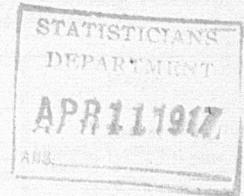


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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
CHARLES F. MARVIN, Chief



# MONTHLY WEATHER REVIEW

## SUPPLEMENT NO. 5

### AEROLOGY No. 2

FREE-AIR DATA AT DREXEL AEROLOGICAL STATION:  
JANUARY, FEBRUARY, AND MARCH, 1916

BY

THE AEROLOGICAL DIVISION, WILLIAM R. BLAIR, In Charge



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# **National Oceanic and Atmospheric Administration**

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# FREE-AIR DATA AT DREXEL AEROLOGICAL STATION: JANUARY, FEBRUARY, AND MARCH, 1916.

By the AEROLOGICAL DIVISION, WILLIAM R. BLAIR in charge.

In the 91 days of this period 138 free-air observations by means of kites were made. Of these observations 49 were made in January, 39 in February, and 50 in March. The means of the highest points reached with the kites are 2,722 meters above sealevel in January, 2,869 in February, 2,631 in March, and 2,731 for the period.

The observation of January 26, 1916, illustrates a type wind condition not found at Mount Weather, Va. On this date there were heavy low clouds and a northwest wind. The wind was strong up to the base of the cloud layer, but fell to a very low velocity above this level.

*Halo of January 27, 1916.*—Halo of  $22^{\circ}$  and  $46^{\circ}$  radius, also parhelia and a circumzenithal arc about  $25^{\circ}$  in length, were observed at 9 a. m. on January 27, 1916. The altitude of the sun at this time was  $14^{\circ}$ . The smaller halo was of about the average brightness; the larger halo was very faint, except at the point of tangency with the circumzenithal arc, where the coloring was most brilliant. At this point the red of the circumzenithal arc coincided with the blue of the halo. The parhelia were remarkably brilliant and were about  $24^{\circ}$  distant from the sun, just outside but in contact with the smaller halo. These phenomena persisted with little change until about 10 a. m., after which all except the parhelia and portions of the smaller halo near them disappeared. The parhelia were visible until sunset. During the 27th the sky was partly covered with cirro-stratus and cirrus. At about 9 p. m. stratus clouds appeared and the sky was overcast by 11:30 p. m. Snow began at 1:31 a. m. of the 28th and continued for about 24 hours.

*Halo and corona of March 17, 1916.*—On March 17 a lunar halo and a lunar corona were reported as occurring simultaneously with only cirrus and cirro-stratus clouds noted. It is possible that not a corona but a halo of small radius within the  $22^{\circ}$  halo was observed.

On March 26, with a low central over St. Louis and highs over North Dakota and Wyoming, all of moderate intensity, an exceptionally deep northeast wind was observed. This wind persisted to the highest altitude reached, 2,281 meters above sealevel. The wind velocity increased with altitude to 31.6 m. p. s. at the highest point reached. All clouds observed, strato-cumulus, alto-stratus, and cirro-stratus, were also moving from the northeast.

TABLE 1.—*Comparison of mean temperatures,  $^{\circ}\text{C}$ , for January, February, and March, at Drexel, Nebr., and Mount Weather, Va.*

Altitude, sea level.	JANUARY.			FEBRUARY.			MARCH.		
	Drexel, 1916.	Mount Weather, 5-year mean.	De- par- tures.	Drexel, 1916.	Mount Weather, 5-year mean.	De- par- tures.	Drexel, 1916.	Mount Weather, 5-year mean.	De- par- tures.
Meters.	$^{\circ}\text{C}.$	$^{\circ}\text{C}.$	$^{\circ}\text{C}.$	$^{\circ}\text{C}.$	$^{\circ}\text{C}.$	$^{\circ}\text{C}.$	$^{\circ}\text{C}.$	$^{\circ}\text{C}.$	$^{\circ}\text{C}.$
396	a—8.3	.....	.....	b—3.8	.....	.....	c3.7	.....	.....
500	—8.7	d—1.3	-7.4	—4.1	d—0.8	-3.3	3.0	d4.6	-1.6
750	—8.8	—1.7	-7.1	—4.3	—1.6	-2.7	2.4	3.5	-1.1
1,000	—6.7	—2.0	-4.7	—3.2	—2.4	-0.8	2.4	2.5	-0.1
1,250	—4.8	—2.5	-2.3	—1.8	—2.9	-1.1	2.4	1.6	-0.8
1,500	—4.3	—2.9	-1.4	—2.0	—3.4	-1.4	2.6	0.7	-1.9
1,750	—3.8	—3.4	-0.4	—1.7	—4.1	-2.4	2.0	-0.3	-2.3
2,000	—4.1	—4.0	-0.1	—1.9	—4.8	-2.9	1.0	—1.3	-2.3
2,250	—4.8	—4.7	-0.1	—2.9	—5.6	-2.7	—0.3	—2.4	-2.1
2,500	—5.8	—5.7	-0.1	—4.0	—6.8	-2.8	—2.0	—3.6	-1.6
2,750	—6.9	—6.8	-0.1	—5.2	—7.8	-2.8	—3.8	—4.9	-1.1
3,000	—8.1	—8.2	-0.1	—6.8	—9.0	-2.2	—5.4	—6.2	-0.8
3,250	—9.1	—9.6	-0.5	—8.4	—10.5	-2.1	—7.1	—7.6	-0.5
3,500	—10.2	—10.9	-0.7	—9.9	—12.0	-2.1	—8.9	—8.9	0.0
3,750	—11.2	—12.2	-1.0	—11.2	—13.3	-2.1	—10.7	—10.3	-0.4
4,000	—12.5	—13.6	-1.1	—12.3	—14.8	-2.5	—11.7	—11.8	-0.1
4,250	—13.6	—15.0	-1.4	—13.5	—16.3	-2.8	—13.7	—13.5	-0.2
4,500	—14.9	—16.4	-1.5	.....	.....	.....	.....	.....	.....

<sup>a</sup>Actual 24-hour mean temperature,  $-9.3^{\circ}$ .    <sup>c</sup>Actual 24-hour mean temperature,  $3.2^{\circ}$ .

<sup>b</sup>Actual 24-hour mean temperature,  $-5.9^{\circ}$ .    <sup>d</sup>At surface, 526 meters above sealevel.

A comparison of the mean monthly temperatures for this period with the 5-year means observed at Mount Weather, Va., for the same months is shown in Table 1. In all cases a fairly pronounced negative departure at the earth's surface gradually gives place to positive departures at higher levels. Departures change sign at the 2,750-meters level in January, but at the 1,250-meters level in February and March. There is a gradual increase in the January departures from the surface to the highest levels explored. In February the departure is fairly constant from the 1,750-meters level to the highest levels explored. In March the maximum departure observed occurs at the 1,750- or 2,000-meters level. Complete data for the three months are shown in Tables 2, 3, and 4.

## *Pressures and winds during the series flights.*

During the period 6 series of observations of diurnal variation were made. There were 9 successive flights on January 17-18; 7 on January 27-28; 8 on February 14-15; 5 on February 21-22; 8 on March 17-18; and 8 on March 28-29. The average heights of the highest points reached in each series were, in chronological order, 2,999

## SUPPLEMENT NO. 5.

2,607, 3,529, 2,845, 3,118, and 2,516 meters above sea-level. The duration of each series and the temperatures observed are shown in figures 1 to 6. Weather conditions during each series, except the pressure distribution, and all other observed data may be seen in Table 2.

When the series of January 17-18 was begun, a ridge of high pressure, 1,044 millibars, with centers over Montana and Texas, lay to the west of the station. Near the close of the series this ridge had moved eastward past the station. The winds, therefore, were northwest turning to southwest at the surface, but northwest and west-northwest throughout the series aloft.

At the beginning of the series of January 27-28 a pronounced HIGH, 1,050 millibars, was central over northern Montana, a LOW, 1,010 millibars, was central over northern Illinois, and another, 995 millibars, was approaching the central California coast. During the series the HIGH remained nearly stationary, but the Pacific LOW traveled eastward to Utah. Surface winds were northwest shifting to east-northeast; winds aloft were west-southwest shifting to south-southwest.

Pressure over the entire country was high during the series of February 14-15. There were two well developed HIGHS, one central over the lower Lakes, 1,041 millibars, the other over Idaho, 1,038 millibars. The first of these diminished in intensity and moved slightly southward during the series; the second remained about stationary. Conditions at the station were under the influence of the eastern HIGH at first, but later under the influence of the western HIGH. Winds at the surface were southwest, then northwest; aloft, they were west shifting to north, then back to northwest.

At the beginning of the series of February 21-22 a HIGH, 1,033 millibars, was central over the lower Lakes and a LOW, 1,007 millibars, over Nevada. There was also a moderate HIGH, 1,021 millibars, over Montana. During the series the eastern HIGH moved southeastward,

the northwestern HIGH remained nearly stationary and the Nevada LOW moved eastward, being central at 8 a. m. of the 22d over Kansas, 1,009 millibars. The surface winds were south and southeast, under the influence of the eastern HIGH, until 3 a. m. of the 22d, after which they were north-northeast to north-northwest, under the influence of the western LOW, which had moved to the east of the station. Aloft the winds were southwest to west-southwest, shifting to west and west-northwest.

At the beginning of the series of March 17-18 a well-developed HIGH, 1,036 millibars, was central over the upper Lakes, with no pronounced disturbance west of the Mississippi. By the morning of the 18th the Lakes HIGH had moved eastward, and a moderate HIGH, 1,026 millibars, had developed to the northwest of the station, being central over North Dakota. Pressure was relatively low, 1,009 millibars, over Kansas. The winds at the surface were east-southeast and southeast under the influence of the Lakes HIGH until 1:30 a. m. of the 18th, when they became north to north-northeast under the influence of the northwestern HIGH. Aloft the winds were west and west-northwest shifting to northwest and north-northwest.

At the beginning of the series of March 28-29 a LOW, 1,004 millibars, was central over Virginia and another, 1,006 millibars, was central over Wyoming. Relatively high pressure was between, with a center, 1,020 millibars, over Galveston, and one, 1,025 millibars, north of the Great Lakes. During the series the eastern LOW moved eastward off the Atlantic coast, and the western LOW moved eastward to Kansas, increasing in intensity to 1,004 millibars. The high pressure ridge moved slightly eastward. Winds at the surface were controlled by the western LOW and were south-southeast shifting to south-east. Aloft they were south-southeast shifting to south-southwest and back to south.

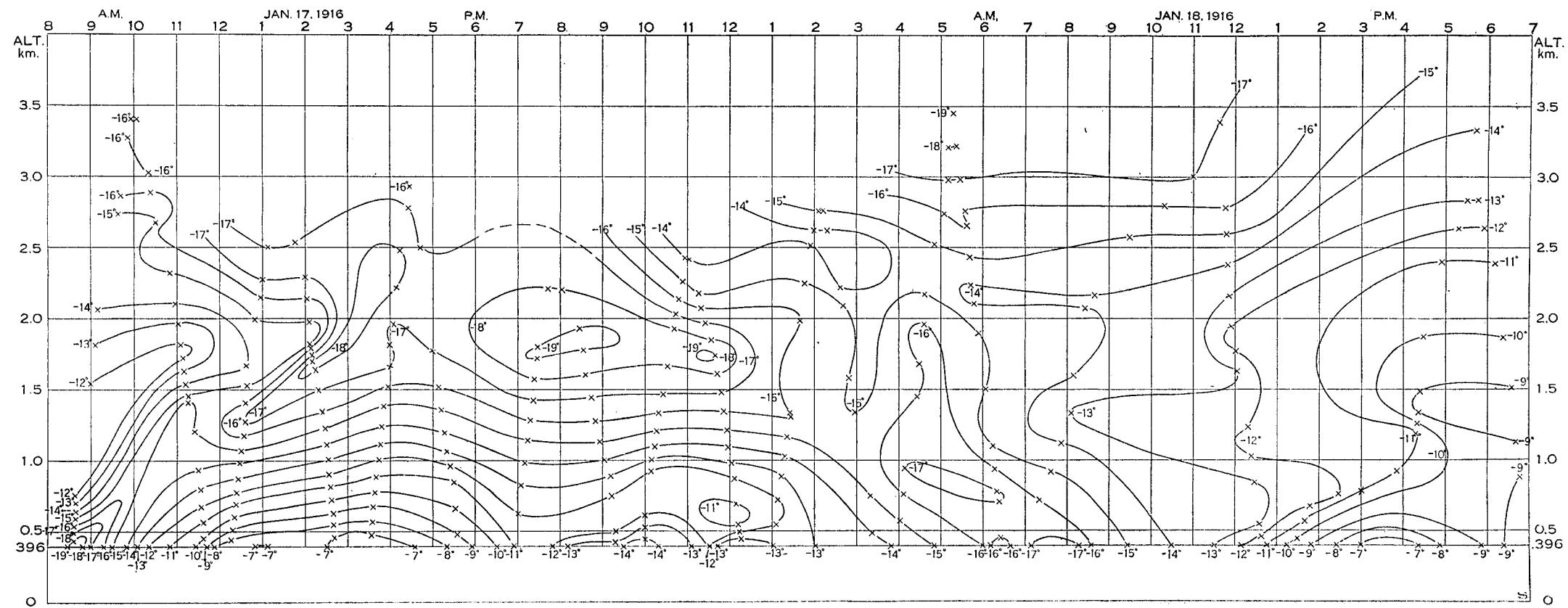


Fig. 1.—Free-air temperatures, °C., above Drexel Aerological Station; observed January 17-18, 1916.

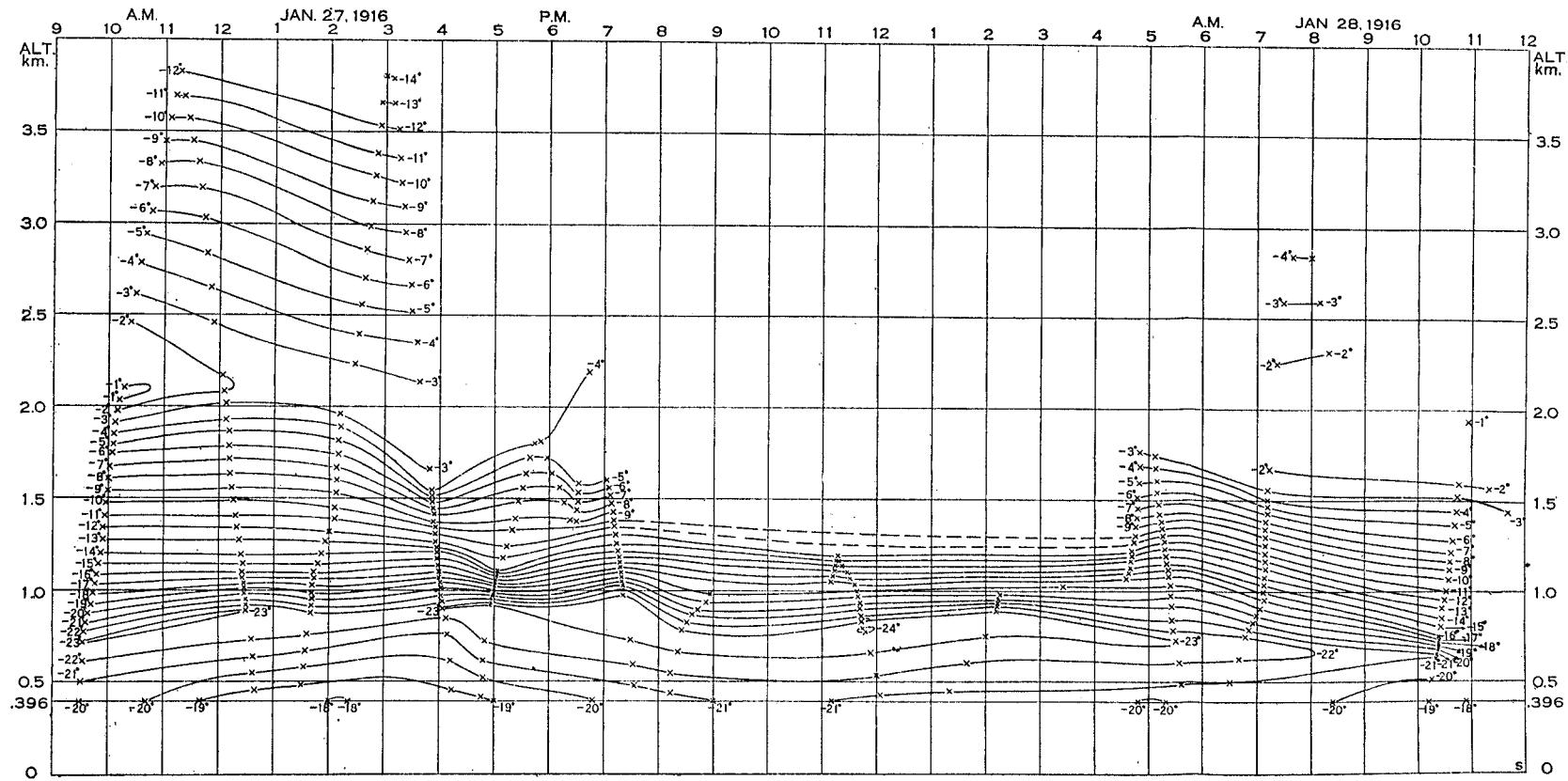


Fig. 2.—Free-air temperatures, °C., above Drexel Aerological Station; observed January 27-28, 1916.

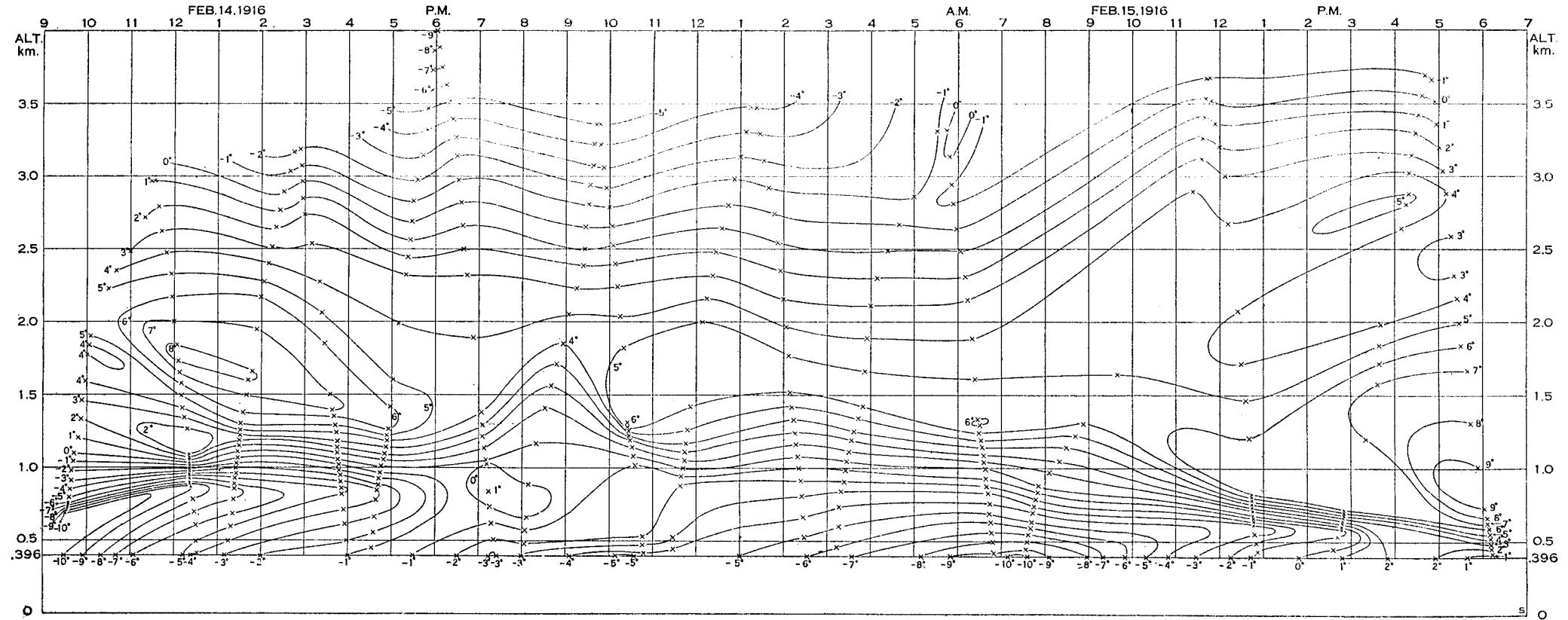


Fig. 3.—Free-air temperatures, °C., above Drexel Aerological Station; observed February 14-15, 1916.

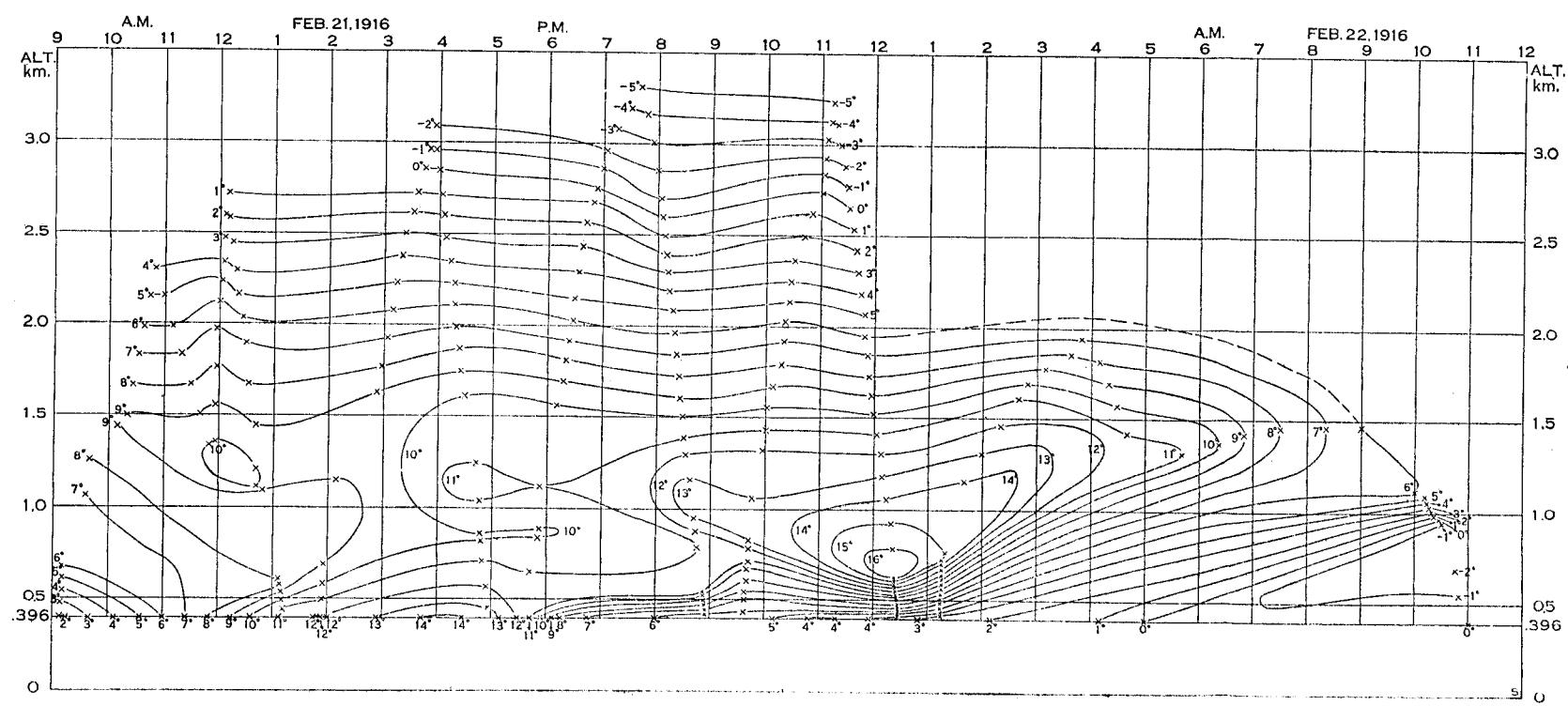


Fig. 4.—Free-air temperatures, °C., above Drexel Aerological Station; observed February 21-22, 1916.

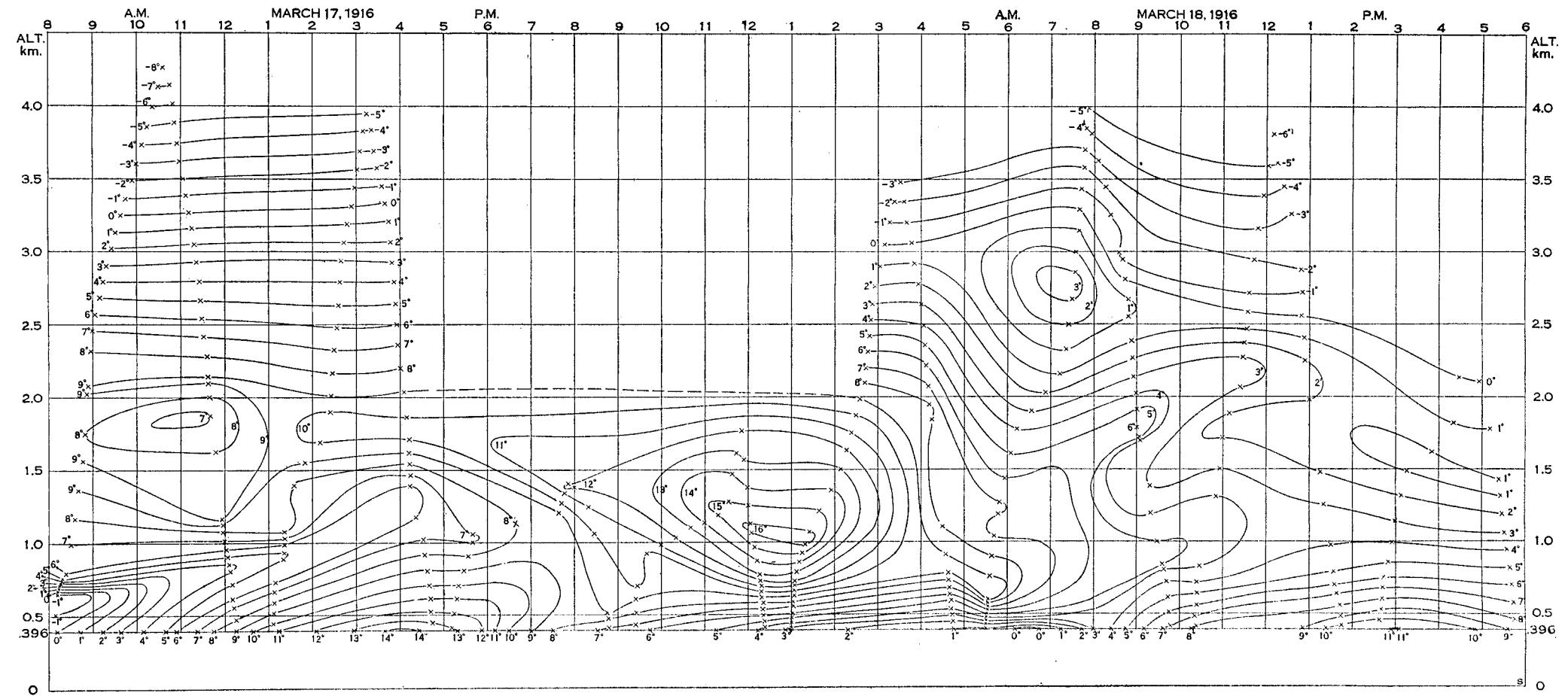


Fig. 5.—Free-air temperatures, °C., above Drexel Aerological Station; observed March 17-18, 1916.

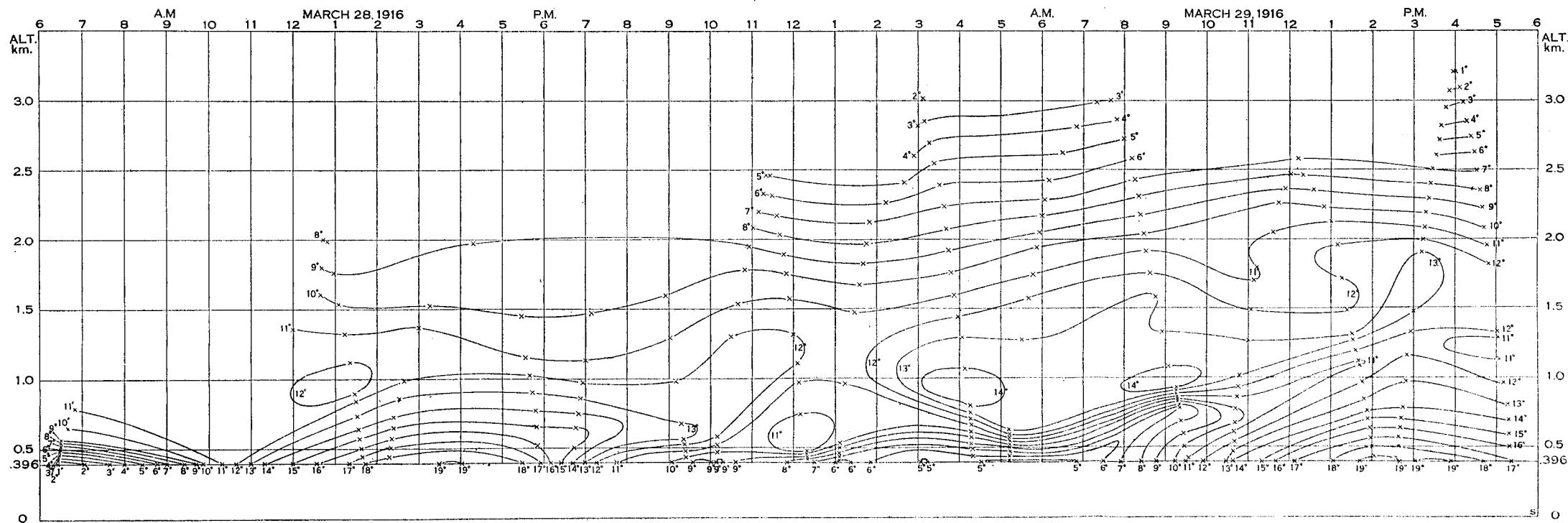


Fig. 6.—Free-air temperatures, °C., above Drexel Aerological Station; observed March 28-29, 1916.

# OBSERVATIONS AT DREXEL, JANUARY, 1916.

5

*TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916.*

January 1, 1916.

Time.	Surface.				At different heights above sea.										Remarks.	
	Pressure.	Temper- ature.	Rela- tive humid- ity.	Wind.		Alti- tude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
A. M.																
11:20.....	mb. 949.3	°C. 3.3	% 100	sw.	m. p. s. 4.5	m. 396	mb. 949.3	°C. 3.3	.....	% 100	m. p. s. 4.5	10 <sup>5</sup> ergs. 388	volts. 0			9/10 St., ssw. Clouds very low, reaching surface at times.
11:28.....	949.3	3.3	100	sw.	4.5	500	936.8	2.6	.....	100	7.37	sw. 7.7	490	0		
11:35.....	949.3	3.6	100	sw.	4.0	707	913.5	1.4	0.61	100	6.76	ww. 14.0	595	0		
11:43.....	949.3	3.6	100	sw.	4.0	750	918.0	1.2	.....	100	6.66	ww. 14.3	735	0		
11:51.....	949.3	3.7	100	sw.	4.9	1,000	880.3	-0.1	.....	100	6.06	w. 15.9	980	0		
12:02.....	949.4	4.0	97	sw.	5.8	1,091	870.8	-0.6	0.52	100	5.81	w. 16.5	1,070	0		
12:03.....	949.4	4.0	97	sw.	5.8	1,138	865.6	1.5	-4.47	85	5.79	w. 18.0	1,116	0		
12:28.....	949.9	3.9	96	ww.	6.3	1,250	853.9	1.4	.....	78	5.27	ww. 17.9	1,225	0		
12:38.....	950.1	3.9	93	ww.	7.2	1,500	827.9	1.3	.....	63	4.23	ww. 17.7	1,470	0		
12:50.....	950.4	3.1	94	ww.	10.3	1,603	817.3	1.2	0.06	57	3.80	sw. 17.6	1,571	0		
12:55.....	950.5	2.7	96	ww.	10.3	1,750	801.8	0.3	.....	55	3.43	sw. 18.1	1,715	0		
1:01.....	950.6	2.5	95	ww.	8.9	2,000	777.2	-1.3	.....	50	2.74	sw. 18.9	1,960	0		
P. M.																
12:02.....	949.4	4.0	97	sw.	5.8	2,076	770.4	-1.8	0.63	49	2.58	sw. 19.1	2,024	0	3/10 St. Cu., wsw.	
12:03.....	949.4	4.0	97	sw.	5.8	2,147	763.6	-1.0	-1.13	48	2.70	sw. 18.0	2,104	0		
12:28.....	949.9	3.9	96	ww.	6.3	2,250	753.6	-1.5	.....	50	2.70	.....	19.6	2,205	40	
12:38.....	950.1	3.9	93	ww.	7.2	2,500	730.2	-2.7	.....	53	2.59	.....	22.8	2,450	860	
12:50.....	950.4	3.1	94	ww.	10.3	2,609	720.9	-3.2	0.48	55	2.57	.....	24.3	2,556	540	
12:55.....	950.5	2.7	96	ww.	10.3	2,750	708.0	-3.4	.....	57	2.62	.....	26.7	2,694	1,700	
1:01.....	950.6	2.5	95	ww.	8.9	2,801	703.2	-3.5	-0.04	58	2.64	.....	27.5	2,744		
1:03.....	950.7	2.5	95	ww.	9.8	2,952	707.8	-3.6	.....	59	2.67	.....	26.9	2,694	10/10 St. Cu., wnw.	
1:18.....	951.0	2.2	91	ww.	8.5	1,000	725.9	-4.1	0.67	63	2.73	w. 24.2	2,491		Clouds lowering.	
1:25.....	951.2	2.1	91	ww.	10.7	1,054	855.2	-0.5	-1.05	88	5.16	ww. 16.5	1,222	860		
1:34.....	951.4	2.0	93	ww.	13.4	1,094	876.1	-2.5	0.48	88	4.36	ww. 19.8	1,033	22)		
1:42.....	951.6	0.5	92	ww.	11.6	1,245	882.0	-2.3	.....	91	4.59	ww. 19.1	980	60	Altitude of St. Cu. base about 600 m.	

January 2, 1916.

A. M.	Pressure.	Temp.	Rel.	Wind.	Altitude.	Pressure.	Temp.	$\Delta t$	100 m.	Humidity.	Wind.	Wind.	Potential.	Remarks.	
9:27.....	974.3	-4.5	88	w.	4.5	396	974.3	-4.5	.....	88	3.69	w. 4.5	388	0	Cloudless.
9:33.....	974.3	-4.3	88	w.	4.0	486	963.3	-5.0	0.56	86	3.45	ww. 6.5	466	0	
9:42.....	974.4	-4.0	86	w.	4.5	500	961.7	-4.7	.....	85	3.50	ww. 6.8	490	0	
9:49.....	974.5	-3.8	86	w.	4.0	823	923.5	2.4	-2.20	70	4.53	w. 12.5	735	0	
10:04.....	974.6	-3.5	84	w.	4.5	1,000	903.3	1.3	.....	60	4.03	w. 14.2	980	134	
10:18.....	974.6	-3.2	82	w.	2.7	1,205	880.9	0.1	0.60	54	3.32	w. 14.4	1,181	280	
10:45.....	974.6	-2.5	79	w.	3.1	1,250	875.2	-0.2	.....	54	3.25	w. 14.4	1,225	320	
11:08.....	974.6	-2.2	79	w.	2.7	1,500	848.7	-2.1	.....	56	2.87	w. 14.6	1,470	720	
11:46.....	974.4	-1.4	72	w.	2.2	2,052	830.9	-3.3	0.73	57	2.04	w. 14.7	1,638	1,000	
11:48.....	974.4	-1.3	72	w.	2.2	2,125	822.6	-3.5	.....	57	2.60	w. 16.2	1,715	1,120	
11:52.....	974.4	-1.2	70	ww.	2.7	2,250	797.1	-4.1	.....	57	2.47	ww. 21.1	1,960	1,490	
11:58.....	974.4	-1.2	69	ww.	2.7	2,504	775.6	-4.7	0.26	57	2.35	ww. 25.2	2,171	1,800	
12:06.....	974.4	-0.9	67	ww.	2.7	2,750	747.6	-6.2	0.52	58	2.10	w. 26.7	2,454	2,980	
12:18.....	974.4	-0.7	68	w.	3.1	3,292	724.6	-7.8	.....	56	1.76	w. 27.0	2,694	3,310	
12:28.....	974.4	-0.5	68	w.	3.6	3,250	701.9	-9.4	.....	53	1.45	w. 27.3	2,939	3,630	
12:31.....	974.4	-0.4	66	w.	3.6	3,000	679.2	-11.1	.....	50	1.18	w. 27.6	3,184	3,950	
12:39.....	974.4	-0.2	64	w.	3.6	3,292	675.4	-11.4	0.73	50	1.14	w. 27.6	3,225	4,000	
						3,250	679.2	-11.1	.....	49	1.15	w. 3,184	3,840		
						3,000	701.9	-9.1	.....	46	1.29	w. 2,939	3,100		
						2,750	724.6	-7.1	.....	43	1.44	w. 2,694	2,650		
						2,552	747.2	-5.5	-0.60	40	1.54	w. 2,501	2,350		
						2,502	747.6	-5.8	0.87	38	1.42	w. 2,452	2,290		
						2,329	764.2	-4.3	-0.37	38	1.62	ww. 2,282	2,070		
						2,250	772.2	-4.6	.....	43	1.78	ww. 2,205	1,970		
						2,195	777.2	-4.8	0.40	47	1.92	ww. 2,151	1,900		
						2,000	797.1	-4.0	.....	48	2.10	ww. 1,960	1,670		
						1,750	822.6	-3.0	.....	49	2.33	w. 1,715	1,370		
P. M.															
12:06.....	974.4	-0.9	67	ww.	2.7	1,716	825.8	-2.9	0.71	49	2.35	w. 1,682	1,330		
12:18.....	974.4	-0.7	68	w.	3.1	1,500	848.7	-1.4	.....	49	2.67	w. 1,470	1,090		
12:28.....	974.4	-0.5	68	w.	3.6	1,285	874.0	0.3	-0.06	49	3.06	w. 1,240	830		
12:31.....	974.4	-0.4	66	w.	3.6	1,250	875.2	0.3	.....	49	3.06	w. 1,225	820		
12:39.....	974.4	-0.2	64	w.	3.6	1,000	903.3	0.2	.....	48	2.98	w. 980	540		
						916	912.8	0.1	-1.44	48	2.95	w. 898	460		
						750	932.2	-2.3	.....	50	2.52	w. 735	320		
						500	937.9	-3.0	0.92	50	2.38	w. 686	280		
						981.7	939.1	-1.2	.....	59	3.26	w. 490	100		
						396	974.4	-0.2	.....	64	3.85	w. 388	388		
														3/10 Ci., wsw. Clouds increasing.	

## SUPPLEMENT NO. 5.

TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.  
January 3, 1916.

Time.	Surface.				At different heights above sea.										Remarks.	
	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
A. M.																
8:54	mb. 980.4	°C. -4.1	% 94	s.	m. p. s. 4.9	m. 396	mb. 980.4	°C. -4.1	.....	% 94	m. p. s. 4.07	s. 4.9	10 <sup>5</sup> ergs. 388	volts. 0	Cloudless.	
9:01	980.4	-3.7	90	s.	5.4	500	967.2	-1.4	.....	85	4.62	s. 5.5	490	0		
9:05	980.4	-3.4	89	s.	5.4	669	947.4	2.0	-2.56	70	5.27	s. 6.6	656	0		
9:21	980.5	-2.8	91	s.	6.3	685	945.6	1.8	6.88	65	4.52	s. 7.8	672	0		
						750	937.9	2.4	.....	62	4.50	s. 7.5	735	0		
						967	913.2	4.6	-0.99	54	4.58	ssw. 6.6	948	200		
						1,000	909.2	4.5	.....	54	4.55	ssw. 6.8	980	240		
						1,250	882.0	3.4	.....	51	3.98	ssw. 8.2	1,225	500		
						1,500	855.1	2.2	.....	49	3.51	sw. 9.7	1,470	750		
						1,750	829.0	1.1	.....	46	3.05	sw. 11.1	1,715	1,010		
9:45	980.7	-1.9	92	s.	3.1	1,797	824.5	0.9	0.45	45	2.93	sw. 11.4	1,761	1,050		
9:48	980.7	-1.9	92	s.	3.6	1,880	816.0	1.0	-0.01	45	2.96	sw. 11.4	1,843	1,150		
						2,000	803.4	0.2	.....	45	2.79	sw. 11.6	1,900	1,220		
						2,250	778.6	1.5	.....	45	2.43	ssw. 12.0	2,205	1,450		
9:55	980.8	-1.5	92	s.	4.0	2,437	761.1	2.8	0.68	45	2.18	ssw. 12.3	2,388	1,600	Cloudless.	
10:06	980.8	-0.9	90	s.	2.7	2,500	754.7	2.8	.....	48	2.23	ssw. 13.6	2,450	1,760		
						2,576	747.8	2.7	-0.07	47	2.29	ssw. 15.2	2,524	1,930		
						2,750	731.2	3.4	.....	46	2.12	ssw. 15.9	2,694	2,320		
						3,000	708.2	4.4	.....	44	1.86	w. 17.0	2,939	2,470		
						3,250	686.2	5.5	.....	43	1.65	w. 18.1	3,184	2,720	A.St. forming.	
10:25	980.6	-0.2	87	s.	3.6	3,398	673.7	6.1	0.41	42	1.53	w. 18.7	3,329	2,880		
10:30	980.6	-0.1	87	s.	3.1	3,500	665.1	6.0	.....	38	1.40	w. 19.6	3,429	2,990		
						3,531	662.7	6.0	-0.08	37	1.36	w. 19.9	3,459	3,020		
10:56	980.4	0.7	86	s.	3.6	4,000	624.3	9.3	.....	41	1.26	w. 19.8	3,673	3,260		
						4,000	624.3	9.3	.....	41	1.13	w. 19.7	3,918	3,540	Cloudless.	
11:36	979.6	2.3	80	s.	4.5	3,750	644.7	7.5	.....	38	1.23	w. 19.1	3,673	3,080		
11:41	979.5	2.6	79	s.	4.5	3,697	648.9	7.1	0.08	38	1.27	w. 19.0	3,621	3,000		
						3,567	659.7	7.0	0.70	36	1.22	w. 21.4	3,494	2,800		
NOON	979.0	3.1	81	s.	5.4	3,500	665.1	6.5	.....	37	1.31	w. 21.1	3,429	2,710		
						3,250	686.2	4.6	.....	39	1.62	w. 20.0	3,184	2,360		
P. M.						3,196	691.3	4.4	0.00	39	1.65	w. 19.9	3,131	2,290		
12:04	978.9	3.2	81	s.	5.4	3,068	702.5	4.4	0.52	44	1.86	w. 16.5	3,006	2,110		
						3,000	708.2	4.0	.....	44	1.92	w. 16.3	2,939	2,010		
						2,750	731.2	2.7	.....	44	2.15	ssw. 15.8	2,694	1,810		
12:25	978.5	4.5	73	s.	4.5	2,500	754.7	1.4	.....	44	2.39	sw. 15.2	2,450	1,620		
						2,416	762.6	1.0	0.66	44	2.47	sw. 15.0	2,367	1,550		
						2,250	778.6	0.1	.....	42	2.58	sw. 16.6	2,205	1,430		
12:42	978.1	4.5	70	s.	7.2	2,000	802.8	1.8	.....	38	2.64	sw. 19.1	1,960	1,280		
12:50	977.9	4.8	63	s.	6.7	1,902	812.7	2.4	-0.15	37	2.69	sw. 20.1	1,864	1,190		
						1,768	826.1	2.2	0.57	35	2.51	sw. 20.1	1,733	1,100		
						1,750	827.7	2.3	.....	35	2.52	sw. 20.0	1,715	1,080		
1:04	977.6	5.3	64	ssw.	6.3	1,500	853.4	3.7	.....	33	2.63	ssw. 18.5	1,470	850		
1:06	977.6	5.4	64	ssw.	6.3	1,418	862.2	4.2	-0.49	32	2.64	ssw. 18.1	1,390	780		
						1,337	870.9	3.8	0.49	31	2.49	ssw. 17.6	1,311	700		
1:15	977.3	5.5	64	ssw.	8.5	1,091	897.2	5.0	-1.01	32	2.64	ssw. 12.5	1,225	600		
1:17	977.3	5.6	65	ssw.	8.5	1,000	907.2	4.1	.....	35	2.87	ssw. 12.5	1,070	309		
1:20	977.3	5.6	65	ssw.	8.9	932	914.9	3.4	0.36	35	2.73	ssw. 12.5	980	250		
1:24	977.1	5.7	66	ssw.	7.6	820	927.6	3.8	-3.19	37	2.97	ssw. 914	804	0		
						773	932.9	2.3	0.95	40	2.88	ssw. 758	758	0		
						750	935.5	2.5	.....	41	3.00	ssw. 735	735	0		
1:29	977.1	5.9	64	ssw.	8.9	396	977.1	5.9	.....	57	4.94	ssw. 490	490	0	Cloudless.	
						396	977.1	5.9	.....	64	5.95	ssw. 8.9	388	.....		

January 4, 1916.

A. M.	960.1	6.8	97	ssw.	6.7	396	960.1	6.8	.....	97	9.58	ssw. 6.7	388	.....	10/10 St., sw. Altitude of St. base about 600 m.
	500	948.0	6.4	.....	.....	750	919.8	5.3	.....	95	9.13	ssw. 8.9	490	0	
10:20	960.0	7.4	95	ssw.	6.7	900	902.8	4.7	0.42	85	7.33	sw. 14.3	735	0	10/10 St.Cu., sw.
10:31	959.9	7.5	95	sw.	8.0	1,000	891.9	8.1	.....	70	7.66	sw. 17.5	882	0	Cf. from sw. observed above St. Cu.
10:50	959.8	8.2	91	sw.	9.4	1,214	869.2	15.4	-3.41	37	6.48	sw. 12.7	1,190	.....	
	1,250	865.3	15.4	.....	.....	1,543	840.2	15.7	.....	36	6.30	sw. 12.4	1,225	0	
	1,500	836.2	15.8	-0.12	.....	1,760	816.1	14.2	.....	30	5.38	sw. 10.3	1,470	10	
	2,000	792.3	12.2	.....	.....	2,000	792.3	12.2	.....	29	4.70	sw. 9.9	1,512	30	
11:04	959.7	8.6	90	sw.	10.3	2,129	780.3	11.2	0.78	26	3.46	sw. 10.4	1,715	110	
	2,250	768.9	10.3	.....	.....	2,500	745.8	8.3	.....	26	3.46	sw. 10.9	1,960	240	3/10 Cl., sw.; 6/10 St.Cu., sw.
	2,750	723.3	6.3	.....	.....	2,750	723.3	6.3	.....	27	3.84	sw. 11.2	2,086	330	
11:35	959.3	9.4	86	ssw.	9.8	2,818	717.7	5.8	0.78	26	3.46	sw. 12.5	2,205	420	
	3,000	701.6	4.5	.....	.....	3,000	701.6	4.5	.....	31	2.87	sw. 15.1	2,450	530	
	3,250	680.3	2.8	.....	.....	3,250	680.3	2.8	.....	30	2.73	sw. 17.7	2,694	690	10/10 St.Cu., sw.
	3,750	658.3	1.1	.....	.....	3,750	658.3	1.1	.....	31	2.98	sw. 18.4	2,761	730	Altitude of St.Cu. base about 750 m.
P. M.	958.9	9.8	82	ssw.	10.7	3,283	677.7	2.6	0.69	31	5.38	sw. 18.9	2,939	840	
	3,500	659.6	1.2	.....	.....	3,750	639.6	-0.4	.....	30	5.38	sw. 19.7	3,184	1,000	3/10 Cl., sw.; 4/10 St.Cu., sw.
12:23	958.4	9.7	82	ssw.	9.4	4,154	607.6	-3.1	0.65	30	4.70	sw. 22.2	3,673	.....	
	4,000	619.7	-2.1	.....	.....	4,000	619.7	-2.1	.....	29	4.70	sw. 23.4	3,918	.....	
	4,750	638.6	-0.5	.....	.....	4,750	638.6	-0.5	.....	29	4.70	sw. 24.2	4,068	1,090	1/10 Cl., sw.; 4/10 St.Cu., sw

# OBSERVATIONS AT DREXEL, JANUARY, 1916.

7

TABLE 2.—*Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.*  
January 4, 1916—Continued.

Time.	Surface.				At different heights above sea.										Remarks.	
	Pressure.	Temper-ature.	Rela-tive humid-ity.	Wind.		Alt-i-tude.	Pressure.	Tem-perature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav-ity.	Elec-tric.	
P. M.	mb.	°C.	%		m. p. s.	m.	mb.	°C.		%	mb.	m. p. s.	10 <sup>6</sup> ergs.	volts.		
1:56	956.5	12.2	72	WSW.	7.6	1,500	838.0	13.1		sw.	13.5	1,470	0	0		
2:04	956.3	12.1	72	WSW.	8.0	1,250	863.1	12.4	-1.48	WSW.	16.1	1,225	0	0		
2:12	956.2	12.1	71	WSW.	6.3	1,192	869.2	12.2		WSW.	16.7	1,169	0	0		
						1,000	889.7	9.4		sw.	16.3	980	0	0		
						875	902.8	7.5	0.96	74	7.67	sw.	16.0	858	0	
						750	917.0	8.7		73	8.21	sw.	13.5	735	0	
						500	944.6	11.1		72	9.51	WSW.	8.4	490	0	
						398	956.2	12.1		71	10.03	WSW.	6.3	388		4/10 Cu., wsw.

## January 5, 1916.

A. M.	972.4	-10.6	79	nnw.	10.7	396	972.4	-10.6		79	1.94	nnw.	10.7	388		
8:56	972.5	-10.7	81	n.	10.3	500	959.4	-12.0		80	1.74	nnw.	12.7	490	0	
9:01	972.6	-11.1	78	n.	10.7	753	928.0	-15.2	1.29	82	1.33	n.	17.6	738	0	
9:04	972.7	-11.2	79	n.	8.9	1,000	897.9	-16.6		82	1.16	n.	18.8	980	520	
9:13	972.8	-10.9	82	n.	11.2	1,034	894.1	-16.8	0.57	82	1.14	n.	19.0	1,014	610	
						1,139	881.9	-14.8	-1.90	88	1.44	n.	18.7	1,117	900	
						1,250	868.7	-15.0		85	1.40	n.	19.6	1,225	1,060	
						1,459	845.4	-15.3	0.16	84	1.34	n.	21.2	1,430	1,360	
						1,500	840.9	-14.6		83	1.42	n.	21.4	1,470	1,440	
						1,750	814.3	-10.3		80	2.02	nnw.	22.8	1,715	2,140	Few Cl., w.; 7/10 A.Cu., w.; few Fr.Cu., n.
						1,792	809.9	-9.6	-1.71	79	2.13	nnw.	23.0	1,756	2,250	
						2,000	788.6	-10.1		78	2.00	nnw.	24.1	1,960	2,680	
						2,250	763.5	-10.8		77	1.80	nnw.	25.5	2,205	3,200	
10:00	974.4	-11.2	71	n.	8.9	2,422	746.8	-11.2	0.25	76	1.77	nnw.	26.4	2,373		
						2,500	764.2	-11.5		74	1.68	nnw.	19.1	2,205	3,660	
10:32	974.5	-11.2	77	n.	10.3	2,215	768.1	-11.6	0.19	74	1.66	nnw.	17.7	2,171	3,550	
10:48	974.6	-11.2	74	nnw.	12.1	2,000	789.6	-11.2		73	1.70	nnw.	17.8	1,980	2,910	
						1,798	809.9	-10.8	-1.55	73	1.77	nnw.	17.8	1,762	2,570	
						1,750	815.7	-11.6		72	1.62	nnw.	17.2	1,715	2,490	
						1,500	842.6	-15.4		68	1.08	n.	14.6	1,470	2,060	
						1,488	843.7	-15.6	0.25	68	1.06	n.	14.5	1,459	2,050	1/10 A.Cu., w.; few Fr.Cu., n.
11:01	974.6	-10.9	70	n.	9.4	1,250	870.9	-15.0		67	1.11	n.	19.0	1,225	1,480	
11:08	974.7	-10.9	68	nnw.	9.8	1,213	875.0	-14.9	-12.07	67	1.12	n.	19.7	1,189	1,360	
11:18	974.7	-10.8	72	n.	8.5	1,184	878.4	-18.4	0.66	68	0.82	n.	16.6	1,161	1,250	
						1,000	900.7	-17.2		71	0.95	nnw.	15.1	980	520	
						833	920.8	-16.1	1.19	74	1.10	nnw.	13.8	817	0	
11:22	974.7	-10.9	71	nnw.	11.4	750	931.0	-15.1		73	1.19	nnw.	13.3	735	0	
						500	961.7	-12.1		72	1.55	nnw.	12.0	490	0	
						398	974.7	-10.9		71	1.70	nnw.	11.4	388		Few A.Cu., w.

## January 6, 1916.

A. M.	974.0	-12.6	76	SSe.	6.3	396	974.0	-12.6		76	1.56	SSe.	6.3	388		
8:43	974.0	-12.6	77	SSe.	6.3	491	961.9	-13.1	0.53	69	1.35	SSe.	12.0	481	0	
						500	960.3	-13.0		69	1.37	SSe.	12.0	490	0	
8:58	974.0	-12.2	73	S.	5.4	876	914.9	-8.4	-1.22	68	1.80	S.	9.5	735	0	
						1,000	900.1	-7.8		68	2.03	SSw.	8.4	859	0	
						1,250	872.0	-6.7		67	2.11	SSw.	8.8	980	410	
9:14	974.1	-11.9	69	S.	4.9	1,357	860.3	-6.2	-0.40	63	2.28	SSw.	9.6	1,225	1,200	
9:42	974.4	-11.1	68	S.	5.8	1,500	844.8	-7.2		68	2.26	SSw.	9.9	1,330	1,500	
10:42	974.5	-9.6	65	SSe.	4.5	1,614	832.7	-7.5	0.51	71	2.29	SSw.	9.8	1,470	2,000	
						1,750	818.2	-5.8		72	2.70	WSw.	8.0	1,715	3,200	
						1,777	815.8	-5.5	-1.23	72	2.76	WSw.	7.7	1,742	3,200	
						2,000	792.2	-6.6		75	2.62	WSw.	9.1	1,960	4,100	
						2,250	767.0	-6.9		77	2.63	WSw.	10.7	2,205	4,800	
						2,500	742.7	-9.2		80	2.23	WSw.	12.4	2,450	5,520	
						2,750	719.3	-10.5		83	2.06	WSw.	13.9	2,694	6,220	
						3,000	696.2	-11.7		86	1.92	WSw.	15.5	2,939	7,120	
10:53	974.4	-9.5	65	SSe.	4.5	3,152	683.0	-12.5	0.51	88	1.82	WSw.	16.5	3,088	7,370	
10:56	974.4	-9.4	65	SSe.	4.5	3,351	674.2	-11.5		89	2.02	WSw.	16.7	3,184	7,640	
						3,500	652.8	-11.1		88	2.07	WSw.	17.0	3,283	7,900	4/10 Cl.St., w.; 6/10 A.St., w.
						3,750	631.9	-12.1		86	1.85	W.	18.3	3,673	8,320	Alt. of A.St. base about 3,400 m.
						4,000	611.3	-13.0		84	1.66	W.	19.0	3,918		
P. M.	974.0	-8.0	58	S.	4.5	4,148	599.4	-13.6	0.38	82	1.54	w.	19.5	4,062		
						4,000	611.3	-13.0	-0.24	82	1.62	w.	18.7	3,918	8,900	1/10 Cl.St., w.; 2/10 A.St., w.; 7/10 A.Cu., wsw.
12:21	973.9	-8.0	55	S.	4.9	3,824	625.2	-12.4	-0.24	81	1.69	w.	17.8	3,746	8,230	
12:26	973.8	-8.0	55	SSw.	5.8	3,287	670.4	-13.7	0.61	83	1.54	WSw.	17.2	3,220	6,430	Alt. of A.Cu. base about 2,800 m.
						3,250	673.7	-13.5		84	1.59	WSw.	17.2	3,184	6,320	
						3,000	695.7	-11.9		89	1.95	WSw.	17.0	2,939	5,420	
						2,750	719.1	-10.4		95	2.38	WSw.	16.8	2,694	4,600	
12:38	973.8	-8.0	53	SSw.	4.9	2,522	741.0	-9.0	0.86	100	2.34	WSw.	16.7	2,471	3,800	
						2,500	742.7	-8.8		100	2.39	WSw.	16.5	2,450	3,660	
						2,250	767.0	-6.6		100	3.50	WSw.	13.8	2,205	2,140	
12:53	973.6	-8.2	55	S.	5.4	2,197	772.2	-6.2	-0.40	100	3.62	WSw.	13.3	2,153	1,800	
12:58	973.6	-8.2	53	SSw.	4.9	2,047	787.3	-6.8	0.06	97	3.34	SW.	12.4	2,006	1,600	

## SUPPLEMENT NO. 5.

TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.

January 7, 1916.

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Tempera-	Rela-	Wind.		Altitude.	Pressure.	Tem-	$\Delta t$	100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.						Rel.	Vap. pres.	Dir.	Vel.	Grav-	Electric.	
A. M. 8:42.....	mb. 982.4	°C. -7.1	% 97	s.	m. p. s. 3.1	m. 396	mb. 982.4	°C. -7.1	.....	.....	% 97	m. p. s. 3.25	s. 3.1	10 <sup>3</sup> ergs. 388	volts. 0	Few St.Cu. on se. horizon.	
10:13.....	983.4	-3.6	80	SSW.	4.5	500	969.7	-6.3	-0.78	89	3.20	s. 4.3	490	0			
10:30.....	983.4	-3.0	74	SSW.	4.9	626	955.2	-5.3	.....	79	3.09	SSW. 5.7	614	0			
10:32.....	983.4	-3.2	73	SSW.	5.4	750	940.0	-5.1	.....	82	3.26	SSW. 6.8	735	100			
11:13.....	983.2	-2.0	61	SW.	5.4	1,000	910.8	-4.8	.....	88	3.59	SW. 9.1	980	470			
11:46.....	982.7	-1.2	63	s.	5.4	1,255	881.9	-4.4	-0.14	95	4.01	SW. 11.4	1,230	800			
P. M. 12:08.....	982.4	-0.7	64	s.	4.5	1,500	854.5	-5.4	0.41	95	3.69	SW. 10.0	1,470	1,100			
12:31.....	982.1	-0.2	65	s.	6.3	1,617	842.1	-5.9	.....	95	3.52	SW. 9.4	1,585	1,250			
1:00.....	981.8	-0.1	66	s.	6.3	1,750	827.9	-5.5	.....	83	3.19	WSW. 9.9	1,715	1,370	Altitude of St.Cu., base about 1,600 m.		
1:22.....	981.7	0.4	65	s.	7.6	2,000	802.1	-4.8	.....	60	2.45	w. 10.8	1,960	1,620			
1:35.....	981.6	0.7	64	SSW.	6.7	2,056	796.4	-4.6	-0.30	55	2.28	w. 11.0	2,015	1,680			
1:42.....	981.5	0.7	63	SSW.	7.2	2,250	776.8	-5.7	.....	54	2.04	w. 10.4	2,205	1,880			
1:49.....	981.5	0.8	62	SSW.	8.5	3,286	763.4	-6.5	0.58	53	1.87	w. 9.9	2,338	2,300			
1:53.....	981.4	0.8	62	SSW.	8.5	2,500	752.0	-6.9	.....	52	1.77	w. 10.9	2,450	2,520			
1:56.....	981.4	0.8	62	SSW.	7.2	2,750	728.2	-6.3	.....	51	1.61	w. 13.0	2,694	2,950			
2:02.....	981.4	0.8	62	s.	8.0	3,000	705.2	-8.7	.....	50	1.46	w. 15.1	2,939	3,380			
2:04.....	981.4	0.8	62	s.	8.5	3,250	683.0	-9.5	.....	49	1.33	w. 17.2	3,184	3,800			
2:10.....	981.4	0.8	64	s.	6.7	3,500	661.3	-10.4	.....	48	1.20	w. 19.3	3,429	4,240			
2:14.....	981.4	0.9	63	s.	7.6												

January 8, 1916.

