1,960	.....	
11:29	974.8	22.5	24	ssw.	6.3	1,793	826.1	8.3	0.90	33	3.61	ssw.	7.6	1,751	1,720	
						1,750	830.2	8.7	.....	33	3.71	ssw.	7.6	1,715	1,590	
						1,500	855.0	10.9	.....	33	4.30	ssw.	7.9	1,470	810	
11:57	974.4	23.8	21	s.	7.2	1,460	859.7	11.3	0.98	33	4.42	ssw.	7.9	1,431	680	
						1,250	880.4	13.4	.....	31	4.76	ssw.	7.8	1,225	200	
						1,000	907.2	15.8	.....	28	5.03	ssw.	7.6	980	0	
P. M.																
12:20	974.0	23.8	21	sw.	5.4	950	913.2	16.3	1.34	28	5.19	ssw.	7.6	931	0	
						750	934.5	19.0	.....	25	5.49	ssw.	7.0	735	0	
						500	962.0	22.3	.....	22	5.92	sw.	6.1	490	0	
12:38	973.7	23.7	21	sw.	5.8	396	973.7	23.7	.....	21	6.16	sw.	5.8	388	0	Cloudless.

May 16, 1917.

A. M.																
9:03	966.5	21.1	35	ssw.	13.4	396	966.5	21.1	.....	35	8.76	ssw.	13.4	388	.....	Cloudless. Light haze continued during flight.
						500	954.9	20.0	.....	36	8.42	ssw.	15.2	490	0	
9:10	966.4	21.4	33	ssw.	13.4	709	931.8	17.9	1.02	39	8.00	s.	18.8	695	0	
						750	927.0	17.7	.....	40	8.10	s.	20.0	735	0	
						1,000	900.0	16.5	.....	43	8.07	s.	27.1	980	0	
9:18	966.3	21.4	33	ssw.	13.4	1,096	890.3	16.1	0.47	44	8.05	s.	29.8	1,074	0	
						1,250	874.0	17.0	.....	43	8.33	ssw.	28.8	1,225	0	
9:24	966.3	21.8	36	ssw.	12.5	1,331	866.2	17.4	−0.55	43	8.54	ssw.	28.3	1,305	0	
						1,500	848.9	16.2	.....	44	8.10	ssw.	27.5	1,470	270	
						1,750	824.3	14.3	.....	46	7.50	ssw.	26.3	1,715	1,150	
9:40	966.1	22.2	33	ssw.	12.1	1,825	817.2	13.8	0.73	46	7.26	ssw.	25.9	1,789	1,420	
						2,000	800.1	12.3	.....	52	7.44	ssw.	24.3	1,960	1,880	
						2,250	776.7	11.1	.....	57	7.53	ssw.	22.8	2,205	2,500	
						2,500	753.3	8.2	.....	69	7.50	ssw.	19.6	2,450	2,850	
10:00	965.9	22.6	34	ssw.	13.4	2,591	745.4	7.4	0.84	72	7.42	ssw.	18.7	2,539	2,970	
						2,750	731.0	7.4	.....	65	6.70	ssw.	17.5	2,694	3,560	
10:46	965.4	24.3	32	ssw.	13.0	2,951	713.0	7.4	0.20	56	5.77	ssw.	15.9	2,891	3,000	
						2,750	730.4	8.2	.....	60	6.52	ssw.	22.8	2,694	1,040	
11:40	964.7	25.7	31	ssw.	17.0	2,643	739.9	8.6	0.36	62	6.93	ssw.	26.4	2,590	0	
						2,500	752.2	9.1	.....	61	7.05	ssw.	26.4	2,450	500	
						2,250	774.8	10.0	.....	58	7.12	ssw.	26.4	2,205	1,400	
						2,000	798.2	10.9	.....	56	7.30	ssw.	26.3	1,960	1,400	
						1,750	823.0	11.8	.....	53	7.34	ssw.	26.3	1,715	1,400	
P. M.																
12:07	964.4	25.8	30	ssw.	17.4	1,730	825.3	11.9	0.92	53	7.38	ssw.	26.3	1,696	1,400	
						1,500	848.0	14.0	.....	48	7.67	ssw.	28.1	1,470	1,200	
						1,250	873.0	16.3	.....	43	7.97	s.	30.0	1,225	50	
12:27	964.1	26.5	30	ssw.	17.9	1,240	874.6	16.4	1.14	43	8.02	s.	30.1	1,216	0	
						1,000	904.0	19.1	.....	39	8.62	s.	23.6	980	0	
12:40	963.8	26.4	30	ssw.	17.9	846	915.1	20.9	1.40	37	9.15	s.	19.5	830	0	
						750	926.0	22.2	.....	35	9.37	s.	18.2	735	0	
						500	952.3	25.7	.....	32	10.57	s.	14.8	490	0	
12:46	963.7	27.2	30	s.	13.4	396	963.7	27.2	.....	30	10.82	s.	13.4	388	.....	Cloudless.

May 17, 1917.

A. M.																
7:44	962.9	19.8	55	nw.	5.8	396	962.9	19.8	.....	55	12.70	nw.	5.8	388	.....	
						500	951.5	19.0	.....	52	11.42	nnw.	9.5	490	0	
7:50	963.0	19.9	54	nw.	5.8	548	946.1	18.6	0.79	51	10.93	nnw.	11.2	537	0	4/10Ci.St.,wnw.;2/10St.Cu.,nw.
						750	924.9	20.6	.....	42	10.19	nnw.	13.1	735	0	
8:04	963.1	20.4	52	nnw.	4.9	910	907.3	22.2	−0.99	35	9.37	n.	14.6	892	0	
						1,000	898.4	21.6	.....	36	9.29	n.	14.3	980	0	
						1,250	872.9	20.1	.....	37	8.71	n.	13.6	1,225	110	
8:24	963.3	20.2	53	nnw.	3.6	1,484	849.2	18.6	0.63	39	8.36	n.	12.9	1,419	1,170	8/10Ci.St.,wnw.:1/10St.Cu.,nw.
						1,500	847.6	18.5	.....	39	8.31	n.	12.8	1,470	1,200	5/10 Ci. St., wnw.; 4/10 A. St.,
						1,750	823.2	16.6	.....	35	6.61	nnw.	11.2	1,715	1,590	wnw.: 1/10 St. Cu., nnw.
9:12	963.5	21.2	53	nnw.	2.7	1,998	799.5	14.8	0.74	32	5.39	nnw.	9.7	1,958	2,000	5/10 Ci. St., wnw.; 2/10 A. St.,
						2,250	776.0	12.7	.....	33	4.85	nnw.	8.4	2,205	1,730	wnw.
						2,500	753.3	10.7	.....	34	4.38	nnw.	7.1	2,450	.....	
9:32	963.5	22.6	50	nnw.	3.1	2,507	752.5	10.6	0.78	34	4.35	nnw.	7.1	2,457	.....	
						2,500	753.3	10.6	.....	34	4.35	nnw.	7.1	2,450	.....	4/10 Ci. St., w.
						2,250	776.0	12.3	.....	32	4.58	n.	7.4	2,205	1,720	
11:07	963.1	26.7	40	n.	3.1	1,995	799.5	14.0	0.60	30	4.79	n.	6.2	1,955	1,300	3/10Ci.,w.:2/10Ci.St.,w
						1,750	823.2	15.5	.....	32	5.64	n.	8.5	1,715	920	
						1,500	847.6	17.0	.....	35	6.78	nne.	10.8	1,470	370	
11:42	963.1	27.5	38	nne.	3.6	1,343	863.4	17.9	0.73	36	7.38	nne.	12.2	1,317	0	
						1,250	872.9	18.6	.....	37	7.93	nne.	11.6	1,225	0	
						1,000	898.4	20.4	.....	40	9.59	nne.	10.0	980	0	
11:53	963.1	27.4	40	nne.	3.6	809	918.7	21.8	1.26	42	10.97	nne.	8.8	703	0	
						750	924.9	22.5	.....	41	11.18	nne.	8.1	735	0	
						500	951.5	25.7	.....	39	12.88	nne.	4.9	490	0	
11:58	963.1	27.0	38	nne.	3.6	396	963.1	27.0	.....	38	13.55	nne.	3.6	388	.....	5/10 Ci., w.

May 18, 1917.

A. M.																
9:37	962.4	26.2	52	se.	4.5	396	962.4	26.2	.....	52	17.69	se.	4.5	388	.....	9/10 Ci., w.
						500	951.0	25.4	.....	53	17.20	se.	5.1	490	0	Faint 22°-halo, 9 a. m —12:40
						750	924.2	23.5	.....	55	15.93	se.	6.6	735	0	p. m.
						1,000	898.0	21.6	.....	56	14.45	se.	8.1	980	0	
10:12	962.0	26.7	48	sse.	4.9	1,078	889.9	21.0	0.76	57	14.18	se.	8.6	1,057	190	
						1,250	872.7	19.4	.....	58	13.07	se.	11.3	1,225	650	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 18, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
10:30	961.9	27.0	48	sse.	3.6	1,398	857.4	18.0	0.94	58	11.97	se.	13.6	1,370	1,040	
						1,500	847.5	17.5		56	11.20	se.	13.4	1,470	1,220	
						1,750	823.0	16.3		51	9.45	se.	12.9	1,715	1,650	
						2,000	799.0	15.2		45	7.77	sse.	12.4	1,960	2,080	
						2,250	775.7	14.0		40	6.39	see.	12.0	2,205	2,260	
10:53	961.8	27.3	46	sse.	6.3	2,431	758.9	13.1	0.47	36	5.43	sse.	11.6	2,382	2,390	
						2,500	753.0	12.6		37	5.40	sse.	11.9	2,450	2,500	9/10 Ci., wsw.
						2,750	730.5	10.6		39	4.98	s.	13.0	2,694	2,890	
						3,000	708.8	8.6		41	4.58	s.	14.1	2,939	3,280	
						3,250	687.6	6.6		43	4.19	ssw.	15.3	3,184	3,860	
11:18	961.6	28.6	43	ese.	9.4	3,390	676.2	5.5	0.79	44	3.97	ssw.	15.9	3,321	4,200	
						3,500	667.1	4.6		44	3.73	ssw.	16.1	3,429	4,390	
						3,750	647.1	2.4		46	3.34	ssw.	16.4	3,673	4,820	
						4,000	627.6	0.3		47	2.93	sw.	16.8	3,918	5,080	
						4,250	608.6	− 1.8		48	2.52	sw.	17.2	4,162	5,040	
11:53	961.2	29.0	42	sse.	8.9	4,476	590.8	− 3.8	0.86	49	2.18	sw.	17.5	4,383	5,000	9/10 Ci., wsw.
						4,500	589.4	− 4.0		49	2.14	sw.	17.5	4,407	5,060	
						4,750	570.9	− 6.2		51	1.85	sw.	17.2	4,651	5,670	
						5,000	552.4	− 8.5		53	1.57	sw.	16.9	4,896		4/10 Ci., wsw.
P. M.																
12:48	960.3	30.0	39	se.	9.8	5,060	547.6	− 9.0	0.81	53	1.51	sw.	16.8	4,954		
						5,000	552.4	− 8.6		53	1.56	sw.	16.7	4,896		
						4,750	569.9	− 6.8		49	1.69	sw.	16.3	4,651	5,670	
						4,500	587.6	− 5.0		45	1.80	sw.	15.8	4,407	5,080	
						4,250	606.2	− 3.1		41	1.93	sw.	15.4	4,162	4,490	
						4,000	625.3	− 1.3		38	2.08	sw.	15.0	3,918	3,900	
1:17	959.8	29.8	38	sse.	7.6	3,791	641.8	0.2	1.07	35	2.17	sw.	14.6	3,713	3,400	
						3,750	645.1	0.6		34	2.17	sw.	14.7	3,673	3,110	
						3,500	664.9	3.3		31	2.40	ssw.	15.1	3,429	3,040	
						3,250	685.3	6.0		27	2.52	ssw.	15.5	3,184	2,730	
1:33	959.5	30.6	39	sse.	10.7	3,228	687.7	6.2	0.81	27	2.56	ssw.	15.5	3,162	2,700	4/10 Ci., wsw.
						3,000	706.5	8.0		26	2.79	ssw.	16.1	2,939	2,470	
						2,750	728.0	10.1		24	2.97	s.	16.9	2,694	2,230	
						2,500	750.1	12.1		23	3.25	sse.	17.6	2,450	1,970	
1:55	959.2	29.9	39	sse.	10.7	2,418	757.8	12.8	−0.30	22	3.25	sse.	17.8	2,370	1,840	
						2,250	773.0	12.3		34	4.87	sse.	16.8	2,205	1,590	
1:58	959.1	29.8	39	sse.	8.0	2,088	788.0	11.8	0.79	45	6.23	sse.	15.9	2,046	1,340	
						2,000	796.3	12.5		49	7.10	sse.	16.0	1,960	1,210	
						1,750	820.5	14.4		61	10.00	sse.	16.2	1,715	830	
2:05	959.0	30.6	39	sse.	8.5	1,695	825.8	14.8	1.00	64	10.77	sse.	16.2	1,661	700	1/10 Ci., w.
						1,500	844.6	16.7		61	11.60	sse.	16.0	1,470	300	
						1,250	869.3	19.3		58	12.99	sse.	15.7	1,225	0	Few Cu., sse.
						1,000	894.7	21.8		52	13.58	sse.	15.4	980	0	
2:31	958.4	30.4	39	sse.	9.8	856	909.8	23.2	1.48	50	14.22	sse.	15.2	839	0	
						750	920.7	24.8		47	14.72	sse.	14.0	735	0	
						500	947.0	28.4		41	15.87	sse.	11.2	490	0	
2:38	958.2	30.0	38	sse.	9.8	396	958.2	30.0		38	16.13	sse.	9.8	388		Few Cu., sse.

May 19, 1917.

P. M.																
3:16	959.3	26.8	39	ene.	3.1	396	959.3	26.8		39	13.74	ene.	3.1	388		5/10 Ci. St., w.; 2/10 A. Cu., sw.
						500	948.0	25.9		41	13.70	ene.		490		
						750	921.0	23.7		46	13.48	ene.		735	10,070	
4:00	959.1	26.4	40	ene.	6.3	779	918.1	23.4	0.88	47	13.53	ene.		764	11,220	1/10 Ci. St., w.; 9/10 St.Cu., sw.
						1,000	894.0	22.0		49	11.46	e.		980	20,020	Arc of 22°-halo, 4:18—4:35; rain,
						1,250	869.0	20.3		51	12.15	ese.		1,225	8,870	4:05—4:17.
4:32	958.9	26.8	41	ene.	4.5	1,421	852.4	19.2	0.65	53	11.79	ese.		1,393	100	
						1,500	843.9	18.6		53	11.36	ese.		1,470	190	
						1,750	819.0	16.8		53	10.14	se.		1,715	480	6/10 Ci. St., w.; 2/10 A. Cu., sw;
						2,000	794.7	14.9		53	8.98	se.		1,960	500	few St. Cu., sw.
						2,250	772.0	13.1		53	7.99	sse.		2,205	1,190	
						2,500	750.0	11.1		52	6.87	s.		2,450	1,800	
						2,750	728.5	9.3		52	6.09	s.		2,694		
						3,000	706.1	7.4		52	5.36	ssw.		2,939		
5:20	958.5	28.5	36	ene.	6.3	3,089	698.5	6.8	0.70	52	5.14	ssw.		3,025		
						3,000	706.1	7.4		52	5.36	ssw.		2,939		6/10 Ci.St.,w.; 1/10 A. Cu., wsw.;
						2,750	728.0	9.0		52	5.97	s.		2,694		3/10 St. Cu., sw.
						2,500	749.3	10.6		51	6.52	sse.		2,450	1,080	
						2,250	770.8	12.3		51	7.30	se.		2,205	640	
						2,000	793.5	13.9		51	8.10	se.		1,960	200	
						1,750	817.6	15.5		50	8.80	ese.		1,715	0	
						1,500	842.8	17.1		50	9.75	e.		1,470	0	
5:46	958.2	27.0	38	ene.	6.3	1,295	864.3	18.4	0.96	50	10.58	e.		1,269	0	
						1,250	869.0	18.8		49	10.63	e.		1,225	0	
						1,000	894.0	21.2		44	11.08	e.		980	0	2/10 A. St.,w.; 3/10 A. Cu., wsw.
						750	920.2	23.6		40	11.65	e.		735	0	5/10 St. Cu., sw.
5:57	958.1	26.8	40	e.	6.3	710	924.5	24.0	0.96	39	11.64	e.		696	0	
						500	946.7	26.0		38	12.78	e.		490	0	
6:01	958.1	27.0	38	e.	6.7	396	958.1	27.0		38	13.55	e.	6.7	388		

May 20, 1917.

A. M.																
7:05	959.8	19.6	69	se.	5.4	396	959.8	19.6		69	15.74	se.	5.4	388		9/10 Ci.St., se.
						500	947.9	19.3		72	16.12	sse.	7.5	490	0	
7:13	959.7	19.8	69	se.	6.7	727	923.6	18.5	0.33	80	17.04	s.	12.1	713	0	
						750	921.0	18.5		79	16.83	s.	12.0	735	50	
						1,000	895.0	18.1		72	14.95	s.	10.6	980	530	
7:34	959.6	20.8	66	se.	7.2	1,068	887.4	18.0	0.15	70	14.45	s.	10.2	1,047	660	
						1,250	869.0	16.6		72	13.60	s.	10.7	1,225	770	
						1,500	843.0	14.6		76	12.63	sse.	11.4	1,470	930	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 20, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10^6 ergs.*	*volts.*	
.....	.....	.....	.....	.....	.....	1,750	818.3	12.6	.....	79	11.53	sse.	12.0	1,715	1,610	4/10 Ci., sse.; 3/10 Ci.St., sse.
8:00	959.4	21.1	65	se.	7.2	1,998	794.9	10.6	0.80	82	10.48	se.	12.7	1,958	2,040	
.....	.....	.....	.....	.....	.....	2,250	769.5	8.9	.....	75	8.55	se.	13.8	2,205	2,420	
.....	.....	.....	.....	.....	.....	2,500	746.0	7.3	.....	68	6.96	se.	15.0	2,450	2,800	
.....	.....	.....	.....	.....	.....	2,750	725.0	5.7	.....	61	5.59	sse.	16.2	2,694	3,180	
.....	.....	.....	.....	.....	.....	3,000	703.3	4.0	.....	53	4.31	sse.	17.4	2,939	3,560	
8:20	959.3	21.4	64	sse.	5.8	3,156	690.3	3.0	0.66	49	3.71	sse.	18.1	3,092	3,810	
.....	.....	.....	.....	.....	.....	3,250	681.8	2.9	.....	48	3.61	sse.	18.4	3,184	3,960	
.....	.....	.....	.....	.....	.....	3,500	660.1	0.5	.....	44	2.79	sse.	19.3	3,429	4,360	
.....	.....	.....	.....	.....	.....	3,750	639.8	−1.2	.....	40	2.21	sse.	20.2	3,673	4,770	
.....	.....	.....	.....	.....	.....	4,000	620.0	−3.0	.....	36	1.71	sse.	21.0	3,918	5,290	
.....	.....	.....	.....	.....	.....	4,250	600.8	−4.8	.....	33	1.35	sse.	22.0	4,162	5,800	5/10 Ci., sse.
8:54	959.1	22.2	61	sse.	8.0	4,349	593.3	−5.5	0.59	31	1.19	sse.	22.3	4,259	6,000	
.....	.....	.....	.....	.....	.....	4,250	600.8	−5.0	.....	32	1.28	sse.	21.9	4,162	5,560	
.....	.....	.....	.....	.....	.....	4,000	620.0	−3.9	.....	36	1.59	sse.	20.8	3,918	4,640	
.....	.....	.....	.....	.....	.....	3,750	639.3	−2.7	.....	40	1.95	sse.	19.7	3,673	4,110	
.....	.....	.....	.....	.....	.....	3,500	658.9	−1.5	.....	43	2.32	sse.	18.6	3,429	3,580	
.....	.....	.....	.....	.....	.....	3,250	679.5	−0.4	.....	47	2.78	sse.	17.5	3,184	3,040	
9:54	958.7	23.3	60	sse.	7.6	3,089	693.4	0.4	0.18	49	3.08	sse.	16.8	3,026	2,700	
.....	.....	.....	.....	.....	.....	3,000	701.2	0.6	.....	59	3.76	sse.	16.8	2,939	2,540	8/10 St.Cu., se.
10:06	958.7	23.5	57	se.	8.9	2,763	722.1	1.0	0.85	85	5.58	se.	16.8	2,707	2,220	
.....	.....	.....	.....	.....	.....	2,750	723.5	1.1	.....	85	5.63	se.	16.7	2,694	2,200	St.Cu. base at about 2,500 m.
.....	.....	.....	.....	.....	.....	2,500	746.1	3.2	.....	80	6.15	se.	14.8	2,450	1,860	
.....	.....	.....	.....	.....	.....	2,250	769.5	5.4	.....	75	6.73	se.	12.9	2,205	1,520	
.....	.....	.....	.....	.....	.....	2,000	793.3	7.5	.....	71	7.36	sse.	11.0	1,960	1,230	
.....	.....	.....	.....	.....	.....	1,750	817.0	9.6	.....	66	7.89	sse.	9.1	1,715	940	
10:27	958.6	23.8	56	ese.	8.9	1,638	828.2	10.6	0.69	64	8.18	sse.	8.3	1,605	810	
.....	.....	.....	.....	.....	.....	1.500	841.0	11.6	.....	65	8.88	sse.	9.0	1,470	490	
.....	.....	.....	.....	.....	.....	1,250	866.5	13.3	.....	66	10.08	sse.	10.2	1,225	0	
.....	.....	.....	.....	.....	.....	1,000	892.6	15.0	.....	67	11.42	se.	11.3	980	0	
10:52	958.4	24.8	53	sse.	9.8	801	914.6	16.4	2.05	68	12.68	se.	12.3	785	0	
.....	.....	.....	.....	.....	.....	750	919.3	17.4	.....	66	13.11	se.	12.1	735	0	
.....	.....	.....	.....	.....	.....	500	946.3	22.6	.....	58	15.91	ese.	11.2	490	0	
10:58	958.4	24.7	54	ese.	10.7	396	958.4	24.7	.....	54	16.80	ese.	10.7	388	.....	2/10 Ci., sse.; few A.Cu., s.; 4/10 St.Cu., sse.

May 21, 1917.

A. M.																
9:20	956.5	17.3	75	ene.	4.5	396	956.5	17.3	.....	75	14.81	ene.	7.6	388	.....	5/10 St., sw; 2/10 St., ene.
.....	.....	.....	.....	.....	.....	500	944.5	16.3	.....	79	14.64	ene.	7.5	490	0	
.....	.....	.....	.....	.....	.....	750	917.2	13.9	.....	90	14.29	ne.	7.3	735	0	
9:49	956.6	16.8	77	ne.	4.5	778	914.5	13.6	0.97	91	14.18	ne.	7.3	763	0	
.....	.....	.....	.....	.....	.....	1,000	890.0	12.5	.....	86	12.46	ne.	7.0	980	0	
.....	.....	.....	.....	.....	.....	1,250	863.7	11.3	.....	81	10.85	ene.	6.6	1,225	.....	
.....	.....	.....	.....	.....	.....	1,500	838.5	9.8	.....	74	8.97	ene.	6.1	1,470	.....	
11:25	956.7	17.0	82	nne.	3.6	1,678	821.4	9.2	0.39	71	8.26	ene.	5.9	1,645	.....	
.....	.....	.....	.....	.....	.....	1,750	814.0	8.7	.....	71	7.99	ene.	5.8	1,715	.....	
.....	.....	.....	.....	.....	.....	2,000	789.3	7.2	.....	70	7.11	ene.	5.5	1,960	.....	10/10 St., ne. base at 650 m.
.....	.....	.....	.....	.....	.....	2,250	765.7	5.6	.....	70	6.37	ene.	5.3	2,205	.....	
.....	.....	.....	.....	.....	.....	2,500	742.8	4.0	.....	69	5.61	e.	5.0	2,450	.....	
.....	.....	.....	.....	.....	.....	2,750	719.5	2.5	.....	68	4.97	e.	4.7	2,694	2,090	
P. M.																
1:45	956.4	13.9	84	ne.	6.7	2,858	709.5	1.8	0.55	68	4.73	e.	4.6	2,800	2,100	
.....	.....	.....	.....	.....	.....	2,750	719.5	2.3	.....	68	4.90	e.	4.8	2,694	2,040	
.....	.....	.....	.....	.....	.....	2,500	741.3	3.5	.....	69	5.42	e.	5.3	2,450	1,910	
.....	.....	.....	.....	.....	.....	2,250	763.3	4.7	.....	70	5.98	e.	5.8	2,205	1,650	
.....	.....	.....	.....	.....	.....	2,000	786.7	5.9	.....	71	6.60	e.	6.3	1,960	1,540	
2:10	956.3	13.3	84	nne.	6.7	1,822	805.3	6.7	0.37	72	7.06	e.	6.7	1,786	1,590	
.....	.....	.....	.....	.....	.....	1,750	811.0	7.0	.....	74	7.41	e.	7.4	1,715	1,670	
.....	.....	.....	.....	.....	.....	1,500	835.8	7.9	.....	83	8.84	e.	9.8	1,470	1,580	
.....	.....	.....	.....	.....	.....	1,250	862.0	8.8	.....	91	10.31	ene.	12.3	1,225	1,180	St. base at about 600 m.
2:40	956.1	12.6	86	ne.	6.7	1,176	870.5	9.1	−0.39	94	10.87	ene.	13.0	1,153	1,030	
.....	.....	.....	.....	.....	.....	1,000	888.6	8.4	.....	95	10.47	ene.	13.4	980	670	
2:48	956.1	12.4	87	ne.	7.6	846	905.8	7.8	1.02	96	10.16	ne.	13.8	830	490	
.....	.....	.....	.....	.....	.....	750	916.2	8.8	.....	94	10.65	ne.	12.5	735	390	
.....	.....	.....	.....	.....	.....	500	944.5	11.3	.....	89	11.92	ne.	9.6	490	110	
2:50	956.1	12.4	87	ne.	7.6	396	956.1	12.4	.....	87	12.53	ne.	7.6	388	.....	10/10 St., ne.

May 22, 1917.