P. M.	Pressure.	Temp.	Rela-	Wind.	Altitude.	Pressure.	Temp.	$\Delta t$	100 m.	Humidity.	Wind.	Dir.	Vel.	Grav-	Electric.	Remarks.
12:57.....	977.3	-2.4	100	s.	6.7	396	977.3	-2.4	.....	100	5.00	s. 6.7	388	.....		10/10 St., s.
1:06.....	977.2	-2.3	100	s.	6.7	500	964.2	-3.1	.....	100	4.71	s. 8.1	490	1,000		Alt. of St. base about 500 m.
1:08.....	977.1	-2.3	100	s.	6.7	750	934.3	-4.9	.....	100	4.05	SSW. 11.3	735	1,080		
1:11.....	977.1	-2.2	100	s.	7.2	1,000	920.3	-5.7	0.70	100	3.78	SSW. 12.8	852	1,110		
1:25.....	976.8	-2.3	100	SSW.	5.8	1,164	905.1	-2.0	.....	85	4.39	SSW. 14.5	980	1,150		
1:37.....	976.5	-2.3	100	SSW.	6.7	1,250	886.7	-2.7	-2.85	65	4.82	SSW. 16.5	1,141	1,200		
1:43.....	976.3	-2.2	100	s.	6.7	1,473	873.8	-3.3	.....	58	4.49	SSW. 17.5	1,225	1,290		
1:58.....	976.0	-2.2	100	s.	7.2	1,500	850.4	-4.6	.....	39	3.33	SSW. 19.9	1,444	1,500		
2:01.....	976.0	-2.2	100	s.	7.6	1,750	824.6	-3.3	.....	38	3.22	SSW. 19.9	1,470	1,530		
2:04.....	976.0	-2.2	100	s.	8.0	2,000	799.7	-2.0	.....	32	2.48	SSW. 20.1	1,715	1,750		
2:38.....	975.8	-2.0	100	s.	7.6	2,065	793.2	-1.6	0.52	27	1.91	SSW. 20.3	1,960	1,910		
2:43.....	975.8	-2.0	100	s.	6.7	2,250	775.3	-0.9	.....	25	1.72	SSW. 20.4	2,024	1,950		
2:46.....	975.8	-2.1	100	s.	5.4	2,443	756.7	-0.2	0.37	47	3.06	SSW. 19.1	2,205	2,110		
2:57.....	975.7	-2.0	100	s.	5.4	2,500	751.7	-2.8	.....	69	4.28	SSW. 17.7	2,394	2,310		
2:23.....	975.9	-2.2	100	s.	6.3	2,750	728.5	-4.1	-4.59	46	3.44	SSW. 19.2	2,450	2,370		
2:38.....	975.8	-2.0	100	s.	7.6	2,900	709.7	-3.8	.....	47	3.77	SSW. 19.9	2,477	2,400		
2:43.....	975.8	-2.0	100	s.	5.8	1,782	821.6	-5.1	0.08	55	4.83	SSW. 18.7	1,747	1,350		Considerable ice on wire.
2:46.....	975.8	-2.1	100	s.	5.4	1,760	824.6	-5.1	.....	53	4.66	SSW. 18.6	1,715	1,330		
2:57.....	975.7	-2.0	100	s.	5.4	1,500	850.0	-5.3	.....	40	3.56	SSW. 18.1	1,470	970		
2:04.....	976.0	-2.2	100	s.	6.3	1,271	874.6	-5.5	-0.39	19	1.46	SSW. 17.5	2,450	2,388		
2:23.....	975.9	-2.2	100	s.	6.3	876.2	874.6	-5.5	-0.39	37	2.63	SSW. 17.8	2,205	2,100		
2:38.....	975.8	-2.0	100	s.	7.6	1,091	893.8	-4.8	-4.23	47	3.77	SSW. 18.3	1,980	1,470		
2:43.....	975.8	-2.0	100	s.	5.8	1,000	904.0	-0.9	.....	26	2.24	SSW. 18.7	1,747	1,350		
2:46.....	975.8	-2.1	100	s.	5.4	857	920.3	-5.1	0.67	36	2.35	SSW. 14.8	980	290		
2:57.....	975.7	-2.0	100	s.	5.4	760	933.1	-4.4	.....	62	2.62	s. 12.5	840	110		Alt. of St. base about 500 m.
2:04.....	976.0	-2.2	100	s.	6.7	500	962.7	-2.7	.....	89	4.34	s. 10.9	490	0		
2:23.....	975.9	-2.2	100	s.	6.3	396	975.7	-2.0	.....	100	5.17	s. 5.4	388	.....		10/10 St., s.

## OBSERVATIONS AT DREXEL, JANUARY, 1916.

9

TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.

January 9, 1916.

Time.	Surface.				At different heights above sea.										Remarks.	
	Pressure.	Tem- per- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- per- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
A. M.																
11:45.....	mb. 954.0	°C. 2.4	% 100	s. 5.8	m. p. s. 100	m. 396	mb. 954.0	°C. 2.4	.....	s. 100	7.26	s. 5.8	10 <sup>8</sup> ergs. 388	volts. 0	Dense fog; light mist.	
11:51.....	953.9	2.5	100	s. 7.6	.....	500	941.1	2.1	.....	s. 100	7.11	s. 9.2	490	0		
11:57.....	953.8	2.6	100	s. 6.7	.....	750	912.5	1.3	.....	s. 100	6.71	sw. 17.5	735	160		
12:01.....	953.7	2.6	100	s. 11.6	.....	900	899.7	1.0	0.30	s. 100	6.57	sw. 21.2	842	270		
12:13.....	952.9	3.0	100	s. 10.3	.....	1,000	884.9	8.0	.....	s. 62	6.65	sw. 20.5	980	400		
12:15.....	952.8	3.1	100	s. 10.3	.....	1,138	870.5	15.6	-5.23	s. 25	4.43	sw. 19.8	1,116	540		
12:18.....	952.8	3.1	100	s. 11.2	.....	1,250	858.8	16.9	.....	s. 22	4.24	sw. 19.1	1,225	570		
P. M.																
12:21.....	953.7	2.6	100	s. 11.6	.....	1,297	854.8	17.4	-1.13	s. 20	3.97	sw. 18.8	1,271	580		
12:23.....	952.9	3.0	100	s. 10.3	.....	1,463	837.5	17.7	-0.18	s. 11	2.23	sw. 18.2	1,434	660		
12:25.....	952.8	3.1	100	s. 10.3	.....	1,500	833.7	17.5	.....	s. 11	2.20	sw. 15.9	1,470	680	10/10 St., ssw.; light fog; mist ended.	
12:28.....	951.9	3.6	100	s. 13.4	.....	1,624	822.0	17.0	0.43	s. 11	2.13	sw. 15.0	1,592	770		
12:31.....	951.9	3.6	100	s. 13.4	.....	1,750	809.8	17.3	.....	s. 11	2.17	sw. 14.9	1,715	860		
12:46.....	951.0	3.8	100	s. 12.5	.....	2,000	803.3	17.4	-0.20	s. 11	2.19	sw. 14.8	1,785	910		
1:00.....	950.2	4.0	99	s. 12.5	.....	2,250	786.5	15.7	.....	s. 11	1.98	sw. 17.0	1,960	1,040		
1:03.....	950.2	4.0	99	s. 12.5	.....	2,381	763.7	13.4	.....	s. 11	1.69	sw. 20.1	2,205	760		
1:05.....	949.6	4.6	97	s. 8.9	.....	2,500	740.6	10.9	.....	s. 11	1.56	sw. 21.7	2,333	650		
1:40.....	949.6	4.6	97	s. 8.9	.....	2,670	725.0	9.1	0.90	s. 11	1.43	sw. 21.7	2,450	750		
1:53.....	949.5	4.9	95	s. 9.4	.....	2,800	715.3	11.3	0.57	.....	.....	sw. 21.8	2,616	900		
1:55.....	949.4	5.0	94	s. 9.4	.....	2,900	701.8	12.0	.....	.....	.....	sw. 20.1	2,450	740		
2:05.....	949.2	5.2	94	s. 9.4	.....	3,000	704.3	13.4	.....	.....	.....	sw. 18.8	2,318	600	10/10 St., ssw.; fog ended; alt. of St. base about 500 m.	
2:05.....	949.2	5.2	94	s. 9.4	.....	3,150	807.7	14.9	.....	.....	.....	sw. 18.6	2,205	480		
2:05.....	949.2	5.2	94	s. 9.4	.....	3,250	832.3	16.3	0.21	.....	.....	sw. 18.2	1,960	70		
2:05.....	949.2	5.2	94	s. 9.4	.....	3,400	856.3	16.8	.....	.....	.....	sw. 17.7	1,715	0		
2:05.....	949.2	5.2	94	s. 9.4	.....	3,500	882.2	17.3	.....	.....	.....	sw. 16.4	1,225	0		
2:05.....	949.2	5.2	94	s. 9.4	.....	3,600	884.7	17.4	-11.27	.....	.....	sw. 15.7	980	0	Clouds changing to St.Cu.	
2:05.....	949.2	5.2	94	s. 9.4	.....	3,700	898.8	2.3	0.65	.....	.....	sw. 15.6	955	0		
2:05.....	949.2	5.2	94	s. 9.4	.....	3,800	909.2	2.9	.....	.....	.....	sw. 16.6	824	0	Alt. of St.Cu. base about 650 m.	
2:05.....	949.2	5.2	94	s. 9.4	.....	3,900	937.1	4.5	.....	.....	.....	sw. 15.2	735	0		
2:05.....	949.2	5.2	94	s. 9.4	.....	4,000	949.2	5.2	.....	.....	.....	sw. 11.1	490	0	10/10 St.Cu., ssw.	

January 10, 1916.

A. M.																
8:56.....	967.8	-9.9	77	n.	4.9	396	967.8	-9.9	.....	n. 77	2.02	n. 4.9	388	.....	10/10 St.Cu., wsw.	
9:35.....	967.8	-9.6	80	n.	4.0	500	954.4	-10.7	.....	n. 79	1.93	n. 5.0	490	0		
9:37.....	967.8	-9.7	80	n.	4.0	750	923.7	-12.8	.....	n. 84	1.70	nnw. 5.4	735	0		
9:46.....	967.8	-9.9	84	n.	4.0	1,000	911.5	-13.6	0.81	n. 86	1.62	nnw. 5.5	838	0		
9:47.....	967.8	-9.9	84	n.	4.0	1,178	894.2	-7.9	.....	n. 79	2.46	nnw. 10.2	980	0		
10:30.....	968.4	-10.5	69	n.	5.8	1,250	874.6	-0.9	-3.93	n. 71	4.03	nnw. 16.0	1,155	0		
11:52.....	968.6	-9.7	69	nw.	5.4	1,474	866.3	-1.2	.....	n. 66	3.65	nnw. 15.7	1,225	0		
11:52.....	968.6	-9.7	69	nw.	5.4	2,000	788.9	-4.2	.....	n. 36	1.55	wnw. 9.1	1,960	360	10/10 St.Cu., wsw. 5/10 A.Cu., wsw.; 5/10 St.Cu., wsw.	
11:52.....	968.6	-9.7	69	nw.	5.4	2,250	764.7	-5.8	.....	n. 32	2.20	wnw. 8.9	2,205	780		
11:52.....	968.6	-9.7	69	nw.	5.4	2,500	738.1	-6.2	0.01	n. 31	1.20	wnw. 8.9	2,271	890	10/10 A.Cu., wsw.	
12:18.....	968.3	-9.0	66	nnw.	3.1	2,750	717.1	-7.7	.....	n. 31	1.2	w. 10.1	2,450	1,180		
12:34.....	968.1	-8.9	63	nnw.	4.5	3,000	693.7	-11.7	.....	n. 31	0.99	w. 11.7	2,694	1,580		
12:45.....	968.0	-8.6	60	nnw.	6.3	3,250	671.4	-13.7	.....	n. 32	0.71	w. 13.2	2,939	1,990		
12:57.....	967.8	-8.5	56	nnw.	4.9	3,500	643.1	-15.2	0.63	n. 80	1.39	sw. 14.8	3,184	2,390		
1:15.....	967.8	-8.6	63	nnw.	5.8	3,750	618.7	-14.4	0.63	n. 80	1.39	sw. 17.3	3,503	2,580		
1:23.....	967.7	-8.3	64	nnw.	4.9	4,000	597.5	-16.2	0.52	n. 85	1.44	sw. 17.1	3,429	2,520		
1:25.....	967.7	-8.3	64	nnw.	5.4	4,250	568.2	-15.4	.....	n. 40	0.72	sw. 21.4	3,578	3,040	Alt. of A.Cu. base about 3,800 m.	
1:34.....	967.7	-8.4	64	nnw.	5.8	4,500	537.0	-15.6	.....	n. 45	0.85	sw. 24.5	3,673	3,200		
1:44.....	967.7	-8.1	63	nnw.	5.4	4,750	508.6	-16.2	0.52	n. 57	0.59	sw. 32.6	3,918	3,990		
1:55.....	967.6	-8.3	64	nnw.	6.7	5,000	480.4	-14.7	.....	n. 64	0.95	sw. 37.0	4,083	4,500		
1:55.....	967.6	-8.3	64	nnw.	6.7	5,250	456.7	-13.2	0.52	n. 70	1.11	sw. 33.2	3,918	3,150		
1:55.....	967.6	-8.3	64	nnw.	6.7	5,500	432.3	-14.4	0.63	n. 80	1.39	sw. 25.3	3,673	2,810		
1:55.....	967.6	-8.3	64	nnw.	6.7	5,750	408.4	-14.7	.....	n. 85	1.44	sw. 17.3	3,503	2,580		
1:55.....	967.6	-8.3	64	nnw.	6.7	6,000	384.7	-13.2	0.52	n. 52	2.07	sw. 13.2	2,205	800	10/10 A.Cu., wsw.	
1:55.....	967.6	-8.3	64	nnw.	6.7	6,250	360.7	-13.2	0.52	n. 48	2.15	sw. 10.6	1,960	550		
1:55.....	967.6	-8.3	64	nnw.	6.7	6,500	336.7	-13.2	0.52	n. 81	1.58	sw. 16.5	3,184	2,380		
1:55.....	967.6	-8.3	64	nnw.	6.7	6,750	312.7	-13.2	0.52	n. 79	1.73	sw. 16.0	2,991	2,100		
1:55.....	967.6	-8.3	64	nnw.	6.7	7,000	288.6	-11.9	0.85	n. 77	1.76	sw. 15.8	2,939	2,040		
1:55.....	967.6	-8.3	64	nnw.	6.7	7,250	264.8	-9.3	0.45	n. 68	1.88	sw. 15.0	2,694	1,610		
1:55.....	967.6	-8.3	64	nnw.	6.7	7,500	239.3	-7.2	0.65	n. 60	1.99	sw. 14.1	2,450	1,200		
1:55.....	967.6	-8.3	64	nnw.	6.7	7,750	215.3	-5.1	0.65	n. 52	2.07	sw. 13.3	2,212	800		
1:55.....	967.6	-8.3	64	nnw.	6.7	8,000	181.3	-3.7	0.65	n. 52	2.07	sw. 13.2	2,205	800		
1:55.....	967.6	-8.3	64	nnw.	6.7	8,250	157.3	-3.7	0.65	n. 48	2.15	sw. 10.6	1,960	550		
1:55.....	967.6	-8.3	64	nnw.	6.7	8,500	133.3	-3.2	0.65	n. 46	2.23	sw. 8.9	1,801	390		
1:55.....	967.6	-8.3	64	nnw.	6.7	8,750	109.3	-3.2	0.65	n. 46	2.15					

## SUPPLEMENT NO. 5.

TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.  
January 11, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temper- ature.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- per- ature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
8:40 A. M.	986.3	-14.0	% 100	ne.	m. p. s. 12.5	396	966.3	°C. -14.0	.....	% 100	mb. 1.81	ne.	m. p. s. 12.5	$10^3$ ergs. 388	volts. 0	10/10 St., ese.
8:42	986.3	-13.9	100	ene.	11.2	500	953.2	-14.5	.....	100	1.73	ene.	13.2	490	0	
8:48	986.3	-13.9	100	ene.	10.7	632	936.6	-15.1	0.47	100	1.63	e.	14.1	620	0	
8:52	986.2	-14.0	100	ene.	9.8	750	923.0	-8.3	.....	100	3.02	e.	15.0	735	0	
						797	916.9	-5.6	-5.76	100	3.81	e.	15.3	781	0	
						950	899.1	-4.5	-0.72	100	4.19	e.	18.0	931	170	
						1,000	893.2	-4.7	.....	100	4.12	e.	18.1	980	220	
						1,250	864.3	-5.5	.....	100	3.84	e.	18.2	1,225	490	
						1,500	837.1	-6.3	.....	100	3.59	ese.	18.3	1,470	800	
						1,750	811.4	-7.1	.....	100	3.35	ese.	18.4	1,715	1,070	
9:11	986.3	-13.7	100	ene.	10.7	1,902	796.2	-7.6	0.33	100	3.21	ese.	18.5	1,864	1,140	
9:33	986.6	-13.5	100	ne.	11.2	2,000	786.7	-6.8	.....	100	3.44	ese.	.....	1,980	1,180	
10:01	986.9	-13.5	100	ne.	10.3	2,205	766.3	-5.2	-0.65	100	3.94	se.	.....	2,161	2,400	
						2,000	786.7	-6.2	.....	100	3.62	se.	.....	1,980	2,030	
						1,793	807.8	-7.3	0.47	100	3.29	se.	.....	1,757	1,880	
						1,750	812.3	-7.1	.....	100	3.35	se.	.....	1,715	1,850	
						1,500	838.4	-5.9	.....	100	3.71	esc.	.....	1,470	1,680	
						1,250	865.7	-4.8	.....	100	4.08	esc.	.....	1,225	1,850	
10:54	986.9	-13.2	100	ne.	8.5	1,217	869.4	-4.6	-0.45	100	4.15	ese.	.....	1,193	1,900	
11:10	986.7	-13.1	100	ne.	10.7	1,107	881.5	-5.1	0.43	100	3.98	ese.	.....	1,085	1,210	
11:22	986.5	-13.0	100	ne.	7.6	1,000	893.6	-4.6	.....	100	4.15	e.	.....	980	540	
11:28	986.3	-12.9	100	ne.	8.0	750	902.6	-4.3	-4.09	100	4.26	e.	.....	901	0	
11:34	986.2	-12.8	100	ne.	9.8	662	923.0	-11.2	.....	100	2.33	ene.	.....	735	0	
						500	933.0	-14.8	0.75	100	1.68	ene.	.....	649	0	
						500	953.2	-13.6	.....	100	1.88	ne.	.....	490	0	
						396	966.2	-12.8	.....	100	2.02	ne.	.....	388	.....	10/10 St., ese.

January 12, 1916.

A. M.	974.8	-25.0	100	nw.	13.4	396	974.8	-25.0	.....	100	0.62	nw.	13.4	388	.....	10/10 St., nw.
						500	960.7	.....	.....	100	.....	n.	14.0	490	.....	Clouds reached nearly to surface.
						750	928.3	.....	.....	100	.....	ne.	15.4	735	.....	Snowing.
						1,000	898.1	.....	.....	100	.....	ne.	16.7	980	.....	
						1,250	868.1	.....	.....	100	.....	ne.	18.1	1,225	(*)	
9:23	975.4	-25.3	100	nnw.	11.2	1,282	864.7	-18.5	.....	100	1.19	n.	18.3	1,257	(*)	
9:26	975.4	-25.3	100	nnw.	10.7	1,500	839.7	-17.0	.....	100	1.37	n.	18.2	1,470	(*)	
9:40	975.7	-25.5	100	nnw.	12.5	1,725	815.1	-15.4	-0.70	100	1.59	nnw.	18.0	1,691	(*)	
9:56	975.9	-25.6	100	nw.	8.9	1,750	812.5	-15.3	.....	100	1.60	nnw.	17.5	1,715	(*)	
10:05	976.0	-25.8	100	nw.	9.8	1,591	830.3	-17.5	-0.38	100	1.70	nnw.	12.0	1,980	(*)	
10:22	976.0	-26.0	100	nw.	10.7	1,250	868.8	-18.8	.....	100	1.15	n.	16.7	1,225	5,400	
10:44	976.0	-25.7	100	nw.	10.7	1,000	883.8	-19.3	.....	100	1.10	nne.	17.6	1,101	3,600	
						750	928.3	.....	.....	100	.....	nne.	16.4	980	4,480	
						500	961.9	.....	.....	100	.....	n.	14.7	735	3,740	
						396	976.0	-25.7	.....	100	0.58	nw.	10.7	388	.....	Snowing.
																10/10 St., nw.

January 14, 1916 (No. 1).

A. M.	984.1	-24.2	100	se.	4.0	396	984.1	-24.2	.....	100	0.68	se.	4.0	388	.....	1/10 Cl.St., w.
						500	989.4	-22.6	.....	100	0.80	sse.	.....	490	730	
						750	937.5	-18.8	.....	100	1.15	s.	.....	735	2,300	
						1,000	907.0	-14.8	.....	97	1.63	ssw.	.....	980	3,200	
						1,134	891.5	-12.7	-1.58	95	1.94	sw.	.....	1,112	4,700	
						1,250	878.2	-10.0	.....	93	2.42	sw.	.....	1,225	4,830	
						1,500	850.5	-4.3	.....	88	3.75	sw.	.....	1,470	7,170	
						1,538	846.6	-3.4	-2.30	87	4.00	sw.	.....	1,507	7,420	
						1,750	824.0	-4.4	.....	70	2.95	wws.	.....	1,715	8,270	
						1,894	809.5	-5.1	0.48	58	2.31	w.	12.9	1,856	8,800	2/10 Cl.St., w.
						2,000	797.7	-6.0	.....	59	2.17	w.	12.7	1,980	9,070	
						2,250	773.0	-8.0	.....	59	1.83	w.	12.3	2,205	9,710	
						2,388	759.9	-9.1	0.81	60	1.69	w.	12.1	2,340	(*)	
						2,500	748.4	-9.8	.....	60	1.58	w.	12.6	2,450	(*)	
						2,750	724.8	-11.4	.....	61	1.40	w.	12.8	2,604	(*)	
						3,000	701.6	-13.0	.....	62	1.23	w.	15.0	2,939	(*)	
						3,250	679.1	-14.6	.....	63	1.08	w.	16.2	3,184	(*)	
						3,500	657.0	-16.2	0.64	64	0.95	w.	17.4	3,429	(*)	
						3,615	647.0	-16.9	0.64	64	0.88	w.	18.0	3,541	(*)	
						2,750	635.8	-17.1	.....	64	0.86	w.	19.1	3,673	(*)	
						4,000	614.9	-17.5	0.55	64	0.83	w.	21.2	3,918	(*)	
						589.6	17.8	0.26	.....	64	0.81	w.	22.8	4,112	(*)	
						4,000	614.9	-17.1	.....	65	0.88	w.	20.8	3,919	(*)	
						3,750	635.8	-16.2	.....	65	0.96	w.	18.3	3,673	(*)	
						2,500	747.8	-8.5	.....	66	1.95	wws.	12.2	2,450	8,610	
						2,250	772.1	-7.1	.....	65	2.18	wws.	10.2	2,205	7,660	
						2,077	789.5	-6.1	0.55	64	2.34	wws.	10.1	1,980	6,900	
						2,000	796.6	-5.7	.....	62	2.34	wws.	14.0	1,715	6,550	
						1,750	822.3	-4.3	0.75	54	2.30	sw.	14.5	1,881	6,500	4/10 Cl., w.
						1,715	826.4	-4.1	-1.36	53	2.29	sw.	.....	1,470	5,680	
Noon	982.5	-17.0	82	s.	5.4	1,500	849.2	-7.0	.....	55	1.86	sw.	.....	1,470	5,680	
		</td														

## OBSERVATIONS AT DREXEL, JANUARY, 1916.

11

 TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.  
 January 14, 1916 (No. 1)—Continued.

Time.	Surface.				At different heights above sea.										Remarks.	
	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
P. M.	mb.	°C.	%		m. p. s.	m.	mb.	°C.		%	mb.	m. p. s.	$10^6$ ergs.	volts.		
12:12.....	982.3	-17.5	83	S.	4.9	1,250	977.0	-10.5	.....	57	1.41	SSW.	.....	1,225	4,660	
						1,000	906.1	-14.4	.....	57	0.99	SSW.	.....	980	3,240	
						750	936.5	-18.4	.....	58	0.70	SSW.	.....	735	1,890	
						685	944.9	-19.4	0.69	58	0.63	SSW.	.....	672	1,540	
12:14.....	982.3	-17.4	83	S.	5.8	500	988.5	-18.4	.....	74	0.89	S.	.....	490	600	
						396	982.3	-17.4	.....	83	1.10	S.	5.8	388	.....	

January 14, 1916 (No. 2).

P. M.	981.4	-16.2	90	sse.	5.8	396	981.4	-16.2	.....	90	1.33	sse.	5.8	388	.....	4/10 Cl., wnw.
						500	967.4	-16.8	.....	89	1.24	sse.		490	560	
						750	935.9	-18.3	.....	86	1.04	s.		735	1,860	
						1,000	934.2	-18.4	0.60	86	1.03	s.		748	1,940	
						1,053	905.0	-13.4	.....	85	1.62	SSW.		980	3,080	
						898.8	-12.3	-2.10	.....	85	1.79	sw.		1,032	3,300	
						1,250	876.1	-8.4	.....	83	2.48	sw.		1,225	4,280	
						1,500	848.2	-3.4	.....	81	3.73	sw.		1,470	5,510	
						1,576	840.4	-1.9	-1.99	80	4.18	sw.		1,545	5,870	
						1,750	821.9	3.0	.....	74	3.52	sw.		1,715	6,400	
						2,000	796.1	-4.6	.....	66	2.74	sw.		1,960	6,750	
						2,110	785.3	-5.3	0.64	62	2.42	sw.		2,068	6,900	
						2,250	771.7	-6.2	.....	61	2.21	sw.		2,205	7,410	
						2,500	747.1	-7.9	.....	58	1.81	WSW.		2,450	8,280	
						2,643	733.1	-8.8	0.66	57	1.65	WSW.		2,590	8,800	
						2,750	723.1	-9.3	.....	58	1.60	WSW.		2,694	8,890	6/10 Cl., wnw.
						3,000	700.0	-10.5	.....	60	1.49	WSW.		2,939	.....	
						3,179	683.7	-11.4	0.66	61	1.40	WSW.		3,114	.....	
						3,000	700.0	-10.3	.....	60	1.52	WSW.		2,939	.....	
						2,750	723.1	-8.7	.....	59	1.72	WSW.		2,694	6,970	
						2,500	746.3	-7.1	.....	58	1.94	sw.		2,450	6,150	
						2,272	768.8	-5.7	0.61	57	2.15	sw.		2,227	5,400	
						2,250	770.7	-5.6	.....	57	2.17	sw.		2,205	5,340	
						2,000	795.1	-4.1	.....	56	2.42	sw.		1,960	4,670	
						1,750	820.6	-2.6	.....	55	2.71	sw.		1,715	4,000	
						1,728	823.5	-2.5	-0.24	55	2.73	sw.		1,694	3,940	Clouds changing to A.St.
						1,500	847.0	-3.1	.....	58	2.73	sw.		1,470	3,290	
						1,439	853.9	-3.2	-3.53	59	2.76	sw.		1,411	3,080	
						1,250	874.7	-9.9	.....	61	1.60	sw.		1,225	2,440	
						1,250	874.7	-11.4	-1.36	61	1.40	sw.		1,183	2,260	
						1,000	903.3	-14.2	.....	62	1.10	SSW.		980	1,390	
						750	934.2	-17.6	0.82	64	0.83	s.		735	590	
						500	965.6	-15.0	.....	73	1.14	SSW.		490	180	
						396	979.2	-14.7	.....	77	1.31	SSW.	4.5	388	.....	10/10 A.St., wnw.

January 14, 1916 (No. 3).

P. M.	978.7	-15.1	85	se.	5.4	396	978.7	-15.1	.....	85	1.39	se.	5.4	388	.....	10/10 A.St., wnw.
						500	964.8	-15.7	.....	86	1.33	sse.		490	0	
						712	938.2	-17.0	0.60	88	1.21	s.		698	0	
						750	933.3	-16.4	.....	88	1.28	s.		735	180	
						1,000	903.1	-12.7	.....	88	1.80	SSW.		980	1,400	
						1,216	878.2	-9.4	-1.51	88	2.41	SSW.		1,192	2,500	
						1,250	874.4	-8.6	.....	88	2.59	SSW.		1,225	2,560	
						1,499	847.1	-2.7	-2.37	86	4.20	sw.		1,469	3,100	
						1,750	820.1	-3.9	.....	83	3.66			1,715	3,490	
						1,992	795.0	-5.1	0.48	80	3.18			1,952	3,740	
						2,000	794.0	-5.1	.....	80	3.18			1,960	3,750	
						2,142	779.9	-4.4	-0.47	78	3.29			2,099	3,900	
						2,250	769.2	-4.9	.....	77	3.12			2,205	3,200	
						2,500	745.1	-6.0	.....	74	2.72			2,450	3,200	
						2,750	721.3	-7.2	.....	71	2.36			2,694	3,200	
						3,000	698.3	-8.3	0.42	68	2.05			2,039	3,099	
						3,030	695.8	-8.4	0.42	68	2.03			2,969	3,099	Clouds changing to Cl.St.
						3,000	698.3	-8.3	0.33	68	2.05			2,939	3,099	
						2,750	721.3	-7.3	.....	66	2.17			2,694	4,650	
						2,500	744.9	-6.3	.....	64	2.30			2,450	4,030	
						2,250	708.5	-5.3	0.42	62	2.42			2,205	3,410	
						2,250	775.1	-5.0	-0.22	62	2.49			2,137	3,240	
						1,998	793.4	-5.4	0.48	63	2.44			1,958	2,820	
						1,833	810.1	-4.6	-0.08	64	2.66			1,797	2,570	
						1,750	818.7	-4.7	0.66	70	2.86			1,715	2,440	Lunar halo of 22°.
						1,595	835.2	-4.8	-3.72	72	2.17			1,563	2,200	
						1,500	845.2	-8.3	0.35	74	1.79			1,470	2,080	
						1,423	853.9	-11.2	0.35	74	1.82			1,395	1,980	
						1,253	873.0	-10.6	-1.15	74	1.82			1,228	1,740	
						1,000	902.0	-14.7	.....	75	1.28			980	1,120	
						820	923.9	-15.6	-0.52	76	1.19	s.		804	680	
						750	932.2	-16.0	.....	77	1.16	s.		735	540	
						646	945.4	-16.5	0.44	78	1.12	SSW.		633	380	
						500	963.1	-15.9	.....	85	1.29	SE.		490	160	
						396	977.6	-15.4	.....	90	1.43	SE.	3.1	388	.....	10/10 Cl.St., wnw.

## SUPPLEMENT NO. 5.

TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.

January 15, 1916.

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.		
A. M.																	
8:49.....	mb. 975.2	°C. -17.4	% 100	nnw.	m. p. s. 5.8	m. 396	mb. 975.2	°C. -17.4	.....	% 100	mb. 1.32	nnw.	m. p. s. 5.8	$10^8$ ergs. 388	volts. 0	10/10 St., nw. Light snow.	
8:53.....	975.2	-17.4	100	nnw.	5.8	500	961.6	-17.9	.....	.....	.....	nnw.	.....	490	0		
9:01.....	975.3	-17.3	100	nnw.	4.9	695	937.0	-18.9	0.50	.....	.....	nnw.	.....	681	0		
9:07.....	975.3	-17.3	100	nnw.	4.9	750	930.0	-18.8	.....	.....	.....	nnw.	.....	735	0		
9:27.....	975.6	-17.4	100	nnw.	5.4	1,000	899.4	-18.5	.....	.....	.....	nw.	.....	980	1,990		
9:37.....	975.7	-17.4	100	nnw.	5.4	1,042	894.3	-18.4	-0.14	.....	.....	nw.	.....	1,022	2,340		
9:40.....	975.8	-17.4	100	nnw.	5.4	1,250	869.6	-17.4	.....	.....	.....	nw.	.....	1,225	3,280		
10:28.....	976.0	-16.9	100	nnw.	6.3	1,500	841.1	-16.2	.....	.....	.....	nnw.	.....	1,470	4,830		
10:47.....	976.0	-17.0	100	nnw.	7.2	1,616	828.8	-15.8	-0.47	.....	.....	nnw.	.....	1,584	5,620		
10:51.....	976.0	-17.0	100	nnw.	6.7	1,750	814.5	-13.1	.....	.....	.....	nnw.	.....	1,715	6,620		
11:18.....	976.0	-17.0	100	nw.	7.2	2,000	788.3	-8.2	.....	.....	.....	nnw.	.....	1,960	8,400		
11:20.....	976.0	-17.0	100	nw.	7.2	2,213	767.1	-3.9	-1.99	64	2.82	nnw.	.....	2,169	8,460	Altitude of St. base about 1,500 m.	
11:24.....	976.0	-17.0	100	nw.	6.3	2,250	764.0	-3.9	.....	63	2.78	nnw.	.....	2,205	8,440		
11:43.....	976.0	-16.6	100	nw.	7.2	2,390	750.5	-4.0	0.05	61	2.67	nnw.	.....	2,342	8,380		
11:49.....	976.0	-16.8	100	nw.	8.5	2,500	740.2	-4.8	.....	62	2.53	nnw.	.....	2,450	8,310	Snow ended 10:20 a. m.	
11:53.....	976.0	-16.6	100	nw.	8.5	2,650	726.3	-6.4	0.75	64	2.28	nnw.	.....	2,597	9,600	Clouds changing to A. St. & A. Cu., wnw.	
						2,500	740.2	-6.0	.....	65	2.39	nnw.	.....	2,450	8,460		
						2,250	764.0	-4.1	.....	68	2.94	nnw.	.....	2,205	6,250		
						2,236	765.4	-4.0	0.30	68	2.97	nnw.	.....	2,191	6,210		
						2,136	775.2	-3.7	-1.57	69	3.09	nnw.	.....	2,093	5,970		
						2,000	788.9	-5.8	.....	73	2.74	nnw.	.....	1,960	5,740	Altitude of St. base about 1,400 m.	
						1,750	815.3	-9.8	.....	82	2.16	nnw.	.....	1,715	5,000		
						1,741	815.2	-9.9	-20.64	82	2.15	nnw.	.....	1,706	4,950	Ci.St. forming.	
						1,710	818.7	-16.3	-0.55	85	1.24	nnw.	.....	1,676	4,760		
						1,500	842.1	-17.4	.....	87	1.15	nnw.	.....	1,470	3,850		
						1,436	849.2	-17.8	0.02	88	1.12	nnw.	.....	1,408	3,800		
						1,250	870.4	-17.8	.....	89	1.13	nw.	.....	1,225	3,670	Wire heavily coated with ice.	
						1,033	896.0	-17.7	-1.27	90	1.15	nnw.	.....	1,013	2,840		
						1,000	900.1	-18.1	.....	91	1.12	nnw.	.....	980	2,660		
						844	919.1	-20.1	0.78	98	1.00	nnw.	.....	828	1,700		
						750	930.6	-19.4	.....	98	1.07	nnw.	.....	735	1,360		
						500	962.3	-17.4	.....	100	1.32	nw.	.....	490	420		
						396	976.0	-16.6	.....	100	1.42	nw.	.....	388	.....	9/10 Ci.St., wnw.	

January 16, 1916.

A. M.																
10:10.....	983.4	-18.6	100	nw.	6.7	396	983.4	-18.6	.....	100	1.18	nw.	6.7	388	.....	7/10 Ci.St., wnw. Solar halo and parhelia.
10:22.....	983.4	-18.6	100	nw.	6.3	500	969.5	-19.2	.....	99	1.10	nw.	5.2	490	170	
10:34.....	983.4	-18.9	100	nw.	5.4	750	938.0	-20.6	.....	98	0.95	nw.	12.0	735	520	
11:05.....	983.3	-18.8	98	nw.	7.6	1,000	934.4	-20.7	0.55	98	0.94	nw.	12.4	761	540	
11:33.....	982.9	-18.2	100	nw.	8.0	1,208	881.7	-18.3	-0.56	97	1.05	nw.	16.5	980	1,380	
11:55.....	982.6	-17.9	94	nw.	7.2	1,250	876.3	-18.3	.....	96	1.16	nw.	20.2	1,225	2,300	4/10 Ci.St., wnw.
12:06.....	982.4	-17.5	91	nw.	8.5	1,750	847.1	-18.6	.....	93	1.10	nw.	20.3	1,470	3,460	
12:23.....	982.1	-17.3	89	nw.	7.6	2,000	792.1	-19.1	.....	91	1.05	nw.	20.4	1,715	4,770	
12:45.....	981.7	-17.1	89	nw.	9.4	2,145	777.2	-19.2	0.10	89	0.99	nw.	20.5	2,102	6,420	
12:46.....	981.7	-17.1	89	nw.	9.4	2,250	766.4	-19.2	.....	89	0.99	nw.	21.4	2,205	6,920	
12:54.....	981.5	-17.0	89	nw.	8.9	2,500	741.2	-19.1	.....	89	1.00	nw.	23.4	2,450	8,020	
12:59.....	981.4	-16.8	89	nw.	10.7	2,750	717.0	-18.9	.....	89	1.01	wnw.	25.4	2,694	9,130	
						3,000	693.3	-18.8	.....	89	1.02	wnw.	27.3	2,939	9,760	
						3,246	670.1	-18.7	-0.07	89	1.03	wnw.	29.2	3,180	(*)	
						3,000	692.7	-18.9	.....	87	0.99	wnw.	26.9	2,939	9,260	
						2,803	710.9	-19.1	0.25	85	0.95	wnw.	24.9	2,746	8,600	
						2,750	716.0	-19.0	.....	85	0.96	wnw.	24.8	2,694	8,400	
						2,500	740.0	-18.3	.....	83	1.00	nw.	23.3	2,450	7,440	
P. M.																
12:06.....	982.4	-17.5	91	nw.	8.5	2,487	741.5	-18.3	-0.17	83	1.00	nw.	23.2	2,437	7,390	
12:23.....	982.1	-17.3	89	nw.	7.6	2,250	765.5	-18.7	.....	84	0.97	nw.	23.2	2,205	6,480	
12:45.....	981.7	-17.1	89	nw.	9.4	2,000	791.4	-19.1	.....	85	0.95	nw.	23.2	1,960	5,430	
12:46.....	981.7	-17.1	89	nw.	9.4	1,949	797.0	-19.2	0.00	85	0.94	nw.	23.2	1,910	5,180	
12:54.....	981.5	-17.0	89	nw.	8.9	1,750	818.6	-19.2	.....	87	0.97	nw.	21.2	1,715	4,190	
12:59.....	981.4	-16.8	89	nw.	10.7	1,500	846.6	-19.2	.....	90	1.00	nw.	18.8	1,470	3,150	
						1,284	871.3	-19.2	-1.02	92	1.02	nw.	16.7	1,250	2,300	
						1,250	875.2	-19.6	.....	92	0.98	nw.	16.7	1,225	2,120	
						1,137	888.6	-20.7	0.27	92	0.88	nw.	16.7	1,115	1,430	
						1,000	905.3	-20.3	.....	93	0.93	nw.	13.9	980	700	4/10 Ci.St., wnw.
						877	920.1	-20.0	0.67	93	0.96	nw.	11.3	860	0	
						750	936.5	-19.2	.....	92	1.02	nw.	11.1	735	0	
						500	968.0	-17.5	.....	90	1.17	nw.	10.8	490	0	
						396	981.4	-16.8	.....	89	1.24	nw.	10.7	388	.....	

\* More than 10,000 volts.

# OBSERVATIONS AT DREXEL, JANUARY, 1916.

13

**TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.**  
**January 17, 1916, series (No. 1).**

Time.	Pressure.	Surface.			At different heights above sea.										Remarks.	
		Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
A. M.																
8:36.....	mb. 978.5	°C. -18.8	% 100	ws w.	m. p. s. 6.7	m. 396	mb. 978.5	°C. -18.8	.....	100	1.15	ws w.	6.7	10 <sup>5</sup> ergs. 388	volts. ....	Cloudless.
						500	964.2	-8.8		84	1.17	w. w.	11.2	490	160	
						750	933.2	-11.7		45	0.98	wnw.	21.9	735	510	
						780	930.0	-11.4	-1.93	40	0.92	wnw.	23.2	765	660	
						1,000	902.7	-11.5		41	0.93	wnw.	20.7	980	1,650	
						1,250	874.4	-11.7		43	0.96	nw.	17.8	1,225	2,760	
						1,491	847.4	-11.8	0.06	45	0.99	nw.	15.0	1,462	3,780	
						1,500	846.0	-11.8		45	0.99	nw.	15.0	1,470	3,860	
						1,750	818.8	-12.8		46	0.93	nw.	16.4	1,715	4,940	
						2,000	792.2	-13.8		47	0.86	wnw.	17.8	1,960	5,720	
						2,155	776.7	-14.4	0.39	47	0.82	wnw.	18.6	2,112	6,190	
						2,250	766.3	-14.4		46	0.80	wnw.	19.7	2,205	6,500	
						2,500	741.3	-14.4		45	0.78	wnw.	22.5	2,450	8,000	
						2,649	727.8	-14.4	0.00	44	0.77	wnw.	24.2	2,596	8,470	
						2,750	717.5	-15.1		44	0.72	wnw.	23.7	2,694	.....	
						2,971	697.3	-16.8	0.74	45	0.63	wnw.	22.5	2,911	.....	
						3,000	694.4	-16.7		45	0.63	wnw.	23.0	2,939	.....	
						3,250	672.1	-16.0		45	0.68	wnw.	27.1	3,184	.....	
						3,341	664.2	-15.8	-0.27	45	0.69	wnw.	28.6	3,273	.....	
10:00.....	978.1	-13.5	79	w.	8.0	3,445	654.9	-16.1	0.27	46	0.69	wnw.	28.1	3,375	.....	
						3,250	672.1	-15.6		46	0.72	wnw.	27.0	3,184	4/10 A.St., nw.	
						3,160	679.7	-15.4	-0.43	46	0.73	wnw.	26.5	3,096	Altitude of A.St. base about 2,200 m.	
						3,000	694.4	-16.1		46	0.69	wnw.	22.3	2,939		
						2,750	717.5	-15.4		53	0.84	nw.	21.0	2,694		
						2,676	724.6	-15.0	-1.54	56	0.92	nw.	21.0	2,622	6/10 A.St., nw.	
						2,611	730.9	-16.0	0.34	58	0.87	nw.	21.5	2,558	Altitude of A.St. base about 2,000 m.	
						2,500	741.3	-15.6		61	0.95	nw.	21.3	2,450	6,360	
						2,250	766.3	-14.8		67	1.13	nw.	20.8	2,205	5,570	
						2,168	775.2	-14.5	0.70	69	1.19	nw.	20.6	2,125	5,300	
						2,000	792.2	-13.3		69	1.33	nw.	20.4	1,960	4,710	
						1,752	818.7	-11.6	-1.13	68	1.53	nw.	20.1	1,717	3,840	
						1,500	846.0	-14.5		72	1.25	nw.	19.1	1,470	3,300	
						1,443	852.6	-15.1	0.30	73	1.19	nw.	18.9	1,415	3,190	
						1,275	871.7	-14.6	-0.53	73	1.25	nw.	18.8	1,250	2,860	1/10 A.St. nw.
						1,250	874.4	-14.7		74	1.26	nw.	17.4	1,225	2,810	
						1,264	872.4	-17.0	1.00	71	0.97	nw.	16.8	1,239	1,670	
						1,500	845.4	-15.2		75	1.22	nw.	19.6	1,470	2,330	
						1,658	828.0	-14.0	-0.76	78	1.41	nw.	21.4	1,625	2,770	7/10 Cu. & Fr.Cu., nw.
						1,750	818.0	-14.3		77	1.36	nw.	21.3	1,715	2,960	
						2,000	791.2	-15.0		75	1.24	nw.	20.7	1,960	3,420	
						2,050	786.3	-15.2	0.31	75	1.22	nw.	20.8	2,009	3,500	
						2,250	765.4	-16.8		74	1.03	wnw.	20.4	2,205	3,970	Altitude of Cu. base about 1,400 m.
						2,370	753.5	-17.8	0.81	73	1.93	wnw.	20.1	2,322	4,250	
						2,500	740.3	-17.0		70	0.96	wnw.	21.2	2,450	4,840	
						2,598	730.8	-16.4	-0.61	68	0.99	wnw.	22.0	2,546	5,260	
						2,750	716.2	-16.3		59	0.86	wnw.	25.2	2,694	Light snow flurries 1:20 to 2:50 p. m.	
						2,838	708.4	-16.2	-0.18	54	0.80	wnw.	27.0	2,776	.....	
						2,750	716.2	-16.4		52	0.75	wnw.	26.3	2,694		
						2,500	740.3	-17.1		45	0.61	wnw.	24.2	2,450	4,700	
						2,366	753.5	-17.5	0.65	42	0.55	wnw.	23.1	2,318	5,000	
						2,250	765.4	-16.7		43	0.61	wnw.	22.4	2,205	4,480	
						2,000	791.2	-15.1		46	0.75	nw.	20.8	1,960	3,440	
						1,855	806.3	-14.2	-2.73	47	0.84	nw.	19.9	1,818	3,040	9/10 St.Cu., nw.
						1,750	818.0	-17.1		48	0.65	nw.	18.8	1,715	2,760	
						1,500	845.4	-17.0		58	0.79	nw.	16.8	1,470	2,080	
						1,250	874.2	-15.4	0.96	70	1.11	nw.	15.0	1,225	1,400	
						1,000	903.0	-13.0	-1.15	73	1.45	nw.	13.8	980	500	7/10 St.Cu., nw.
						864	919.6	-11.7		74	1.86	nw.	11.3	735	0	
						750	933.2	-10.4		71	2.29	nw.	7.1	490	0	
						500	964.2	-7.5		70	2.51	nw.	5.4	388	.....	
						396	977.0	-6.8								Few A.St., nw.

January 17, 1916, series (No. 2).

P. M.	Pressure.	Temp- erature.	Rela- tive humid- ity.	Wind.	Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.	Wind.	Wind.	Potential.				
12:16.....	977.6	-7.6	68	nw.	9.4	396	977.6	-7.6	.....	63	2.02	nw.	9.4	388	.....	3/10 Cu., nw.
						500	964.2	-8.8		63	1.82	nw.	10.8	490	0	
						750	933.2	-11.7		64	1.43	nw.	14.0	735	0	
						806	926.8	-12.4	1.17	64	1.34	nw.	14.8	790	0	
						1,000	903.0	-14.3		67	1.18	nw.	15.6	980	720	
						1,250	873.8	-16.9		71	0.98	nw.	16.7	1,225	1,630	
						1,264	872.4	-17.0	1.00	71	0.97	nw.	16.8	1,239	1,670	
						1,500	845.4	-15.2		75	1.22	nw.	19.6	1,470	2,330	
						1,658	828.0	-14.0	-0.76	78	1.41	nw.	21.4	1,625	2,770	7/10 Cu. & Fr.Cu., nw.
						1,750	818.0	-14.3		77	1.36	nw.	21.3	1,715	2,960	
						2,000	791.2	-15.0		75	1.24	nw.	20.7	1,960	3,420	
						2,050	786.3	-15.2	0.31	75	1.22	nw.	20.8	2,009	3,500	
						2,250	765.4	-16.8		74	1.03	wnw.	20.4	2,205	3,970	Altitude of Cu. base about 1,400 m.
						2,370	753.5	-17.8	0.81	73	1.93	wnw.	20.1	2,322	4,250	
						2,500	740.3	-17.0		70	0.96	wnw.	21.2	2,450	4,840	
						2,598										

## SUPPLEMENT NO. 5.

TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.

January 17, 1916, series (No. 3).

Time.	Surface.				At different heights above sea.										Remarks.	
	Pressure.	Tempera-	Rela-	Wind.	Altitude.	Pressure.	Tempera-	$\Delta t$	Humidity.		Wind.		Potential.			
									ture.	100 m.	Rel.	Vap.	Dir.	Vel.	Grav-	Electric.
A. M.									%	mb.	m. p. s.	$10^5$ ergs.	volts.			
3:31.....	mb. 977.0	$^{\circ}$ C. -6.3	% 64	nw.	m. p. s. 5.5	m. 396	977.0	-6.3	.....	64	2.30	nw. 8.5	388	0	6/10 St.Cu., nw.	
.....	.....	.....	.....	.....	.....	500	964.0	-7.3	.....	65	2.14	nw. 9.5	490	0	.....	
3:39.....	977.0	-6.3	64	nw.	7.6	750	933.0	-9.7	.....	67	1.79	nw. 12.0	735	0	.....	
3:47.....	977.0	-6.3	65	nw.	7.2	1,000	903.0	-12.0	0.97	67	1.70	nw. 12.6	792	0	.....	
4:00.....	977.0	-6.6	67	nw.	8.5	1,179	882.4	-13.5	0.86	68	1.48	nw. 14.2	980	470	4/10 St.Cu., nw.	
4:01.....	977.0	-6.6	68	nw.	8.5	1,250	874.0	-14.0	.....	70	1.27	nw. 15.8	1,225	960	.....	
4:13.....	977.0	-6.7	71	nw.	6.7	1,500	845.5	-15.9	.....	72	1.09	nw. 16.2	1,470	1,150	.....	
4:14.....	977.0	-6.7	71	nw.	6.7	1,728	820.8	-17.5	0.73	74	0.96	nw. 16.5	1,694	1,530	.....	
4:25.....	977.0	-6.9	70	nw.	9.4	1,750	818.2	-16.8	.....	74	1.03	nw. 15.0	1,715	1,570	.....	
4:28.....	977.0	-6.9	70	nw.	8.0	1,881	804.0	-16.7	-0.52	74	1.04	nw. 14.8	1,844	1,830	.....	
4:32.....	977.0	-7.0	71	nw.	7.6	2,000	791.3	-17.2	.....	74	0.99	nw. 16.1	1,960	2,070	.....	
4:37.....	977.0	-7.1	73	nw.	6.3	2,250	765.3	-18.2	.....	73	0.89	nw. 18.9	2,205	2,560	.....	
4:47.....	977.0	-7.4	75	nw.	6.7	2,408	749.5	-18.8	0.40	73	0.84	nw. 20.6	2,360	2,860	.....	
5:06.....	977.0	-7.6	77	nw.	6.7	2,500	740.3	-17.8	.....	69	0.88	nw. 19.5	2,450	3,050	.....	
5:17.....	977.1	-7.9	80	nw.	7.2	2,874	704.4	-16.7	-1.09	69	0.88	nw. 19.4	2,450	3,090	.....	
5:29.....	977.1	-8.3	85	nw.	7.2	2,756	717.2	-17.3	-0.18	59	0.78	nw. 22.6	2,682	2,694	.....	
5:35.....	977.2	-8.5	85	nw.	6.3	2,500	716.2	-17.2	.....	59	0.79	nw. 22.6	2,694	2,882	.....	
.....	.....	.....	.....	.....	.....	1,750	740.3	-17.4	0.18	44	0.55	nw. 2,200	1,960	1,970	.....	
.....	.....	.....	.....	.....	.....	1,750	718.2	-17.0	.....	50	0.66	nw. 1,715	1,610	1,440	.....	
.....	.....	.....	.....	.....	.....	1,750	829.2	-16.8	0.62	59	0.82	nw. 14.1	1,616	1,440	.....	
.....	.....	.....	.....	.....	.....	1,500	845.5	-15.9	.....	63	0.96	nw. 14.6	1,470	1,160	.....	
.....	.....	.....	.....	.....	.....	1,250	874.0	-14.3	.....	69	1.21	nw. 15.5	1,225	690	.....	
.....	.....	.....	.....	.....	.....	1,000	1,149	885.9	-13.7	0.99	71	1.32	nw. 15.8	1,126	500	.....
.....	.....	.....	.....	.....	.....	1,000	903.0	-12.2	.....	76	1.62	nw. 14.7	980	250	.....	
.....	.....	.....	.....	.....	.....	750	919.3	-11.1	0.55	81	1.90	nw. 13.8	849	0	2/10 St.Cu., nw.	
.....	.....	.....	.....	.....	.....	500	933.0	-10.5	.....	82	2.03	nw. 11.9	735	0	.....	
.....	.....	.....	.....	.....	.....	977.2	-8.5	.....	84	2.36	nw. 7.9	490	0	.....		
.....	.....	.....	.....	.....	.....	396	977.2	-8.5	.....	85	2.52	nw. 6.3	388	.....	.....	

January 17, 1916, series (No. 4).

P. M.																
6:54.....	977.3	-11.0	78	nw.	5.4	396	977.3	-11.0	.....	78	1.85	nw. 5.4	388	.....	Cloudless.	
.....	.....	.....	.....	.....	.....	500	963.7	-11.5	.....	79	1.79	nw. 7.1	490	0	.....	
7:05.....	977.3	-11.5	80	nw.	4.0	750	932.3	-12.6	.....	81	1.66	nw. 11.3	735	0	.....	
7:15.....	977.3	-11.5	78	nnw.	4.0	1,000	902.4	-12.7	0.46	81	1.65	nw. 11.6	753	0	.....	
7:30.....	977.3	-11.7	77	nnw.	5.4	1,199	887.9	-15.4	0.63	78	1.39	nw. 13.1	980	0	.....	
7:32.....	977.3	-11.6	77	nw.	4.9	1,250	873.1	-15.8	.....	75	1.19	nw. 14.3	1,175	0	.....	
7:52.....	977.3	-12.1	79	nw.	4.5	1,500	844.7	-17.5	.....	75	1.15	nw. 14.8	1,225	70	.....	
8:27.....	977.3	-13.6	89	wnw.	4.5	1,750	817.0	-19.2	.....	76	0.99	nw. 17.0	1,470	380	.....	
8:30.....	977.3	-13.6	87	w.	4.0	1,912	799.7	-19.8	0.60	59	0.62	nw. 22.1	1,715	720	Few Cl., nw.	
8:55.....	977.3	-13.2	80	w.	4.5	1,912	817.0	-18.8	.....	65	0.75	nw. 24.2	1,829	890	.....	
9:10.....	977.2	-13.6	83	w.	4.0	1,000	902.4	-14.0	.....	75	0.90	nw. 24.6	1,960	1,090	.....	
9:16.....	977.1	-13.4	80	w.	3.6	1,000	930.9	-12.1	0.41	73	0.97	nw. 25.3	2,205	1,730	.....	
9:19.....	977.1	-13.3	78	w.	3.6	1,250	873.1	-15.8	.....	81	1.24	nw. 17.9	1,225	170	.....	
.....	.....	.....	.....	.....	.....	1,250	874.7	-17.9	.....	61	0.77	nw. 25.3	2,205	.....	.....	
.....	.....	.....	.....	.....	.....	1,250	790.3	-18.4	.....	58	0.70	nw. 24.4	1,960	1,460	.....	
.....	.....	.....	.....	.....	.....	1,250	798.3	-18.5	-4.33	57	0.68	nw. 24.2	1,903	1,320	.....	
.....	.....	.....	.....	.....	.....	1,250	817.0	-19.2	.....	59	0.62	nw. 22.1	1,874	1,250	.....	
.....	.....	.....	.....	.....	.....	1,250	817.0	-18.8	.....	65	0.75	nw. 21.1	1,715	930	.....	
.....	.....	.....	.....	.....	.....	1,250	844.7	-17.3	.....	73	0.97	nw. 19.5	1,470	480	.....	
.....	.....	.....	.....	.....	.....	1,250	873.1	-15.8	.....	81	1.24	nw. 17.9	1,225	170	.....	
.....	.....	.....	.....	.....	.....	1,250	883.2	-15.3	0.80	84	1.34	nw. 17.4	1,145	70	.....	
.....	.....	.....	.....	.....	.....	1,250	902.4	-14.0	.....	85	1.54	nw. 17.2	980	0	.....	
.....	.....	.....	.....	.....	.....	1,250	930.9	-12.1	0.41	86	1.85	nw. 17.0	753	0	.....	
.....	.....	.....	.....	.....	.....	1,250	957.9	-11.2	-1.39	86	1.87	nw. 16.6	735	0	.....	
.....	.....	.....	.....	.....	.....	500	963.7	-11.9	.....	85	1.98	nw. 11.2	536	0	.....	
.....	.....	.....	.....	.....	.....	396	977.1	-13.3	.....	83	1.82	w. 3.6	388	.....	Few Cl.St., nw.	

January 17-18, 1916, series (No. 5).

P. M.																
9:59.....	976.6	-14.6	90	wsW.	4.5	396	976.6	-14.6	.....	90	1.54	wsW.	4.5	388	.....	
10:01.....	976.6	-14.6	90	wsW.	4.5	500	963.2	-13.3	.....	93	1.79	w.	10.9	490	0	
10:05.....	976.6	-14.5	88	wsW.	4.0	750	941.2	-11.2	-1.21	98	2.28	wsW.	21.9	664	0	
10:15.....	976.6	-14.2	89	wsW.	4.5	1,000	902.3	-11.4	.....	97	2.22	nw.	20.4	735	0	
10:25.....	976.6	-13.7	87	w.	5.4	1,250	928.7	-11.5	0.29	96	2.18	nw.	19.8	765	0	
10:38.....	976.6	-13.7	88	w.	5.4	1,250	863.3	-14.4	0.82	95	1.83	nw.	19.4	980	0	
10:50.....	976.6	-13.4	83	w.	6.3	1,250	872.7	-15.4	0.83	94	1.64	nw.	19.2	1,113	0	
11:00.....	976.6	-13.2	84	w.	6.3	1,250	851.7	-16.9	0.83	95	1.51	nw.	19.5	1,225	160	
11:16.....	976.6	-12.8	81	w.	6.7	1,250	844.9	-17.2	.....	96	1.32	nw.	20.0	1,410	425	
11:40.....	976.6	-12.8	80	w.	7.6	1,250	863.3	-18.3	.....	95	1.15	nw.	19.5	1,470	560	
11:56.....	976.6	-12.2	86	w.	6.4	1,250	806.0	-18.8	0.46	95	1.09	nw.	17.3	1,715	1,110	
.....	.....	.....	.....	.....	.....	2,000	790.0	-17.3	.....	96	1.17	nw.	16.5	1,811	1,310	
.....	.....	.....														

## OBSERVATIONS AT DREXEL, JANUARY, 1916.

15

 TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.  
 January 17-18, 1916 series (No. 5)—Continued.

Time.	Pressure.	Surface.			At different heights above sea.								Remarks.		
		Tempera-ture.	Rela-tive humid-ity.	Wind.		Altitude.	Pressure.	Tem-perature.	$\Delta t$	Humidity.		Wind.		Potential.	
				Dir.	Vel.					100 m.	Rel.	Vap. pres.	Dir.	Vel.	
A. M.															
12:07.....	mb. 976.6	°C. -13.3	% 90	w.	m. p. s. 4.0	m. 826	mb. 923.3	°C. -11.6	0.41	% 84	mb. 1.89	nw.	m. p. s. 18.7	10 <sup>6</sup> ergs. 810	volts. 0
12:12.....	976.6	-13.5	92	w.	4.9	750	932.3	-11.3	.....	85	1.96	nw.	18.3	735	0
12:16.....	976.6	-13.8	91	w.	4.9	562	955.7	-10.5	-1.93	87	2.16	wnw.	17.3	551	0
						500	963.2	-11.7	.....	89	1.98	wnw.	12.7	490	0
						396	976.6	-13.8	.....	91	1.67	w.	4.9	388	.....
															Few Cl., nw.

January 18, 1916, series (No. 6).

A. M.															
1:05.....	976.6	-12.9	88	wnw.	4.0	396	976.6	-12.9	.....	88	1.76	wnw.	4.0	388	.....
1:06.....	976.7	-12.9	88	wnw.	4.9	500	963.2	-12.3	.....	94	1.98	wnw.	7.3	490	0
1:12.....	976.7	-12.9	88	wnw.	5.8	609	949.9	-11.7	-0.56	100	2.23	nw.	11.3	597	0
1:26.....	976.9	-12.9	89	wnw.	5.8	750	932.5	-12.1	.....	100	2.15	nw.	51.3	735	0
1:29.....	976.9	-12.8	88	wnw.	6.3	784	928.3	-12.2	0.29	100	2.13	nw.	16.4	769	0
1:40.....	977.1	-12.5	84	nw.	6.7	1,000	902.3	-13.8	.....	100	1.84	nw.	16.7	980	340
1:58.....	977.3	-12.8	84	nw.	5.8	1,250	873.0	-15.6	.....	100	1.56	nw.	17.0	1,225	840
2:00.....	977.3	-12.8	88	wnw.	6.3	1,320	865.1	-16.1	0.73	100	1.49	nw.	17.1	1,294	1,020
2:04.....	977.3	-12.8	88	wnw.	6.3	1,428	852.9	-15.4	-0.65	100	1.59	nw.	14.8	1,400	1,300
2:06.....	977.3	-13.2	88	nw.	6.7	1,500	844.9	-15.5	.....	99	1.55	nw.	15.0	1,470	1,410
2:11.....	977.3	-13.2	88	nw.	6.7	1,750	817.3	-15.7	.....	94	1.46	nw.	15.5	1,715	1,310
2:22.....	977.3	-13.4	92	nw.	5.8	1,986	792.4	-16.0	0.11	90	1.35	nw.	16.0	1,946	2,180
2:37.....	977.3	-13.8	93	nw.	4.5	2,000	790.9	-15.9	.....	89	1.35	nw.	16.1	1,960	2,200
2:44.....	977.3	-13.8	92	nw.	4.0	2,250	764.8	-15.0	.....	80	1.32	nw.	18.2	2,205	2,870
2:56.....	977.3	-13.4	83	nw.	4.5	2,500	740.3	-14.1	.....	71	1.27	nw.	20.4	2,450	3,340
3:03.....	977.3	-13.4	83	nnw.	5.4	2,590	731.8	-13.8	-0.36	68	1.25	nw.	21.2	2,538	3,500
3:21.....	977.5	-13.4	77	nnw.	5.8	2,893	702.8	-15.8	0.66	63	0.96	nw.	22.5	2,694	4,000
3:23.....	977.6	-13.6	78	nnw.	6.3	2,950	702.8	-15.8	0.66	61	0.92	nw.	22.7	2,694	3,910
						2,048	785.6	-15.6	0.13	51	0.80	nw.	21.0	2,450	2,960
						2,000	790.9	-15.5	.....	51	0.80	nw.	16.5	2,005	1,700
						1,750	817.3	-15.2	.....	51	0.83	nw.	16.3	1,980	1,630
						1,500	844.9	-14.9	.....	50	0.84	nw.	14.6	1,470	780
						1,411	854.6	-14.8	-0.31	50	0.84	nw.	14.3	1,383	640
						1,250	873.0	-15.3	.....	51	0.82	nnw.	14.7	1,225	240
						1,000	902.3	-15.3	-0.11	51	0.80	nnw.	14.8	1,161	80
						1,184	880.7	-15.5	.....	54	0.86	nnw.	14.2	980	0
						3,453	944.4	-14.9	-0.50	58	0.96	nnw.	13.4	735	0
						500	964.0	-14.1	.....	60	1.00	nnw.	13.1	644	0
						396	977.6	-13.6	.....	71	1.27	nnw.	9.0	490	0
										78	1.47	nnw.	6.3	388	.....
															7/10 Cl. & C.St., nw.