A. M.																
8:05	964.3	6.1	79	nne.	8.9	396	964.3	6.1	.....	79	7.44	nne.	8.9	388	.....	Few Ci.St., w.; 7/10 St.Cu., n.
.....	.....	.....	.....	.....	.....	500	951.4	5.2	.....	80	7.08	nne.	10.9	490	640	
.....	.....	.....	.....	.....	.....	750	922.5	3.0	.....	81	6.14	n.	15.6	735	2,150	
8:18	964.5	6.2	77	nne.	7.6	976	897.9	1.1	0.86	83	5.49	n.	19.9	957	3,320	St. Cu. base at about 1,000 m.
.....	.....	.....	.....	.....	.....	1,000	894.0	1.2	.....	81	5.39	n.	20.3	980	3,450	
8:24	964.6	6.2	76	nne.	8.0	1,164	877.3	2.1	−0.53	66	4.69	n.	23.0	1,141	4,300	
.....	.....	.....	.....	.....	.....	1,250	866.5	1.9	.....	65	4.56	n.	23.1	1,225	4,730	
.....	.....	.....	.....	.....	.....	1,500	840.8	1.3	.....	61	4.09	nne.	23.6	1,470	5,980	
8:44	964.9	6.4	75	nne.	8.9	1,624	829.1	1.0	0.24	59	3.88	nne.	23.8	1,592	6,600	
.....	.....	.....	.....	.....	.....	1,750	815.2	1.0	.....	38	2.50	nne.	24.9	1,715	7,260	
9:01	965.2	7.5	73	n.	8.9	1,853	806.1	1.0	0.00	20	1.31	nne.	25.8	1,816	7,800	4/10 St.Cu., n.
.....	.....	.....	.....	.....	.....	2,000	790.8	0.7	.....	18	1.16	nne.	25.0	1,960	8,140	
.....	.....	.....	.....	.....	.....	2,250	767.0	0.2	.....	14	0.87	nne.	23.6	2,205	8,710	
.....	.....	.....	.....	.....	.....	2,500	742.9	−0.3	.....	10	0.60	nne.	22.2	2,450	9,320	
.....	.....	.....	.....	.....	.....	2,750	721.3	−0.8	.....	7	0.40	nne.	20.8	2,694	9,930	
9:57	966.2	8.6	63	nne.	7.6	2,874	710.3	−1.0	0.20	5	0.28	nne.	20.1	2,816	10,490	
.....	.....	.....	.....	.....	.....	3,000	699.0	−2.2	.....	5	0.25	nne.	20.1	2,939	11,140	
.....	.....	.....	.....	.....	.....	3,250	677.0	−4.6	.....	5	0.21	nne.	20.2	3,184	12,440	
10:22	966.5	9.0	57	nne.	8.0	3,262	676.8	−4.7	0.95	5	0.21	nne.	20.2	3,196	12,500	
10:30	966.6	9.4	56	nne.	8.9	3,366	667.3	−4.9	0.15	5	0.20	nne.	26.5	3,297	.....	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 22, 1917—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.	Potential. Grav. ity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
						3,250	676.9	−4.8	.....	5	0.20	nne.	21.6	3,184	12,390	
10:42	966.7	9.3	50	nne.	4.9	3,187	681.9	−4.7	0.38	5	0.21	nne.	19.0	3,122	11,830	
						3,000	698.1	−4.0	.....	5	0.22	nen.	18.7	2,939	10,160	
						2,750	720.1	−3.0	.....	5	0.24	nne.	18.4	2,694	9,090	Few St.Cu., n.
11:00	966.9	9.9	53	nne.	7.6	2,610	733.9	−2.5	0.15	5	0.25	nne.	18.2	2,557	8,890	
						2,500	743.9	−2.3	.....	5	0.25	nne.	18.6	2,450	8,740	
						2,250	767.0	−2.0	.....	5	0.26	nne.	19.4	2,205	7,680	
						2,000	791.4	−1.6	.....	5	0.27	n.	20.2	1,960	6,530	
						1,750	817.3	−1.2	.....	5	0.28	n.	21.0	1,715	4,920	
11:36	967.1	10.3	49	nne.	7.6	1,730	819.9	−1.2	1.49	5	0.28	n.	21.1	1,696	4,790	
11:40	967.1	10.3	46	nne.	7.6	1,663	826.8	−2.2	0.43	16	0.81	n.	17.8	1,630	4,410	
						1,500	843.2	−1.5	.....	36	1.94	n.	16.9	1,470	3,700	
11:50	967.2	10.6	45	n.	8.9	1,291	866.6	−0.6	0.91	61	3.54	n.	15.8	1,266	2,800	
						1,250	870.3	−0.2	.....	60	3.61	n.	16.0	1,225	2,640	
						1,000	898.3	2.0	.....	53	3.74	n.	17.3	980	1,650	
P. M.																
12:05	967.3	10.9	46	n.	8.5	861	914.1	3.3	1.81	49	3.79	n.	18.0	844	1,100	
						750	926.9	4.9	.....	48	4.16	n.	15.8	735	940	
						500	955.0	9.8	.....	45	5.45	n.	8.9	490	250	
12:11	967.3	11.7	44	n.	6.3	396	967.3	11.7	.....	44	6.05	n.	6.3	388	.....	Few St.Cu., n.

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A. M.																	
6:38	969.2	6.7	73	w.	4.9	396	969.2	6.7	.....	73	7.16	w.	4.9	388	.....	Cloudless.
						500	957.0	9.7	.....	47	5.65	wnw.	13.3	490	120	
7:01	969.2	7.9	71	w.	8.0	530	953.8	10.5	−2.83	40	5.08	wnw.	15.7	520	340	
7:10	969.3	8.5	67	w.	5.8	691	935.4	10.0	0.31	36	4.42	wnw.	18.0	678	1,550	
						750	927.8	9.7	.....	37	4.45	wnw.	17.7	735	1,920	
						1,000	900.0	8.3	.....	40	4.38	wnw.	16.5	980	3,500	
						1,250	873.5	6.8	.....	44	4.35	nw.	15.2	1,225	4,360	
						1,500	848.2	5.4	.....	47	4.22	nw.	14.0	1,470	4,650	
7:32	969.4	9.9	62	wnw.	5.4	1,541	844.2	5.2	0.56	48	4.25	nw.	13.8	1,510	4,700	
						1,750	823.0	3.7	.....	49	3.90	nw.	14.4	1,715	5,430	
						2,000	798.0	1.9	.....	51	3.58	nw.	15.2	1,960	6,310	Light haze continued during flight.
						2,250	773.9	0.1	.....	52	3.20	nw.	15.9	2,205	7,190	
						2,500	750.0	−1.8	.....	54	2.84	nnw.	16.6	2,450	7,990	
						2,750	726.7	−3.5	.....	55	2.51	nnw.	17.4	2,694	8,680	
8:11	969.5	11.6	55	wnw.	5.4	2,901	712.5	−4.6	0.72	56	2.32	nnw.	17.8	2,842	9,100	
						3,000	703.0	−4.8	.....	50	2.04	nnw.	17.9	2,939	9,290	
						3,250	680.0	−5.4	.....	36	1.40	nw.	18.0	3,184	9,670	
8:31	969.2	12.3	53	wnw.	6.3	3,463	663.3	−5.9	0.23	24	0.89	nw.	18.2	3,392	10,000	
						3,500	658.4	−5.9	.....	24	0.89	nw.	18.3	3,429	10,050	
8:58	968.9	13.2	51	wnw.	6.3	3,740	640.5	−5.7	−0.07	22	0.83	nw.	18.7	3,663	10,400	
						3,750	638.8	−5.7	.....	22	0.83	nw.	18.8	3,673	10,410	
						4,000	618.9	−6.7	.....	23	0.80	nw.	20.7	3,918	10,740	
9:15	968.8	13.5	51	wnw.	6.3	4,229	600.8	−7.5	0.32	23	0.74	nw.	22.4	4,142	.....	
						4,000	618.2	−6.9	.....	23	0.78	nw.	21.5	3,918	10,030	
						3,750	638.0	−6.2	.....	22	0.80	nw.	20.6	3,673	8,830	
9:32	968.7	14.6	47	wnw.	7.6	3,709	641.5	−6.1	−0.04	22	0.80	nw.	20.4	3,633	8,640	
						3,500	658.4	−6.2	.....	22	0.80	nw.	18.9	3,429	7,640	
						3,250	680.0	−6.3	.....	23	0.83	nnw.	17.2	3,184	6,440	
						3,000	701.8	−6.4	.....	23	0.82	nnw.	15.4	2,939	5,420	
9:54	968.6	15.5	45	nw.	8.0	2,969	705.1	−6.4	0.46	23	0.82	nnw.	14.8	2,909	5,320	
						2,750	724.9	−5.4	.....	40	1.55	nnw.	14.1	2,694	4,600	
						2,500	748.3	−4.2	.....	60	2.58	nw.	13.3	2,450	3,820	
10:07	968.6	15.7	44	nw.	8.9	2,492	749.2	−4.2	0.86	61	2.62	nw.	13.3	2,442	3,800	Cloudless.
						2,250	772.3	−2.1	.....	57	2.92	nw.	13.6	2,205	3,310	
						2,000	796.7	0.0	.....	52	3.18	nw.	14.2	1,960	2,810	
10:23	968.4	16.6	48	wnw.	8.5	1,749	822.1	2.2	0.89	48	3.44	nw.	14.2	1,714	2,300	
						1,500	847.6	4.4	.....	47	3.93	nw.	13.9	1,470	1,950	
10:35	968.4	16.8	39	nw.	9.4	1,334	865.2	5.9	0.91	47	4.37	nw.	13.7	1,308	1,890	
						1,250	873.6	6.7	.....	47	4.61	nw.	13.4	1,225	1,030	
						1,000	900.5	8.9	.....	48	5.47	nw.	12.4	980	120	
10:47	958.3	17.0	42	wnw.	9.8	838	918.8	10.4	1.54	49	6.18	wnw.	11.8	822	0	
						750	928.4	11.8	.....	48	6.64	wnw.	11.6	735	0	
						500	955.7	16.4	.....	43	8.02	wnw.	10.8	490	0	
10:53	968.2	17.2	42	wnw.	10.7	396	968.2	17.2	.....	42	8.24	wnw.	10.7	388	.....	2/10 Cu., nw.

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A. M.																	
11:30	968.0	17.6	37	wnw.	8.9	396	968.0	17.6	.....	37	7.45	wnw.	8.9	388	.....	
						500	956.0	16.4	.....	38	7.09	wnw.	10.3	490	0	
11:39	968.0	18.0	34	wnw.	8.9	693	934.7	14.2	1.14	39	6.31	wnw.	12.8	680	0	
						750	928.0	13.8	.....	40	6.31	wnw.	12.7	735	90	
						1,000	900.1	11.8	.....	42	5.81	wnw.	12.1	980	490	
						1,250	873.4	9.7	.....	45	5.41	nw.	11.5	1,225	990	
						1,500	847.7	7.7	.....	48	5.04	nw.	11.0	1,470	580	
P. M.																	
12:03	967.9	18.1	29	nw.	8.0	1,737	824.3	5.8	0.80	51	4.70	nw.	10.4	1,702	1,890	6/10 Cu., nw.
						1,750	821.5	4.9	.....	51	4.42	nw.	10.4	1,715	1,900	
						2,000	797.2	3.4	.....	60	4.68	nw.	10.7	1,960	2,160	
						2,250	773.0	1.1	.....	69	4.57	nw.	11.0	2,205	2,310	
						2,500	749.0	−1.1	.....	77	4.29	nw.	11.2	2,450	2,440	
12:29	967.8	18.2	25	nw.	6.3	2,748	727.0	−3.4	0.91	86	3.96	nw.	11.5	2,692	2,830	
						3,000	703.3	−4.8	.....	88	3.59	nw.	13.6	2,939	3,420	
12.54	967.6	18.5	28	nw.	5.8	3,206	685.6	−6.0	0.57	90	3.31	nw.	15.4	3,141	3,900	4/10 Cu., nw.
						3,250	681.5	−6.0	.....	86	3.16	nw.	15.7	3,184	4,010	Cu. base at about 2,900 m.
						3,500	660.0	−6.3	.....	66	2.37	nw.	17.0	3,429	4,590	
						3,750	639.1	−6.5	.....	46	1.62	nw.	18.4	3,673	5,170	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Consinued.

May 23, 1917 (No. 2)—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
1:13	967.5	18.9	28	nw.	7.6	3,871	629.5	−6.6	0.14	36	1.26	nw.	19.1	3,792	.....	
						3,750	639.1	−6.4	.....	34	1.21	nw.	18.2	3,673	5,110	
						3,500	660.0	−5.9	.....	30	1.11	nw.	16.5	3,429	4,360	
						3,250	681.5	−5.5	.....	25	0.96	nw.	14.8	3,184	3,600	
1:36	967.4	18.6	29	wnw.	8.5	3,057	698.2	−5.1	0.42	22	0.88	nw.	13.4	2,995	3,030	
						3,000	703.3	−4.8	.....	29	1.18	nw.	13.5	2,939	2,840	
						2,750	726.0	−3.8	.....	59	2.62	nw.	13.8	2,694	2,070	
1:43	967.3	19.0	28	wnw.	10.7	2,562	743.3	−3.0	0.87	81	3.85	nw.	13.9	2,510	1,500	
						2,500	749.0	−2.4	.....	79	3.95	nw.	13.9	2,450	1,440	
						2,250	773.0	−0.3	.....	70	4.17	nw.	13.9	2,205	1,170	
						2,000	796.7	1.9	.....	62	4.35	wnw.	14.0	1,960	910	
						1,750	820.5	4.0	.....	54	4.39	wnw.	14.0	1,715	650	
2:02	967.2	18.9	29	wnw.	9.4	1,641	833.6	5.0	1.12	50	4.36	wnw.	14.0	1,608	540	
						1,500	847.0	6.6	.....	47	4.58	wnw.	13.4	1,470	510	4/10 Cu., nw.
						1,250	872.8	9.4	.....	41	4.83	wnw.	11.8	1,225	490	
						1,000	899.8	12.1	.....	35	4.94	wnw.	11.4	980	180	
2:26	967.1	18.8	28	wnw.	8.9	862	915.4	13.7	1.14	32	5.02	wnw.	10.8	845	0	
						750	927.0	15.0	.....	31	5.29	wnw.	10.1	735	0	
						500	954.5	17.8	.....	29	5.91	wnw.	8.6	490	0	
2:32	967.0	19.0	28	wnw.	8.0	396	967.0	19.0	.....	28	6.15	wnw.	8.0	388	.....	6/10 Cu., nw.

May 23, 1917 (No. 3).

P. M.																
3:10	967.0	18.9	25	wnw.	9.8	396	967.0	18.9	.....	25	5.46	wnw.	9.8	388	.....	5/10 Cu., nw..
						500	954.9	17.8	.....	26	5.30	wnw.	10.5	490	0	
						750	926.9	15.3	.....	30	5.21	wnw.	12.3	735	20	
3:24	966.7	19.6	27	w.	7.6	764	925.9	15.1	1.03	30	5.15	wnw.	12.4	749	40	5/10 Cu., nw.
						1,000	899.2	13.1	.....	34	5.13	wnw.	11.4	980	300	
						1,250	873.2	11.1	.....	38	5.02	wnw.	10.6	1,225	500	
						1,500	847.3	9.0	.....	43	4.94	wnw.	9.7	1,470	630	
4:01	966.5	19.7	29	wnw.	5.4	1,512	846.7	8.9	0.83	43	4.90	wnw.	9.6	1,482	670	3/10 Cu., nw.
						1,750	821.8	6.4	.....	49	4.71	wnw.	10.0	1,715	1,770	
						2,000	796.2	3.8	.....	56	4.49	wnw.	10.5	1,960	1,940	
4:52	966.0	18.8	29	nw.	6.3	2,253	772.3	1.2	1.04	62	4.13	wnw.	11.0	2,208	3,000	2/10 Cu., nw.
						2,500	747.9	−0.2	.....	67	4.03	wnw.	12.1	2,450	2,170	
						2,750	724.9	−1.6	.....	72	3.85	nw.	13.1	2,694	.....	
5:46	965.6	19.3	29	nw.	4.5	2,972	705.9	−2.9	0.57	76	3.65	nw.	14.1	2,912	.....	1/10 Cu., nw.
						3,000	702.3	−2.9	.....	73	3.50	nw.	14.4	2,939	.....	
						3,250	680.5	−3.0	.....	47	2.23	nw.	17.4	3,184	.....	
5:53	965.5	19.3	29	nw.	4.0	3,358	672.3	−3.0	0.03	36	1.71	nw.	18.7	3,290	.....	
						3,250	680.5	−3.0	.....	38	1.81	nw.	16.4	3,184	.....	
						3,000	701.1	−3.1	.....	44	2.07	nw.	11.0	2,939	.....	
6:03	965.5	19.1	27	nw.	4.5	2,957	706.9	−3.1	0.58	45	2.12	nw.	10.1	2,897	.....	
						2,750	723.3	−1.9	.....	50	2.61	nw.	10.4	2,650	.....	
						2,500	747.0	−0.5	.....	55	3.22	wnw.	10.8	2,450	1,830	
						2,250	772.0	1.0	.....	61	4.01	wnw.	11.2	2,205	1,600	
6:26	965.7	18.7	28	nw.	3.1	2,229	774.5	1.1	0.93	61	4.04	wnw.	11.2	2,184	1,580	
						2,000	796.2	3.3	.....	56	4.33	wnw.	10.8	1,960	1,250	
						1,750	821.0	5.5	.....	50	4.52	wnw.	10.4	1,715	880	
						1,500	846.2	7.9	.....	44	4.69	nw.	10.9	1,470	570	
						1,250	872.6	10.2	.....	39	4.86	nw.	9.5	1,225	300	
6:54	965.9	17.8	31	nw.	2.2	1,218	876.3	10.5	0.99	38	4.83	nw.	9.4	1,194	260	Few A. Cu., wnw.
						1,000	899.1	12.7	.....	34	4.99	nnw.	9.1	980	120	
7:06	965.9	17.4	33	nnw.	2.7	825	918.2	14.4	0.56	30	4.92	nnw.	8.0	809	0	
						750	926.1	14.8	.....	31	5.22	nnw.	7.0	735	0	
						500	953.6	16.2	.....	33	6.08	nnw.	4.0	490	0	
7:13	966.0	16.8	34	nnw.	2.7	396	966.0	16.8	.....	34	6.50	nnw.	2.7	388	.....	

May 23, 1917 (No. 4).

P. M.																
7:52	966.2	15.6	31	n.	1.8	396	966.2	15.6	.....	31	5.49	n.	1.8	388	.....	
						500	953.9	16.2	.....	30	5.53	n.	9.0	490	0	
7:54	966.2	15.6	31	n.	1.8	529	951.2	16.4	−0.06	30	5.60	n.	11.0	519	0	
						750	926.1	14.7	.....	26	4.35	n.	9.6	735	0	
8:12	966.3	14.9	32	n.	2.2	992	900.3	12.8	0.78	22	3.25	nnw.	7.8	973	0	
						1,000	899.8	12.7	.....	22	3.23	nnw.	7.8	980	20	
						1,250	873.0	11.1	.....	28	3.70	nnw.	8.2	1,225	680	
						1,500	847.7	9.4	.....	34	4.01	nw.	8.6	1,470	850	
10:00	967.2	13.2	32	nne.	1.8	1,520	845.6	9.3	0.66	35	4.10	nw.	8.6	1,490	860	Cloudless.
						1,750	822.2	7.4	.....	37	3.81	nw.	9.4	1,715	1,350	
						2,000	796.8	5.5	.....	39	3.52	nw.	10.4	1,960	1,840	
						2,250	772.7	3.5	.....	41	3.22	nw.	11.2	2,205	2,340	
						2,500	749.2	1.5	.....	43	2.93	nw.	12.2	2,450	2,840	
						2,750	726.6	−0.6	.....	45	2.61	nw.	13.1	2,694	3,330	
10:06	967.2	13.1	32	nne.	1.8	2,893	713.9	−1.7	0.80	46	2.44	nw.	13.6	2,835	3,620	
						3,000	704.0	−1.8	.....	42	2.21	nw.	13.8	2,939	3,830	
						3,250	682.0	−1.9	.....	34	1.77	wnw.	14.3	3,184	4,330	
10:12	967.2	13.0	32	n.	1.8	3,348	674.0	−2.0	0.05	31	1.60	wnw.	14.5	3,280	.....	
						3,250	682.0	−2.0	.....	33	1.71	wnw.	14.5	3,184	4,140	
						3,000	703.6	−1.9	.....	38	1.98	wnw.	14.9	2,939	3,000	
10:33	967.2	12.8	33	n.	1.8	2,815	720.3	−1.8	0.58	42	2.21	wnw.	15.1	2,758	2,680	
						2,750	726.6	−1.4	.....	44	2.39	wnw.	14.6	2,694	2,580	
						2,500	749.2	0.0	.....	51	3.12	wnw.	12.8	2,450	2,150	
						2,250	772.7	1.5	.....	58	3.95	wnw.	11.0	2,205	1,720	
10:46	967.2	12.7	33	n.	1.8	2,128	784.9	2.2	0.82	62	4.44	wnw.	10.2	2,085	1,510	
						2,000	796.8	3.2	.....	57	4.38	wnw.	9.3	1,960	1,260	
						1,750	822.2	5.3	.....	48	4.28	nw.	7.5	1,715	780	
11:00	967.2	12.5	33	n.	1.8	1,519	845.6	7.2	0.84	39	3.96	nw.	5.8	1,489	330	Cloudless.
						1,500	847.7	7.4	.....	35	3.60	nw.	5.8	1,470	310	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 23, 1917 (No. 4)—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind. Dir.	Wind. Vel.	Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100 \text{ m.}}$	Humidity. Rel.	Humidity. Vap. pres.	Wind. Dir.	Wind. Vel.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
.....	.....	.....	.....	.....	.....	1,250	872.8	9.4	.....	33	3.89	nnw.	6.3	1,225	60	
.....	.....	.....	.....	.....	.....	1,000	899.1	11.6	.....	27	3.69	nnw.	6.8	980	0	
11:21	967.2	12.6	32	nne.	1.8	849	916.4	12.8	0.76	24	3.55	n.	7.1	832	0	
.....	.....	.....	.....	.....	.....	750	927.2	13.6	.....	23	3.58	n.	6.9	735	0	
11:27	967.2	12.4	33	nne.	1.8	572	947.2	14.9	−1.42	22	3.73	nne.	6.5	561	0	
.....	.....	.....	.....	.....	.....	500	955.0	13.9	.....	27	4.29	nne.	4.6	490	0	
11:28	967.2	12.4	33	nne.	1.8	396	967.2	12.4	.....	33	4.75	nne.	1.8	388	.....	
May 24, 1917.																
P. M.																
7:57	965.5	17.6	44	ese.	4.0	396	965.5	17.6	.....	44	8.86	ese.	4.0	388	.....	1/10 Ci.St., w.
7:59	965.5	17.5	44	ese.	4.0	467	957.6	19.9	−3.24	38	8.83	ese.	7.5	458	0	
.....	.....	.....	.....	.....	.....	500	953.5	19.7	.....	38	8.72	ese.	7.4	490	0	
.....	.....	.....	.....	.....	.....	750	926.5	18.0	.....	39	8.05	ese.	7.0	735	640	
9:05	965.9	16.8	45	ese.	4.0	956	904.7	16.7	0.65	39	7.41	ese.	6.6	937	660	
.....	.....	.....	.....	.....	.....	1,000	899.9	16.3	.....	39	7.23	ese.	6.4	980	640	
.....	.....	.....	.....	.....	.....	1,250	873.7	14.3	.....	40	6.52	ese.	5.2	1,225	.....	Few Ci.St., w.
.....	.....	.....	.....	.....	.....	1,500	847.6	12.3	.....	41	5.87	ese.	3.9	1,470	.....	
9:09	965.9	16.7	45	ese.	4.5	1,566	841.4	11.8	0.72	41	5.67	ese.	3.6	1,535	.....	
.....	.....	.....	.....	.....	.....	1,500	847.6	12.2	.....	40	5.68	ese.	4.2	1,470	.....	
.....	.....	.....	.....	.....	.....	1,250	873.7	13.9	.....	38	6.03	ese.	6.7	1,225	.....	
.....	.....	.....	.....	.....	.....	1,000	899.9	15.5	.....	36	6.34	ese.	9.1	980	150	
9:35	965.9	16.8	43	ese.	4.5	871	913.4	16.3	0.59	35	6.49	ese.	10.4	854	0	
.....	.....	.....	.....	.....	.....	750	926.5	17.0	.....	35	6.78	ese.	10.2	735	0	
9:39	965.9	16.8	42	ese.	4.5	602	942.9	17.9	−0.53	34	6.97	ese.	9.9	590	0	
.....	.....	.....	.....	.....	.....	500	953.5	17.4	.....	38	7.55	ese.	7.2	490	0	
9:41	965.9	16.8	42	ese.	4.5	396	965.9	16.8	.....	42	8.03	ese.	4.5	388	.....	Cloudless.
May 25, 1917.																
A. M.																
7:28	964.8	14.0	47	ese.	8.0	396	964.8	14.0	.....	47	7.51	ese.	8.0	388	.....	6/10 A.Cu., ssw; 3/10 St.Cu., sse.
.....	.....	.....	.....	.....	.....	500	952.3	14.7	.....	42	7.03	ese.	20.4	490	300	
7:31	964.7	14.0	47	ese.	8.0	538	948.6	15.0	−0.70	40	6.82	ese.	24.9	527	410	
.....	.....	.....	.....	.....	.....	750	924.4	14.1	.....	46	7.40	ese.	22.8	735	1,080	
.....	.....	.....	.....	.....	.....	1,000	897.2	12.9	.....	54	8.04	se.	20.3	980	1,940	
7:50	964.4	14.4	47	ese.	8.0	1,075	889.8	12.6	0.45	56	8.17	se.	19.5	1,054	2,200	
.....	.....	.....	.....	.....	.....	1,250	870.8	11.3	.....	58	7.77	se.	19.3	1,225	3,300	
7:59	964.2	15.0	46	ese.	11.6	1,373	858.5	10.4	0.74	59	7.44	se.	19.2	1,346	4,080	
.....	.....	.....	.....	.....	.....	1,500	845.1	10.3	.....	58	7.27	se.	18.7	1,470	4,520	
.....	.....	.....	.....	.....	.....	1,750	820.6	10.1	.....	56	6.92	se.	17.8	1,715	5,120	
8:17	964.0	15.6	45	ese.	11.2	1,932	802.7	9.9	0.89	55	6.71	se.	17.1	1,894	5,670	3/10 A.Cu., ssw.; 7/10 St.Cu., sse.
.....	.....	.....	.....	.....	.....	2,000	795.9	9.4	.....	58	6.84	se.	16.8	1,960	6,180	
.....	.....	.....	.....	.....	.....	2,250	771.7	7.8	.....	71	7.51	se.	15.9	2,205	7,370	
.....	.....	.....	.....	.....	.....	2,500	748.1	6.1	.....	83	7.82	se.	15.0	2,450	7,910	
8:49	963.7	15.9	46	ese.	10.3	2,540	745.6	5.8	0.67	85	7.84	se.	14.8	2,489	8,000	St.Cu. base at about 2,650 m.
.....	.....	.....	.....	.....	.....	2,750	725.7	4.4	.....	84	7.03	se.	15.7	2,694	8,740	
.....	.....	.....	.....	.....	.....	3,000	704.0	2.7	.....	84	6.23	sse.	16.7	2,939	8,580	
9:20	963.7	15.8	47	se.	8.9	3,219	685.7	1.2	0.68	83	5.53	sse.	17.6	3,154	40,000	10/10 St.Cu., sse
9:23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Thunder heard at 9:23 a. m. from sw.
9:42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kite broke away at 9:42 a. m. Light rain began.
May 26, 1917.																
A. M.																
8:24	951.2	13.2	81	wsw.	8.5	396	951.2	13.2	.....	81	12.29	wsw.	8.5	388	.....	10/10 St.Cu., wsw.
.....	.....	.....	.....	.....	.....	500	938.7	12.5	.....	86	12.46	wsw.	10.3	490	0	
8:35	951.4	13.2	80	w.	8.5	689	918.7	11.3	0.65	95	12.72	wsw.	13.5	676	0	
.....	.....	.....	.....	.....	.....	750	911.0	11.0	.....	95	12.47	wsw.	13.4	735	50	
.....	.....	.....	.....	.....	.....	1,000	884.0	9.6	.....	94	11.23	wsw.	13.2	980	280	
8:46	951.5	13.2	83	wsw.	9.8	1,138	870.7	8.9	0.53	94	10.72	wsw.	13.0	1,116	390	St. Cu. base at 700 m.
.....	.....	.....	.....	.....	.....	1,250	858.5	8.3	.....	94	10.29	wsw.	13.7	1,225	440	
.....	.....	.....	.....	.....	.....	1,500	833.9	6.8	.....	95	9.39	wsw.	15.2	1,470	550	
10:30	952.4	14.7	79	w.	6.3	1,541	830.1	6.6	0.57	95	9.26	wsw.	15.4	1,510	560	
.....	.....	.....	.....	.....	.....	1,750	809.0	5.6	.....	87	7.92	wsw.	16.2	1,715	1,256	
.....	.....	.....	.....	.....	.....	2,000	784.0	4.5	.....	77	6.48	wsw.	17.1	1,960	1,880	
11:03	952.6	15.0	78	wsw.	9.8	2,200	765.7	3.6	0.46	69	5.46	wsw.	17.8	2,156	2,300	
.....	.....	.....	.....	.....	.....	2,250	760.5	3.5	.....	69	5.42	wsw.	18.2	2,205	2,370	
.....	.....	.....	.....	.....	.....	2,500	737.2	2.7	.....	68	5.05	wsw.	15.3	2,450	2,750	
.....	.....	.....	.....	.....	.....	2,750	715.0	2.0	.....	66	4.66	wsw.	22.5	2,694	3,120	
11:15	952.6	14.9	76	wsw.	7.2	2,803	710.5	1.8	0.15	66	4.59	wsw.	22.9	2,746	3,200	
.....	.....	.....	.....	.....	.....	2,750	715.0	1.8	.....	69	4.80	wsw.	22.2	2,694	3,010	
.....	.....	.....	.....	.....	.....	2,500	737.2	1.8	.....	81	5.64	wsw.	18.9	2,450	2,140	
11:42	952.6	14.7	74	wsw.	16.7	2,457	741.2	1.8	0.32	83	5.78	wsw.	18.3	2,408	1,990	
.....	.....	.....	.....	.....	.....	2,250	760.5	2.5	.....	86	6.29	wsw.	18.4	2,205	1,270	
.....	.....	.....	.....	.....	.....	2,000	784.0	3.3	.....	89	6.89	sw.	18.6	1,960	960	
P. M.																
12:02	952.6	15.6	70	wsw.	10.3	1,780	805.7	4.0	0.48	92	7.48	sw.	18.7	1,745	680	
.....	.....	.....	.....	.....	.....	1,750	808.0	4.1	.....	91	7.45	sw.	18.7	1,715	640	
.....	.....	.....	.....	.....	.....	1,500	832.5	5.3	.....	87	7.75	sw.	18.5	1,470	340	
.....	.....	.....	.....	.....	.....	1,250	858.5	6.6	.....	82	8.00	wsw.	18.4	1,225	40	
.....	.....	.....	.....	.....	.....	1,000	885.3	7.8	.....	77	8.15	wsw.	18.3	980	0	
12:22	952.4	15.4	71	w.	12.1	888	898.1	8.3	1.40	75	8.21	wsw.	18.2	871	0	
.....	.....	.....	.....	.....	.....	750	913.0	10.2	.....	74	9.21	wsw.	17.1	735	0	
.....	.....	.....	.....	.....	.....	500	940.3	13.7	.....	72	11.29	wsw.	15.1	490	0	
12:28	952.3	15.2	71	wsw.	14.3	396	952.3	15.2	.....	71	12.26	wsw.	14.3	388	.....	10/10 St. Cu., wsw.

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 27, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
8:33	964.0	9.2	83	n.	4.9	396	964.0	9.2		83	9.66	n.	4.9	388		10/10 St., ne.
						500	952.0	8.8		89	10.08	nne.	8.5	490		
8:43	963.9	9.2	84	nne.	4.9	716	927.3	8.0	0.38	100	10.73	ne.	16.1	702	920	St. base at about 800 m.
						750	924.0	8.0		99	10.62	ne.	16.5	735	1,070	
						1,000	896.1	8.2		90	9.78	ene.	19.4	980	2,190	
8:55	963.8	9.6	84	nne.	6.3	1,204	874.1	8.4	0.08	82	9.04	ene.	21.7	1,180	3,100	
						1,250	869.8	8.3		82	8.98	ene.	21.1	1,225	3,250	
						1,500	843.5	7.9		80	8.52	ene.	17.7	1,470	4,090	
						1,750	817.2	7.5		78	8.09	ene.	14.3	1,715	4,500	
						2,000	793.7	7.2		77	7.82	ene.	10.9	1,960	4,500	10/10 St., ne.
9:49	964.1	10.6	80	n.	5.8	2,096	784.9	7.0	0.16	76	7.62	ene.	9.6	2,054	4,470	
						2,250	770.0	6.0		77	7.20	ene.	9.9	2,205	4,430	
						2,500	746.3	4.3		78	6.48	ene.	10.5	2,450	4,590	
						2,750	724.0	2.6		79	5.82	ene.	11.0	2,694	4,910	8/10 St., ne.
10:42	963.9	12.0	75	ne.	7.2	2,845	715.9	2.0	0.67	80	5.65	ene.	11.2	2,787	5,030	
						3,000	701.8	1.2		82	5.46	ene.	11.0	2,939	5,190	
						3,250	678.2	−0.2		85	5.11	ene.	10.8	3,184		
						3,500	658.9	−1.6		88	4.71	ene.	10.5	3,429		
11:12	963.7	13.1	72	ne.	6.7	3,523	657.1	−1.7	0.44	88	4.66	ene.	10.5	3,451		
						3,500	658.9	−1.6		88	4.71	ene.	10.6	3,429		
						3,250	679.7	−0.8		84	4.80	ene.	12.1	3,184		3/10 A. Cu., ne.; 3/10 St., ne.
						3,000	700.3	0.0		81	4.95	ene.	13.7	2,939	3,730	
11:38	963.6	14.4	70	ne.	8.0	2,827	715.9	0.5	0.34	79	5.00	ene.	14.7	2,770	3,600	
						2,750	722.1	0.8		79	5.11	ene.	14.9	2,694	3,480	Few A. Cu., ne.; 4/10 St.,ne.
						2,500	744.5	1.6		80	5.49	ene.	15.5	2,450	3,080	
						2,250	768.2	2.5		81	5.92	ne.	16.0	2,205	2,710	
						2,000	792.3	3.3		82	6.35	ne.	16.6	1,960	2,350	
NOON	963.5	14.3	67	ne.	94	1,919	800.8	3.6	0.13	82	6.49	ne.	16.8	1,881	2,240	St. base at about 1,250 m.
						1,750	818.1	3.8		87	6.98	ne.	17.8	1,715	1,850	
						1.500	842.6	4.1		95	7.78	ne.	19.2	1,470	1,240	
P. M.																
12:16	963.4	15.4	67	ne.	85	1,384	855.1	4.3	0.87	98	8.14	ne.	19.9	1,357	970	
						1,250	869.0	5.5		93	8.40	ne.	18.1	1,225	690	
						1,000	895.3	7.6		84	8.77	ne.	14.7	980	160	
12:26	963.3	15.4	64	ne.	76	922	904.6	8.3	1.31	81	8.87	ne.	13.7	904	0	
						750	923.0	10.6		75	9.58	ne.	11.8	735	0	
						500	950.8	13.8		66	10.41	ne.	9.1	490	0	
12:32	963.3	15.2	62	ne.	80	396	963.3	15.2		62	10.71	ne.	8.0	388		7/10 St., ne.

May 28, 1917.

P. M.																
3:52	963.5	21.2	46	sw.	5.8	396	963.5	21.2		46	11.58	sw.	5.8	388		Cloudless.
						500	951.2	20.3		46	10.96	sw.	6.1	490	0	
						750	923.6	18.2		48	10.03	ssw.	7.0	735	0	1/10 Ci., w.
5:40	962.9	21.2	47	sw.	3.6	815	917.0	17.7	0.84	48	9.72	ssw.	7.2	799	0	6/10 Ci., w.
						1,000	896.7	16.5		54	10.14	ssw.	7.8	980	0	
						1,250	870.8	14.8		63	10.60	ssw.	8.6	1,225	280	
						1,500	846.2	13.1		71	10.71	ssw.	9.4	1,470	560	
6:30	962.8	21.0	52	ssw.	3.6	1,521	843.9	13.0	0.67	72	10.79	ssw.	9.5	1,491	580	
						1,750	821.0	11.8		61	8.44	sw.	8.9	1,715	790	2/10 Ci., w; 6/10 Ci.St., w.
						2,000	796.9	10.4		49	6.18	sw.	8.3	1,960		
7:14	962.9	19.4	58	ssw.	2.2	2,218	776.1	9.2	0.54	39	4.54	wsw.	7.8	2,174		
						2,000	796.9	10.4		45	5.67	sw.	8.3	1,960		
						1,750	821.0	11.7		51	7.01	sw.	8.9	1,715	490	
						1,500	845.3	13.1		57	8.60	ssw.	9.4	1,470	180	
7:41	963.0	18.5	62	s.	3.1	1,346	861.6	13.9	0.69	61	9.69	ssw.	9.8	1,319	0	
						1,250	871.3	14.6		59	9.81	ssw.	9.9	1,225	0	
						1,000	896.7	16.3		54	10.00	ssw.	9.6	980	0	
						750	923.6	18.0		49	10.11	ssw.	9.5	735	0	
7:55	963.1	18.4	62	sse.	3.6	661	933.8	18.6	0.11	47	10.07	ssw.	9.5	648	0	
						500	951.2	18.4		57	12.06	s.	5.9	490	0	
7:58	963.1	18.3	63	sse.	3.6	396	963.1	18.3		63	13.25	sse.	3.6	388		7/10 Ci.St., w.; 2/10 A.St., w.

May 29, 1917.

A.M.																
7:11	962.7	14.7	87	sse.	4.9	396	962.7	14.7		87	14.56	sse.	4.9	388		
						500	950.3	14.9		81	13.72	sse.	8.2	490	0	6/10 A. St., sw.; 4/10 St. Cu., sw.
						750	922.8	15.3		65	11.30	s.	16.3	735	150	
7:30	962.4	15.2	85	s.	5.4	848	912.4	15.5	−0.18	59	10.39	s.	19.4	831	300	
						1,000	895.8	14.8		60	10.10	s.	18.9	980	540	
						1,250	870.0	13.5		63	9.75	ssw.	18.0	1,225	830	
7:54	962.2	16.6	77	s.	9.4	1,466	848.2	12.5	0.49	65	9.42	ssw.	17.2	1,437	1,040	3/10A.Cu., sw.; 2/10 St. Cu., sw.
						1,500	844.7	12.3		65	9.30	ssw.	17.1	1,470	1,070	
						1,750	819.5	11.1		66	8.72	sw.	16.7	1,715	1,320	
						2,000	795.0	9.8		67	8.12	sw.	16.2	1,960	1,500	2/10 Ci. St., wsw.; 2/10 A. St. wsw.; 4/10 St. Cu., wsw.
						2,250	771.8	8.5		68	7.55	wsw.	15.8	2,205	2,050	
9:01	961.5	17.2	77	s.	7.6	2,408	757.1	7.7	0.51	69	7.25	wsw.	15.5	2,360	2,500	
						2,500	748.4	6.8		73	7.21	wsw.	15.2	2,450	2,760	
						2,750	725.5	4.5		83	6.99	wsw.	14.4	2,694	3,270	9/10 St. Cu., wsw.
						3,000	703.7	2.2		93	6.66	wsw.	13.6	2,939		
9:35	961.3	17.1	78	sse.	7.6	3,085	696.6	1.4	0.86	97	6.56	wsw.	13.3	3,023		
						3,000	703.7	2.1		92	6.54	wsw.	13.5	2,939		
						2,750	725.5	4.0		77	6.26	sw.	14.0	2,694	1,530	
						2,500	747.5	6.0		62	5.80	ssw.	14.6	2,450	670	
10:00	961.1	17.4	73	s.	8.0	2,440	753.8	6.5	0.59	58	5.61	ssw.	14.7	2,391	670	
						2,250	770.8	7.6		56	5.85	ssw.	15.7	2,205	660	
						2,000	794.1	9.1		53	6.13	s.	17.1	1,960	140	
						1,750	818.5	10.6		51	6.52	s.	18.4	1,715	0	
10:29	961.0	17.0	76	s.	11.2	1,666	827.2	11.1	0.71	50	6.60	s.	18.9	1,633	0	

TABLE 9.—*Free-air data from kite flights at Drexel Aerological Station, May, 1917*—Continued.

May 29, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
.....	.....	.....	.....	.....	.....	1,500	844.3	12.3	.....	48	6.87	s.	18.8	1,470	0	
.....	.....	.....	.....	.....	.....	1,250	868.5	14.1	.....	46	7.40	s.	18.5	1,225	0	
.....	.....	.....	.....	.....	.....	1,000	894.0	15.8	.....	44	7.90	s.	18.3	980	0	
10:49.....	960.9	16.8	76	sse.	7.6	835	912.4	17.0	−0.63	42	8.14	s.	18.2	819	0	
.....	.....	.....	.....	.....	.....	750	921.0	16.5	.....	47	8.82	s.	17.2	735	0	
10:53.....	960.8	17.0	74	sse.	6.3	598	938.1	15.5	0.79	56	9.86	sse.	15.3	586	0	
.....	.....	.....	.....	.....	.....	500	949.0	16.3	.....	65	12.04	sse.	10.7	490	0	
10:54.....	960.8	17.1	74	sse.	5.8	396	960.8	17.1	.....	74	14.42	sse.	5.8	388	.....	10/10 St. Cu., sw.

May 30, 1917.

P. M.																
5:55.....	954.4	16.4	90	n.	5.4	396	954.4	16.4	.....	90	16.78	n.	5.4	388	.....	10/10 St. Cu., nnw.
.....	.....	.....	.....	.....	.....	500	943.0	15.9	.....	92	16.62	n.	8.7	490	0	Sprinkling rain.
.....	.....	.....	.....	.....	.....	750	916.0	14.6	.....	98	16.29	nnw.	16.6	735	0	
6:03.....	955.0	16.2	90	n.	6.3	771	913.7	14.5	0.51	98	16.18	nnw.	17.3	754	0	St. Cu. base at about 800 m.
.....	.....	.....	.....	.....	.....	1,000	889.5	13.8	.....	95	14.99	nnw.	16.3	980	0	
.....	.....	.....	.....	.....	.....	1,250	863.5	13.1	.....	92	13.87	nnw.	15.2	1,225	0	
6:21.....	955.2	16.2	90	nnw.	5.8	1,468	841.6	12.4	0.30	89	12.82	nnw.	14.3	1,439	0	
.....	.....	.....	.....	.....	.....	1,500	838.0	12.2	.....	89	12.65	nnw.	14.3	1,470	50	
.....	.....	.....	.....	.....	.....	1,750	813.2	10.7	.....	91	11.71	nnw.	14.3	1,715	200	Rain ended 6:30 p. m.
.....	.....	.....	.....	.....	.....	2,000	788.7	9.1	.....	93	10.75	nnw.	14.3	1,960	760	
.....	.....	.....	.....	.....	.....	2,250	766.0	7.6	.....	95	9.92	nnw.	14.3	2,205	960	
7:00.....	955.7	15.6	89	nnw.	6.7	2,450	743.2	6.4	0.61	96	9.23	nnw.	14.3	2,401	1,120	
.....	.....	.....	.....	.....	.....	2,500	743.0	6.1	.....	96	9.04	nnw.	14.4	2,450	1,200	
.....	.....	.....	.....	.....	.....	2,750	720.1	4.7	.....	98	8.37	nnw.	15.1	2,694	1,820	
.....	.....	.....	.....	.....	.....	3,000	698.2	3.3	.....	99	7.66	nnw.	15.8	2,939	.....	Rain began 7:15 p. m.
7:25.....	956.1	15.2	90	nnw.	6.7	3,095	690.9	2.8	0.48	100	7.47	nnw.	16.1	3,032	.....	
.....	.....	.....	.....	.....	.....	3,000	698.2	3.2	.....	99	7.61	nnw.	15.8	2,939	.....	
.....	.....	.....	.....	.....	.....	2,750	720.1	4.1	.....	97	7.94	nnw.	15.5	2,694	1,910	
.....	.....	.....	.....	.....	.....	2,500	742.0	5.1	.....	94	8.26	nnw.	15.0	2,450	1,770	
.....	.....	.....	.....	.....	.....	2,250	765.0	6.1	.....	92	8.67	nnw.	14.5	2,205	1,720	St.Cu. base at about 550 m.
8:13.....	957.0	13.5	92	nnw.	8.0	2,137	776.0	6.5	0.43	91	8.81	nnw.	14.3	2,094	1,700	
.....	.....	.....	.....	.....	.....	2,000	788.7	7.1	.....	92	9.28	nnw.	14.6	1,960	2,280	
.....	.....	.....	.....	.....	.....	1,750	813.2	8.1	.....	95	10.26	nnw.	15.1	1,715	3,350	
8:28.....	957.4	13.0	94	nnw.	7.6	1,714	817.2	8.3	0.15	95	10.40	nnw.	15.2	1,680	3,500	
.....	.....	.....	.....	.....	.....	1,500	838.0	8.6	.....	96	10.72	nnw.	16.6	1,470	1,800	
.....	.....	.....	.....	.....	.....	1,250	863.5	9.0	.....	97	11.14	nnw.	18.2	1,225	870	
.....	.....	.....	.....	.....	.....	1,000	889.5	9.4	.....	98	11.55	nnw.	19.8	980	210	
8:48.....	957.8	13.0	94	nnw.	5.8	919	899.7	9.5	0.67	98	11.63	nnw.	20.3	901	0	
.....	.....	.....	.....	.....	.....	750	917.5	10.6	.....	97	12.40	nnw.	16.1	735	0	
.....	.....	.....	.....	.....	.....	500	945.2	12.3	.....	95	13.59	nnw.	9.8	490	0	
8:53.....	957.9	13.0	94	nnw.	7.2	396	957.9	13.0	.....	94	14.08	nnw.	7.2	388	.....	10/10 St.Cu., nnw.

May 31, 1917.

A. M.																
10:00.....	966.9	14.2	72	nnw.	5.8	396	966.9	14.2	.....	72	11.66	nnw.	5.8	388	.....	Few A.St., nnw.; few St.Cu., n.;
.....	.....	.....	.....	.....	.....	500	954.9	13.4	.....	75	11.53	nnw.	.....	490	0	few Cu., nnw.
.....	.....	.....	.....	.....	.....	750	927.0	11.6	.....	82	11.20	nnw.	.....	735	50	
10:26.....	967.0	14.6	73	nnw.	5.4	980	901.9	9.9	0.74	89	10.86	nnw.	.....	961	570	
.....	.....	.....	.....	.....	.....	1,000	900.0	10.0	.....	87	10.68	nnw.	.....	980	610	
10:35.....	967.1	14.9	71	nnw.	4.9	1,164	882.3	10.7	−0.43	66	8.49	nnw.	.....	1,141	990	
.....	.....	.....	.....	.....	.....	1,250	873.7	10.3	.....	66	8.27	nnw.	.....	1,225	1,240	
.....	.....	.....	.....	.....	.....	1,500	847.4	9.1	.....	66	7.63	nnw.	.....	1,470	1,970	
.....	.....	.....	.....	.....	.....	1,750	822.0	7.8	.....	65	6.88	n.	.....	1,715	2,220	
11:10.....	967.3	14.9	71	nnw.	5.4	1,940	803.7	6.9	0.49	65	6.47	n.	.....	1,901	2,400	Few Cu., nnw.
.....	.....	.....	.....	.....	.....	2,000	797.2	6.7	.....	64	6.28	n.	.....	1,960	2,470	
.....	.....	.....	.....	.....	.....	2,250	773.9	5.9	.....	58	5.39	n.	.....	2,205	2,630	
.....	.....	.....	.....	.....	.....	2,500	750.8	5.1	.....	52	4.57	nnw.	.....	2,450	.....	
P. M.																
12:47.....	967.8	16.4	68	nnw.	4.9	2,609	741.2	4.7	0.32	50	4.27	nnw.	.....	2,556	.....	
.....	.....	.....	.....	.....	.....	2,500	750.8	5.0	.....	52	4.53	nnw.	.....	2,450	.....	
.....	.....	.....	.....	.....	.....	2,250	773.9	5.8	.....	56	5.16	nnw.	.....	2,205	2,030	
.....	.....	.....	.....	.....	.....	2,000	797.2	6.6	.....	60	5.85	n.	.....	1,960	1,320	
1:31.....	967.7	17.2	64	n.	4.9	1,837	814.0	7.1	0.28	63	6.36	n.	.....	1,800	1,140	
.....	.....	.....	.....	.....	.....	1,750	822.0	7.3	.....	66	6.75	n.	.....	1,715	1,050	
.....	.....	.....	.....	.....	.....	1,500	847.4	8.1	.....	74	7.99	nnw.	.....	1,470	750	
.....	.....	.....	.....	.....	.....	1,250	873.7	8.8	.....	82	9.29	nnw.	.....	1,225	380	
1:51.....	967.6	17.4	64	n.	4.5	1,170	882.3	9.0	0.67	85	9.76	nnw.	.....	1,147	260	
.....	.....	.....	.....	.....	.....	1,000	900.0	10.1	.....	79	9.76	nnw.	.....	980	130	
1:58.....	967.6	17.7	62	nnw.	4.9	828	919.5	11.3	1.46	73	9.77	n.	.....	812	0	
.....	.....	.....	.....	.....	.....	750	955.3	12.4	.....	71	10.22	n.	.....	735	0	
.....	.....	.....	.....	.....	.....	500	927.4	16.1	.....	65	11.89	nne.	.....	490	0	
2:03.....	967.6	17.6	63	nne.	4.5	396	967.6	17.6	.....	63	12.68	nne.	4.5	388	.....	Few A. Cu., n.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station June, 1917.*

June 1, 1917.

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.	Potential. Gravity.	Potential. Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
7:43	969.3	10.4	70	ne.	4.9	396	969.3	10.4	.....	70	8.83	ne.	4.9	388	.....	10/10 St.Cu., sse.
						500	957.3	10.4	.....	62	7.82	ne.	8.3	490	0	
7:53	969.2	10.4	70	ne.	4.9	733	930.8	10.4	0.00	43	5.42	ene.	15.8	719	0	
						750	929.2	10.3	.....	44	5.51	ene.	15.7	735	0	
						1,000	901.3	8.4	.....	51	5.62	ene.	13.8	980	0	
8:10	969.2	10.4	70	ne.	3.1	1,165	883.5	7.2	0.74	56	5.69	ene.	12.6	1,142	0	Rain began 8:22 a. m. Clouds lowering.
						1,250	874.4	6.7	.....	57	5.59	ene.	12.3	1,225	0	
						1,500	848.0	5.1	.....	60	5.27	ene.	11.6	1,470	0	
						1,750	822.8	3.6	.....	62	4.90	e.	10.9	1,715	0	
8:39	969.2	10.6	71	nne.	3.6	1,911	806.3	2.6	0.62	64	4.72	e.	10.4	1,873	0	
						2,000	798.1	1.9	.....	67	4.70	e.	10.1	1,960	0	
						2,250	774.1	−0.1	.....	76	4.61	ese.	9.4	2,205	0	
9:28	969.7	10.4	75	ene.	2.7	2,503	749.4	−2.1	0.79	85	4.36	ese.	8.6	2,453	0	10/10 St.Cu., se.
						2,750	725.0	−2.2	.....	85	4.33	ese.	12.0	2,694	0	St.Cu. 2,500 m.
						3,000	699.8	−2.3	.....	85	4.28	se.	15.4	2,939	0	
10:07	970.3	10.8	78	ne.	2.2	3,184	688.4	−2.4	0.04	85	4.25	se.	17.9	3,119	.....	
10:18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	St.Cu. 1,600 m; kite collapsed.

June 2, 1917.

P. M.																
9:26	969.4	15.0	74	s.	4.0	396	969.4	15.0	.....	74	12.62	s.	4.0	388	.....	2/10 A.Cu., sw.
9:28	969.4	15.0	74	s.	4.0	465	961.6	16.3	−1.88	65	12.04	s.	9.3	456	0	
						500	957.9	16.0	.....	65	11.82	s.	9.1	490	0	
						750	931.4	14.2	.....	65	10.52	ssw.	7.6	735	0	1/10 Ci.,sw.; 1/10 A.Cu., sw.
10:35	969.8	14.1	76	ssw.	3.6	951	908.1	12.7	0.74	65	9.55	sw.	6.4	932	0	
						1,000	905.2	12.2	.....	66	9.38	sw.	6.5	980	0	
						1,250	878.1	9.9	.....	70	8.54	sw.	6.9	1,225	0	
						1,500	850.8	7.6	.....	74	7.73	wsw.	7.4	1,470	0	
						1,750	824.7	5.3	.....	78	6.95	wsw.	7.9	1,715	0	2/10 Ci., sw.
10:43	969.8	13.9	77	ssw.	3.6	1,828	816.8	4.6	0.88	79	6.70	wsw.	8.0	1,792	0	
						1,750	824.7	5.2	.....	78	6.90	wsw.	7.9	1,715	0	
						1,500	850.6	7.3	.....	75	7.67	wsw.	7.4	1,470	0	Lunar corona, 10–11.
						1,250	876.6	9.4	.....	72	8.49	sw.	6.9	1,225	0	
						1,000	903.0	11.4	.....	69	9.30	sw.	6.5	980	0	
10:52	969.9	13.8	78	ssw.	4.0	847	919.6	12.7	1.03	67	9.84	sw.	6.2	830	0	
						750	930.3	13.7	.....	67	10.51	sw.	6.3	735	0	1/10 Ci., sw.
11:18	970.0	13.6	79	ssw.	4.0	517	956.3	16.1	−2.07	67	12.26	ssw.	6.6	507	0	
						500	958.2	15.7	.....	69	12.31	ssw.	6.0	490	0	
11:19	970.0	13.6	79	ssw.	4.0	396	970.0	13.6	.....	79	12.31	ssw.	4.0	388	.....	

June 3, 1917.