January 18, 1916, series (No. 7).

A. M.															
3:57.....	978.1	-14.1	77	nnw.	4.9	396	978.1	-14.1	.....	77	1.38	nnw.	4.9	388	.....
						500	964.7	-14.7	.....	78	1.33	nnw.	6.5	490	0
						750	934.4	-16.0	.....	82	1.23	nw.	10.4	735	0
						942	909.9	-17.0	0.53	84	1.15	nw.	13.3	924	200
						1,000	902.5	-16.8	.....	85	1.18	nw.	13.7	980	280
						1,133	887.1	-16.4	-0.31	87	1.28	nw.	14.8	1,111	450
						1,250	873.3	-16.2	.....	85	1.26	nw.	14.2	1,225	610
						1,500	844.9	-15.9	.....	80	1.22	nw.	12.8	1,470	950
						1,512	848.8	-15.9	-0.13	80	1.22	nw.	12.8	1,482	980
						1,750	817.2	-16.1	.....	78	1.16	nw.	13.0	1,715	1,510
						1,928	798.5	-16.2	0.07	76	1.12	nw.	13.2	1,890	1,950
						2,000	790.7	-15.8	.....	73	1.17	nw.	13.8	1,960	2,140
						2,250	765.0	-14.6	.....	65	1.11	nw.	15.7	2,205	2,570
						2,295	760.5	-14.4	0.49	63	1.10	nw.	16.0	2,249	2,630
						2,395	750.7	-14.4	0.00	61	1.06	nw.	14.8	2,347	2,790
						2,500	740.0	-14.9	.....	59	0.99	nw.	15.5	2,450	2,900
						2,750	715.8	-16.0	.....	55	0.82	nw.	17.3	2,694	3,700
						2,899	702.4	-16.7	0.46	53	0.75	nw.	18.3	2,840	4,180
						3,000	692.3	-17.1	.....	52	0.70	nw.	18.2	2,939	4,500
						3,250	669.2	-18.2	.....	51	0.62	nw.	17.8	3,184	5,300
						3,250	652.1	-19.1	0.44	50	0.56	nw.	17.5	3,383	.....
						3,000	692.3	-17.1	.....	48	0.65	nw.	16.6	3,184	.....
						2,750	715.8	-18.0	.....	47	0.70	nw.	14.5	2,694	.....
						2,781	718.4	-15.9	-0.01	47	0.71	nw.	14.4	2,076	3,600
						2,784	726.4	-16.0	0.47	47	0.70	nw.	10.1	2,593	3,400
						2,500	740.0	-15.3	.....	47	0.75	nw.	15.1	2,450	3,020
						2,250	765.0	-14.1	.....	47	0.84	nw.	13.5	2,205	2,380
						2,201	770.4	-13.9	-0.12	47	0.86	nw.	13.2	2,157	2,260
						2,000	790.7	-14.1	.....	45	0.81	nw.	13.0	1,960	1,740
						1,959	795.2	-14.2	-1.49	45	0.80	nw.	13.0	1,920	1,640
						1,985	805.2	-15.6	0.17	45	0.70	nw.	12.6	1,828	1,420
						1,750	817.2	-15.4	.....	45	0.72	nw.	11.4	1,715	1,150
						1,512	843.8	-15.0	0.02	45	0.74	nw.	9.0	1,482	600
						1,512	844.9	-15.0	.....	45	0.74	nw.	9.0	1,470	570
						1,250	873.3	-14.9	.....	45	0.75	nw.	10.1	1,225	0
						1,120	888.8	-14.9	-0.63	45	0.75	nw.	10.6	1,098	0
						1,000	902.5	-15.7	.....	46	0.71	nw.	10.2	980	0
						764	933.1	-17.2	-0.39	48	0.64	nw.	9.3	739	0
						500									

## SUPPLEMENT NO. 5.

TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.  
January 18, 1916, series (No. 8).

Time.	Surface.				At different heights above sea.										Remarks.	
	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
A. M.																
7:07.....	mb. 979.0	°C. -16.8	% 95	nnw.	m. p. s. 2.7	m. 396	mb. 979.0	°C. -16.8	.....	% 95	m. p. s. 1.32	nnw.	m. p. s. 2.7	10 <sup>8</sup> ergs. 388	volts. 0	5/10 Cl., wnw.; 2/10 Cl.St., wnw.
7:10.....	979.1	-17.0	99	nnw.	2.7	500	969.4	-16.7	-0.10	97	1.37	nw.	3.5	490	0	
.....						589	954.3	-16.6		99	1.41	nw.	4.3	577	0	
.....						750	934.1	-15.8		95	1.45	nw.	6.1	735	0	
.....						1,000	903.4	-14.6		89	1.52	wnw.	7.9	980	0	
.....						1,250	874.3	-13.4		83	1.59	wnw.	9.7	1,225	330	Partial solar halo 7:55 to 8:20 a.
8:07.....	979.5	-17.1	94	nw.	2.2	1,329	865.8	-13.0	-0.49	81	1.60	wnw.	10.3	1,303	520	
8:11.....	979.5	-17.2	94	nw.	2.2	1,500	846.1	-13.7		79	1.47	wnw.	9.4	1,470	930	
8:30.....	979.8	-16.5	94	nw.	1.8	2,000	819.6	-14.6	0.38	77	1.32	wnw.	8.2	1,710	1,510	5/10 Cl., wnw.
9:30.....	980.2	-14.9	90	wnw.	2.2	2,130	792.7	-14.1		72	1.29	wnw.	10.0	1,960	2,140	
11:22.....	980.1	-13.1	92	wnw.	4.5	2,250	779.4	-13.9	-0.18	70	1.28	wnw.	11.0	2,087	2,460	3/10 Cl., wnw.
11:34.....	980.0	-12.8	90	wnw.	4.5	2,500	767.2	-14.2		67	1.19	wnw.	10.9	2,205	2,760	
11:46.....	979.9	-12.4	86	wnw.	5.4	2,750	742.6	-14.8		62	1.04	wnw.	10.5	2,450	3,380	
12:02.....	979.7	-12.1	85	wnw.	3.1	3,000	735.2	-15.0	0.24	60	0.99	wnw.	10.4	2,528	3,700	
12:04.....	979.6	-12.1	85	wnw.	3.1	3,038	718.7	-15.8		59	0.90	wnw.	11.8	2,694	3,900	
12:20.....	979.4	-11.5	82	wsn.	3.6	2,750	695.3	-16.9		56	0.77	wnw.	14.8	2,939	4,170	
12:27.....	979.3	-11.4	82	wsn.	4.0	2,500	692.0	-17.1	0.46	56	0.76	wnw.	14.3	2,976	4,220	
12:36.....	979.2	-11.3	82	wsn.	4.0	2,000	673.1	-17.1		56	0.76	wnw.	15.9	3,184	4,460	
12:39.....	979.8	-12.3	85	wnw.	4.0	3,498	651.2	-17.2	0.10	56	0.75	wnw.	17.7	3,427		
P. M.						3,250	673.1	-18.8		56	0.78	wnw.	15.7	3,184	4,500	
12:42.....	979.7	-12.1	85	wnw.	3.1	3,000	695.3	-16.4		57	0.83	wnw.	13.8	2,939	3,990	
12:44.....	979.6	-12.1	85	wnw.	3.1	2,785	716.0	-16.0	0.48	57	0.86	wnw.	12.1	2,729	3,550	
12:46.....	979.4	-11.5	82	wsn.	3.6	2,750	718.7	-15.8		57	0.87	wnw.	12.1	2,694	3,490	
12:48.....	979.3	-11.4	82	wsn.	4.0	2,500	742.6	-14.6		57	0.97	wnw.	11.8	2,450	2,980	
12:51.....	979.3	-11.4	82	wsn.	4.0	2,000	707.8	-13.4		56	1.07	wnw.	11.4	2,205	2,470	
12:54.....	979.8	-12.3	85	wnw.	4.0	1,929	792.3	-12.2		56	1.19	wnw.	11.1	1,960	1,970	
12:59.....	979.8	-12.3	85	wnw.	4.0	396	801.2	-11.9	-0.06	56	1.23	wnw.	11.0	1,891	1,820	

January 18, 1916, series (No. 9).

P. M.	978.6	-9.6	84	sw.	3.6	396	978.6	-9.6	.....	84	2.26	sw.	3.6	388	.....	Cloudless.
1:23.....	978.2	-9.0	78	sw.	5.4	500	965.2	-10.5		82	2.03	sw.	4.5	490	0	
1:53.....	977.7	-6.5	76	sw.	4.9	725	937.3	-12.5	0.88	77	1.59	sw.	6.3	711	270	
3:24.....	977.4	-6.8	82	sw.	4.9	750	934.0	-11.9		77	1.69	sw.	6.2	735	320	
4:16.....	977.3	-7.0	84	sw.	5.4	1,000	903.7	-11.1	-2.33	77	1.86	sw.	6.0	782	430	
4:22.....	977.2	-7.3	81	sw.	4.5	1,250	884.3	-11.4	0.16	79	1.88	sw.	8.8	980	860	
4:27.....	977.4	-6.8	82	sw.	4.9	1,250	874.7	-10.3		80	1.83	sw.	11.0	1,145	1,230	
4:42.....	977.3	-7.0	84	sw.	5.4	1,367	861.8	-8.6	-1.41	78	1.97	sw.	12.3	1,225	1,400	
5:22.....	977.2	-7.3	81	sw.	4.5	1,500	846.7	-9.1		74	2.18	w.	14.1	1,340	1,650	
5:40.....	977.0	-7.7	83	sw.	5.4	1,740	821.0	-9.9	0.35	73	1.91	sw.	13.6	1,705	2,200	4/10 Cl., wnw.
5:45.....	976.9	-7.7	83	sw.	5.4	2,000	793.3	-10.1		73	1.91	sw.	13.6	1,715	2,210	
5:54.....	976.8	-8.5	87	sw.	5.4	2,236	769.6	-10.3	0.08	65	1.67	sw.	13.1	1,980	2,410	
6:02.....	976.6	-9.2	94	sw.	8.0	2,280	768.0	-10.4		58	1.47	sw.	12.6	2,191	2,600	
6:10.....	976.6	-9.1	94	sw.	8.5	2,500	743.4	-11.4		58	1.46	sw.	12.5	2,205	2,700	
6:28.....	976.6	-9.0	94	ssw.	8.5	2,750	727.4	-12.1	0.42	49	1.12	sw.	10.9	2,460	3,660	
6:44.....	976.6	-8.7	94	sw.	8.5	2,750	719.9	-12.5		43	0.92	sw.	9.8	2,611	3,870	
6:49.....	976.6	-8.7	94	sw.	8.5	3,000	696.7	-13.9		42	0.87	sw.	10.5	2,694	3,980	
6:54.....	976.6	-8.8	94	sw.	8.5	3,047	692.2	-14.1	0.52	38	0.68	sw.	12.6	2,939	3,985	3/10 Cl., wnw.
6:59.....	976.6	-8.7	94	sw.	8.0	2,750	696.7	-13.9		38	0.70	sw.	13.0	2,039	3,985	
7:02.....	976.6	-9.1	94	sw.	8.0	2,500	719.9	-12.6		38	0.80	w.	13.0	2,694	3,985	
7:10.....	976.6	-9.0	94	sw.	8.5	2,270	743.4	-11.4		38	0.86	w.	13.0	2,517	3,200	
7:16.....	976.6	-9.1	94	sw.	8.5	2,250	766.3	-10.6	-0.15	38	0.87	w.	12.4	2,450	3,040	
7:28.....	976.6	-9.0	94	ssw.	8.5	2,000	793.3	-10.2		38	0.93	w.	10.6	2,225	2,500	
7:44.....	976.6	-8.7	94	sw.	8.5	1,802	814.5	-9.9	0.30	49	1.28	w.	13.3	1,766	1,700	
7:49.....	976.6	-8.7	94	sw.	8.5	1,750	819.6	-9.7		50	1.34	w.	13.1	1,715	1,650	
7:54.....	976.6	-8.8	94	sw.	8.5	1,500	846.7	-9.0		57	1.02	sw.	12.2	1,470	1,420	
7:59.....	976.6	-8.8	94	sw.	8.5	1,250	874.9	-8.2		65	1.98	sw.	11.2	1,225	1,140	
8:04.....	976.6	-8.7	94	sw.	8.0	1,000	902.9	-9.8		70	1.85	sw.	12.1	1,218	1,120	
8:44.....	976.6	-8.7	94	sw.	8.5	982	905.3	-9.9	0.80	70	1.83	sw.	12.2	963	430	
8:49.....	976.6	-8.7	94	sw.	8.5	819	924.7	-8.6	-0.02	73	2.15	sw.	13.0	803	0	
8:54.....	976.6	-8.7	94	sw.	8.0	750	932.8	-8.6		76	2.23	sw.	12.2	735	0	
8:59.....	976.6	-8.7	94	sw.	8.0	500	963.4	-8.7		89	2.59	sw.	9.2	490	0	
9:04.....	976.6	-8.7	94	sw.	8.0	396	976.6	-8.7		94	2.74	sw.	8.0	388	.....	3/10 Cl., wnw.

# OBSERVATIONS AT DREXEL, JANUARY, 1916.

17

TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.  
January 19, 1916 (No. 1).

Time.	Pressure.	Surface.				At different heights above sea.										Remarks.	
		Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Alti- tude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.		
A. M.																	
8:46.....	mb. 969.3	°C. -6.6	% 98	s.	m. p. s. 8.9	m. 396	mb. 969.3	°C. -6.6	.....	% 98	m. p. s. 8.9	s. 3.43	10 <sup>6</sup> ergs. 388	volts. 0		10/10 St., ssw. Snowing.	
8:50.....	969.3	-6.6	98	s.	8.5	500	956.3	-7.2	.....	99	3.29	s. 12.2	490	0			
8:55.....	969.3	-6.6	100	sse.	9.8	740	927.4	-8.6	0.58	100	2.94	ssw. 19.8	726	0			
9:04.....	969.2	-6.6	100	sse.	9.8	1,000	986.6	-8.6	.....	100	2.94	ssw. 19.9	735	0			
9:08.....	969.2	-6.6	100	sse.	8.0	1,011	895.4	-8.6	0.00	100	2.94	ssw. 21.1	980	0			
9:13.....	969.1	-6.7	99	sse.	8.0	1,250	868.0	-9.1	.....	100	2.94	ssw. 21.2	991	0			
9:15.....	969.1	-6.7	98	sse.	8.5	1,367	855.3	-9.4	0.22	100	2.74	ssw. 21.5	1,225	615			
						1,463	844.8	-8.7	-0.73	100	2.91	ssw. 21.6	1,340	615		Altitude of St. base about 750 m.	
						1,500	840.4	-8.7	.....	100	2.91	ssw. 21.2	1,470	630			
						1,667	822.8	-8.7	0.00	100	2.91	ssw. 22.0	1,634	1,040		Snow ended 9:14 a. m.	
						1,750	814.0	-8.1	.....	100	3.07	ssw. 20.2	1,715	1,340			
						1,795	809.3	-7.8	-0.70	100	3.15	ssw. 19.2	1,739	1,500		Head kite broke away.	

January 19, 1916 (No. 2).

P. M.	960.8	-2.8	87	s.	10.3	396	960.8	-2.8	.....	87	4.21	s. 10.3	388	.....	10/10 St., s.	
4:27.....	960.8	-2.8	87	ssw.	9.8	500	948.0	-3.8	.....	88	3.91	s. 12.5	490	0		
4:30.....	960.8	-2.8	87	ssw.	9.8	722	921.7	-5.8	0.92	91	3.41	s. 17.2	708	0		
4:36.....	960.7	-2.8	87	s.	13.4	1,000	918.2	-5.9	.....	91	3.38	s. 17.2	735	0		
4:41.....	960.7	-2.9	87	s.	11.6	1,112	876.8	-7.8	0.51	91	3.02	s. 17.3	980	0		
4:55.....	960.5	-2.9	89	s.	9.4	1,250	861.3	-8.5	.....	92	2.70	ssw. 20.4	1,225	500		
5:08.....	960.5	-2.8	89	ssw.	9.8	1,376	847.5	-9.4	0.58	92	2.52	ssw. 23.2	1,349	810		
5:14.....	960.5	-2.8	89	ssw.	9.4	1,500	861.3	-8.7	.....	92	2.68	ssw. 23.5	1,225	810		
						1,000	889.3	-7.3	.....	92	3.03	s. 24.2	980	290		
						1,014	902.6	-6.7	0.70	92	3.19	s. 24.5	868	0		
						750	918.2	-5.8	.....	92	3.45	s. 20.9	735	0		
						614	934.2	-4.8	0.92	92	3.75	s. 17.3	602	0		Kite and wire covered with ice.
						500	948.0	-3.8	.....	90	4.00	ssw. 13.2	490	0		
						396	960.5	-2.8	.....	89	4.31	ssw. 9.4	388	.....	10/10 St., s.	

January 20, 1916.

A. M.	963.0	-0.6	94	sw.	10.3	396	963.0	-0.6	.....	94	5.46	sw. 10.3	388	.....	3/10 Ci., wsw.; 2/10 A.St., wsw.; 2/10 A.Cu., wsw.
9:12.....	963.1	-0.6	94	ssw.	10.3	631	950.9	2.7	.....	87	6.46	sw. 11.4	490	40	
9:20.....	963.2	-0.5	94	sw.	10.7	750	922.4	6.7	.....	74	7.26	ssw. 12.7	619	100	
9:29.....	963.4	0.0	92	sw.	10.3	804	916.2	6.6	0.12	72	7.02	w. 14.0	735	150	
						1,000	894.4	5.0	.....	71	6.19	w. 14.5	738	170	
						1,152	878.1	3.7	0.83	71	5.65	w. 14.5	1,229	515	
						1,250	867.8	3.4	.....	71	5.54	w. 14.3	1,225	510	
						1,500	842.3	2.7	.....	70	5.19	w. 15.1	1,470	510	
						1,750	817.0	2.0	.....	69	4.87	wsw. 15.9	1,715	500	
						2,000	791.8	1.3	.....	68	4.56	wsw. 16.7	1,960	710	
						2,248	767.2	0.6	0.28	67	4.27	wsw. 17.3	2,203	930	
						2,500	743.8	-0.8	.....	68	3.88	wsw. 21.1	2,450	1,190	
						2,750	720.9	-2.1	.....	70	3.50	wsw. 24.9	2,694	1,550	
						3,000	698.4	-3.5	.....	71	3.24	wsw. 28.8	2,930	1,870	
10:33.....	964.3	1.2	84	sw.	6.7	3,140	686.1	-4.3	0.49	72	3.07	ssw. 31.0	3,076	1,800	
11:05.....	964.5	2.1	84	sw.	7.2	3,000	698.4	-3.7	.....	69	3.09	ssw. 28.4	2,939	1,800	
11:35.....	964.5	2.7	82	sw.	7.2	1,671	824.9	2.9	0.38	62	4.67	w. 14.3	1,638	130	
11:55.....	964.5	3.1	81	sw.	6.7	1,500	842.3	3.5	.....	62	4.87	w. 13.4	1,470	0	
NOON.....	964.5	2.9	81	sw.	7.2	1,250	867.8	4.5	.....	62	5.22	w. 12.0	1,225	0	
12:04.....	964.5	2.7	83	sw.	7.2	1,000	894.4	5.5	.....	62	5.60	wsw. 10.7	980	0	
						750	923.0	0.4	.....	62	5.90	wsw. 9.3	735	0	
						614	925.8	6.5	-0.22	62	6.00	wsw. 9.2	716	0	
						598	911.1	6.8	-2.05	64	6.32	wsw. 6.6	584	0	
						500	952.0	4.8	.....	74	6.36	wsw. 6.9	490	0	
P. M.						396	964.5	2.7	.....	83	6.16	sw. 7.2	388	.....	2/10 Ci.St., wsw.; 8/10 A.St., wsw.

January 21, 1916 (No. 1).

A. M.	956.4	1.2	100	sw.	6.3	396	956.4	1.2	.....	100	6.66	sw. 6.3	388	.....	Dense fog.
10:54.....	956.4	1.2	100	sw.	6.3	500	944.2	0.6	.....	100	6.38	sw. 8.6	490	0	
10:50.....	956.4	1.2	100	sw.	6.3	623	920.8	0.0	0.53	100	6.11	sw. 11.4	611	0	
11:18.....	956.4	1.3	100	sw.	6.3	750	915.2	0.1	.....	100	6.15	..... 11.6	735	0	
11:19.....	956.4	1.3	100	sw.	6.3	1,000	887.0	0.3	-0.09	99	6.18	..... 11.7	980	170	
11:30.....	956.4	1.3	100	sw.	5.8	1,084	877.8	0.4	-0.09	99	6.23	..... 11.8	1,063	240	
11:54.....	956.4	1.5	100	sw.	6.3	1,250	850.8	1.9	.....	97	6.80	..... 13.5	1,225	450	
						1,334	851.1	2.7	-0.92	96	7.12	..... 14.4	1,308	530	
						1,500	833.3	2.0	.....	95	6.71	..... 17.5	1,470	700	
						1,693	814.0	1.1	0.45	93	6.16	..... 21.2	1,659	900	
						1,750	808.1	0.8	.....	92	5.95	..... 21.2	1,715	1,240	
						2,000	783.5	-0.4	.....	89	5.26	..... 21.0	1,960	1,540	
						2,250	759.6	-1.7	.....	86	4.56	..... 20.9	2,205	1,600	
						2,500	736.2	-2.9	.....	82	3.94	..... 20.8	2,450	1,650	
						2									

## SUPPLEMENT NO. 5.

TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.

January 21, 1916 (No. 2).

Time.	Surface.				At different heights above sea.										Remarks.		
	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$	100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.						Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
A. M.																	
1:54.....	mb. 957.6	° C. 3.5	% 89	w.	m. p. s. 7.2	m. 396	mb. 957.6	° C. 3.5	.....	.....	89	6.99	w. 7.2	m. p. s. 7.2	10 <sup>5</sup> ergs. 388	volts. 0	10/10 St.Cu., w.
2:02.....	957.7	3.6	88	w.	7.6	500	945.3	2.6	.....	.....	89	6.56	w. 8.6	490	0		
2:10.....	957.8	3.6	89	w.	6.3	750	916.3	0.5	.....	.....	90	5.70	w. 11.8	735	0		
2:22.....	957.8	3.9	91	w.	4.9	1,000	911.5	0.1	0.85	90	5.64	ssw. 12.4	779	0			
2:25.....	957.9	4.0	91	w.	4.9	888.1	-0.8	.....	90	5.14	w. 12.9	980	0				
2:28.....	957.9	4.1	89	w.	4.9	1,236	862.8	-1.8	0.43	91	4.79	w. 13.5	1,212	0			
2:39.....	958.0	4.4	87	w.	5.8	1,250	861.0	-1.9	.....	91	4.75	w. 13.4	1,225	0			
2:57.....	958.1	4.7	84	w.	6.3	1,483	836.3	-2.9	0.45	88	4.22	w. 10.9	1,454	110			
3:10.....	958.3	4.8	86	w.	5.8	1,500	834.3	-2.8	.....	87	4.21	w. 11.0	1,470	120	Altitude of St.Cu. base about 800 m.		
3:40.....	958.6	4.8	85	w.	5.4	1,714	812.5	-1.8	-0.48	88	4.52	w. 13.0	1,680	250			
3:51.....	958.7	4.9	84	w.	6.7	1,750	808.9	-1.9	.....	86	4.49	w. 13.2	1,715	290			
4:06.....	959.0	5.0	88	w.	5.4	2,000	783.5	-2.7	.....	85	4.45	w. 14.8	1,960	440			
4:15.....	959.2	5.0	88	w.	4.5	2,081	775.7	-3.0	0.33	85	4.04	w. 15.3	2,039	490			
4:22.....	959.4	5.0	86	w.	5.4	2,164	768.0	-1.7	-1.57	82	4.35	w. 18.3	2,121	510			
4:28.....	959.5	4.8	85	w.	5.4	2,250	759.2	-2.4	.....	82	4.10	w. 18.2	2,205	510			
4:35.....	960.0	4.7	86	w.	5.4	2,500	735.5	-4.3	.....	83	3.54	w. 18.1	2,450	570			
						3,449	652.5	-9.8	0.63	80	2.11	w. 18.6	3,184	.....			
						3,250	669.4	-8.3	.....	74	2.23	w. 18.9	3,184	.....			
						3,000	691.1	-6.5	.....	67	2.37	w. 19.2	2,939	620			
						2,816	707.9	-5.1	0.51	61	2.43	w. 19.4	2,759	800			
						2,750	713.6	-4.8	.....	60	2.45	w. 19.3	2,694	770			
						2,500	736.7	-3.5	.....	56	2.55	w. 18.7	2,450	630			
						2,461	749.8	-3.3	0.15	55	2.55	w. 18.6	2,412	610			
						2,250	760.5	-3.0	.....	60	2.85	w. 17.3	2,205	490			
						2,000	785.0	-2.6	.....	66	3.25	w. 15.8	1,960	280			
						1,750	810.3	-2.2	.....	71	3.61	w. 14.4	1,715	70			
						1,744	811.2	-2.2	0.59	71	3.61	w. 14.3	1,709	70	6/10 St.Cu., w.		
						1,500	835.7	-0.8	.....	77	4.40	w. 12.9	1,470	0			
						1,351	852.2	0.1	0.00	80	4.02	w. 12.2	1,225	0			
						1,250	862.3	0.1	.....	81	4.98	w. 12.3	1,155	0	2/10 St.Cu., w.		
						1,178	870.9	0.1	0.49	81	4.98	w. 12.3	980	0			
						1,000	890.0	1.0	.....	83	4.45	w. 12.2	798	0			
						812	911.5	1.9	0.67	85	5.96	w. 12.2	735	0			
						750	918.3	2.3	.....	85	6.13	w. 11.2	490	0			
						500	947.8	4.0	.....	86	6.99	w. 7.1	490	0	Few St.Cu., w.		
						396	960.0	4.7	.....	86	7.34	w. 5.4	388	.....			

January 22, 1916.

A. M.																
8:37.....	975.9	-2.3	81	w.	2.2	396	975.9	-2.3	.....	81	4.08	w. 2.2	388	.....	Cloudless.	
10:16.....	977.5	0.2	72	w.	2.2	500	963.3	-0.5	.....	73	4.28	w. 3.6	490	0		
10:45.....	977.9	1.4	66	nw.	2.2	778	935.1	3.9	.....	53	4.28	ssw. 6.9	735	0		
11:27.....	977.9	2.2	61	w.	2.7	1,000	932.3	4.4	-1.75	51	4.27	ssw. 7.3	763	0	Few Cl., nw.	
11:38.....	977.8	2.3	61	wnw.	2.2	1,176	888.0	1.2	0.80	50	3.68	ssw. 7.5	980	0	1/10 Ci., nw.	
11:50.....	977.8	2.6	59	wnw.	1.8	1,250	879.8	0.7	.....	50	3.33	ssw. 7.7	1,153	0		
P. M.						1,500	852.8	-1.0	.....	49	2.75	ssw. 8.5	1,470	10		
12:05.....	977.7	2.8	60	w.	1.8	2,000	826.2	-2.7	0.68	49	2.39	ssw. 9.1	1,717	100	7/10 Ci., nw.	
12:32.....	977.5	3.2	55	w.	1.3	2,250	800.3	-4.6	.....	49	2.03	ssw. 10.8	1,960	490		
						2,500	775.2	-6.5	.....	49	1.73	ssw. 12.5	2,205	880		
						2,750	772.8	-6.7	0.76	49	1.70	ssw. 12.7	2,231	910		
						3,000	751.1	-6.0	.....	49	1.80	w. 17.2	2,450	1,260		
						3,250	748.2	-5.9	-0.31	49	1.82	w. 18.1	2,482	1,310		
						3,755	727.1	-5.8	-0.05	49	1.84	wnw. 23.6	2,699	1,650		
						3,000	705.1	-6.8	.....	49	1.60	wnw. 23.5	2,930	1,910		
						3,250	683.2	-7.9	.....	50	1.56	wnw. 23.4	3,184	2,110		
						3,500	661.8	-8.9	.....	50	1.43	wnw. 23.3	3,429	2,300		
						3,750	640.8	-9.9	.....	50	1.31	wnw. 23.2	3,673	2,490		
						4,000	619.8	-10.9	.....	50	1.20	wnw. 23.1	3,915	2,690		
						4,250	599.3	-12.0	.....	51	1.11	wnw. 23.0	4,162	.....		
						4,325	593.6	-12.2	0.41	51	1.09	wnw. 23.0	4,235	.....	Head kite broke away.	

January 23, 1916.

A. M.																
9:49.....	970.6	3.7	66	ssw.	11.6	396	970.6	3.7	.....	66	5.25	ssw. 11.6	388	.....	7/10 Cl.St., w.; 3/10 A.St., w.	
9:54.....	970.6	3.8	66	ssw.	10.7	738	930.6	3.5	0.06	66	5.22	ssw. 14.6	490	0		
10:07.....	970.6	4.1	66	ssw.	10.7	1,000	901.1	6.9	.....	65	5.14	sw. 21.4	724	0		
10:18.....	970.6	4.2	65	ssw.	10.7	1,093	891.1	8.1	-1.30	56	5.57	sw. 21.4	735	0		
10:38.....	970.6	4.4	66	ssw.	10.7	1,250	874.1	8.1	.....	51	5.62	sw. 22.2	980	0		
10:44.....	970.6	4.5	66	ssw.	13.9	1,500	848.0	8.1	.....	50	5.40	sw. 20.2	1,225	210		
11:00.....	970.6	4.8	66	ssw.	10.7	1,615	836.6	8.1	0.00	49	5.29	sw. 14.7	1,583	730		
11:07.....	970.5	4.8	66	ssw.	10.7	1,750	822.8	8.3	.....	48	5.26	sw. 11.7	1,715	730		
11:20.....	970.3	5.0	64	ssw.	10.3	1,000	901.1	6.1	-1.90	47	5.22	sw. 9.7	1,802	730		
11:25.....	970.2	5.1	64	ssw.	8.9	396	970.2	5.1	.....	52	4.90	sw. 10.0	1,960	.....		
						1,535	849.6	8.9	-0.32	45	5.13	sw. 11.3	1,504	460		
				</td												

## OBSERVATIONS AT DREXEL, JANUARY, 1916.

19

TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.

January 24, 1916 (No. 1).

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav.ity.	Electric.		
A. M. 8:48.....	mb. 962.5	°C. 1.4	% 93	s.	m. p. s. 4.0	m. 396	mb. 962.5	°C. 1.4	.....	% 93	mb. 6.29	s. 4.9	m. p. s. 4.9	10 <sup>6</sup> ergs. 388	volts. 0	7/10 A.St., wnw.; 3/10 St.Cu., wnw.	
8:55.....	962.5	1.8	93	s.	5.8	500	949.8	3.0	.....	90	6.82	ssw. 5.9	490	0			
						724	924.5	6.6	-1.59	82	8.00	sw. 8.2	710	0			
						750	921.2	7.0	.....	81	8.12	sw. 8.0	735	200	3/10 A.St., w.; 7/10 St.Cu., w.; at 10:00 a.m.		
P. M. 12:02.....	962.1	5.5	84	s.	5.4	1,100	883.5	12.7	-1.62	69	10.14	ssw. 5.1	1,078	260			
12:10.....	962.1	5.8	83	ssw.	4.0	1,250	887.8	13.3	.....	68	10.38	ssw. 4.3	1,225	.....			
12:22.....	962.0	6.0	81	ssw.	7.2	1,387	854.0	13.8	-0.38	68	10.73	ssw. 3.5	1,360	.....			
						1,463	846.1	13.5	0.28	67	10.36	ssw. 3.1	1,434	.....			
12:35.....	961.9	6.0	81	ssw.	7.6	1,250	867.8	13.9	.....	66	10.48	ssw. 4.6	1,225	.....			
						1,173	875.4	14.0	-2.00	66	10.55	ssw. 5.2	1,150	.....			
12:41.....	961.9	6.4	80	ssw.	8.5	1,000	893.8	10.5	.....	66	8.98	ssw. 5.2	980	.....			
12:50.....	961.9	6.4	80	ssw.	7.2	818	913.5	6.9	-2.00	65	6.47	sw. 5.2	802	.....			
						750	920.9	5.5	.....	72	6.50	sw. 4.9	735	.....			
12:53.....	961.8	6.6	79	ssw.	6.7	658	931.4	3.7	1.11	83	6.61	sw. 4.5	645	0			
						500	949.2	5.4	.....	81	7.27	ssw. 5.8	490	0			
						396	961.8	6.6	.....	79	7.70	ssw. 6.7	388	.....	1/10 A.St., w.; 9/10 St.Cu., w.		

January 24, 1916 (No. 2).

P. M.	961.6	8.0	77	sw.	5.8	396	961.6	8.0	.....	77	8.28	sw. 5.8	388	.....	1/10 A.St. w.; 9/10 St.Cu., w.
2:16.....	961.3	8.0	86	ssw.	5.8	747	921.0	4.0	1.14	82	6.67	ssw. 5.1	732	0	
2:55.....	961.0	8.1	77	s.	2.7	1,004	892.4	11.2	-2.80	72	9.58	sw. 6.6	984	0	
						1,250	866.7	12.3	.....	68	9.73	sw. 8.6	1,225	0	
3:10.....	961.2	8.1	76	s.	3.1	1,445	846.9	13.1	-0.43	64	9.65	sw. 8.6	1,416	0	
3:46.....	961.8	8.0	77	ssw.	0.9	1,499	841.6	10.5	-0.90	63	8.00	sw. 5.8	1,469	0	
3:53.....	962.0	7.9	78	ssw.	0.9	1,278	864.2	8.5	-0.70	63	6.99	ssw. 7.9	1,253	0	
						1,250	867.3	8.3	.....	63	6.90	ssw. 7.7	1,225	0	
4:01.....	962.1	7.9	78	ssw.	0.9	1,000	894.2	6.5	.....	64	6.20	ssw. 5.7	980	0	
						852	910.1	5.5	0.60	65	5.87	ssw. 4.5	835	0	
						750	921.4	6.0	.....	68	6.36	ssw. 3.7	735	0	
4:05.....	962.2	7.8	80	ssw.	0.9	500	950.2	7.3	.....	77	7.88	ssw. 1.7	490	0	
						396	902.2	7.8	.....	80	8.46	ssw. 0.9	388	.....	10/10 St.Cu., w.

January 25, 1916 (No. 1).

A. M. 10:09.....	975.0	-15.3	100	nnw.	6.7	396	975.0	-15.3	.....	100	1.60	nnw. 6.7	388	.....	10/10 St., nnw.
						500	961.0	-16.2	.....	100	1.48	nnw. 7.8	490	0	Snowing.
10:17.....	975.1	-15.4	100	nnw.	7.2	750	929.8	-18.5	.....	100	1.19	nnw. 10.6	735	0	Altitude of St. base about 750 m.
11:12.....	975.3	-14.7	97	n.	6.8	973	903.1	-11.9	-3.83	100	1.14	nnw. 11.1	780	0	
11:22.....	975.3	-14.8	92	n.	7.6	798	924.4	-18.4	1.02	100	1.20	nnw. 782	735	0	
11:35.....	975.3	-14.3	100	nnw.	6.7	750	929.8	-17.9	.....	100	1.26	nnw. 6.7	388	.....	Considerable ice on wire.

January 25, 1916 (No. 2).

P. M. 1:17.....	974.2	-13.4	96	n.	6.7	396	974.2	-13.7	.....	96	1.79	n. 7.5	388	.....	10/10 St., nnw.
						500	960.2	-14.8	.....	98	1.65	n. 6.4	490	190	Snow flurries.
1:18.....	974.2	-13.8	97	n.	6.7	629	944.6	-16.1	1.03	100	1.49	nnw. 6.17	1,120	620	Altitude of St. base about 700 m.
1:27.....	974.0	-13.7	97	n.	7.2	750	928.7	-16.1	.....	100	1.49	nnw. 735	780	0	
1:50.....	973.7	-13.1	98	n.	5.8	1,000	899.0	-12.0	-0.03	100	2.17	nne. 986	980	0	
2:01.....	973.6	-13.2	98	n.	4.9	847	898.2	-11.7	-4.18	100	2.23	nne. 980	980	0	
2:09.....	973.6	-13.0	96	n.	4.0	750	928.7	-16.1	0.05	100	2.15	nne. 830	735	0	Wire coated with ice.
2:12.....	973.6	-13.1	96	n.	5.4	637	943.2	-18.0	1.20	100	1.49	nnw. 624	490	0	Snow flurries.
						500	959.6	-14.3	.....	98	1.72	n. 5.4	388	.....	10/10 St., nnw.
						396	973.6	-13.1	.....	96	1.88	n. 4.0	388	.....	

January 26, 1916 (No. 1).

A. M. 8:53.....	968.8	-11.0	100	nnw.	4.0	396	968.8	-11.0	.....	100	2.37	nnw. 5.0	388	.....	10/10 St., nne.
						500	955.8	-11.8	.....	100	2.21	nnw. 6.8	490	0	Altitude of St. base about 800 m.
9:06.....	969.0	-11.2	100	nnw.	4.5	692	932.1	-13.4	0.81	100	1.91	n. 6.8	679	0	
10:08.....	969.6	-11.1	100	nnw.	4.0	816	917.8	-10.6	-2.06	100	2.46	nne. 4.8	735	0	
10:21.....	969.7	-11.0	100	nnw.	4.0	750	925.5	-11.8	1.00	100	2.21	nne. 4.8	642	0	Some ice on wire.
10:23.....	969.7	-11.0	100	nnw.	4.0	655	937.4	-13.6	1.00	100	1.88	n. 4.1	490	0	
						500	956.3	-12.0	.....	100	2.17	nnw. 4.0	388	.....	10/10 St., nne.
						396	969.7	-11.0	.....	100	2.37	nnw. 4.0	388	.....	

## SUPPLEMENT NO. 5.

TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.

January 26, 1916 (No. 2).

Surface.							At different heights above sea.										Remarks.
Time.	Pressure.	Temper- ature.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- per- ature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		10/10 St., nnw. Snowing. Altitude of St. base about 650 m.	
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.		
P. M. 1:35.....	mb. 969.4	° C. -10.6	% 100	nnw.	m. p. s. 4.5	m. 396	mb. 969.4	° C. -10.6	.....	100	2.46	nnw.	m. p. s. 4.5	$10^5$ ergs. 388	volts. 270		
1:40.....	969.4	-10.6	100	nnw.	5.4	500	956.3	-11.7	.....	100	2.23	nnw.	.....	490	615		
2:37.....	969.1	-10.5	100	nnw.	5.8	646	938.2	-13.2	1.04	100	1.95	nnw.	.....	633	1,060		
2:48.....	969.0	-10.5	100	nnw.	5.4	750	925.3	-11.5	.....	100	2.27	nnw.	.....	735	0		
2:59.....	968.9	-10.4	96	nnw.	5.4	1,052	889.9	-6.5	-1.88	100	3.53	nnw.	.....	1,031	0		
.....	.....	.....	.....	.....	.....	1,000	895.8	-7.4	.....	100	3.26	nnw.	.....	980	0		
.....	.....	.....	.....	.....	.....	1,000	895.8	-7.6	.....	100	3.21	nnw.	.....	980	0		
.....	.....	.....	.....	.....	.....	750	925.1	-12.9	.....	100	2.00	nnw.	.....	735	0		
.....	.....	.....	.....	.....	.....	716	929.3	-13.6	1.00	100	1.88	nnw.	.....	702	0		
.....	.....	.....	.....	.....	.....	500	955.0	-11.4	.....	97	2.22	nnw.	.....	490	0		
.....	.....	.....	.....	.....	.....	396	968.9	-10.4	.....	96	2.41	nnw.	.....	388	0		

January 27, 1916, series (No. 1).

A. M. 9:30.....	978.4	-20.0	100	nw.	7.2	396	978.4	-20.0	.....	100	1.03	nw.	7.2	388	.....	8/10 Ci.St., nw.
9:32.....	978.5	-19.8	100	nw.	7.2	500	964.4	-21.0	.....	97	0.90	nw.	9.5	490	480	Solar halo; 22° and 46°, with parhelia; and circumzenithal arc 60° above horizon—bright between 9 & 10 a. m.
9:50.....	978.7	-19.8	100	nw.	7.6	717	936.9	-23.0	0.93	92	0.71	nw.	14.3	703	1,440	Diminished in brightness after 10 a. m., only a faint halo of 22° and parhelia being visible at noon.
10:03.....	978.8	-20.0	100	nnw.	10.3	750	932.3	-22.4	.....	92	0.75	nw.	14.0	735	1,600	.....
10:12.....	979.1	-20.0	100	nnw.	9.4	1,000	901.5	-17.6	.....	95	1.23	nnw.	12.1	980	3,340	.....
10:26.....	979.4	-20.0	100	nw.	8.5	1,123	887.3	-15.2	-1.92	96	1.56	nnw.	11.2	1,101	4,000	.....
10:41.....	979.7	-20.0	100	nw.	8.5	1,250	872.4	-13.3	.....	97	1.87	nw.	12.3	1,225	4,110	.....
11:17.....	980.2	-19.3	100	nnw.	8.5	1,500	844.9	-9.6	.....	98	2.64	nnw.	14.4	1,470	4,340	.....
11:41.....	980.3	-19.0	100	nw.	7.2	1,679	825.6	-6.9	-1.49	99	3.38	w.	15.9	1,646	4,500	.....
11:56.....	980.4	-19.0	100	nw.	8.0	1,750	818.3	-5.7	.....	99	3.74	w.	16.2	1,715	4,640	6/10 Ci.St., nw.
12:05.....	980.4	-18.7	100	nw.	8.0	2,000	793.0	-1.6	.....	98	5.24	w.	17.4	1,900	5,100	.....
12:30.....	980.6	-18.5	100	nw.	7.6	2,404	788.7	-0.9	-1.66	98	5.56	w.	17.6	1,999	5,170	.....
12:41.....	980.5	-18.4	100	nw.	7.6	2,450	754.1	-1.7	0.22	95	5.04	w.	17.3	2,357	6,130	.....
12:41.....	980.5	-18.4	100	nw.	7.6	2,500	744.8	-2.3	.....	92	4.64	w.	17.6	2,450	6,460	.....
12:41.....	980.5	-18.4	100	nw.	7.6	2,750	723.3	-3.9	.....	86	3.79	w.	18.4	2,694	7,340	.....
12:41.....	980.5	-18.4	100	nw.	7.6	2,950	704.2	-5.1	0.62	80	3.18	w.	19.0	2,890	8,000	.....
12:41.....	980.5	-18.4	100	nw.	7.6	3,000	699.9	-5.5	.....	80	3.07	w.	18.8	2,939	7,500	.....
12:41.....	980.5	-18.4	100	nw.	7.6	3,250	677.9	-7.5	.....	78	2.52	w.	18.0	3,184	7,680	.....
12:41.....	980.5	-18.4	100	nw.	7.6	3,500	656.3	-9.5	.....	76	2.06	wws.	17.1	3,429	8,560	.....
12:41.....	980.5	-18.4	100	nw.	7.6	3,750	635.0	-11.5	.....	73	1.66	wws.	16.3	3,073	9,440	.....
12:41.....	980.5	-18.4	100	nw.	7.6	3,815	620.4	-12.0	0.80	72	1.56	wws.	16.1	3,737	9,700	.....
12:41.....	980.5	-18.4	100	nw.	7.6	3,750	635.0	-11.5	.....	72	1.63	wws.	16.3	3,673	9,400	.....
12:41.....	980.5	-18.4	100	nw.	7.6	3,500	656.1	-9.5	.....	72	1.95	wws.	17.0	3,428	8,400	.....
12:41.....	980.5	-18.4	100	nw.	7.6	3,250	677.2	-7.5	.....	71	2.29	wws.	17.8	3,184	7,400	.....
12:41.....	980.5	-18.4	100	nw.	7.6	3,156	685.2	-6.7	0.52	71	2.46	wws.	18.1	3,092	7,000	.....
12:41.....	980.5	-18.4	100	nw.	7.6	3,000	698.8	-5.9	.....	71	2.63	wws.	17.2	2,939	6,480	.....
12:41.....	980.5	-18.4	100	nw.	7.6	2,750	722.3	-4.6	.....	70	2.90	w.	15.8	2,694	5,640	.....
12:41.....	980.5	-18.4	100	nw.	7.6	2,500	744.8	-3.3	.....	69	3.20	wrw.	14.5	2,450	4,800	.....
12:41.....	980.5	-18.4	100	nw.	7.6	2,353	759.1	-2.5	0.27	69	3.42	wnw.	13.7	2,306	4,300	.....
12:41.....	980.5	-18.4	100	nw.	7.6	2,250	768.3	-2.2	.....	71	3.61	wnw.	14.6	2,205	3,970	.....
P. M. 12:05.....	980.4	-18.7	100	nw.	8.0	2,097	783.6	-1.8	-1.35	74	3.89	nw.	16.0	2,055	3,550	.....
12:30.....	980.6	-18.5	100	nw.	7.6	2,000	793.2	-3.1	.....	75	3.53	nw.	15.3	1,960	3,300	.....
12:30.....	980.6	-18.5	100	nw.	7.6	1,750	819.1	-6.5	.....	77	2.72	nw.	13.4	1,715	2,630	.....
12:30.....	980.6	-18.5	100	nw.	7.6	1,500	837.4	-8.8	-1.33	78	2.25	nw.	12.1	1,547	2,107	.....
12:30.....	980.6	-18.5	100	nw.	7.6	1,250	846.1	-9.8	.....	79	2.09	nw.	11.8	1,470	1,980	.....
12:30.....	980.6	-18.5	100	nw.	7.6	1,151	858.6	-14.5	-3.24	83	1.62	nw.	10.6	1,225	1,360	.....
12:30.....	980.6	-18.5	100	nw.	7.6	1,000	903.2	-10.4	.....	84	1.45	nw.	10.2	1,128	1,100	4/10 Ci.St., nw.
12:30.....	980.6	-18.5	100	nw.	7.6	889	917.2	-23.0	0.14	91	0.70	nw.	9.7	980	840	.....
12:30.....	980.6	-18.5	100	nw.	7.6	819	920.1	-22.9	1.06	92	0.71	nw.	11.0	803	540	.....
12:41.....	980.7	-18.4	100	nw.	7.6	750	934.2	-22.2	.....	93	0.77	nw.	10.4	735	460	.....
12:41.....	980.7	-18.4	100	nw.	7.6	500	966.4	-19.5	.....	98	1.06	nw.	8.4	490	140	.....
12:41.....	980.7	-18.4	100	nw.	7.6	396	980.7	-18.4	.....	100	1.20	nw.	7.6	388	.....	3/10 Ci.St., nw.

January 27, 1916, series (No. 2).

P. M. 1:29.....	980.9	-18.1	100	nw.	8.5	396	980.9	-18.1	.....	100	1.23	nw.	8.5	388	.....	3/10 Ci., nw.
1:30.....	980.9	-18.1	100	nw.	9.4	500	967.0	-10.2	.....	100	1.11	nw.	9.3	490	160	Solar halo, 22°, with parhelia.
1:30.....	980.9	-18.1	100	nw.	9.4	842	935.1	-21.8	.....	100	0.86	nw.	11.2	735	680	.....
1:30.....	980.9	-18.1	100	nw.	9.4	1,000	923.5	-22.8	1.05	100	0.78	nw.	11.9	820	870	.....
1:45.....	981.0	-18.1	100	nw.	8.5	1,119	889.9	-15.3	-2.71	100	1.60	nw.	9.4	1,097	1,600	.....
2:00.....	981.0	-17.9	88	nw.	8.0	1,250	874.4	-13.2	.....	100	1.95	nw.	10.2	1,225	1,680	.....
2:00.....	981.0	-17.9	88	nw.	8.0	1,408	857.0	-10.6	-1.63	100	2.46	nw.	11.2	1,380	1,800	.....
2:12.....	981.0	-17.9	88	nw.												

## OBSERVATIONS AT DREXEL, JANUARY, 1916.

21

 TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.  
 January 27, 1916, series (No. 2)—Continued.

Time.	Pressure.	Surface.				At different heights above sea.										Remarks.	
		Tempera-	Rela-	Wind.		Altitude.	Pressure.	Tem-	$\Delta t$	Humidity.		Wind.		Potential.			
				ture.	tive					Rel.	Vap.	Dir.	Vel.	Grav-	Electric.		
P. M.	mb.	°C.	%		m. p. s.	m.	mb.	°C.		%	mb.	m. p. s.	$10^5 \text{ ergs.}$	volts.			
3:34.....	981.4	-18.3	88	nw.	6.3	2,750	723.6	-6.7	.....	82	2.85	wws.	11.4	2,694	5,060		
3:40.....	981.5	-18.3	88	nw.	7.6	2,500	746.6	-4.9	.....	82	3.32	wws.	10.3	2,450	4,070		
3:51.....	981.5	-18.5	88	nw.	8.5	2,430	753.3	-4.4	0.46	82	3.46	wws.	10.0	2,381	3,800	3/10 Cl., nw. Partial solar halo with parhelia still visible.	
4:04.....	981.6	-18.4	88	nw.	7.2	2,040	770.6	-3.6	.....	82	3.71	wws.	9.5	2,205	3,490		
4:10.....	981.7	-18.5	94	nw.	7.2	2,000	795.2	-2.6	-0.11	82	4.03	w.	9.0	1,999	3,120		
4:15.....	981.7	-18.6	94	nw.	7.6	1,750	820.6	-2.9	.....	82	4.03	w.	9.0	1,960	3,060		
						1,570	839.9	-3.1	-2.99	81	3.89	wnw.	9.0	1,715	2,630		
						1,500	847.0	-5.2	.....	80	3.77	nw.	9.0	1,539	2,300		
						1,250	874.9	-12.6	.....	80	3.15	nw.	9.1	1,470	2,190		
						1,000	904.8	-20.1	.....	81	1.66	nw.	9.3	1,225	1,740		
						904	916.4	-23.0	-1.73	82	0.63	nw.	9.6	886	920		
						806	928.9	-21.3	0.66	85	0.77	nw.	11.3	790	755		
						750	936.2	-20.9	.....	86	0.81	nw.	10.5	735	650		
						500	968.2	-19.3	.....	92	1.01	nw.	8.5	490	190		
						396	981.7	-18.6	.....	94	1.11	nw.	7.6	388	.....	2/10 Cl., nw.	

January 27, 1916, series (No. 3).

P. M.	981.9	-18.7	91	nw.	6.3	396	981.9	-18.7	.....	94	1.09	nw.	6.3	388	.....	Few Cl. nw.
4:45.....	981.9	-18.7	91	nw.	6.3	500	967.8	-19.8	.....	95	1.00	nw.	7.0	490	150	Partial solar halo with parhelia continued until sunset.
4:50.....	981.9	-18.8	92	naw.	6.3	750	935.7	-22.3	.....	96	0.79	nnw.	8.7	735	500	
4:57.....	982.0	-19.0	87	naw.	6.3	926	933.4	-22.5	1.02	96	0.77	nnw.	8.8	755	515	
5:05.....	982.0	-19.1	87	naw.	6.7	1,000	904.5	-18.7	.....	100	1.16	nw.	9.2	980	1,180	
5:48.....	982.5	-19.6	94	naw.	6.3	1,103	892.7	-12.8	-5.76	100	2.02	nw.	7.8	1,081	1,900	
6:30.....	983.2	-19.9	93	nw.	5.4	1,250	875.8	-11.0	.....	99	2.35	nw.	7.6	1,225	1,680	
6:32.....	983.2	-19.9	92	nw.	4.9	1,500	847.8	-7.8	.....	97	3.06	wnw.	7.2	1,470	.....	
6:44.....	983.5	-20.0	88	nw.	5.4	1,750	821.3	-4.7	.....	96	3.96	wnw.	6.7	1,715	.....	
6:48.....	983.6	-20.0	88	nw.	6.3	1,822	814.0	-3.8	-1.23	95	4.22	wnw.	6.8	1,786	.....	
6:52.....	983.6	-20.0	86	nw.	5.4	1,914	821.3	-4.7	.....	94	3.87	wnw.	6.8	1,715	.....	
7:04.....	983.8	-20.2	90	naw.	5.4	2,000	775.5	-4.0	-0.05	89	3.89	wnw.	5.8	2,150	.....	
7:18.....	983.9	-20.3	93	naw.	6.3	2,250	771.7	-4.3	.....	89	3.79	wnw.	6.3	2,205	.....	
7:22.....	983.9	-20.4	97	nw.	4.9	2,361	761.1	-4.8	-0.44	89	3.63	wnw.	7.8	2,314	.....	
7:29.....	984.0	-20.4	93	nw.	4.5	2,250	771.7	-4.4	.....	89	3.76	wnw.	8.4	2,205	.....	
7:35.....	984.0	-20.4	86	nw.	4.5	2,000	775.5	-4.1	-0.10	89	3.85	wnw.	8.8	2,142	2,500	
						1,750	821.3	-4.6	.....	88	3.79	wnw.	7.7	1,960	2,150	
						1,615	836.0	-4.7	-2.29	88	3.63	wnw.	6.3	1,735	1,600	
						1,500	847.8	-7.3	.....	88	2.90	wnw.	6.7	1,470	1,180	
						1,250	876.2	-13.1	.....	87	1.71	nw.	9.2	1,225	670	
						1,183	884.1	-14.6	-3.97	87	1.49	nw.	9.9	1,160	500	
						1,000	905.9	-21.9	.....	88	0.75	nw.	8.7	980	260	
						951	912.1	-23.8	0.00	88	0.62	nw.	8.4	932	190	
						826	928.1	-23.8	0.79	88	0.62	nw.	9.7	810	0	
						750	937.4	-23.2	.....	87	0.65	nw.	8.8	735	0	
						500	969.8	-21.2	.....	87	0.79	nw.	5.8	490	0	
						396	984.0	-20.4	.....	86	0.85	nw.	4.5	388	.....	Cloudless.

January 27-28, 1916, series (No. 4).

P. M.	984.2	-20.7	93	nw.	4.0	396	984.2	-20.7	.....	93	0.89	nw.	4.0	388	.....	Cloudiness.
8:12.....	984.2	-20.7	86	nw.	3.6	500	969.0	-21.6	.....	93	0.82	nw.	5.9	490	0	
8:24.....	984.2	-20.7	92	nw.	4.0	746	938.5	-23.8	0.89	94	0.67	nw.	10.4	731	0	
8:59.....	984.2	-21.0	92	nw.	4.0	990	908.1	-17.5	-2.58	100	1.30	nnw.	9.4	971	1,320	
10:05.....	984.1	-21.2	100	naw.	4.5	1,003	906.3	-17.5	0.00	97	1.26	nw.	6.0	983	1,400	Clouds appearing.
11:10.....	984.2	-21.0	92	naw.	3.1	1,034	902.7	-17.5	0.00	97	1.26	nw.	3.7	1,014	1,600	
11:17.....	984.3	-21.0	98	naw.	4.5	1,181	885.3	-12.1	-3.51	96	2.06	nw.	3.2	1,158	.....	
11:38.....	984.3	-20.7	97	n.	4.0	1,017	904.6	-17.6	-2.86	94	1.21	nnw.	7.2	997	.....	10/10 St.
11:46.....	984.4	-20.7	100	n.	3.6	1,000	906.5	-18.1	.....	94	1.16	nnw.	7.2	980	0	
12:07.....	984.3	-20.7	100	n.	2.7	396	984.3	-20.7	.....	100	0.96	n.	2.7	388	.....	10/10 St.

## SUPPLEMENT NO. 5.

TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Continued.  
January 28, 1916, series (No. 5).

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.		
A. M. 1:17.....	mb. 982.9	°C. -20.6	% 100	n.	m. p. s. 3.6	m. 396	mb. 982.9	°C. -20.6	.....	100	0.97	n.	m. p. s. 3.6	$10^5$ ergs. 388	volts. 0	10/10 St. Snow began 1:31 a. m.	
2:11.....	983.0	-20.2	94	n.	3.6	500	968.8	-21.3	.....	100	0.91	.....	4.3	490	0		
2:17.....	183.1	-20.2	93	n.	3.6	750	936.6	-23.0	.....	100	0.77	.....	5.8	735	0		
4:38.....	982.5	-20.1	100	ne.	4.9	869	921.6	-23.8	0.68	100	0.71	.....	6.6	852	0		
4:43.....	982.4	-20.1	100	ne.	5.4	985	907.4	-18.9	-4.30	100	1.14	.....	7.2	966	0		
4:48.....	982.3	-20.0	100	ne.	4.0	1,000	905.0	-18.6	.....	100	1.18	.....	6.6	980	300		
4:50.....	982.3	-20.0	99	ne.	4.0	1,083	895.1	-16.7	-2.24	100	1.41	ne.	3.0	1,062	730		
5:01.....	982.1	-19.9	95	ne.	4.5	1,246	875.9	-11.2	-3.37	100	2.33	e.	4.3	1,221	.....		
5:06.....	982.1	-19.9	90	ne.	4.9	1,480	850.0	-6.4	-2.05	100	3.56	se.	8.7	1,451	.....		
5:12.....	982.0	-20.0	96	ne.	4.9	1,500	847.4	-6.2	.....	100	3.62	se.	9.1	1,470	.....		
5:22.....	982.0	-20.2	99	nne.	4.9	1,750	821.2	-3.1	.....	100	4.71	sse.	13.5	1,715	.....		
5:30.....	982.0	-20.1	100	nne.	4.5	1,834	812.7	-2.1	-1.21	100	5.13	sse.	15.0	1,798	.....		
5:37.....	981.9	-20.2	100	nne.	4.9	1,982	797.8	-2.2	0.04	100	5.09	ssw.	16.0	1,943	.....		
						1,786	817.8	-2.2	-1.57	100	5.09	s.	16.0	1,750	3,110		
						1,750	821.2	-2.8	.....	100	4.84	sse.	15.2	1,715	3,000		
						1,500	847.4	-6.7	.....	100	3.47	se.	9.9	1,470	1,860		
						1,429	855.1	-7.8	-2.65	100	3.15	ese.	8.4	1,401	1,540		
						1,250	875.2	-12.5	.....	100	2.07	e.	7.5	1,225	720		
						1,067	896.8	-17.4	-1.62	100	1.32	ne.	6.6	1,047	0		
						1,000	905.0	-18.5	.....	100	1.19	ne.	6.6	980	0		
						750	936.1	-22.5	.....	100	0.80	ne.	6.5	735	0		
						500	939.5	-23.0	0.86	100	0.77	nne.	6.5	707	0		
						500	968.1	-21.1	.....	100	0.92	nne.	5.4	490	0		
						396	981.9	-20.2	.....	100	1.01	nne.	4.9	388	.....		

January 28, 1916, series (No. 6).

A. M. 6:25.....	981.6	-20.2	100	nne.	4.5	306	981.6	-20.2	.....	100	1.01	nne.	4.5	388	.....	10/10 St. Snowing.
6:46.....	981.5	-20.1	100	nne.	4.5	500	967.6	-21.0	.....	100	0.93	nne.	5.4	490	0	
7:08.....	981.3	-20.0	100	ne.	4.9	714	940.0	-22.7	0.79	100	0.79	no.	7.4	700	130	
7:12.....	981.3	-20.0	100	ne.	4.9	935.1	-21.9	.....	100	0.85	ene.	7.6	735	200		
7:18.....	981.2	-20.1	100	ne.	5.4	1,000	904.7	-17.1	-2.46	100	1.35	ese.	8.8	924	640	
7:28.....	981.1	-20.2	100	ne.	4.5	1,250	875.8	-9.9	.....	100	2.62	ese.	9.5	980	750	
7:49.....	980.9	-20.2	100	ne.	4.0	1,500	848.2	-4.1	.....	100	4.33	se.	12.4	1,225	1,230	
8:15.....	980.6	-20.1	100	ne.	4.9	1,571	840.5	-2.4	-2.34	100	5.00	so.	16.0	1,540	1,860	
8:28.....	980.5	-19.9	100	ne.	4.0	1,750	821.7	-1.7	-0.38	100	5.30	sse.	17.9	1,715	2,210	
8:43.....	980.3	-19.8	100	ne.	5.8	2,000	795.8	-1.3	.....	100	5.57	s.	19.7	1,873	2,530	
						2,250	770.5	-2.0	.....	100	5.45	s.	19.9	1,960	.....	
						2,500	746.5	-2.6	.....	100	5.17	ssw.	20.4	2,205	.....	
						2,521	745.8	-2.7	0.26	100	4.92	ssw.	20.9	2,450	.....	
						2,750	724.1	-3.6	.....	100	4.52	ssw.	22.2	2,694	(*)	
						3,000	702.1	-4.6	.....	100	4.15	sw.	23.7	2,939	(*)	
						3,065	696.1	-4.9	0.40	100	4.05	sw.	24.1	3,003	(*)	
						3,000	702.2	-4.6	.....	100	4.15	sw.	23.9	2,939	(*)	
						2,750	725.1	-3.6	.....	100	4.52	sw.	23.1	2,094	(*)	
						2,500	748.2	-2.6	.....	100	4.92	ssw.	22.3	2,450	(*)	
						2,400	757.2	-2.2	0.21	100	5.09	ssw.	22.0	2,352	(*)	
						2,250	772.1	-1.9	.....	100	5.22	ssw.	20.1	2,205	.....	
						2,010	795.1	-1.4	-0.04	100	5.44	s.	17.0	1,970	.....	
						2,000	706.5	-1.4	.....	100	5.44	s.	17.0	1,960	.....	
						1,750	821.7	-1.5	.....	100	5.39	s.	17.4	1,715	4,860	No record after 8:43 a. m.
						1,533	843.8	-1.6	.....	100	5.35	s.	17.8	1,503	.....	

January 28, 1916, series (No. 7).

A. M. 10:12.....	979.3	-19.0	100	ne.	5.4	396	979.3	-19.0	.....	100	1.13	ne.	5.4	388	.....	10/10 St., se. Light snow.
10:20.....	970.2	-18.7	100	ne.	5.8	647	946.7	-21.1	0.84	100	1.04	ene.	7.3	490	(†)	
10:25.....	979.2	-18.5	100	ne.	5.8	750	933.8	-16.2	.....	100	0.92	ese.	9.9	634	(†)	
10:38.....	979.1	-18.4	100	ne.	6.3	761	932.3	-15.7	-4.74	100	1.48	ese.	12.2	735	(†)	
10:48.....	979.0	-18.2	100	ene.	6.3	1,000	903.3	-11.1	.....	100	2.35	se.	14.3	980	(†)	
10:56.....	978.9	-18.0	100	ene.	6.3	1,221	877.9	-6.8	-1.93	100	3.44	sse.	16.1	1,197	(†)	
11:15.....	978.8	-17.6	100	ene.	7.2	1,250	874.5	-6.4	.....	100	3.56	sse.	16.2	1,225	(†)	
11:42.....	978.7	-17.3	100	ene.	6.7	1,500	847.2	-3.2	.....	100	4.68	s.	17.0	1,470	(†)	
						1,750	821.1	-1.2	.....	100	5.53	s.	17.8	1,715	(†)	
						1,927	803.2	-1.0	-0.14	100	5.62	s.	18.2	1,889	(†)	
						1,750	821.1	-1.3	.....	100	5.48	s.	17.0	1,715	(†)	
						1,647	831.6	-1.5	-0.71	100	5.39	s.	17.4	1,614	(†)	
						1,500	847.2	-2.5	.....	100	4.96	ssw.	17.0	1,470	(†)	
						1,380	860.5	-3.4	.....	100	4.60	ssw.	17.0	1,353	(†)	

\* Potential more than 10,000 volts, 7:29 to 8:20 a. m.

† Potential more than 10,000 volts.

Kites came down due to being heavily loaded with ice.

## OBSERVATIONS AT DREXEL, JANUARY, 1916.

23

 TABLE 2.—Free-air data from kite flights at Drexel Aerological Station, January, 1916—Concluded.  
 January 29, 1916.

Time.	Pressure.	Surface.				At different heights above sea.										Remarks.	
		Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres	Dir.	Vel.	Grav- ity.	Elec- tric.		
A. M.																	
0:39.....	mb. 974.1	°C. -17.8	% 100	nnw.	m. p. s. 6.7	m. 396	mb. 974.1	°C. -17.8	.....	% 100	mb. 6.7	10 <sup>5</sup> ergs. 388	volts.	.....	10/10 St., nw.		
9:43.....	974.2	-18.0	100	nnw.	6.7	500	960.8	-18.1	.....	97	1.19	9.6	490	0	.....		
10:30.....	974.8	-18.0	100	nw.	6.7	662	940.2	-18.6	0.31	92	1.09	14.2	649	0	.....		
.....	.....	.....	.....	.....	.....	750	929.6	-17.7	.....	94	1.20	11.9	735	0	.....		
.....	.....	.....	.....	.....	.....	1,000	899.4	-15.0	.....	98	1.62	5.5	980	1,700	Altitude of St. base about 1,050 m.		
.....	.....	.....	.....	.....	.....	1,043	894.1	-14.5	-1.08	99	1.71	4.4	1,023	2,110	.....		
.....	.....	.....	.....	.....	.....	1,250	870.7	-11.7	.....	100	2.23	6.0	1,225	3,640	.....		
P. M.																	
12:26.....	975.5	-17.4	94	nw.	7.2	1,321	862.9	-10.7	-1.37	100	2.44	w.	6.6	1,295	.....	Few Cl., wsw.	
12:27.....	975.5	-17.4	94	nw.	7.2	1,500	843.0	-6.1	.....	100	3.65	w.	8.5	1,470	.....	.....	
.....	.....	.....	.....	.....	.....	1,525	840.6	-5.5	-2.55	100	3.84	w.	8.8	1,495	.....	.....	
.....	.....	.....	.....	.....	.....	1,750	816.9	-4.8	.....	96	3.92	w.	11.4	1,718	.....	.....	
12:29.....	975.5	-17.4	95	nw.	5.8	2,044	787.0	-3.8	-0.33	91	4.04	w.	14.3	1,960	.....	.....	
12:31.....	975.5	-17.4	97	nw.	5.8	2,212	770.5	-3.8	0.00	84	3.73	w.	14.8	2,003	.....	.....	
.....	.....	.....	.....	.....	.....	2,250	767.0	-4.0	.....	83	3.63	w.	15.1	2,188	.....	.....	
12:35.....	975.5	-17.5	100	nw.	6.7	2,500	743.1	-5.4	.....	77	2.99	w.	16.9	2,450	.....	.....	
.....	.....	.....	.....	.....	.....	2,678	726.6	-6.3	0.54	73	2.62	w.	18.2	2,619	5,850	.....	
12:42.....	975.4	-17.4	100	nw.	5.4	2,750	719.9	-6.7	.....	77	2.67	w.	19.5	2,694	6,080	.....	
.....	.....	.....	.....	.....	.....	2,991	697.8	-8.1	0.49	91	2.79	ww.	23.6	2,930	6,800	.....	
.....	.....	.....	.....	.....	.....	2,750	719.9	-7.1	.....	84	2.81	ww.	20.6	2,694	6,110	.....	
12:58.....	975.3	-17.0	98	nnw.	4.9	2,500	743.1	-6.1	.....	76	2.77	ww.	17.5	2,450	5,380	.....	
1:03.....	975.3	-16.9	98	nnw.	7.2	2,379	754.1	-5.6	0.76	72	2.74	ww.	16.0	2,331	5,300	.....	
.....	.....	.....	.....	.....	.....	2,250	767.0	-4.6	.....	70	2.90	ww.	15.7	2,205	4,750	.....	
1:14.....	975.3	-17.1	95	nw.	6.3	2,141	777.1	-3.8	-0.21	69	3.08	ww.	15.4	2,098	4,410	.....	
.....	.....	.....	.....	.....	.....	2,000	792.3	-4.1	.....	72	3.12	w.	14.8	1,960	3,980	.....	
1:18.....	975.3	-17.0	97	nnw.	6.7	1,750	816.9	-4.6	.....	76	3.15	wnw.	13.8	1,715	3,200	.....	
1:25.....	975.3	-17.0	100	nnw.	6.3	1,618	830.5	-4.9	0.29	79	3.20	wnw.	13.2	1,586	2,800	.....	
1:32.....	975.3	-17.1	95	n.	7.2	1,500	843.0	-4.6	.....	80	3.32	wnw.	10.8	1,470	2,500	.....	
1:42.....	975.3	-17.1	100	nnw.	6.3	1,412	852.6	-4.3	-3.25	80	3.41	nw.	9.0	1,384	2,280	.....	
.....	.....	.....	.....	.....	.....	1,250	870.7	-9.6	.....	80	2.15	nw.	10.6	1,223	1,880	.....	
1:42.....	975.3	-17.1	95	n.	7.2	1,209	875.0	-10.9	-2.77	80	1.91	nw.	11.0	1,185	1,750	.....	
1:42.....	975.3	-17.1	100	nnw.	6.3	1,000	899.4	-18.7	.....	80	1.13	nnw.	9.7	980	1,410	.....	
1:42.....	975.3	-17.1	95	n.	7.2	884	913.4	-19.9	0.57	80	0.83	n.	9.0	867	1,220	.....	
.....	.....	.....	.....	.....	.....	750	929.8	-19.1	.....	85	0.95	n.	8.3	735	1,000	.....	
.....	.....	.....	.....	.....	.....	500	962.1	-17.7	.....	96	1.23	nnw.	6.9	490	360	.....	
1:42.....	975.3	-17.1	100	nnw.	6.3	396	975.3	-17.1	.....	100	1.35	nnw.	6.3	388	.....	Few Cl., wsw.	

January 30, 1916.

P. M.	968.9	-15.0	95	n.	4.0	396	968.9	-15.0	.....	95	1.57	n.	4.0	388	.....	8/10 St.Cu., sw.
3:44.....	968.9	-15.0	95	n.	4.0	500	956.3	-16.0	.....	95	1.42	n.	5.6	490	230	.....
3:55.....	968.9	-15.0	86	n.	4.9	613	941.5	-17.1	0.97	95	1.28	n.	7.4	601	460	.....
4:50.....	968.0	-14.7	86	n.	3.6	750	925.1	-12.3	.....	91	1.92	nnw.	3.6	735	590	.....
5:29.....	969.1	-14.6	90	n.	3.6	957	900.3	-6.6	-2.69	96	3.36	nw.	3.0	938	615	10/10 St.Cu., sw.
5:46.....	969.2	-14.6	90	n.	4.5	1,000	895.7	-7.0	.....	93	3.14	nw.	3.2	980	.....	.....
5:56.....	969.3	-14.0	90	n.	3.1	1,054	889.6	-7.5	0.41	90	2.91	nnw.	3.5	1,033	.....	.....
5:59.....	969.3	-14.0	90	n.	3.1	1,000	895.7	-7.6	.....	89	2.86	nnw.	3.9	980	.....	.....
6:00.....	969.3	-14.6	90	n.	3.6	781	921.8	-7.8	-2.56	88	2.77	n.	5.5	766	0	.....
.....	.....	.....	.....	.....	.....	780	926.0	-8.6	.....	88	2.59	n.	5.3	735	0	.....
.....	.....	.....	.....	.....	.....	1,500	956.0	-15.0	0.38	87	1.44	n.	4.0	490	0	.....
.....	.....	.....	.....	.....	.....	1,601	835.4	-16.5	0.43	75	1.07	nw.	3.6	388	.....	10/10 St.Cu., sw.

January 31, 1916.

A. M.	980.1	-17.2	83	n.	4.5	396	980.1	-17.2	.....	83	1.11	n.	4.5	388	.....	7/10 Cl., wsw.
11:24.....	980.2	-16.8	70	nnw.	3.6	524	963.6	-18.5	1.02	74	0.88	nnw.	8.6	514	520	.....
11:32.....	980.2	-16.8	70	nnw.	3.6	750	934.8	-17.7	.....	77	0.99	nnw.	15.8	735	1,400	.....
11:39.....	980.3	-16.7	78	nnw.	4.5	867	920.4	-17.3	-0.35	78	1.04	nnw.	19.5	850	1,800	.....
11:49.....	980.4	-16.1	80	nnw.	4.9	971	908.0	-17.7	0.38	76	0.97	nw.	16.8	952	2,040	.....
11:51.....	980.5	-16.0	80	nnw.	4.9	1,000	904.3	-17.2	.....	76	1.02	nw.	16.7	980	2,110	.....
.....	.....	.....	.....	.....	.....	1,162	885.2	-14.6	-1.62	76	1.30	nw.	16.4	1,139	2,520	.....
.....	.....	.....	.....	.....	.....	1,250	875.1	-15.0	.....	76	1.25	nw.	16.5	1,225	2,740	.....
NOON.....	980.6	-15.8	80	nnw.	4.9	1,500	846.8	-16.1	.....	75	1.12	nw.				

SUPPLEMENT NO. 5.

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916.

**February 1, 1916 (No. 1).**

Surface.						At different heights above sea.										Remarks.			
Time.	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.					
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.				
A. M.																			
8:48.....	mb. 987.0	°C. -21.5	% 100	wnw.	m. p. s. 3.6	m. 396	mb. 987.0	°C. -21.5	.....	% 100	mb. 0.89	wnw.	m. p. s. 3.6	$10^3$ ergs. 388	volts. ....	Cloudless.			
.....	.....	.....	.....	.....	.....	500	973.0	.....	.....	.....	.....	wnw.	6.3	490	0	.....			
8:56.....	987.2	-20.8	100	wnw.	4.5	750	941.3	.....	.....	nw.	12.9	735	0	.....	.....	.....			
.....	.....	.....	.....	.....	.....	829	931.4	.....	.....	nw.	15.0	813	0	.....	.....	.....			
9:05.....	987.2	-20.5	100	wnw.	3.6	1,000	910.1	.....	.....	nw.	17.4	980	760	.....	.....	.....			
.....	.....	.....	.....	.....	.....	1,250	880.1	.....	.....	nw.	20.8	1,225	1,890	.....	.....	.....			
9:15.....	987.4	-20.1	100	wnw.	4.0	1,280	876.5	.....	.....	nw.	21.2	1,255	2,000	.....	.....	.....			
.....	.....	.....	.....	.....	.....	1,500	851.2	.....	.....	wnw.	20.6	1,470	3,110	.....	.....	.....			
10:03.....	987.8	-18.7	100	wnw.	3.1	1,522	848.7	.....	.....	wnw.	20.5	1,492	3,200	.....	.....	.....			
.....	.....	.....	.....	.....	.....	1,750	823.0	.....	.....	wnw.	17.7	1,715	3,230	.....	.....	.....			
.....	.....	.....	.....	.....	.....	1,986	797.6	.....	.....	wnw.	14.8	1,946	3,260	.....	.....	.....			
.....	.....	.....	.....	.....	.....	2,000	795.8	.....	.....	wnw.	14.9	1,960	3,260	.....	.....	.....			
.....	.....	.....	.....	.....	.....	2,250	769.7	.....	.....	wnw.	16.0	2,205	3,300	.....	.....	.....			
P. M.																			
12:42.....	987.8	-16.9	100	nw.	5.4	2,303	764.3	.....	.....	wnw.	16.3	2,257	3,300	.....	.....	.....			
.....	.....	.....	.....	.....	.....	2,500	744.3	.....	.....	wnw.	16.2	2,450	3,430	.....	.....	.....			
1:10.....	987.5	-16.7	89	nw.	4.5	2,750	719.8	.....	.....	wnw.	18.1	2,694	3,570	.....	.....	.....			
.....	.....	.....	.....	.....	.....	2,805	714.3	.....	.....	wnw.	16.1	2,748	3,600	.....	.....	.....			
1:27.....	987.3	-16.5	90	nw.	7.2	2,750	719.8	.....	.....	wnw.	16.0	2,694	3,490	.....	.....	.....			
.....	.....	.....	.....	.....	.....	2,800	744.3	.....	.....	wnw.	15.6	2,450	2,970	.....	.....	.....			
1:47.....	987.0	-16.5	90	nw.	7.2	2,288	765.5	.....	.....	wnw.	15.3	2,242	2,500	.....	.....	.....			
.....	.....	.....	.....	.....	.....	2,250	769.7	.....	.....	wnw.	15.1	2,205	2,470	.....	.....	.....			
1:57.....	986.9	-16.6	89	nw.	6.3	2,000	795.8	.....	.....	wnw.	13.8	1,960	2,100	.....	.....	.....			
.....	.....	.....	.....	.....	.....	1,750	823.0	.....	.....	wnw.	12.4	1,715	1,740	.....	.....	.....			
2:07.....	986.9	-16.5	90	nw.	6.7	1,500	851.2	.....	.....	nw.	11.0	1,470	1,380	.....	.....	.....			
.....	.....	.....	.....	.....	.....	1,250	880.1	.....	.....	nw.	9.7	1,225	1,010	.....	.....	.....			
.....	.....	.....	.....	.....	.....	1,135	893.7	.....	.....	nw.	9.1	1,113	835	.....	.....	.....			
.....	.....	.....	.....	.....	.....	1,000	909.8	.....	.....	nw.	9.1	980	520	.....	.....	.....			
.....	.....	.....	.....	.....	.....	794	935.5	.....	.....	nw.	9.0	779	0	.....	.....	.....			
.....	.....	.....	.....	.....	.....	750	940.8	.....	.....	nw.	8.7	735	0	.....	.....	.....			
.....	.....	.....	.....	.....	.....	500	973.0	.....	.....	nw.	7.8	490	0	.....	.....	.....			
.....	.....	.....	.....	.....	.....	396	986.9	-16.5	.....	90	1.29	nw.	6.7	388	.....	Cloudless.			

February 1, 1916 (No. 2).

**February 2, 1916.**

P. M.																
4:15.....	982.5	-11.2	71	w.	4.5	306	982.5	-11.2	71	1.65	w.	4.5	388	.....	4/10 Cl.Cu., nw.	
4:23.....	982.5	-11.7	77	w.	4.5	500	989.0	-12.2	73	1.55	w.	4.9	490	230		
4:39.....	982.5	-11.7	73	wsW.	3.6	727	940.7	-14.4	0.97	1.36	wsW.	5.7	713	705		
4:45.....	982.5	-11.5	70	wsW.	3.1	750	937.6	-14.6	78	1.33	wsW.	6.2	735	760		
5:10.....	982.5	-12.6	80	wsW.	2.7	1,000	923.0	-15.7	0.90	1.21	w.	8.8	854	1,030		
5:15.....	982.6	-12.7	80	wsW.	2.7	871	907.1	-16.0	79	1.18	w.	8.8	980	1,310		
5:25.....	982.6	-13.1	84	w.	3.1	1,220	881.2	-16.6	81	1.15	w.	8.7	1,196	1,800		
5:27.....	982.6	-13.2	84	w.	3.1	1,250	877.6	-16.5	80	1.14	w.	8.8	1,225	1,870	Parhelia observed.	
5:36.....	982.7	-13.2	84	wsW.	3.1	1,425	867.3	-15.6	74	1.15	wnw.	9.7	1,397	2,200		
5:42.....	982.7	-13.2	84	wsW.	3.1	1,500	849.0	-15.7	73	1.13	wnw.	10.0	1,470	2,240		
5:48.....	982.7	-13.5	87	wsW.	2.7	832.2	832.2	-15.9	72	1.09	wnw.	10.7	1,618	.....		
5:52.....	982.7	-13.7	87	wsW.	2.2	1,500	849.0	-16.0	71	1.06	wnw.	9.1	1,470	.....		
	982.8	-13.7	87	wsW.	2.2	856.0	-16.0	0.46	70	1.05	wnw.	8.5	1,411	.....		
						1,250	877.6	-15.1	71	1.16	wnw.	10.1	1,225	.....		
						1,000	878.5	-15.1	-0.31	71	1.18	wnw.	10.2	1,220	1,900	2/10 Cl., nw.
						907.1	-15.0	.....	72	1.09	w.	7.2	980	920		
						920.2	-16.2	0.89	73	1.08	w.	5.9	877	490		
						771	935.3	-15.1	0.73	74	1.21	w.	6.8	756	0	
						750	937.6	-14.9	.....	74	1.24	w.	6.4	735	0	
						500	909.0	-13.1	.....	75	1.47	wsW.	3.5	490	0	
						978.4	-12.6	-3.33	75	1.54	wsW.	2.7	421	0		
						982.8	-13.7	.....	87	1.62	wsW.	2.2	388	.....	2/10 Cl., nw.	

**February 3, 1916.**

P. M.																
2:17.....	987.5	-12.5	88	n.	2.7	396	987.5	-12.5	.....	88	1.82	n.	2.7	388	.....	3/10 Cl.St., w.
2:54.....	987.2	-12.5	87	n.	2.7	500	973.3	-13.9	.....	90	1.65	n.	3.8	490	0	
3:10.....	987.2	-12.7	86	n.	3.1	617	958.9	-15.5	1.32	92	1.44	n.	5.0	605	.....	
						500	973.3	-14.0	.....	89	1.61	n.	4.0	490	0	
						987.2	987.2	-12.7	.....	86	1.75	n.	3.1	388	.....	

## OBSERVATIONS AT DREXEL, FEBRUARY, 1916.

25

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.

**February 4, 1916.**

**February 6, 1916.**

A. M.																		
10:08.....	971.1	-13.6	96	s.	4.5	396	971.1	-13.6	.....	96	1.80	s.	4.5	388	.....	7/10 Ci., nw.; 3/10 Ci., nw.		
10:11.....	971.2	-13.3	94	s.	4.9	500	957.8	-13.2	.....	97	1.89	ssw.	6.6	490	340	Partial solar halo.		
10:18.....	971.3	-13.0	92	ssw.	4.9	720	930.8	-12.3	-0.40	99	2.02	sw.	11.1	706	1,050			
						750	927.1	-12.7	.....	99	2.02	wsw.	11.8	735	1,150			
						795	921.9	-13.2	1.20	99	2.52	wnw.	12.6	779	1,600	Parhelia.		
						1,000	897.8	-10.2	.....	99	3.49	wnw.	13.2	980	2,470			
						1,250	870.1	6.5	.....	99	4.44	nw.	14.5	1,225	2,720			
11:27.....	972.4	-9.0	88	wsd.	4.5	1,437	850.0	-3.7	-1.48	99	4.32	nw.	14.7	1,470	2,860	7/10 Ci., nw.		
11:28.....	972.4	-9.0	88	wsd.	4.5	1,500	843.3	3.9	.....	98	4.09	nw.	15.1	1,583	2,920			
11:37.....	972.4	-8.7	84	wsd.	4.0	1,615	831.2	-4.4	0.39	97	3.71	nw.	17.1	1,715	3,000			
						1,750	816.8	-4.3	.....	87	3.10	nw.	20.0	1,899	3,360			
						1,938	797.6	-4.2	-0.06	72	2.82	nw.	21.2	1,960	3,460			
						2,000	791.4	-4.6	.....	68	2.29	nw.	23.8	2,095	3,680	2/10 Ci., nw.		
11:39.....	972.4	-8.7	84	wsd.	4.0	2,138	777.6	-5.4	0.60	59	2.11	nw.	25.5	2,205	3,870			
11:40.....	972.5	-8.7	84	wsd.	4.0	2,250	766.1	-5.1	.....	53	1.99	nw.	26.4	2,260	4,000			
						2,306	761.2	-5.0	-0.24	50	2.00	nw.	27.7	2,450	3,850			
						2,500	742.0	-6.4	.....	56	2.25	nw.	29.0	2,694	3,930			
						2,750	718.8	-8.2	.....	63	1.92	wnw.	29.3	2,694	3,930			
P. M.																		
12:02.....	972.6	-9.4	86	wsd.	5.4	2,767	717.6	-8.3	0.72	64	1.93	wnw.	29.4	2,711	3,940			
12:20.....	972.6	-10.6	90	w.	5.8	3,000	695.9	-10.3	.....	77	1.95	wnw.	31.7	2,939	4,090			
						3,022	693.8	-10.5	-0.76	78	1.93	wnw.	31.9	2,961	4,100			
						3,000	695.9	-10.4	.....	78	1.96	wnw.	31.7	2,939	4,080			
						2,750	718.8	-8.8	.....	78	2.25	nw.	29.0	2,694	3,720			
						2,500	742.0	-7.1	.....	78	2.61	nw.	26.2	2,450	3,370			
12:38.....	972.6	-10.4	88	nw.	4.5	2,487	743.3	-7.0	0.23	78	2.64	nw.	26.1	2,437	3,340	Few Ci.St., nw.		
12:51.....	972.6	-10.2	87	wnw.	5.4	2,316	759.6	-6.6	-0.76	57	2.00	wnw.	23.1	2,269	3,100			
12:53.....	972.6	-10.1	86	wnw.	4.0	2,250	766.1	-7.1	0.32	53	1.78	wnw.	22.4	2,205	2,930			
						2,000	791.4	-6.3	.....	41	1.47	nw.	19.1	1,900	2,420			
1:05.....	972.6	-9.6	81	nw.	5.4	1,970	794.2	-6.2	-0.06	40	1.45	nw.	18.7	1,931	2,370			
1:07.....	972.6	-9.6	82	nw.	5.4	1,806	810.9	-6.3	0.50	39	1.40	nw.	18.2	1,770	2,100			
						1,750	816.8	-6.0	.....	39	1.44	nw.	18.1	1,715	2,000			
1:17.....	972.6	-9.5	84	nw.	4.5	1,505	836.2	-5.1	-0.41	40	1.59	nw.	17.6	1,534	1,650			
						1,500	843.3	-5.4	.....	42	1.63	nw.	17.1	1,470	1,590			
						1,250	870.4	-6.4	.....	51	1.82	nw.	15.3	1,225	1,180			
1:22.....	972.6	-9.4	81	nw.	4.0	1,201	876.0	-6.6	-1.84	53	1.86	nw.	15.0	1,177	1,100			
1:32.....	972.6	-9.2	84	nw.	3.6	1,000	899.1	-10.3	.....	63	1.59	nnw.	13.6	980	540			
						853	916.5	-13.0	0.83	70	1.39	nnw.	12.6	836	130			
						750	928.7	-11.7	.....	74	2.00	nw.	9.4	735	0			
						500	959.2	-10.1	.....	78	2.26	nw.	3.1	388	.....	Few Ci.St., nw.		
1:42.....	972.6	-9.2	81	nw.	3.1	396	972.6	-9.2	.....	81	2.26	nw.						

**February 7, 1916.**

P. M.																			
2:00.....	980.4	-14.0	73	s.	4.0	396	980.4	-14.0	.....	73	1.32	s.	4.0	388	.....	3/10 Cl.St., w.			
						500	966.1	-14.7	.....	72	1.22	s.	4.4	490	200				
						750	934.1	-16.4	.....	71	1.03	SSW.	5.5	735	920				
3:00.....	979.0	-13.4	69	s.	4.0	960	908.5	-17.8	0.67	70	0.89	SSW.	6.4	941	1,630				
						1,000	903.7	-17.4	.....	70	0.92	SSW.	6.8	980	1,900				
						1,250	874.2	-14.7	.....	69	1.17	SSW.	9.1	1,225	2,700				
						1,500	840.0	-12.0	.....	69	1.50	SW.	11.4	1,470	3,600				
3:12.....	978.8	-13.0	67	s.	4.0	1,688	825.3	-10.0	-1.07	68	1.77	SW.	13.2	1,654	4,200				
						1,750	818.9	-7.1	.....	70	2.34	WSW.	13.2	1,715	4,360				
3:18.....	978.7	-12.4	61	SSW.	4.5	1,807	806.8	-1.5	-4.75	74	3.99	W.	13.2	1,830	4,670	2/10 Cl.St., w.			
						2,000	793.3	-1.2	.....	71	3.98	W.	13.6	1,960	5,020				
3:25.....	978.6	-12.4	61	s.	4.5	2,184	775.3	-0.7	-0.25	68	3.92	W.	14.2	2,140	5,500				
						2,250	769.3	-1.1	.....	68	3.70	W.	14.6	2,205	5,730				
						2,500	745.7	-2.5	.....	69	3.42	W.	16.0	2,450	6,590				
						2,750	722.8	-4.0	.....	69	3.02	W.	17.5	2,694	7,460				
						3,000	700.4	-5.4	.....	69	2.68	W.	19.0	2,939	8,080				
						3,250	678.7	-6.8	.....	69	2.37	WWW.	20.4	3,184	8,560				
						3,500	657.2	-8.2	.....	69	2.10	WWW.	21.8	3,429	9,050				
						3,750	636.3	-9.7	.....	69	1.84	WWW.	23.3	3,673	9,530				
						4,000	615.8	-11.2	.....	70	1.63	WDW.	24.7	3,918					
						4,101	607.4	-11.8	0.55	70	1.55	WDW.	25.3	4,017					
						4,000	615.8	-11.2	.....	70	1.63	WDW.	24.9	3,918					
						3,750	636.3	-9.5	.....	71	1.92	WDW.	23.9	3,673					
						3,500	657.2	-8.0	.....	72	2.23	WDW.	20.8	3,429					
3:59.....	978.1	-12.5	68	s.	4.0											2/10 Cl., w.			

\* Potential over 10,000 volts.

## SUPPLEMENT NO. 5.

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.  
February 7, 1916—Continued.

Time.	Surface.				At different heights above sea.										Remarks.	
	Pressure.	Temper-ature.	Rela-tive humid-ity.	Wind.		Altitude.	Pressure.	Tem-perature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav-ity.	Elec-tric.	
P. M.	mb.	°C.	%	m. p. s.		m.	mb.	°C.		%	mb.	m. p. s.	$10^5 \text{ ergs.}$	volts.		
4:44.	977.3	-13.3	70	s.	4.9	3,250	678.7	-6.6		73	2.56	w.	21.8	3,184		
						3,000	700.4	-5.1		74	2.95	w.	20.8	2,939	7,570	
						2,750	722.8	-3.8		75	3.33	w.	19.7	2,694	6,600	
						2,519	744.2	-2.4	0.46	76	3.80	w.	18.7	2,468	5,800	
						2,500	745.7	-2.3		75	3.78	w.	18.6	2,450	5,780	
						2,250	769.3	-1.2		74	4.09	w.	17.0	2,205	5,520	
						2,000	793.7	0.0		73	4.46	WSW.	15.4	1,960	4,250	
						1,774	816.9	1.0	-2.14	72	4.73	WSW.	13.9	1,739	4,100	
						1,750	819.7	0.5		73	4.02	WSW.	14.0	1,715	4,050	
						1,500	846.0	-4.8		74	3.02	WSW.	14.6	1,470	3,470	
						1,250	873.1	-10.2		75	1.91	SW.	15.3	1,225	2,890	
						1,213	876.9	-11.0	-2.53	76	1.80	SW.	15.4	1,189	2,800	
						1,000	901.7	-16.4		72	1.04	SSW.	15.5	980	1,920	
						972	904.9	-17.1	0.33	72	0.97	SSW.	15.6	953	1,820	
						750	931.9	-16.4		72	1.04	S.	12.7	735	910	
						666	942.6	-16.1	0.85	72	1.07	SSE.	11.6	653	565	
						500	963.2	-14.7		76	1.29	S.	6.9	490	220	
						396	976.9	-13.8		78	1.44	S.	4.0	388		

February 8, 1916 (No. 1).

A. M.																
8:30.	963.7	-9.5	97	SSW.	8.0	396	963.7	-9.5		97	2.63	SSW.	8.0	388		
						500	951.0	-8.1				SW.	8.8	490	260	
						750	921.3	-4.8				WSW.	10.6	735	890	
						1,000	892.4	-4.0	-1.34			W.	11.0	790	1,000	
						1,250	864.6	2.2				W.	12.8	980	1,550	
						1,269	862.9	2.5	-1.40			WNW.	15.2	1,225	2,260	
						1,319	857.6	1.2	2.60			WNW.	15.4	1,244	2,320	
						1,500	838.1	2.0				NNW.	15.4	1,293	2,450	
						1,584	829.9	2.3	-0.42			NNW.	15.8	1,470	2,720	
						1,750	813.0	0.6				NNW.	16.0	1,553	2,850	
						1,787	809.4	0.2	1.03			NNW.		1,715		
												NNW.		1,751	Few Cl.St., nw. Kite broke away.	

February 8, 1916 (No. 2).

A. M.																
10:32.	965.1	-6.2	87	w.	6.7	396	965.1	-6.2		87	3.15	w.	6.7	388		
						500	952.2	-6.6		84	2.94	w.	8.6	490	120	
						750	922.2	-7.7		76	2.42	WNW.	13.1	735	380	
						756	921.8	-7.7	0.42	76	2.42	WNW.	13.2	741	380	
						815	915.0	-1.7	-10.17	86	4.56	NW.	14.3	799	420	
						1,000	898.8	2.1		85	6.04	NW.	14.2	980	540	
						1,046	889.1	3.1	-2.08	85	6.49	NW.	14.2	1,025	565	
						1,185	874.4	3.3	-0.14	84	6.50	NNW.	14.3	1,162	700	
						1,250	866.3	2.9		83	6.25	NNW.	14.6	1,225	760	
						1,500	840.1	1.6		79	5.42	NW.	16.0	1,470	1,000	
						1,565	834.4	1.2	0.55	78	5.19	NW.	16.3	1,534	1,060	
						1,750	814.7	0.8		77	4.98	NW.	17.0	1,715	1,240	
						2,000	789.9	-0.7		75	4.32	NW.	19.8	1,960	1,460	
						2,236	767.5	-1.8	0.64	74	3.89	NW.	21.7	2,191	1,570	
						2,250	765.7	-1.8		73	3.84	NW.	21.5	2,205	1,580	
						2,496	743.0	-2.4	0.28	62	3.10	NW.	18.0	2,446	1,690	
						2,750	719.1	-4.6		61	2.53	NW.	19.5	2,694	1,800	
						3,000	696.4	-6.8		61	2.10	NW.	20.3	2,939	1,960	
P. M.																
12:20.	966.3	-1.4	79	nw.	3.1	3,086	689.0	-7.5	0.86	60	1.94	nw.	20.6	3,023	2,120	
						3,250	674.7	-8.8		62	1.79	nw.	21.6	3,184	2,450	
						3,500	653.2	-10.8		66	1.60	NNW.	23.1	3,429	2,950	
						3,722	634.6	-12.6	0.80	69	1.41	NNW.	24.5	3,646	3,390	
						3,750	632.2	-12.5		69	1.43	NNW.	24.8	3,673	3,450	
						4,000	611.7	-11.7		65	1.45	NNW.	27.2	3,918	3,950	
						4,029	609.6	-11.6	-0.33	65	1.46	NNW.	27.5	3,946	4,000	
															Few Cl., wnw. Pressure pen failed to record during descent.	

February 9, 1916 (No. 1).

A. M.																
8:46.	978.6	-10.8	93	n.	7.2	396	978.6	-10.8		93	2.25	n.	7.2	388		
						500	965.3	-11.5		90	2.04	n.	9.5	490	0	
						596	953.4	-12.2	0.70	88	1.87	n.	11.6	584	0	
						750	934.8	-11.6		92	2.07	n.	15.0	735	0	
						1,000	905.1	-3.5		86	3.92	n.	16.3	980	460	
						810	927.3	-11.3	-0.42	93	2.15	n.	16.3	794	0	
						1,051	885.1	2.5		86	3.92	n.	16.3	980	460	
						1,177	885.4	3.8	-4.11	80	6.42	n.	16.3	1,154	890	
						1,216	881.4	3.3	1.28	67	5.19	NNW.	15.8	1,192	980	
						1,250	877.6	3.5		66	5.18	NNW.	15.9	1,225	1,020	
						1,326	869.5	3.8	-0.45	65	5.21	NNW.	16.2	1,300	1,080	
						1,500	851.1	2.5		60	4.39	NNW.	16.3	1,470	1,240	
						1,578	843.0	1.9	0.75	58	4.07	NNW.	16.3	1,547	1,300	
						1,750	825.4	0.7		58	3.73	NNW.	15.4	1,715	1,420	
						2,000	800.7	-1.2		58	3.21	NNW.	14.2	1,960	1,580	
						2,033	797.0	-1.4	0.73	58	3.16	NNW.	14.0	1,992	1,600	
						2,250	775.9	-3.4		59	2.71	NNW.	12.6	2,205	2,100	
						2,443	757.0	-5.2	0.93	59	2.32	NNW.	11.7	2,394	2,360	
						2,500	751.3	-5.6		60	2.29	NNW.	12.1	2,450	2,460	
						2,750	728.0	-7.4		64	2.00	NNW.	13.7	2,094	3,240	

## OBSERVATIONS AT DREXEL, FEBRUARY, 1916.

27

 TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.  
 February 9, 1916 (No. 1)—Continued.

Time.	Surface.				At different heights above sea.										Remarks.	
	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					100 m.	Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.
A. M.	mb.	°C.	%	m. p. s.		m.	mb.	°C.		%	mb.	m. p. s.	10 <sup>6</sup> ergs.	volts.		
10:13	980.9	-10.0	87	n.	8.5	3,000	704.8	-9.3		69	1.90	nw.	15.3	2,939	3,930	
						3,129	693.8	-10.3	0.74	71	1.80	nw.	16.1	3,065	4,200	
						3,250	681.9	-10.8		69	1.67	nw.	16.6	3,184	4,450	
						3,500	659.8	-11.8		65	1.44	nw.	17.6	3,429	4,970	
						3,750	638.9	-12.9		61	1.22	wnw.	18.7	3,673	5,490	
						4,000	618.5	-13.9		57	1.04	wnw.	19.7	3,918	6,000	
10:40	981.2	-10.0	85	n.	7.2	4,142	607.6	-14.6	0.46	54	0.92	wnw.	20.4	4,057	6,300	
						4,000	618.5	-13.9		53	0.97	wnw.	19.8	3,918	5,980	
						3,750	638.9	-12.6		52	1.07	wnw.	18.6	3,673	5,430	
						3,500	659.8	-11.4		51	1.17	wnw.	17.5	3,429	4,880	
11:15	981.6	-9.7	81	n.	6.7	3,250	681.9	-10.2		50	1.28	wnw.	16.4	3,184	4,320	
						3,154	690.9	-9.8	0.75	49	1.32	wnw.	16.0	3,090	4,100	7/10 Cl., wnw.
						3,000	704.8	-8.4		51	1.52	wnw.	15.4	2,939	3,740	
						2,750	728.0	-0.6		54	1.89	wnw.	14.4	2,694	3,220	
						2,500	751.3	-4.7		56	2.31	dw.	13.5	2,450	2,920	
						2,250	775.9	-2.8		58	2.81	nw.	12.6	2,205	2,620	
11:40	981.9	-9.7	84	n.	4.9	2,155	785.3	-2.1	0.66	59	3.03	nw.	12.2	2,112	2,500	
						2,000	800.7	-1.1		59	3.29	nw.	12.4	1,960	2,230	
11:46	981.9	-9.4	81	n.	4.5	1,793	821.9	-0.3	-1.09	59	3.68	nw.	12.8	1,757	1,860	
11:47	982.0	-9.4	81	n.	4.5	1,727	826.1	-0.2		58	3.49	nw.	12.6	1,715	1,780	
11:56	982.0	-9.6	84	n.	3.6	1,500	852.2	0.5		57	3.61	n.	11.2	1,470	1,330	
NOON	982.1	-9.6	82	n.	4.5	1,257	878.8	1.5	-5.04	56	3.81	n.	9.7	1,232	1,100	
						1,250	879.3	1.1		56	3.71	n.	9.7	1,225	1,090	
						1,161	889.4	-4.2	-1.80	58	2.49	n.	9.7	1,138	1,010	7/10 Cl., nw.
						1,000	907.7	-7.1		63	2.11	n.	8.6	980	840	
						750	937.7	-11.6		72	1.62	nne.	6.8	735	565	
P. M.																
12:12	982.0	-9.5	84	n.	4.9	645	950.6	-13.5	1.57	75	1.42	nne.	6.1	632	410	
12:15	981.9	-9.6	84	nne.	4.9	500	968.5	-11.2		80	1.86	nne.	5.4	490	180	

February 9, 1916 (No. 2).

P. M.	981.4	-9.4	78	n.	4.0	396	981.4	-9.4		78	2.14	n.	4.0	388		5/10 Cl., nw.
1:04	981.2	-9.2	78	n.	3.6	500	968.0	-10.6		81	1.99	n.	5.0	490	0	Solar halo.
1:35						717	941.1	-13.2	1.18	86	1.68	nne.	7.2	703	0	
						750	937.0	-12.4		85	1.78	nne.	7.3	735	70	
2:01	981.0	-9.2	81	nne.	3.6	1,000	907.2	-6.7		79	2.74	nne.	7.7	980	550	8/10 Cl., nw.
2:20	981.1	-9.2	81	n.	3.1	1,021	904.4	-6.2	-2.30	79	2.86	nne.	7.7	1,001	590	
2:29	981.2	-9.2	81	n.	2.2	1,250	879.0	-0.6		72	4.18	n.	5.7	1,225		
2:32	981.2	-9.2	81	n.	2.2	1,002	907.0	-7.1	-1.35	70	4.56	nww.	5.2	1,284		
2:33	981.2	-9.2	81	n.	2.2	750	937.0	-10.5		73	1.81	n.	5.2	735	0	
2:44	981.3	-9.2	81	n.	2.7	639	950.7	-12.0	0.65	74	1.61	n.	4.5	626	0	

February 10, 1916.

P. M.	979.0	-5.2	86	ene.	5.4	396	979.0	-5.2		86	3.39	ene.	5.4	388		9/10 St.Cu., ene.
						500	966.1	-6.3				ene.	5.6	490	150	
						750	935.4	-8.8				e.	6.2	735	890	
						901	917.1	-10.3	1.01			o.	6.6	883	1,750	5/10 Cl., nw.; 1/10 St.Cu., ene.
						1,000	905.4	-5.8				se.	6.2	980	2,720	
						1,199	881.8	3.3	-4.56			sw.	5.3	1,175	2,300	9/10 Cl., nw.
						1,250	876.1	3.8				sw.	5.8	1,225	1,950	
						1,377	862.7	4.9	-0.79			ssw.	7.2	1,380	1,100	
						1,250	876.1	4.0				ssw.	8.5	1,225	970	
						1,215	880.0	3.8	-4.63			s.	8.9	1,191	920	
						1,000	904.0	-6.2				sse.	6.7	980	680	
						932	911.8	-9.3	0.69			se.	6.0	914	600	
						750	933.2	-8.0				eso.	5.5	735	400	
						500	963.5	-6.3				e.	4.8	480	120	
						396	978.8	-5.6		83	3.16	ene.	4.5	388		7/10 Cl., nw.; 8/10 A.St., nw.

February 11, 1916.

P. M.	970.2	-4.8	100	ne.	2.7	396	970.2	-4.8		100	4.08	ne.	2.7	388		Dense fog, ne.
	970.0	-4.7	100	ne.	3.1	500	957.3	-5.5		100	3.84	.....	4.1	490	80	Altitude of fog base about 450 m.
						633	941.1	-6.4	0.68	100	3.56	.....	5.9	621	390	Snowing from 2:07 to 3:10 p. m.
						750	927.4	-4.7		100	4.12	.....		735	670	
						957	903.4	-1.7	-1.44	100	5.30	e.		938		Rain began 3:10 p. m.
						750	927.4	-4.7		100	4.12	ene.		735	1,450	
						651	939.3	-6.1	0.78	100	3.65	ne.		638	1,050	Wire covered with ice.
						500	957.3	-4.9		100	4.05	ne.		490	440	
						396	970.4	-4.1		100	4.33	ne.	2.7	388		Dense fog, ne.

## SUPPLEMENT NO. 5.

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.  
February 12, 1916.

Time.	Surface.				At different heights above sea.										Remarks.		
	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\Delta t$	100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.						Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.	
P. M.																	
1:15.....	mb. 984.2	° C. - 9.8	% 93	n.	m. p. s. 6.3	m. 396	mb. 984.2	° C. - 9.8	.....	.....	% 93	m. p. s. 2.46	n. 6.3	10 <sup>3</sup> ergs. 388	volts. 140	10/10 St., nw. Snow flurries.	
1:20.....	984.2	- 9.7	93	n.	6.3	500	970.8	- 10.8	.....	.....	n. 95	2.30	n. 7.8	490	140	Altitude of St. base = 1,050 m.	
1:27.....	984.3	- 9.6	94	nnw.	6.7	750	939.4	- 13.3	.....	.....	n. 99	1.91	n. 11.5	735	480		
1:31.....	984.3	- 9.4	94	nnw.	5.8	1,000	934.9	- 13.7	0.99	.....	n. 100	1.86	n. 12.1	776	515		
1:43.....	984.4	- 9.8	96	nnw.	5.8	1,207	909.5	- 14.2	.....	.....	n. 100	1.74	nnw.	13.5	962	920	
1:44.....	984.4	- 9.9	96	nnw.	5.8	1,250	885.3	- 11.6	- 1.24	.....	n. 100	1.78	nnw.	13.5	980	950	
1:49.....	984.4	- 9.8	93	nnw.	8.0	1,500	880.2	- 11.8	.....	.....	n. 100	2.25	n. 13.2	1,183	1,400		
2:35.....	984.7	- 9.6	90	n.	8.0	1,527	852.0	- 13.2	.....	.....	n. 100	1.95	nnw.	13.5	1,225	1,510	
2:53.....	984.8	- 9.7	88	n.	6.7	1,620	849.0	- 13.3	0.53	.....	n. 100	1.93	nnw.	15.4	1,470	2,130	
3:18.....	984.9	- 9.7	89	n.	6.3	1,750	838.8	- 6.2	- 7.63	.....	n. 100	3.32	nnw.	15.6	1,497	2,200	
3:34.....	985.2	- 10.2	93	nw.	7.6	2,000	825.0	- 5.9	.....	.....	n. 99	3.67	nnw.	15.6	1,583	2,320	
4:12.....	985.3	- 10.5	90	n.	6.3	2,250	801.8	- 5.5	- 0.20	.....	n. 98	3.76	nnw.	15.4	1,936	2,800	
4:20.....	985.4	- 10.8	92	n.	7.2	2,500	799.0	- 5.7	.....	.....	n. 98	3.70	nnw.	15.5	1,980	2,820	
4:24.....	985.4	- 11.0	92	n.	7.2	2,621	774.0	- 7.5	.....	.....	n. 94	3.04	nnw.	16.5	2,205	3,030	
4:32.....	985.5	- 10.9	91	nnw.	7.2	2,750	749.3	- 9.3	.....	.....	n. 90	2.48	nnw.	17.5	2,450	2,920	
4:34.....	985.5	- 11.0	92	n.	7.6	3,000	737.9	- 10.2	0.73	.....	n. 88	2.24	nnw.	18.0	2,568	2,800	
4:39.....	985.6	- 11.0	90	n.	8.5	3,250	725.5	- 10.9	.....	.....	n. 85	2.03	nnw.	18.5	2,694	3,100	
4:43.....	985.6	- 11.0	93	nnw.	8.5	4,000	699.4	- 18.1	0.54	.....	n. 80	1.69	nw.	19.0	2,939	3,760	
						4,000	615.4	- 17.7	.....	.....	n. 74	1.38	nw.	20.6	3,184	4,390	
						3,750	636.5	- 16.4	.....	.....	n. 71	1.25	nw.	21.1	3,291	4,720	
						3,500	657.4	- 15.0	.....	.....	n. 69	1.14	nw.	20.5	3,429	5,030	
						3,750	636.5	- 16.4	.....	.....	n. 65	0.94	nw.	19.5	3,673	5,380	
						4,000	615.4	- 17.7	.....	.....	n. 61	0.78	nw.	18.5	3,918	5,630	
						4,000	609.4	- 18.1	0.54	.....	n. 60	0.74	nw.	18.2	3,992	5,700	
						3,750	615.4	- 17.7	.....	.....	n. 60	0.77	nw.	18.1	3,918	5,580	
						3,500	636.5	- 16.4	.....	.....	n. 61	0.88	nw.	18.0	3,673	5,190	
						3,250	657.4	- 15.0	.....	.....	n. 62	1.02	nw.	17.9	3,429	4,800	
						3,000	702.2	- 12.2	.....	.....	n. 63	1.18	nnw.	17.8	3,184	4,440	
						2,826	718.7	- 11.3	0.72	.....	n. 64	1.36	nnw.	17.7	2,939	3,800	
						2,750	725.5	- 10.8	.....	.....	n. 63	1.52	nnw.	17.8	2,694	3,230	
						2,500	749.3	- 9.0	.....	.....	n. 60	1.70	nnw.	18.3	2,450	2,930	
						2,250	774.0	- 7.2	.....	.....	n. 56	1.86	n. 18.8	2,205	2,640		
						2,000	799.0	- 5.4	.....	.....	n. 52	2.02	n. 19.3	1,960	2,340		
						1,976	801.8	- 5.2	- 0.03	.....	n. 52	2.05	n. 19.3	1,937	2,310		
						1,750	825.0	- 5.3	.....	.....	n. 51	1.99	n. 17.8	1,715	2,040		
						1,621	838.8	- 5.3	- 8.80	.....	n. 51	1.99	n. 17.0	1,589	1,890		
						1,500	850.7	- 14.8	0.17	.....	n. 56	0.91	n. 12.8	1,483	1,780		
						1,250	880.7	- 14.3	.....	.....	n. 57	0.96	n. 12.8	1,470	1,740		
						1,166	890.6	- 14.2	- 0.67	.....	n. 68	1.20	n. 13.7	1,225	1,450		
						1,000	910.0	- 15.3	.....	.....	n. 72	1.28	n. 14.0	1,143	1,350		
						988	917.1	- 15.4	0.43	.....	n. 73	1.17	nnw.	14.0	980	680	
						827	931.4	- 14.7	0.86	.....	n. 80	1.36	nnw.	12.1	811	0	
						750	940.3	- 14.0	.....	.....	n. 82	1.48	nnw.	11.5	735	0	
						500	972.1	- 11.9	.....	.....	n. 90	1.97	nnw.	9.4	490	0	
						985.6	985.6	- 11.0	.....	.....	n. 93	2.20	nnw.	8.5	388		

February 14, 1916, series (No. 1).

A. M.																	
9:27.....	081.6	- 10.0	96	ssw.	12.1	396	981.6	- 10.0	.....	.....	96	2.50	ssw.	12.1	388	.....	
9:30.....	981.6	- 9.8	94	ssw.	11.6	681	968.5	- 10.3	.....	.....	97	2.45	ssw.	14.3	490	560	
9:35.....	981.6	- 9.7	93	ssw.	11.6	750	945.9	- 10.8	0.28	.....	98	2.37	sw.	18.1	668	1,450	
9:45.....	981.5	- 9.5	94	ssw.	11.2	757	937.7	- 6.0	.....	.....	94	3.46	sw.	21.6	735	1,780	
10:00.....	981.4	- 8.9	92	ssw.	11.2	1,000	907.9	- 1.6	.....	.....	94	3.61	sw.	22.0	742	1,800	
10:02.....	981.4	- 8.8	91	ssw.	11.2	1,128	893.8	0.4	- 1.59	.....	85	4.55	ws.	18.7	980	2,660	
10:06.....	981.3	- 8.6	88	ssw.	11.6	1,250	879.9	- 4.1	.....	.....	81	5.09	ws.	17.0	1,105	3,100	
10:23.....	981.2	- 7.8	82	ssw.	12.1	1,500	853.2	3.3	.....	.....	75	5.07	ws.	16.7	1,225	3,330	
11:15.....	980.6	- 5.7	85	ssw.	11.6	1,667	836.3	4.6	- 0.78	.....	53	4.49	ws.	15.8	1,634	4,050	
11:31.....	980.4	- 5.3	82	ssw.	13.0	2,000	827.4	4.1	.....	.....	50	4.10	ws.	15.8	1,715	4,260	
11:43.....	980.3	- 5.1	82	ssw.	13.4	2,250	821.0	3.7	0.60	.....	48	3.82	ws.	15.8	1,780	4,420	
11:57.....	980.1	- 4.7	84	sw.	12.5	2,500	744.5	3.0	0.68	.....	28	2.09	w.	9.7	2,450	5,920	
						2,750	744.5	2.8	0.59	.....	28	2.09	w.	9.4	2,557	.....	
						3,000	731.4	2.1	.....	.....	28	1.99	w.	10.0	2,694		
						3,200	709.1	0.8	0.54	.....	28	1.81	w.	11.2	2,942		
						3,500	731.4	2.2	.....	.....	28	2.00	w.	10.4	2,694		
						3,750	744.5	3.0	0.68	.....	28	2.12	w.	9.9	2,561		
						4,000	754.2	3.8	.....	.....	28	2.25	w.	11.4	2,450		
						2,277	775.7	5.3	0.60	.....	28	2.49	w.	14.3	2,231	3,700	
						2,250	777.7	5.5	.....	.....	28	2.53	w.	14.3	2,205	3,660	
						2,000	802.2	7.0	.....	.....	28	2.81	w.	14.0	1,964	3,250	
P. M.																	
12:04.....	980.1	- 4.7	81	sw.	11.2	1,763	826.1	8.4	- 1.25	.....	28	3.09	w.	13.8	1,728	2,800	
12:14.....	980.1	- 4.6	81	sw.	13.4	1,750	827.4	8.2	.....	.....	28	3.04	w.	13.9	1,715	2,850	
12:21.....	980.0	- 4.2	80	sw.	10.7	1,500	853.2	5.1	.....	.....	28	2.46	ws.	16.7	1,470		

## OBSERVATIONS AT DREXEL, FEBRUARY, 1916.

29

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.

February 14, 1916, series (No. 2).

Time.	Pressure.	Surface.				At different heights above sea.										Remarks.	
		Temper- ature.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.		
P. M.	mb.	°C.	%	m. p. s.	mb.	°C.	mb.	mb.	%	m. p. s.	10 <sup>6</sup> ergs.	volts.					
1:13.....	979.6	-3.0	80	ssw.	11.2	979.6	-3.0	979.6	80	3.80	ssw.	11.2	388	.....	3/10 Ci.St., nw.; few Cu., sw.		
.....						500	-4.1	966.3	83	3.59	ssw.	11.4	490	200			
1:23.....	979.5	-2.7	80	ssw.	11.2	750	-6.7	936.2	91	3.16	ssw.	11.9	735	680			
.....						829	-7.5	927.0	93	3.00	ssw.	12.1	813	1,010			
1:33.....	979.4	-2.8	80	sw.	8.0	1,000	-2.9	906.8	77	3.70	sw.	15.8	980	1,300			
.....						1,250	3.7	878.9	53	4.22	sw.	21.2	1,225	1,700			
1:43.....	979.3	-2.4	79	sw.	10.2	1,317	5.5	872.0	47	4.24	wsw.	22.6	1,291	1,800			
.....						1,500	7.1	852.1	38	3.83	w.	16.8	1,470	2,120			
1:57.....	979.2	-2.0	74	sw.	8.5	1,616	8.1	840.8	32	3.46	w.	13.2	1,584	2,300			
.....						1,750	7.7	826.5	31	3.20	w.	13.0	1,715	2,330	3/10 Cl., nw.		
2:14.....	979.0	-2.0	75	sw.	10.7	2,000	6.8	802.1	30	2.96	wnw.	12.7	1,960	2,380			
.....						2,128	6.4	790.2	29	2.79	wnw.	12.6	2,083	2,400			
2:52.....	978.3	-1.8	75	sw.	9.4	2,250	5.3	778.2	28	2.49	nw.	13.2	2,205	2,530			
.....						2,500	3.0	754.7	27	2.05	nw.	14.6	2,450	2,780			
3:08.....	978.2	-1.6	75	sw.	9.8	2,527	2.8	752.2	27	2.02	nw.	14.7	2,476	2,800			
.....						2,750	1.1	731.8	25	1.60	nw.	14.9	2,694	3,120			
3:38.....	978.4	-1.1	78	sw.	7.1	3,000	-0.8	709.0	23	1.31	wnw.	15.0	2,939	3,470			
.....						3,252	-2.7	686.4	21	1.02	wnw.	15.2	3,186				
3:46.....	978.5	-1.0	78	sw.	8.5	3,000	-0.4	709.0	21	1.24	wnw.	14.3	2,939				
.....						1,750	1.9	731.8	21	1.47	wnw.	13.4	2,694				
3:50.....	978.5	-1.1	78	sw.	8.0	2,693	2.4	735.9	21	1.52	wnw.	13.2	2,639	2,800	3/10 Cl., nw.; 1/10 Cu., sw.		
.....						2,500	3.1	754.7	21	1.60	wnw.	13.5	2,450	2,340			
4:00.....	978.6	-1.0	78	sw.	7.1	2,359	3.6	767.0	21	1.66	wnw.	13.8	2,312	2,000			
.....						2,250	4.1	778.2	23	1.58	wnw.	13.9	2,205	1,910			
4:31.....	978.5	-0.5	78	sw.	6.7	2,000	5.3	802.1	28	2.49	nw.	14.1	1,960	1,720			
.....						1,763	6.4	825.5	33	3.17	nw.	14.3	1,728	1,520			
4:40.....	978.5	-0.7	78	sw.	7.1	1,250	6.4	826.5	33	3.17	nw.	14.2	1,715	1,520			
.....						1,500	5.6	852.1	39	3.91	wnw.	11.4	1,470	1,170			
4:56.....	978.4	-0.7	78	sw.	7.1	1,411	7.2	861.6	41	4.17	wnw.	10.4	1,383	1,040			
.....						1,250	4.2	878.9	41	3.38	w.	10.8	1,225	800			
5:04.....	978.4	-0.4	70	sw.	7.1	1,184	3.0	886.0	41	3.11	w.	11.0	1,161	705			
.....						1,000	-1.6	906.8	44	2.35	ws.	10.9	980	340			
5:17.....	978.3	-0.5	70	sw.	7.6	924.3	-5.3	936.2	54	1.84	sw.	10.9	837	30			
.....						750	-4.3	966.3	54	2.30	sw.	10.0	735	0			
5:49.....	978.2	-1.6	81	sw.	6.3	924.3	0.9	978.5	61	4.76	nw.	12.7	2,205	890			
.....						2,500	1.5	753.3	61	4.76	nw.	12.6	2,223	890			
5:53.....	978.3	-1.1	78	sw.	6.3	2,750	-0.5	730.3	63	4.29	nw.	13.7	2,450	1,200			
.....						2,863	-1.4	720.6	65	3.81	nw.	14.9	2,694	1,550			
6:02.....	978.2	-1.8	83	sw.	6.7	3,000	-2.2	707.8	66	3.59	nw.	15.4	2,805	1,700			
.....						3,250	-3.6	685.6	76	3.44	nw.	16.3	3,184	1,800			
6:30.....	978.6	-2.1	85	sw.	4.9	3,384	-4.4	674.8	80	3.38	wnw.	16.6	3,315	1,050	4/10 A.St., nw.		
.....						3,500	-5.3	664.3	84	3.28	wnw.	16.8	3,429	2,010			
6:42.....	978.8	-2.3	85	ssw.	5.4	3,750	-7.2	644.0	92	3.05	wnw.	17.2	3,673	2,130	Lunar corona from 6:16 to 6:30 p. m.		
.....						3,998	-9.0	624.1	100	2.84	wnw.	17.5	3,916	2,250			
7:04.....	979.0	-2.8	87	sw.	4.0	3,750	-7.0	644.0	95	3.21	wnw.	17.5	3,673	2,060			
.....						3,500	-4.9	664.8	90	3.64	wnw.	17.6	3,429	1,860			
7:11.....	979.0	-2.9	88	sw.	4.5	3,250	-2.8	686.4	85	4.11	wnw.	17.6	3,184	1,060			
.....						3,171	-2.2	603.6	84	4.28	wnw.	17.6	3,107	1,600	4/10 A.St., nw; 4/10 A.Cu., nw.		
7:14.....	979.0	-3.0	89	ssw.	4.5	3,000	-1.1	708.6	80	4.40	wnw.	15.7	2,839	1,420			
.....						2,750	0.4	731.0	75	4.72	wnw.	13.0	2,694	1,160			
7:24.....	979.0	-3.0	87	sw.	5.4	2,500	2.0	753.5	70	4.94	wnw.	10.3	2,450	900			
.....						2,358	2.9	767.7	67	5.04	wnw.	8.8	2,311	750			
7:24.....	979.0	-3.0	87	sw.	5.4	2,250	3.2	777.1	67	5.15	wnw.	9.0	2,205	640			
.....						2,000	3.8	801.2	66	5.29	nw.	9.5	1,980	460			
7:24.....	979.0	-3.0	87	ssw.	4.5	1,813	4.2	821.1	66	5.44	nw.	9.9	1,777	410	2/10 Cl., nw.		
.....						1,750	4.2	825.2	66	5.44	nw.	9.9	1,715	400			
7:24.....	979.0	-3.0	87	sw.	5.4	1,500	4.4	852.2	67	5.61	wnw.	9.9	1,470	210			
7:24.....	979.0	-2.9	88	sw.	4.5	1,400	4.4	864.0	67	5.61	wnw.	9.9	1,372	100			
7:24.....	979.0	-3.0	89	ssw.	4.5	1,250	2.5	879.9	69	5.04	wnw.	10.2	1,225	0			
7:24.....	979.0	-3.0	87	sw.	5.4	1,046	0.5	902.6	71	4.30	wnw.	10.6	1,025	0			
7:24.....	979.0	-3.0	87	ssw.	4.5	1,000	0.1	907.7	71	4.37	wnw.	10.3	980	0	Few Cl., nw.		

February 14, 1916, series (No. 3).

P. M.	978.5	-0.5	78	sw.	6.7	396	978.5	-0.5	.....	78	4.57	sw.	6.7	388	.....	5/10 A.St., nw.
4:40.....	978.5	-0.7	78	sw.	7.1	820	927.6	-4.4	0.92	88	3.82	sw.	9.0	735	0	
4:56.....	978.4	-0.7	78	sw.	7.1	1,000	907.2	-0.2	.....	76	4.57	w.	11.0	980	120	Clouds becoming thinner.
5:04.....	978.4	-0.4	70	sw.	7.1	1,250	879.7	5.6	.....	59	5.37	wnw.	13.2	2,225	300	
5:17.....	978.3	-0.5	70	sw.	7.6	1,295	874.4	6.7	-2.33	56	5.49	nw.	13.6	1,269	330	
5:33.....	978.3	-1.1	78	sw.	6.3	1,500	852.2	5.6	.....	57	5.19	nw.	14.0	1,470	530	
5:49.....	978.2	-1.6	81	sw.	6.3	1,650	835.4	4.7	0.55	58	4.95	nw.	14.3	1,026	680	
6:02.....	978.2	-1.8	83	sw.	6.7	2,000	826.2	4.5	.....	60	4.88	nw.	13.4	1,900	800	
6:30.....	978.6	-2.1	85	sw.	4.9	2,250	777.1	3.4	0.21	61	4.76	nw.	12.7	2,205	890	
6:42.....	978.8	-2.3	85	ssw.	5.4	2,500	731.0	0.4	.....	63	4.29	nw.	13.7	2,450	1,200	
7:04.....	979.0	-2.8	87	sw.	4.0	2,358	753.5	2.0	0.24	67	5.04	nw.	17.2	3,673	2,130	Lunar corona from 6:16 to

## SUPPLEMENT NO. 5.

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.

February 14, 1916, series (No. 4).