A. M.																
7:14	972.2	15.3	76	ssw.	6.7	396	972.2	15.3	.....	76	13.21	ssw.	6.7	388	.....	1/10 Ci., wsw.
						500	960.1	15.1	.....	73	12.53	ssw.	9.5	490	0	
						750	932.0	14.7	.....	64	10.71	sw.	16.4	735	0	
7:23	972.4	15.6	74	ssw.	8.9	759	931.7	14.7	0.17	64	10.71	sw.	16.6	744	0	
						1,000	904.7	13.6	.....	62	9.66	sw.	14.5	980	0	
						1,250	878.7	12.4	.....	61	8.78	sw.	12.2	1,225	120	3/10 Ci., wsw.
						1,500	853.1	11.2	.....	59	7.85	sw.	10.6	1,470	580	Portion of parhelic circle observed 8:01 to 8:23.
						1,750	827.9	10.0	.....	57	7.00	sw.	7.8	1,715	1,060	
8:02	973.0	16.4	72	ssw.	8.9	1,769	826.6	9.9	0.48	57	6.95	sw.	7.6	1,734	1,100	
						2,000	803.5	8.4	.....	58	6.39	sw.	8.0	1,960	1,190	
						2,250	779.7	6.7	.....	59	5.79	sw.	8.4	2,205	1,290	
						2,500	756.5	5.1	.....	61	5.36	wsw.	8.8	2,450	1,390	
						2,750	734.3	3.4	.....	62	4.84	wsw.	9.3	2,694	1,400	
8:59	972.6	19.2	63	ssw.	8.5	2,768	733.0	3.3	0.66	62	4.80	wsw.	9.3	2,712	1,400	
						3,000	712.6	1.5	.....	66	4.49	wsw.	9.0	2,939	.....	
						3,250	691.4	−0.4	.....	70	4.14	w.	8.6	3,184	.....	22°-halo, 9:55.
						3,500	670.4	−2.4	.....	75	3.75	w.	8.3	3,429	.....	
10:19	972.4	21.1	55	ssw.	9.4	3,698	653.6	−3.9	0.77	78	3.44	w.	8.0	3,622	.....	
						3,750	649.3	−2.9	.....	58	2.78	w.	8.6	3,673	.....	
10:22	972.4	21.2	54	ssw.	11.2	3,794	645.3	−2.0	−1.56	42	2.17	w.	9.1	3,716	.....	
						3,750	648.9	−2.5	.....	50	2.48	w.	8.0	3,673	.....	
10:24	972.4	21.2	54	ssw.	11.2	3,715	651.5	−2.9	0.63	56	2.69	w.	7.1	3,639	.....	
						3,500	668.9	−1.5	.....	61	3.29	w.	7.5	3,429	.....	5/10 Ci., wsw.
						3,250	690.1	0.0	.....	67	4.09	wsw.	8.0	3,184	.....	
10:47	972.1	21.6	54	ssw.	10.7	3,049	708.0	1.3	0.93	72	4.83	wsw.	8.4	2,987	.....	
						3,000	711.8	1.8	.....	71	4.94	wsw.	8.4	2,939	.....	
						2,750	734.3	4.1	.....	66	5.41	wsw.	8.4	2,694	1,050	
						2,500	756.5	6.4	.....	61	5.86	sw.	8.4	2,450	650	
						2,250	780.8	8.7	.....	56	6.30	sw.	8.4	2,205	200	8/10 Ci., wsw.
11:14	971.7	22.5	52	ssw.	10.3	2,141	791.0	9.7	0.65	54	6.50	sw.	8.4	2,098	0	
						2,000	804.6	10.6	.....	53	6.77	sw.	9.8	1,960	0	
						1,750	829.3	12.2	.....	52	7.39	sw.	12.3	1,715	0	
						1,500	854.1	13.8	.....	51	8.05	sw.	14.7	1,470	0	
11:38	971.3	22.4	50	ssw.	12.1	1,289	875.2	15.2	0.48	50	8.64	sw.	16.8	1,264	0	
						1,250	879.8	15.4	.....	51	8.92	sw.	16.5	1,225	0	
						1,000	905.9	16.6	.....	55	10.39	ssw.	14.6	980	0	
11:51	971.1	22.5	50	ssw.	11.2	812	925.3	17.5	1.23	59	11.80	ssw.	13.2	796	0	
						750	932.7	18.3	.....	58	12.20	ssw.	13.0	735	0	
						500	959.8	21.3	.....	53	13.42	ssw.	12.0	490	0	
11:56	971.0	22.6	51	ssw.	11.6	396	971.0	22.6	.....	51	13.99	ssw.	11.6	388	.....	9/10 Ci., wsw. halo continuing.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 4, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
1:43	961.8	19.0	85	ne.	4.5	396	961.8	19.0	.....	85	18.67	ne.	4.5	388	.....	10/10 St., ene. Sprinkling rain began at 1:43 p. m.
						500	949.4	17.8	.....	88	17.93	ne.	5.2	490	0	
						750	922.9	15.1	.....	95	16.30	nne.	6.8	735	0	
2:15	961.8	18.6	85	nne.	3.6	791	918.3	14.6	1.11	96	15.96	nne.	7.1	776	0	
						1,000	896.6	13.9	.....	94	14.93	nne.	6.4	980	0	
						1,250	870.9	13.1	.....	91	13.72	ne.	5.5	1,225	0	10/10 St., nne.
						1,500	845.3	12.2	.....	88	12.50	ene.	4.7	1,470	0	
3:36	961.8	19.8	77	ne.	4.9	1,634	831.2	11.8	0.40	86	11.90	ene.	4.2	1,602	0	
						1,500	845.3	12.4	.....	87	12.53	ene.	5.2	1,470	0	
						1,250	870.9	13.7	.....	90	14.11	ene.	7.0	1,225	0	3/10 A. St., w.; 7/10 St., nne.
						1,000	896.6	14.9	.....	92	15.58	ne.	8.8	980	0	
4:16	961.8	20.2	76	ne.	5.4	805	917.0	15.8	1.12	94	16.87	ne.	10.2	789	0	
						750	923.2	16.4	.....	92	17.16	ne.	9.6	735	0	
						500	950.2	19.2	.....	81	18.02	ne.	6.6	490	0	3/10 A. St., w.; 6/10 St., nne.
4:20	961.8	20.4	76	ne.	5.4	396	961.8	20.4	.....	76	18.22	ne.	5.4	388	.....	

June 5, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.																
9:19	961.2	16.8	86	ene.	4.9	396	961.2	16.8	.....	86	16.45	ene.	4.9	388	.....	9/10 St., ene.
						500	949.8	16.0	.....	88	16.00	ene.	5.7	490	0	St. base at about 750 m.
						750	922.1	14.2	.....	94	15.22	ene.	7.7	735	0	
						1,000	895.1	12.4	.....	99	14.26	ene.	9.7	980	0	
9:38	961.4	17.4	86	e.	6.7	1,043	890.8	12.1	0.73	100	14.12	ene.	10.0	1,023	0	
9:51	961.4	17.6	84	ene.	5.8	1,171	877.2	15.3	−2.50	56	9.73	ene.	9.2	1,148	0	
						1,250	868.1	14.4	.....	62	10.17	ene.	9.0	1,225	0	7/10 St., e.
						1,500	843.9	11.6	.....	80	10.93	e.	8.2	1,470	0	
11:50	961.8	18.6	83	e.	3.6	1,616	832.7	10.3	1.12	88	11.03	e.	7.8	1,584	0	10/10 St., e.
						1,750	819.2	9.7	.....	84	10.11	e.	8.3	1,715	0	
						2,000	794.5	8.6	.....	77	8.60	e.	9.3	1,960	0	
						2,250	771.4	7.4	.....	69	7.11	e.	10.3	2,205	0	
11:55	961.8	18.5	84	ene.	3.6	2,388	758.5	6.8	0.50	65	6.42	e.	10.8	2,340	0	
						2,250	771.4	7.6	.....	71	7.41	e.	10.6	2,205	0	
						2,000	794.5	9.0	.....	81	9.30	e.	10.1	1,960	0	
						1,750	819.2	10.3	.....	92	11.53	e.	9.7	1,715	0	
P. M.																
12:05	961.7	18.3	84	ene.	3.6	1,577	836.2	11.3	0.28	99	13.26	e.	9.4	1,546	0	
						1,500	843.9	11.5	.....	99	13.43	e.	9.1	1,470	0	
						1,250	868.1	12.2	.....	99	14.07	e.	8.2	1,225	0	
						1,000	895.1	12.9	.....	100	14.88	ene.	7.3	980	0	
12:15	961.4	18.3	83	ene.	3.6	818	914.8	13.4	1.14	100	15.37	ene.	6.6	802	0	St. base at about 800 m.
						750	922.1	14.2	.....	97	15.70	ene.	6.2	735	0	
						500	949.8	17.0	.....	88	17.05	ene.	4.6	490	0	
12:28	961.1	18.2	84	ene.	4.0	396	961.1	18.2	.....	84	17.97	ene.	4.0	388	.....	10/10 St., e.

June 6, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.																
12:34	960.0	16.7	59	wnw.	14.8	396	960.0	16.7	.....	59	11.22	wnw.	14.8	388	.....	7/10 Cu., w.
						500	948.1	15.6	.....	61	10.81	wnw.	16.1	490	0	
						750	920.5	12.9	.....	65	9.67	w.	19.2	735	0	
12:41	960.0	16.9	58	w.	15.2	779	917.4	12.6	1.07	65	9.48	w.	19.6	764	0	
						1,000	893.7	10.7	.....	72	9.27	w.	19.5	980	0	
						1,250	867.7	8.5	.....	79	8.77	w.	19.3	1,225	0	
1:00	960.1	16.8	59	w.	12.5	1,492	842.2	6.4	0.87	86	8.26	w.	19.2	1,463	0	
						1,500	841.9	6.3	.....	86	8.21	w.	19.2	1,470	10	
						1,750	816.4	4.6	.....	83	7.04	w.	20.4	1,715	230	
						2,000	791.4	2.9	.....	81	6.10	w.	21.5	1,960	460	
						2,250	767.0	1.1	.....	78	5.16	w.	22.7	2,205	610	
1:26	960.1	17.2	58	wnw.	15.2	2,401	753.1	0.1	0.69	77	4.74	w.	23.4	2,353	700	
						2,500	743.9	−0.4	.....	74	4.37	w.	23.2	2,450	750	
						2,750	721.7	−1.8	.....	68	3.58	w.	22.8	2,694	880	
1:46	960.1	17.8	57	wnw.	13.0	2,946	703.8	−2.8	0.54	63	3.05	w.	22.4	2,886	.....	8/10 Cu., w.
						2,750	722.4	−1.7	.....	73	3.87	w.	22.2	2,694	870	
						2,500	745.1	−0.4	.....	87	5.14	w.	21.8	2,450	640	
2:15	960.2	17.4	56	wnw.	14.3	2,301	763.1	0.7	0.85	97	6.24	w.	21.6	2,255	460	
						2,250	768.2	1.1	.....	96	6.36	w.	21.5	2,205	400	
						2,000	791.4	3.3	.....	91	7.04	w.	20.9	1,960	80	8/10 Cu., w.
						1,750	816.4	5.4	.....	86	7.71	w.	20.4	1,715	0	
						1,500	841.9	7.5	.....	81	8.40	w.	19.8	1,470	0	
						1,250	867.7	9.6	.....	76	9.08	w.	19.2	1,225	0	
2:57	960.4	17.8	61	nw.	9.8	1,147	878.5	10.5	0.94	74	9.40	w.	19.0	1,124	0	
						1,000	893.8	11.9	.....	67	9.33	w.	18.1	980	0	
3:07	960.4	18.1	55	wnw.	12.1	784	917.4	13.9	1.01	57	9.05	w.	16.9	769	0	
						750	921.3	14.2	.....	57	9.23	w.	16.5	735	0	
						500	949.1	16.8	.....	57	10.90	wnw.	13.4	490	0	
3:13	960.4	17.8	57	wnw.	12.1	396	960.4	17.8	.....	57	11.62	wnw.	12.1	388	.....	

June 7, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.																
7:21	964.6	12.9	75	wnw.	5.4	396	964.0	12.9	.....	75	11.16	wnw.	5.4	388	.....	Cloudless.
						500	952.7	12.8	.....	70	10.35	wnw.	6.8	490	0	
						750	924.9	12.5	.....	59	8.55	nw.	10.0	735	0	
						1,000	897.9	12.3	.....	48	6.87	nw.	13.3	980	0	
7:41	964.7	13.5	68	nw.	4.9	1,087	888.4	12.2	0.10	44	6.25	nw.	14.4	1,066	0	
						1,250	871.0	11.1	.....	46	6.08	nw.	14.4	1,225	70	
						1,500	844.7	9.4	.....	52	6.13	nw.	14.5	1,470	450	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 7; 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
.....	.....	.....	.....	.....	.....	1,750	819.5	7.8	.....	53	5.61	wnw.	14.6	1,715	730	
.....	.....	.....	.....	.....	.....	2,000	795.3	6.1	.....	56	5.28	wnw.	14.6	1,960	900	
8:20	964.7	14.7	64	wnw.	4.5	2,193	777.7	4.8	0.67	59	5.07	wnw.	14.7	2,149	890	
.....	.....	.....	.....	.....	.....	2,250	772.2	4.5	.....	59	4.97	wnw.	15.4	2,205	940	
.....	.....	.....	.....	.....	.....	2,500	749.3	3.3	.....	61	4.72	wnw.	18.3	2,450	1,170	
.....	.....	.....	.....	.....	.....	2,750	726.9	2.1	.....	63	4.48	wnw.	21.2	2,694	.....	
9:03	964.5	16.3	60	nnw.	4.5	2,884	714.5	1.5	0.57	64	4.36	wnw.	22.8	2,826	.....	
.....	.....	.....	.....	.....	.....	2,750	726.9	2.4	.....	63	4.57	wnw.	21.9	2,694	.....	
.....	.....	.....	.....	.....	.....	2,500	749.4	4.0	.....	61	4.96	wnw.	20.0	2,450	910	
.....	.....	.....	.....	.....	.....	2,250	773.0	5.6	.....	59	5.37	nww	18.3	2,205	710	
9:50	964.2	17.6	53	nw.	5.4	2,149	782.2	6.2	0.69	58	5.50	wnw.	17.6	2,106	620	
.....	.....	.....	.....	.....	.....	2,000	796.4	7.2	.....	56	5.69	wnw.	16.5	1,960	420	
.....	.....	.....	.....	.....	.....	1,750	820.8	9.0	.....	52	5.97	wnw.	14.8	1,715	70	
.....	.....	.....	.....	.....	.....	1,500	846.0	10.7	.....	49	6.31	wnw.	13.0	1,470	0	
10:23	964.2	18.6	53	nw.	4.0	1,281	868.7	12.2	0.75	46	6.54	wnw.	11.4	1,256	0	
.....	.....	.....	.....	.....	.....	1,250	872.0	12.4	.....	46	6.62	wnw.	11.2	1,225	0	
.....	.....	.....	.....	.....	.....	1,000	898.1	14.3	.....	48	7.82	wnw.	9.3	980	0	
.....	.....	.....	.....	.....	.....	750	925.0	16.2	.....	50	9.21	nw.	7.5	735	0	
.....	.....	.....	.....	.....	.....	500	952.7	18.0	.....	51	10.53	nw.	5.7	490	0	
10:38	964.2	18.8	53	nw.	4.9	396	964.2	18.8	.....	53	11.50	nw.	4.9	388	.....	Cloudless.

June 8, 1917.

A. M.																
7:41	960.7	18.0	80	sse.	4.5	396	960.7	18.0	.....	80	16.51	sse.	4.5	388	.....	5/10 Ci., wsw.; 2/10 Cu., w.: 2/10 St., wsw.
.....	.....	.....	.....	.....	.....	500	949.3	18.2	.....	79	16.51	s.	5.9	490	0	
8:08	960.8	18.6	86	s.	4.5	726	924.5	18.6	−0.18	77	16.50	sw.	9.0	712	0	22°-halo, 8:46–9:02
.....	.....	.....	.....	.....	.....	750	922.3	18.6	.....	76	16.29	sw.	9.1	735	0	
.....	.....	.....	.....	.....	.....	1,000	895.5	18.2	.....	67	14.00	sw.	10.4	980	10	
.....	.....	.....	.....	.....	.....	1,250	869.7	17.8	.....	57	11.62	wsw.	11.7	1,225	90	St. base at about 950 m.
.....	.....	.....	.....	.....	.....	1,500	844.5	17.5	.....	48	9.60	wsw.	13.0	1,470	170	2/10 Ci., wsw.; 3/10 A. Cu., sw.; 4/10 St., sw.
9:25	960.9	20.0	79	sw.	7.6	1,692	826.0	17.2	0.14	41	8.04	wsw.	14.0	1,658	240	
.....	.....	.....	.....	.....	.....	1,750	820.1	16.7	.....	42	7.98	wsw.	14.1	1,715	250	
.....	.....	.....	.....	.....	.....	2,000	796.4	14.7	.....	45	7.53	wsw.	14.6	1,960	330	
.....	.....	.....	.....	.....	.....	2,250	773.2	12.6	.....	49	7.15	wsw.	15.0	2,205	410	
.....	.....	.....	.....	.....	.....	2,500	750.3	10.5	.....	53	6.73	wsw.	15.5	2,450	490	
9:34	961.0	20.1	78	sw.	8.9	2,660	736.3	9.2	0.83	55	6.40	wsw.	15.8	2,606	530	
.....	.....	.....	.....	.....	.....	2,750	728.6	8.5	.....	56	6.22	wsw.	15.6	2,694	560	
.....	.....	.....	.....	.....	.....	3,000	707.1	6.7	.....	58	5.69	wsw.	15.1	2,939	620	
.....	.....	.....	.....	.....	.....	3,250	685.9	4.8	.....	60	5.16	wsw.	14.5	3,184	690	
.....	.....	.....	.....	.....	.....	3,500	664.4	2.9	.....	62	4.67	wsw.	14.0	3,429	790	
.....	.....	.....	.....	.....	.....	3,750	643.7	1.0	.....	64	4.20	wsw.	13.4	3,673	.....	
10:00	961.1	20.3	73	wsw.	8.5	3,761	642.8	0.9	0.67	64	4.17	wsw.	13.4	3,684	.....	
.....	.....	.....	.....	.....	.....	3,750	643.7	1.0	.....	64	4.20	wsw.	13.4	3,673	.....	
.....	.....	.....	.....	.....	.....	3,500	664.5	2.4	.....	61	4.43	wsw.	14.2	3,429	760	
.....	.....	.....	.....	.....	.....	3,250	685.4	3.9	.....	58	4.69	wsw.	15.0	3,184	630	3/10 Ci., wsw.; 6/10 St., wsw.
.....	.....	.....	.....	.....	.....	3,000	706.5	5.3	.....	55	4.90	wsw.	15.8	2,939	490	
.....	.....	.....	.....	.....	.....	2,750	728.0	6.8	.....	52	5.14	wsw.	16.6	2,694	310	
.....	.....	.....	.....	.....	.....	2,500	750.0	8.2	.....	49	5.33	wsw.	17.4	2,450	130	
10:30	961.4	19.6	72	w.	8.9	2,316	766.4	9.3	0.81	47	5.51	wsw.	18.0	2,269	0	
.....	.....	.....	.....	.....	.....	2,250	772.7	9.8	.....	46	5.58	wsw.	18.2	2,205	0	
.....	.....	.....	.....	.....	.....	2,000	795.6	11.9	.....	41	5.71	wsw.	18.7	1,960	0	
10:45	961.6	19.7	75	w.	6.7	1,747	820.2	13.9	0.18	36	5.72	wsw.	19.3	1,712	0	
.....	.....	.....	.....	.....	.....	1,500	844.5	14.3	.....	52	8.48	wsw.	16.8	1,470	0	
.....	.....	.....	.....	.....	.....	1,250	869.7	14.8	.....	67	11.28	w.	14.3	1,225	0	S base at about 900 m.
.....	.....	.....	.....	.....	.....	1,000	895.5	15.3	.....	83	14.43	w.	11.8	980	0	
11:10	961.7	19.4	81	w.	7.6	877	909.1	15.5	0.87	91	16.03	w.	10.6	860	0	
.....	.....	.....	.....	.....	.....	750	922.3	16.6	.....	89	16.81	w.	9.7	735	0	
.....	.....	.....	.....	.....	.....	500	950.0	18.8	.....	84	18.23	w.	7.9	490	0	
11:17	961.7	19.7	82	w.	7.2	396	961.7	19.7	.....	82	18.82	w.	7.2	388	.....	4/10 A.St., wsw.; 6/10 St., w.

June 9, 1917.

P. M.																
8:17	963.5	20.3	70	se.	2.7	396	963.5	20.3	.....	70	16.67	se.	2.7	388	.....	Few Ci. St., wnw.
.....	.....	.....	.....	.....	.....	500	951.5	19.9	.....	63	14.64	se.	3.5	490	0	
.....	.....	.....	.....	.....	.....	750	925.1	18.9	.....	46	10.05	sse.	5.4	735	0	
9:00	963.5	19.0	78	sse.	3.1	832	915.8	18.6	0.39	40	8.57	sse.	6.0	816	0	
.....	.....	.....	.....	.....	.....	1,000	898.6	18.2	.....	40	8.36	sse.	5.6	980	80	
.....	.....	.....	.....	.....	.....	1,250	872.7	17.6	.....	40	8.05	sse.	4.9	1,225	.....	
9:58	963.5	18.2	79	se.	4.5	1,452	851.6	17.1	0.12	40	7.80	sse.	4.4	1,424	.....	
.....	.....	.....	.....	.....	.....	1,250	872.5	17.1	.....	45	8.78	sse.	6.4	1,225	.....	
.....	.....	.....	.....	.....	.....	1,000	898.0	17.1	.....	51	9.94	sse.	8.9	980	0	
10:23	963.3	18.0	78	se.	3.6	839	914.6	17.1	0.40	55	10.72	sse.	10.5	823	0	
.....	.....	.....	.....	.....	.....	750	924.3	18.0	.....	57	11.76	sse.	10.4	735	0	
10:28	963.3	18.0	79	sse.	3.6	517	949.8	18.4	−0.50	62	13.12	sse.	10.0	507	0	
.....	.....	.....	.....	.....	.....	500	952.0	18.3	.....	65	13.67	sse.	9.2	490	0	
10:33	963.3	17.8	80	sse.	4.5	396	963.3	17.8	.....	80	16.30	sse.	4.5	388	.....	Cloudless.

June 10, 1917.

A. M.																
6:45	960.5	17.0	78	sse.	5.4	396	960.5	17.0	.....	78	15.12	sse.	5.4	388	.....	Cloudless.
.....	.....	.....	.....	.....	.....	500	950.2	17.8	.....	67	13.65	sse.	9.3	490	0	
6:50	963.1	17.2	80	sse.	4.9	721	927.3	19.6	−0.80	45	10.26	s.	17.6	707	0	
.....	.....	.....	.....	.....	.....	750	924.4	18.6	.....	45	10.26	s.	17.5	735	0	
.....	.....	.....	.....	.....	.....	1,000	898.4	19.6	.....	44	10.04	s.	16.7	980	0	
.....	.....	.....	.....	.....	.....	1,250	847.3	19.6	.....	42	9.58	s.	15.8	1,225	80	
.....	.....	.....	.....	.....	.....	1,500	847.3	19.7	.....	41	9.41	ssw.	15.0	1,470	390	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 10, 1917—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^5 *ergs.*	*volts.*	
						1,750	823.1	19.7	.....	40	9.18	ssw.	14.2	1,715	590	
7:23	963.0	18.6	78	sse.	5.4	1,920	806.9	19.7	−0.01	39	8.95	ssw.	13.6	1,882	600	
						2,000	799.1	19.2	.....	40	8.90	ssw.	13.4	1,960	610	
						2,250	776.0	17.6	.....	42	8.45	ssw.	12.8	2,205	780	
						2,500	753.3	16.0	.....	43	7.82	sw.	12.1	2,450	950	
						2,750	731.7	14.5	.....	45	7.43	sw.	11.6	2,694	1,110	Few Ci. St., wsw.
						3,000	710.4	12.9	.....	47	6.99	wsw.	11.0	2,939	1,280	
						3,250	690.0	11.3	.....	49	6.56	wsw.	10.4	3,184	1,400	
8:57	962.5	21.5	67	sse.	6.7	3,428	675.4	10.2	0.63	50	6.22	wsw.	10.0	3,358	1,680	
						3,500	669.8	10.0	.....	47	5.77	wsw.	10.3	3,429	1,710	
						3,750	650.0	9.1	.....	37	4,28	wsw.	11.4	3,673	.....	
						4,000	630.3	8.2	.....	27	2.93	wsw.	12.5	3,918	.....	
						4,250	611.4	7.4	.....	17	1.75	wsw.	13.6	4,162	.....	
						4,500	592.7	7.4	.....	7	0.72	wsw.	14.7	4,407	.....	
9:24	962.2	22.2	63	sse.	5.8	4,511	591.5	6.5	0.22	7	0.68	wsw.	14.8	4,418	.....	
						4,500	592.7	6.5	.....	7	0.68	wsw.	14.8	4,407	.....	
						4,250	611.4	6.8	.....	15	1.48	wsw.	14.7	4,162	.....	
						4,000	630.3	7.0	.....	22	2.20	sw.	14.6	3,918	.....	
						3,750	649.8	7.2	.....	30	3.05	sw.	14.5	3,673	.....	
						3,500	668.9	7.5	.....	37	3.84	sw.	14.4	3,429	.....	
						3,250	688.3	7.7	.....	45	4.73	ssw.	14.3	3,184	1,090	
10:07	961.7	23.2	61	sse.	8.0	3,078	702.3	7.9	0.82	50	5.32	ssw.	14.2	3,016	980	
						3,000	708.6	8.5	.....	50	5.55	ssw.	14.4	2,939	940	
						2,750	729.5	10.6	.....	50	6.39	ssw.	15.1	2,694	800	
						2,500	751.0	12.6	.....	51	7.44	ssw.	15.4	2,450	660	
						2,250	773.5	14.7	.....	51	8.53	ssw.	16.1	2,205	540	
						2,000	797.1	16.7	.....	52	9.89	ssw.	16.4	1,960	430	
10:45	961.0	24.2	56	sse.	8.5	1,759	820.9	18.7	0.22	52	11.22	ssw.	16.9	1,724	330	
						1,750	822.0	18.7	.....	52	11.22	ssw.	16.9	1,715	320	
						1,500	846.2	19.3	.....	53	11.87	s.	16.9	1,470	150	
						1,250	871.2	19.8	.....	54	12.47	s.	16.9	1,225	0	
						1,000	896.6	20.4	.....	55	13.18	sse.	16.9	980	0	
11:09	960.7	24.6	57	sse.	10.7	863	910.6	20.7	0.92	55	13.43	sse.	16.9	846	0	
						750	922.6	21.7	.....	55	14.28	sse.	15.0	735	0	
						500	949.3	24.0	.....	54	16.11	sse.	10.7	490	0	
11:15	960.7	25.0	54	sse.	8.9	396	960.7	25.0	.....	54	17.11	sse.	8.9	388	.....	Few Ci., wsw.

June 11, 1917.

P. M.																
12:36	955.9	27.2	61	w.	7.2	396	955.9	27.2	.....	61	21.40	w.	7.2	388	.....	Few A. Cu., sw.
						500	944.7	25.8	.....	63	20.93	w.	7.5	490	0	
12:52	956.0	27.2	61	wnw.	6.3	723	921.1	22.9	1.31	68	18.99	w.	7.9	709	0	
						750	918.5	22.7	.....	69	19.04	w.	7.8	735	0	
						1,000	892.8	20.5	.....	79	19.05	w.	7.3	980	0	
						1,250	867.6	18.3	.....	88	18.51	w.	6.8	1,225	10	
2:02	956.7	27.2	61	nw.	5.8	1,269	865.6	18.1	0.84	89	18.49	w.	6.8	1,244	10	
						1,500	843.2	18.4	.....	73	15.45	nw.	12.0	1,470	100	
2:49	957.5	26.8	61	nnw.	7.2	1,675	826.1	18.7	−0.15	61	13.16	nw.	16.0	1,642	170	
						1,750	819.3	19.2	.....	59	13.13	nw.	15.4	1,715	200	
						2,000	795.3	16.3	.....	52	9.64	nw.	13.2	1,960	290	
						2,250	772.7	14.5	.....	44	7.26	nw.	11.0	2,205	380	
						2,500	750.1	12.7	.....	37	5.44	nw.	8.9	2,450	480	
						2,750	728.4	10.8	.....	30	3.88	nw.	6.7	2,694	600	Few A. Cu., nw.
						3,000	707.0	9.0	.....	23	2.64	nw.	4.5	2,939	.....	
3:42	958.2	26.9	58	nw.	7.2	3,028	704.5	8.8	0.75	22	2.49	nw.	4 3	2,967	.....	Cloudless.
						3,000	707.0	9.0	.....	22	2.53	nw.	4.5	2,939	.....	
						2,750	728.4	11.0	.....	19	2.49	nw.	5.9	2,694	260	
						2,500	750.1	12.9	.....	17	2.53	nw.	7.4	2,450	0	
						2,250	772.8	14.8	.....	15	2.52	nw.	8.9	2,205	0	
						2,000	796.2	16.8	.....	13	2.49	nw.	10.4	1,960	0	
						1,750	820.8	18.7	.....	10	2.16	nw.	11.8	1,715	0	
4:13	958.7	27.2	51	nnw.	6.3	1,724	822.6	18.9	0.92	10	2.18	nw.	12.0	1,690	0	
						1,500	845.2	19.4	.....	34	7.66	nw.	11.8	1,470	0	
						1,250	870.0	19.9	.....	60	13.94	nw.	11.6	1,225	0	
4:25	959.0	27.2	51	nw.	4.0	1,205	874.3	20.0	0.91	65	15.20	nw.	11.6	1,181	0	Few Cu., s.
						1,000	895.5	21.9	.....	60	15.77	nw.	10.5	980	0	
4:34	959.2	27.4	48	nw.	5.8	802	916.0	23.7	0.91	56	16.41	nw.	9.4	786	0	
						750	921.6	24.2	.....	55	16.61	nw.	9.0	735	0	
						500	947.6	26.5	.....	49	16.97	nnw.	7.1	490	0	
4:38	959.3	27.4	47	nnw.	6.3	396	959.3	27.4	.....	47	17.16	nnw.	6.3	388	.....	