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.		
P. M.																	
9:02.....	mb. 979.0	°C. -3.1	% 89	sw.	m. p. s. 6.3	m. 396	mb. 979.0	°C. -3.1	.....	% 89	m. p. s. 6.3	10 <sup>3</sup> ergs. 388	volts. 0			Few Ci., nw.	
8:00.....	979.0	-3.0	88	sw.	6.3	500	966.0	-1.8	.....	89	4.68	sw. 7.9	490	0			
8:12.....	979.1	-3.1	88	sw.	6.3	714	940.8	0.8	-1.23	88	5.69	w. 11.2	700	0			
8:35.....	979.2	-3.4	90	ssw.	5.4	750	936.3	0.6	.....	88	5.61	w. 11.4	735	0			
8:58.....	979.3	-3.8	91	ssw.	5.8	1,000	907.8	-0.4	.....	88	5.20	wnw. 13.0	980	150			
9:20.....	979.3	-4.2	92	sw.	5.8	1,032	904.9	-0.6	0.44	88	5.11	wnw. 13.2	1,012	170			
9:35.....	979.4	-4.4	93	sw.	5.4	1,250	880.3	0.3	.....	80	5.37	nw. 10.7	1,225	330			
9:45.....	979.4	-4.5	94	sw.	4.0	1,427	861.0	1.1	-0.43	84	5.56	nw. 8.7	1,399	0			
9:59.....	979.4	-4.7	96	sw.	3.6	1,500	853.7	1.6	.....	82	5.63	nw. 8.5	1,470	100			
10:10.....	979.4	-5.0	98	sw.	3.1	1,750	827.3	3.4	.....	74	5.77	nw. 7.8	1,715	350			
10:23.....	979.5	-5.1	98	ssw.	3.6	1,941	808.0	4.7	-0.70	68	5.81	nw. 7.2	1,902	500			
10:27.....	979.5	-5.2	98	sw.	3.6	2,000	802.0	4.4	.....	65	5.44	nw. 7.7	1,900	540			
10:36.....	979.5	-5.1	98	sw.	3.6	2,250	777.0	2.9	.....	51	3.84	nw. 10.0	2,205	730			
10:46.....	979.6	-4.4	97	w.	4.0	2,299	772.9	2.6	0.59	48	3.54	nw. 10.5	2,253	770			
10:49.....	979.6	-4.4	98	w.	4.0	2,500	752.9	1.2	.....	50	3.33	nw. 10.3	2,450	920			
						2,750	730.0	-0.6	.....	54	3.14	nw. 10.1	2,694	1,110			
						3,000	708.2	-2.4	.....	56	2.90	nw. 9.9	2,889	1,250			
						3,250	686.7	-4.3	.....	59	2.95	nw. 10.3	2,939	.....			
						3,403	673.5	-5.4	0.73	71	3.02	nw. 12.1	3,184	.....			
						3,250	686.7	-4.3	.....	79	3.07	nw. 13.2	3,334	.....			
						3,000	708.8	-2.5	.....	77	3.28	nw. 13.0	3,184	.....			
						2,885	719.3	-1.7	0.76	74	3.67	nw. 12.7	2,939	.....			
						2,750	731.4	-0.7	.....	69	3.97	nw. 12.7	2,694	920			
						2,500	754.3	1.2	.....	64	4.26	nw. 13.0	2,450	710			
						2,323	771.3	2.6	0.47	60	4.42	nw. 13.2	2,276	600			
						2,250	778.3	2.9	.....	59	4.44	nw. 13.1	2,205	550			
						2,000	803.1	4.1	.....	54	4.42	nw. 12.7	1,950	400			
						1,750	828.0	5.3	.....	50	4.46	nw. 12.3	1,715	250			
						1,628	840.2	5.9	0.03	48	4.46	nw. 12.1	1,590	170			
						1,500	853.7	5.9	.....	48	4.46	nw. 11.5	1,470	120			
						1,313	873.1	6.0	-3.33	47	4.39	nw. 10.6	1,287	50			
						1,250	880.3	3.9	.....	47	3.80	nw. 10.3	1,225	10			
						1,184	887.1	1.7	-1.03	48	3.32	nw. 9.9	1,161	0			
						1,000	907.8	-1.3	.....	56	3.07	nw. 9.0	980	0			
						994	908.5	-1.4	0.00	56	3.05	nw. 9.0	975	0			
						750	936.3	-1.4	.....	76	4.13	nw. 9.2	735	0			
						550	960.9	-1.4	-1.95	93	5.06	nw. 9.3	539	0			
						500	966.5	-2.4	.....	95	4.75	wnw. 7.6	490	0			
						395	979.6	-4.4	.....	98	4.14	w. 4.0	388	.....	Cloudless.		

February 14-15, 1916, series (No. 5).

P. M.	979.6	-4.5	98	nw.	4.5	396	979.6	-4.5	.....	98	4.11	nw.	4.5	388	.....	Cloudless.
11:27.....	979.6	-4.5	98	nw.	4.5	500	966.5	-3.3	.....	99	4.59	nw.	5.5	490	0	
11:28.....	979.6	-4.5	98	nw.	4.5	558	959.8	-2.6	-1.17	100	4.92	nw.	6.1	547	0	
11:38.....	979.7	-4.6	98	nw.	4.5	750	936.8	-2.6	.....	97	4.77	nw.	7.9	735	0	
11:46.....	979.7	-4.7	98	nw.	4.5	830	925.2	-2.6	0.00	95	4.67	nw.	8.9	833	0	
11:53.....	979.7	-4.4	97	nw.	5.4	1,000	907.8	0.1	.....	88	5.41	nw.	9.3	980	0	
A. M.						1,193	886.0	3.6	-1.78	78	6.17	nw.	9.9	1,174	0	
12:07.....	979.7	-4.3	94	nnw.	4.5	1,250	880.2	3.9	.....	75	6.06	nw.	10.5	1,225	40	
						1,250	882.0	3.9	.....	61	5.47	nnw.	13.2	1,461	190	
						1,490	854.7	5.4	-0.62	61	5.47	nnw.	13.1	1,470	200	
						1,500	853.3	5.4	.....	51	4.57	nnw.	11.3	1,715	350	
						1,750	827.8	5.4	.....							
						2,727	729.4	-0.2	0.52	60	3.61	n.	13.4	2,710	470	
						2,750	731.6	-0.1	.....	60	3.64	n.	13.3	2,694	.....	
						2,500	754.6	1.2	.....	59	3.93	n.	12.6	2,450	.....	
						2,250	778.3	2.5	.....	58	4.24	n.	11.9	2,205	.....	
						2,180	735.2	2.9	0.51	57	4.29	n.	11.7	2,136	900	
						2,000	802.7	3.8	.....	57	4.57	n.	11.6	1,960	730	
						1,750	827.8	5.1	.....	56	4.92	n.	11.4	1,715	500	
						1,500	853.3	4.9	-1.15	57	4.94	n.	12.3	1,470	230	
						1,310	873.8	2.7	-1.18	58	4.30	nnw.	14.3	1,284	0	
						1,250	880.6	2.0	.....	59	4.17	nnw.	14.3	1,225	0	
						1,000	903.6	-1.0	.....	65	3.65	nnw.	14.3	980	0	
						854	925.2	-2.7	-0.72	68	3.32	nnw.	14.3	887	0	
						750	937.5	-3.4	.....	75	3.45	nnw.	12.2	735	0	
						500	967.6	-5.3	.....	61	3.56	nnw.	7.0	490	0	
						390	980.4	-6.0	.....	98	3.61	nnw.	4.9	388	.....	Cloudless.

## OBSERVATIONS AT DREXEL, FEBRUARY, 1916.

31

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.

February 15, 1916, series (No. 6).

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Alt-i- tude.	Pressure.	Tem- pera- ture.	$\Delta t$	100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.						Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
A. M.																	
3:13	mb. 980.6	°C. -6.5	% 98	nnw. m. p. s. 4.0		m. 396	mb. 980.6	°C. -6.5			% 98	mb. 3.46	nnw. 4.0	10 <sup>5</sup> ergs 388	volts. 0	Cloudless.	
						500	987.5	-5.7			97	3.67	nnw. 6.3	490	0		
						750	937.2	-4.0			94	4.11	n. 11.9	735	0		
3:18	980.7	-6.7	98	nnw. 4.0		806	930.9	-3.5	-0.73		93	2.4	n. 13.2	790	0		
						1,000	908.1	-0.7			87	5.01	n. 12.2	980	0		
3:37	980.7	-7.0	100	unw. 3.6		1,220	883.0	2.7	-1.47		79	5.86	n. 11.0	1,205	0		
						1,250	880.3	2.9			78	5.87	n. 10.8	1,225	20		
3:51	980.8	-7.2	100	n. 3.6		1,491	855.1	5.8	-1.18		64	5.90	nnw. 9.0	1,462	500		
						1,500	854.0	5.8			64	5.90	nnw. 9.0	1,470	510		
						1,750	828.0	4.6			60	5.09	nnw. 9.8	1,715	730		
						2,000	803.3	3.5			57	4.47	n. 10.8	1,960	960		
4:01	980.8	-7.1	100	n. 3.6		2,113	792.2	3.0	0.45		56	4.24	n. 10.9	2,071	1,050		
						2,250	779.0	2.3			56	4.04	n. 11.2	2,205	1,260		
4:25	980.8	-7.5	100	nnw. 2.7		2,500	755.2	1.0			56	3.68	n. 11.8	2,450	1,630		
						2,510	754.2	0.9	0.53		56	3.65	n. 11.8	2,460	1,640		
						2,750	732.1	-0.4			56	3.31	n. 12.3	2,694	1,910		
5:30	981.0	-8.7	100	n. 3.1		3,000	709.3	-1.8			56	2.95	nne. 12.9	2,939	2,170		
						3,021	707.4	-1.9	0.55		56	2.92	nne. 12.9	2,960	2,200		
5:33	981.0	-8.8	100	nnw. 3.1		3,250	687.7	-1.2			51	2.82	n. 10.6	3,184			
						3,404	674.3	-0.7	-0.31		48	2.76	n. 9.1	3,335			
5:38	981.1	-8.8	100	nnw. 3.1		3,482	668.1	-0.9	0.42		37	2.10	n. 8.0	3,411			
						3,250	687.7	0.5			28	1.77	n. 8.8	3,184			
5:49	981.1	-9.2	100	nnw. 2.7		3,243	688.4	0.5	-0.47		28	1.77	n. 8.8	3,177			
						3,000	709.3	-0.7			28	1.61	n. 8.8	2,939			
5:53	981.2	-9.2	100	nnw. 2.2		2,863	721.8	-1.3	0.60		28	1.53	n. 8.8	2,805			
						2,750	732.1	-0.6			30	1.74	n. 8.9	2,094			
						2,500	755.2	0.9			35	2.28	n. 9.2	2,450	1,550		
						2,250	779.0	2.4			40	2.90	n. 9.4	2,205	1,280		
6:14	981.4	-9.1	100	nnw. 3.1		2,134	790.6	3.1	0.36		42	3.20	nnw. 9.5	2,091	1,120	Cloudless.	
						2,000	803.3	3.6			43	3.40	nnw. 9.3	1,900	1,070		
						1,750	828.3	4.5			44	3.70	nnw. 9.0	1,715	1,020		
6:29	981.6	-9.3	100	nnw. 2.2		1,302	876.0	6.1	-1.93		47	4.43	n. 8.4	1,276	700	Few Ci., nw.	
						1,250	881.8	5.1			47	4.13	n. 8.7	1,225	620		
6:42	981.8	-9.2	100	n. 2.2		1,000	909.6	0.3			49	3.06	n. 10.1	980	240		
						842	927.4	-2.8	-1.48		50	2.42	n. 11.0	826	0		
						750	938.8	-4.2			60	2.58	n. 9.2	735	0		
6:50	982.0	-9.4	100	nw. 2.2		500	909.2	-7.9			88	2.75	nnw. 4.3	490	0		
						396	982.0	-9.4			100	2.74	nw. 2.2	388		Few Ci., nw.	

February 15, 1916, series (No. 7).

A. M.	982.1	-10.2	100	nw.	4.5	396	982.1	-10.2		100	2.55	nw.	4.5	388	.....	1/10 Ci., nw.	
	500	988.6	-8.0			96	2.98	4.7			96	4.7	490	0			
	750	938.5	-2.6			88	4.33	5.3			88	5.3	735	0		1/10 Ci. St., wnw.	
7:52	982.1	-9.6	100	nw.	3.6	862	925.6	-0.2	-2.15	84	5.05	n.	5.5	845	0		
	1,000	909.9	1.5			77	5.24	6.0			77	6.0	980	200			
	1,250	882.8	4.6			64	5.43	6.8			64	6.8	1,225	550			
8:55	982.5	-8.1	100	nw.	2.7	1,329	874.2	5.6	-1.24	60	5.46	n.	7.1	1,303	670		
	1,500	856.3	5.3			53	4.72	7.7			53	7.7	1,470	910			
	1,750	830.7	4.8			44	3.78	8.6			44	8.6	1,715	1,050		6/10 Ci., wnw.	
	2,000	805.5	4.2			34	2.80	9.4			34	9.4	1,960	1,210			
10:40	982.7	-4.4	84	nw.	3.6	2,022	803.8	4.2	0.20	33	2.72	nnw.	9.5	1,982	1,210		
	2,250	781.2	4.3			30	2.49	8.8			30	8.8	2,205	1,360			
	2,500	757.3	4.5			26	2.19	7.7			26	7.7	2,450	1,520			
11:08	982.7	-3.5	78	nw.	4.0	2,633	745.8	4.6	-0.07	24	2.04	nnw.	7.2	2,630	1,600		
	2,750	734.6	4.3			22	1.83	7.2			22	7.2	2,694	1,620			
	3,000	712.4	3.8			18	1.44	7.2			18	7.2	2,939	1,650		Solar halo 11:30 to 11:45 a. m.	
11:34	982.4	-2.7	78	nw.	4.0	3,027	710.4	3.7	0.23	18	1.43	nw.	7.2	2,966	1,660		
	3,250	690.8	2.1			15	1.07	9.1			15	9.1	3,184	1,690			
11:45	982.3	-2.4	78	nw.	3.6	3,500	669.8	0.3		11	0.69	nw.	11.3	3,429	.....	2/10 Ci., nnw. ; 2/10 Ci. Cu., nnw.	
	3,693	653.8	-1.1	0.68		8	1.45	13.0			8	13.0	3,617	.....			
	3,500	669.8	0.1			7	0.43	12.1			7	12.1	3,429	.....			
	3,250	690.8	1.7			7	0.48	11.0			7	11.0	3,184	.....			
P. M.	982.0	-2.2	77	wnw.	3.6	3,097	704.0	2.7	0.31	6	0.45	nw.	10.3	3,034	1,400		
	3,000	712.4	3.0			6	0.45	9.8			6	9.8	2,939	1,300			
12:14	981.8	-2.0	77	nw.	3.6	2,750	734.6	3.8		6	0.48	nw.	8.7	2,694	1,060		
	2,518	755.7	4.5			6	0.50	7.6			6	7.6	2,407	830			
12:23	981.7	-1.6	77	nw.	3.1	2,275	778.8	4.6	-0.29	6	0.51	nw.	8.9	2,229	590	3/10 Ci., nnw.	
	2,250	781.2	4.5			6	0.50	9.0			6	9.0	2,205	590			
	2,000	805.5	3.8			6	0.48	10.2			6	10.2	1,960	630			
12:28	981.6	-1.2	77	w.	3.1	1,866	819.0	3.4	0.39	6	0.47	nw.	10.9	1,829	510		
	1,866	819.0	3.0			6	0.47	10.9			6	10.9	1,829	510			
	1,750	830.7	3.9			7	0.57	10.2			7	10.2	1,715	480			
	1,500	856.3	4.8			8	0.69	8.6			8	8.6	1,470	390			
	1,250	882.8	5.8			10	0.92	7.0			10	7.0	1,225	290			
12:42	981.3	-1.1	76	w.	4.5	1,095	909.5	6.8	-0.23	12	1.19	w.	5.5	935	180		
12:43	981.3	-1.0	76	w													

## SUPPLEMENT NO. 5.

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.

February 15, 1916, series (No. 8).

Time.	Surface.				At different heights above sea.												Remarks.
	Pressure.	Tempera-ture.	Rela-tive humid-ity.	Wind.		Altitude.	Pressure.	Tem-perature.	$\Delta t$	Humidity.		Wind.		Potential.			
				Dir.	Vel.					100 m.	Rel.	Vap. pres.	Dir.	Vel.	Grav-ity.	Electric.	
P. M. 2:32.....	mb. 980.0	°C. 0.5	% 65	m. p.s. 4.5	m. 396	mb. 980.0	°C. 0.5	.....	.....	% 65	mb. 4.11	wsw. 4.5	m. p.s. 4.5	$10^6$ ergs. 388	volts. 0	7/10 Cl.St., n.	
2:46.....	979.8	0.6	66	ws. 4.5	500	985.2	-0.5	.....	.....	w. 4.10	w. 5.6	nw. 6.4	w. 6.4	490	0	0	
2:51.....	979.7	1.1	66	ws. 5.4	575	958.0	-1.3	1.01	74	4.06	w. 6.1	nw. 6.4	w. 7.17	564	0	4/10 Cl., n.	
3:37.....	979.0	1.8	69	ws. 4.5	731	939.7	6.1	-4.74	63	5.93	w. 6.1	nw. 6.5	w. 7.35	717	0		
3:45.....	978.8	1.9	69	ws. 4.5	750	937.1	6.1	.....	62	5.84	w. 6.1	nw. 6.5	w. 7.2	980	0		
4:10.....	978.6	2.3	67	sw. 3.6	1,000	908.3	6.6	.....	55	5.36	w. 6.1	nw. 6.6	w. 7.9	1,225	0		
4:15.....	978.6	2.3	68	sw. 3.1	1,250	881.3	7.1	-0.19	49	4.94	w. 6.1	nw. 6.7	w. 8.7	1,474	0		
4:46.....	978.4	2.1	70	sw. 4.5	1,504	854.7	7.6	-0.19	42	4.38	w. 6.1	nw. 6.8	w. 9.2	1,715	0		
5:11.....	978.3	1.6	76	ws. 4.5	1,750	829.1	5.8	.....	43	3.47	w. 6.1	nw. 6.9	w. 9.7	1,960	0		
5:19.....	978.2	1.4	80	sw. 4.0	2,000	804.0	3.9	.....	43	3.33	w. 6.1	nw. 6.9	w. 9.9	2,034	70		
5:39.....	978.0	0.9	88	sw. 4.5	2,076	796.8	3.3	0.75	40	3.10	w. 6.1	nw. 10.7	w. 10.7	2,205	250		
5:47.....	977.9	0.7	89	sw. 5.4	2,250	779.8	3.3	.....	35	2.71	w. 6.1	nw. 11.9	w. 11.9	2,450	500		
5:59.....	977.8	0.6	82	sw. 4.5	2,500	756.0	3.3	.....	34	2.63	w. 6.1	nw. 12.1	w. 12.1	2,492	540		
6:06.....	977.8	0.6	81	sw. 5.4	2,750	752.2	3.3	0.00	29	2.48	w. 6.1	nw. 13.1	w. 13.1	2,694	720		
6:13.....	977.7	0.6	79	sw. 5.4	3,000	733.0	4.7	.....	26	2.32	w. 6.1	nw. 13.5	w. 13.5	2,787	800	5/10 Cl., n.	
A. M. 9:10.....	972.5	1.6	77	ws. 3.6	3,250	724.6	5.3	-0.66	24	1.98	w. 6.1	nw. 13.5	w. 13.5	2,939	930		
9:41.....	972.3	4.2	81	sw. 3.1	3,500	689.4	2.4	.....	20	1.45	w. 6.1	nw. 13.4	w. 13.4	3,184	1,150		
9:55.....	972.2	4.8	77	sw. 3.1	3,750	648.2	-1.4	.....	17	1.08	w. 6.1	nw. 13.4	w. 13.4	3,429	1,380		
10:04.....	972.2	4.8	75	sw. 3.1	3,831	641.3	-2.0	0.69	14	0.76	w. 6.1	nw. 13.4	w. 13.4	3,573	1,380		
10:35.....	972.2	4.8	77	sw. 1.8	2,500	648.2	-1.5	.....	12	0.62	w. 6.1	nw. 13.2	w. 13.2	3,752	1,380		
10:49.....	972.2	5.0	76	w. 1.8	1,750	757.2	2.7	.....	12	0.55	w. 6.1	nw. 13.2	w. 13.2	3,673	1,380		
11:45.....	971.8	8.1	64	ws. 2.2	2,000	765.3	2.4	0.62	12	0.87	w. 6.1	nw. 11.0	w. 11.0	2,363	410		
12:12.....	971.5	7.1	65	w. 1.8	2,250	781.0	3.4	.....	14	1.09	w. 6.1	nw. 10.9	w. 10.9	2,205	350		
12:28.....	971.3	7.0	67	w. 2.2	2,500	805.1	5.0	.....	16	1.40	w. 6.1	nw. 10.7	w. 10.7	1,960	270		
12:56.....	970.9	7.3	63	w. 4.5	2,750	830.0	6.5	.....	18	1.74	w. 6.1	nw. 10.5	w. 10.5	1,715	200		
12:58.....	970.9	7.2	64	w. 4.5	3,439	837.4	7.0	-0.28	19	1.90	w. 6.1	nw. 10.4	w. 10.4	1,640	170		
1:13.....	970.6	7.6	66	w. 3.6	3,500	854.9	7.5	.....	21	2.18	w. 6.1	nw. 10.1	w. 10.1	1,470	110		
1:30.....	970.8	7.3	63	w. 3.6	3,750	881.3	8.2	.....	23	2.50	w. 6.1	nw. 9.6	w. 9.6	1,225	30		
1:32.....	970.7	7.4	64	w. 3.6	1,750	851.8	11.2	.....	42	5.51	w. 6.1	nw. 12.4	w. 12.4	1,330	0	6/10 Cl., n.	
1:45.....	970.7	7.4	64	w. 3.6	1,000	839.6	8.4	0.35	24	2.64	w. 6.1	nw. 12.0	w. 12.0	1,470	0		
1:59.....	970.6	7.6	66	w. 3.6	2,000	908.3	9.0	.....	28	3.21	w. 6.1	nw. 12.7	w. 12.7	2,939	980		
2:32.....	970.0	1.6	77	ws. 3.6	2,250	927.0	9.6	-0.62	31	3.70	w. 6.1	nw. 11.8	w. 11.8	816	0		
2:46.....	969.5	1.6	77	ws. 3.6	2,500	936.1	9.1	.....	33	3.81	w. 6.1	nw. 10.2	w. 10.2	735	0	4/10 Cl., n.	
2:51.....	969.4	1.6	77	ws. 3.6	3,000	943.3	8.7	-2.77	34	3.82	w. 6.1	nw. 9.2	w. 9.2	675	0		
3:37.....	969.0	1.8	69	ws. 4.5	3,750	965.1	3.5	.....	65	5.10	w. 6.1	nw. 6.8	w. 6.8	490	0		
3:45.....	968.8	1.8	69	ws. 4.5	3,900	977.7	0.6	.....	79	5.04	w. 6.1	nw. 5.4	w. 5.4	388	.....		

February 16, 1916.

A. M. 9:10.....	972.5	1.6	77	ws. 3.6	396	972.5	1.6	.....	77	5.28	wsw. 3.6	nw. 5.2	w. 4.90	388	0	Few Cl.St., n.
9:41.....	972.3	4.2	81	sw. 3.1	500	960.2	5.0	.....	69	6.02	nw. 5.2	nw. 7.54	w. 7.54	735	0	
9:55.....	972.2	4.8	77	sw. 3.1	777	928.6	13.1	.....	50	7.54	nw. 9.0	nw. 9.4	w. 9.4	762	0	
10:04.....	972.2	4.8	75	sw. 3.1	1,000	909.3	12.8	-3.25	48	6.80	nw. 10.6	nw. 10.6	w. 980	0		
10:35.....	972.2	4.8	77	sw. 1.8	1,250	877.5	11.6	.....	43	5.87	nw. 11.8	nw. 12.4	w. 12.4	1,225	0	
10:49.....	972.2	5.0	76	w. 1.8	1,357	866.6	11.0	0.52	42	5.51	nw. 12.4	nw. 12.0	w. 1,330	1,380	0	
11:45.....	971.8	8.1	64	ws. 2.2	1,500	854.9	12.8	.....	42	5.59	nw. 12.0	nw. 12.0	w. 1,470	1,380	0	Few Cl.St., n.
12:12.....	971.5	7.1	65	w. 1.8	1,750	851.8	11.2	.....	47	4.16	nw. 14.2	nw. 14.2	w. 2,450	590	0	
12:28.....	971.3	7.0	67	w. 2.2	2,000	844.1	11.3	-0.14	42	5.62	nw. 14.3	nw. 14.3	w. 2,461	600	0	
12:56.....	970.9	7.3	63	w. 4.5	2,250	827.0	10.0	0.76	43	5.28	nw. 13.4	nw. 13.4	w. 2,689	900	0	
12:58.....	970.9	7.2	64	w. 4.5	3,439	802.2	8.4	.....	44	4.85	nw. 12.6	nw. 12.6	w. 1,960	210	0	
1:13.....	970.8	7.2	64	w. 3.6	3,500	867.1	0.0	.....	42	2.57	nw. 11.5	nw. 11.5	w. 3,429	1,170	0	Few Cl.St., n.
1:30.....	970.8	7.3	63	w. 3.6	3,750	846.8	-1.8	.....	42	2.21	nw. 12.0	nw. 12.0	w. 3,673	1,380	0	
1:32.....	970.7	7.4	64	w. 3.6	4,000	867.9	1.6	.....	42	2.94	nw. 11.6	nw. 11.6	w. 3,918	1,380	0	
1:45.....	970.7	7.4	64	w. 3.6	3,750	851.3	4.9	.....	42	3.64	nw. 11.6	nw. 11.6	w. 2,694	350	0	
1:59.....	970.6	7.6	66	w. 3.6	2,750	734.1	4.8	0.79	42	3.61	nw. 11.6	nw. 11.6	w. 2,666	330	0	Few Cl.St. n.
2:32.....	970.0	1.6	77	ws. 3.6	2,500	754.3	6.5	.....	42	4.07	nw. 12.7	nw. 12.7	w. 2,450	220	0	
2:46.....	969.5	1.6	77	ws. 3.6	2,750	777.3	8.5	.....	42	4.66	nw. 13.8	nw. 13.8	w. 2,205	100	0	
2:51.....	969.4	1.6	77	ws. 3.6	3,000	709.2	3.8	.....	42	3.37	nw. 12.1	nw. 12.1	w. 2,939	470	0	
3:37.....	969.0	1.8	69	ws. 4.5	3,250	687.9	1.6	.....	42	2.88	nw. 12.9	nw. 12.9	w. 3,184	550	0	
3:45.....	968.8	1.8	69	ws. 4.5	3,500	667.1	-0.3	0.86	42	2.50	nw. 13.7	nw. 13.7	w. 3,429	600	0	
4:10.....	968.6	2.3	67	sw. 3.6	3,750	646.8	-1.8	.....	42	2.37	nw. 13.7	nw. 13.7	w. 3,673	1,380	0	
4:15.....	968.6	2.3	68	sw. 3.1	4,000	626.8	-3.6	.....	42	2.09	nw. 14.2	nw. 14.2	w. 3,918	1,380	0	
4:46.....	968.4	2.1	70	sw. 4.5	3,750	609.4	-5.2	0.69	42	1.65	nw. 12.8	nw. 12.8	w. 4,133	.....		
5:11.....	968.3	1.6	76	ws. 4.5	4,000	6										

## OBSERVATIONS AT DREXEL, FEBRUARY, 1916.

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.  
February 17, 1916.

Time.	Pressure.	Surface.				At different heights above sea.										Remarks.	
		Tempera-	Rela-	Wind.		Alti-	Pressure.	Tem-	$\Delta t$	Humidity.		Wind.		Potential.			
				Dir.	Vel.			ture.		Rel.	Vap.	Dir.	Vel.	Grav-	Elec-		
A. M.																	
8:34	mb. 969.8	°C. 1.3	% 95	nw.	m. p. s. 2.2	m. 396	mb. 969.8	°C. 1.3	.....	% 95	mb. 6.37	nw.	m. p. s. 2.2	$10^4$ ergs. 388	volts. 0		
						500	957.6	3.5	.....	88	6.91	nnw.	4.7	490	0		
8:44	969.9	3.7	79	wnw.	5.4	750	928.8	8.9	.....	72	8.21	nnw.	10.7	735	0		
						835	919.4	10.7	-2.14	66	8.49	n.	12.8	819	0		
						1,000	901.1	10.4	.....	59	7.44	nnw.	14.2	980	0		
						1,250	874.9	10.1	.....	48	5.93	nw.	16.2	1,225	0		
						1,284	871.4	10.0	0.16	46	5.65	nw.	16.5	1,259	0		
						1,500	848.9	8.5	.....	52	5.77	nw.	16.6	1,470	120		
						1,750	823.2	6.8	.....	58	5.73	nw.	16.8	1,715	280		
						2,000	798.7	5.1	.....	64	5.63	nw.	16.9	1,960	440		
9:20	970.1	2.6	92	wnw.	7.6	2,222	777.6	3.6	0.68	70	5.54	nw.	17.0	2,178	590	6/10 Cl., w.; 4/10 Cl.St., w.	
						2,250	774.9	3.4	.....	70	5.46	nw.	17.1	2,205	600		
						2,500	751.3	1.9	.....	71	4.98	nw.	17.6	2,450	610		
						2,749	728.3	0.3	0.68	72	4.49	nw.	18.2	2,693	650		
						3,000	706.1	-1.5	.....	81	4.37	nw.	18.8	2,939	890		
10:03	970.2	3.7	86	nw.	7.1	3,291	680.4	-3.6	0.72	90	4.13	wnw.	19.5	3,184	990		
						3,500	662.0	-5.6	.....	97	3.70	wnw.	19.6	3,224	1,000	4/10 Cl., w.; 4/10 Cl.St., w;	
10:13	970.3	4.3	84	nw.	4.9	3,587	655.4	-6.4	0.95	100	3.56	wnw.	19.2	3,429	1,070	2/10 A.Cu., wnw.	
10:15	970.3	4.4	84	nw.	4.5	3,661	649.2	-5.7	-0.95	100	3.78	wnw.	20.2	3,514	1,100	Altitude of A.Cu. base about 3,600 m.	
10:20	970.3	4.6	83	nw.	7.1	3,749	641.4	-6.2	0.98	92	3.33	wnw.	21.3	3,672			
10:22	970.3	4.7	83	nw.	7.1	3,690	646.1	-5.4	-1.18	90	3.49	wnw.	21.3	3,614			
10:26	970.4	4.9	82	nw.	6.3	3,656	649.2	-5.8	0.71	89	3.34	wnw.	20.2	3,581			
						3,500	662.0	-4.7	.....	87	3.31	wnw.	19.8	3,429			
						3,250	683.6	-2.9	.....	83	3.98	wnw.	19.1	3,184			
10:58	970.6	6.2	78	nw.	5.8	3,000	705.3	-1.1	.....	79	4.40	wnw.	18.4	2,339			
						2,924	712.2	-0.6	0.60	78	4.53	wnw.	18.2	2,365	640	Partial solar halo 11:07 to 11:44 a. m.	
						2,750	727.8	0.3	.....	78	4.87	wnw.	17.9	2,694	450		
11:25	970.9	6.9	76	nnw.	4.9	2,500	750.5	1.5	.....	78	5.31	nw.	17.4	2,450	260		
						2,301	769.2	2.5	0.62	78	5.70	nw.	17.0	2,255	170		
						2,250	774.1	2.8	.....	77	5.75	nw.	16.9	2,205	160		
						2,000	798.1	4.4	.....	76	6.36	nw.	16.5	1,960	90		
11:41	971.1	7.0	72	nnw.	6.3	1,750	823.0	5.9	.....	75	6.97	nw.	16.1	1,715	30		
						1,656	832.3	6.5	0.64	74	7.16	nw.	16.0	1,623	0	5/10 Cl., w.; 5/10 Cl.St., w.	
						1,500	848.9	7.5	.....	68	7.05	nw.	15.8	1,470			
NOON	971.3	7.1	73	nnw.	7.1	1,250	875.2	9.1	.....	58	6.70	nnw.	15.6	1,225	0		
						1,106	890.8	10.0	-1.67	53	6.51	nnw.	15.4	1,084	0		
						1,000	902.2	8.2	.....	60	6.52	nnw.	17.0	980	0		
						750	930.3	4.1	.....	77	6.31	n.	20.7	735	0		
P. M.																	
12:10	971.4	7.0	73	nnw.	6.7	734	932.1	3.8	0.98	78	6.26	n.	20.9	720	0		
12:17	971.4	7.1	73	nnw.	6.3	500	959.3	6.1	.....	75	7.06	nnw.	10.8	490	0	3/10 Cl., w.; 7/10 Cl.St., w.	

February 18, 1916.

A. M.	982.7	-1.2	84	nnw.	5.4	396	982.7	-1.2	.....	84	4.65	nnw.	5.4	388	.....	1/10 Cl.St., n.
						500	969.7	-2.0	.....	85	4.39	nnw.	8.6	490	0	
8:50	982.8	-0.9	84	nnw.	5.8	750	939.8	-3.8	.....	85	3.77	nnw.	16.3	735	0	
						907	921.3	-4.9	0.72	86	3.48	nnw.	21.2	889	30	
8:52	982.8	-0.8	84	n.	5.4	1,000	910.5	-4.8	.....	85	3.47	n.	21.2	980	120	
						1,092	900.0	-3.1	-0.97	76	3.58	n.	22.0	1,071	170	
9:12	982.9	-0.6	81	n.	4.9	1,250	882.3	-3.7	.....	71	3.18	n.	23.8	1,225	410	
						1,485	858.4	-4.7	0.41	63	2.60	nne.	26.6	1,456	720	2/10 Cl., n; 3/10 Cl.St., n.
9:14	982.9	-0.5	79	n.	4.9	1,500	854.8	-4.6	.....	63	2.61	nne.	26.6	1,470	740	
						1,709	832.4	-3.6	-0.49	64	2.89	n.	26.6	1,675	990	
						1,750	828.1	-3.6	.....	62	2.80	n.	26.7	1,715	1,030	
						2,000	802.1	-3.8	.....	53	2.35	nnw.	27.5	1,960	1,370	
9:30	983.0	-1.2	88	n.	6.3	2,033	798.8	-3.8	0.12	52	2.31	nnw.	27.5	1,992	1,400	
						2,000	802.1	-3.7	.....	51	2.28	nnw.	27.5	1,960	1,340	
9:35	983.0	-0.3	71	n.	6.3	1,919	810.4	-3.6	-0.90	50	2.26	nw.	27.5	1,881	1,190	3/10 Cl.St., n.
						1,697	834.1	-5.8	0.53	65	2.48	nnw.	27.2	1,715	930	
						1,500	854.8	-4.6	.....	61	2.43	nnw.	27.1	1,663	870	4/10 Cl., n.; few Cl.St., n.
						1,250	882.3	-3.2	.....	56	2.62	n.	24.6	1,470	660	
10:14	983.2	0.5	66	n.	4.9	1,127	896.4	-2.6	-6.09	53	2.61	n.	20.0	1,105	280	
10:16	983.3	0.8	67	n.	4.9	1,081	901.8	-5.4	0.62	52	2.02	n.	18.7	1,060	170	
						1,000	911.1	-4.9	.....	56	2.27	n.	17.2	980	120	
10:29	983.3	0.8	62	n.	8.0	791	935.6	-3.6	1.11	68	3.07	n.	13.2	776	0	
						750	940.5	-3.1	.....	67	3.16	n.	12.4	735	0	
						500	970.3	-0.4	.....	62	3.66	n.	7.7	490	0	
10:40	983.3	0.8	60	n.	5.8	396	983.3	0.8	.....	60	3.88	n.	5.8	388	.....	2/10 Cl.St., n.

## SUPPLEMENT NO. 5.

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.  
February 19, 1916 (No. 1).

Time.	Pressure.	Surface.				At different heights above sea.										Remarks.	
		Temper-	Rela-	Wind.		Altitude.	Pressure.	Tem-	$\Delta t$	Humidity.		Wind.		Potential.			
				ture.	humid-					Rel.	Vap.	Dir.	Vel.	Grav.	Electric.		
A. M.																	
9:16.....	mb. 969.9	°C. 3.4	% 80	wsW.	m. p. s. 2.2	m. 396	mb. 969.9	°C. 3.4	.....	% 80	m. p. s. 2.2	10 <sup>6</sup> ergs. 388	volts. 0			Cloudless.	
9:18.....	969.9	3.4	80	wsW.	2.2	500	957.3	8.3	.....	61	6.68	w.	4.1	490	0		
9:25.....	969.8	3.7	80	wsW.	2.2	537	953.4	10.1	-4.75	54	6.67	wnw.	4.8	526	0		
						697	935.1	10.5	-0.25	38	4.83	wnw.	7.7	683	0		
						750	928.6	10.3	.....	36	4.51	wnw.	7.5	735	0		
						1,000	900.1	9.5	.....	28	3.32	w.	6.8	980	0		
P. M.																	
12:36.....	967.9	8.4	71	sw.	5.4	1,073	892.0	9.2	0.35	26	3.03	w.	6.6	1,052	0		
						1,250	872.7	8.6	.....	23	2.57	w.	7.6	1,225	0		
12:59.....	967.2	10.0	68	sw.	5.8	1,704	825.8	7.2	0.32	14	1.42	wnw.	10.0	1,670	110		
1:01.....	967.2	10.0	68	sw.	5.8	1,760	821.1	7.3	.....	14	1.43	wnw.	10.4	1,715	140		
1:23.....	966.9	10.4	66	sw.	5.4	1,995	797.0	7.8	-0.21	12	1.27	nw.	12.6	1,955	270		
						2,250	772.2	5.6	.....	12	1.09	nw.	11.7	2,205	400		
						2,500	748.8	3.4	.....	12	0.94	nw.	10.8	2,450	450		
						2,734	727.7	1.4	0.87	12	0.81	nw.	9.9	2,679	500		
						2,750	726.0	1.3	.....	12	0.81	nw.	10.2	2,694	530		
1:57.....	966.5	10.5	68	sw.	4.5	3,000	703.3	-0.6	.....	12	0.70	nw.	14.9	2,939	920		
						3,168	689.2	-1.8	0.74	12	0.63	nw.	18.0	3,104	1,010		
						3,250	681.4	-2.0	.....			nw.		3,184	1,050		
						3,500	660.4	-2.7	.....			nw.		3,429	1,190		
2:12.....	966.4	11.2	67	sw.	4.5	3,519	659.5	-2.7	0.26			nw.		3,447	1,200		
						3,750	640.3	-4.1	.....			nw.		3,673			
						4,000	620.4	-5.6	.....			nw.		3,918			
2:17.....	966.4	11.3	67	sw.	4.5	4,011	619.6	-5.7	0.61			nw.		3,929		Kite broke away.	

February 19, 1916 (No. 2).

P. M.																
3:25.....	965.7	12.6	67	sw.	5.4	396	965.7	12.6	.....	67	9.78	sw.	5.4	388	.....	Cloudless.
3:30.....	965.7	12.9	65	sw.	5.8	486	955.4	11.2	1.56	70	9.31	sw.	6.8	476	0	
						500	953.3	11.2	.....	70	9.31	sw.	7.0	490	0	
3:36.....	965.7	13.3	63	sw.	5.8	750	925.0	11.5	-0.11	66	8.96	sw.	10.8	735	0	
3:45.....	965.6	13.4	63	sw.	4.9	1,000	898.0	11.8	.....	66	8.96	w.	10.9	744	0	
3:48.....	965.6	13.8	64	sw.	4.9	1,055	889.2	11.9	-0.12	57	7.94	w.	10.9	1,064	0	
4:02.....	965.6	13.0	65	sw.	4.0	1,250	871.8	11.5	.....	53	7.19	wnw.	10.8	1,225	0	
						1,330	863.7	11.3	0.24	51	6.83	wnw.	10.7	1,304	0	
						1,500	846.0	10.6	.....	48	6.13	wnw.	11.8	1,470	0	
						1,750	821.0	9.5	.....	44	5.22	nw.	13.4	1,715	0	
						2,000	796.2	8.3	.....	40	4.44	nw.	14.8	1,939	0	
						2,250	772.2	6.4	.....	38	3.65	nw.	15.2	2,205	170	
						2,500	748.3	4.5	.....	36	3.03	nw.	15.7	2,450	320	
						2,750	726.1	2.6	.....	34	2.51	nw.	16.2	2,694	470	
						3,000	704.3	0.7	.....	31	1.99	nw.	16.6	2,939	620	
4:21.....	965.5	12.2	70	ssw.	4.9	3,121	694.0	-0.2	0.77	30	1.80	nw.	16.8	3,058	.....	Cloudless.
						3,000	704.3	0.7	.....	29	1.86	nw.	16.9	2,939	.....	
4:36.....	965.4	12.0	70	ssw.	4.5	2,514	748.2	4.5	0.73	27	2.27	nw.	17.1	2,694	380	
						2,500	749.3	4.6	.....	27	2.29	nw.	17.2	2,450	370	
						2,250	772.5	6.4	.....	26	2.50	nw.	16.2	2,205	250	
						2,000	796.2	8.2	.....	26	2.88	nw.	15.3	1,960	130	
						1,750	821.0	10.0	.....	25	3.07	nw.	14.4	1,715	10	
						1,731	822.6	10.2	0.00	25	3.11	nw.	14.3	1,697	0	
						1,500	845.2	10.2	.....	25	3.11	wnw.	14.3	1,470	0	
4:45.....	965.3	12.0	71	sw.	4.5	1,404	855.7	10.2	0.56	25	3.11	wnw.	14.3	1,376	0	
						1,250	871.3	11.1	.....	25	3.30	wnw.	12.1	1,225	0	
4:51.....	965.3	12.1	70	ssw.	4.5	1,000	898.0	12.5	.....	25	3.62	w.	8.8	980	0	
						956	902.8	12.7	-0.86	25	3.67	w.	8.2	937	0	
4:59.....	965.2	12.7	67	sw.	4.5	805	919.2	11.4	0.29	27	3.64	w.	8.2	789	0	
5:00.....	965.2	12.8	66	sw.	4.5	750	925.0	11.6	.....	33	4.51	ssw.	7.7	735	0	
						500	953.3	12.3	.....	58	8.30	ssw.	5.4	490	0	
5:08.....	965.1	12.6	68	sw.	4.5	396	965.1	12.6	.....	68	9.92	sw.	4.5	388	.....	Cloudless.

February 20, 1916.

A. M.																
10:36.....	968.2	5.8	74	nne.	2.7	396	968.2	5.8	.....	74	6.82	nne.	2.7	388	.....	Cloudless.
10:40.....	968.2	5.8	74	nne.	2.7	617	942.4	3.9	0.88	72	6.24	nne.	4.5	490	0	
						750	927.2	5.4	.....	66	5.92	n.	6.6	605	0	
10:59.....	968.2	6.2	69	n.	1.8	1,247	893.0	8.3	.....	59	6.46	n.	8.0	735	0	
11:52.....	968.5	7.6	65	n.	2.2	1,418	855.9	11.5	-0.23	47	6.87	nnw.	10.7	980	0	
						1,500	847.2	10.8	.....	47	6.89	nnw.	12.3	1,222	0	
P. M.																
12:19.....	968.5	8.0	65	ne.	2.2	1,575	840.0	10.2	0.85	47	5.85	nnw.	8.8	1,544	.....	
						1,500	847.2	10.9	.....	47	6.18	nnw.	8.4	1,470	.....	
12:30.....	968.4	8.0	63	ene.	2.7	1,380	859.9	11.9	-0.62	47	5.55	nnw.	7.8	1,363	.....	
12:40.....	968.4	8.0	62	ene.	2.7	1,251	873.2	11.1	-0.82	47	6.21	nnw.	11.7	1,226	0	
						1,000	899.3	9.0	.....	46	5.28	n.	9.2	980	0	
12:48.....	968.4	8.3	65	ene.	2.7	838	917.7	7.7	-0.50	46	4.83	n.	7.6	822	0	
						750	927.2	7.3	.....	48	4.91	n.	8.4	735	0	
12:54.....	968.4	8.2	63	ne.	1.8	596	945.2	6.5	0.85	52	5.03	nne.	4.4	584	0	
						500	956.1	7.3	.....	57	5.83	nne.	3.2	490	0	
12:55.....	968.4	8.2	63	ne.	1.8	396	968.4									

## OBSERVATIONS AT DREXEL, FEBRUARY, 1916.

35

 TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.  
 February 21, 1916, series (No. 1).

Surface.							At different heights above sea.										Remarks.
Time.	Pressure.	Tempera-ture.	Rela-tive humid-ity.	Wind.		Alt-i-tude.	Pressure.	Tem-perature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav-ity.	Electric.		
A. M.																	
9:07.....	mb. 970.2	°C. 1.8	% 93	s.	m. p. s. 4.9	m. 396	mb. 970.2	°C. 1.8	.....	% 93	m. p. s. 6.47	s. 7.21	10 <sup>5</sup> ergs. 388	volts. 0	1/10 Ci.St., wnw.; light haze.		
9:10.....	970.2	1.9	92	s.	4.9	500	957.6	4.1	-1.51	88	7.21	s. 7.7	490	0			
9:31.....	970.1	2.6	91	s.	5.4	714	933.1	6.6	.....	82	8.00	ssw. 10.7	700	0			
10:20.....	969.9	4.5	88	s.	4.9	1,000	900.6	6.8	.....	81	7.90	ssw. 10.6	735	0			
						1,020	898.9	6.8	-0.07	74	7.21	ssw. 10.2	930	0			
						1,250	873.6	8.0	.....	59	6.33	sw. 9.2	1,225	420			
						1,477	850.7	9.2	-0.53	48	5.35	sw. 8.3	1,448	705			
						1,500	847.3	9.1	.....	45	5.20	sw. 8.4	1,470	830			
						1,750	822.5	7.6	.....	44	4.59	wsw. 9.0	1,715	730			
						2,000	798.1	6.2	.....	43	4.08	wsw. 9.7	1,060	620			
						2,250	774.0	4.8	.....	42	3.61	w. 10.2	2,205	510			
10:51.....	969.7	5.8	86	s.	5.4	2,305	769.2	4.0	0.62	41	3.33	w. 10.5	2,259	490			
						2,250	774.0	4.3	.....	41	3.41	w. 10.4	2,205	500			
						2,000	798.1	5.8	.....	41	3.78	wsw. 9.8	1,960	560	1/10 Ci.St., wnw.; light haze.		
						1,750	822.5	7.4	.....	41	4.22	wsw. 9.1	1,715	620			
11:55.....	969.3	8.2	78	s.	4.5	1,248	847.3	9.0	.....	41	4.71	sw. 8.4	1,470	670			
						1,500	847.3	9.3	.....	41	5.21	sw. 7.9	1,223	835			
						1,750	822.5	8.1	.....	42	4.64	sw. 7.8	1,715	.....			
						2,000	798.1	6.9	.....	42	4.18	sw. 7.7	1,960	.....			
P. M.																	
12:01.....	969.3	8.2	78	s.	4.5	2,035	795.3	6.7	0.48	42	4.12	sw. 7.7	1,994	.....			
						2,250	774.0	4.9	.....	42	3.84	ww. 8.3	2,205	.....			
12:10.....	969.0	8.8	77	s.	5.8	2,717	730.7	1.0	0.78	42	3.14	ww. 8.9	2,450	.....	Cloudless; light haze.		
						2,500	750.3	2.8	.....	42	2.76	w. 9.5	2,662	.....			
12:31.....	968.4	9.0	76	s.	6.3	1,862	811.1	7.2	0.43	43	3.00	ww. 10.2	2,205	.....			
						1,750	822.5	7.7	.....	43	4.08	ww. 10.6	1,060	.....			
						1,500	847.3	8.8	.....	43	4.37	ww. 10.8	1,825	.....			
						1,250	872.8	9.8	.....	43	4.52	ww. 10.4	1,715	.....			
						1,110	888.1	10.4	-8.21	44	5.33	sw. 8.7	1,225	.....			
12:40.....	968.2	10.2	73	ssw..	6.3	1,082	890.8	8.1	0.21	45	5.55	sw. 8.2	1,088	0			
12:50.....	967.9	10.5	70	ssw..	7.6	1,000	899.1	8.3	.....	47	4.86	sw. 10.2	1,081	0			
1:08.....	967.6	10.8	68	ssw..	7.1	750	926.5	8.8	.....	54	6.12	ssw. 10.6	980	0			
1:11.....	967.5	11.2	68	ssw..	8.0	707	931.8	8.9	-0.83	56	6.38	ssw. 12.2	693	0			
						500	945.6	7.9	2.11	60	6.39	ssw. 10.2	574	0			
						500	955.0	9.7	.....	63	7.58	ssw. 8.8	490	0			
						396	967.5	11.9	.....	67	9.33	ssw. 7.1	388	.....	Cloudless; light haze.		

February 21, 1916, series (No. 2).

P. M.	967.3	12.1	64	ssw.	8.9	396	967.3	12.1	.....	64	9.04	ssw. 8.9	388	.....	Cloudless.
1:52.....	967.2	11.9	64	ssw.	8.5	500	955.1	10.9	.....	63	8.22	ssw. 9.3	490	0	
2:15.....	967.0	12.2	65	ssw.	8.0	755	926.3	8.1	1.11	61	0.59	ssw. 10.2	740	0	
2:52.....	966.6	12.0	66	ssw.	7.6	1,000	899.1	8.6	.....	54	0.03	sw. 9.6	980	0	
3:20.....	966.5	13.6	60	ssw.	7.1	1,202	877.5	9.1	-0.22	48	5.55	sw. 9.1	1,178	0	
3:55.....	966.4	14.1	64	s.	4.5	1,500	846.6	9.1	.....	47	5.43	sw. 9.0	1,225	0	
4:19.....	966.3	14.1	66	s.	4.5	1,612	835.1	9.1	0.00	40	4.62	sw. 8.2	1,470	0	
4:28.....	966.2	14.0	60	ssw.	3.6	1,750	821.3	8.2	.....	37	4.28	sw. 7.9	1,580	0	
4:45.....	966.1	13.7	69	ssw.	4.0	2,000	793.3	6.6	.....	37	4.02	sw. 7.7	1,715	0	
4:46.....	966.1	13.6	69	ssw.	3.1	2,250	772.3	4.9	.....	37	3.61	sw. 7.2	1,960	0	
4:58.....	966.0	13.5	70	ssw.	3.1	2,380	760.5	4.0	0.66	37	3.01	sw. 6.6	2,332	0	
						2,500	748.8	3.0	.....	37	2.80	sw. 7.7	2,450	0	
						2,750	726.0	0.8	.....	37	2.39	ssw. 9.9	2,694	0	
						3,000	703.7	-1.3	.....	37	2.03	ssw. 12.1	2,939	0	Cloudless.
						3,059	689.9	-1.8	0.84	37	1.95	ssw. 12.6	2,997	0	
						3,000	703.7	-1.3	.....	37	2.03	ssw. 12.5	2,939	0	
						2,750	726.0	0.8	.....	37	2.39	ssw. 12.1	2,694	0	
						2,500	748.8	2.8	.....	36	2.69	sw. 11.7	2,450	0	
						2,250	772.3	4.8	.....	36	3.10	sw. 11.3	2,205	0	
						2,109	786.4	6.0	0.83	36	3.37	sw. 11.1	2,067	0	
						2,000	796.3	6.9	.....	35	3.48	sw. 10.4	1,960	0	
						1,750	821.3	9.0	.....	35	4.02	ssw. 8.9	1,715	0	
						1,640	832.4	9.9	0.28	34	4.15	ssw. 8.2	1,607	0	
						1,500	846.6	10.3	.....	34	4.28	ssw. 8.5	1,470	0	
						1,250	872.4	11.0	.....	33	4.33	ssw. 9.0	1,225	0	
						1,098	888.2	11.4	-0.57	33	4.45	ssw. 9.3	1,076	0	
						1,000	898.7	10.8	.....	34	4.40	ssw. 9.1	980	0	
						835	916.7	9.9	0.82	36	4.39	ssw. 8.8	819	0	
						750	920.0	10.6	.....	43	5.50	s. 7.7	735	0	
						500	953.7	12.6	.....	62	9.05	s. 4.5	490	0	
						396	966.0	13.5	.....	70	10.83	s. 3.1	388	.....	Cloudless.

## SUPPLEMENT NO. 5.

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.

February 21, 1916, series (No. 3).

Surface.							At different heights above sea.										Remarks.
Time.	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		Remarks.	
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.		
A. M.	mb.	°C.	%	m. p. s.		mb.	mb.	°C.		%	m. p. s.	m. p. s.	10 <sup>6</sup> ergs.	volts.			
5:36.....	965.7	11.2	76	se.	4.0	396	965.7	11.2	.....	76	10.10	se.	4.0	388	.....	Cloudless.	
5:39.....	965.6	11.1	77	se.	4.0	500	953.2	11.3	.....	79	10.58	sse.	4.9	480	0		
5:52.....	965.5	10.2	80	se.	4.0	580	944.6	11.3	-0.05	81	10.85	sse.	5.6	569	0		
5:53.....	965.5	10.1	80	se.	4.0	750	925.2	10.5	.....	80	10.16	s.	7.0	735	0		
6:14.....	965.4	8.3	85	se.	4.9	862	913.0	9.9	0.50	79	9.64	ssw.	8.0	845	0		
6:30.....	965.5	7.4	88	se.	5.4	1,000	897.7	10.5	.....	72	9.14	ssw.	8.7	980	0		
6:45.....	965.6	7.1	87	se.	4.9	1,112	886.0	11.0	-0.44	67	8.80	ssw.	9.2	1,090	0		
7:02.....	965.6	6.8	88	se.	4.5	1,250	871.3	10.7	.....	62	7.98	sw.	9.7	1,225	0		
7:42.....	965.7	6.3	89	se.	5.4	1,500	845.3	10.1	.....	53	6.55	ww.	11.0	1,470	0		
8:03.....	965.7	6.0	90	se.	5.4	1,598	835.6	9.9	0.23	49	5.98	ww.	11.5	1,566	0		
8:16.....	965.6	5.7	91	se.	5.4	2,000	795.8	6.3	.....	46	5.11	ww.	11.4	1,715	50		
8:25.....	965.6	5.4	92	se.	5.4	2,146	781.8	5.0	0.89	39	3.40	ww.	11.1	2,103	180		
8:35.....	965.5	5.4	92	se.	5.4	2,250	771.8	4.3	.....	38	3.16	ww.	11.0	2,205	220		
8:39.....	965.5	5.5	92	se.	5.4	2,500	747.9	2.5	.....	36	2.63	ww.	10.8	2,450	300		
8:46.....	965.5	5.4	92	se.	4.9	2,583	740.7	1.9	0.71	35	2.45	ww.	10.7	2,531	330		
8:51.....	965.4	5.5	90	se.	5.4	2,750	725.0	0.2	.....	35	2.17	ww.	9.7	2,694	420		
8:54.....	965.4	5.4	91	se.	5.4	3,000	708.0	-1.9	1.04	36	1.88	ww.	8.6	2,887	550		
8:56.....	965.4	5.4	91	se.	5.4	3,250	681.4	-4.5	.....	36	1.80	ww.	9.2	2,939	660		
8:58.....	965.7	6.3	89	se.	5.4	3,312	676.1	-5.0	0.75	37	1.55	ww.	11.8	3,184	.....	Cloudless.	
8:59.....	965.6	5.7	91	se.	5.4	3,250	681.4	-4.6	.....	38	1.58	ww.	12.3	3,184	.....		
9:03.....	965.7	6.0	90	se.	5.4	3,500	703.3	-3.0	.....	39	1.85	ww.	12.2	2,939	.....		
9:06.....	965.6	5.7	91	se.	5.4	3,750	725.0	-1.4	.....	40	2.18	ww.	12.1	2,694	.....		
9:11.....	965.7	6.0	90	se.	5.4	3,750	747.9	0.9	0.98	40	2.23	ww.	12.1	2,654	.....		
9:16.....	965.6	5.7	91	se.	5.4	2,250	771.8	3.4	.....	41	2.67	ww.	12.3	2,450	.....		
9:21.....	965.6	5.4	92	se.	5.4	2,096	787.0	4.9	0.82	42	3.64	ww.	12.6	2,054	1,480		
9:25.....	965.6	5.4	92	se.	5.4	2,000	795.8	5.7	.....	42	3.85	ww.	13.0	1,960	1,200		
9:30.....	965.5	5.5	92	se.	5.4	1,750	820.2	7.7	.....	43	4.52	sw.	13.9	1,715	430		
9:35.....	965.5	5.4	92	se.	5.4	1,630	832.9	8.7	0.97	43	4.84	sw.	14.3	1,598	60		
9:39.....	965.5	5.5	92	se.	5.4	1,500	845.3	10.0	.....	43	5.28	sw.	14.5	1,470	0		
9:45.....	965.5	5.4	92	se.	5.4	1,250	871.3	12.4	.....	42	6.05	ssw.	14.8	1,225	0		
9:46.....	965.5	5.5	92	se.	5.4	1,229	874.0	12.6	0.58	42	6.13	ssw.	14.8	1,205	0		
9:48.....	965.5	5.5	92	se.	5.4	1,023	895.4	13.8	-1.18	42	6.63	ssw.	10.8	1,003	0		
9:51.....	965.5	5.4	92	se.	4.9	1,000	897.7	13.5	.....	43	6.65	ssw.	10.7	980	0		
9:55.....	965.5	5.4	92	se.	4.9	736	921.2	11.0	0.34	52	6.83	s.	9.7	771	0		
9:58.....	965.4	5.5	90	se.	5.4	750	925.2	11.1	.....	53	7.00	s.	9.3	735	0		
10:01.....	965.4	5.5	90	se.	5.4	551	947.4	11.8	-4.13	60	8.30	sse.	7.1	540	0		
10:04.....	965.4	5.4	91	se.	5.4	500	953.2	9.7	.....	70	8.42	sse.	6.5	490	0		
10:06.....	965.4	5.4	91	se.	5.4	396	965.4	5.4	.....	91	8.16	se.	5.4	388	.....	Cloudless.	

February 21–22, 1916, series (No. 4).

P. M.																	
9:38.....	965.3	5.4	89	sse.	4.9	396	965.3	5.4	.....	89	7.98	sse.	4.9	388	.....	Few Cl.St., wsw.	
9:43.....	965.3	5.3	89	sse.	4.5	500	953.2	7.2	.....	86	8.74	s.	7.0	490	0		
9:45.....	965.3	5.3	89	sse.	4.5	750	925.1	11.7	.....	79	10.86	s.	12.1	735	0		
9:55.....	965.2	5.2	89	se.	4.9	831	916.0	13.1	-1.77	77	11.61	ssw.	13.8	815	0		
10:06.....	965.2	5.0	89	se.	4.5	1,000	897.7	13.0	.....	68	10.19	ssw.	14.9	980	0		
10:18.....	965.1	4.7	92	se.	4.5	1,226	874.0	12.9	0.05	55	8.18	sw.	16.3	1,202	0		
10:31.....	965.0	4.3	92	sse.	4.0	1,250	871.3	12.7	.....	55	8.08	sw.	16.3	1,225	0		
11:00.....	964.9	3.6	94	sse.	4.9	1,614	834.2	9.4	0.90	55	6.94	sw.	16.3	1,470	0		
11:14.....	964.8	3.9	95	sse.	4.5	1,750	820.2	8.3	.....	55	6.48	sw.	16.3	1,582	0		
11:38.....	964.6	4.1	96	sse.	4.0	2,000	727.6	0.1	0.80	55	6.02	sw.	15.4	1,715	180		
11:51.....	964.5	3.9	96	sse.	3.1	2,126	725.2	-0.1	.....	54	5.45	sw.	14.3	1,866	380		
12:01.....	964.4	3.7	97	se.	2.7	2,353	711.9	4.0	.....	55	4.47	ww.	12.7	2,205	670		
12:10.....	964.3	3.7	97	sse.	3.6	2,500	748.1	1.0	.....	54	4.20	ww.	12.2	2,308	750		
12:20.....	964.2	3.6	98	se.	4.0	2,727	727.6	0.1	0.80	52	3.79	ww.	13.8	2,450	830		
12:23.....	964.2	3.5	98	se.	4.0	2,750	725.2	-0.1	.....	52	3.20	ww.	16.2	2,672	950		
12:27.....	964.1	3.7	98	se.	4.0	3,000	702.9	-2.7	.....	51	3.15	ww.	16.1	2,694	970		
12:30.....	964.1	3.7	98	se.	4.0	2,500	748.1	1.3	0.84	50	3.38	ww.	15.6	2,939	1,100		
12:33.....	964.1	3.7	98	se.	4.0	2,492	749.4	1.4	0.84	50	3.38	ww.	13.0	2,442	.....	Cloudless; surface fog.	
12:35.....	964.1	3.7	98	se.	4.0	2,250	771.9	3.4	.....	51	3.98	ww.	12.3	2,205	.....		
12:38.....	964.1	3.7	98	se.	4.0	2,000	795.9	5.5	.....	52	4.70	sw.	11.6	1,980	.....		
12:41.....	964.1	3.7	98	se.	4.0	1,934	802.5	6.1	0.94	53	4.99	sw.	11.4	1,898	540		
12:45.....	964.1	3.7	98	se.	4.0	1,750	820.2	7.8	.....	52	5.50	sw.	12.0	1,715	320		
12:48.....	964.1	3.7	98	se.	4.0	1,496	846.1	10.2	0.90	51	6.35	sw.	12.8	1,466	0		
12:50.....	964.1	3.7	97	sse.	3.6	1,250	871.3	12.4	.....	52	7.49	ssw.	13.6	1,225	130		
12:55.....	964.1	3.7	97	sse.	3.6	1,184	878.1	13.0	0.75	52	7.79	ssw.	13.8	1,161	170		
12:58.....	964.1	3.7	97	sse.	3.6	1,000	897.7	14.4	.....	51	8.36	ssw.	14.6	980	90		
13:00.....	964.1	3.7	98	se.	4.0	813	917.4	15.8	0.43	50	8.98	ssw.	15.3	797	0		
13:05.....	964.1	3.7	98	se.	4.0	760	924.2	16.1	.....	51	9.33	ssw.	13.2				

# OBSERVATIONS AT DREXEL, FEBRUARY, 1916.

37

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.  
February 22, 1916, series (No. 5).

Time.	Pressure.	Surface.			At different heights above sea.										Potential.		Remarks.				
		Temper-	Rela-	Wind.	Alt-	Pressure.	Tem-	At	Humidity.		Wind.										
									Rel.	Vap.	Dir.	Vel.	Grav-	Electric.							
A. M.	mb.	°C.	%	m. p. s.	m.	mb.	°C.		%	mb.	m. p. s.	10 <sup>4</sup> ergs.	volts.								
1:14.....	963.7	2.9	97	sse.	396	963.7	2.9	.....	97	7.30	sse	388	.....								
1:16.....	963.7	2.9	97	sse.	500	951.5	6.9	.....	89	8.88	s.	490	0				Cloudless; surface fog.				
1:16.....	963.7	2.9	97	sse.	713	927.5	15.1	-3.85	74	12.70	sw.	699	0								
1:30.....	963.6	2.3	98	sse.	1,000	906.5	14.5	.....	73	12.45	sw.	735	0								
1:30.....	963.6	2.3	98	sse.	1,094	886.6	14.3	0.21	63	10.40	sw.	980	120								
1:30.....	963.6	2.3	98	sse.	1,250	870.1	13.3	.....	59	9.78	sw.	1,073	170				Cloudless; light fog.				
2:40.....	963.0	1.5	99	se.	1,607	893.3	11.8	0.62	57	7.53	sw.	6.6	1,675								
2:40.....	963.0	1.5	99	se.	1,750	818.2	9.3	.....	58	8.03	sw.	6.0	1,715				Cloudless; dense fog.				
3:52.....	963.1	1.5	100	nnw.	1,923	800.3	7.1	1.04	60	6.05	w.	5.2	1,885	810							
4:30.....	963.2	0.2	97	ne.	1,558	846.6	10.1	0.64	61	6.77	w.	6.6	1,715								
5:00.....	963.2	0.0	100	ne.	1,500	841.3	10.5	.....	63	7.79	w.	8.2	1,527								
6:00.....	963.8	0.6	100	nw.	1,275	863.8	11.9	.....	64	8.13	w.	8.5	1,470								
7:00.....	964.5	0.0	100	nnw.	5.4	1,319	859.8	10.6	67	8.56	wnw.	8.2	1,293								
8:00.....	965.2	0.0	100	nnw.	6.3	1,452	846.6	8.5	67	7.44	nw.	9.2	1,423				Dense fog ended 7:15 a. m.				
9:00.....	965.8	0.0	100	nnw.	6.7	1,458	846.6	7.6	67	6.99	nw.	10.2	1,429								
9:58.....	967.2	0.0	100	nnw.	1,460	846.6	6.0	0.20	72	6.73	nw.	12.8	1,431				10/10 St., nw.				
10:30.....	967.4	0.0	100	n.	1,250	883.2	6.4	.....	76	7.30	nw.	13.4	1,225								
10:45.....	967.6	0.0	100	nnw.	1,117	883.9	6.7	-4.15	78	7.65	nw.	13.8	1,095								
11:00.....	967.7	0.0	100	nnw.	1,000	896.5	1.8	.....	90	6.26	nw.	980									
11:00.....	967.7	0.0	100	nnw.	910	907.0	-1.9	-0.04	100	5.22	nw.	892									
11:00.....	967.7	0.0	100	nnw.	750	925.3	-2.0	.....	100	5.17	nw.	735									
11:00.....	967.7	0.0	100	nnw.	681	933.0	-2.0	0.71	100	5.17	nw.	668									
11:00.....	967.7	0.0	100	nnw.	500	954.8	-0.7	.....	100	5.76	nnw.	490									
11:00.....	967.7	0.0	100	nnw.	396	967.7	0.0	.....	100	6.11	nnw.	6.3	388				10/10 St., nw.				

February 23, 1916.

P. M.	Pressure.	5.1	58	ssw.	5.8	396	970.2	5.1	.....	58	5.10	ssw.	5.8	388	.....	
2:21.....	970.2	5.1	58	ssw.	5.8	396	970.2	5.1	.....	60	4.71	ssw.	5.6	490	60	Cloudless.
2:38.....	970.0	5.0	58	s.	4.9	607	945.1	3.5	1.56	63	4.38	s.	5.4	595	110	
3:11.....	969.4	5.5	54	s.	4.9	1,000	899.3	5.2	.....	45	3.41	ssw.	6.2	735	190	
3:50.....	968.4	6.8	62	s.	4.9	1,250	872.0	5.2	-0.86	14	1.24	sw.	7.6	980	320	
4:45.....	967.4	7.0	57	se.	5.4	1,493	846.3	5.0	0.06	12	1.07	ww.	7.7	996	330	
4:51.....	967.4	8.0	57	se.	5.4	1,750	845.7	5.0	.....	11	0.98	ww.	7.8	1,470	640	
5:03.....	967.2	0.6	58	s.	4.5	2,000	796.2	2.4	.....	15	1.19	w.	8.8	1,715	690	
5:18.....	967.3	6.1	58	sse.	4.9	2,250	771.0	1.1	.....	19	1.38	w.	9.7	1,960	730	
5:23.....	967.3	6.3	59	s.	4.5	2,412	754.9	0.2	0.52	23	1.52	ww.	10.7	2,205	770	
5:35.....	967.4	5.9	61	s.	5.4	2,500	720.3	-2.6	.....	26	1.61	ww.	11.3	2,364	800	
5:40.....	967.5	5.6	63	ssw.	4.5	1,750	723.0	-3.8	0.82	38	1.37	ww.	12.6	2,694		
5:41.....	967.5	5.6	63	ssw.	4.9	2,887	711.4	-2.7	.....	43	1.91	ww.	13.1	2,829		
5:41.....	967.5	5.6	63	ssw.	5.4	2,750	723.0	-2.7	.....	46	2.24	ww.	13.1	2,694		
5:43.....	967.2	0.6	58	s.	4.5	2,500	746.4	-0.7	.....	51	2.94	w.	13.0	2,450		
5:43.....	967.2	0.6	58	s.	4.5	2,377	758.4	0.3	0.74	54	3.37	w.	13.0	2,329	425	
5:43.....	967.2	0.6	58	s.	4.5	2,250	771.0	1.2	.....	52	3.46	w.	13.0	2,205	420	
5:43.....	967.2	0.6	58	s.	4.5	2,000	705.8	3.1	.....	36	3.30	ww.	11.5	1,225		
5:43.....	967.3	6.1	58	sse.	4.9	1,750	818.6	4.9	0.59	49	3.74	w.	13.0	1,724	0	
5:43.....	967.3	6.1	58	sse.	4.9	1,500	844.3	6.4	.....	42	4.04	ww.	12.2	1,470	0	
5:43.....	967.3	6.1	58	sse.	4.9	1,487	846.3	6.5	-0.33	41	3.97	ww.	12.2	1,468	0	
5:43.....	967.3	6.1	58	sse.	4.9	1,250	870.5	5.7	.....	36	3.30	ww.	11.5	1,225		
5:43.....	967.3	6.1	58	sse.	4.9	1,000	897.8	4.9	.....	30	2.60	sw.	10.8	980	0	
5:43.....	967.4	5.9	61	s.	5.4	912	908.0	4.6	-1.19	28	2.37	sw.	10.5	894	0	
5:43.....	967.5	5.6	63	ssw.	4.5	811	919.3	3.4	0.53	32	2.60	sw.	9.4	795	0	
5:43.....	967.5	5.6	63	ssw.	4.5	750	926.0	3.7	.....	37	2.95	sw.	8.7	735	0	
5:43.....	967.5	5.6	63	ssw.	4.5	500	954.9	5.0	.....	55	4.80	ssw.	6.0	490	0	
5:43.....	967.5	5.6	63	ssw.	4.9	396	967.5	5.6	.....	63	5.73	ssw.	4.9	388		Few Cl.St., wnw.

February 24, 1916.

A. M.	Pressure.	2.4	74	wnw.	5.8	396	970.4	2.4	.....	74	5.37	wnw.	5.8	388	.....	3/10 St.Cu., nnw.
8:32.....	970.4	2.4	74	wnw.	5.8	500	957.8	1.9	.....	76	5.33	nw.	9.8	490	0	
8:37.....	970.4	2.5	75	wnw.	7.1	750	928.3	0.7	.....	80	5.14	nww.	19.3	735	0	
8:46.....	970.5	2.5	73	nw.	7.1	1,000	900.0	-1.4	0.47	80	5.10	nww.	20.4	763	0	
9:08.....	970.6	3.2	69	nw.	8.0	1,675	826.6	-7.1	0.89	100	3.35	nww.	21.5	1,642	710	8/10 St.Cu., nnw.
9:10.....	970.6	3.2	69	nw.	7.6	1,788	818.7	-5.1	.....	85	3.38	nww.	22.0	1,715	730	Altitude of St.Cu. base about 1,600 m.
9:34.....	970.8	3.4	68	nw.	6.3	2,157	777.7	-5.3	0.35	58	2.39	nww.	23.7	1,753	750	
10:06.....	971.0	4.0	72	nw.	8.0	2,673	726.7	-8.3	0.58	40	1.50	nww.	24.5	2,205	1,000	
10:12.....	971.0	3.8	65	nnw.	10.2	2,340	759.3	-6.4	0.67	29	0.95	nww.	25.4	2,619	1,250	
10:33.....	971.3	3.0	65	nw.	10.7	1,750	818.7	-2.5	.....	31	1.10	nww.	23.9	2,450	1,120	
10:35.....	971.3	2.9	66	nw.	11.2	1,575	837.0	-7.0	0.48	61	2.14	nww.	22.6	2,293	1,000	
10:51.....	971.5	3.0														

## SUPPLEMENT NO. 5.

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Continued.

February 25, 1916.

Surface.								At different heights above sea.										Remarks.	
Time.	Pressure.	Tempera-	Rela-	Wind.		Altitude.	Pressure.	Tem-	$\Delta t$	Humidity.		Wind.		Potential.					
				ture.	tive					ture.	100 m.	Rel.	Vap.	Dir.	Vel.	Grav-	Electric.		
A. M.																			
9:26	mb. 971.0	°C. -1.6	% 90	sw.	m. p. s. 4.5	mb. 396	mb. 971.0	°C. -1.6	.....	% 90	m. p. s. 4.82	sw. 4.5	10 <sup>6</sup> ergs. 388	volts. 120					4/10 A.Cu., nw.; 6/10 St.Cu., nw.
9:30	971.0	-1.5	90	sw.	5.8	500	958.2	-0.7	.....	87	5.01	sw. 7.0	490						
9:48	970.7	-0.1	85	sw.	4.9	735	930.8	1.2	-0.83	79	5.26	w. 12.6	721	380					
9:58	970.6	0.5	80	sw.	6.7	750	929.1	1.2	.....	79	5.26	w. 12.6	735	380					
10:20	970.6	1.5	75	WSW.	5.4	1,000	900.2	0.6	0.24	71	4.53	WNW. 12.6	980	380					
10:28	970.6	1.4	76	WSW.	6.3	1,147	884.1	0.2	0.24	66	4.09	WNW. 12.6	1,124	380					
10:50	970.6	1.4	75	WSW.	6.7	1,250	872.5	-0.3	.....	66	3.93	WNW. 13.1	1,225	450					
10:55	970.6	1.5	74	WSW.	6.7	1,502	845.7	-1.6	0.51	66	3.53	WNW. 14.3	1,472	615					
11:04	970.6	1.7	73	WSW.	6.3	1,750	819.5	-3.1	.....	76	3.58	WNW. 16.0	1,715	820					
11:16	970.5	2.1	71	WSW.	4.5	2,000	794.0	-4.5	.....	86	3.60	NW. 17.6	1,960	1,020					
11:23	970.4	2.6	68	w.	4.9	2,250	769.5	-6.0	.....	95	3.50	NW. 19.3	2,205	1,230					
12:18	970.0	4.9	72	nw.	5.8	2,354	759.3	-6.6	0.59	100	3.50	NW. 20.0	2,307	1,360	Altitude of St.Cu. base about 2,200 m.				
12:29	969.9	4.8	73	nw.	6.3	2,500	745.5	-5.7	.....	78	2.95	NW. 19.1	2,460	1,560	3/10 A.Cu., nw.; 7/10 St.Cu., nw.				
12:47	969.7	5.4	69	NNW.	6.3	2,575	738.1	-5.2	-0.83	66	2.60	NW. 18.7	2,523	1,650					
12:58	969.6	5.7	70	nw.	7.6	2,750	722.3	-6.5	.....	65	2.29	NW. 22.9	2,093	1,890					
1:08	969.5	5.7	69	nw.	7.1	3,000	699.3	-8.4	.....	64	1.91	NW. 20.8	2,939	2,210					
P. M.						3,250	676.8	-10.2	.....	63	1.61	NW. 22.1	3,184	.....					
1:07	976.4	-4.3	67	NNW.	10.7	396	976.4	-4.3	-2.36	28	1.30	NW. 15.8	2,126	1,170					
1:15	976.4	-5.0	71	NNW.	8.9	500	963.1	-5.7	.....	70	2.30	NW. 17.9	1,980	1,110					
1:26	976.3	-4.6	73	NNW.	12.1	750	932.8	-9.2	0.92	86	2.49	NW. 18.7	1,897	1,100	7/10 St.Cu., nw.; 3/10 St., nw.				
1:43	976.3	-5.0	63	NNW.	10.7	1,000	902.7	-11.3	1.36	71	1.90	NW. 13.8	775	0					
2:22	976.3	-5.0	71	NNW.	8.9	1,228	876.9	-13.1	0.78	76	1.76	NW. 14.6	980	380					
2:25	976.3	-4.9	71	NNW.	9.8	1,250	873.7	-13.2	.....	82	1.61	NW. 15.4	1,202	780					
2:27	976.2	-4.9	71	NNW.	9.8	1,500	845.3	-14.6	0.54	87	1.49	NW. 14.4	1,470	1,105					
2:34	976.3	-4.9	70	NNW.	9.4	1,582	838.8	-14.9	0.54	88	1.47	NW. 14.2	1,531	1,260	Altitude of St.Cu. base about 1,200 m.				
2:45	976.4	-5.0	68	NNW.	8.5	1,750	818.1	-12.3	.....	84	1.77	NW. 15.7	1,715	1,650					
3:04	976.4	-5.0	67	NNW.	9.8	2,000	793.4	-9.1	-1.36	80	2.25	NW. 17.6	1,948	1,650					
3:11	976.4	-5.2	71	NNW.	8.5	2,250	766.9	-9.3	.....	70	1.93	NW. 17.9	1,960	1,650					
3:27	976.4	-5.0	71	NNW.	8.9	2,349	757.2	-9.4	0.08	66	1.81	NW. 24.3	2,205	.....					
3:38	976.5	-5.4	75	NNW.	8.5	2,500	742.4	-9.1	.....	60	1.69	NW. 26.9	2,302	.....					
3:55	976.5	-5.4	69	NNW.	8.0	2,704	723.2	-8.6	-0.23	52	1.53	NW. 26.9	2,450	.....					
4:04	976.5	-5.5	68	NNW.	8.9	2,750	718.7	-8.9	.....	49	1.40	NW. 27.1	2,650	.....					
						2,750	718.7	-8.8	-0.35	24	0.91	NW. 28.0	2,919	.....					
						2,500	742.4	-9.7	.....	21	0.56	NW. 24.1	2,450	.....					
						2,250	766.9	-10.5	0.23	18	0.45	NW. 20.7	2,218	.....					
						2,000	786.9	-10.5	.....	18	0.45	NW. 20.6	2,205	.....					
						1,750	818.1	-13.6	.....	48	0.90	NW. 15.5	1,715	1,120					
						1,500	828.7	-15.0	0.30	57	0.94	NW. 14.4	1,622	900					
						1,250	845.3	-14.5	.....	64	1.11	NW. 13.6	1,470	560	Altitude of St.Cu. base about 1,200 m.				
						1,000	873.7	-13.8	0.77	76	1.40	NW. 12.1	1,231	0					
						1,000	902.7	-11.8	.....	84	1.86	NW. 13.1	980	0	Some ice on wire.				
						804	926.5	-10.3	1.18	90	2.28	NNW. 13.8	788	0					
						750	932.8	-9.7	.....	87	2.32	NNW. 13.2	735	0	Light snow.				
						500	963.1	-6.7	.....	74	2.57	NNW. 10.1	490	0					
						396	976.5	-5.5	.....	68	2.61	NNW. 8.9	388	.....	10/10 St.Cu., nnw.				

February 26, 1916.

P. M.	976.4	-4.3	67	NNW.	10.7	396	976.4	-4.3	-2.36	67	2.85	NNW. 10.7	388	.....	10/10 St.Cu., nnw.
	976.4	-5.0	71	NNW.	8.9	500	963.1	-5.7	.....	68	2.57	NNW. 11.5	490	0	Light snow.
	976.4	-5.0	71	NNW.	8.9	750	932.8	-9.2	0.92	71	1.98	NNW. 13.5	735	0	
	976.3	-4.6	73	NNW.	12.1	1,000	902.7	-11.3	1.36	71	1.90	NNW. 13.8	775	0	Altitude of St.Cu. base about 900 m.
	976.3	-5.0	63	NNW.	10.7	1,228	876.9	-13.1	0.78	82	1.61	NNW. 14.6	980	380	
	976.3	-5.0	71	NNW.	8.9	1,250	873.7	-13.2	.....	82	1.60	NNW. 15.3	1,225	820	
	976.3	-5.0	71	NNW.	8.9	1,500	845.3	-14.6	0.54	87	1.49	NNW. 14.4	1,470	1,105	
	976.3	-5.0	71	NNW.	8.9	1,582	838.8	-14.9	0.54	88	1.47	NNW. 14.2	1,531	1,260	Altitude of St.Cu. base about 1,200 m.
	976.3	-5.0	71	NNW.	8.9	1,750	818.1	-12.3	.....	84	1.77	NNW. 15.7	1,715	1,650	
	976.3	-4.9	71	NNW.	9.8	2,000	793.4	-9.1	-1.36	80	2.25	NNW. 17.6	1,948	1,650	
	976.3	-4.9	71	NNW.	9.8	2,250	766.9	-9.3	.....	70	1.93	NNW. 17.9	1,960	1,650	
	976.3	-4.9	71	NNW.	9.8	2,349	757.2	-9.4	0.08	66	1.81	NNW. 24.3	2,205	.....	
	976.2	-4.9	71	NNW.	9.8	2,500	742.4	-9.1	.....	60	1.69	NNW. 26.9	2,450	.....	
	976.2	-4.9	71	NNW.	9.8	2,704	723.2	-8.6	-0.23	52	1.53	NNW. 26.9	2,650	.....	
	976.3	-4.9	70	NNW.	9.4	2,750	718.7	-8.9	.....	49	1.40	NNW. 27.1	2,694	.....	
	976.4	-5.0	68	NNW.	8.5	2,750	718.7	-8.8	-0.35	24	0.69	NNW. 27.7	2,694	.....	
	976.4	-5.0	67	NNW.	9.8	2,263	765.3	-10.5	0.23	21	0.56	NNW. 24.1	2,450	.....	
	976.4	-5.0	67	NNW.	9.8	2,250	766.9	-10.5	.....	18	0.45	NNW. 20.7	2,218	.....	
	976.4	-5.2	71	NNW.	8.5	2,002									

# OBSERVATIONS AT DREXEL, FEBRUARY, 1916.

39

TABLE 3.—Free-air data from kite flights at Drexel Aerological Station, February, 1916—Concluded.

February 28, 1916.

Time.	Pressure.	Surface.				At different heights above sea.								Remarks.		
		Tempera-	Rela-	Wind.		Altitude.	Pressure.	Tem-	At	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap.	Dir.	Vel.	Grav-	Electric.	
P. M. 2:33.....	mb. 964.6	°C. -2.3	% 81	w.	m. p. s. 4.5	m. 396	mb. 964.6	°C. -2.3	.....	% 81	m. b. 4.08	w.	m. p. s. 4.5	10 <sup>8</sup> ergs. 388	volts. 0	2/10 St.Cu., wnw.
3:40.....	964.7	-2.1	77	w.	4.5	500	951.5	-3.2	.....	82	3.84	w.	4.8	490	0	
4:16.....	964.9	-2.0	77	w.	4.0	750	922.0	-5.2	.....	82	3.23	w.	5.4	735	0	
5:22.....	965.3	-2.7	79	w.	3.1	994	894.0	-7.2	0.82	83	2.76	w.	6.0	975	0	
5:35.....	965.4	-3.1	82	w.	3.1	1,000	893.2	-7.2	.....	83	2.76	w.	6.0	980	.....	
						1,250	865.0	-8.8	.....	77	2.23	wnw.	7.7	1,225	.....	Few St.Cu., wnw.
						1,434	845.0	-9.9	0.55	72	1.89	nnw.	9.0	1,406	.....	
						1,250	865.0	-9.0	.....	80	2.27	nnw.	7.9	1,225	.....	
						1,000	893.2	-7.8	.....	91	2.87	nw.	6.3	980	.....	
						750	922.4	-5.9	.....	88	3.26	wnw.	5.0	735	0	
						500	952.2	-3.9	.....	84	3.70	wnw.	3.6	490	0	
						396	965.4	-3.1	.....	82	3.86	w.	3.1	388	.....	Few St.Cu., wnw.

February 29, 1916.

A. M. 8:38.....	966.9	-8.8	100	ese.	5.4	396	966.9	-8.8	.....	100	2.89	ese.	5.4	388	.....	10/10 Cl.St., w.; light fog until 10:30 a. m.
8:43.....	967.0	-8.7	100	ese.	4.9	500	953.8	-9.6	.....	98	2.64	se.	7.1	490	270	
8:48.....	967.1	-8.6	100	ese.	4.9	506	953.3	-9.6	0.78	98	2.64	se.	7.2	496	280	
9:21.....	967.3	-7.8	100	e.	5.4	613	940.4	-6.5	-2.90	98	3.46	sse.	9.0	601	550	
11:12.....	966.8	-3.0	76	se.	4.0	750	923.4	-7.1	.....	96	3.22	sso.	9.4	735	900	
11:51.....	966.6	-2.8	80	se.	4.0	1,000	894.2	-8.1	.....	93	2.86	sse.	10.2	980	1,360	4/10 Cl., w.; 5/10 Cl.St., w.; few St., se.
11:57.....	966.5	-2.5	84	se.	4.5	1,250	866.1	-9.1	.....	90	2.53	s.	11.1	1,225	2,110	
12:05.....	966.5	-2.6	85	se.	4.5	1,449	844.8	-9.9	0.41	87	2.28	s.	11.7	1,420	2,500	
12:42.....	965.6	-1.0	76	s.	5.4	1,500	838.8	-9.8	.....	85	2.24	s.	11.5	1,470	2,600	
12:46.....	965.3	-0.9	75	s.	6.7	3,250	812.1	-9.1	.....	74	2.08	ssw.	10.7	1,715	2,350	
1:22.....	964.7	-0.3	70	s.	7.6	2,098	777.2	-8.1	-0.28	64	1.91	sw.	9.9	1,960	2,970	
1:27.....	964.6	-0.3	70	s.	7.6	2,250	761.3	-8.3	.....	61	1.84	sw.	10.6	2,054	3,050	3/10 Cl.St., w.; few Fr.Cu., s.
1:43.....	964.2	-1.2	76	s.	7.6	2,500	737.2	-8.6	.....	61	1.79	sw.	12.2	2,450	4,180	
1:50.....	964.0	-0.7	72	s.	7.1	3,000	699.1	-9.2	0.13	61	1.73	sw.	13.8	2,694	4,280	10/10 St.Cu., s.; altitude of St. Cu. base about 1,000 m.
1:55.....	963.8	-0.6	70	s.	6.7	3,250	669.0	-10.9	.....	63	1.69	sw.	15.2	2,939	4,740	
2:04.....	963.8	-0.8	71	s.	7.6	3,500	647.3	-12.2	.....	66	1.58	sw.	16.4	3,184	5,220	
						3,654	635.1	-13.0	0.51	70	1.39	sw.	17.5	3,429	5,700	
						3,750	626.6	-13.0	.....	70	1.39	wws.	20.0	3,673	6,170	
						3,855	618.5	-13.0	0.00	69	1.37	wws.	22.0	3,776	6,370	
						4,000	606.4	-13.7	.....	67	1.25	wws.	22.8	3,918	6,660	
						4,250	587.1	-15.0	.....	65	1.07	w.	24.0	4,162	.....	
P. M. 12:05.....	966.5	-2.1	83	se.	4.5	4,338	580.9	-15.4	0.48	64	1.02	w.	24.5	4,248	.....	
12:42.....	965.6	-1.0	76	s.	5.4	4,250	587.1	-15.0	.....	63	1.04	w.	24.8	4,162	.....	
12:46.....	965.3	-0.9	75	s.	6.7	4,000	606.4	-13.8	.....	61	1.12	wnw.	23.6	3,918	6,200	
1:22.....	964.7	-0.3	70	s.	7.6	3,765	626.1	-12.7	-0.18	59	1.20	wnw.	22.9	3,688	4,500	
1:27.....	964.6	-0.3	70	s.	7.6	3,750	626.6	-12.7	.....	59	1.20	wnw.	22.9	3,673	4,470	
1:43.....	964.2	-1.2	76	s.	7.6	3,500	635.1	-12.0	0.40	59	1.18	wnw.	22.9	3,576	4,250	
1:50.....	964.0	-0.7	72	s.	7.1	3,250	647.3	-12.3	.....	60	1.27	wnw.	21.8	3,429	3,920	
1:58.....	963.8	-0.6	70	s.	6.7	3,000	669.0	-11.3	.....	62	1.43	w.	19.9	3,184	3,370	
2:04.....	963.8	-0.8	71	s.	7.6	2,948	691.0	-10.3	.....	64	1.62	w.	18.0	2,939	2,820	
						2,750	713.9	-9.3	.....	59	1.63	w.	16.6	2,694	2,190	
						2,500	736.7	-8.3	.....	52	1.57	wws.	15.3	2,450	1,930	
						2,250	760.3	-7.3	.....	45	1.48	wws.	14.0	2,205	1,670	
						2,024	785.5	-7.1	-1.19	44	1.47	wws.	13.8	2,160	1,620	
						2,089	778.9	-8.9	0.46	44	1.26	sw.	13.9	2,028	1,480	
						2,000	785.1	-8.6	.....	45	1.32	sw.	14.0	1,690	1,420	
						1,750	810.7	-7.4	.....	46	1.50	ssw.	14.1	1,715	1,200	
						1,500	827.1	-6.3	.....	47	1.69	ssw.	14.2	1,470	950	
						1,337	855.2	-5.5	-1.27	48	1.84	s.	14.3	1,311	670	
						1,250	864.3	-6.6	.....	50	1.75	s.	13.9	1,225	530	
						1,116	879.6	-8.3	0.79	54	1.63	s.	13.4	1,094	360	Altitude of St.Cu. base about 1,000 m.
						892.1	874.7	-7.4	.....	62	2.02	s.	13.0	880	240	
						774	918.7	-6.6	1.27	77	2.93	sse.	12.1	759	0	Considerable ice on wire.
						750	921.0	-5.3	.....	77	3.01	sse.	11.8	735	0	
						500	950.2	-2.1	.....	73	3.74	s.	8.8	490	0	
						396	963.8	-0.8	.....	71	4.05	s.	7.6	388	.....	Few Cl., w.; 8/10 St.Cu., s.

## SUPPLEMENT NO. 5.

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916.

March 1, 1916 (No. 1).

Surface.							At different heights above sea.										Remarks.
Time.	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		Remarks.	
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.		
A. M.	mb.	°C.	%	nnw.	m. p. s.	m.	mb.	°C.	.....	%	mb.	m. p. s.	$10^5$ ergs.	volts.			
1:16.	963.1	-7.8	88	nnw.	7.1	396	963.1	-7.8	.....	88	2.77	7.1	388	.....	10/10 St., nnw.		
1:19.	963.1	-7.8	88	nnw.	7.6	500	950.0	-9.1	.....	88	2.47	nnw.	8.2	490	90		
1:24.	963.1	-7.7	88	nnw.	6.3	739	921.2	-10.9	0.91	88	2.10	nnw.	9.6	725	260		
1:55.	962.8	-8.1	91	nnw.	7.1	750	920.0	-10.7	.....	88	2.15	nnw.	9.7	735	320		
2:11.	962.9	-8.1	88	n.	8.9	907	901.6	-8.4	-1.49	89	2.66	nnw.	10.8	889	900		
2:16.	962.9	-8.0	89	n.	8.0	1,000	890.6	-7.9	.....	88	2.75	nnw.	.....	980	.....		
2:23.	963.0	-7.9	91	n.	10.2	1,059	883.8	-7.6	-0.22	88	2.82	nnw.	.....	1,038	.....		
						1,000	890.6	-7.5	.....	88	2.87	nnw.	.....	980	380		
						797	914.1	-7.4	-4.59	90	2.93	nnw.	.....	781	250		
						750	920.0	-9.6	.....	90	2.42	nnw.	.....	735	220		
						723	923.0	-10.8	0.89	90	2.18	nnw.	11.5	709	200		
						500	950.0	-8.8	.....	91	2.63	n.	10.6	490	70		
						396	963.0	-7.9	.....	91	2.84	n.	10.2	388	.....		

March 1, 1916 (No. 2).

P. M.	963.3	-7.6	88	n.	8.9	396	963.3	-7.6	.....	88	2.92	n.	8.9	388	.....
3:05.	963.3	-7.6	88	n.	8.5	500	950.1	-8.3	.....	87	2.63	n.	9.1	490	90
3:06.	963.3	-7.6	88	n.	8.5	699	928.3	-9.6	0.66	84	2.26	n.	9.6	685	240
3:08.	963.3	-7.5	88	n.	8.9	750	920.0	-8.9	.....	85	2.48	n.	9.7	735	280
3:31.	963.7	-7.6	88	n.	7.6	1,000	903.2	-6.9	-1.38	86	2.93	n.	10.1	877	380
3:37.	963.7	-7.6	88	n.	8.5	863.1	872.4	-7.4	.....	86	2.80	n.	9.5	980	430
3:46.	963.9	-7.6	88	n.	6.3	1,250	862.6	-8.5	0.44	86	2.55	n.	7.9	1,225	520
3:50.	964.0	-7.6	88	n.	8.0	1,258	853.8	-9.4	.....	86	2.36	n.	7.4	1,470	360
3:59.	964.1	-7.8	88	n.	8.9	1,500	809.2	-10.3	.....	85	2.15	n.	6.9	1,715	.....
4:03.	964.2	-7.8	88	n.	8.9	1,750	820.7	-10.5	0.37	85	2.11	n.	6.8	1,777	.....
						1,750	809.2	-10.3	.....	85	2.15	n.	6.7	1,715	.....
						1,750	835.8	-9.4	.....	85	2.33	n.	6.4	1,470	.....
						1,750	863.1	-8.4	.....	86	2.57	n.	6.2	1,225	.....
						1,750	880.1	-7.8	0.11	86	2.71	n.	6.0	1,078	.....
						1,750	891.4	-7.7	.....	86	2.73	n.	8.4	980	.....
						1,750	901.4	-7.6	-1.12	86	2.76	n.	10.4	897	.....
						1,750	920.9	-9.4	.....	86	2.36	n.	9.9	735	0
						1,750	930.1	-10.3	0.90	86	2.18	n.	9.7	661	0
						1,750	951.3	-8.7	.....	87	2.53	n.	9.2	490	0
						1,750	964.2	-7.8	.....	88	2.77	n.	8.9	388	.....

March 2, 1916.

A. M.	975.4	-17.8	100	nne.	5.4	396	975.4	-17.8	.....	100	1.27	nne.	5.4	338	.....
8:44.	975.4	-17.8	100	nne.	5.4	500	962.2	-16.7	.....	100	1.41	nne.	6.5	490	0
8:55.	975.6	-17.6	100	nne.	6.8	599	954.4	-16.1	-1.04	100	1.49	nne.	7.1	548	0
10:44.	975.7	-15.0	100	nne.	5.8	1,000	930.5	-15.4	.....	100	1.59	ne.	9.0	735	180
11:02.	975.7	-14.4	100	nne.	5.4	800	916.2	-15.0	-0.36	100	1.65	ne.	10.2	851	470
11:10.	975.7	-14.2	100	nne.	6.3	750	921.5	-14.4	-0.34	100	1.73	ne.	8.2	980	620
11:11.	975.7	-14.2	100	nne.	6.7	564	921.0	-14.6	-0.60	100	1.91	ne.	4.4	1,225	2/10 Cl., w.
						500	954.4	-15.2	.....	100	1.93	ne.	4.0	1,263	.....
						500	962.4	-14.8	.....	100	1.91	ne.	4.4	1,225	.....
						500	975.7	-14.2	.....	100	1.88	nne.	11.6	784	1,000
						500	975.7	-14.2	.....	100	1.71	ne.	11.0	735	750
						500	975.7	-14.2	.....	100	1.62	nne.	8.7	553	440
						500	975.7	-14.2	.....	100	1.68	nne.	7.9	490	330
						500	975.7	-14.2	.....	100	1.78	nne.	6.7	388	4/10 Cl., w.

March 3, 1916.

A. M.	983.4	-15.2	95	w.	4.5	396	983.4	-15.2	.....	95	1.54	w.	4.5	388	.....
9:02.	983.4	-14.9	98	w.	5.4	500	970.0	-15.3	.....	96	1.54	wnw.	6.3	490	190
9:04.	983.4	-14.8	99	w.	5.4	610	957.2	-15.5	0.14	98	1.54	wnw.	8.2	598	310
						644	951.7	-14.7	-2.35	98	1.67	nw.	8.8	631	350
						750	938.4	-15.0	.....	97	1.60	nw.	9.5	735	470
9:24.	983.8	-13.7	95	w.	4.9	1,000	907.6	-15.8	.....	94	1.44	nnw.	11.2	980	1,140
						1,231	880.5	-16.5	0.31	92	1.32	nnw.	12.8	1,207	1,800
						1,250	878.3	-16.1	.....	91	1.36	nnw.	13.1	1,225	1,900
						1,500	849.5	-10.8	.....	82	1.98	nnw.	16.7	1,470	2,820
9:33.	983.3	-13.3	94	w.	4.9	1,521	847.6	-10.4	-2.10	81	2.03	nnw.	17.0	1,491	2,900
9:50.	983.2	-12.8	92	w.	5.4	1,750	822.1	-9.9	.....	75	1.96	nnw.	18.6	1,715	3,350
10:27.	983.0	-11.0	86	w.	3.6	2,000	796.3	-9.8	-0.22	70	1.90	nw.	19.8	1,893	3,700
						2,195	777.2	-10.7	0.49	70	1.85	nw.	21.2	1,980	3,700
						2,000	796.3	-9.7	.....	69	1.84	nw.	25.3	2,151	.....
						750	822.1	-8.4	.....	69	1.97	nw.	23.0	1,980	3,250
11:15.	982.7	-9.9	77	w.	3.8	1,529	847.6	-7.2	-0.74	63	2.09	nw.	17.6	1,499	1,500
11:28.	982.7	-9.9	72	w.	4.0	1,500	849.5	-7.4	.....	63	2.05	nw.	17.1	1,470	1,440
11:36.	982.7	-9.3	70	w.	4.0	1,247	978.8	-9.8	-2.55	63	1.74	nw.	13.2	1,222	920
11:39.	982.7	-9.0	70	w.	5.4	1,000	907.5	-15.6	0.79	64	1.00	nw.	8.2	980	670
						992	908.6	-15.8	0.79	64	0.98	nw.	8.0	973	650
						750	937.8	-13.9	.....	66	1.21	wnw.	6.9	735	410
						612	955.3	-12.8	1.76	67	1.35	wnw.	6.3	600	270
						500	969.5	-10.8	.....	69	1.67				

## OBSERVATIONS AT DREXEL, MARCH, 1916.

41

 TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.  
 March 4, 1916.

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Tempera-	Rela-	Wind.		Alt-	Pressure.	Tem-	$\Delta t$	Humidity.		Wind.		Potential.			
				ture.	humid-					ture.	100 m.	Rel.	Vap.	Dir.	Vel.	Grav-	Electric.
A. M.																	
8:35.....	mb. 964.7	°C. -2.3	% 75	sw. 6.3	m. p. s. 6.3	m. 396	mb. 964.7	°C. -2.3	.....	% 75	mb. 3.78	sw. 6.3	m. p. s. 388	10 <sup>6</sup> ergs. ....	volts. ....	2/10 Cl. St., wnw.; 1/10 Cl., wnw.	
8:38.....	964.7	-1.7	76	sw. 6.3	.....	500	952.2	1.4	.....	70	4.73	wsw. 9.1	490	0	0	0	
9:00.....	964.8	0.3	69	sw. 6.7	.....	750	923.8	10.2	.....	54	7.10	wnw. 15.8	735	0	0	0	
9:01.....	964.8	0.4	68	sw. 7.1	.....	1,000	895.8	11.1	-3.54	56	7.40	wnw. 16.5	760	0	0	0	
9:11.....	964.8	1.0	67	sw. 7.6	.....	1,250	869.2	8.6	.....	50	6.10	wnw. 17.8	980	260	260	260	
9:21.....	964.9	1.2	64	sw. 6.7	.....	1,500	843.8	8.6	.....	43	4.80	wnw. 19.2	1,225	540	540	540	
9:31.....	964.9	2.3	61	sw. 4.9	.....	2,000	794.1	5.3	.....	34	3.80	w. 19.9	1,348	680	680	680	
10:06.....	965.0	4.2	56	sw. 5.4	.....	2,076	788.7	4.4	1.20	28	2.94	wnw. 19.8	1,470	820	820	820	
						2,250	770.2	3.1	.....	27	2.41	wnw. 22.1	1,980	1,460	1,460	1,460	
						2,500	746.9	1.1	.....	28	1.85	wnw. 22.8	2,450	1,790	1,790	1,790	
						2,750	723.9	-1.0	.....	36	2.02	wnw. 24.2	2,517	2,200	2,200	2,200	
						3,000	701.2	-3.2	.....	45	2.11	wnw. 26.0	2,694	2,340	2,340	2,340	
						3,180	685.5	-4.8	0.88	52	2.12	wnw. 3,115	Record of descent unreliable.	2,939	.....	.....	

March 5, 1916.

A. M.	9:50.....	963.6	0.6	79	se.	8.0	396	963.6	0.6	.....	79	5.04	se. 8.0	388	.....	10/10 St.Cu., w.
9:51.....	963.6	0.7	79	se.	8.5	.....	500	951.0	0.1	.....	80	4.92	se. 8.5	490	180	430
10:02.....	963.4	0.8	80	se.	9.8	.....	677	930.5	-0.8	0.50	82	4.68	se. 9.4	684	430	430
10:31.....	962.8	1.2	79	se.	8.5	.....	750	921.9	2.0	.....	72	5.08	se. 9.8	735	540	540
10:45.....	963.1	1.3	79	sse.	10.7	.....	978	898.3	10.8	-3.85	42	5.44	sse. 11.0	959	620	620
10:59.....	962.2	1.0	81	sse.	9.8	.....	1,000	893.9	10.7	.....	41	5.28	sse. 11.0	980	640	640
P. M.	12:01.....	960.1	4.5	74	se.	10.2	396	867.0	9.8	.....	34	4.12	sse. 11.0	1,225	910	910
12:55.....	958.5	6.6	70	sse.	8.0	.....	82	841.2	3.9	.....	26	2.98	sse. 11.0	1,470	950	950
1:12.....	957.9	6.4	69	se.	8.5	.....	1,250	819.4	9.2	-1.10	21	2.31	sse. 11.0	1,614	920	4/10 A.St., w.; 3/10 A.Cu., w.
1:14.....	957.7	6.8	69	se.	8.0	.....	1,720	819.4	9.2	-1.10	20	2.33	s. 9.4	1,636	900	3/10 St.Cu., wsw.
1:18.....	957.7	6.8	69	se.	8.0	.....	1,750	816.2	8.9	.....	20	2.28	s. 9.8	1,715	950	950
1:20.....	957.7	6.8	69	se.	8.0	.....	2,000	791.7	6.8	.....	23	2.27	s. 12.8	1,980	1,380	1,380
1:25.....	957.7	6.8	69	se.	8.0	.....	2,250	767.7	4.6	.....	26	2.20	ssw. 15.9	2,205	1,770	1,770
1:30.....	957.7	6.8	69	se.	8.0	.....	2,500	744.1	2.7	.....	29	2.15	ssw. 17.6	2,450	1,980	1,980
1:35.....	957.7	6.8	69	se.	8.0	.....	2,750	721.2	1.2	.....	32	2.13	ssw. 18.1	2,694	2,120	2,120
1:40.....	957.7	6.8	69	se.	8.0	.....	3,000	699.1	-0.4	.....	34	2.01	sw. 18.6	2,939	2,290	2,290
1:45.....	957.7	6.8	69	se.	8.0	.....	3,189	684.6	-1.4	0.62	35	1.90	sw. 18.9	3,105	2,400	2,400
1:50.....	957.7	6.8	69	se.	8.0	.....	3,250	677.4	-2.1	.....	38	1.95	sw. 19.0	3,184	2,550	2,550
1:55.....	957.7	6.8	69	se.	8.0	.....	3,500	658.3	-4.4	.....	46	1.94	ww. 19.1	3,429	2,980	2,980
2:00.....	957.7	6.8	69	se.	8.0	.....	3,741	638.2	-0.5	0.89	54	1.91	ww. 19.3	3,684	3,360	3,360
2:05.....	957.7	6.8	69	se.	8.0	.....	3,780	635.8	-0.4	.....	55	1.98	ww. 19.3	3,673	3,360	3,360
2:10.....	957.7	6.8	69	se.	8.0	.....	4,000	627.0	-5.1	-1.21	64	2.55	w. 19.3	3,778	3,530	3,530
2:15.....	957.7	6.8	69	se.	8.0	.....	4,250	615.8	-0.8	.....	73	2.62	w. 19.8	3,918	3,750	3,750
2:20.....	957.7	6.8	69	se.	8.0	.....	4,250	596.5	-8.3	.....	88	2.66	w. 20.6	4,162	4,150	4,150
2:25.....	957.7	6.8	69	se.	8.0	.....	4,250	579.3	-0.1	0.78	94	2.64	w. 20.9	4,253	4,300	4,300
2:30.....	957.7	6.8	69	se.	8.0	.....	4,250	566.5	-8.4	.....	91	2.72	w. 20.6	4,162	4,170	4,170
2:35.....	957.7	6.8	69	se.	8.0	.....	4,000	615.8	-6.6	.....	82	2.87	w. 19.8	3,918	3,830	3,830
2:40.....	959.0	6.8	71	se.	10.7	.....	3,750	635.8	-4.7	.....	73	3.01	ww. 19.1	3,673	3,480	3,480
2:45.....	957.7	6.8	69	se.	8.0	.....	3,500	655.9	-2.8	.....	64	3.10	ww. 18.3	3,429	3,140	3,140
2:50.....	957.7	6.8	69	se.	8.0	.....	3,289	675.2	-1.1	0.76	58	3.12	ww. 17.6	3,202	2,800	2,800
2:55.....	957.7	6.8	69	se.	8.0	.....	3,250	676.3	-0.9	.....	55	3.12	ww. 17.6	3,184	2,780	2,780
3:00.....	957.7	6.8	69	se.	8.0	.....	3,000	697.6	1.0	.....	46	3.02	ww. 17.6	2,989	2,470	2,470
3:05.....	957.7	6.8	69	se.	8.0	.....	2,750	719.2	2.9	.....	37	2.79	sw. 17.6	2,694	2,180	2,180
3:10.....	957.7	6.8	69	se.	8.0	.....	2,732	721.5	3.0	0.68	36	2.73	sw. 17.6	2,677	2,150	2,150
3:15.....	957.7	6.8	69	se.	8.0	.....	2,500	741.8	4.6	.....	34	2.88	ssw. 16.9	2,450	1,920	1,920
3:20.....	957.7	6.8	69	se.	8.0	.....	2,250	765.0	6.3	.....	31	2.96	ssw. 16.2	2,205	1,680	1,680
3:25.....	957.7	6.8	69	se.	8.0	.....	2,000	777.4	7.2	0.56	30	3.05	s. 15.8	2,074	1,550	1,550
3:30.....	957.7	6.8	69	se.	8.0	.....	1,750	788.6	7.8	.....	29	3.07	s. 15.4	1,980	1,420	1,420
3:35.....	957.7	6.8	69	se.	8.0	.....	1,750	813.0	8.8	-0.42	26	2.98	s. 14.8	1,757	1,170	1,170
3:40.....	957.7	6.8	69	se.	8.0	.....	1,750	817.7	8.6	0.40	25	2.95	s. 14.8	1,715	1,120	1,120
3:45.....	957.7	6.8	69	se.	8.0	.....	1,500	837.4	9.4	.....	29	3.42	s. 14.9	1,470	940	940
3:50.....	957.7	6.8	69	se.	8.0	.....	1,250	862.6	10.4	.....	35	3.41	sse. 15.0	1,225	790	790
3:55.....	956.9	7.2	69	se.	7.6	.....	1,000	878.6	11.0	-3.16	38	4.99	sse. 15.1	1,073	520	520
4:00.....	956.7	7.3	68	se.	8.5	.....	831	907.1	2.7	0.99	61	4.53	sse. 14.2	980	340	340
4:05.....	956.7	7.3	68	se.	8.5	.....	750	916.1	3.5	.....	63	4.95	sse. 12.2	735	0	0
4:10.....	956.7	7.3	68	se.	8.0	.....	500	944.4	6.0	.....	69	6.45	se. 10.8	490	0	0
4:15.....	956.4	7.0	72	se.	10.2	.....	306	956.4	7.0	.....	72	7.21	se. 10.2	388	.....	1/10 Cl.St., w.; 3/10 Cl.Cu., wsw.

## SUPPLEMENT NO. 5.

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.  
March 6, 1916.

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temper- ature.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
9:01 A. M.	mb. 948.9	°C. 4.3	% 75	nw.	m. p. s. 12.5	m. 396	mb. 948.9	°C. 4.3		% 75	mb. 6.23	nw.	12.5	$10^6$ ergs. 388	volts. 0	10/10 St.Cu., nw. Clouds moving rapidly.
9:11.	949.0	4.1	72	nw.	13.0	500	936.3	3.1		80	6.10	nw.	14.6	490	0	
9:25.	949.2	4.0	74	nw.	13.9	750	908.1	0.3		91	5.68	nw.	19.6	735	0	
9:32.	949.3	3.9	75	nw.	11.2	1,000	884.1	-2.1	1.12	100	5.13	nw.	23.9	946	20	Altitude of A.St. base about 1,050 m.
10:10.	949.7	4.1	68	nw.	10.7	1,194	880.3	-2.3		100	5.04	nw.	23.8	980	120	
10:13.	949.7	4.1	68	nw.	10.2	1,250	859.2	-2.3		100	4.68	nw.	23.1	1,171	515	
10:29.	949.8	4.6	69	nw.	10.2	1,500	827.0	1.5		94	4.74	nw.	22.9	1,225	610	
10:46.	949.9	4.9	64	nw.	10.2	1,562	820.7	2.5	-1.55	65	4.43	wnw.	21.8	1,470	840	
11:13.	950.1	5.0	59	nw.	11.6	1,750	801.9	1.3		58	4.24	wnw.	21.5	1,531	900	
11:24.	950.2	4.8	59	nw.	15.2	2,000	777.1	-0.3		58	3.89	wnw.	20.0	1,715	980	
11:26.	950.3	4.8	58	nw.	15.2	2,135	764.5	-1.1	0.63	57	3.40	w.	17.9	1,980	940	10/10 St.Cu., nw.
11:38.	950.4	4.7	58	nw.	15.2	2,250	753.1	-0.7		48	2.76	w.	16.8	2,092	920	
11:51.	950.5	5.4	58	nw.	13.4	2,365	742.8	-0.3	-0.35	40	2.38	ws.	16.8	2,317	1,100	
						2,500	730.0	-1.3		34	1.86	ws.	17.9	2,450	1,200	
						2,750	707.2	-3.1		23	1.08	ws.	20.1	2,694	1,380	
						2,790	703.6	-3.4	0.55	21	0.97	ws.	20.4	2,734	1,400	
						2,750	707.2	-3.3				ws.	20.3	2,694	1,390	
						2,500	729.7	-2.3				w.	19.7	2,450	1,120	
						2,301	747.9	-1.6	-1.60			w.	19.2	2,255	900	
						2,250	752.9	-2.4				w.	18.5	2,205	860	
						2,182	759.5	-3.5	0.55			w.	17.6	2,138	780	4/10 Cl.St., wsw.; 6/10 St.Cu., nw.
						2,000	776.9	-2.5				w.	18.4	1,960	700	
						1,750	802.1	-1.1				wnw.	19.4	1,715	600	
						1,601	817.2	-0.3	-1.19	27	1.61	wnw.	20.0	1,569	530	
						1,500	827.8	-1.5		30	1.62	wnw.	20.0	1,470	490	
						1,250	854.1	-4.5		38	1.59	wnw.	20.0	1,225	370	
						1,239	855.6	-4.6	1.12	38	1.58	wnw.	20.0	1,215	370	
						1,000	881.3	-1.9		51	2.66	nw.	20.0	980	270	
						785	905.7	0.5	1.26	66	4.18	nw.	20.0	770	170	
						750	909.3	0.9		65	4.24	nw.	19.4	735	180	
						500	938.0	4.1		60	4.91	nw.	15.2	490	50	
						396	950.5	5.4		58	5.20	nw.	13.4	388	4/10 St.Cu., nw.	

March 7, 1916.

P. M.	965.5	-2.0	59	nw.	11.6	396	965.5	-2.0		59	3.05	nw.	11.6	388	.....	9/10 St.Cu., nw. Light snow.
12:55.	965.6	-1.6	56	nw.	13.9	500	952.9	-3.2		63	2.95	nw.	14.4	490	150	
1:02.	965.6	-1.6	56	nw.	13.9	750	923.1	-5.9		74	2.75	nw.	21.1	735	500	
1:12.	965.6	-2.0	59	nw.	13.4	1,000	894.0	-8.4		75	2.69	nw.	22.0	767	540	Altitude of St.Cu. base about 1,050 m.
1:22.	965.7	-1.7	62	nw.	13.4	1,184	873.1	-10.1	0.95	80	2.39	nw.	22.0	980	500	7/10 St.Cu., nw.
1:31.	965.7	-2.0	58	nw.	12.5	1,250	865.8	-10.6		88	2.16	nw.	22.3	1,225	640	10/10 St.Cu., nw. Kites broke away.

March 8, 1916 (No. 1).

A. M.	973.1	-4.3	65	wnw.	4.9	396	973.1	-4.3		65	2.77	wnw.	4.9	388	.....	6/10 Cl.St., n.
9:13.	972.8	-3.1	64	wnw.	4.9	500	959.9	-5.3		65	2.54	wnw.	5.4	490	0	
9:42.	972.8	-3.1	64	wnw.	4.9	750	929.6	-7.9		66	2.06	w.	6.7	735	0	
10:14.	972.5	-2.8	61	wnw.	4.0	803	923.6	-8.4	1.20	66	1.97	w.	7.0	787	.....	9/10 Cl., n.

March 8, 1916 (No. 2).

P. M.	969.5	1.2	46	s.	4.0	396	969.5	1.2		46	3.06	s.	4.0	388	.....	2/10 Cl.St., n; 5/10 A.St., n.; 3/10 St.Cu., n.
1:13.	969.3	1.3	50	s.	4.0	500	956.8	-0.3		48	2.86	s.	4.7	490	0	
1:25.	969.3	1.3	50	s.	4.0	702	932.8	-3.2	1.44	51	2.39	ssw.	6.1	688	0	
2:06.	968.6	1.1	53	s.	6.3	1,035	893.7	-5.4	0.66	52	2.37	sw.	6.3	735	0	2/10 Cl.St., n.; 8/10 A.St., n.
2:07.	968.5	1.1	52	s.	6.3	1,145	881.1	-3.8	-1.45	59	2.62	w.	7.3	1,122	0	
2:28.	968.4	1.0	54	s.	5.8	1,254	868.9	-5.8	1.88	53	1.99	w.	9.5	1,229	0	
2:30.	968.4	1.1	54	s.	5.8	1,376	855.5	-4.7	-0.90	51	2.10	w.	9.5	1,349	0	10/10 A.St., n.
3:22.	967.9	1.7	57	s.	5.8	1,500	841.6	-5.3		52	2.03	w.	9.6	1,470	50	
3:38.	967.7	2.1	53	s.	4.9	1,750	815.3	-6.4		54	1.92	wnw.	9.9	1,715	360	
						2,000	789.8	-7.6		57	1.83	wnw.	10.2	1,960	670	
						2,250	765.0	-8.8		60	1.73	wnw.	10.4	2,205	980	
						2,500	740.2	-10.0		62	1.61	nw.	10.7	2,450	1,290	
						2,510	739.4	-10.0	0.47	62	1.61	nw.	10.7	2,460	1,300	10/10 St.Cu., nw.
						2,750	716.4	-10.9		72	1.72	nw.	14.2	2,694	1,680	Altitude of St.Cu. base about 2,500 m.
						3,000	693.4	-11.8		83	1.83	nw.	17.8	2,939	2,070	Kites broke away.
						3,153	679.7	-12.3	0.36	89	1.88	nw.	20.0	3,089	2,300	

# OBSERVATIONS AT DREXEL, MARCH, 1916.

43

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 9, 1916 (No. 1).

Time.	Surface.					At different heights above sea.												Remarks.	
	Pressure.	Temper-ature.	Rela-tive humid-ity.	Wind.		Altitude.	Pressure.	Tem-perature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.					
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav-ity.	Electric.				
A. M.																			
10:08.....	mb. 984.6	°C. 5.2	% 86	sw.	m. p. s. 6.7	mb. 396	964.6	5.2	.....	% 86	m. p. s. 6.7	10 <sup>6</sup> ergs. 388	.....	.....	.....	.....	.....	8/10 Cl.St., nw.; 1/10 A.St., nw.	
10:11.....	984.5	5.4	85	sw.	6.3	500	952.3	4.0	.....	7.15	sw. 9.2	490	0	.....	.....	.....	.....	Solar halo until 10:16 a. m.	
10:13.....	984.5	5.5	85	sw.	6.3	542	947.3	3.5	1.16	89	6.99	sw. 10.2	531	0	.....	.....	.....	.....	.....
10:27.....	984.4	6.3	82	sw.	6.3	750	923.8	8.9	.....	55	6.27	sw. 15.2	735	0	.....	.....	.....	.....	.....
10:58.....	984.2	8.7	73	ww.	7.6	761	922.5	9.2	-2.60	53	6.17	sw. 15.5	746	0	.....	.....	.....	.....	.....
P. M.						1,000	896.2	8.2	.....	49	5.33	w. 15.5	980	0	.....	.....	.....	.....	.....
11:27.....	983.9	10.5	66	w.	7.1	1,224	872.1	7.3	0.41	46	4.71	wnw. 15.5	1,200	0	.....	.....	.....	.....	7/10 Cl., nw.; 1/10 Cl.St., nw.
11:51.....	983.5	11.9	57	ww.	8.9	1,250	869.4	7.1	.....	46	4.64	wnw. 15.6	1,225	30	.....	.....	.....	.....	.....
12:02.....	983.4	12.5	51	w.	8.9	1,500	848.2	5.4	.....	44	3.95	wnw. 16.6	1,470	290	.....	.....	.....	.....	.....
12:25.....	982.9	13.2	49	ww.	10.2	1,750	817.7	3.8	.....	43	3.45	wnw. 17.5	1,715	460	.....	.....	.....	.....	.....
						2,000	792.5	2.2	.....	42	3.01	wnw. 18.5	1,960	600	.....	.....	.....	.....	.....
						2,086	784.2	1.6	0.66	41	2.81	wnw. 18.7	2,044	640	.....	.....	.....	.....	3/10 Cl., nw.; 3/10 Cl.St., nw.
						2,250	780.8	0.7	.....	40	2.57	wnw. 19.6	2,205	780	.....	.....	.....	.....	.....
						2,500	744.1	-0.7	.....	39	2.25	wnw. 20.9	2,450	960	.....	.....	.....	.....	.....
						2,750	721.2	-2.1	.....	38	1.95	nw. 22.2	2,694	1,020	.....	.....	.....	.....	.....
						3,000	698.9	-3.5	.....	37	1.69	nw. 23.5	2,939	1,050	.....	.....	.....	.....	.....
						3,018	697.5	-3.6	0.66	37	1.67	nw. 23.6	2,957	1,050	.....	.....	.....	.....	4/10 Cl., nw.; 1/10 Cl.St., nw.
						3,250	677.1	-5.1	.....	37	1.47	nw. 24.6	3,184	1,130	.....	.....	.....	.....	.....
						3,500	655.8	-6.8	.....	38	1.31	nw. 25.6	3,429	1,220	.....	.....	.....	.....	.....
						3,750	635.2	-8.5	.....	38	1.12	nw. 26.7	3,673	1,300	.....	.....	.....	.....	8/10 Cl., nw.; 2/10 Cl., nw.
						3,866	625.7	-9.2	0.66	38	1.06	nw. 27.1	3,787	1,340	.....	.....	.....	.....	.....

March 9, 1916 (No. 2).

P. M.	Pressure.	Temperature.	Relative humidity.	Wind.	Dir.	Vel.	Altitude.	Pressure.	Temperature.	$\Delta t$ 100 m.	Humidity.	Wind.	Dir.	Vel.	Gravity.	Electric.	Remarks.		
2:08.....	980.6	16.8	39	ww.	0.4	396	960.6	16.8	.....	39	7.46	ww. 0.4	388	.....	.....	.....	9/10 Cl., nnw.		
2:17.....	980.5	16.6	37	w.	8.9	500	948.8	15.9	.....	39	7.05	ww. 10.4	490	0	.....	.....	.....	.....	
2:27.....	980.4	16.9	38	ww.	10.2	750	921.1	13.7	.....	38	5.98	ww. 12.9	735	0	.....	.....	.....	.....	
2:41.....	980.3	16.9	40	ww.	9.8	1,000	893.8	11.8	.....	38	5.73	ww. 13.6	806	0	.....	.....	.....	.....	
3:02.....	980.2	16.7	41	wnw.	8.0	1,179	874.9	10.4	0.76	39	4.92	w. 17.9	1,156	0	.....	.....	.....	.....	
3:20.....	980.1	16.2	43	wnw.	8.5	1,250	861.0	8.4	.....	40	4.91	w. 18.1	1,225	60	.....	.....	.....	.....	
3:31.....	980.0	16.2	42	wnw.	6.7	1,500	841.2	8.4	.....	41	4.52	w. 18.7	1,470	240	.....	.....	.....	10/10 Cl.St., nw.	
3:41.....	959.9	18.0	43	w.	7.6	1,750	838.7	8.2	0.63	41	4.48	w. 18.8	1,499	260	.....	.....	.....	.....	
3:50.....	959.8	18.8	44	w.	8.5	2,000	791.5	4.2	.....	45	4.30	w. 19.7	1,715	370	.....	.....	.....	.....	
						2,250	767.5	2.0	.....	50	4.12	wnw. 20.8	1,960	490	.....	.....	.....	.....	.....
						2,500	759.8	1.3	0.72	55	3.88	wnw. 21.0	2,205	610	.....	.....	.....	.....	.....
						2,750	757.5	1.8	.....	57	3.82	wnw. 22.1	2,283	640	.....	.....	.....	.....	.....
						3,000	751.3	3.2	.....	57	3.97	wnw. 22.0	2,205	600	.....	.....	.....	.....	.....
						3,120	750.5	4.7	.....	57	4.87	w. 21.1	1,715	320	.....	.....	.....	.....	.....
						3,250	736.4	5.9	0.66	57	5.30	w. 20.7	1,511	210	.....	.....	.....	.....	.....
						3,500	740.3	6.2	.....	58	5.31	w. 20.5	1,470	170	.....	.....	.....	.....	.....
						3,750	866.3	7.8	.....	55	5.82	w. 19.5	1,225	30	.....	.....	.....	.....	.....
						3,900	872.5	8.2	0.94	54	5.87	w. 19.3	1,172	0	.....	.....	.....	.....	.....
						4,000	892.7	10.1	.....	53	6.55	w. 18.3	980	0	.....	.....	.....	.....	.....
						815	913.2	11.8	0.95	53	7.34	w. 17.4	799	0	.....	.....	.....	.....	.....
						500	919.9	12.4	.....	52	7.49	w. 16.0	735	0	.....	.....	.....	.....	.....
						959.8	947.8	14.8	.....	46	7.74	w. 10.7	490	0	.....	.....	.....	.....	.....
						396	959.8	15.8	.....	44	7.90	w. 8.5	388	.....	.....	.....	.....	4/10 Cl.St., nw.; 6/10 A.St., nw.	

March 10, 1916.

A. M.	Pressure.	Temperature.	Relative humidity.	Wind.	Dir.	Vel.	Altitude.	Pressure.	Temperature.	$\Delta t$ 100 m.	Humidity.	Wind.	Dir.	Vel.	Gravity.	Electric.	Remarks.
9:08.....	975.4	-3.8	72	nne.	5.4	396	975.4	-3.8	.....	72	3.20	nne.	5.4	388	.....	.....	8/10 St.Cu., n.
9:18.....	975.6	-3.4	69	n.	5.4	500	962.5	-5.0	.....	74	2.97	nne.	6.4	490	0	.....	.....
9:35.....	976.0	-3.0	61	n.	6.3	733	934.5	-7.8	1.19	80	2.52	n.	8.6	719	0	.....	.....
9:48.....	976.0	-3.0	61	n.	5.8	1,000	903.2	-8.4	.....	79	2.49	n.	8.8	735	20	.....	.....
10:02.....	976.4	-2.9	69	n.	6.3	1,250	874.7	-8.9	0.21	71	2.12	n.	12.3	980	240	.....	.....
10:20.....	976.4	-2.5	69	nne.	6.3	1,500	847.1	-5.1	.....	58	2.11	n.	15.8	1,225	470	.....	.....
10:41.....	976.4	-2.5	66	nne.	6.3	1,750	845.1	-4.7	-1.95	52	2.14	n.	20.5	1,470	900	.....	3/10 Cl.St., nw.; 2/10 St.Cu., n.
11:12.....	976.4	-2.3	60	nne.	5.4	2,000	795.2	-3.7	0.36	81	3.63	nne.	22.6	1,960	1,420	.....	.....
11:36.....	976.5	-1.9	55	nne.	5.4	2,250	778.4	-2.0	-1.02	73	3.77	nne.	23.4	2,127	1,600	.....	.....
11:44.....	976.5	-2.5	56	nne.	6.3	2,500	74										

## SUPPLEMENT NO. 5.

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 11, 1916.