June 12, 1917 (No. 1).

A. M.																
7:25	968.9	17.2	71	ne.	3.1	396	968.9	17.2	.....	71	13.93	ne.	3.1	388	.....	1/10 A. Cu., sw.
7:27	968.9	17.3	72	ne.	3.1	472	960.4	16.0	1.58	51	9.27	ne.	11.7	463	0	
						500	957.3	16.3	.....	48	8.89	ne.	11.7	490	0	
						750	929.7	19.1	.....	24	5.31	ene.	11.2	735	0	
7:35	968.9	17.4	69	ene.	4.0	760	928.4	19.2	−1.11	23	5.12	ene.	11.2	745	0	
						1,000	902.2	17.9	.....	19	3.90	ene.	12.3	980	0	
7:51	968.9	18.1	69	ne.	4.0	1,255	876.3	16.5	0.55	14	2.63	ene.	13.4	1,230	0	
						1,500	851.8	14.5	.....	17	2.81	e.	12.8	1,470	0	
8:05	968.9	18.6	69	ene.	3.6	1,651	836.3	13.3	0.81	19	2.90	e.	12.4	1,618	0	
						1,750	826.6	13.0	.....	18	2.70	e.	12.6	1,715	120	
						2,000	802.0	12.4	.....	16	2.30	ese.	13.2	1,960	430	
8:21	968.8	19.4	69	ene.	4.5	2,069	795.7	12.2	0.26	16	2.27	ese.	13.3	2,028	500	Few Ci. St., wsw.
						2,250	778.5	11.4	.....	17	2.29	ese.	14.2	2,205	580	
						2,500	755.5	10.3	.....	18	2.26	se.	15.4	2,450	680	
						2,750	733.3	9.2	.....	19	2.21	sse.	16.6	2,694	930	
						3,000	711.5	8.1	.....	20	2.16	s.	17.8	2,939	1,210	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 12, 1917 (No. 1)—Continued.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
A. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
8:40	968.7	20.8	67	ene.	5.8	3,176	696.8	7.3	0.44	21	2.15	s.	18.6	3,111	1,400	
						3,250	690.2	6.8		29	2.87	s.	19.1	3,184	1,490	
						3,500	669.6	5.2		56	4.96	ssw.	20.6	3,429	1,780	
						3,750	649.8	3.6		82	6.49	sw.	22.2	3,673	2,060	Cloudless.
8:57	968.6	21.1	67	e.	5.8	3,820	644.6	3.1	0.65	90	6.87	sw.	22.6	3,742	2,130	
						4,000	630.6	2.4		71	5.15	sw.	17.7	3,918	2,310	
9:16	968.4	21.7	67	e.	8.0	4,238	612.4	1.4	0.52	45	3.04	sw.	11.3	4,150		
						4,000	630.6	2.9		58	4.37	sw.	14.0	3,918	2,230	
						3,750	649.8	4.5		72	6.06	ssw.	18.8	3,673	1,940	
						3,500	671.0	6.0		86	8.04	ssw.	22.7	3,429	1,790	
9:50	968.0	23.2	67	e.	8.9	3,471	673.1	6.2	1.00	88	8.34	ssw.	23.1	3,400	1,770	
						3,250	691.3	8.4		63	6.94	s.	21.7	3,184	1,640	
						3,000	711.6	10.9		34	4.43	sse.	20.2	2,939	1,380	
10:11	967.8	23.6	66	ese.	8.0	2,910	719.6	11.8	0.08	24	3.32	sse.	19.6	2,851	1,270	
						2,750	733.4	11.7		36	4.95	sse.	19.8	2,694	1,080	
						2,500	755.5	11.5		55	7.46	se.	20.1	2,450	930	
10:27	967.8	23.9	64	ese.	8.5	2,388	706.2	11.4	−0.48	63	8.49	se.	20.2	2,340	760	
						2,250	778.5	12.1		50	7.06	se.	19.4	2,205	390	
						2,000	801.1	13.3		28	4.28	ese.	18.1	1,960	200	
10:44	967.7	24.3	64	e.	8.9	1,827	818.8	14.1	0.23	12	1.93	ese.	17.1	1,791	0	
						1,750	825.3	14.3		20	3.26	ese.	16.2	1,715	0	
						1,500	850.6	14.9		48	8.13	e.	13.3	1,470	0	
10:59	967.6	24.5	50	e.	8.5	1,313	870.1	15.3	1.05	68	11.82	e.	11.2	1,287	0	
						1,250	876.2	16.0		65	11.82	e.	11.1	1,225	0	1/10 A.Cu., ssw.; few Cu., e.
						1,000	902.1	18.6		54	11.57	ene.	10.7	980	0	
11:10	967.7	24.6	48	ene.	8.5	867	916.7	20.0	1.02	48	11.22	ene.	10.5	850	0	
						750	928.8	21.2		48	12.09	ene.	9.9	735	0	
						500	956.0	23.7		47	13.78	ene.	8.6	490	0	
11:16	967.8	24.8	47	ene.	8.0	396	967.8	24.8		47	14.72	ene.	8.0	388		6/10 A.Cu., ssw.; few Cu., e.

June 12, 1917 (No. 2).

P. M.																
12:10	968.2	26.0	42	ene.	7.2	396	968.2	26.0		42	14.12	ene.	7.2	388		7/10 A. Cu., sw.; 3/10 Cu., e.
						500	956.8	24.6		44	13.61	ene.	8.0	490	0	
						750	929.9	21.3		50	12.66	ene.	10.1	735	0	
12:18	968.1	26.1	43	ene.	5.8	765	928.1	21.1	1.33	50	12.52	ene.	10.2	750	0	
						1,000	903.2	19.0		55	12.08	ene.	11.2	980	0	
						1,250	877.0	16.7		60	11.41	ene.	12.1	1,225	0	
12:31	968.0	25.2	44	ene.	7.2	1,258	876.3	16.6	0.91	60	11.32	ene.	12.1	1,233	0	
						1,500	851.4	14.6		62	10.30	ene.	11.9	1,470	0	Few A. Cu., sw.; 9/10 St., sse.
						1,750	826.7	12.5		64	9.27	e.	11.8	1,715	90	
1:06	967.9	25.3	45	ene.	6.7	1,984	804.0	10.6	0.83	66	8.43	e.	11.6	1,945	310	
						2,000	802.3	10.6		67	8.56	e.	11.7	1,960	330	St. base at about 2,250 m.
1:14	968.0	25.5	44	ne.	7.2	2,249	778.9	11.4	−0.30	85	11.46	ese.	13.4	2,204	550	
						2,500	755.6	10.0		88	10.81	se.	14.4	2,450	750	
						2,750	733.8	8.7		90	10.12	sse.	15.5	2,694	960	
						3,000	712.3	7.3		93	9.51	s.	16.5	2,939	1,160	
1:37	968.1	26.1	46	ne.	5.8	3,187	696.2	6.3	0.54	95	9.07	ssw.	17.3	3,122	1,340	
						3,250	691.0	6.3		85	8.12	ssw.	18.3	3,184	1,430	
						3,500	669.8	6.3		45	4.30	sw.	22.3	3,429	1,810	
1:49	968.1	25.6	44	ne.	7.6	3,634	658.7	6.3	0.00	24	2.29	sw.	24.5	3,560	2,020	
						3,750	649.3	5.4		23	2.06	sw.	24.4	3,673	2,190	10/10 St., sse.
						4,000	629.9	3.6		19	1.50	sw.	24.2	3,918	2,490	
2:13	968.2	25.2	44	ne.	7.2	4,193	615.1	2.1	0.60	17	1.21	sw.	24.0	4,107		
						4,000	629.9	3.0		34	2.58	sw.	22.3	3,918	2,490	
						3,750	649.3	4.1		56	4.59	sw.	20.1	3,673	2,160	
						3,500	669.8	5.3		77	6.86	sw.	18.0	3,429	1,830	
2:32	968.2	25.4	43	ne.	6.3	3,275	688.6	6.3	0.60	97	9.26	sw.	16.0	3,208	1,540	
						3,250	691.0	6.4		97	9.32	sw.	15.9	3,184	1,510	
						3,000	712.3	7.9		98	10.44	ssw.	15.3	2,939	1,260	
						2,750	733.8	9.4		99	11.67	s.	14.7	2,694	1,020	
2:48	968.2	26.2	42	ene.	8.0	2,607	746.4	10.3	−0.82	100	12.53	sse.	14.4	2,554	880	
						2,500	755.6	9.4		100	11.79	se.	12.9	2,450	780	8/10 St., sse.
2:56	968.2	25.7	46	ene.	6.7	2,399	765.4	8.6	0.63	100	11.17	se.	11.4	2,351	680	
						2,250	778.8	9.5		93	11.04	ese.	11.4	2,205	530	
						2,000	802.3	11.1		80	10.57	e.	11.3	1,960	290	
						1,750	826.7	12.7		67	9.84	ene.	11.2	1,715	50	
3:09	968.2	25.2	43	ene.	7.2	1,701	831.8	13.0	0.94	65	9.74	ene.	11.2	1,667	0	
						1,500	851.4	14.9		60	10.16	ene.	11.7	1,470	0	9/10 St., sse.
						1,250	877.0	17.2		54	10.59	ne.	12.2	1,225	0	
						1,000	903.2	19.6		47	10.72	ne.	12.8	980	0	
3:30	968.0	24.8	46	ne.	6.3	835	920.4	21.1	0.89	43	10.76	ne.	13.2	819	0	
						750	929.7	21.9		43	11.30	ne.	11.9	735	0	
						500	956.3	24.1		44	13.21	ne.	8.2	490	0	
3:35	968.0	25.0	44	ne.	6.7	396	968.0	25.0		44	13.94	ne.	6.7	388		9/10 St., sse.

June 12, 1917 (No. 3).

P. M.																
4:23	967.8	24.7	44	ne.	8.5	396	967.8	24.7		44	13.69	ne.	8.5	388		8/10 St., s.
						500	956.2	23.7		46	13.48	ne.	9.6	490	0	
4:34	967.7	24.4	45	ne.	7.2	736	930.7	21.3	1.00	50	12.66	ne.	12.2	722	0	
						750	929.2	21.2		50	12.59	ne.	12.2	735	0	
						1,000	902.4	18.8		58	12.59	nne.	12.3	980	0	
						1,250	876.0	16.5		66	12.39	nne.	12.3	1,225	0	
						1,500	850.4	14.1		74	11.91	e.	12.4	1,470	0	
4:59	967.6	23.9	52	ne.	7.2	1,578	843.0	13.4	0.94	77	11.83	e.	12.4	1,547	0	
						1,750	825.5	13.1		83	12.52	ese.	12.2	1,715	120	
						2,000	801.6	12.8		88	13.01	se.	12.0	1,960	320	
						2,250	778.9	12.2		100	14.21	s.	11.6	2,205	630	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 12, 1917 (No. 3)—Continued.

Surface.						At different heights above sea.										
Time.	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\frac{\Delta t}{100\ m.}$	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
6:22	969.0	22.1	53	nne.	5.8	2,255	778.6	12.2	0.18	100	14.21	s.	11.6	2,210	630	
						2,500	756.2	10.6		100	12.78	s.	10.5	2,450	930	
						2,750	734.0	8.9		100	11.40	ssw.	9.5	2,694	1,180	St. base at about 3,100 m.
6:34	969.2	21.8	53	nne.	5.4	2,811	728.7	8.5	0.67	100	11.10	ssw.	9.2	2,754	1,230	
6:36	969.2	21.7	53	nne.	7.6	2,968	714.6	9.8	−0.83	36	4.36	ssw.	9.2	2,908	1,370	10/10 St., ssw.
						3,000	711.8	9.6		35	4.18	ssw.	9.6	2,939	1,400	
						3,250	691.0	8.2		30	3.26	sw.	12.6	3,184	1,620	
						3,500	670.5	6.9		24	2.39	sw.	15.5	3,429	1,830	
6:47	969.4	21.3	53	nne.	6.3	3,691	654.8	5.8	0.71	20	1.84	wsw.	17.8	3,615	.....	
						3,500	670.5	7.5		19	1.97	wsw.	18.0	3,429	1,770	St. base at about 2,000 m.
						3,250	691.7	9.6		18	2.15	sw.	18.3	3,184	1,460	
7:01	969.6	20.6	53	n.	6.7	3,186	696.2	10.2	−0.94	18	2.24	sw.	18.4	3,121	1,380	
7:05	969.7	20.6	53	n.	8.5	3,059	707.0	9.0	0.56	51	5.85	sw.	19.1	2,997	1,250	
						3,000	712.0	9.3		55	6.45	sw.	18.9	2,939	1,200	
						2,750	734.0	10.7		73	9.40	sw.	17.9	2,694	980	
						2,500	756.9	12.1		91	12.85	ssw.	17.0	2,450	760	
7:22	970.0	20.3	51	nne.	7.2	2,418	764.1	12.6	0.06	97	14.15	ssw.	16.7	2,369	680	
						2,250	780.3	12.7		92	13.51	s.	17.2	2,205	520	
						2,000	803.5	12.8		86	12.71	sse.	17.9	1,960	290	
						1,750	827.7	13.0		79	11.83	se.	18.6	1,715	60	
						1,500	852.9	13.1		72	10.86	e.	19.3	1,470	0	
						1,250	877.8	13.3		65	9.93	nne.	20.0	1,225	0	
7:44	970.3	19.5	50	n.	7.6	1,235	879.1	13.3	0.65	65	9.93	nne.	20.0	1,211	0	
						1,000	904.4	14.8		61	10.27	nne.	19.3	980	0	
						750	931.5	16.4		56	10.44	n.	18.6	735	0	
7:57	970.6	19.1	51	n.	8.9	696	937.2	16.8	0.67	55	10.52	n.	18.4	682	0	
						500	959.3	18.1		55	11.42	nne.	11.9	490	0	
8:02	970.6	18.8	55	nne.	8.5	396	970.6	18.8		55	11.94	nne.	8.5	388	.....	10/10 St., ssw.

June 13, 1917, series (No. 1).

A. M.																
6:58	980.4	13.7	73	nw.	3.6	396	980.4	13.7		73	11.45	nw.	3.6	388	.....	Few St., nw.
						500	968.3	12.7		70	10.28	nw.	6.3	490	0	
						750	940.1	10.3		64	8.02	nw.	12.9	735	0	
7:09	980.5	13.8	74	nw.	3.6	761	938.7	10.2	0.93	64	7.97	nw.	13.2	746	0	
7:20	980.5	13.9	70	nw.	3.6	958	916.8	11.1	−0.46	40	5.28	nnw.	16.4	939	0	
						1,000	911.4	10.7		40	5.15	nnw.	16.5	980	0	
						1,250	884.2	8.4		40	4.41	nnw.	16.8	1,225	70	
						1,500	858.1	6.1		41	3.86	nnw.	17.2	1,470	550	
7:36	980.6	14.4	68	nw.	4.0	1,546	854.1	5.7	0.92	41	3.76	nnw	17.3	1,515	640	
						1,750	833.0	4.3		39	3.24	nnw.	18.6	1,715	800	
7:46	980.7	14.5	68	nw.	4.0	1,853	822.6	3.6	0.68	38	3.01	nnw.	19.0	1,816	880	Cloudless.
						2,000	807.9	3.2		33	2.54	nnw.	19.7	1,960	920	
						2,250	783.4	2.4		24	1.74	nnw.	21.0	2,205	1,370	
8:26	980.9	15.7	61	nnw.	4.5	2,354	773.6	2.1	0.30	21	1.49	nnw.	21.5	2,307	1,510	
						2,500	759.7	2.2		18	1.29	nnw.	21.5	2,450	1,630	
8:40	981.0	16.1	57	nnw.	4.5	2,592	751.3	2.4	−0.13	15	1.09	nnw.	21.6	2,540	1,660	
						2,750	737.0	1.6		11	0.75	nw.	23.4	2,694	.....	
9:10	981.1	16.9	51	nnw.	4.0	2,884	724.9	1.0	0.48	7	0.46	nw.	25.0	2,826	.....	
						2,750	737.3	1.7		10	0.69	nw.	23.4	2,694	.....	
9:41	981.1	17.4	48	nnw.	4.0	2,539	756.9	2.7	−0.17	14	1.04	nnw.	20.8	2,488	1,400	
						2,500	760.5	2.6		17	1.25	nnw.	20.6	2,450	1,300	
						2,250	784.8	2.2		38	2.72	nnw.	19.6	2,205	910	
10:04	981.1	18.4	49	nnw.	4.5	2,190	790.5	2.1	0.81	43	3.06	nnw.	19.4	2,146	840	
						2,000	809.6	3.7		45	3.58	nnw.	17.6	1,960	670	
						1,750	835.0	5.7		47	4.31	nnw.	15.4	1,715	460	
						1,500	860.7	7.7		50	5.26	nw.	13.1	1,470	240	
10:30	981.1	18.7	43	nw.	4.5	1,388	872.1	8.6	0.94	51	5.70	nw.	12.1	1,361	150	
						1,250	887.0	9.9		46	5.61	nw.	10.8	1,225	30	
						1,000	914.0	12.3		45	5.72	wnw.	8.6	980	0	
10:55	981.1	19.0	39	nw.	4.5	747	941.4	14.6	1.40	41	6.81	wnw.	6.4	732	0	
						500	969.3	18.0		40	8.26	nw.	5.3	490	0	
11:05	981.1	19.5	40	nnw.	4.9	396	981.1	19.5		40	9.07	nnw.	4.9	388	.....	Cloudless.

June 13, 1917, series (No. 2).

A. M.																Cloudless.
11:52	981.1	20.2	40	wnw.	4.9	396	981.1	20.2		40	9.47	wnw.	4.9	388	.....	
						500	967.4	18.8		39	8.46	wnw.	6.1	490	0	
P. M.																
12:04	981.1	20.2	39	nw.	4.5	721	944.5	15.9	1.32	38	6.87	nw.	8.6	707	0	
						750	941.4	15.7		39	6.96	nw.	8.6	735	0	
						1,000	914.0	13.5		44	6.81	nw.	8.3	980	0	
						1,250	887.0	11.4		49	6.61	nw.	8.0	1,225	0	
12:15	980.9	20.2	40	nw.	5.8	1,282	883.5	11.1	0.86	50	6.60	nw.	8.0	1,257	0	
						1,500	860.6	9.0		56	6.43	wnw.	10.7	1,470	340	
12:35	980.7	20.6	39	nw.	6.3	1,618	848.5	7.8	0.98	59	6.24	wnw.	12.1	1,586	450	
						1,750	835.2	6.8		60	5.93	wnw.	13.0	1,715	580	Few Cu., wnw.
						2,000	809.6	5.0		62	5.41	wnw.	14.6	1,960	820	
						2,250	785.3	3.2		64	4.92	wnw.	16.3	2,205	1,060	
						2,500	761.3	1.4		66	4.46	wnw.	17.9	2,450	1,410	
1:02	980.4	21.6	45	w.	6.7	2,570	754.9	0.9	0.72	67	4.37	wnw.	18.4	2,518	1,510	
						2,750	738.6	0.9		49	3.19	wnw.	.....	2,694	1,790	
						3,000	716.1	0.8		24	1.55	wnw.	.....	2,939	2,250	
1:36	979.8	21.9	37	w.	5.8	3,029	713.3	0.8	0.09	21	1.36	wnw.	.....	2,968	2,300	
						3,000	716.2	0.8		25	1.62	wnw.	.....	2,939	2,270	
						2,750	739.7	1.3		56	3.76	wnw.	.....	2,694	1,650	
2:20	979.3	22.7	35	wnw.	8.0	2,542	758.3	1.6	1.03	82	5.63	wnw.	14.6	2,491	1,140	
						2,500	762.6	2.0		81	5.72	wnw.	14.5	2,450	1,040	
						2,250	786.1	4.6		73	6.19	wnw.	13.7	2,205	810	
						2,000	809.6	7.2		65	6.60	wnw.	13.0	1,960	500	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 13, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
						1,750	834.5	9.7	.....	56	6.74	wnw.	12.2	1,715	140	
2:46	979.2	23.0	31	wnw.	7.2	1,674	842.7	10.5	1.06	54	6.86	wnw.	12.0	1,641	30	
						1,500	860.0	12.3	.....	47	6.73	wnw.	12.9	1,470	0	
						1,250	886.1	15.0	.....	36	6.14	wnw.	14.1	1,225	0	
3:00	979.1	23.2	30	nw.	7.6	1,193	892.2	15.6	0.87	34	6.02	wnw.	14.4	1,170	0	
						1,000	912.8	17.3	.....	32	6.32	w.	14.4	980	0	1/10 Cu., wnw.
3:10	979.0	23.2	32	w.	8.5	838	930.2	18.7	0.97	30	6.47	w.	14.4	822	0	
						750	939.8	19.6	.....	30	6.84	w.	13.2	735	0	
						500	969.6	22.0	.....	32	8.46	wnw.	9.9	490	0	
3:18	979.0	23.0	32	wnw.	8.5	396	979.0	23.0	.....	32	8.99	wnw.	8.5	388	.....	1/10 Cu., wnw.

June 13, 1917, series (No. 3).

P. M.																
3:58	978.7	23.6	31	wnw.	9.8	396	978.7	23.6	.....	31	9.03	wnw.	9.8	388	.....	
						500	966.7	22.3	.....	31	8.35	wnw.	10.2	490	0	
4:08	978.6	23.2	33	wnw.	9.4	742	940.3	19.2	1.27	30	6.68	wnw.	11.0	728	0	1/10 Cu., wnw.
						750	939.8	19.1	.....	30	6.63	wnw.	11.0	735	0	
						1,000	913.0	16.7	.....	33	6.27	wnw.	11.8	980	0	
						1,250	886.3	14.3	.....	36	5.87	wnw.	12.5	1,225	0	
						1,500	859.6	11.9	.....	39	5.43	wnw.	13.3	1,470	0	
4:32	978.2	23.6	33	wnw.	8.9	1,636	845.5	10.6	0.96	41	5.24	wnw.	13.7	1,603	0	
						1,750	833.7	9.5	.....	44	5.22	wnw.	13.4	1,715	210	
						2,000	808.4	7.1	.....	50	5.04	wnw.	14.1	1,960	680	
						2,250	784.3	4.7	.....	56	4.78	wnw.	14.5	2,205	1,030	
4:52	977.8	23.7	32	wnw.	8.5	2,448	765.7	2.8	0.96	61	4.56	wnw.	14.7	2,203	1,100	
						2,500	760.9	2.3	.....	64	4.61	wnw.	14.7	2,450	1,110	1/10 Cu., wnw.
						2,750	738.0	0.0	.....	75	4.58	wnw.	14.8	2,694	1,190	
						3,000	715.4	−2.2	.....	87	4.43	wnw.	14.9	2,939	1,260	
5:22	977.7	23.5	28	wnw.	8.0	3,155	701.2	−3.6	0.98	94	4.25	wnw.	14.9	3,091	2,100	
						3,000	715.4	−2.0	.....	90	4.65	wnw.	14.6	2,939	1,880	
						2,750	738.0	0.6	.....	82	5.23	nw.	14.1	2,694	1,530	
5:55	977.7	23.2	29	nw.	7.2	2,560	755.6	2.6	1.00	61	4.50	nw.	13.7	2,508	1,280	Few Cu., nw.
						2,500	760.9	3.2	.....	59	4.54	nw.	13.7	2,450	1,230	
						2,250	784.3	5.7	.....	53	4.85	nw.	13.8	2,205	1,020	
						2,000	808.4	8.2	.....	46	5.00	nw.	13.9	1,960	810	
6:25	977.7	22.6	32	nw.	6.3	1,938	815.3	8.8	0.98	44	4.99	nw.	13.9	1,899	750	
						1,750	833.3	10.6	.....	36	4.60	nw.	14.1	1,715	590	
						1,500	858.2	13.1	.....	34	5.13	nw.	14.3	1,470	360	
						1,250	884.7	15.6	.....	28	4.96	nw.	14.5	1,225	90	
6:51	977.7	22.0	35	nw.	5.4	1,169	893.5	16.3	1.00	26	4.82	nw.	14.6	1,146	0	
						1,000	911.2	18.0	.....	25	5.16	nw.	13.4	980	0	
7:04	977.7	21.5	36	nw.	4.9	840	928.7	19.6	0.72	24	5.47	nw.	12.2	824	0	
						750	938.3	20.2	.....	25	5.92	nw.	12.0	735	0	
7:09	977.7	21.3	37	nw.	4.5	577	957.4	21.5	−0.17	26	6.67	nw.	11.6	566	0	
						500	965.6	21.4	.....	31	7.90	nw.	8.4	490	0	
7:11	977.7	21.2	37	nw.	4.0	396	977.7	21.2	.....	37	9.32	nw.	4.0	388	.....	

June 13, 1917, series (No. 4).

P. M.																
7:48	977.7	19.4	44	nw.	4.0	396	977.7	19.4	.....	44	9.91	nw.	4.0	388	.....	
						500	965.7	21.0	.....	35	8.70	nw.	14.2	490	0	
7:49	977.7	19.4	44	nw.	4.0	518	964.0	21.3	−1.56	33	8.36	nw.	16.0	508	0	
						750	938.3	19.4	.....	32	7.21	nw.	16.5	735	0	
						1,000	911.3	17.3	.....	32	6.32	nw.	17.1	980	0	
8:06	977.7	19.3	44	nw.	4.0	1,194	890.7	15.6	0.84	31	5.49	nw.	17.6	1,171	0	
						1,250	885.0	15.2	.....	32	5.53	nw.	17.7	1,225	30	
						1,500	858.9	13.2	.....	34	5.16	nw.	18.3	1,470	60	
8:22	977.8	19.3	43	nw.	4.0	1,698	839.0	11.6	0.79	36	4.92	nw.	18.8	1,664	280	
						1,750	833.6	11.1	.....	37	4.89	nw.	19.3	1,715	320	
						2,000	808.9	8.7	.....	42	4.72	nw.	21.8	1,960	480	
						2,250	785.2	6.3	.....	47	4.49	nw.	24.3	2,205	580	
						2,500	762.0	3.9	.....	52	4.20	nw.	26.8	2,450	.....	
9:00	978.0	18.2	45	nw.	4.0	2,668	746.0	2.3	0.96	55	3.97	nw.	28.4	2,614	.....	
						2,500	762.0	3.9	.....	51	4.12	nw.	27.5	2,450	.....	
						2,250	785.2	6.3	.....	45	4.30	nw.	26.3	2,205	640	
						2,000	808.9	8.8	.....	38	4.31	nw.	25.0	1,960	580	
9:26	978.2	17.1	50	nw.	4.0	1,782	830.9	10.8	0.84	33	4.27	nw.	23.9	1,747	410	Cloudless.
						1,750	833.6	11.1	.....	33	4.36	nw.	24.0	1,715	380	
						1,500	858.9	13.2	.....	31	4.70	nw.	24.6	1,470	110	
						1,250	885.0	15.3	.....	30	5.21	nw.	25.2	1,225	0	
10:36	978.4	15.8	54	wnw.	3.6	1,034	908.1	17.1	0.79	29	5.66	nw.	25.7	1,014	0	
						1,000	911.3	17.4	.....	29	5.76	nw.	25.6	980	0	
						750	938.3	19.3	.....	28	6.27	nw.	24.7	735	0	
10:51	978.4	15.7	52	wnw.	3.6	630	952.0	20.3	−1.88	27	6.43	nw.	24.2	618	0	
						500	966.6	17.8	.....	40	8.15	nw.	13.0	490	0	
10:54	978.4	15.9	51	nw.	4.0	396	978.4	15.9	.....	51	9.22	nw.	4.0	388	.....	

June 13–14, 1917, series (No. 5).