Time.	Surface.					At different heights above sea.												Remarks.
	Pressure.	Tempera-	Rela-	Wind.		Altitude.	Pressure.	Tem-	$\Delta t$	100 m.	Humidity.		Wind.		Potential.			
				ture.	ative						ture.	Rel.	Vap.	pres.	Dir.	Vel.	Grav-	Electric.
A. M.																		
8:46.....	mb. 976.8	°C. -0.6	% 72	ssw. 9.8	m. p. s. 9.8	mb. 396	976.8	°C. -0.6			% 72	m. p. s. 4.18	ssw. 9.8	10 <sup>8</sup> ergs. 388	volts. ....	6/10 Cl., nw.		
8:47.....	976.8	-0.6	72	ssw. 9.8		461	968.8	-1.5	1.38		66	3.56	sw. 10.8	452	0			
.....						500	964.0	-1.2			66	3.65	sw. 11.4	490	0			
8:50.....	976.8	-0.6	73	ssw. 9.8		750	934.1	0.9			64	4.17	wsw. 15.5	735	0			
.....						780	930.9	1.2	-0.85		64	4.26	wsw. 16.0	765	0			
.....						1,000	905.4	2.8			68	5.08	w. 16.8	980	490			
9:05.....	976.6	-0.2	74	sw. 8.0		1,219	881.9	4.4	-0.73		72	6.03	w. 16.8	1,195	1,000	3/10 Cl., nw.; 4/10 Cl.St., nw.		
9:10.....	976.6	0.6	68	ssw. 8.5		1,250	878.1	4.1			72	5.90	w. 16.8	1,225	1,060	Partial solar halo 9:05 to 9:49 a. m.		
9:17.....	976.5	0.8	68	ssw. 10.7		1,392	863.3	2.8	0.92		71	5.30	w. 16.7	1,365	1,250			
.....						1,500	851.9	4.2			50	4.12	w. 15.0	1,470	1,380			
9:30.....	976.5	0.9	66	ssw. 11.2		1,514	850.2	4.4	-1.31		47	3.96	w. 14.8	1,484	1,400			
.....						1,750	826.2	3.0			47	3.56	w. 15.5	1,715	1,510			
.....						2,000	801.0	1.5			46	3.13	wnw. 16.3	1,960	1,740			
10:11.....	976.3	3.0	57	ssw. 10.3		2,056	795.2	1.2	0.59		46	3.06	wnw. 16.5	2,015	1,800			
.....						2,250	776.2	-0.1			48	2.91	wnw. 18.3	2,205	1,990			
10:31.....	975.7	4.4	46	ssw. 10.7		2,500	752.5	-1.7			51	2.70	nw. 20.5	2,450	2,230			
.....						2,630	740.3	2.5	0.64		53	2.63	nw. 21.7	2,577	2,360			
10:45.....	975.4	4.1	58	ssw. 10.3		2,750	729.2	-3.4			60	2.76	nw. 20.4	2,894	2,450			
10:47.....	975.4	4.2	58	ssw. 10.3		2,985	707.5	-5.3	0.79		74	2.89	nw. 17.8	2,924	2,600			
11:00.....	975.0	4.8	59	ssw. 12.1		3,000	706.0	-5.4			74	2.87	nw. 17.9	2,939	2,640			
11:12.....	974.7	5.3	60	ssw. 11.2		3,250	683.2	-7.1			82	2.75	nw. 19.6	3,184	2,990	6/10 Cl., nw.		
11:18.....	974.6	5.5	60	ssw. 11.2		3,500	661.1	-8.8			89	2.57	nw. 22.0	3,429	3,500	1/10 Cl.St., nw.; 3/10 A.Cu., nw.		
11:28.....	974.2	5.8	60	ssw. 13.0		3,592	651.7	-9.6	0.68		92	2.47	nw. 21.2	3,647	3,500			
.....						3,600	640.2	-10.6			95	2.34	nw. 21.2	3,673	3,400	1/10 Cl., nw.; 1/10 Cl.St., nw.; 1/10 A.Cu., nw.		
12:05.....	973.1	6.0	58	ssw. 12.5		3,884	629.5	-10.2	-0.69		78	1.99	nw. 21.0	3,804	3,770			
.....						4,000	620.9	-10.7			71	1.73	nw. 21.1	3,918	3,900			
12:18.....	972.7	6.6	56	ssw. 13.0		4,057	616.9	-10.9	0.90		68	1.63	nw. 21.2	3,973	4,000			
12:26.....	972.4	6.4	61	ssw. 13.4		4,000	607.6	-10.2	-1.05		72	1.84	nw. 24.1	3,925	3,910			
12:37.....	972.1	7.1	58	ssw. 12.5		1,266	874.5	9.7	0.22		45	4.96	nw. 23.2	3,832	3,810			
12:45.....	971.8	7.2	58	ssw. 12.1		1,250	875.8	9.7			45	5.41	w. 17.5	3,619	3,400	Few Cl., nw.; 7/10 A.Cu., nw.		
12:47.....	971.7	7.2	58	ssw. 12.1		1,086	893.1	10.1	-3.52		45	5.41	w. 21.3	3,429	3,160			
12:50.....	971.3	7.8	56	ssw. 15.0		1,000	902.0	7.1			50	5.04	sw. 20.8	3,184	2,480			
.....						750	915.7	2.8	1.04		53	3.96	sw. 20.4	2,939	2,020			
.....						500	959.0	6.7			55	4.42	sw. 15.7	862	70			
.....						396	971.3	7.8			56	5.40	ssw. 15.2	490	0			
.....											56	5.92	ssw. 15.0	388	1,810	1/10 Cl.St., nw.		

March 12, 1916.

A. M.	9:06.....	964.1	9.1	64	ssw.	4.5	396	964.1	9.1	.....	64	7.40	ssw.	4.5	388	.....	8/10 Cl., nw.
.....	9:10.....	964.1	9.1	62	ssw.	4.5	500	952.2	12.8	.....	54	7.98	wsw.	7.4	490	0	Solar halo, increasing in brilliancy, throughout flight.
.....	9:26.....	964.0	9.0	62	ssw.	4.5	668	933.4	18.9	-3.60	38	8.30	wsw.	12.0	655	0	
.....	9:36.....	963.9	9.5	64	ssw.	3.6	750	924.5	18.9	.....	33	7.21	wsw.	12.0	735	0	
.....	10:35.....	963.6	12.0	53	sw.	4.5	916	906.6	18.9	0.00	23	5.02	w.	11.9	898	0	
.....	11:45.....	963.2	15.9	43	ws.	4.0	1,000	897.8	18.6		23	4.93	w.	11.6	980	0	
.....	12:01.....	963.2	16.3	43	ws.	3.1	1,181	879.0	17.9	0.38	22	4.51	w.	10.9	1,158	0	
.....	12:21.....	962.8	17.2	41	w.	3.1	1,250	871.9	17.5		22	4.40	w.	10.9	1,225	0	
.....	12:27.....	962.6	17.7	41	w.	2.7	869	862.6	15.9		21	3.79	w.	11.0	1,470	0	
.....	12:32.....	962.5	18.0	41	w.	2.7	798	910.4	18.0	-4.79	21	3.56	w.	11.0	1,620	0	6/10 Cl., nw; 4/10 Cl.St., nw.
.....	12:40.....	962.3	18.1	42	w.	3.1	500	918.0	15.1	0.75	21	3.36	w.	9.0	1,715	0	5/10 Cl., nw; 5/10 Cl.St., nw.
.....							750	923.1	15.5		21	3.27	w.	8.0	1,761	0	
.....							500	950.6	17.3		21	3.36	w.	7.6	1,715	0	
.....							396	962.3	18.1		42	8.72	w.	3.1	388	.....	3/10 Cl., nw; 7/10 Cl.St., nw.

## OBSERVATIONS AT DREXEL, MARCH, 1916.

45

 TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.  
 March 13, 1916 (No. 1).

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$	100 m.	Humidity.		Wind.		Potential.		
				Dir.	Vel.						Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
A. M.																	
9:07.....	mb. 958.1	°C. 4.0	% 78	s. 5.4	m. p. s. 3.4	mb. 958.1	°C. 4.0	.....	.....	% 78	mb. 958.1	s. 5.4	10 <sup>6</sup> ergs. 388	volts. 0	Few Cl.St., wnw.		
9:09.....	958.1	4.2	77	s. 5.4	500	946.0	2.7	.....	.....	78	5.79	ssw. 8.9	490	0			
9:15.....	958.1	4.3	78	s. 6.7	522	943.4	2.4	1.27	78	5.66	ssw. 9.7	512	0				
9:19.....	958.1	4.6	76	s. 6.3	750	917.2	11.0	.....	53	6.96	ssw. 17.4	735	0				
9:32.....	958.1	5.4	77	s. 5.4	1,000	915.0	11.9	-3.78	50	6.96	ssw. 18.2	758	0				
9:45.....	958.1	5.9	73	s. 6.7	773	890.1	14.1	.....	37	5.95	sw. 17.3	980	340				
10:03.....	958.1	6.6	73	ssw. 6.7	1,032	887.3	14.4	-0.97	35	5.74	sw. 17.2	1,012	370				
10:41.....	958.1	7.9	68	sw. 5.8	1,250	864.1	13.2	.....	34	5.16	sw. 18.1	1,225	690				
11:10.....	957.8	9.7	64	sw. 5.4	1,584	839.0	11.8	.....	34	4.71	ws. 19.1	1,470	920				
11:40.....	957.4	10.9	62	sw. 6.3	2,000	790.4	9.1	0.53	33	4.42	ws. 19.5	1,553	1,000	Few Cl., wnw; few Cl.St., wnw.			
12:02.....	957.0	11.7	60	w. 6.3	2,250	767.3	7.3	.....	33	3.38	w. 16.6	2,205	1,270				
12:08.....	956.9	12.0	59	wws. 6.7	2,608	734.1	4.7	0.72	34	2.98	w. 17.8	2,555	1,450	Few Cl.St., wnw.			
12:10.....	956.9	12.0	60	wws. 6.7	2,750	721.3	4.0	.....	30	2.44	w. 18.4	2,694	1,570				
12:23.....	956.8	12.4	59	w. 6.7	3,000	699.2	2.8	.....	24	1.79	wnw. 19.4	2,939	1,780				
12:30.....	956.7	12.6	59	w. 6.3	3,230	679.8	1.7	0.48	18	1.24	wnw. 20.4	3,164	1,970				
P. M.						3,250	677.8	1.5	.....	18	1.23	wnw. 20.5	3,184	1,970	Few Cl.St., wnw.		
12:02.....	957.0	11.7	60	w. 6.3	3,500	657.0	-0.5	.....	19	1.11	wnw. 21.9	3,429	2,080				
12:08.....	956.9	12.0	59	wws. 6.7	3,669	643.1	-1.9	0.74	20	1.04	wnw. 22.9	3,591	.....				
12:10.....	956.9	12.0	60	wws. 6.7	3,500	657.0	-0.8	.....	20	1.14	wnw. 22.9	3,429	.....				
12:23.....	956.8	12.4	59	w. 6.7	3,250	677.2	0.8	.....	20	1.29	wnw. 23.0	3,184	1,600	Cloudless.			
12:30.....	956.7	12.6	59	w. 6.3	3,000	698.3	2.4	.....	21	1.52	w. 23.0	2,939	1,400				
P. M.					2,747	720.4	4.1	0.65	21	1.72	w. 23.1	2,691	1,200				
12:02.....	957.0	11.7	60	w. 6.3	2,500	742.3	5.7	.....	22	2.02	w. 20.5	2,450	1,120				
12:08.....	956.9	12.0	59	wws. 6.7	2,271	763.3	7.2	0.66	22	2.24	w. 18.0	2,226	1,050				
12:10.....	956.9	12.0	60	wws. 6.7	2,250	765.1	7.3	.....	22	2.25	w. 17.9	2,205	1,050				
12:23.....	956.8	12.4	59	w. 6.7	2,000	788.4	9.0	.....	23	2.64	w. 16.8	1,960	870				
12:30.....	956.7	12.6	59	w. 6.3	1,750	812.8	10.6	.....	24	3.07	w. 15.8	1,715	750				

March 13, 1916 (No. 2).

P. M.	956.3	14.1	53	nw.	5.8	396	956.3	14.1	.....	53	8.53	nw.	5.8	388	.....	Few Cl., wnw.
1:24.....	956.3	14.1	53	nw.	5.8	500	944.3	12.8	.....	55	8.13	nw.	7.5	490	0	
1:34.....	956.2	14.8	53	nw.	6.3	750	916.7	9.8	.....	61	7.39	nw.	11.6	735	0	
1:49.....	956.2	16.1	52	nw.	7.2	1,000	889.3	7.6	.....	61	7.24	nw.	12.0	757	0	
1:58.....	956.1	15.5	51	nw.	8.0	1,252	862.8	5.6	0.81	66	6.89	nw.	11.7	980	220	
2:05.....	956.1	15.2	51	nw.	7.6	1,573	837.2	10.6	.....	54	6.90	nw.	11.3	1,227	425	
2:10.....	956.2	16.1	52	nw.	7.2	1,645	829.9	12.1	-2.02	49	6.92	nw.	13.0	1,470	160	
2:23.....	956.4	15.0	52	nw.	7.2	1,750	822.7	12.1	0.00	31	4.38	nw.	13.5	1,542	80	
2:33.....	956.4	15.0	52	nw.	7.2	2,000	788.3	9.2	.....	30	3.94	nw.	14.3	1,612	0	
2:40.....	956.2	15.0	53	nw.	8.9	2,250	764.8	7.5	.....	29	3.38	nw.	15.6	1,715	110	
2:50.....	956.2	15.0	53	nw.	8.9	2,500	741.9	5.4	.....	29	2.60	nw.	16.8	2,205	490	
2:55.....	956.4	15.0	52	nw.	7.2	2,750	719.3	3.3	.....	29	2.24	wnw.	18.7	2,450	740	
3:04.....	956.7	13.9	55	nw.	8.9	3,000	697.1	2.0	0.86	30	2.12	wnw.	20.7	2,694	890	
3:34.....	957.2	11.7	61	nnw.	9.8	3,250	675.6	-0.8	.....	31	2.06	wnw.	21.9	2,840	980	
3:44.....	956.7	13.9	55	nw.	8.9	3,500	654.8	-2.7	.....	32	1.83	wnw.	22.1	2,939	1,020	
3:51.....	957.5	11.1	62	nnw.	9.4	3,750	634.5	-4.7	.....	34	1.66	wnw.	23.0	3,429	1,110	
3:55.....	956.7	13.9	55	nw.	8.9	3,961	618.0	-6.3	0.75	36	1.48	wnw.	23.4	3,673	1,270	
4:04.....	957.2	11.7	61	nnw.	9.8	3,750	634.5	-4.8	.....	37	1.33	wnw.	23.8	3,880	1,300	Few Cl., wnw.; few St.Cu., nw.
4:10.....	957.9	10.7	64	nnw.	9.4	2,275	762.2	6.6	0.43	38	1.55	wnw.	22.6	3,673	1,230	
4:10.....	958.0	10.7	64	nnw.	9.4	2,250	764.8	-3.0	.....	40	1.90	wnw.	21.6	3,429	1,110	
4:17.....	958.2	10.0	64	nnw.	7.2	2,000	783.3	7.8	.....	41	2.27	wnw.	20.7	3,184	1,010	
4:20.....	957.8	10.7	63	nnw.	10.3	1,750	812.4	8.9	0.81	42	2.48	wnw.	20.3	3,077	950	1/10 Cl., wnw.
4:23.....	957.9	10.7	64	nnw.	9.4	1,500	837.2	9.2	0.08	39	4.51	nnw.	19.8	2,939	870	
4:35.....	958.2	9.8	65	n.	9.8	920	899.0	3.5	1.11	40	4.66	nnw.	17.7	1,470	0	
4:35.....	958.3	9.6	66	n.	8.0	794	913.0	4.9	1.01	41	4.80	nnw.	18.0	1,416	0	
4:35.....	958.6	8.9	67	n.	8.0	750	918.0	5.3	.....	45	4.24	nnw.	21.0	1,335	0	
4:35.....	958.2	9.8	65	n.	9.8	600	946.2	7.9	.....	52	5.03	nnw.	21.8	1,225	0	
4:35.....	958.3	9.6	66	n.	8.0	396	958.6	8.9	.....	60	6.01	nnw.	22.6	1,107	0	
4:35.....	958.6	8.9	67	n.	8.0	396	958.6	8.9	.....	69	5.93	n.	18.3	980	0	
4:35.....	958.2	9.8	65	n.	9.8	920	899.0	3.5	1.11	75	5.89	n.	15.6	902	0	
4:35.....	958.3	9.6	66	n.	8.0	794	913.0	4.9	1.01	77	6.67	n.	15.3	779	0	
4:35.....	958.6	8.9	67	n.	8.0	750	918.0	5.3	.....	78	5.77	n.	14.5	735	0	
4:35.....	958.2	9.8	65	n.	9.8	600	946.2	7.9	.....	70	7.46	n.	9.0	490	0	
4:35.....	958.3	9.6	66	n.	8.0	396	958.6	8.9	.....	67	7.64	n.	8.0	388	.....	1/10 Cl., wnw.

## SUPPLEMENT NO. 5.

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 13, 1916 (No. 3).

Surface.						At different heights above sea.										Remarks.
Time.	Pressure.	Temper- ature.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- per- ature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.		Remarks.
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
P. M.	mb.	°C.	%	m. p. s.		m.	mb.	°C.		%	mb.	m. p. s.	$10^5 \text{ ergs.}$	volts.		
5:20.....	959.7	6.8	73	n.	9.8	396	959.7	6.8	.....	73	7.21	9.8	388	.....	1/10 Cl., wnw.	
.....	.....	.....	.....	.....	.....	500	947.3	5.7	.....	79	7.24	11.3	490	0	.....	
5:25.....	959.8	6.6	74	n.	8.0	750	918.6	3.2	.....	93	7.15	15.0	735	0	.....	
5:31.....	960.0	6.4	73	n.	9.4	820	911.0	2.5	1.01	97	7.09	16.0	804	0	.....	
5:32.....	960.0	6.3	73	n.	8.5	968	894.7	1.1	0.95	99	6.55	23.0	949	0	.....	
.....	.....	.....	.....	.....	.....	1,000	890.9	2.3	.....	92	6.63	n.	23.0	980	0	.....
.....	.....	.....	.....	.....	.....	1,129	877.1	7.1	-3.73	62	6.26	n.	23.0	1,107	0	3/10 St.Cu., n.
.....	.....	.....	.....	.....	.....	1,250	864.3	6.7	.....	59	5.79	n.	21.5	1,225	0	Altitude of St.Cu. base about
.....	.....	.....	.....	.....	.....	1,500	838.7	5.8	.....	53	4.89	nnw.	18.3	1,470	0	1,200 m.
5:56.....	960.5	6.0	75	n.	6.3	1,541	834.4	5.7	0.34	52	4.76	nnw.	17.8	1,510	0	.....
6:12.....	960.9	5.7	76	n.	6.3	1,652	823.5	7.6	-1.71	37	3.88	nw.	11.9	1,619	140	9/10 St.Cu., n.
.....	.....	.....	.....	.....	.....	1,750	813.8	7.0	.....	37	3.71	nw.	11.0	1,715	410	.....
6:50.....	961.8	5.1	75	n.	8.5	2,000	789.7	5.4	.....	38	3.41	nw.	8.6	1,960	720	.....
.....	.....	.....	.....	.....	.....	2,007	789.0	5.4	0.62	38	3.41	nw.	8.5	1,967	730	.....
.....	.....	.....	.....	.....	.....	2,250	765.8	3.7	.....	43	3.42	nw.	12.2	2,205	970	.....
.....	.....	.....	.....	.....	.....	2,500	742.5	2.0	.....	48	3.39	nw.	16.0	2,450	1,200	.....
.....	.....	.....	.....	.....	.....	2,750	720.0	0.3	.....	54	3.37	nw.	19.8	2,694	.....	.....
7:03.....	962.1	5.0	76	n.	10.3	3,000	697.8	-1.4	.....	59	3.21	nw.	23.6	2,939	.....	.....
.....	.....	.....	.....	.....	.....	3,250	676.2	-3.1	.....	64	3.01	nw.	27.4	3,184	.....	.....
.....	.....	.....	.....	.....	.....	3,300	671.8	-3.4	0.62	65	2.99	nw.	28.2	3,233	.....	.....
.....	.....	.....	.....	.....	.....	3,250	676.2	-3.1	.....	65	3.06	nw.	27.6	3,184	.....	.....
.....	.....	.....	.....	.....	.....	3,000	697.8	-1.7	.....	66	3.50	nw.	24.6	2,938	.....	.....
.....	.....	.....	.....	.....	.....	2,750	720.0	-0.3	.....	68	4.05	nw.	21.7	2,694	.....	.....
7:28.....	962.3	4.7	76	n.	7.2	2,500	742.5	1.1	.....	69	4.57	nw.	18.7	2,450	.....	10/10 St.Cu., n.
.....	.....	.....	.....	.....	.....	2,419	750.1	1.6	0.53	69	4.73	nw.	17.7	2,370	.....	.....
.....	.....	.....	.....	.....	.....	2,250	765.8	2.5	.....	66	4.82	nw.	16.1	2,205	.....	.....
7:36.....	962.3	4.6	76	nne.	6.7	2,000	789.7	3.8	.....	61	4.89	nnw.	13.8	1,960	.....	.....
.....	.....	.....	.....	.....	.....	1,777	811.5	5.0	-0.85	57	4.97	nnw.	11.7	1,742	470	.....
7:49.....	962.4	4.6	77	nne.	6.7	1,750	814.2	4.8	.....	50	4.30	n.	14.9	1,715	450	.....
.....	.....	.....	.....	.....	.....	1,730	816.3	4.6	0.15	44	3.73	n.	17.2	1,696	420	.....
8:09.....	962.6	4.3	78	nne.	6.7	1,500	839.6	5.0	.....	43	3.75	n.	19.0	1,470	240	.....
8:10.....	962.6	4.3	77	nne.	6.7	1,250	865.5	5.3	.....	41	3.65	n.	21.0	1,225	180	.....
8:15.....	962.7	4.2	77	nne.	6.3	1,213	869.7	5.4	-6.92	41	3.68	n.	21.3	1,189	170	.....
8:25.....	962.8	4.0	79	nne.	5.8	1,109	880.9	-1.8	0.66	74	3.89	nne.	21.3	1,087	130	.....
.....	.....	.....	.....	.....	.....	1,000	882.6	-1.1	.....	79	4.40	nne.	18.4	980	90	.....
.....	.....	.....	.....	.....	.....	750	920.9	0.8	.....	84	5.21	nne.	14.5	836	50	.....
.....	.....	.....	.....	.....	.....	500	950.0	3.1	.....	81	6.18	nne.	7.8	490	0	.....
.....	.....	.....	.....	.....	.....	396	962.8	4.0	.....	79	6.42	nne.	5.8	388	.....	10/10 St.Cu., n.

March 14, 1916.

A. M.	971.7	0.5	78	nne.	5.8	396	971.7	0.5	.....	78	4.94	nne.	5.8	388	.....	6/10 Cl.St., wsw.; 4/10 St.Cu., n.
.....	.....	.....	.....	.....	.....	500	959.0	-0.6	.....	81	4.71	nne.	8.4	490	110	.....
.....	.....	.....	.....	.....	.....	750	929.6	-3.1	.....	88	4.14	nne.	14.8	735	320	.....
.....	.....	.....	.....	.....	.....	798	924.0	-3.6	1.02	89	4.02	nne.	16.0	782	360	.....
9:05.....	972.1	0.8	75	nne.	8.0	1,000	906.0	-4.9	.....	90	3.64	nne.	17.3	980	530	.....
9:11.....	972.2	0.9	74	nne.	7.6	1,218	876.4	-6.4	0.67	92	3.28	nne.	18.7	1,194	720	.....
.....	.....	.....	.....	.....	.....	1,250	872.9	-5.9	.....	86	3.19	nne.	18.8	1,225	750	.....
.....	.....	.....	.....	.....	.....	1,485	847.3	-1.9	-1.69	42	2.19	n.	19.7	1,450	950	.....
.....	.....	.....	.....	.....	.....	1,500	845.8	-2.0	0	42	2.17	n.	19.7	1,470	960	.....
.....	.....	.....	.....	.....	.....	1,750	819.6	-3.7	.....	38	1.70	n.	19.1	1,715	1,260	.....
9:32.....	972.5	1.2	70	nne.	6.7	1,981	795.9	-5.3	0.69	34	1.33	n.	18.5	1,942	1,550	7/10 Cl.St., wsw.; 3/10 St.Cu., s.
.....	.....	.....	.....	.....	.....	2,000	793.9	-5.4	.....	34	1.32	n.	18.4	1,960	1,580	.....
.....	.....	.....	.....	.....	.....	2,250	769.1	-6.8	.....	35	1.20	n.	17.3	2,205	1,970	.....
10:09.....	973.0	1.3	71	nne.	5.8	2,500	744.9	-8.2	.....	36	1.09	nnw.	16.2	2,450	2,200	10/10 St.Cu., n.
.....	.....	.....	.....	.....	.....	2,553	739.8	-8.5	0.50	37	1.10	nnw.	16.0	2,502	.....	Altitude of St.Cu. base about 1,000 m.
.....	.....	.....	.....	.....	.....	2,500	744.9	-8.3	.....	38	1.15	nnw.	16.4	2,450	.....	.....
11:03.....	973.6	2.1	61	nne.	7.2	2,075	769.1	-7.2	.....	41	1.36	nnw.	18.5	2,205	2,000	.....
11:24.....	973.8	2.0	62	nne.	5.4	2,000	786.4	-6.4	0.63	43	1.53	nnw.	19.9	2,033	1,730	.....
11:26.....	973.8	1.9	63	nne.	4.9	1,787	816.0	-4.6	-5.75	45	1.67	nnw.	20.4	1,960	1,610	10/10 St.Cu., n.
.....	.....	.....	.....	.....	.....	1,750	819.6	-6.7	.....	50	1.74	n.	22.0	1,751	1,200	.....
11:40.....	973.9	2.1	66	n.	6.3	1,222	877.7	-6.1	0.77	52	1.45	n.	20.0	1,673	1,200	Altitude of St.Cu. base about 1,250 m.
.....	.....	.....	.....	.....	.....	1,000	901.7	-4.4	.....	68	2.12	n.	17.4	1,470	0	Some ice on wire.
P. M.	974.0	2.0	64	n.	7.6	752	931.6	-2.5	1.38	85	4.22	n.	14.3	737	0	.....
12:03.....	974.0	2.4	65	n.	5.4	500	961.7	1.0	.....	71	4.66	n.	7.1	490	0	.....
12:09.....	974.2	2.4	65	n.	5.4	396	974.2	2.4	.....	65	4.72	n.	5.4	388	.....	10/10 St.Cu., n.

OBSERVATIONS AT DREXEL, MARCH, 1916.

47

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 15, 1916.

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav. ity.	Electric.		
8:29 A. M.	mb. 985.9	°C. -4.3	% 72	n.	m. p. s. 4.0	m. 398	mb. 985.9	°C. -4.3	.....	% 72	m. p. s. 3.07	n.	m. p. s. 12.0	$10^6$ ergs. 388	volts. 1,100	6/10 A.Cu., n; 1/10 St.Cu., n.	
8:41	986.0	-3.8	68	n.	4.0	500	972.9	-5.5	.....	76	2.92	n.	5.5	490	200	Snow flurries until 11:05 a.m.	
8:53	986.1	-3.9	70	n.	5.4	720	946.0	-8.0	1.14	85	2.64	n.	8.6	706	600		
9:10	986.1	-3.3	70	n.	6.3	750	942.3	-8.3	.....	86	2.60	n.	9.0	735	650		
9:25	986.1	-3.0	71	n.	5.4	1,000	912.3	-10.6	.....	92	2.26	n.	12.0	980	1,100		
9:45	986.1	-2.7	63	n.	4.0	1,132	896.9	-11.8	0.92	95	2.10	n.	13.6	1,110	1,510		
10:12	986.0	-2.5	65	n.	4.5	1,250	883.2	-12.6	.....	97	1.99	n.	14.5	1,225	1,700		
11:05	985.8	-1.9	67	n.	3.1	1,462	859.1	-14.1	0.70	100	1.79	n.	16.0	1,433	2,010		
11:25	985.6	-1.4	60	nne.	4.0	1,500	854.8	-12.5	.....	85	1.76	n.	15.4	1,470	2,040		
11:40	985.5	-1.6	63	ne.	3.6	1,582	848.5	-9.1	-4.17	53	1.49	nnw.	14.1	1,551	2,090	Altitude of St.Cu. base about 1,500 m.	
11:41	985.5	-1.6	63	ne.	2.6	1,750	827.8	-10.2	.....	47	1.20	nnw.	14.6	1,715	2,200		
11:49	985.5	-1.1	57	n.	3.6	2,000	800.7	-12.0	.....	39	0.85	nnw.	15.4	1,980	2,360		
11:53	986.4	0.2	60	nw.	3.1	2,198	780.8	-13.3	0.68	32	0.62	nnw.	16.0	2,152	2,600		
						2,250	775.0	-13.7	.....	31	0.58	nnw.	16.3	2,205	2,800		
						2,500	750.0	-15.3	.....	25	0.40	nnw.	17.7	2,450	3,350		
						2,750	725.9	-16.1	.....	19	0.28	nnw.	18.8	2,607	3,620		
						3,000	702.3	-15.3	.....	10	0.16	nnw.	18.4	2,939	3,930		
						3,000	696.4	-15.1	0.00	8	0.13	nnw.	18.3	3,005	4,000		
						3,000	702.3	-14.9	.....	9	0.15	nnw.	18.3	2,939	3,930		
						2,750	725.9	-14.1	.....	9	0.16	nnw.	18.3	2,694	3,620		
						2,573	743.6	-13.5	0.52	10	0.19	nnw.	18.3	2,521	3,550		
						2,500	750.0	-13.1	.....	11	0.22	nnw.	18.0	2,470	3,500		
						2,250	775.0	-11.8	.....	12	0.27	nnw.	16.8	2,205	3,200		
						2,000	800.7	-10.5	.....	14	0.35	n.	15.7	1,980	2,360		
						1,751	827.8	-9.2	-1.86	16	0.45	n.	14.6	1,716	2,200		
						1,574	847.0	-12.5	0.74	27	0.36	n.	13.1	1,543	2,040		
						1,500	854.8	-11.9	.....	31	0.68	n.	12.4	1,470	1,950		
						1,250	883.2	-10.0	.....	43	1.12	n.	10.0	1,225	1,650		
						1,000	912.3	-8.1	.....	55	1.69	n.	7.5	980	1,340		
						847	930.8	-6.9	1.57	62	2.11	n.	6.0	830	1,160		
						750	942.3	-5.4	.....	61	2.37	nnw.	5.4	735	1,030		
						500	972.9	-1.4	.....	61	3.32	nnw.	3.8	490	0		
						398	985.4	0.2	.....	60	3.72	nnw.	3.1	388	.....	7/10 St.Cu., n.	

March 16, 1916.

A. M.	972.8	-0.2	67	s.	5.8	398	972.8	-0.2	.....	67	4.03	s.	5.8	388	280	3/10 Cl. St., wnw.
	500	980.0	-1.0	.....	69	3.88	s.	9.1	490	280						
8:26	972.9	-0.3	68	s.	5.8	750	930.4	-2.8	.....	73	3.53	ssw.	17.0	735	900	
8:40	973.1	0.8	67	s.	6.7	1,000	902.1	0.7	.....	65	4.18	w.	17.3	745	920	
9:17	973.1	2.8	56	s.	9.8	1,120	888.0	2.7	-1.52	61	4.53	wnw.	18.8	1,107	1,800	2/10 Cl., wnw.; 1/10 Cl.St.,wnw.
9:21	973.1	2.8	56	s.	8.5	1,250	875.0	4.7	.....	51	4.36	wnw.	16.1	1,225	2,080	
9:46	972.8	3.3	53	s.	6.3	1,455	853.8	8.0	-1.63	34	3.65	nw.	20.0	1,426	2,350	
10:16	972.6	4.4	46	s.	5.4	1,500	849.0	7.7	.....	34	3.57	nw.	19.8	1,470	2,370	
10:28	972.6	4.7	46	s.	5.4	1,750	823.5	6.3	.....	34	3.25	nw.	21.0	1,715	2,490	
10:35	973.6	5.0	49	s.	6.3	2,000	798.8	4.9	.....	33	2.86	nw.	22.3	1,960	2,600	
10:40	972.6	4.8	52	s.	6.3	2,110	788.0	4.3	0.56	33	2.74	nw.	22.8	2,068	2,650	3/10 Cl., wnw.; 3/10 Cl. St. wnw.
10:49	972.6	5.7	53	s.	5.4	2,250	774.7	3.7	.....	34	2.63	nw.	25.1	2,205	2,080	
	2,000	798.8	5.2	.....	34	2.63	nw.	25.1	2,205	2,080						8/10 Cl.,wnw.; 2/10 Cl.St.,wnw.
	1,750	823.5	6.5	.....	35	2.37	nw.	20.3	2,450	2,080						
	1,619	836.8	7.2	.....	36	2.18	nw.	33.5	2,694	3,320						
	1,500	849.0	7.9	-0.1	36	2.06	nw.	35.0	2,784	3,300						
	1,388	861.0	8.5	-1.47	32	2.12	nw.	33.5	2,694	3,270						
	1,250	876.0	6.5	.....	34	2.37	nw.	29.3	2,450	2,660						
	1,000	902.6	2.8	.....	37	2.29	nw.	25.1	2,205	2,080						
	831	921.8	0.3	1.24	39	2.76	wnw.	24.0	2,137	1,900						
	750	931.1	1.3	.....	42	2.43	wnw.	22.4	1,980	1,620						
	500	960.0	4.4	.....	50	4.18	ssw.	19.0	1,587	1,050						
	398	972.8	5.7	.....	53	4.85	s.	15.5	1,470	950						
								11.7	1,225	740						
								10.6	980	530						
								9.9	815	480						
								9.1	735	320						
								8.5	490	100						
								5.4	388	.....						4/10 Cl.,wnw.; 2/10 Cl.St.,wnw.

## SUPPLEMENT NO. 5.

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 17, 1916, series (No. 1).

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Gravity.	Electric.		
A. M.																	
8:10.....	mb. 970.9	°C. -0.1	% 74	ese.	m. p. s. 8.9	m. 396	mb. 970.9	°C. -0.1	.....	% 74	m. p. s. 4.48	ese. 74	10 <sup>6</sup> ergs. 388	volts. 200		3/10 Ci.St., wnw.; light haze.	
8:12.....	970.8	0.2	71	ese.	8.9	500	958.1	-0.9	.....	74	4.20	se. 13.2	490	1,450			
8:18.....	970.8	0.5	72	ese.	8.5	750	942.4	-1.9	0.76	75	3.92	sse. 18.8	621	450			
8:42.....	970.7	0.9	71	ese.	8.9	778	925.7	4.4	.....	64	5.36	sse. 18.8	735	690			
8:50.....	970.7	1.3	69	ese.	8.5	1,000	900.4	7.1	.....	50	5.04	s. 15.9	980	1,000			
8:54.....	970.6	1.6	69	ese.	7.2	1,250	873.9	8.4	.....	38	4.19	s. 12.7	1,225	1,360			
8:59.....	970.6	1.6	67	ese.	7.2	2,369	763.4	7.8	0.42	21	3.32	ssw. 10.0	1,427	1,750		3/10 Ci.St., wnw.	
9:19.....	970.7	2.2	66	ese.	5.8	2,500	751.0	6.6	.....	28	3.28	ssw. 10.5	1,470	1,810			
10:02.....	970.9	3.8	65	se.	7.6	2,750	728.7	4.4	.....	22	1.84	w. 17.9	2,694	3,230			
10:42.....	970.7	5.2	57	se.	8.0	2,902	715.2	3.0	0.90	22	1.67	w. 17.8	2,843	3,400			
11:05.....	970.5	6.4	58	se.	7.2	3,000	706.5	2.2	.....	22	1.58	w. 16.9	2,939	3,520			
11:19.....	970.3	6.9	58	se.	8.5	3,250	684.8	0.0	.....	23	1.41	w. 14.6	3,184	3,840			
11:38.....	969.9	7.5	55	se.	9.8	3,500	663.7	-2.2	.....	24	1.22	w. 12.2	3,429	4,230			
11:40.....	969.9	7.6	54	se.	9.4	3,621	653.8	-3.2	0.86	25	1.17	w. 11.1	3,547	4,400	6/10 Ci., wnw.; 4/10 Ci.St., wnw.		
11:58.....	969.6	8.4	52	se.	7.6	3,750	643.2	-4.2	.....	26	1.12	w. 13.0	3,673	4,670			
P. M.						4,000	623.1	-6.0	.....	29	1.07	w. 16.7	3,918	5,162			
12:06.....	969.5	8.3	53	se.	9.8	4,250	603.6	-7.9	.....	32	1.00	w. 20.4	4,162	5/10 Ci., wnw.; 5/10 Ci.St., wnw.			
12:15.....	969.4	8.8	52	se.	7.6	4,358	595.3	-8.7	0.76	33	0.96	w. 22.0	4,268				
						4,250	603.6	-7.9	.....	33	1.03	w. 21.8	4,162	4,090			
						4,000	623.1	-6.0	.....	34	1.25	w. 21.4	3,918	3,710			
						3,750	643.2	-4.0	.....	35	1.53	w. 21.0	3,673	3,340			
						3,521	661.3	-2.3	0.91	35	1.76	w. 20.7	3,459	3,000			
						3,500	663.7	-2.0	.....	35	1.81	w. 20.8	3,429	2,960			
						3,250	684.8	0.3	.....	34	2.12	w. 20.9	3,184	2,730			
						3,080	699.5	1.8	0.78	33	2.30	w. 21.0	3,018	2,500	7/10 Ci., wnw.; 3/10 Ci.St., wnw.		
						3,000	706.5	2.4	.....	32	2.32	w. 20.3	2,939	2,490			
						2,750	728.7	4.4	.....	30	2.51	w. 18.0	2,894	2,120			
						2,500	751.0	6.3	.....	29	2.77	w. 15.6	2,450	1,750			
						2,250	774.2	8.3	.....	27	2.96	w. 13.2	2,205	1,610			
						2,128	785.6	9.2	-0.89	26	3.03	w. 12.2	2,085	1,550			
						2,000	798.1	8.1	.....	25	2.70	wsw. 9.9	1,960	1,480			
						1,882	809.4	7.0	0.28	25	2.50	wsw. 7.7	1,845	1,410			
						1,750	822.8	7.4	.....	26	2.68	wsw. 9.2	1,715	1,340			
						1,500	847.9	8.1	.....	27	2.92	sw. 12.0	1,470	1,240			
						1,250	873.9	8.8	.....	28	3.17	ssw. 14.8	1,225	1,110			
						1,140	885.5	9.1	-1.74	28	3.24	s. 16.0	1,118	1,040	8/10 Ci., wnw.; 1/10 Ci.St., wnw.		
						1,000	900.4	6.7	.....	37	3.63	s. 15.3	980	760			

March 17, 1916, series (No. 2).

P. M.	968.9	10.6	50	sse.	6.3	396	968.9	10.6	.....	50	6.39	sse.	6.3	388	.....	1/10 Ci., wnw.; 2/10 Ci.St., wnw.
1:10.....	968.8	10.6	49	sse.	8.0	731	930.3	6.0	1.37	51	5.94	sse.	7.9	490	0	
1:21.....	968.6	11.1	49	sse.	7.2	1,000	908.7	4.8	0.63	54	4.96	se.	11.3	717	0	
1:23.....	968.5	10.9	49	sse.	7.2	1,115	887.4	8.6	-1.97	61	5.25	sse.	11.4	735	0	
1:34.....	968.3	11.6	47	se.	6.7	1,398	872.9	8.3	0.21	55	6.02	sse.	12.7	904	200	
2:22.....	967.6	12.2	46	se.	7.6	1,500	840.5	8.7	.....	50	5.36	ssw.	13.7	980	290	
2:40.....	967.5	12.7	45	se.	6.3	1,750	821.2	10.4	.....	47	5.29	ssw.	13.3	1,225	600	
3:15.....	967.3	13.4	45	se.	5.4	3,000	781.2	10.5	-0.67	39	4.92	sw.	6.8	1,715	1,200	7/10 Ci., wnw.
3:46.....	967.0	13.7	45	se.	4.0	3,245	763.8	0.8	0.71	38	4.83	sw.	6.5	1,736	1,210	Solar halo from 1:59 to 2:43 p. m.
4:00.....	966.9	14.0	45	se.	3.6	2,750	742.5	4.3	.....	35	4.02	ww.	8.6	1,980	1,330	
4:11.....	966.8	14.1	45	se.	4.5	2,500	749.2	6.1	.....	32	3.30	ww.	10.8	2,205	1,450	
4:16.....	966.8	14.0	45	se.	5.4	2,332	765.0	7.3	0.57	29	1.99	ww.	13.1	2,450	1,580	
4:32.....	966.7	13.8	46	se.	4.9	2,250	772.6	7.8	.....	24	1.88	ww.	15.3	2,694	1,710	
4:40.....	966.7	13.6	46	se.	4.0	2,000	796.1	9.7	.....	24	2.89	w.	10.4	1,960	1,790	
4:44.....	966.7	13.5	46	se.	4.0	750	926.3	9.5	.....	24	3.07	w.	9.5	1,717	620	
						500	929.0	9.8	1.11	27	2.78	ww.	7.5	1,470	500	
						500	954.4	12.3	.....	29	2.55	sw.	6.0	1,288	420	
						1,000	898.6	7.3	0.93	36	3.25	ssw.	6.3	1,225	390	
						396	966.7	13.5	.....	58	5.73	sse.	7.2	1,029	300	
										58	5.93	sse.	7.3	980	280	
										57	6.77	se.	7.5	735	160	
										57	6.91	se.	7.5	715	130	
										49	7.01	se.	5.1	490	50	
										46	7.11	se.	4.0	388	.....	5/10 Ci., wnw.

## OBSERVATIONS AT DREXEL, MARCH, 1916.

49

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 17, 1916, series (No. 3).

Time.	Pressure.	Surface.				At different heights above sea.										Remarks.	
		Tempera-ture.	Rela-tive humid-ity.	Wind.		Altitude.	Pressure.	Tem-perature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	el.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Electric.		
P. M.																	
5:11.....	mb. 966.5	°C. 13.2	% 48	se.	m. p. s. 4.0	m. 396	mb. 966.5	°C. 13.2	.....	% 48	m. p. s. 7.28	se.	m. p. s. 4.0	10 <sup>5</sup> ergs. 388	volts. 0	5/10 Ci., wnw.	
5:22.....	966.4	13.0	49	se.	4.5	500	954.2	12.1	.....	49	6.92	se.	5.2	490	0		
5:41.....	966.3	12.6	52	se.	4.6	722	929.4	9.8	1.04	50	6.06	se.	7.9	708	0		
7:40.....	966.1	7.5	66	se.	5.4	750	926.1	9.5	.....	51	6.05	se.	8.0	735	0		
7:54.....	966.0	7.5	66	se.	5.8	1,000	898.2	7.1	.....	54	5.45	se.	8.1	980	0		
8:25.....	966.0	7.1	68	se.	5.8	1,031	895.1	6.8	0.97	55	5.43	se.	8.2	1,011	60	6/10 Ci., wnw.	
8:36.....	966.0	0.9	69	se.	6.3	1,215	875.1	9.1	-1.25	54	6.24	sse.	7.0	1,191	410	Lunar halo of 22° from 7:15 to 8:50 p. m.	
8:46.....	966.0	6.7	69	se.	5.4	1,250	871.7	9.6	.....	51	6.09	sse.	6.6	1,225	480		
8:48.....	966.0	6.7	69	se.	4.5	1,428	853.1	12.4	-1.16	33	4.75	ssw.	4.4	1,400	.....		
						1,555	881.4	10.3	.....	38	4.76	ssw.	7.4	1,225	480		
						1,000	898.0	9.7	.....	41	4.93	s.	8.6	980	200	Corona from 8 to 8:50 p. m.	
						934	905.2	9.5	-0.07	42	4.99	s.	8.5	916	150		
						750	925.8	9.4	.....	47	5.54	s.	10.0	735	0		
						531	950.3	9.2	-1.85	52	6.05	sse.	11.8	521	0		
						500	953.8	8.6	.....	56	6.26	sse.	10.1	490	0		
						396	966.0	6.7	.....	69	6.77	se.	4.5	388	.....	6/10 Ci. & Ci.St., wnw.	

March 17-18, 1916, series (No. 4).

P. M.	965.9	6.6	69	sse.	5.8	396	965.9	6.6	.....	69	6.73	sse.	5.8	388	.....	6/10 Ci. & Ci.St., wnw.
9:28.....	965.8	6.5	70	sse.	5.8	500	953.6	7.8	.....	68	7.19	sse.	7.5	490	0	
9:41.....	965.9	6.2	71	se.	5.4	707	930.1	10.1	-1.13	66	8.16	sse.	11.0	693	0	
11:32.....	964.8	4.7	76	sse.	6.3	750	925.1	10.1	.....	66	8.16	sse.	10.3	735	50	
11:38.....	964.7	4.5	76	se.	6.3	1,000	897.1	11.4	0.05	66	8.10	sse.	7.5	909	230	8/10 Ci. & Ci.St., wnw; 4/10 Ci., nw.
11:53.....	964.5	4.2	78	sse.	5.8	1,212	874.7	15.4	-1.89	57	7.68	s.	6.8	980	300	
11:59.....	964.4	4.1	78	sse.	5.4	1,250	870.3	15.2	.....	31	5.35	ssw.	4.7	1,188	.....	
A. M.						1,500	845.1	13.9	.....	30	4.76	ssw.	4.3	1,470	.....	
12:05.....	964.4	4.0	79	sse.	4.9	1,510	844.2	13.8	0.54	30	4.73	ssw.	4.3	1,480	.....	
12:18.....	964.2	3.4	81	sse.	5.4	1,754	820.1	12.1	0.60	28	3.95	ssw.	7.4	1,719	.....	2/10 Ci., nw.
12:24.....	964.2	3.3	81	sse.	5.4	1,392	856.4	13.9	0.80	27	4.15	ssw.	7.1	1,365	.....	
						1,250	870.8	15.0	.....	27	4.60	ssw.	6.9	1,225	.....	

March 18, 1916, series (No. 5).

A. M.	963.8	2.7	84	s.	3.6	396	963.8	2.7	.....	84	6.23	s.	3.6	388	.....	Cloudless.
1:06.....	963.8	2.8	84	s.	4.0	500	951.4	5.5	.....	76	6.86	s.	6.3	490	0	
1:23.....	963.8	2.8	84	s.	4.0	751	923.0	12.3	-2.70	58	8.30	ssw.	12.7	736	0	
2:13.....	964.0	2.1	85	n.	2.2	1,000	896.0	16.2	.....	29	5.34	ssw.	8.7	980	600	
2:40.....	964.8	1.7	88	nne.	4.5	1,010	895.2	16.4	-1.58	28	5.22	ssw.	8.5	990	630	
2:56.....	965.2	1.5	88	nne.	4.9	1,250	870.2	14.8	.....	28	4.71	sw.	8.3	1,225	1,030	
3:31.....	965.9	1.2	87	nne.	4.0	1,586	836.2	12.5	0.68	28	4.06	wws.	8.1	1,470	1,150	1/10 Ci., nw.
4:03.....	966.4	1.1	89	nne.	3.6	2,000	796.1	8.8	.....	28	3.17	w.	8.4	1,960	1,400	
4:13.....	966.4	1.1	89	nne.	4.0	2,044	791.9	8.5	0.87	28	3.11	w.	8.5	2,003	1,430	
4:38.....	966.5	1.1	89	nne.	3.6	2,250	772.7	6.6	.....	30	2.92	w.	11.9	2,205	1,530	
4:46.....	966.5	1.0	89	nne.	2.7	3,000	704.5	0.4	.....	40	2.52	w.	20.3	2,939	2,030	
						3,250	682.5	1.4	.....	43	2.34	w.	20.8	3,184	2,260	
						3,440	666.1	-2.7	0.70	45	2.20	w.	21.2	3,370	.....	4/10 Ci., nw.
						3,250	682.0	1.3	.....	46	2.52	w.	20.5	3,184	.....	
						2,750	726.8	2.1	.....	48	3.02	w.	19.6	2,939	2,190	
						3,000	703.2	0.4	.....	49	3.51	w.	18.7	2,694	1,810	
						2,750	725.2	2.2	.....	49	3.98	w.	17.4	2,450	1,400	2/10 Ci., nw.
						2,500	747.8	4.0	.....	49	3.98	w.	20.3	2,939	2,030	
						2,500	771.1	5.8	.....	48	4.43	wnw.	15.4	2,205	1,320	
						2,000	795.2	7.6	.....	47	4.91	nw.	13.3	1,980	1,210	
						1,934	801.5	8.1	-0.13	46	4.97	nw.	12.7	1,896	1,170	
						1,750	819.9	7.9	.....	47	5.01	nnw.	13.3	1,715	1,110	
						1,500	845.0	7.6	.....	48	5.01	n.	14.2	1,470	1,020	
						1,248	871.5	7.8	0.51	49	5.01	nne.	15.0	1,221	980	
						1,000	897.2	8.6	.....	53	5.92	nne.	15.0	980	700	
						817	917.9	9.5	-2.02	56	6.65	nne.	15.0	801	500	
						750	924.9	8.1	.....	61	6.59	nne.	13.0	735	420	
						500	953.9	3.1	.....	81	6.18	nne.	5.7	490	130	
						396	966.5	1.0	.....	89	5.85	nne.	2.7	388	.....	Few Ci.St., nw.

## SUPPLEMENT NO. 5.

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 18, 1916, series (No. 6).

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Temperature.	Relative humidity.	Wind.		Altitude.	Pressure.	Temperature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav. ity.	Electric.		
A. M.																	
5:30.....	mb. 966.8	°C. 0.8	% 87	n.e.	m. p. s. 3.6	396	mb. 966.8	°C. 0.8	.....	% 87	m. p. s. 3.6	10 <sup>5</sup> ergs. 388	volts. ....			1/10 Cl.St., w.	
5:32.....	966.9	0.8	88	n.e.	3.6	500	954.5	4.9	.....	87	7.63	12.3	490	230			
5:46.....	967.0	0.5	90	n.e.	4.0	628	939.8	9.9	-3.92	87	10.61	23.1	616	510			
5:51.....	967.1	0.5	90	n.e.	3.6	750	925.9	9.1	.....	78	9.02	22.8	735	780			
6:15.....	967.4	0.0	92	n.	3.6	1,000	898.2	7.3	.....	60	6.14	22.3	980	1,200			
7:20.....	968.3	1.1	90	n.	3.1	1,136	883.8	6.4	0.69	50	4.80	22.0	1,114	1,430			
7:32.....	968.6	1.4	90	n.	3.1	1,219	875.1	7.3	-1.08	45	4.60	20.0	1,185	1,540			
7:53.....	969.1	2.4	87	n.	3.6	1,250	871.7	7.1	.....	45	4.54	19.5	1,225	1,570			
8:28.....	969.9	4.2	80	n.	4.0	1,500	845.6	5.6	.....	42	3.82	15.8	1,470	1,800			
8:40.....	970.2	4.9	78	n.	4.9	1,750	820.2	4.1	.....	40	3.28	12.2	1,715	2,100			
8:48.....	970.3	5.3	77	n.	7.2	1,773	818.0	4.0	0.60	40	3.25	11.8	1,738	2,100			
8:50.....	970.4	5.4	77	n.	7.2	2,000	795.7	2.2	.....	46	3.29	10.7	1,960	2,100			
9:04.....	970.7	6.0	74	n.	6.7	2,226	774.0	0.4	0.79	51	3.21	9.6	2,181	2,500			
9:06.....	970.7	6.0	73	nne.	6.7	2,500	771.6	0.5	.....	51	3.28	9.7	2,205	2,510			
9:18.....	970.8	6.3	72	nne.	6.7	3,000	703.0	2.0	.....	48	3.39	13.0	2,724	2,880			
9:22.....	970.9	6.5	71	nne.	9.8	3,250	681.3	0.0	.....	44	2.69	17.9	3,184	3,180			
9:34.....	971.0	6.9	69	nne.	7.6	3,500	660.2	-2.0	.....	40	2.07	20.7	3,429	3,300			
9:41.....	971.1	7.1	68	nne.	7.2	3,750	640.0	-3.9	.....	36	1.59	23.4	3,673	.....			
9:46.....	971.2	7.1	67	nne.	6.7	3,750	623.2	-4.8	0.62	34	1.39	24.6	3,881	.....			
						3,500	640.0	-3.6	.....	36	1.63	26.1	3,673	.....			
						3,250	681.9	-0.9	.....	38	1.93	27.8	3,429	.....			
						3,000	690.2	-0.4	-0.37	39	2.21	29.5	3,184	.....			
						3,152	690.2	-0.4	.....	40	2.36	30.2	3,088	.....			
						2,000	703.8	-1.0	.....	46	2.59	27.6	2,939	.....			
						2,984	707.1	-1.1	0.73	48	2.67	27.0	2,904	2,800			
						2,750	728.3	0.5	.....	49	3.10	21.9	2,694	2,570			
						2,635	736.7	1.3	-0.42	49	3.29	19.2	2,582	2,450			
						2,500	749.0	0.7	.....	50	3.22	13.8	2,450	2,320			
						2,446	754.2	0.5	0.84	50	3.16	11.7	2,397	2,280			
						2,250	772.5	2.1	.....	50	3.58	12.9	2,205	2,060			
						2,000	796.8	4.2	.....	49	4.04	14.4	1,960	1,780			
						1,750	822.1	6.3	.....	49	4.68	16.0	1,715	1,410			
						1,732	824.0	6.5	-6.94	49	4.74	16.1	1,698	1,390			
						1,683	828.9	3.1	-0.03	48	3.66	14.6	1,650	1,320			
						1,500	847.7	3.0	.....	53	4.02	14.9	1,470	1,080			
						1,380	860.4	3.0	0.87	56	4.24	15.0	1,353	980			
						1,250	874.1	4.1	.....	56	4.59	13.2	1,225	870			
						1,093	891.4	5.5	0.09	56	5.06	11.0	1,072	730			
						1,000	901.3	5.6	.....	59	5.37	14.2	1,980	570			
						2,000	795.8	2.6	.....	27	1.99	15.3	1,960	1,080			
						2,195	779.5	3.6	-0.50	18	1.42	15.5	2,151	1,170			
						2,250	774.2	3.1	.....	20	1.53	16.0	1,225	420			
						2,500	750.7	0.8	.....	27	1.75	16.0	1,263	450			
						2,750	727.8	-1.2	.....	34	1.83	15.6	1,470	640			
						3,000	705.1	-2.8	.....	38	1.92	20.7	2,694	1,460			
						3,250	683.8	-3.5	.....	43	1.96	24.1	2,939	1,660			
						3,500	662.2	-4.6	.....	47	1.95	27.6	3,184	1,850			
P. M.												31.0	3,429	2,030	3/10 Cl., w.		
10:21.....	971.7	8.1	64	nne.	8.5	396	971.7	8.1	.....	64	6.91	nne.	8.5	388	.....	4/10 Cl., w.	
10:25.....	971.8	8.2	65	n.	8.5	500	959.3	6.5	.....	67	6.49	nne.	10.1	490	0		
10:30.....	971.9	7.9	64	n.	8.0	750	930.6	3.6	.....	74	5.85	n.	13.0	735	0		
10:47.....	972.2	8.0	63	n.	6.7	827	926.4	3.1	-1.28	75	5.72	n.	13.5	772	0		
11:05.....	972.4	8.1	62	nne.	7.2	917.6	917.6	4.8	-2.15	77	6.62	n.	15.7	849	170		
11:28.....	972.7	8.1	56	n.	5.4	917.6	902.5	4.6	.....	72	6.11	n.	15.8	980	250		
11:36.....	972.8	8.3	54	nne.	7.2	878	818.4	1.6	0.49	35	2.40	nne.	16.0	1,225	420		
						2,000	795.8	2.6	.....	27	1.99	n.	15.3	1,960	1,080	6/10 Cl., w.	
						2,195	779.5	3.6	-0.50	18	1.42	nne.	15.5	2,151	1,170	Solar halo 11:25 to 11:50 a. m.	
						2,250	774.2	3.1	.....	20	1.53	nne.	16.0	2,05	1,250		
						2,500	750.7	0.8	.....	27	1.75	nne.	18.1	2,450	1,320		
						2,750	727.8	-1.2	.....	34	1.88	nne.	19.5	2,612	1,400		
						3,000	705.1	-2.8	.....	38	1.92	nne.	20.7	2,694	1,460		
						3,250	683.8	-3.5	.....	43	1.96	nne.	24.1	2,939	1,660		
						3,500	662.2	-4.6	.....	47	1.95	nne.	27.6	3,184	1,850		
12:11.....	973.1	8.8	52	nne.	7.6	3,743	642.0	-5.7	0.50	52	1.97	nne.	34.4	3,666	2,200		
12:38.....	973.2	8.8	49	nne.	7.2	3,500	662.2	-4.3	.....	52	2.22	nne.	30.4	3,429	.....		
12:48.....	973.2	8.8	50	nne.	8.0	3,250	683.6	-2.9	.....	52	2.50	nne.	26.3	3,184	.....		
12:56.....	973.3	9.3	49	nne.	7.6	3,105	696.0	-2.1	-0.26	52	2.67	nne.	23.9	3,042	.....		
						3,000	705.1	-2.4	.....	55	2.75	nne.	24.5	2,939	.....	2/10 Cl., w.	
						2,953	709.4	-2.5	0.64	57	2.83	nne.	24.8	2,893	1,000		
						2,750	727.8	-1.2	.....	50	2.76	nne.	20.8	2,694	840		
						2,500	750.7	0.4	.....	42	2.64	nne.	18.8	2,450	640		
						2,250	774.2	2.0	.....	34	2.40	nne.	10.9	2,205	450		
						2,172	782.0	2.5	-0.27	31	2.27	nne.	9.4	2,129	390		
						2,000	798.5	2.0	.....	27	1.91	n.	7.6	1,960	250		
						1,750	824.0	1.4	.....	22	1.49	n.	13.9	1,715	50		
						1,689	830.4	1.2	0.42	21	1.40	nne					

OBSERVATIONS AT DREXEL, MARCH, 1916.

51

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 18, 1916, series (No. 8).

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	At 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.		
P. M.	mb. 973.8	° C. 10.9	% 41	nne.	m. p. s. 7.2	m. 396	mb. 973.8	° C. 10.9	.....	% 41	mb. 5.35	nne.	m. p. s. 7.2	10 <sup>4</sup> ergs. 388	volts. 0	5/10 Cl., w.	
2:37.....	.....	.....	.....	.....	.....	500	961.8	9.5	.....	42	4.99	nne.	8.1	490	0	.....	
2:46.....	973.8	10.8	42	nne.	6.7	750	932.9	6.1	.....	43	4.05	nno.	10.3	735	0	.....	
3:02.....	973.8	11.0	37	nne.	7.2	1,000	904.6	4.0	1.36	43	3.88	nno.	10.7	779	0	.....	
3:18.....	973.9	10.8	36	nne.	8.0	1,165	886.6	2.8	0.73	.....	.....	nne.	10.6	980	180	.....	
4:14.....	974.0	10.3	37	nne.	6.3	1,250	877.1	2.3	.....	.....	.....	nne.	10.5	1,142	310	.....	
4:41.....	974.1	10.0	39	nne.	5.8	1,500	860.5	0.9	.....	.....	.....	nne.	10.8	1,225	270	.....	
5:07.....	974.2	9.7	37	nne.	5.4	1,561	844.1	0.6	0.56	.....	.....	nne.	11.5	1,470	180	.....	
5:24.....	974.4	9.2	36	nne.	6.3	1,677	832.0	1.5	-0.78	.....	.....	nne.	8.6	1,644	80	4/10 Cl., w.; 1/10 Cl., w.	
5:26.....	974.4	9.2	36	nne.	6.3	1,750	824.6	1.3	.....	.....	.....	nne.	8.8	1,715	30	.....	
5:41.....	974.5	8.9	35	ne.	4.5	2,000	799.5	0.4	.....	.....	.....	nw.	9.6	1,960	390	.....	
5:46.....	974.5	8.6	36	ne.	5.4	2,250	775.0	-0.4	.....	.....	.....	nw.	10.3	2,205	280	.....	
						2,318	768.2	-0.6	0.31	.....	.....	nw.	10.5	2,271	380	.....	
						2,500	775.0	-0.4	.....	.....	.....	nw.	10.4	2,205	350	.....	
						1,936	805.9	0.5	0.33	6	0.38	nnw.	10.0	1,960	220	.....	
						1,750	824.6	1.1	.....	9	0.60	nnw.	9.9	1,897	180	6/10 Cl., w.	
						1,506	850.1	1.9	-1.19	14	0.98	nne.	10.8	1,715	80	.....	
						1,500	850.5	1.8	.....	14	0.97	nne.	10.8	1,470	0	.....	
						1,380	863.4	0.4	0.88	15	0.94	nne.	10.8	1,353	0	3/10 Cl., w.; 2/10 Cl.St., w.	
						1,250	877.1	1.5	.....	19	1.29	nne.	10.3	1,225	0	.....	
						1,000	904.6	3.5	.....	27	2.12	ne.	9.3	980	0	.....	
						787	929.2	5.3	0.84	33	2.94	ne.	8.5	772	0	.....	
						750	933.1	5.6	.....	33	3.00	ne.	8.2	735	0	.....	
						500	962.2	7.7	.....	35	3.68	ne.	6.2	490	0	.....	
						396	974.5	8.6	.....	36	4.02	ne.	6.4	388	.....	5/10 Cl., w.; 4/10 Cl.St., w.	