P. M.																
11:38	978.6	16.1	48	nw.	4.0	396	978.6	16.1	.....	48	8.78	nw.	4.0	388	.....	
						500	966.9	17.4	.....	42	8.35	nw.	13.8	490	0	
11:41	978.6	16.2	48	nnw.	4.5	574	958.4	18.9	−1.57	38	8.30	nw.	20.8	563	0	
						750	939.2	17.3	.....	35	6.91	nw.	22.2	735	0	
11:55	978.7	15.6	51	nnw.	4.5	1,005	911.1	14.9	0.93	31	5.25	nw.	24.2	985	0	Faint lightning in distant east.
						1,250	884.5	12.9	.....	34	5.06	nw.	24.8	1,225	0	
						1,500	858.2	10.9	.....	37	4.82	nw.	25.4	1,470	220	
						1,750	833.2	8.9	.....	40	4.56	nw.	25.8	1,715	670	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 13-14, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
12:14	978.7	15.5	49	nnw.	4.9	1,728	835.8	9.1	0.80	40	4.62	nw.	25.9	1,694	640	
						2,000	808.3	6.5		42	4.07	nw.	24.3	1,960	880	
						2,250	784.5	4.2		44	3.63	nw.	22.9	2,205	1,130	
12:25	978.7	15.4	50	nnw.	4.9	2,394	770.1	2.8	0.96	45	3.36	nw.	22.1	2,346	1,280	
						2,250	784.4	4.2		45	3.71	nw.	22.8	2,205	1,100	
						2,000	808.1	6.6		44	4.29	nw.	24.0	1,960	780	
12:30	978.7	15.2	51	nnw.	4.5	1,780	830.0	8.7	0.53	43	4.84	nw.	24.9	1,745	500	
						1,750	832.7	8.9		42	4.79	nw.	24.8	1,715	360	
						1,500	857.8	10.2		37	4.61	nw.	23.8	1,470	150	
						1,250	884.5	11.5		32	4.34	nnw.	22.9	1,225	0	
1:44	979.0	13.8	53	nnw.	4.0	1,138	896.3	12.1	0.42	30	4.24	nnw.	22.5	1,018	0	
						1,000	911.8	12.7		32	4.70	nnw.	21.6	980	0	
						750	939.2	13.7		37	5.80	nnw.	19.8	735	0	
2:00	979.1	13.8	50	nnw.	4.5	565	959.7	14.5	−0.41	40	6.60	nnw.	18.6	554	0	
						500	967.1	14.2		44	7.12	nnw.	13.2	490	0	
2:02	979.1	13.8	50	nnw.	4.5	396	979.1	13.8		50	7.89	nnw.	4.5	388		

June 14, 1917, series (No. 6).

A. M.																
2:46	979.6	12.9	49	nnw.	4.0	396	979.6	12.9		49	7.29	nnw.	4.0	388		Cloudless.
						500	967.2	12.5		47	6.81	nnw.	13.1	490	0	
2:50	979.6	12.6	51	nnw.	4.0	589	957.3	12.2	0.36	45	6.39	nnw.	20.9	577	0	
						750	939.1	11.2		45	5.98	nnw.	22.4	735	0	
						1,000	911.8	9.7		45	5.41	nnw.	24.7	980	0	
3:24	979.9	11.6	55	nnw.	4.0	1,028	908.2	9.5	0.62	45	5.34	nnw.	25.0	1,008	0	
						1,250	884.8	8.3		44	4.82	nnw.	24.3	1,225	340	
						1,500	858.0	7.0		42	4.21	nnw.	23.6	1,470	650	
						1,750	832.2	5.7		41	3.76	nnw.	22.8	1,715	800	
3:45	980.0	11.7	54	nnw.	4.5	1,896	817.3	4.9	0.56	40	3.46	nnw.	22.4	1,858	950	
						1,750	832.2	5.8		41	3.78	nnw.		1,715	890	
						1,500	858.0	7.3		43	4.40	nnw.		1,470	790	
4:21	980.2	11.0	56	nnw.	5.4	1,307	878.5	8.4	0.30	44	4.85	nnw.		1,281	540	
						1,250	884.8	8.6		45	5.03	nnw.		1,225	420	
						1,000	910.0	9.3		47	5.51	nnw.		980	0	
						750	939.1	10.1		49	6.06	nnw.		735	0	
5:05	980.4	10.2	62	nnw.	4.5	582	958.6	10.6	−0.22	51	6.52	nnw.	15.4	571	0	
						500	968.5	10.4		56	7.06	nnw.	10.4	490	0	
5:06	980.4	10.2	62	nnw.	4.0	396	980.4	10.2		62	7.72	nnw.	4.0	388		Cloudless.

June 14, 1917, series (No. 7).

A. M.																
5:52	980.7	10.0	69	nw.	3.1	396	980.7	10.0		69	8.47	nw.	3.1	388		Cloudless.
						500	968.2	10.4		61	7.69	nw.	9.8	490	0	
5:56	980.8	10.2	67	nw.	4.0	627	953.9	10.9	0.39	52	6.78	nnw.	18.0	615	0	
						750	939.4	10.1		51	6.30	nnw.	18.4	735	0	
						1,000	911.6	8.6		50	5.58	nnw.	19.3	980	0	
6:16	981.0	10.8	63	nw.	5.4	1,131	897.9	7.8	0.61	49	5.18	nnw.	19.8	1,109	0	
						1,250	884.9	7.0		50	5.01	nnw.	21.6	1,225	220	
						1,500	858.4	5.4		52	4.66	nnw.	25.4	1,470	680	
						1,750	832.9	3.8		55	4.41	nnw.	29.2	1,715	1,350	
6:38	981.2	11.6	59	nw.	4.9	1,764	831.3	3.7	0.65	55	4.38	nnw.	29.4	1,729	1,390	
						2,000	807.4	2.8		50	3.74	nnw.	29.1	1,960	1,930	
						2,250	783.0	1.8		45	3.13	nnw.	28.9	2,205	2,330	
6:54	981.3	12.1	58	nw.	5.8	2,489	760.0	0.8	0.48	40	2.59	nnw.	28.6	2,439		
						2,250	783.0	2.2		30	2.15	nnw.		2,205	2,370	All kites beaten down by strong wind aloft.
7:26	981.6	12.8	55	nw.	5.8	2,013	806.1	3.5	0.31	20	1.57	nnw.		1,973	2,160	
						2,000	807.4	3.5		22	1.73	nnw.		1,960	2,130	
7:49	981.7	13.6	54	nw.	5.4	1,789	829.0	2.8	0.90	54	4.03	nnw.	24.0	1,753	1,500	
						1,750	833.0	3.2		57	4.38	nnw.	23.9	1,715	1,410	
8:00	981.8	13.9	51	nw.	7.6	1,632	845.2	4.2	0.76	65	5.36	nnw.	23.6	1,600	1,160	
						1,500	859.4	5.2		62	5.49	nnw.	22.0	1,470	870	
						1,250	886.2	7.1		57	5.75	nnw.	18.9	1,225	160	
						1,000	913.6	9.0		52	5.97	nnw.	15.9	980	0	
8:35	981.8	15.1	48	nnw.	7.2	880	926.7	9.9	1.07	50	6.10	nnw.	14.4	863	0	
						750	941.2	11.3		49	6.56	nnw.	12.7	735	0	
						500	969.4	14.0		48	7.67	nnw.	9.4	490	0	
8:43	981.8	15.1	47	nnw.	8.0	396	981.8	15.1		47	8.07	nnw.	8.0	388		Cloudless.

June 14, 1917, series (No. 8).

A. M.																
9:18	981.6	15.6	47	nnw.	8.0	396	981.6	15.6		47	8.33	nnw.	8.0	388		Cloudless.
						500	969.2	14.2		48	7.77	nnw.	9.3	490	0	
						750	940.8	10.9		51	6.65	nnw.	12.3	735	0	
9:27	981.5	15.6	45	nnw.	6.7	771	938.6	10.6	1.33	51	6.52	nnw.	12.6	756	0	
						1,000	913.0	8.8		54	6.12	nnw.	15.2	980	0	
9:37	981.4	15.8	43	nnw.	8.9	1,181	893.2	7.4	0.78	56	5.77	nnw.	17.2	1,158	0	
						1,250	885.7	6.9		55	5.47	nnw.	17.9	1,225	170	
						1,500	858.9	5.2		50	4.42	n.	20.3	1,470	790	
						1,750	833.1	3.4		45	3.51	n.	22.6	1,715	1,140	
9:53	981.2	16.3	41	nnw.	11.6	1,766	831.5	3.3	0.70	45	3.48	n.	22.8	1,731	1,160	
						2,000	808.0	3.9		23	1.86	n.	18.2	1,960	1,450	
10:28	981.0	17.0	39	nw.	8.9	2,073	800.6	4.1	0.26	16	1.31	n.	16.8	2,032	1,560	
						2,250	783.8	3.4		15	1.17	n.	20.8	2,205	1,840	
						2,500	759.9	2.5		14	1.02	nnw.	26.4	2,450	2,310	
						2,750	736.9	1.6		12	0.82	nnw.	32.0	2,694		
10:41	980.9	17.3	37	nnw.	6.7	2,830	729.5	1.3	0.52	12	0.81	nnw.	33.8	2,773		
						2,750	736.9	1.8		11	0.77	nnw.	32.7	2,694		

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 14, 1917, series (No. 8)—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
						2,500	759.9	3.5		10	0.78	nnw.	29.2	2,450	2,210	
						2,250	783.8	5.2		8	0.71	nnw.	25.7	2,205	1,630	
11:32	980.6	17.6	32	nw.	8.5	2,148	793.7	5.9	0.97	7	0.65	nnw.	24.3	2,105	1,400	
						2,000	808.0	4.5		11	0.93	nnw.	20.7	1,960	1,060	
11:57	980.4	18.0	36	nnw.	7.6	1,858	822.2	3.1	0.96	14	1.07	nnw.	17.2	1,821	730	
						1,750	833.1	4.1		19	1.56	nnw.	16.3	1,715	480	
						1,500	858.9	6.5		32	3.10	nnw.	14.4	1,470	0	
P. M.																
12:20	980.3	18.0	33	nnw.	7.2	1,305	879.8	8.4	1.02	42	4.63	nnw.	12.8	1,279	0	
						1,250	885.7	9.0		41	4.71	nnw.	12.8	1,225	0	
						1,000	912.2	11.5		38	5.16	nnw.	12.5	980	0	
12:35	980.2	18.3	29	nnw.	8.0	845	929.6	13.1	1.11	36	5.43	nnw.	12.4	828	0	
						750	939.8	14.2		35	5.67	nnw.	11.5	735	0	
						500	968.1	16.9		32	6.16	nnw.	9.7	490	0	
12:44	980.2	18.1	31	nnw.	8.0	396	980.2	18.1		31	6.44	nnw.	8.0	388		Cloudless.

June 14, 1917, series (No. 9).

P. M.																
1:23	979.7	18.4	28	nw.	7.2	396	979.7	18.4		28	5.92	nw.	7.2	388		Cloudless.
						500	967.7	17.1		28	5.46	nw.	9.5	490	0	
						750	939.9	14.0		27	4.31	nnw.	15.1	735	0	
1:30	979.6	19.0	27	nnw.	11.6	789	935.3	13.5	1.25	27	4.18	nnw.	16.0	774	0	
						1,000	912.0	11.6		31	4.23	nnw.	17.0	980	0	
						1,250	884.5	9.4		36	4.24	nnw.	18.1	1,225	0	
1:47	979.3	19.8	30	nnw.	5.4	1,270	882.8	9.2	0.89	36	4.19	nnw.	18.2	1,245	0	
						1,500	857.6	7.3		39	3.99	nnw.	17.8	1,470	440	
						1,750	832.2	5.2		43	3.81	n.	17.4	1,715	910	
2:10	979.0	19.3	28	nnw.	7.2	1,856	821.7	4.3	0.84	44	3.66	n.	17.2	1,819	1,110	
2:11	979.0	19.4	28	nnw.	7.2	1,981	809.1	6.8	2.00	31	3.06	n.	21.2	1,942	1,350	
						2,000	807.3	6.7		30	2.94	n.	21.3	1,960	1,380	
						2,250	783.2	4.8		22	1.89	n.	22.5	2,205	1,860	
						2,500	759.2	2.9		13	0.98	n.	23.7	2,450	2,270	
2:30	978.9	19.3	28	nw.	6.7	2,554	754.1	2.5	0.75	11	0.80	n.	24.0	2,503	2,360	
						2,750	736.0	2.1		9	0.64	n.	24.8	2,694	2,420	
						3,000	713.6	1.5		6	0.41	nnw.	25.8	2,939	2,810	
3:18	978.6	19.2	26	n.	6.7	3,254	691.3	1.0	0.23	3	0.20	nnw.	26.8	3,188	3,200	
						3,000	713.6	1.6		3	0.21	nnw.		2,939	2,640	
						2,750	736.0	2.2		2	0.14	n.		2,694	2,080	
4:11	978.3	20.0	25	n.	7.6	2,645	745.4	2.5	0.04	2	0.15	n.		2,592	1,850	
						2,500	759.2	2.6		3	0.22	n.		2,450	1,690	
						2,250	783.2	2.7		5	0.37	n.		2,205	1,450	
4:36	978.2	19.4	24	nnw.	7.6	2,142	793.2	2.7	0.93	6	0.45	n.	17.4	2,099	1,350	
						2,000	807.3	4.0		10	0.81	n.	16.8	1,960	1,140	
						1,750	832.2	6.3		18	1.72	nnw.	15.9	1,715	770	
						1,500	857.5	8.6		26	2.90	nnw.	14.9	1,470	400	
4:59	978.0	19.3	25	n.	4.0	1,375	870.8	9.8	0.89	30	3.64	nnw.	14.4	1,348	240	
						1,250	883.8	10.9		30	3.91	nnw.	14.6	1,225	150	
						1,000	910.4	13.1		29	4.37	nnw.	15.0	980	70	
5:13	977.9	19.4	28	n.	7.6	799	932.7	14.9	1.09	28	4.74	nnw.	15.3	783	0	
						750	937.9	15.4		28	4.90	nnw.	14.4	735	0	
						500	965.7	18.2		27	5.64	nnw.	9.6	490	0	
5:19	977.9	19.3	26	nnw.	7.6	396	977.9	19.3		26	5.82	nnw.	7.6	388		Cloudless.

June 15, 1917.

P. M.																
7:54	974.7	16.6	47	sse.	3.1	396	974.7	16.6		47	8.88	sse.	3.1	388		3/10 Ci., nnw.
7:55	974.7	16.5	47	sse.	3.1	489	964.2	17.7	−1.18	40	8.10	sse.	9.7	479	0	
						500	962.3	17.6		40	8.05	sse.	9.7	490	0	
						750	934.8	15.6		36	6.38	s.	8.7	735	0	
8:11	974.6	16.1	47	sse.	3.1	997	908.0	13.7	0.79	33	5.17	s.	7.8	977	0	
						1,250	880.5	12.4		36	5.18	ssw.	6.6	1,225	490	
						1,500	854.8	11.0		39	5.12	sw.	5.4	1,470	1,090	1/10 Ci. St., nnw.
9:20	974.2	15.1	51	sse.	4.5	1,543	850.5	10.8	0.53	40	5.18	sw.	5.2	1,512	1,200	
						1,750	829.4	9.7		43	5.17	sw.	5.6	1,715	1,290	
						2,000	804.8	8.8		46	5.21	wsw.	5.9	1,960	1,380	
						2,250	780.9	6.9		49	4.88	wsw.	6.6	2,205	1,480	
9:25	974.2	15.0	51	sse.	4.5	2,306	775.6	6.6	0.60	50	4.88	wsw.	6.7	2,260	1,500	
						2,250	780.9	7.0		50	5.01	wsw.	6.7	2,205	1,430	
						2,000	804.8	8.6		50	5.58	sw.	6.6	1,960	1,140	
						1,750	829.4	10.2		50	6.22	sw.	6.6	1,715	850	
						1,500	854.8	11.8		50	6.92	ssw.	6.5	1,470	560	
9:40	974.1	14.8	53	sse.	4.0	1,485	856.5	11.9	0.55	50	6.96	ssw.	6.5	1,456	540	
						1,250	880.5	13.2		46	6.98	s.	7.8	1,225	440	
						1,000	907.1	14.5		42	6.93	s.	9.2	980	180	
9:59	974.0	14.8	53	sse.	4.5	825	926.0	15.5	0.80	39	6.87	sse.	10.2	809	0	
						750	934.2	16.1		39	7.14	sse.	10.9	735	0	
10:02	974.0	14.6	54	sse.	4.5	600	950.9	17.3	−1.32	38	7.50	sse.	12.3	588	0	
						500	961.6	16.0		46	8.36	sse.	8.7	490	0	
10:03	974.0	14.6	54	sse.	4.9	396	974.0	14.6		54	8.97	sse.	4.9	388		Few Ci. St., nnw.

June 16, 1917.

A. M.																
7:36	972.6	13.2	73	sse.	5.8	396	972.6	13.2		73	11.07	sse.	5.8	388		
						500	960.1	14.0		60	9.59	sse.	13.8	490	0	3/10 Ci., nw.; 2/10 St. Cu., wnw.
7:41	972.5	13.2	71	sse.	9.4	685	939.8	15.3	−0.73	37	6.43	s.	28.0	672	0	
						750	932.1	15.2		37	6.39	s.	27.8	735	0	
						1,000	904.9	14.7		35	5.86	s.	27.0	980	0	
7:56	972.3	13.3	70	s.	10.3	1,026	902.4	14.6	0.21	35	5.82	s.	26.9	1,006	0	
8:01	972.3	13.3	70	sse.	8.5	1,228	881.2	12.5	1.04	38	5.51	s.	24.8	1,204	0	3/10Ci.St.,nw.; 4/10St.Cu.,wnw.
						1,250	878.6	12.5		39	5.65	s.	24.9	1,225	0	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 16, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
.....	.....	.....	.....	.....	.....	1,500	853.0	11.9	.....	44	6.13	s.	26.5	1,470	1,830	
.....	.....	.....	.....	.....	.....	1,750	828.0	11.4	.....	50	6.74	ssw.	28.0	1,715	2,110	
8:28	972.0	14.7	66	s.	10.7	1,967	806.5	11.0	0.20	55	7.22	sw.	29.3	1,928	.....	
.....	.....	.....	.....	.....	.....	2,000	803.3	10.7	.....	55	7.08	sw.	29.0	1,960	.....	
8:37	971.9	15.4	63	s.	12.1	2,238	780.3	8.9	0.76	55	6.27	sw.	26.4	2,193	.....	
.....	.....	.....	.....	.....	.....	2,000	802.2	10.7	.....	53	6.82	sw.	19.0	1,960	.....	
8:52	971.7	16.0	59	s.	13.4	1,933	808.8	11.2	−0.38	53	7.05	sw.	16.9	1,895	.....	
.....	.....	.....	.....	.....	.....	1,750	826.5	10.5	.....	54	6.86	sw.	17.8	1,715	1,580	
.....	.....	.....	.....	.....	.....	1,500	851.6	9.6	.....	56	6.69	ssw.	19.1	1,470	260	
9:44	971.4	16.8	51	s.	13.4	1,485	863.3	9.5	0.53	56	6.65	ssw.	19.2	1,456	160	2/10Ci.St.,nw.;5/10St.Cu.,wnw
.....	.....	.....	.....	.....	.....	1,250	877.5	10.7	.....	56	7.21	ssw.	19.8	1,225	380	
.....	.....	.....	.....	.....	.....	1,000	904.0	11.8	.....	56	7.75	s.	20.5	980	370	
10:12	971.3	17.2	58	s.	10.7	806	925.4	13.0	1.10	56	8.39	s.	21.0	790	170	7/10 A.St., nw.
.....	.....	.....	.....	.....	.....	750	931.2	13.6	.....	56	8.72	s.	18.3	735	.....	
.....	.....	.....	.....	.....	.....	500	959.1	16.4	.....	54	10.07	s.	6.6	490	.....	
10:19	971.3	17.5	54	s.	1.8	396	971.3	17.5	.....	54	10.80	s.	1.8	388	.....	8/10 A.St., nw.

June 17, 1917.

P. M.																
5:21	967.8	31.5	32	sse.	4.0	396	967.8	31.5	.....	32	14.80	sse.	4.0	388	.....	22°-halo, 8:20 a.m.—12:27 p.m.
.....	.....	.....	.....	.....	.....	500	956.4	29.9	.....	30	12.66	sse.	5.2	490	0	
5:33	967.7	30.8	32	sse.	4.5	688	936.4	27.3	1.44	26	9.44	sse.	7.4	675	0	3/10 Ci., nw.
.....	.....	.....	.....	.....	.....	750	930.1	26.7	.....	26	9.11	sse.	7.5	735	0	
.....	.....	.....	.....	.....	.....	1,000	903.8	24.7	.....	28	8.71	s.	7.8	980	0	
.....	.....	.....	.....	.....	.....	1,250	878.4	22.6	.....	30	8.23	s.	8.1	1,225	0	
.....	.....	.....	.....	.....	.....	1,500	853.5	20.5	.....	32	7.72	ssw.	8.5	1,470	0	
6:10	967.5	29.6	36	sse.	4.0	1,510	852.1	20.4	0.84	32	7.67	ssw.	8.5	1,480	0	4/10 Ci., nw.
.....	.....	.....	.....	.....	.....	1,750	828.4	18.4	.....	34	7.19	sw.	7.3	1,715	0	
.....	.....	.....	.....	.....	.....	2,000	804.0	16.4	.....	37	6.90	sw.	6.1	1,960	.....	
.....	.....	.....	.....	.....	.....	2,250	781.1	14.3	.....	39	6.36	wsw.	4.8	2,205	.....	
7:20	967.2	26.5	48	sse.	3.6	2,449	762.9	12.7	0.82	41	6.02	wsw.	3.8	2,400	.....	
.....	.....	.....	.....	.....	.....	2,250	781.1	14.3	.....	40	6.52	sw.	5.3	2,205	.....	
.....	.....	.....	.....	.....	.....	2,000	803.9	16.4	.....	39	7.27	sw.	7.2	1,960	.....	
.....	.....	.....	.....	.....	.....	1,750	828.3	18.5	.....	37	7.88	ssw.	9.0	1,715	0	
.....	.....	.....	.....	.....	.....	1,500	852.7	20.6	.....	36	8.74	ssw.	10.9	1,470	0	
7:57	967.2	25.1	50	sse.	3.6	1,302	872.5	22.2	0.98	35	9.37	s.	12.4	1,276	0	
.....	.....	.....	.....	.....	.....	1,250	877.8	22.7	.....	35	9.66	s.	12.7	1,225	0	
.....	.....	.....	.....	.....	.....	1,000	903.1	25.2	.....	33	10.58	s.	14.0	980	0	
.....	.....	.....	.....	.....	.....	750	929.1	27.6	.....	32	11.82	s.	15.3	735	0	
8:08	967.3	25.0	50	sse.	4.5	718	932.6	27.9	−0.90	32	12.03	s.	15.5	704	0	
.....	.....	.....	.....	.....	.....	500	955.7	25.9	.....	44	14.70	sse.	8.1	490	0	
8:10	967.3	25.0	50	sse.	4.5	396	967.3	25.0	.....	50	15.84	sse.	4.5	388	.....	4/10 Ci., nw.

June 18, 1917.

A. M.																
8:29	965.2	21.2	57	wsw.	4.9	396	965.2	21.2	.....	57	14.35	wsw.	4.9	388	.....	Thunder ssw. at 7:28 in a. m.
.....	.....	.....	.....	.....	.....	500	953.8	20.	.....	55	13.43	w.	5.9	490	0	2/10 A. St., sw.; 4/10 A. Cu.,sw.
8:33	965.1	21.3	56	wsw.	6.3	723	929.3	19.5	0.52	50	11.34	wnw.	7.9	709	0	
.....	.....	.....	.....	.....	.....	750	926.5	19.7	.....	49	11.25	wnw.	8.0	735	0	
.....	.....	.....	.....	.....	.....	1,000	900.2	21.6	.....	41	10.58	nw.	9.4	980	0	
9:02	964.8	22.6	56	w.	4.9	1,252	874.1	23.6	−0.77	33	9.61	nw.	10.7	1,227	0	
.....	.....	.....	.....	.....	.....	1,500	849.6	21.4	.....	35	8.92	nw.	10.6	1,470	0	
.....	.....	.....	.....	.....	.....	1,750	825.1	19.3	.....	36	8.06	nw.	10.4	1,715	0	
.....	.....	.....	.....	.....	.....	2,000	801.6	17.0	.....	38	7.36	wnw.	10.3	1,960	170	
.....	.....	.....	.....	.....	.....	2,250	779.1	14.9	.....	39	6.61	wnw.	10.2	2,205	460	
9:50	965.7	23.2	54	se.	1.3	2,378	767.3	13.8	0.87	40	6.31	wnw.	10.1	2,330	610	4/10A.St.,wsw.;5/10St.Cu.,wsw.
.....	.....	.....	.....	.....	.....	2,500	756.4	12.8	.....	42	6.21	wnw.	10.5	2,450	750	
.....	.....	.....	.....	.....	.....	2,750	733.9	10.7	.....	46	5.92	wnw.	11.5	2,694	930	
.....	.....	.....	.....	.....	.....	3,000	711.8	8.7	.....	51	5.74	wnw.	12.4	2,939	990	
.....	.....	.....	.....	.....	.....	3,250	690.9	6.6	.....	55	5.36	w.	13.3	3,184	1,240	
.....	.....	.....	.....	.....	.....	3,500	670.6	4.5	.....	60	5.05	w.	14.3	3,429	1,490	
10:54	966.8	25.0	51	nw.	2.7	3,704	654.7	2.9	0.82	63	4.74	w.	15.0	3,628	1,700	3/10A.St.,wsw.;7/10St.Cu.,wsw.
.....	.....	.....	.....	.....	.....	3,750	651.1	2.5	.....	65	4.75	w.	15.1	3,673	.....	
.....	.....	.....	.....	.....	.....	4,000	631.4	0.6	.....	72	4.59	w.	15.6	3,918	.....	
.....	.....	.....	.....	.....	.....	4,250	612.2	−1.3	.....	80	4.38	wsw.	16.2	4,162	.....	St. Cu., base 4,650 m.
.....	.....	.....	.....	.....	.....	4,500	593.2	−3.2	.....	88	4.12	wsw.	16.7	4,407	.....	
11:37	966.9	25.6	50	n.	5.4	4,705	577.4	−4.7	0.73	94	3.87	wsw.	17.1	4,607	(*)	
.....	.....	.....	.....	.....	.....	4,500	593.2	−3.2	.....	90	4.21	wsw.	16.3	4,407	1,770	
.....	.....	.....	.....	.....	.....	4,250	612.2	−1.5	.....	86	4.64	wsw.	15.3	4,162	1,440	
.....	.....	.....	.....	.....	.....	4,000	631.4	0.3	.....	82	5.12	w.	14.3	3,918	1,110	
.....	.....	.....	.....	.....	.....	3,750	651.1	2.0	.....	78	5.51	w.	13.3	3,673	1,000	
.....	.....	.....	.....	.....	.....	3,500	670.6	3.7	.....	74	5.89	w.	12.4	3,429	1,040	
.....	.....	.....	.....	.....	.....	3,250	690.9	5.5	.....	70	6.32	w.	11.4	3,184	1,020	
.....	.....	.....	.....	.....	.....	3,000	711.8	7.2	.....	66	6.71	wnw.	10.4	2,939	1,000	
P. M.																
12:15	967.0	27.2	31	nnw.	5.4	2,796	729.	8.7	0.79	62	6.98	wnw.	9.6	2,739	980	6/10 St.Cu.,wsw.
.....	.....	.....	.....	.....	.....	2,750	733.9	9.1	.....	61	7.05	wnw.	9.7	2,694	940	
.....	.....	.....	.....	.....	.....	2,500	756.4	11.0	.....	58	7.62	nw.	10.4	2,450	710	
.....	.....	.....	.....	.....	.....	2,250	780.1	13.0	.....	55	8.24	nnw.	11.2	2,205	490	
.....	.....	.....	.....	.....	.....	2,000	803.5	15.0	.....	51	8.70	nnw.	11.9	1,960	260	
12:41	967.1	27.5	42	n.	5.8	1,825	819.7	16.4	−1.33	49	9.14	n.	12.4	1,789	110	2/10Ci.St.,wsw.;3/10St.Cu.,wsw.
.....	.....	.....	.....	.....	.....	1,750	827.3	15.4	.....	61	10.68	n.	11.0	1,715	40	
12:49	967.1	27.6	42	n.	4.9	1,705	831.3	14.8	0.88	68	11.44	n.	10.2	1,671	0	
.....	.....	.....	.....	.....	.....	1,500	852.0	16.6	.....	62	11.71	n.	11.2	1,470	0	
.....	.....	.....	.....	.....	.....	1,250	877.0	18.8	.....	53	11.50	n.	12.4	1,225	0	
.....	.....	.....	.....	.....	.....	1,000	902.5	21.0	.....	45	11.19	n.	13.7	980	0	
1:08	967.3	26.4	37	n.	6.3	928	910.1	21.6	0.81	43	11.09	n.	14.0	910	0	
.....	.....	.....	.....	.....	.....	750	928.8	23.1	.....	41	11.59	n.	11.1	735	0	
.....	.....	.....	.....	.....	.....	500	955.6	25.1	.....	38	12.11	n.	7.0	490	0	
1:16	967.4	25.9	37	n.	5.4	396	967.4	25.9	.....	37	12.37	n.	5.4	388	.....	4/10Ci.St.,wsw.;1/10St.Cu.,wsw.

* More than 50,000 volts.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 19, 1917 (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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	*° C.*	%		*m. p. s.*	*m.*	*mb.*	*° C.*		%	*mb.*		*m. p. s.*	*10^5 ergs.*	*volts.*	
7:29	972.1	18.6	66	wnw.	8.5	396	972.1	18.6	.....	66	14.14	wnw.	8.5	388	.....	Cloudless.
						500	960.8	19.2	.....	46	10.24	wnw.	12.5	490	0	
7:33	972.2	18.7	64	wnw.	4.9	656	943.3	19.4	−0.31	41	9.24	wnw.	13.6	643	0	
						750	933.1	18.7	.....	41	8.84	wnw.	13.6	735	0	
						1,000	906.3	16.7	.....	40	7.60	nw.	13.6	980	80	
7:58	972.3	20.0	58	nw.	5.4	1,245	880.7	14.8	0.78	39	6.56	nw.	13.6	1,220	170	
						1,500	854.0	12.6	.....	44	6.42	nw.	13.3	1,470	530	
						1,750	829.0	10.5	.....	48	6.10	nw.	12.9	1,715	880	
						2,000	804.5	8.3	.....	53	5.80	nnw.	12.6	1,960	1,180	
						2,250	781.2	6.1	.....	57	5.37	nnw.	12.3	2,205	1,290	
8:39	972.1	21.4	49	nw.	4.5	2,307	775.2	5.6	0.87	58	5.28	nnw.	12.2	2,261	1,300	
						2,500	757.3	4.6	.....	55	4.66	nnw.	12.6	2,450	1,380	
						2,750	734.1	3.4	.....	51	3.98	nnw.	13.1	2,694	1,490	
						3,000	712.0	2.1	.....	47	3.34	nw.	13.6	2,939	1,820	
						3,250	690.4	0.8	.....	44	2.85	nw.	14.1	3,184	2,170	
						3,500	669.1	−0.4	.....	40	2.36	nw.	14.6	3,429	2,530	
9:29	971.8	22.8	43	nw.	6.3	3,619	659.7	−1.0	0.50	38	2.14	nw.	14.8	3,545	2,700	Cloudless
						3,750	648.6	−1.4	.....	36	1.96	nw.	15.0	3,673	2,930	
						4,000	628.8	−2.3	.....	33	1.66	nw.	15.3	3,918	3,380	
						4,250	609.8	−3.1	.....	29	1.37	nw.	15.7	4,162	3,830	
						4,500	590.4	−3.9	.....	26	1.15	nw.	16.0	4,407	4,200	
10:08	971.6	23.9	35	nw.	4.9	4,547	586.8	−4.1	0.37	25	1.08	nw.	16.1	4,453	.....	
						4,500	590.4	−3.9	.....	25	1.10	nw.	16.1	4,407	4,200	
						4,250	609.8	−2.9	.....	28	1.34	nw.	15.9	4,162	3,670	
						4,000	628.8	−1.8	.....	31	1.63	nw.	15.7	3,918	3,130	
						3,750	648.6	−0.9	.....	34	1.93	nw.	15.6	3,673	2,690	
						3,500	669.1	0.2	.....	37	2.29	nw.	15.4	3,429	2,280	
						3,250	690.4	1.2	.....	39	2.60	nw.	15.2	3,184	1,880	
11:01	971.3	24.8	33	nnw.	6.7	3,202	694.9	1.4	0.74	40	2.70	nw.	15.2	3,137	1,800	Few Cu., nw.
						3,000	712.0	2.9	.....	41	3.09	nw.	14.8	2,939	1,600	
						2,750	734.1	4.7	.....	42	3.59	nw.	14.2	2,694	1,360	
						2,500	757.3	6.5	.....	43	4.16	nw.	13.7	2,450	1,110	
						2,250	781.2	8.4	.....	44	4.85	nnw.	13.1	2,205	840	
						2,000	804.5	10.3	.....	45	5.64	nnw.	12.5	1,960	560	
						1,750	828.9	12.1	.....	47	6.64	nnw.	12.0	1,715	280	
11:33	971.1	24.8	30	nnw.	7.2	1,653	838.5	12.8	1.00	47	6.95	nnw.	11.8	1,620	170	
						1,500	853.9	14.4	.....	44	7.22	nnw.	11.6	1,470	110	
						1,250	879.8	16.8	.....	40	7.65	nnw.	11.4	1,225	20	
						1,000	905.3	19.3	.....	35	7.84	nw.	11.1	980	0	
11:58	970.9	25.6	29	nw.	5.4	829	923.7	21.0	1.09	32	7.96	nw.	10.9	813	0	
						750	930.9	21.8	.....	31	8.10	nw.	10.0	735	0	
						500	959.0	24.6	.....	30	9.28	nw.	7.0	490	0	
P. M.																
12:04	970.8	25.7	29	nw.	5.8	396	970.8	25.7	.....	29	6.58	nw.	5.8	388	.....	Few Cu., nw.

June 19, 1917 (No. 2).

P. M.																
12:42	970.9	26.0	28	nw.	6.3	396	970.9	26.0	.....	28	9.41	nw.	6.3	388	.....	1/10 Cu., nw.
						500	959.7	24.3	.....	28	8.51	nw.	7.3	490	0	
12:51	970.5	26.0	28	nw.	8.0	710	936.1	20.9	1.62	29	7.17	nw.	9.4	696	0	
						750	932.1	20.5	.....	30	7.24	nw.	9.4	735	0	
						1,000	905.0	18.5	.....	33	7.03	nw.	9.4	980	0	
						1,250	874.1	16.3	.....	37	6.86	nw.	9.4	1,225	0	
						1,500	853.2	14.1	.....	41	6.60	nw.	9.5	1,470	0	
						1,750	828.9	12.1	.....	44	6.21	nw.	9.5	1,715	0	
2:02	969.9	27.1	30	nw.	6.3	1,820	821.3	11.5	0.85	45	6.11	nw.	9.5	1,784	0	
						2,000	804.2	9.8	.....	50	6.06	nw.	10.1	1,960	130	
						2,250	779.8	7.5	.....	57	5.91	nw.	11.0	2,205	460	
						2,500	756.2	5.2	.....	64	5.66	nw.	11.9	2,450	770	
3:08	969.2	26.6	30	nw.	5.4	2,578	748.6	4.5	0.92	66	5.56	nw.	12.2	2,526	810	
						2,750	733.2	3.1	.....	69	5.26	nw.	12.3	2,694	940	
						3,000	711.8	1.1	.....	74	4.90	nw.	12.5	2,939	1,100	
3:36	969.0	26.9	26	nw.	4.9	3,205	692.8	−0.5	0.80	78	4.57	nw.	12.6	3,140	1,240	1/10 Cu., nw.
3:39	969.0	26.9	26	nnw.	2.7	3,250	690.1	0.5	.....	68	4.30	nw.	15.0	3,184	.....	
						3,298	685.2	1.5	−1.78	57	3.88	nw.	17.4	3,231	.....	
						3,250	689.8	0.8	.....	64	4.79	nw.	16.0	3,184	.....	
3:49	969.0	26.9	26	nnw.	4.5	3,177	696.1	−0.2	0.94	74	4.45	nw.	14.0	3,112	1,220	
						3,000	712.0	1.5	.....	71	4.84	nw.	13.4	2,939	1,100	
						2,750	733.7	3.8	.....	67	5.37	nw.	12.7	2,694	930	
						2,500	756.2	6.2	.....	63	5.97	nw.	11.9	2,450	750	
						2,250	779.3	8.6	.....	59	6.59	nw.	11.1	2,205	570	
						2,000	803.3	10.8	.....	56	7.25	nw.	10.3	1,960	400	
4:10	968.8	26.8	27	n.	2.7	1,901	813.2	11.8	1.07	54	7.47	nw.	10.0	1,863	330	
						1,750	828.0	13.4	.....	50	7.68	nw.	9.6	1,715	210	
						1,500	852.9	16.1	.....	43	7.87	nnw.	9.0	1,470	10	
4:31	968.7	26.8	30	nw.	3.6	1,413	861.6	17.0	0.98	40	7.75	nnw.	8.8	1,385	0	
						1,250	878.3	18.6	.....	37	7.93	nnw.	8.2	1,225	0	
						1,000	903.9	21.1	.....	33	8.26	nnw.	7.1	980	0	
						750	930.4	23.5	.....	29	8.40	nnw.	6.2	735	0	
4:46	968.7	26.5	26	nnw.	3.6	709	934.8	23.9	0.86	28	8.30	nnw.	6.0	695	0	
						500	957.2	25.7	.....	29	10.58	nnw.	3.8	490	0	
4:55	968.6	26.6	29	nnw.	2.7	396	968.6	26.6	.....	29	10.10	nnw.	2.7	388	.....	

June 20, 1917.

A. M.																
10:13	967.9	24.0	44	s.	7.2	396	967.9	24.0	.....	44	13.13	s.	7.2	388	.....	3/10 Ci.St., wsw.
						500	956.4	22.9	.....	46	12.85	s.	7.6	490	0	
						750	929.5	20.3	.....	50	11.91	ssw.	8.7	735	0	
10:26	967.9	24.4	44	s.	8.5	786	925.5	19.9	1.05	51	11.85	ssw.	8.8	771	0	
						1,000	902.8	18.6	.....	51	10.93	sw.	9.2	980	20	
						1,250	876.5	17.0	.....	51	9.88	sw.	9.8	1,225	320	
						1,500	851.3	15.4	.....	51	8.92	wsw.	10.3	1,470	610	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 20, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁵ ergs.*	*volts.*	
11:05	967.9	24.7	46	sw.	6.3	1,558	845.6	15.1	0.62	51	8.75	wsw.	10.4	1,527	680	2/10Ci.St.,wsw.;3/10A.Cu.,wsw.
						1,750	826.2	13.6		55	8.57	wsw.	11.5	1,715	910	
						2,000	802.0	11.5		60	8.14	wsw.	12.9	1,960	1,200	4/10A.Cu.,wsw.;3/10St.Cu.,wsw.
11:47	967.7	25.0	44	w.	5.4	2,217	781.7	9.8	0.80	64	7.76	wsw.	14.2	2,173	1,490	
						2,250	778.3	9.5		65	7.72	wsw.	14.2	2,205	1,550	
						2,500	754.9	7.7		68	7.15	wsw.	13.8	2,450	1,990	
						2,750	732.4	5.8		72	6.64	w.	13.4	2,694	2,400	
P. M.						3,000	710.7	4.0		76	6.18	w.	13.1	2,939	2,430	
12:30	967.2	25.9	45	wsw.	5.8	3,064	705.0	3.5	0.74	77	6.04	w.	13.0	3,002	2,440	3/10 A.Cu., w.; 7/10 St.Cu.w. St. Cu. base 3,450 m.
						3,250	689.4	2.2		80	5.73	w.	12.9	3,184	2,460	
						3,500	668.7	0.3		85	5.30	w.	12.8	3,429	2,490	
						3,750	648.4	−1.3		89	4.88	w.	12.7	3,673	2,740	
1:13	966.7	26.2	46	w.	4.0	3,793	644.1	−1.6	0.58	90	4.82	w.	12.7	3,715	2,800	Rain—1:22-1:39 p. m.
						3,750	648.4	−1.4		90	4.90	w.	13.0	3,673	3,650	
						3,500	668.7	−0.2		89	5.35	w.	14.4	3,429	5,480	
						3,250	689.4	1.0		88	5.78	w.	15.8	3,184	4,970	
1:41	966.4	26.1	52	sw.	3.6	3,140	698.5	1.5	0.94	88	5.99	w.	16.4	3,076	4,190	
						3,000	710.7	2.8		85	6.35	w.	15.6	2,939	3,190	
						2,750	732.4	5.2		79	6.99	w.	14.1	2,694	1,410	
						2,500	754.9	7.6		73	7.64	w.	12.7	2,450	680	
						2,250	778.3	9.9		67	8.17	w.	11.2	2,205	330	
						2,000	802.0	12.3		62	8.87	w.	9.8	1,960	270	
						1,750	826.2	14.6		56	9.31	w.	8.3	1,715	220	
						1,500	851.3	16.9		50	9.62	w.	6.9	1,470	160	9/10 St.Cu., w.
2:10	966.1	27.6	48	sw.	3.6	1,482	852.8	17.1	0.88	50	9.75	w.	6.8	1,453	110	
						1,250	876.1	19.1		47	10.39	wsw.	7.4	1,225	90	
						1,000	901.9	21.3		43	10.89	ssw.	8.1	980	40	
2:27	966.0	26.4	47	ssw.	6.3	808	921.6	23.0	0.75	40	11.24	s.	8.6	792	0	
						750	928.0	23.4		41	11.80	s.	8.6	735	0	
						500	955.1	25.3		46	14.84	ssw.	8.8	490	0	
2:34	966.0	26.1	48	ssw.	8.9	396	966.0	26.1		48	16.23	ssw.	8.9	388		9/10 St.Cu., wsw.

June 21, 1917.

A. M.																
7:31	971.7	17.2	77	nne.	3.6	396	971.7	17.2		77	15.11	nne.	3.6	388		Few St.Cu., wnw.
						500	959.8	16.4		76	14.17	nne.	4.9	490	0	
						750	932.3	14.6		75	12.46	nne.	8.0	735	0	
7:58	972.0	17.7	74	nne.	3.1	879	918.4	13.7	0.72	74	11.60	nne.	9.6	862	0	
						1,000	905.4	13.4		71	10.91	nne.	9.5	980	0	
						1,250	879.4	12.7		66	9.70	n.	9.2	1,225	0	Few St.Cu.,wnw.; 1/10 Cu.nne.
						1,500	854.1	12.0		60	8.42	nnw.	9.0	1,470		
9:11	972.4	19.0	68	ne.	3.1	1,733	830.2	11.4	0.31	55	7.41	nnw.	8.8	1,699		
						1,500	854.1	12.2		61	8.67	n.	8.0	1,470		
						1,250	879.4	13.1		67	10.10	nne.	7.2	1,225		
						1,000	905.4	14.0		73	11.67	ne.	6.4	980		
9:40	972.5	19.6	65	ne.	3.1	802	927.4	14.7	1.31	78	13.05	ne.	5.7	786		
						750	932.3	15.4		76	13.30	ne.	5.3	735		3/10 Cu., nne.
						500	960.6	18.6		66	14.14	nne.	3.5	490		
10:02	972.6	20.0	62	nne.	2.7	396	972.6	20.0		62	14.50	nne.	2.7	388		2/10 Cu., nne.

June 22, 1917.

A. M.																
8:45	965.4	23.8	69	s.	2.7	396	965.4	23.8		69	20.35	s.	2.7	388		
						500	953.8	22.8		70	19.43	s.	6.3	490	0	
						750	927.0	20.5		74	17.85	ssw.	14.9	735	0	
8:54	965.2	23.9	66	s.	9.8	830	918.2	19.8	0.92	75	17.32	ssw.	17.6	814	0	
						1,000	900.3	23.4		50	14.39	sw.	20.4	980	0	
8:56	965.2	24.2	67	s.	8.0	1,027	897.7	24.0	−2.13	46	13.73	sw.	20.9	1,007	0	
						1,250	875.1	22.7		49	13.52	sw.	21.4	1,225	180	
						1,500	850.3	21.3		52	13.17	sw.	22.0	1,470	680	
9:10	965.2	25.0	63	s.	10.3	1,510	849.5	21.2	0.58	52	13.09	sw.	22.0	1,480	700	1/10 Ci., w.; 1/10 A. St., wnw.
						1,750	826.7	19.9		50	11.62	sw.	20.4	1,715	1,000	
						2,000	803.2	18.5		48	10.22	sw.	18.6	1,960	1,140	
						2,250	780.1	17.1		46	8.97	wsw.	16.9	2,205	1,310	
						2,500	757.1	15.7		44	7.85	wsw.	15.1	2,450	1,480	
9:32	965.2	25.5	64	ssw.	10.7	2,525	754.7	15.6	0.55	44	7.80	wsw.	15.0	2,474	1,500	Few Ci. St., w.; 1/10 A. St., wsw.
						2,750	735.0	13.8		44	6.94	wsw.	13.7	2,694	1,530	
						3,000	713.4	11.9		45	6.27	wsw.	12.2	2,939		
10:30	965.0	27.3	54	sw.	10.7	3,060	708.3	11.4	0.77	45	6.07	wsw.	11.8	2,998		1/10 Ci.St.,w.; 2/10 A.Cu.,wsw.
						3,000	713.4	11.8		46	6.37	wsw.	12.0	2,939		
						2,750	735.0	13.7		51	8.00	wsw.	12.8	2,694	980	
						2,500	757.1	15.6		56	9.92	wsw.	13.7	2,450	460	
10:57	964.8	28.2	54	ssw.	10.7	2,404	765.9	16.3	0.62	58	10.75	wsw.	14.0	2,356	260	
						2,250	780.1	17.3		57	11.26	wsw.	15.3	2,205	170	
						2,000	803.2	18.8		54	11.72	wsw.	17.3	1,960	30	
						1,750	826.7	20.4		53	12.46	sw.	19.4	1,715	150	
11:31	964.6	29.8	50	ssw.	9.8	1,612	839.9	21.2	0.64	51	12.84	sw.	20.5	1,580	260	2/10Ci.St.,w.; 3/10A.Cu.wsw.
						1,500	850.3	21.9		51	13.40	sw.	19.4	1,470	190	
						1,250	875.1	23.5		53	15.35	ssw.	16.6	1,225	0	
						1,000	900.3	25.1		54	17.21	ssw.	13.9	980	0	
11:55	964.5	30.5	44	sw.	9.8	907	910.5	25.7	1.02	54	17.84	ssw.	12.9	889	0	2/10A.St.,wsw.;4/10A.Cu.,wsw.
						750	927.0	27.3		52	18.88	ssw.	11.4	735	0	
						500	953.8	29.9		48	20.26	sw.	9.0	490	0	
P. M.																
12:01	964.5	30.9	46	sw.	8.0	396	964.5	30.9		46	20.56	sw.	8.0	388		2/10 A. St., wsw.; 4/10 A. Cu., wsw.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 23, 1917.

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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	10^6 *ergs.*	*volts.*	
7:43	966.7	19.4	84	nw.	2.7	396	966.7	19.4	.....	84	18.93	nw.	2.1	388	.....	8/10 Ci. St., nw.
						500	955.2	20.2	.....	70	16.58	nnw.	5.0	490	0	
						750	928.2	22.2	.....	38	10.17	n.	11.8	735	0	
7:55	966.8	20.9	78	nnw.	3.1	803	922.4	22.6	−0.79	31	8.50	n.	13.2	787	0	
						1,000	901.9	21.4	.....	32	8.16	n.	12.7	980	0	
						1,250	876.3	19.8	.....	33	7.62	nnw.	12.1	1,225	0	
8:23	967.0	21.2	78	nnw.	2.7	1,458	855.3	18.5	0.63	34	7.24	nnw.	11.6	1,429	0	7/10 Ci. St., w.
						1,500	851.1	18.5	.....	32	6.82	nnw.	11.4	1,470	0	
						1,750	827.0	18.8	.....	20	4.34	nw.	10.9	1,715	120	
9:00	967.2	23.3	73	nw.	3.6	1,957	807.3	19.0	−0.10	11	2.42	nw.	9.6	1,918	420	
						2,000	803.1	18.7	.....	12	2.59	nw.	9.7	1,960	450	
						2,250	780.0	16.5	.....	15	2.82	nw.	10.5	2,205	640	
						2,500	756.9	14.2	.....	19	3.08	nw.	11.3	2,450	840	
						2,750	735.1	12.0	.....	23	3.23	wnw.	12.0	2,694	1,140	
						3,000	713.7	9.9	.....	27	3.29	wnw.	12.8	2,939	1,240	
						3,250	692.8	7.9	.....	31	3.30	wnw.	13.6	3,184	1,450	
9:50	967.5	24.0	71	n.	5.4	3,262	691.9	7.6	0.87	31	3.24	wnw.	12.6	3,102	1,460	8/10 Ci. St., w.
						3,500	672.2	5.8	.....	29	2.67	wnw.	14.8	3,429	1,700	
						3,750	652.1	4.1	.....	28	2.29	wnw.	16.1	3,673	1,950	
						4,000	632.3	2.2	.....	26	1.86	wnw.	17.4	3,918	2,200	
						4,250	613.7	0.3	.....	24	1.50	wnw.	18.7	4,162	2,480	
						4,500	594.9	−1.5	.....	23	1.24	wnw.	19.9	4,407	2,720	
						4,750	576.2	−3.2	.....	20	0.94	wnw.	21.2	4,651	.....	
10:25	967.7	23.6	73	n.	5.4	4,868	567.4	−4.2	0.73	19	0.82	wnw.	21.8	4,767	.....	7/10 Ci. St., w.; 1/10 Cu., nw.
						4,750	576.2	−3.3	.....	20	0.93	wnw.	21.2	4,651	.....	
						4,500	594.9	−1.5	.....	22	1.19	wnw.	20.0	4,407	2,690	
						4,250	613.7	0.3	.....	24	1.50	wnw.	18.8	4,162	2,400	
						4,000	632.3	2.1	.....	25	1.77	wnw.	17.5	3,918	2,110	
						3,750	652.1	4.1	.....	27	2.21	wnw.	16.2	3,673	1,820	
						3,500	672.2	5.9	.....	29	2.69	wnw.	15.1	3,429	1,540	
						3,250	692.8	7.7	.....	31	3.26	wnw.	13.8	3,184	1,270	
11:09	967.9	23.6	69	n.	5.4	3,109	704.9	8.7	0.89	32	3.60	wnw.	13.1	3,046	1,100	FewCi.St.,wsw.;fewCu., wnw.
						3,000	713.7	9.7	.....	31	3.73	wnw.	13.1	2,939	1,040	
						2,750	735.1	11.9	.....	28	3.90	wnw.	13.1	2,694	900	
						2,500	757.0	14.2	.....	25	4.05	wnw.	13.1	2,450	760	
						2,250	780.2	16.4	.....	23	4.29	nw.	13.1	2,205	500	
						2,000	803.3	18.6	.....	20	4.29	nw.	13.1	1,960	170	
						1,750	827.8	20.9	.....	17	4.20	nw.	13.1	1,715	0	
11:41	967.9	24.0	65	n.	4.5	1,657	836.3	21.7	−1.02	16	4.15	nw.	13.1	1,624	0	
						1,500	852.3	20.1	.....	46	10.82	nnw.	12.4	1,470	0	
						1,250	877.7	17.6	.....	67	13.49	n.	11.3	1,225	0	
11:53	967.9	24.3	65	n.	5.4	1,214	880.8	17.2	0.66	71	13.93	n.	11.1	1,190	0	
						1,000	903.3	18.6	.....	75	16.07	n.	10.0	980	0	
NOON	967.9	24.6	66	n.	4.0	852	918.5	19.6	1.14	77	17.56	n.	9.2	835	0	
P. M.																
						750	929.7	20.7	.....	74	18.07	n.	8.3	750	0	
						500	956.2	23.6	.....	65	18.93	n.	5.9	490	0	
12:05	967.9	24.8	62	n.	4.9	396	967.9	24.8	.....	62	19.41	n.	4.9	388	.....	

June 24, 1917.

A. M.																
6:54	972.3	18.6	88	sse.	4.0	396	972.3	18.6	.....	88	18.86	sse.	4.0	388	.....	Cloudless.
6:56	972.3	18.6	88	sse.	4.0	451	966.1	17.8	1.45	77	15.69	sse.	11.7	442	0	
						500	961.0	18.2	.....	72	15.05	sse.	11.4	490	0	
7:00	972.3	18.7	88	sse.	3.6	702	938.2	19.9	−0.84	52	12.08	sse.	10.4	688	0	
						750	933.6	20.1	.....	49	11.53	sse.	10.2	735	0	Few Ci.St., sw.
						1,000	906.7	20.9	.....	33	8.16	s.	9.3	980	0	
8:54	971.4	24.0	67	s.	4.9	1,210	884.8	21.6	−0.33	20	5.16	s.	8.5	1,186	0	
						1,250	881.2	21.3	.....	20	5.07	s.	8.3	1,225	0	
						1,500	856.1	19.6	.....	21	4.79	sw.	7.2	1,470	0	
						1,750	830.9	17.9	.....	22	4.51	sw.	6.0	1,715	0	
9:01	971.3	24.1	66	s.	4.0	1,968	809.9	16.4	0.78	23	4.29	sw.	5.0	1,929	0	5/10 Ci.St., nw.
						1,750	831.0	18.3	.....	22	4.63	sw.	5.5	1,715	.....	
						1,500	855.0	20.5	.....	22	5.31	sw.	6.0	1,470	.....	
						1,250	880.2	22.7	.....	21	5.79	sw.	6.5	1,225	.....	
9:10	971.2	24.6	65	s.	5.8	1,221	883.5	23.0	−0.32	21	5.90	sw.	6.6	1,197	.....	
						1,000	906.1	22.3	.....	53	14.27	s.	6.0	980	0	10/10 Ci. St., nw.
11:01	970.6	26.9	58	sse.	2.2	878	918.7	21.9	1.00	70	18.40	sse.	5.6	861	0	
						750	931.9	23.2	.....	67	19.05	sse.	4.9	735	0	
						500	958.4	25.7	.....	61	20.15	sse.	3.6	490	0	
11:11	970.7	26.7	58	sse.	3.1	396	970.7	26.7	.....	58	20.32	sse.	3.1	388	.....	3/10 St.,nw.; 7/10A.Cu., w.

June 25, 1917.

P. M.																
2:22	966.0	33.2	31	wsw.	8.0	396	966.0	33.2	.....	31	15.78	wsw.	8.0	388	.....	9/10 St.Cu.,w.
						500	955.0	32.1	.....	31	14.83	wsw.	9.8	490	0	
						750	928.2	29.2	.....	32	12.97	wsw.	14.1	735	0	
2:29	966.0	33.6	28	wsw.	10.3	766	926.9	29.1	1.11	32	12.90	wsw.	14.4	751	0	
						1,000	902.6	26.9	.....	36	12.76	wsw.	14.0	980	0	
						1,250	877.8	24.5	.....	40	12.30	wsw.	13.6	1,225	0	
						1,500	853.2	22.1	.....	45	11.97	wsw.	13.1	1,470	0	
2:54	966.2	33.0	46	wsw.	5.4	1,523	850.9	21.9	0.95	45	11.83	wsw.	13.1	1,493	0	
						1,750	829.1	19.8	.....	49	11.32	wsw.	13.6	1,715	0	
						2,000	805.1	17.5	.....	53	10.60	wsw.	14.2	1,960	0	
						2,250	782.1	15.3	.....	58	10.08	wsw.	14.8	2,205	0	
3:20	966.2	33.0	32	wsw.	7.2	2,428	765.5	13.6	0.92	61	9.50	wsw.	15.2	2,379	0	1/10 A.Cu.,w.; 9/10 St.Cu., w.
						2,500	758.3	13.2	.....	61	9.25	wsw.	15.3	2,450	0	
						2,750	736.5	11.5	.....	63	8.55	wsw.	15.7	2,694	0	
						3,000	715.1	9.9	.....	64	7.81	w.	16.1	2,939	.....	
						3,250	694.2	8.2	.....	65	7.07	w.	16.5	3,184	.....	
3:49	966.2	31.6	40	w.	4.5	3,413	680.1	7.2	0.64	66	6.71	w.	16.8	3,343	.....	
						3,250	694.2	8.2	.....	67	7.28	w.	15.9	3,184	.....	
						3,000	715.1	9.8	.....	68	8.24	w.	14.5	2,939	.....	
						2,750	736.5	11.4	.....	69	9.30	w.	13.1	2,694	.....	
3:59	966.2	31.4	41	wsw.	4.0	2,612	748.8	12.2	0.91	69	9.80	w.	12.4	2,559	1,700	
						2,500	758.2	13.2	.....	66	10.01	w.	12.4	2,450	1,390	

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 25, 1917—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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
						2,250	781.1	15.5		60	10.57	wsw.	12.5	2,205	700	
4:10	966.2	31.6	42	w.	2.7	1,995	805.2	17.8	0.90	53	10.80	wsw.	12.6	1,955	0	
						1,750	828.0	20.0		50	11.69	w.	10.9	1,715	0	
						1,500	851.3	22.3		48	12.93	w.	9.3	1,470	0	
						1,250	876.6	24.6		45	13.92	wnw.	7.6	1,225	0	
						1,000	902.7	26.8		42	14.80	wnw.	5.9	980	0	
						750	929.3	29.0		39	15.63	nw.	4.2	735	0	
4:28	966.2	32.0	42	nw.	3.1	604	944.1	30.3	0.91	38	16.41	nw.	3.3	592		4/10Ci.St.,w.;3/10 A.St.,w.: 1/10 St.Cu.,w.
						500	955.4	31.3		40	18.29	nw.	3.2	490		
4:32	966.2	32.2	42	nw.	3.1	396	966.2	32.2		42	20.20	nw.	3.1	388		Arc of 22°-halo at 4:35.

June 26, 1917.

P. M.																
4:31	972.9	19.8	95	s.	4.5	396	972.9	19.8		95	21.94	s.	4.5	388		1/10 Ci.St., w.; 9/10St.,w.
						500	961.0	20.5		80	19.30	s.	5.0	490		
4:37	972.8	19.8	95	s.	3.1	720	937.1	22.1	−0.71	47	12.50	s.	6.0	706		
						750	933.8	21.8		47	12.28	s.	5.9	735		
4:51	972.5	20.0	93	s.	2.7	900	917.6	20.5	0.46	48	11.58	s.	5.4	882		
						750	933.3	20.6		74	17.96	s.	5.1	735		
5:13	972.3	20.4	89	sw.	0.9	680	941.0	20.6	−0.07	86	20.87	s.	5.0	667		
						500	960.1	20.5		88	21.23	sw.	2.4	490		
5:17	972.3	20.4	89	w.	0.9	396	972.3	20.4		89	21.33	w.	0.9	388		

June 27, 1917.

A. M.																
11:59	969.2	21.9	87	s.	5.4	396	969.2	21.9		87	22.86	s.	5.4	388		7/10 St., w.; 2/10 St., s.
						500	957.6	20.9		88	21.75	s.	7.5	490	0	
						750	930.2	18.6		90	19.29	ssw.	12.5	735	0	
P. M.																
12:16	968.9	21.9	85	s.	4.9	897	914.2	17.2	0.94	91	17.85	ssw.	15.5	879	0	St. base at about 900 m.
						1,000	903.3	18.1		79	16.41	ssw.	15.4	980	0	
12:22	968.8	21.9	86	s.	4.5	1,209	881.6	19.8	−0.83	53	12.24	ssw.	15.2	1,185	0	
						1,250	877.1	19.5		53	12.02	ssw.	15.4	1,225	60	
						1,500	851.6	18.0		54	11.15	sw.	16.6	1,470	610	
						1,750	826.8	16.5		54	10.14	sw.	17.9	1,715	970	
						2,000	803.0	15.0		55	9.38	sw.	19.1	1,960	1,080	
						2,250	780.5	13.4		56	8.61	wsw.	20.3	2,205	1,340	7/10A.St.,w.;1/10St.,s.
12:53	968.3	22.6	84	s.	3.6	2,303	775.1	13.1	0.61	56	8.44	wsw.	20.6	2,257	1,400	
						2,500	757.9	11.7		62	8.52	wsw.	18.0	2,450	1,590	
						2,750	735.7	9.9		70	8.54	w.	14.8	2,694	1,770	4/10A.St.,w.;5/10St.,s.
1:36	968.2	23.4	82	s.	1.8	2,941	718.6	8.6	0.76	76	8.49	w.	12.3	2,881		
						2,750	735.3	10.2		73	9.09	w.	12.4	2,694	2,910	
						2,500	757.0	12.2		70	9.95	wsw.	12.5	2,450	8,850	
2:00	968.2	23.2	84	ssc.	1.4	2,318	774.0	13.7	0.43	67	10.51	wsw.	12.6	2,271	12,500	4/10 A. St., w.; 6/10 Cu., w.
						2,250	779.6	14.0		66	10.55	wsw.	13.0	2,205	11,480	
						2,000	803.0	15.1		62	10.64	wsw.	14.4	1,960	7,740	
						1,750	827.2	16.1		58	10.61	sw.	15.7	1,715	3,990	
2:13	967.9	23.5	84	se.	1.8	1,684	833.6	16.4	0.36	57	10.63	sw.	16.1	1,651	3,000	
						1,500	851.6	17.1		69	13.46	sw.	13.4	1,470	2,110	
						1,250	876.3	17.9		84	17.23	ssw.	9.8	1,225	890	
2:25	967.7	23.6	86	se.	1.8	1,095	892.8	18.5	0.73	94	20.02	ssw.	7.5	1,171	250	
						1,000	902.1	19.2		93	20.69	s.	6.7	980	220	
						750	928.7	21.0		90	22.38	se.	4.7	735	130	
						500	955.6	22.8		87	24.15	ese.	2.6	490	40	
2:31	967.6	23.6	86	e.	1.8	396	967.6	23.6		86	25.05	e.	1.8	388		4/10 A.St.,w.;5/10 Cu., w.

June 28, 1917 (No. 1).

A. M.																
7:30	969.1	20.4	90	wnw.	4.5	396	969.1	20.4		90	21.57	wnw.	4.5	388		1/10 St., wnw.
						500	957.1	19.6		89	20.30	wnw.	6.1	490		
7:48	969.1	20.7	77	wnw.	5.8	689	936.8	18.2	0.25	88	18.39	wnw.	9.1	676	0	
						750	930.0	18.0		86	17.75	wnw.	9.1	735		3/10 St., nw.
						1,000	903.6	17.2		75	14.71	wnw.	9.1	980		
						1,250	878.3	16.4		65	12.12	nw.	9.2	1,225		
9:44	969.8	23.2	74	n.	3.6	1,330	870.1	16.2	0.44	62	11.42	nw.	9.2	1,304		
						1,250	878.4	16.7		64	12.17	nw.	8.9	1,225		
						1,000	904.2	18.1		71	14.75	nnw.	7.9	980		
						750	931.1	18.4		77	16.29	nnw.	7.0	735		
10:15	969.9	23.6	75	n.	3.6	684	938.2	19.9	1.42	79	18.36	nnw.	6.7	671		
						500	958.5	22.5		76	20.72	n.	4.4	490		
10:37	969.9	24.0	75	n.	3.1	396	969.9	24.0		75	22.38	n.	3.1	388		3/10 Cu., nnw.

June 28, 1917 (No. 2).

A. M.																
11:21	970.0	24.8	70	n.	3.6	396	970.0	24.8		70	21.92	n.	3.6	388		5/10 Cu., nnw.
						500	958.2	22.8		74	20.54	nnw.	6.0	490		
11:30	970.1	24.7	70	nnw.	3.6	537	954.6	22.1	1.91	76	20.22	nnw.	6.9	526		
						750	931.4	20.5		82	19.78	nnw.	6.9	735		4/10 Cu., nnw.
						1,000	904.3	18.6		89	19.07	n.	7.0	980		
						1,250	878.9	16.7		96	18.25	n.	7.0	1,225		Cu. base at about 1,300 m.
P. M.																
1:22	970.3	25.6	63	n.	3.1	1,402	863.7	15.6	0.82	100	17.72	n.	7.0	1,374		
						1,250	878.9	17.0		93	18.02	n.	6.9	1,225		
						1,000	904.3	19.2		82	18.24	n.	6.7	980		
						750	931.4	21.4		72	18.35	n.	6.5	735		3/10 Cu., n.
1:58	970.3	26.0	62	n.	3.1	599	948.0	22.8	1.77	65	18.04	n.	6.4	587		
						500	959.2	24.6		64	19.80	nne.	5.1	490		
2:09	970.2	26.4	62	ne.	3.6	396	970.2	26.4		62	21.35	ne.	3.6	388		1/10 Cu., n.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 29, 1917, 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.	Potential. Gravity.	Potential. Electric.	Remarks.
A. M.	*mb.*	*° C.*	*%*		*m. p. s.*	*m.*	*mb.*	*° C.*		*%*	*mb.*		*m. p. s.*	*10^6 ergs.*	*volts.*	
7:35	972.0	22.6	68	ese.	4.0	396	972.0	22.6	.....	68	18.65	ese.	4.0	388	.....	2/10 A.Cu., nw.
						500	960.0	22.0	.....	64	16.92	ese.	6.0	490	0	
7:47	972.0	23.2	65	se.	4.0	748	933.5	20.4	0.62	56	13.42	se.	10.9	733	0	3/10 A.Cu., nw.
						750	931.7	20.4	.....	56	13.42	se.	10.9	735	0	
						1,000	906.3	18.5	.....	68	14.48	sse.	8.5	980	0	
8:25	971.8	23.2	66	sse.	3.1	1,141	891.6	17.4	0.76	74	14.70	sse.	7.2	1,119	0	4/10 A.Cu., nw.
						1,250	880.2	17.3	.....	62	12.24	sse.	7.6	1,225	0	2/10 A.Cu., nw.; 1/10 Cu., sse.
9:38	971.6	24.7	58	se.	4.9	1,473	857.5	17.0	0.12	38	7.36	s.	8.4	1,444	0	
						1,500	854.3	17.0	.....	37	7.17	s.	8.4	1,470	0	
						1,750	828.9	17.0	.....	32	6.20	ssw.	7.9	1,715	310	2/10 A.Cu., w.
						2,000	803.9	17.0	.....	27	5.23	ssw.	7.5	1,960	710	
10:47	971.4	25.9	58	se.	6.3	2,013	804.9	17.0	0.00	27	5.23	ssw.	7.5	1,973	730	
						2,250	780.1	15.5	.....	37	6.52	sw.	8.9	2,205	1,010	
						2,500	757.2	13.8	.....	48	7.57	sw.	10.3	2,450	1,500	
						2,750	736.0	12.2	.....	59	8.38	wsw.	11.7	2,694	1,500	2/10 Cu., sse.
						3,000	715.1	10.6	.....	70	8.95	wsw.	13.1	2,939	1,500	
						3,250	694.6	9.0	.....	81	9.30	w.	14.6	3,184	1,830	
11:50	970.7	26.8	59	se.	7.6	3,324	688.8	8.5	0.65	84	9.32	w.	15.0	3,256	2,000	
						3,500	674.0	7.0	.....	82	8.22	w.	15.1	3,429	2,110	2/10 Cu., sse.
						3,750	653.9	4.9	.....	80	6.93	w.	15.1	3,673	2,260	
						4,000	634.2	2.7	.....	78	5.79	w.	15.2	3,918	.....	
						4,250	615.1	0.6	.....	75	4.78	w.	15.3	4,162	.....	
P. M.																
12:11	970.5	26.9	58	se.	8.5	4,469	598.4	− 1.3	0.90	73	4.00	w.	15.4	4,276	.....	
						4,250	615.1	0.8	.....	71	4.59	w.	15.5	4,162	.....	
						4,000	634.2	3.1	.....	68	5.19	w.	15.6	3,918	.....	1/10 Ci., W.
						3,750	653.9	5.5	.....	65	5.87	w.	15.7	3,673	2,140	2/10 Ci.Cu., w.
						3,500	674.0	7.9	.....	62	6.60	w.	15.8	3,429	1,740	1/10 Cu., sse.
						3,250	694.6	10.2	.....	60	7.47	w.	15.9	3,184	1,590	
12:46	970.1	26.8	59	se.	7.6	3,103	707.2	11.6	0.53	58	7.92	w.	16.0	3,040	1,500	
						3,000	715.8	12.1	.....	56	7.91	w.	15.0	2,939	1,420	
						2,750	737.4	13.5	.....	52	8.04	wsw.	12.6	2,694	1,220	
						2,500	759.2	14.8	.....	48	8.08	wsw.	10.2	2,450	1,020	
						2,250	781.9	16.1	.....	44	8.05	sw.	7.8	2,205	820	
1:01	969.9	27.1	59	se.	8.0	2,088	797.0	17.0	0.15	41	7.95	sw.	6.2	2,046	710	
						2,000	805.2	17.1	.....	37	7.22	ssw.	7.9	1,960	650	Few Ci., w.
						1,750	829.2	17.5	.....	24	4.80	s.	12.8	1,715	460	2/10 Cu., sse.
1:19	969.8	27.0	60	sse.	6.7	1,676	836.2	17.6	−0.97	20	4.03	sse.	14.2	1,643	380	
1:21	969.8	27.1	60	sse.	6.7	1,541	852.7	16.0	0.62	60	10.91	sse.	14.2	1,481	190	
						1,500	853.6	16.1	.....	62	11.35	sse.	14.1	1,470	180	
1:29	969.8	26.8	60	sse.	6.7	1,334	870.7	17.1	1.00	95	18.52	sse.	12.8	1,308	0	
						1,250	879.2	17.9	.....	91	18.66	sse.	12.8	1,225	0	
						1,000	905.2	20.4	.....	80	19.18	sse.	12.9	980	0	
1:46	969.7	27.2	60	se.	7.2	804	925.8	22.4	1.13	71	19.23	sse.	13.0	788	0	
						750	932.9	23.0	.....	69	19.39	sse.	12.0	735	0	
						500	958.0	25.8	.....	62	20.60	sse.	7.6	490	0	
1:53	969.6	27.0	59	sse.	5.8	396	969.6	27.0	.....	59	21.04	sse.	5.8	388	.....	Few Cu., sse.

June 29, 1917, series (No. 2).

P. M.																
2:33	969.0	27.3	55	sse.	5.8	396	969.0	27.3	.....	55	19.96	sse.	5.8	388	.....	Few Ci., w.
						500	957.5	26.2	.....	54	18.37	sse.	7.9	490	0	
						750	930.7	23.5	.....	53	15.35	sse.	13.1	735	0	
2:46	968.8	27.5	52	sse.	6.7	810	924.1	22.8	1.09	53	14.71	sse.	14.3	794	0	
						1,000	904.1	21.0	.....	58	14.42	sse.	14.8	980	0	
						1,250	878.2	18.5	.....	65	13.84	se.	15.5	1,225	0	
2:58	968.6	27.3	54	sse.	8.0	1,285	874.8	18.2	0.97	66	13.79	se.	15.6	1,260	0	
						1,500	852.9	19.1	.....	48	10.61	s.	12.4	1,470	240	
3:08	968.5	27.4	53	sse.	7.2	1,635	839.7	19.6	−0.40	36	8.21	ssw.	10.4	1,602	380	
						1,750	828.0	19.1	.....	38	8.40	ssw.	12.4	1,715	510	
3:15	968.4	27.4	55	sse.	6.7	1,852	818.7	18.7	0.41	39	8.41	ssw.	14.2	1,815	600	
						2,000	803.7	17.8	.....	41	8.36	ssw.	14.7	1,960	730	
						2,250	780.2	16.4	.....	44	8.21	sw.	15.5	2,205	950	
						2,500	757.6	14.9	.....	47	7.96	sw.	16.4	2,450	1,220	
						2,750	735.8	13.4	.....	50	7.68	wsw.	17.2	2,694	1,500	
						3,000	714.3	12.0	.....	53	7.44	w.	18.1	2,939	1,790	
3:48	967.8	28.0	52	sse.	7.2	3,186	698.9	10.9	0.58	55	7.17	w.	18.7	3,121	2,000	
						3,250	693.7	10.4	.....	57	7.19	w.	18.4	3,184	2,030	
						3,500	673.3	8.3	.....	62	6.79	w.	17.3	3,429	2,140	
						3,750	653.7	6.3	.....	68	6.49	w.	16.1	3,673	2,250	
4:11	967.5	28.3	51	sse.	8.5	3,866	644.5	5.3	0.88	71	6.33	w.	15.6	3,787	2,300	
						3,750	653.8	6.4	.....	67	6.44	w.	16.0	3,673	2,210	
						3,500	674.2	8.7	.....	58	6.52	w.	17.0	3,429	2,020	
						3,250	695.0	11.0	.....	50	6.56	wsw.	18.0	3,184	1,830	
4:48	967.0	28.3	51	sse.	7.2	3,083	708.6	12.6	0.76	44	6.42	wsw.	18.6	3,021	1,700	Few Ci., w.
						3,000	715.3	13.2	.....	43	6.52	wsw.	18.4	2,939	1,660	
						2,750	736.2	15.1	.....	42	7.21	sw.	17.9	2,694	1,520	
						2,500	757.6	17.0	.....	40	7.75	sw.	17.4	2,450	1,390	
						2,250	780.2	18.9	.....	38	8.30	sw.	16.9	2,205	1,240	
						2,000	803.6	20.8	.....	36	8.85	ssw.	16.3	1,960	1,100	
5:25	966.5	27.0	58	sse.	7.6	1,835	819.8	22.1	0.51	35	9.31	ssw.	16.0	1,798	1,000	Few Ci.Cu., w.
						1,750	827.3	22.5	.....	35	9.54	ssw.	15.8	1,715	970	
5:30	966.4	27.1	59	sse.	5.4	1,538	848.1	23.6	−0.53	34	9.90	s.	15.3	1,507	900	
						1,500	851.9	23.4	.....	37	10.65	s.	15.6	1,470	890	
						1,250	876.7	22.1	.....	54	14.36	s.	17.5	1,225	690	
5:41	966.2	27.0	60	sse.	8.0	1,144	887.2	21.5	0.57	61	16.26	s.	18.3	1,122	510	
						1,000	901.8	22.3	.....	61	16.43	s.	17.2	980	260	
5:49	966.1	26.9	60	sse.	6.7	848	917.7	23.2	0.77	62	17.63	sse.	16.0	831	0	
						750	927.6	24.0	.....	62	18.50	sse.	13.8	735	0	
						500	954.6	25.9	.....	60	20.05	sse.	8.1	490	0	
5:54	966.0	26.7	60	sse.	5.8	396	966.0	26.7	.....	60	21.02	sse.	5.8	388	.....	FewCi.Cu.,w.;fewA.Cu.,wnw.

TABLE 10.—*Free-air data from kite flights at Drexel Aerological Station, June, 1917*—Continued.

June 29, 1917, series (No. 3).

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.	Potential. Gravity.	Potential. Electric.	Remarks.
P. M.	*mb.*	°*C.*	%		*m. p. s.*	*m.*	*mb.*	°*C.*		%	*mb.*		*m. p. s.*	*10⁶ ergs.*	*volts.*	
6:34	965.5	25.8	62	sse.	6.7	396	965.5	25.8	.....	62	20.60	sse.	6.7	388	.....	Few Ci.Cu.,w.; few A.Cu.,
						500	954.0	25.0	.....	62	19.64	sse.	9.0	490	0	
						750	927.0	23.0	.....	63	17.70	sse.	14.6	735	0	
6:43	965.4	25.8	62	sse.	7.6	867	914.8	22.1	0.79	63	16.76	sse.	17.2	850	80	
						1.000	900.7	22.6	.....	60	16.46	sse.	16.9	980	130	
						1,250	870.5	23.6	.....	55	16.02	s.	16.4	1,225	370	
6:54	965.3	25.6	62	se.	8.0	1,410	859.7	24.2	−0.39	52	15.70	s.	16.0	1,382	590	
						1,500	851.0	24.0	.....	49	14.62	s.	16.0	1,470	670	
7:02	965.2	25.5	62	se.	7.6	1,681	833.4	23.7	0.18	42	12.31	ssw.	16.0	1,648	820	
						1,750	827.0	23.3	.....	41	11.73	ssw.	16.5	1 715	880	
						2,000	803.2	21.6	.....	40	10.32	sw.	18.1	1,960	1,200	
						2,250	779.1	20.0	.....	38	8.88	sw.	19.8	2,205	1,500	2/10 A.Cu., wnw.
7:27	964.8	25.0	66	se.	6.7	2,452	762.2	18.7	0.65	36	7.77	wsw.	21.1	2,403	1,700	
						2,500	757.8	18.4	.....	36	7.62	wsw.	20.7	2,450	1,750	
						2,750	736.3	16.8	.....	36	6.89	wsw.	18.8	2,694	2,100	
7:45	964.4	24.6	67	se.	5.8	2,947	719.0	15.5	0.64	36	6.34	wsw.	17.3	2,887	.....	
						2,750	736.3	16.7	.....	36	6.84	wsw.	18.4	2,694	2,140	
						2,500	757.7	18.3	.....	37	7.78	wsw.	19.9	2,450	1,890	
						2,250	778.7	19.9	.....	38	8.83	wsw.	21.3	2,205	1,640	
						2,000	802.3	21.5	.....	38	8.00	wsw.	22.7	1,960	1,380	
						1,750	825.4	23.1	.....	39	11.03	wsw.	24.2	1,715	1,130	
						1,500	849.6	24.6	.....	40	12.38	wsw.	25.6	1,470	880	
8:05	964.2	24.5	67	se.	6.7	1,365	863.4	25.5	0.54	40	13.06	wsw.	26.4	1,338	740	
						1,250	869.6	24.9	.....	46	14.49	wsw.	26.2	1,225	630	
						1,000	899.9	23.5	.....	60	17.38	wsw.	25.7	980	370	
8:12	964.1	24.5	68	se.	8.0	920	908.3	23.1	1.54	64	18.09	wsw.	25.6	902	290	
						750	925.6	25.7	.....	58	19.16	ssw.	23.3	735	120	
11:02	963.5	23.5	72	sse.	7.2	679	933.0	26.8	−1.20	56	19.73	s.	22.4	666	50	
						500	951.9	24.6	.....	67	20.73	sse.	12.5	490	0	
11:30	963.3	23.4	73	sse.	6.7	396	963.3	23.4	.....	73	21.01	sse.	6.7	388	.....	1/10 A.Cu., wnw.

June 30, 1917, series (No. 4).

A. M.																
12:06	963.1	23.6	75	s.	5.8	396	963.1	23.6	.....	75	21.85	s.	5.8	388	.....	
						500	951.5	25.0	.....	67	21.23	s.	15.0	490	.....	
12:09	963.1	23.6	75	s.	5.8	671	933.4	27.2	1.31	53	19.12	ssw.	30.1	658	.....	Few A.Cu., wnw.
						750	924.9	28.5	.....	43	16.74	ssw.	30.3	735	.....	
12:42	962.9	23.3	77	s.	5.8	895	909.9	31.0	−1.70	26	11.68	ssw.	30.7	877	.....	
						1,000	899.2	30.6	.....	23	10.10	ssw.	30.9	980	.....	
12:46	962.9	23.3	77	s.	5.8	1,249	874.7	29.8	0.36	17	7.13	ssw.	31.3	1,224	.....	
						1,000	899.2	30.7	.....	18	7.95	sw.	29.1	980	.....	Kites beaten down by high wind.
12:54	962.8	23.1	78	s.	5.4	881	911.2	31.2	−2.19	18	8.18	sw.	28.0	864	.....	
						750	924.9	28.3	.....	36	13.85	ssw.	25.6	735	.....	
1:37	962.6	22.8	81	s.	4.5	616	938.7	25.4	1.23	55	17.85	s.	23.2	604	.....	
						500	951.1	24.0	.....	69	20.59	s.	13.3	490	.....	
1:41	962.6	22.7	81	s.	4.5	396	962.6	22.7	.....	81	22.35	s.	4.5	388	.....	Few A.Cu., wnw.

June 30, 1917, series (No. 5).

A. M.																
3:07	962.1	23.2	68	ssw.	5.8	396	962.1	23.2	.....	68	19.34	ssw.	5.8	388	.....	Few A.Cu., wnw.
						500	950.3	24.4	.....	58	17.73	ssw.	12.2	490	0	
						750	923.8	27.4	.....	34	12.41	sw.	27.6	735	0	
3:13	962.0	23.6	66	ssw.	6.3	770	922.0	27.6	−1.18	32	11.82	sw.	28.8	755	0	
3:18	962.0	23.8	65	ssw.	6.7	970	901.4	30.1	−1.25	25	10.67	sw.	30.0	951	0	
						1,000	898.0	29.9	.....	25	10.55	sw.	.....	980	0	
						1,250	873.6	28.4	.....	24	9.29	sw.	.....	1,225	0	
						1,500	848.9	26.9	.....	23	8.15	wsw.	.....	1,470	0	
4:52	961.8	22.9	61	ssw.	5.8	1,621	837.5	26.2	0.68	22	7.48	wsw.	.....	1,589	0	
						1,500	849.0	27.1	.....	22	7.89	wsw.	.....	1,470	0	
5:24	961.8	22.8	61	ssw.	5.8	1,323	866.5	28.5	0.50	22	8.56	wsw.	.....	1,297	0	
						1,250	873.1	28.9	.....	22	8.76	wsw.	.....	1,225	0	
						1,000	898.0	30.1	.....	23	9.82	wsw.	.....	980	0	
5:39	961.8	23.1	60	ssw.	6.3	782	920.7	31.2	−2.12	23	10.46	wsw.	.....	767	.....	
						750	923.8	30.5	.....	26	11.36	wsw.	.....	735	.....	
						500	950.4	25.2	.....	50	16.03	sw.	.....	490	.....	
5:48	961.8	23.0	60	ssw.	6.3	396	961.8	23.0	.....	60	16.86	ssw.	6.3	388	.....	Few A.Cu., wnw.

June 30, 1917, series (No. 6).

A. M.																
8:09	961.8	27.0	54	wsw.	8.5	396	961.8	27.0	.....	54	10.26	wsw.	8.5	388	.....	Few A.Cu., wnw.
						500	950.2	27.5	.....	48	17.63	wsw.	.....	490	.....	
						750	924.3	28.7	.....	34	13.39	wsw.	.....	735	.....	
8:15	961.8	27.1	54	wsw.	8.5	759	923.2	28.7	−0.47	33	13.00	wsw.	.....	744	.....	
						1,000	898.3	30.8	.....	24	10.66	w.	.....	980	.....	
8:20	961.8	27.2	54	wsw.	8.5	1,010	897.5	30.9	−0.88	24	10.73	w.	.....	990	.....	
8:28	961.8	27.6	54	wsw.	8.5	1,249	873.9	28.7	0.92	23	9.06	w.	8.5	1,224	.....	Few A.Cu., wnw.; kite broke away.