March 19, 1916.

A. M.	979.5	2.3	44	sse.	8.0	396	979.5	2.3	.....	44	3.17	sse.	8.0	388	.....	10/10 Cl.St., nw.
9:48.....	.....	.....	.....	.....	.....	500	966.6	1.4	.....	45	3.04	sse.	10.0	490	150	.....
9:56.....	979.4	2.1	44	se.	7.6	750	937.0	-0.7	.....	48	2.76	sse.	14.8	735	500	Solar halo 9:56 to 10:14 a.m.
10:06.....	979.3	2.4	43	sse.	8.0	1,000	932.6	-1.0	0.84	48	2.70	sse.	15.5	774	540	.....
10:25.....	979.0	2.7	44	se.	0.4	1,116	908.0	-0.2	.....	42	2.52	sse.	12.8	980	680	.....
10:55.....	978.5	3.4	41	sse.	8.0	1,250	880.0	1.0	-0.37	39	2.42	sse.	11.3	1,094	755	.....
11:50.....	978.2	6.6	33	sse.	6.7	1,500	853.2	2.6	.....	38	2.50	s.	12.3	1,225	960	Altitude of A.Cu. base about 3,000 m.
12:13.....	978.0	7.5	28	sse.	7.2	2,000	731.1	-0.3	.....	38	2.80	ssw.	14.0	1,470	1,330	.....
12:32.....	977.9	7.2	28	se.	7.2	2,500	708.7	-2.0	.....	37	3.01	sw.	15.6	1,683	1,450	8/10 Cl.St., nw.; 2/10 A.St., wnw.
12:52.....	977.8	6.7	31	sse.	5.8	3,000	686.3	-3.6	.....	39	3.15	sw.	15.7	1,715	1,460	.....
12:58.....	977.7	6.8	30	s.	7.2	3,375	675.4	-4.4	0.62	54	4.07	ww.	16.6	1,960	1,540	.....
1:05.....	977.6	6.4	30	sse.	6.3	3,250	686.3	-3.7	.....	68	4.80	ww.	17.4	2,450	1,750	.....
						3,000	708.2	-2.2	.....	93	4.73	ww.	18.2	2,939	.....	4/10 Ci., nw.; 4/10 Ci.St., nw.; few A.Cu., w.
						2,750	730.1	-0.8	.....	94	5.37	w.	19.8	2,694	.....	.....

## SUPPLEMENT NO. 5.

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 20, 1916.

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Temper- ature.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.		
A. M.																	
8:43	mb. 961.1	°C. 8.0	% 74	sw.	m. p. s. 8.5	m. 396	mb. 961.1	°C. 8.0	.....	% 74	mb. 7.94	m. p. s. 8.5	10 <sup>5</sup> ergs. 388	volts. 170	6/10 Cl., w.; 4/10 Cl.S		
8:44	961.1	8.2	73	sw.	8.5	500	949.1	6.8	.....	72	7.11	sw. 11.6	490	170			
8:50	961.1	8.9	73	sw.	8.9	525	946.1	6.5	1.16	72	6.97	sw. 12.3	515	210			
8:56	961.0	9.8	70	sw.	8.0	738	922.3	13.1	-3.10	43	6.48	wnw. 18.5	724	730			
9:04	961.0	10.4	66	sw.	7.6	750	920.0	13.3	.....	42	6.41	wnw. 18.4	735	750			
9:15	961.0	11.0	67	sw.	8.0	986	895.7	17.6	-1.81	32	6.44	wnw. 16.2	967	900			
9:53	960.8	13.7	57	sw.	7.2	1,000	893.9	17.6	.....	32	6.44	wnw. 16.2	980	920			
10:34	960.6	15.8	50	wws.	4.5	1,166	876.9	17.6	0.00	27	5.44	wnw. 16.5	1,143	1,000	1/10 Cl., w.; 2/10 Cl.St., w.		
11:46	960.5	18.6	39	n.w.	5.4	1,250	868.2	17.1	.....	27	5.26	wnw. 16.3	1,225	1,050			
12:07	960.5	18.3	40	wnw.	3.6	1,500	843.2	15.9	.....	26	4.70	wnw. 16.0	1,470	1,190			
12:34	960.5	18.6	39	wnw.	4.5	1,534	840.0	15.7	0.52	26	4.64	wnw. 15.9	1,504	1,200			
1:04	960.5	19.6	39	w.	3.6	1,750	818.5	13.7	.....	28	4.39	wnw. 15.6	1,715	1,250			
1:06	960.5	19.6	39	w.	3.6	2,000	794.3	11.4	.....	30	4.04	wnw. 15.3	1,960	1,300			
P. M.						2,250	771.0	9.0	.....	31	3.56	wnw. 15.0	2,205	1,350			
12:07	960.5	18.3	40	wnw.	3.6	2,470	750.8	6.9	0.94	33	3.28	wnw. 14.7	2,420	1,400	2/10 Cl.St., w.		
12:34	960.5	18.6	39	wnw.	4.5	3,000	703.1	2.1	.....	46	3.27	wnw. 15.3	2,939	1,640			
1:04	960.5	19.6	39	w.	3.6	3,209	685.3	0.2	0.91	51	3.16	wnw. 15.5	3,144	1,280	4/10 Cl., w.		
1:06	960.5	19.6	39	w.	3.6	3,250	681.9	-0.1	.....	52	3.15	wnw. 15.5	3,184	1,250			
1:07	960.5	19.6	39	w.	3.6	3,500	680.9	-2.1	.....	57	2.92	wnw. 15.6	3,429	1,250			
1:08	960.5	19.6	39	w.	3.6	3,748	646.0	-4.0	0.81	59	2.58	wnw. 15.6	3,671	1,250			
1:09	960.5	19.6	39	w.	3.6	3,500	680.9	-1.9	.....	58	3.03	wnw. 15.6	3,429	1,250			
1:10	960.5	19.6	39	w.	3.6	3,250	681.9	0.2	.....	57	3.53	wnw. 15.7	3,184	1,250			
1:11	960.5	19.6	39	w.	3.6	3,000	703.1	2.3	.....	58	4.04	wnw. 15.7	2,939	1,250			
1:12	960.5	19.6	39	w.	3.6	2,948	707.9	2.7	0.86	56	4.16	wnw. 15.7	2,888	780			
1:13	960.5	19.6	39	w.	3.6	2,750	725.0	4.4	.....	53	4.44	wnw. 15.8	2,694	740			
1:14	960.5	19.6	39	w.	3.6	2,500	747.7	6.6	.....	50	4.58	wnw. 16.0	2,450	670			
1:15	960.5	19.6	39	w.	3.6	2,250	771.0	8.7	.....	46	5.18	wnw. 16.1	2,205	340			
1:16	960.5	19.6	39	w.	3.6	2,101	784.8	10.0	0.72	44	5.40	wnw. 16.2	2,059	170	9/10 Cl.St., wnw.		
1:17	960.5	19.6	39	w.	3.6	2,000	794.3	10.7	.....	42	5.41	wnw. 15.9	1,960	150			
1:18	960.5	19.6	39	w.	3.6	1,750	818.5	12.5	.....	38	5.51	wnw. 15.2	1,715	90			
1:19	960.5	19.6	39	w.	3.6	1,500	843.2	14.3	.....	35	5.70	wnw. 14.4	1,470	20			
1:20	960.5	19.7	39	wnw.	3.6	1,207	806.9	16.0	-0.26	31	5.64	wnw. 13.7	1,242	0			
1:21	960.5	19.6	39	w.	3.6	1,250	868.2	16.0	.....	31	5.64	wnw. 13.5	1,225	0			
1:22	960.5	19.6	39	w.	3.6	1,000	894.7	15.3	.....	31	5.39	wnw. 10.6	980	0			
1:23	960.5	19.6	39	w.	3.6	764	919.9	14.7	1.33	31	5.19	w. 7.9	749	0			
1:24	960.5	19.6	39	w.	3.6	750	920.7	14.9	.....	31	5.25	w. 7.7	735	0			
1:25	960.5	19.6	39	w.	3.6	500	948.9	18.2	.....	37	7.78	w. 4.8	490	0			
1:26	960.5	19.6	39	w.	3.6	396	960.5	19.6	.....	39	8.00	w. 3.6	388	.....	10/10 Cl.St., wnw.		

March 21, 1916.

A. M.	954.6	6.8	77	e.	8.5	396	954.6	6.8	.....	77	7.61	e.	8.5	388	.....	10/10 St., wsw.
8:39	954.4	7.1	77	e.e.	8.5	500	942.3	8.5	.....	71	7.88	se.	12.1	490	0	
8:47	954.4	7.1	77	e.e.	8.5	750	914.3	12.5	.....	55	7.97	sse.	20.6	735	0	
8:58	954.0	7.3	74	e.e.	8.5	1,000	887.1	14.0	.....	53	7.94	sse.	21.8	769	0	
9:02	954.0	7.4	74	e.e.	8.0	1,163	870.4	14.8	-0.48	48	8.08	sse.	19.3	1,140	0	
9:31	953.3	8.2	71	e.e.	8.0	1,250	861.3	15.2	.....	48	8.29	sse.	20.2	1,225	280	3/10 A. St., w.; 7/10 A. Cu., wsw.
10:12	952.3	9.4	66	se.	8.5	1,469	839.7	16.1	-0.42	48	8.78	s.	22.6	1,440	900	
11:15	950.1	11.8	61	se.	10.2	1,500	836.1	15.9	.....	47	8.49	s.	22.6	1,470	990	
11:16	948.4	13.5	58	se.	12.1	2,000	811.7	14.6	.....	40	6.65	ssw.	22.2	1,715	1,390	
11:17	947.8	13.9	56	se.	13.4	2,250	787.9	13.2	.....	34	5.16	ssw.	21.9	1,960	1,640	
12:04	947.5	13.9	56	se.	14.8	2,260	764.7	11.9	.....	27	3.76	sw.	21.5	2,205	2,020	
12:07	947.4	14.0	56	se.	15.2	2,500	763.0	11.8	0.54	26	3.60	sw.	21.5	2,224	2,080	
12:13	947.3	14.2	56	se.	12.1	2,750	742.0	10.0	.....	26	3.19	sw.	21.8	2,450	2,500	
11:57	947.8	13.9	56	se.	13.4	2,750	720.0	8.0	.....	26	2.79	sw.	22.1	2,694	2,970	
12:04	947.5	13.9	56	se.	14.8	3,000	698.3	6.1	.....	26	2.45	sw.	22.4	2,939	3,450	
12:07	947.4	14.0	56	se.	15.2	3,135	686.8	5.1	0.76	26	2.29	sw.	22.6	3,071	3,700	
12:13	947.3	14.2	56	se.	12.1	3,000	698.3	6.1	.....	26	2.45	sw.	22.6	2,939	3,460	
11:46	948.4	13.5	58	se.	12.1	1,247	858.0	17.8	0.52	25	2.68	sw.	22.5	2,694	3,020	
11:47	947.8	13.9	56	se.	13.4	1,000	882.2	19.1	.....	25	3.05	ssw.	22.5	2,450	2,570	
11:48	947.5	13.9	56	se.	14.8	900	893.0	19.6	-1.07	31	7.07	sse.	23.8	882	160	7/10 A. St., w.; 3/10 A. Cu., wsw.
P. M.						788	904.4	18.4	-2.65	54	11.43	sse.	22.6	773	0	
12:04	947.5	13.9	56	se.	14.8	750	908.2	17.4	.....	56	11.13	sse.	22.8	735	0	
12:07	947.4	14.0	56	se.	15.2	554	929.9	12.2	1.27	66	9.38	se.	24.1	543	0	
12:13	947.3	14.2	56	se.	12.1	500	935.7	12.9	.....	63	9.37	se.	20.0	490	0	
12:14	947.3	14.2	56	se.	12.1	396	947.3	14.2	.....	56	9.07	se.	12.1	388	.....	8/10 A. St., w.; 2/10 A. Cu., wsw.

# OBSERVATIONS AT DREXEL, MARCH, 1916.

53

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 22, 1916.

Time.	Pressure.	Surface.				At different heights above sea.										Remarks.				
		Tem-	Rela-	Wind.		Altitude.	Pressure.	Tem-	$\Delta t$	Humidity.		Wind.		Potential.						
				per-	humid-					per-	mb.	°C.	100 m.	Rel.	Vap.	Dir.	Vel.	Grav-	Electric.	
A. M.		mb.	°C.	%	m.p.s.	m.	mb.	°C.		%	mb.	m.p.s.	10 <sup>3</sup> ergs.	volts.						
11:18.....	969.7	2.8	75	n.	4.0	396	969.7	2.8		75	5.60	4.0	388	.....						10/10 St.Cu., n.
11:30.....	969.8	3.6	72	n.	5.8	500	957.0	1.5		78	5.31	5.6	490	0						
11:59.....	970.0	4.4	74	nne.	4.9	712	932.4	-1.0	1.20	83	4.66	9.0	698	0						Altitude of St.Cu. base about 1,000 m.
P. M.						750	928.0	-1.3		84	4.60	9.1	735	0						
12:36.....	969.8	4.0	67	n.	4.9	1,000	899.5	-3.1		92	4.33	nmw.	9.4	980	0					
12:46.....	969.7	4.0	65	n.	4.9	1,125	885.5	-4.0	0.73	96	4.20	nmw.	9.6	1,103	0					
1:43.....	969.4	5.5	55	nne.	4.0	1,250	871.7	-4.9		86	3.48	nmw.	9.4	1,225	0					
1:55.....	969.3	5.8	57	nne.	4.0	1,500	844.3	-6.6		67	2.34	n.	8.9	1,470	0					

March 23, 1916.

A. M.																				
8:32.....	962.3	2.1	71	ssc.	10.7	396	962.3	2.1		71	5.05	ssc.	10.7	388	.....					3/10 Ci., w.; 4/10 Ci.St., w.
8:33.....	962.3	1.9	72	ssw.	10.7	500	949.8	0.3	1.77	71	4.43	s.	21.8	490	240					
8:40.....	962.4	1.8	72	ssc.	8.5	509	948.9	0.1		71	4.37	s.	22.8	490	300					
9:01.....	962.5	3.4	67	ssw.	8.0	778	917.7	2.7	-0.97	57	4.14	s.	24.8	735	820					
9:06.....	962.4	3.8	66	ssc.	10.3	1,000	892.8	3.8		50	4.08	s.	25.0	763	860					
9:41.....	962.0	3.8	66	ssw.	8.9	1,250	865.8	5.0		45	3.92	s.	17.5	1,225	1,630					
10:15.....	961.6	4.2	65	ssc.	12.5	1,470	843.2	6.1	-0.49	40	3.77	s.	14.0	1,441	1,850					5/10 Ci., w.; 1/10 Ci.St., w.
10:50.....	961.1	5.3	65	ssc.	10.7	1,500	840.0	6.5		38	3.68	s.	14.3	1,470	1,900					
11:19.....	960.6	5.4	64	ssc.	12.1	1,661	823.8	6.6	-1.31	27	3.02	s.	15.8	1,628	2,110					
11:20.....	960.4	4.9	68	ssc.	7.6	1,750	814.9	8.0		28	3.00	s.	16.0	1,715	2,220					
11:34.....	960.3	5.0	67	ssc.	9.4	2,000	790.0	6.1		29	2.79	s.	16.7	1,960	2,590					
11:43.....	960.1	5.0	67	ssc.	8.5	2,250	766.0	4.9		31	2.68	ssw.	17.4	2,205	3,210					
11:51.....	959.9	5.1	67	ssc.	7.6	2,500	742.9	3.3		32	2.45	ssw.	18.1	2,450	3,830					
						2,628	731.8	2.5	0.63	33	2.41	ssw.	18.5	2,573	4,110					3/10 Ci., w.; 6/10 A.Cu., sw.
						2,750	720.3	1.5		41	2.79	ssw.	18.1	2,694	4,170					
						3,000	698.2	-0.6		57	3.31	sw.	17.2	2,939	4,340					
						3,148	685.5	-1.8	0.76	66	3.47	sw.	16.7	3,084						
						3,000	698.2	-0.8		62	3.54	sw.	16.9	2,939	3,500					
						2,750	720.3	1.0		55	3.61	sw.	17.2	2,694	3,500					
						2,500	742.9	2.7		48	3.56	ssw.	17.4	2,450	3,080					
						2,354	756.4	3.7	0.68	44	3.50	ssw.	17.6	2,307	2,790					
						2,250	768.0	4.4		44	3.68	ssw.	19.2	2,205	2,590					
						1,750	813.8	7.8		45	4.76	ssw.	26.8	1,716	1,170					
						1,602	828.7	8.8	-1.34	45	5.10	ssw.	29.0	1,570	680					3/10 Ci.St., w.; 5/10 A.St., wsw.; 2/10 A.Cu., sw.
						1,500	838.6	7.4		41	4.22	ssw.	26.9	1,470	580					Rain 11:23 to 11:38 a. m.
						1,282	861.4	4.5	3.02	33	2.78	s.	22.5	1,257	360					
						1,250	864.3	5.5		34	3.07	s.	22.3	1,225	330					
						1,188	871.2	7.4	-1.41	37	3.81	s.	22.0	1,163	260					8/10 A.St., wsw.; 2/10 A.Cu., sw.
						1,000	891.0	4.8		51	4.39	sse.	21.7	980	140					
						831	910.0	2.4	0.62	64	4.65	sse.	21.5	815	10					
						750	918.7	2.9		65	4.59	sse.	18.9	735	0					
						500	917.2	4.5		66	5.56	sse.	10.9	490	0					
						396	959.9	5.1		67	5.89	sse.	7.6	388	.....					10/10 A.St., sw.

March 24, 1916 (No. 1).

A. M.																				
8:31.....	950.2	11.6	82	s.	10.7	396	950.2	11.6		82	11.20	s.	10.7	388	.....					6/10 Ci., sw.; light fog, s.
						500	938.1	12.2		74	10.52	s.	12.9	490	180					
						750	910.8	13.6		55	8.57	ssw.	18.0	735	480					
						1,000	884.4	15.0		36	6.14	sw.	23.2	980	880					
						1,134	870.4	15.7	-0.56	26	4.64	sw.	26.0	1,112	1,100					8/10 Ci., sw.; light fog, ssw.
						1,250	858.7	15.0		25	4.26	sw.	25.2	1,225	1,090					
						1,500	833.9	13.5		24	3.71	sw.	23.4	1,470	1,080					
						1,552	828.7	13.2	0.60	24	3.64	sw.	23.0	1,521	1,075					
						1,750	808.5	12.3		18	2.58	sw.	26.5	1,715	1,380					
						2,000	785.0	11.1		10	1.32	sw.	30.9	1,980	.....					
						2,047	780.8	10.9	0.73	9	1.17	sw.	31.7	2,006	.....					
						2,000	785.0	11.4		7	0.94	sw.	31.1	1,960	.....					
						1,845	799.8	12.9	-5.79	1	0.15	sw.	29.0	1,808	1,800					
						1,807	803.4	10.7	0.45	4	0.51	sw.	27.5	1,771	1,530					9/10 Ci., sw.; light fog, ssw.
						1,750	809.6	11.0		6	0.79	sw.	26.9	1,715	1,420					
						1,500	832.7	12.1		14	1.98	sw.	24.2	1,470	1,110					
						1,250	858.2	13.2		21	3.19	sw.	21.6	1,225	980					
						1,000	884.7	12.7		46	6.76	sw.	20.0	980	770					
						914	894.2	11.3	0.54	68	9.11	sw.	20.3	896	640					

## SUPPLEMENT NO. 5.

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 24, 1916 (No. 2).

Time.	Surface.					At different heights above sea.										Remarks.
	Pressure.	Temper-	Rela-	Wind.		Altitude.	Pressure.	Tem-	$\Delta t$	Humidity.		Wind.		Potential.		
				ture.	ative					ture.	100 m.	Rel.	Vap.	Dir.	Vel.	Grav-
P. M. 12:51	mb. 951.4	°C. 18.4	% 59	ssw.	m. p. s. 8.4	m.	mb.	°C.	.....	%	12.48	ssw.	m. p. s.	$10^5$ ergs.	volt.	5/10 Ci.St., sw.; light haze.
1:02	951.4	18.8	59	ssw.	8.0	396	951.4	18.4	.....	59	12.48	ssw.	9.4	388	.....	0
1:08	951.4	19.1	55	ssw.	8.5	500	940.0	17.4	.....	62	12.32	ssw.	9.5	400	.....	0
1:17	951.3	19.4	55	ssw.	10.3	714	916.6	15.2	1.01	67	11.57	s.	9.8	700	.....	0
1:45	951.2	20.7	52	ssw.	8.5	1,000	885.9	13.5	.....	65	11.08	s.	10.4	735	30	
1:50	951.2	21.0	50	ssw.	8.0	1,106	874.9	12.9	0.59	54	8.35	s.	14.2	980	340	
1:58	951.2	21.0	50	ssw.	8.0	1,177	867.4	15.3	-3.38	31	5.39	ssw.	15.4	1,154	515	2/10 Ci.St., sw.; light haze.
2:20	951.2	21.3	53	sse.	8.5	1,250	860.0	14.7	.....	32	5.35	ssw.	15.7	1,225	570	
2:40	951.3	21.6	53	sse.	8.5	1,500	834.8	12.6	.....	34	4.96	ssw.	16.6	1,470	690	
3:15	951.3	21.9	52	s.	9.3	1,750	810.3	10.6	.....	35	4.47	ssw.	17.5	1,715	1,060	
3:30	951.3	21.5	53	sse.	10.3	2,000	786.2	8.6	.....	37	4.13	ssw.	18.4	1,960	1,180	
3:50	951.3	21.2	50	s.	8.5	2,027	784.0	8.4	0.81	37	4.08	ssw.	18.5	1,986	1,180	
4:01	951.3	20.9	52	s.	9.8	2,250	762.8	6.3	.....	47	4.49	ssw.	18.6	2,205	1,200	
4:07	951.3	20.6	52	s.	8.9	2,500	739.9	4.0	.....	58	4.72	ssw.	18.7	2,450	1,230	
						2,750	720.8	1.9	0.94	68	4.77	ssw.	18.8	2,660	1,250	
						3,000	695.9	0.3	.....	67	4.63	ssw.	19.1	2,694	1,230	3/10 Ci.St., sw.; light haze.
						3,250	674.8	-1.1	.....	58	3.62	ssw.	19.5	2,939	1,080	
						3,500	653.8	-2.5	.....	50	2.78	sw.	23.9	3,184	.....	
						3,655	638.6	-3.6	0.62	42	2.08	sw.	26.3	3,429	.....	
						3,500	635.8	-2.3	.....	35	1.58	sw.	28.0	3,609	.....	3/10 St.Cu., sw.; light haze.
						3,250	617.8	-0.6	.....	39	1.97	sw.	27.1	3,429	.....	
						3,000	696.2	1.1	.....	44	2.56	sw.	25.8	3,184	1,130	
						2,750	717.9	1.7	.....	49	3.24	sw.	24.6	2,939	910	
						2,500	720.8	3.0	0.76	54	4.03	sw.	23.4	2,694	680	
						2,721	720.8	3.0	0.76	54	4.09	sw.	23.2	2,666	660	
						2,500	740.3	4.7	.....	53	4.53	sw.	21.3	2,450	430	
						2,250	763.2	6.6	.....	53	5.17	sw.	18.7	2,205	160	
						2,000	758.8	8.5	.....	52	5.77	ssw.	16.1	1,960	0	1/10 St.Cu., sw.
						1,920	794.7	9.1	0.83	52	6.01	ssw.	15.3	1,882	0	
						1,750	810.8	10.5	.....	51	6.48	ssw.	15.0	1,715	0	
						1,500	835.2	12.6	.....	49	7.15	s.	14.6	1,470	0	
						1,250	860.6	14.7	.....	47	7.86	s.	14.2	1,225	0	
						1,125	873.6	15.7	0.41	46	8.21	s.	14.0	1,103	0	
						1,000	886.2	16.2	.....	49	9.03	s.	14.4	980	0	Cloudless.
						811	906.4	17.0	0.87	54	10.47	s.	15.0	795	0	
						750	912.6	17.5	.....	54	10.80	s.	14.1	735	0	
						500	940.0	19.7	.....	53	12.16	s.	10.4	490	0	
						396	951.3	20.6	.....	52	12.62	s.	8.9	388	.....	

March 25, 1916.

P. M. 1:52	962.6	-0.2	94	n.	8.9	396	962.6	-0.2	.....	94	5.65	n.	8.9	388	.....	10/10 St., nne.
	500	950.0	-0.7	.....	.....	95	5.47	.....	.....	11.4	490	.....	0	Misting.	.....	Altitude of St. base about 700 m.
	750	920.5	-1.9	.....	.....	98	5.12	.....	.....	17.4	735	.....	0		.....	
1:55	962.6	-0.1	93	n.	8.0	1,000	892.1	-3.1	0.47	100	4.71	nne.	23.4	980	0	
2:12	962.5	-0.1	92	n.	8.5	1,058	885.8	-3.3	0.47	100	4.64	nne.	24.6	1,037	0	
2:33	962.5	-0.1	92	nne.	8.5	1,250	894.3	2.3	.....	96	6.92	nne.	21.0	1,225	0	Ice on wire.
2:50	962.5	-0.1	92	nne.	8.5	1,263	863.4	2.7	-2.42	96	7.12	nne.	20.8	1,238	0	Misting.
	1,250	864.3	2.5	.....	.....	96	7.02	.....	.....	20.8	1,225	0		.....		
	1,000	892.1	-2.4	.....	.....	95	4.75	.....	.....	21.6	980	720				
	892.1	-2.4	0.55	.....	.....	95	4.45	.....	.....	21.7	937	980				
	750	920.5	-2.1	.....	.....	94	4.82	.....	.....	16.8	735	2,050				
	500	980.0	-0.7	.....	.....	93	5.36	.....	.....	11.0	490	710				
	962.5	-0.1	92	nne.	8.5	962.5	-0.1	.....	92	5.58	nne.	8.5	388	.....	10/10 St., nne.	

March 26, 1916.

A. M. 9:51	973.1	-1.0	80	nne.	6.7	396	973.1	-1.0	.....	80	4.50	nne.	6.7	388	.....	6/10 A.St., ne.; 3/10 St.Cu., ne.
9:53	973.2	-1.0	80	nne.	6.3	500	973.2	-1.2	0.24	77	4.37	nne.	10.0	490	0	
	692	937.4	-1.7	.....	.....	756	931.0	-0.7	.....	68	3.92	nne.	17.8	735	0	
10:08	973.3	-0.7	87	n.	6.7	1,000	902.5	3.7	.....	30	2.39	ne.	25.6	980	870	
	1,029	899.4	4.2	.....	.....	1,029	875.0	3.8	.....	26	2.14	ne.	26.5	1,009	890	
	1,250	875.0	3.8	.....	.....	1,500	848.4	3.3	.....	24	1.92	ne.	27.7	1,225	1,070	
	1,945	803.5	2.4	0.20	.....	2,000	798.0	2.1	.....	22	1.70	ne.	29.0	1,470	1,500	
	803.5	2.4	0.20	.....	.....	1,750	823.0	2.8	.....	19	1.60	ne.	30.4	1,715	1,930	
	823.0	2.8	0.20	.....	.....	2,281	773.7	0.7	.....	19	1.38	ne.	31.4	1,906	2,250	7/10 A.St., ne.; 2/10 St.Cu., ne.
	773.7	0.7	0.5	0.48	.....	2,250	773.7	0.6	.....	19	1.22	ne.	31.6	2,205	2,660	
	798.0	1.4	.....	.....	.....	2,000	798.0	1.4	0.30	19	1.21	ne.	31.6	2,235	2,700	
	798.0	1.4	0.30	.....	.....	1,617	836.9	2.8	0.30	19	1.28	ne.	29.6	1,980	1,980	3/10 Ci.St., ne.; 6/10 A.St., ne.
	836.9	2.8	0.30	.....	.....	1,600	848.4	3.1	.....	20	1.49	ne.	27.9	1,715	1,510	Solar halo.
	848.4	3.1	.....	.....	.....	1,250	875.0	3.8	.....	20	1.53	ne.	26.6	1,470	.....	7/10 Ci.St., ne.; 2/10 A.St., ne.
	875.0	3.8	.....	.....	.....	1,000	902.5	4.6	.....	19	1.61	ne.	25.8	1,225	.....	
	902.5	4.6	.....	.....	.....	975	905.7	4.7	-1.27	19	1.62	ne.	25.1	980	.....	
P. M. 12:01	973.3	1.0	79	n.	6.7	750	931.0	1.8	.....	23	1.60	nne.	25.0	956	.....	
12:06	973.3	1.2	79	n												

# OBSERVATIONS AT DREXEL, MARCH, 1916.

55

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 28, 1916, series (No. 1).

Time.	Surface.					At different heights above sea.										Remarks.
	Pressure.	Tempera-	Rela-	Wind.		Altitude.	Pressure.	Tempera-	$\Delta t$	Humidity.	Wind.		Potential.			
				ture.	humid-						Rel.	Vap.	Dir.	Vel.	Grav-	Electric.
A. M.																
6:28.....	mb. 969.4	°C. 1.0	% 70	sse.	m. p. s. 4.5	mb. 396	969.4	1.0	.....	% 70	mb. 519	sse. 4.5	m. p. s. 4.5	10 <sup>6</sup> ergs. 388	volts. 490	.....
6:31.....	969.5	1.1	70	sse.	4.5	500	957.1	6.0	.....	57	5.33	sse. 6.6	5.33	490	0	Cloudless.
6:51.....	969.6	1.7	78	se.	4.9	573	948.8	9.5	-4.80	41	4.87	sse. 8.0	4.87	562	0	
6:51.....	969.6	1.7	78	se.	4.9	750	929.0	10.7	.....	28	3.60	s. 7.2	3.60	735	0	
10:40.....	969.4	11.9	48	sse.	4.0	803	923.0	11.1	-0.70	24	3.17	s. 7.0	3.17	787	0	
10:40.....	969.4	11.9	48	sse.	4.0	1,000	901.5	11.6	.....	16	2.19	sse. 7.6	2.19	980	0	
10:40.....	969.4	11.9	48	sse.	4.0	1,091	892.8	11.9	-0.28	13	1.81	s. 7.9	1.81	1,070	0	Few Ci.St., nw.
10:40.....	969.4	11.9	48	sse.	4.0	1,250	875.1	11.4	.....	19	2.56	se. 7.7	2.56	1,225	0	
10:40.....	969.4	11.9	48	sse.	4.0	1,500	849.5	10.5	.....	30	3.81	sse. 7.5	3.81	1,470	0	
P. M.																
12:38.....	967.9	16.2	38	sse.	4.0	1,509	848.6	10.5	0.33	30	3.81	sse. 7.5	3.81	1,470	0	
12:44.....	967.8	16.4	38	sse.	4.5	1,750	824.2	9.3	.....	30	3.52	sse. 6.0	3.52	1,715	0	
12:44.....	967.8	16.4	38	sse.	4.5	2,000	799.1	8.0	.....	30	3.22	sse. 4.5	3.22	1,960	0	
1:01.....	967.6	16.6	37	sse.	5.4	2,032	796.0	7.8	0.48	30	3.17	sse. 4.3	3.17	1,991	0	
1:01.....	967.6	16.6	37	sse.	5.4	1,750	823.2	9.0	.....	32	3.67	sse. 5.2	3.67	1,715	260	
1:01.....	967.6	16.6	37	sse.	5.4	1,002	837.8	9.7	0.46	33	3.97	sse. 5.6	3.97	1,570	260	
1:26.....	967.1	17.2	32	sse.	4.9	1,500	848.0	10.2	.....	32	3.98	sse. 6.1	3.98	1,470	170	
1:28.....	967.1	17.3	33	sse.	4.9	950	905.3	12.7	-1.12	27	3.97	ssc. 9.1	3.97	931	0	
1:34.....	967.0	17.7	34	sse.	5.4	870	914.1	11.8	0.94	27	3.74	ssc. 9.1	3.74	853	0	
1:41.....	966.9	17.7	33	sse.	5.4	760	927.1	12.9	.....	28	4.17	sse. 8.1	4.17	735	0	
1:41.....	966.9	17.7	33	sse.	5.4	616	942.3	14.2	1.59	30	4.86	sse. 7.0	4.86	604	0	
1:41.....	966.9	17.7	33	sse.	5.4	500	954.9	16.0	.....	32	5.82	sse. 6.2	5.82	490	0	
1:41.....	966.9	17.7	33	sse.	5.4	396	966.9	17.7	.....	33	6.68	sse. 5.4	6.68	388	0	1/10 Cl., nw.

March 28, 1916, series (No. 2).

P. M.	Pressure.	Temperature.	Relative humidity.	Wind.	Altitude.	Pressure.	Temperature.	$\Delta t$	Humidity.	Wind.	Dir.	Vel.	Grav.	10 <sup>6</sup> ergs.	volts.	Remarks.
2:17.....	966.4	18.4	29	sse.	5.4	396	966.4	18.4	.....	29	6.14	sse. 5.4	6.14	388	0	1/10 Cl., nw.
2:25.....	966.3	18.7	31	sse.	5.4	500	954.4	17.0	.....	31	6.01	sse. 6.3	6.01	490	0	
2:41.....	966.2	18.7	30	sse.	5.4	737	928.2	13.9	1.32	35	5.56	sse. 8.5	5.56	723	0	
2:55.....	966.1	18.7	29	sse.	6.7	750	926.6	13.8	.....	35	5.52	sse. 8.6	5.52	735	0	
3:20.....	966.9	18.7	23	sse.	5.4	1,000	899.4	11.9	.....	35	4.88	sse. 9.8	4.88	980	0	
4:15.....	965.4	19.1	22	sse.	6.7	1,027	896.6	11.7	0.76	35	4.81	sse. 10.0	4.81	1,007	0	
4:18.....	965.3	19.1	22	sse.	7.2	1,250	873.0	11.5	.....	33	4.48	sse. 11.4	4.48	1,225	0	
5:25.....	965.1	18.2	31	sse.	4.9	1,297	868.0	11.5	0.07	33	4.48	sse. 11.5	4.48	1,271	0	
5:33.....	965.1	17.9	31	sse.	6.3	1,500	846.8	10.2	.....	33	4.11	sse. 10.6	4.11	1,470	0	
5:48.....	965.0	17.2	34	sse.	5.8	1,554	841.3	9.8	0.66	33	4.00	sse. 10.3	4.00	1,523	120	1/10 Cl., nw.
5:55.....	965.0	17.0	33	sse.	5.4	1,750	821.7	9.8	.....	35	4.24	sse. 8.1	4.24	1,715	80	
5:55.....	965.0	17.0	33	sse.	5.4	1,756	820.8	9.8	0.00	35	4.24	sse. 8.0	4.24	1,721	80	
5:55.....	965.0	17.0	33	sse.	5.4	1,937	803.0	9.1	0.28	34	3.93	sse. 8.5	3.93	1,898	0	
5:55.....	965.1	18.2	31	sse.	4.9	1,750	821.1	9.4	.....	34	4.01	s. 10.6	4.01	1,715	370	
5:55.....	965.1	18.2	31	sse.	4.9	1,584	837.7	9.7	0.22	34	4.09	s. 12.4	4.09	1,558	280	
5:55.....	965.1	18.2	31	sse.	4.9	1,500	845.7	9.9	.....	34	4.15	s. 12.3	4.15	1,470	200	
5:55.....	965.1	18.2	31	sse.	4.9	1,250	872.0	10.4	.....	34	4.29	sse. 12.0	4.29	1,225	20	
5:55.....	965.1	17.9	31	sse.	6.3	1,218	875.4	10.5	0.78	34	4.32	sse. 12.0	4.32	1,194	0	
5:55.....	965.0	17.2	34	sse.	5.8	1,000	898.3	12.2	.....	33	4.69	sse. 12.8	4.69	980	0	
5:55.....	965.0	17.2	34	sse.	5.8	796	920.6	13.8	0.80	33	5.21	sse. 13.5	5.21	780	0	
5:55.....	965.0	17.2	34	sse.	5.8	500	953.1	16.2	.....	33	6.08	sse. 12.6	6.08	725	0	
5:55.....	965.0	17.2	34	sse.	5.8	396	965.0	17.0	.....	33	6.40	sse. 5.4	6.40	388	0	

March 28, 1916, series (No. 3).

P. M.	Pressure.	Temperature.	Relative humidity.	Wind.	Altitude.	Pressure.	Temperature.	$\Delta t$	Humidity.	Wind.	Dir.	Vel.	Grav.	10 <sup>6</sup> ergs.	volts.	Remarks.
6:43.....	965.1	14.0	39	sse.	4.9	396	965.1	14.0	.....	39	6.23	sse. 4.9	6.23	388	0	Few Ci.St., nw.
6:44.....	965.1	13.9	40	sse.	4.9	571	945.3	15.0	-0.01	42	7.44	sse. 6.2	7.44	560	0	
7:02.....	965.2	13.0	42	sse.	4.5	1,000	925.3	14.3	.....	40	6.52	sse. 7.6	6.52	735	0	
7:11.....	965.2	12.5	43	sse.	5.4	1,157	880.0	12.4	.....	38	5.47	sse. 9.5	5.47	980	150	
7:11.....	965.2	12.5	43	sse.	5.4	1,250	871.7	10.9	.....	37	4.82	sse. 11.0	4.82	1,225	250	
7:11.....	965.2	12.5	43	sse.	5.4	1,500	846.1	9.9	.....	38	4.64	s. 11.7	4.64	1,470	190	
7:11.....	965.2	12.5	43	sse.	5.4	1,596	826.4</									

## SUPPLEMENT NO. 5.

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 28-29, 1916, series (No. 4).

Time.	Surface.					At different heights above sea.										Remarks.	
	Pressure.	Temper- ature.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.		
P. M.																	
10:09.....	mb. 965.3	°C. 9.0	% 54	sse.	m. p. s. 6.3	m. 396	mb. 965.3	°C. 9.0	.....	% 54	m. p. s. 6.20	sse. 6.3	10 <sup>6</sup> ergs. 388	volts. 0	Cloudless.		
10:10.....	965.3	8.9	54	sse.	6.3	500	953.0	10.7	.....	53	6.82	sse. 13.1	490	0			
10:20.....	965.3	9.2	53	sse.	6.7	617	940.0	12.6	-1.63	52	7.59	sse. 20.8	605	0			
10:26.....	965.2	9.3	54	sse.	8.0	750	925.0	12.5	.....	47	6.81	sse. 18.8	735	0			
10:52.....	965.1	8.6	57	sse.	7.2	1,000	897.7	12.2	.....	37	5.26	sse. 15.1	980	0			
11:23.....	965.1	8.3	55	sse.	7.2	1,025	895.3	12.2	0.10	36	5.12	sse. 14.7	1,005	0			
11:53.....	965.2	8.0	56	sse.	8.0	1,154	881.6	12.6	-0.31	35	5.11	sse. 14.2	1,131	0			
A. M.						1,250	871.5	12.2	.....	35	4.97	se. 13.5	1,225	60			
12:03.....	965.2	7.2	62	sse.	7.6	1,500	845.7	11.2	.....	35	4.66	sse. 11.6	1,470	210			
12:08.....	965.2	7.3	60	sse.	7.6	1,750	820.5	10.2	.....	35	4.36	s. 9.8	1,715	390			
12:17.....	965.2	7.2	59	sse.	7.2	2,000	796.1	8.6	.....	35	4.21	ssw. 9.0	1,824	425			
12:20.....	965.2	7.4	57	sse.	7.2	2,250	772.7	6.6	.....	35	3.41	ssw. 7.9	2,205	.....			
						2,495	749.8	4.7	0.75	35	2.99	ssw. 7.2	2,445	.....			
						2,500	772.7	6.4	.....	35	3.36	ssw. 9.0	2,205	.....			
						2,000	796.1	8.2	.....	34	3.70	s. 10.8	1,960	.....			
						1,750	820.5	10.0	.....	34	4.18	sse. 12.6	1,715	90			
						1,639	831.6	10.8	0.37	34	4.40	sse. 13.5	1,606	0			
						1,500	845.7	11.3	.....	33	4.42	sse. 14.2	1,470	0			
						1,250	871.5	12.2	.....	33	4.69	sse. 15.6	1,225	0			
															Cloudless.		

March 29, 1916, series (No. 5).

A. M.																
1:05.....	965.2	5.9	66	sse.	4.0	396	965.2	5.9	.....	66	6.13	sse. 4.0	388	.....	Cloudless.	
1:06.....	965.2	5.9	66	sse.	4.5	500	952.9	9.1	.....	62	7.17	sse. 15.2	490	0		
1:12.....	965.2	5.8	66	sse.	4.5	558	946.5	10.9	-3.09	59	7.60	sse. 21.5	547	0		
1:17.....	965.1	5.8	66	sse.	4.9	750	925.1	10.4	.....	47	5.93	sse. 21.3	735	0		
1:35.....	965.1	6.2	63	sse.	5.8	800	919.3	10.3	0.25	44	5.51	sse. 21.2	784	0		
1:51.....	965.0	6.0	64	sse.	7.2	1,000	897.7	11.2	.....	38	5.05	sse. 19.1	980	0		
2:50.....	965.0	5.3	64	sse.	6.7	1,160	880.3	11.9	-0.44	33	4.60	sse. 17.5	1,137	0		
3:08.....	965.0	4.9	66	sse.	7.2	1,250	871.0	11.6	.....	33	4.51	sse. 17.0	1,225	80		
3:50.....	964.9	5.3	61	sse.	8.0	1,500	844.8	10.7	.....	33	4.25	s. 15.8	1,470	260		
4:05.....	964.9	5.4	61	sse.	9.4	1,647	830.4	10.2	0.35	33	4.11	s. 15.0	1,614	260		
4:10.....	964.9	5.3	61	sse.	8.9	1,750	819.0	9.5	.....	33	3.92	s. 14.5	1,715	350		
4:15.....	964.9	5.4	60	sse.	8.9	2,000	795.2	7.8	.....	33	3.49	s. 13.1	1,980	540		
4:20.....	964.9	5.2	62	sse.	7.6	2,135	782.7	6.9	0.68	33	3.28	s. 12.4	2,092	640		
						2,250	771.5	6.1	.....	33	3.11	s. 10.6	2,205	750		
						2,500	753.3	4.7	0.70	33	2.82	s. 7.5	2,400	950		
						2,750	848.3	4.5	.....	33	2.78	s. 8.3	2,450	960		
						2,750	825.8	3.3	.....	31	2.40	s. 12.5	2,694	1,020		
						2,750	798.6	2.4	0.56	30	2.18	s. 15.8	2,687	1,040		
						2,500	825.8	3.7	.....	30	2.39	s. 15.0	2,694	930		
						2,500	848.7	5.3	.....	29	2.58	s. 14.0	2,450	790		
						2,250	772.1	6.9	.....	29	2.89	s. 12.9	2,205	690		
						2,000	779.1	7.4	0.62	29	2.99	s. 12.6	2,134	660		
						1,750	795.8	8.5	.....	29	3.22	s. 12.7	1,960	610		
						1,750	820.4	10.1	.....	29	3.58	s. 12.9	1,715	540		
						1,665	829.1	10.6	0.63	29	3.71	s. 13.0	1,632	515		
						1,500	845.2	11.6	.....	29	3.96	s. 14.1	1,470	630		
						1,250	871.0	13.2	.....	29	4.40	sse. 15.8	1,225	540		
						1,223	874.1	13.4	0.36	29	4.46	sse. 16.0	1,199	540		
						1,031	894.1	14.1	-0.04	27	4.34	sse. 18.5	1,011	450		
						1,000	897.1	14.1	.....	26	4.18	sse. 18.5	980	430		
						798	919.3	14.0	-2.19	16	2.56	sse. 18.7	782	330		
						750	924.9	12.9	.....	21	3.12	sse. 17.4	735	300		
						500	952.9	7.5	.....	50	5.18	sse. 10.5	490	90		
						396	964.9	5.2	.....	62	5.49	sse. 7.6	388	.....	Cloudless.	

## OBSERVATIONS AT DREXEL, MARCH, 1916.

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 29, 1916, series (No. 6).

Surface.						At different heights above sea.										Remarks.	
Time.	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$	Humidity.		Wind.		Potential.			
				Dir.	Vel.					100 m.	Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
A. M.																	
5:12.....	mb. 964.8	° C. 4.9	% 64	sse.	m. p. s. 3.5	m. 396	mb. 964.8	° C. 4.9			% 64	mb. 5.54	m. p. s. 4.9	$10^5 \text{ ergs}$ 338	volts. 0	Cloudless.	
5:13.....	964.8	5.0	65	sse.	8.5	500	953.0	8.7	-3.61		55	6.19	sse. 16.9	490	150		
5:20.....	964.8	4.8	68	sse.	8.5	626	938.3	13.2			45	6.83	sse. 27.0	614	320		
						750	924.8	13.5			36	5.57	sse. 23.8	735	500		
						918	906.2	13.9	-0.24		24	3.81	sse. 19.5	900	430		
						1,000	897.5	13.7			24	3.76	sse. 19.2	980	250		
						1,250	870.9	13.1			24	3.62	sse. 18.3	1,225	0		
5:35.....	964.9	4.9	66	sse.	8.0	1,504	845.5	12.4	0.26		24	3.40	sse. 17.5	1,474	0		
						1,750	819.9	11.0			24	3.15	sse. 15.9	1,715	630		
5:52.....	964.9	4.4	68	sse.	8.5	1,954	801.1	9.9	0.56		24	2.93	s. 14.5	1,915	730	1/10 St.Cu., wsw.	
						2,000	796.2	9.5			24	2.85	s. 14.2	1,960	780		
						2,250	777.8	7.3			24	2.46	s. 12.6	2,205	1,050		
6:08.....	964.8	4.3	69	sse.	7.6	2,349	763.3	6.4	0.89		24	2.31	s. 12.0	2,302	1,090	2,10 Cl.St., w.; 1/10 St.Cu., wsw.	
						2,500	749.5	5.6			24	2.18	ssw. 14.3	2,450	1,150		
6:42.....	964.6	4.7	72	sse.	9.4	2,744	727.1	4.4	0.51		25	2.09	sw. 17.9	2,639	1,260	4/10 Cl.St., w.; 2/10 St.Cu., wsw.	
						2,750	726.8	4.4			25	2.09	sw. 17.8	2,694	1,260		
7:31.....	964.3	6.2	74	se.	11.6	3,000	704.8	2.9			28	2.11	wsw. 16.0	2,939	-----		
						3,040	701.0	2.7	0.64		29	2.15	wsw. 15.7	2,978	-----	4/10 Cl.St., w.; 1/10 St.Cu., wsw.	
						3,000	704.8	3.0			29	2.20	sw. 15.9	2,939	-----		
						2,750	726.3	4.8			28	2.41	ssw. 17.0	2,694	1,750		
8:12.....	964.2	7.4	72	se.	15.6	2,535	745.7	6.3	0.75		28	2.67	s. 18.0	2,484	1,020		
						2,500	748.5	6.6			28	2.73	s. 17.9	2,450	1,000		
						2,250	776.7	8.4			26	2.87	s. 17.3	2,205	1,430		
						2,000	705.3	10.3			25	3.13	sse. 16.7	1,960	1,260		
8:31.....	964.1	8.3	69	se.	15.6	1,920	803.4	10.9	0.63		24	3.13	sse. 16.5	1,882	1,200		
						1,750	819.9	12.0			24	3.37	sse. 18.0	1,715	1,050		
8:45.....	964.0	8.9	66	se.	13.9	1,587	836.8	13.0	-0.26		23	3.45	se. 19.4	1,555	910		
						1,500	844.5	12.8			21	3.10	se. 23.6	1,470	840		
8:51.....	964.0	9.2	65	se.	13.4	1,431	851.6	12.6	0.39		20	2.92	se. 26.9	1,403	780		
						1,250	869.6	13.3			19	2.90	se. 32.2	1,225	620		
						1,000	895.7	14.3			18	2.93	se. 39.6	980	370		
9:16.....	963.8	10.0	62	se.	17.0	939	902.4	14.5	-4.66		18	2.97	se. 41.4	921	290		
9:20.....	963.8	10.2	62	se.	13.9	778	920.1	7.0	1.10		15	1.50	se. 45.1	763	100		
						750	923.2	7.3			18	1.84	se. 42.8	735	60		
						500	951.5	10.1			46	5.69	se. 22.0	490	0		
9:34.....	963.7	11.2	58	se.	13.4	306	963.7	11.2			58	7.71	se. 13.4	288	5/10 Cl., wsw.		

March 29, 1916, series (No. 7).

A. M.																			
10:37.....	963.3	14.0	46	se.	11.2	306	963.3	14.0	.....	46	7.35	se.	11.2	388	.....	5/10 Cl., wsw.			
10:42.....	963.3	14.3	46	se.	14.8	500	951.1	12.5	.....	47	6.81	se.	13.7	490	0				
						716	927.0	9.4	1.69	49	5.78	se.	19.0	702	0				
						750	923.1	9.8	.....	47	5.70	se.	19.5	735	0				
10:49.....	963.3	14.5	47	se.	12.5	1,000	896.0	12.9	.....	35	5.21	se.	23.4	980	440				
10:57.....	963.3	14.4	47	se.	10.7	1,052	880.4	13.5	-1.22	32	4.95	se.	24.2	1,031	560				
						1,208	874.2	13.3	0.13	23	3.51	sse.	24.0	1,184	680				
						1,250	869.8	13.1	.....	23	3.47	sse.	23.8	1,225	750				
						1,500	844.0	12.0	.....	24	3.37	sse.	22.6	1,470	850				
						1,750	819.4	10.8	.....	25	3.24	sse.	21.4	1,715	1,080				
11:10.....	963.2	14.6	47	so.	15.2	1,759	818.4	10.8	0.45	25	3.24	sse.	21.3	1,724	1,090				
11:15.....	963.2	14.8	47	se.	14.3	1,893	805.4	11.7	-0.67	24	3.30	sse.	18.5	1,855	1,200				
						2,000	795.3	11.2	.....	23	3.06	sse.	18.5	1,960	1,200				
11:40.....	963.0	16.0	46	se.	14.8	2,225	774.5	10.2	0.45	22	2.74	sse.	18.6	2,180	1,200				
						2,250	772.0	10.0	.....	22	2.70	sse.	18.1	2,205	1,280				
						2,500	748.5	7.7	.....	21	2.21	sse.	13.6	2,450	1,340				
P. M.																			
12:12.....	962.6	17.1	40	se.	16.5	2,547	744.3	7.3	0.88	21	2.15	sse.	12.8	2,496	1,350	7/10 Cl., wsw.			
						2,500	748.5	7.7	.....	21	2.21	sse.	13.2	2,450	1,270	Solar halo began 12:50 p.m.			
						2,250	770.9	9.9	.....	20	2.44	sse.	15.6	2,205	910				
1:02.....	961.8	17.9	40	se.	15.6	2,049	759.9	11.6	0.39	19	2.60	sse.	17.5	2,008	705	8/10 Cl., wsw.			
						2,000	794.2	11.8	.....	19	2.63	sse.	17.4	1,960	640				
1:14.....	961.8	18.3	40	se.	14.8	1,764	817.2	12.7	-1.30	18	2.64	sse.	17.3	1,729	310				
						1,750	818.6	12.5	.....	18	2.61	sse.	17.4	1,715	290				
1:16.....	961.8	18.3	40	se.	13.9	1,641	829.2	11.1	0.56	18	2.38	sse.	17.8	1,608	140				
						1,500	843.2	11.9	.....	21	2.93	sse.	19.4	1,470	40				
1:32.....	961.7	18.8	39	se.	14.3	1,283	865.6	13.1	-1.22	25	3.77	sse.	21.5	1,258	260				
						1,250	868.7	12.7	.....	26	3.82	sse.	20.8	1,225	300				
1:41.....	961.7	19.0	39	se.	9.8	1,104	884.2	10.9	0.82	32	4.17	sse.	17.8	1,082	320				
						1,000	895.0	11.8	.....	36	4.08	sse.	16.4	980	220				
1:50.....	961.7	19.4	36	se.	11.2	813	915.5	13.3	1.46	42	6.41	se.	14.0	797	40				
						750	922.0	14.2	.....	41	6.64	se.	13.3	735	0				
						500	949.7	17.9	.....	38	7.79	se.	10.5	490	0				
2:02.....	961.7	19.4	37	se.	9.4	396	901.7	19.4	.....	37	8.34	se.	9.4	388	.....	9/10 Cl., wsw.			

## SUPPLEMENT NO. 5.

TABLE 4.—Free-air data from kite flights at Drexel Aerological Station, March, 1916—Continued.

March 29, 1916, series (No. 8).

Time.	Surface.				At different heights above sea.										Remarks.	
	Pressure.	Tem- pera- ture.	Rela- tive humid- ity.	Wind.		Altitude.	Pressure.	Tem- pera- ture.	$\Delta t$	Humidity.		Wind.		Potential.		
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.	
P. M.																
2:35.....	mb. 961.6	°C. 19.2	% 39	m. p. s. 13.9	m. 396	mb. 961.6	°C. 19.2	.....	% 39	mb. 8.68	se.	m. p. s. 13.9	10 <sup>6</sup> ergs. 388	volts.	8/10 Ci., wsw.; 1/10 A.Cu., wsw.	
.....						500	950.5	17.8	40	8.15	se.	14.6	490	0		
2:44.....	961.6	18.5	42	se.	13.9	750	922.1	14.4	44	7.22	se.	16.3	735	0	Solar halo continued.	
2:51.....	961.6	18.6	42	se.	13.4	1,000	919.3	14.0	1.36	44	7.03	se.	16.5	762	0	
3:03.....	961.9	19.2	40	se.	12.1	895.3	12.8	.....	44	6.50	se.	18.4	980	200		
3:11.....	961.8	19.6	39	se.	12.5	1,251	889.0	11.5	0.53	45	6.11	se.	20.5	1,226	380	
3:18.....	961.9	19.6	39	se.	14.3	1,500	843.8	13.2	.....	35	5.31	sse.	18.5	1,470	380	
3:39.....	962.2	19.0	41	se.	6.7	1,563	837.3	13.6	-0.67	33	5.14	sse.	18.0	1,532	380	
3:58.....	962.5	18.9	40	se.	11.2	1,750	819.1	13.7	.....	28	4.39	s.	18.1	1,715	450	
4:27.....	962.3	18.4	43	se.	10.3	1,824	812.0	13.8	-0.08	26	4.10	s.	18.1	1,788	480	
4:50.....	962.2	17.4	47	se.	9.8	2,000	795.0	11.9	.....	25	3.48	s.	18.1	1,960	550	
5:01.....	962.1	17.5	47	se.	8.0	2,187	777.6	10.0	1.05	24	2.95	s.	18.0	2,143	615	
5:08.....	962.2	17.4	47	se.	8.0	2,250	771.5	9.4	.....	24	2.83	s.	18.1	2,205	650	
5:17.....	962.4	17.3	46	se.	8.9	2,500	748.4	7.0	.....	24	2.40	s.	18.6	2,450	780	
5:21.....	962.5	17.0	47	se.	8.5	2,818	726.3	4.6	.....	24	2.04	s.	19.2	2,694	910	
.....						3,000	704.2	2.6	.....	24	1.95	s.	19.3	2,761	.....	
.....						3,218	685.5	0.9	0.74	24	1.77	s.	19.2	2,939	.....	
.....						3,000	704.2	2.8	.....	24	1.56	s.	19.0	3,153	.....	
.....						2,750	726.3	5.0	.....	25	2.18	s.	20.7	2,694	850	
.....						2,642	735.5	5.9	0.73	25	2.32	s.	21.1	2,589	810	
.....						2,500	748.4	6.9	.....	24	2.39	s.	20.1	2,450	600	
.....						2,250	771.5	8.8	.....	23	2.61	s.	18.4	2,205	250	
.....						2,000	795.0	10.6	.....	22	2.81	sse.	16.8	1,960	0	
.....						1,750	814.4	12.1	0.14	21	2.97	sse.	15.4	1,761	0	
.....						1,750	819.1	12.2	.....	21	2.98	sse.	15.7	1,715	0	
.....						1,500	843.8	12.5	.....	22	3.19	sse.	17.4	1,470	0	
.....						1,370	856.8	12.7	-1.88	22	3.23	sse.	18.3	1,343	0	
.....						1,250	869.5	10.5	.....	30	3.81	sse.	19.1	1,225	0	
.....						1,242	870.2	10.3	0.61	30	3.76	sse.	19.2	1,218	0	
.....						1,000	895.9	11.8	.....	38	5.26	se.	17.2	980	0	
.....						754	919.3	13.1	1.01	45	6.79	se.	15.5	769	0	
.....						750	923.1	13.4	.....	45	6.92	se.	14.9	735	0	
.....						500	950.7	16.0	.....	46	8.36	se.	10.4	490	0	
.....						296	962.5	17.0	.....	47	9.11	se.	8.5	388	.....	
.....															7/10 Ci., wsw.; 2/10 A.Cu., wsw.	

March 30, 1916 (No. 1).

A. M.																
8:55.....	969.9	4.2	97	nw.	4.0	396	969.9	4.2	.....	97	8.00	nw.	4.0	388	.....	
9:01.....	970.0	4.3	98	nw.	4.5	454	963.1	3.6	1.03	89	7.04	nw.	6.7	445	0	
9:50.....	970.8	5.0	96	nw.	4.0	732	957.7	3.9	.....	89	7.19	nw.	6.3	490	0	
9:55.....	970.8	4.9	98	nw.	4.0	494	951.5	5.3	-0.64	89	7.93	nw.	4.0	718	0	
9:57.....	970.9	4.8	96	nw.	4.0	396	959.1	3.7	1.12	88	7.00	nw.	8.5	490	0	
.....							970.9	4.8	.....	96	8.28	nw.	4.0	388	10/10 St., nw.	

March 30, 1916 (No. 2).

P. M.																
1:13.....	970.8	8.5	76	nw.	5.4	396	970.8	8.5	.....	76	8.44	nw.	5.4	388	10/10 St., nw.	
1:36.....	970.5	9.7	74	nw.	4.9	570	950.3	6.4	1.58	78	7.92	nw.	5.5	490	0	
1:47.....	970.4	9.8	73	nw.	3.6	396	970.4	9.8	.....	77	8.15	nw.	4.8	490	0	

March 31, 1916 (No. 1).

A. M.																
8:40.....	973.2	4.7	86	nw.	3.6	396	973.2	4.7	.....	86	7.34	nw.	3.6	388	5/10 St.Cu., nw.; 5/10 St., nw.	
9:07.....	973.3	4.8	84	nw.	4.5	644	944.0	1.8	1.17	87	6.83	nw.	5.0	490	0	
9:30.....	973.3	5.2	82	nw.	6.3	750	931.6	1.1	.....	89	6.19	nw.	6.9	631	Altitude of St. base about 750 m.	
9:49.....	973.3	5.1	84	nw.	5.4	1,000	902.9	1.8	.....	89	5.88	nw.	7.1	735	180	
10:10.....	973.2	5.2	82	nw.	5.4	1,020	900.9	2.2	-2.20	82	5.71	nw.	8.2	980	490	
10:20.....	973.0	5.3	80	nw.	5.4	1,300	870.0	-0.7	1.06	83	4.78	nw.	7.5	1,274	.....	
10:36.....	972.9	5.5	80	nw.	4.0	1,051	879.1	2.0	-1.86	83	4.99	nw.	7.3	1,225	.....	
10:56.....	972.7	5.9	79	nw.	4.0	585	902.9	1.1	.....	83	5.86	nw.	6.5	1,030	.....	
11:00.....	972.6	6.0	80	nw.	3.6	396	909.7	-0.1	0.62	84	5.09	nw.	6.8	980	Altitude of St. base about 900 m.	
.....						750	931.2	1.1	.....	85	5.63	nw.	6.8	735	0	
.....						500	960.2	3.9	.....	83	6.04	nw.	6.6	573	0	
.....						972.6	6.0	.....	80	7.48	nw.	3.6	388	5/10 St.Cu., nw.; 5/10 St., nw.		

## OBSERVATIONS AT DREXEL, MARCH, 1916.

59

TABLE 4.—*Free-air data from kite flights at Drexel Aerological Station, March, 1916—Concluded.*

March 31, 1916 (No. 2).

Surface.							At different heights above sea.										Remarks.
Time.	Pressure.	Tempera-ture.	Rela-tive humid-ity.	Wind.		Alt-i-tude.	Pressure.	Tem-perature.	$\Delta t$ 100 m.	Humidity.		Wind.		Potential.			
				Dir.	Vel.					Rel.	Vap. pres.	Dir.	Vel.	Grav- ity.	Elec- tric.		
P. M.	mb.	°C.	%	m. p. s.						%	mb.	m. p. s.	$10^6$ ergs.	volts.			
12:49.....	972.3	6.1	76	nnw.	4.5	m. 396	mb. 972.3	°C. 6.1	.....	76	7.16	nnw.	4.5	388	.....	10/10 St.Cu., nw.	
1:02.....	972.2	6.3	73	nnw.	4.5	500	960.0	4.8	.....	79	6.79	nnw.	5.7	490	0		
1:50.....	971.7	6.7	70	nnw.	4.5	658	941.6	2.8	2.04	83	6.20	nw.	7.5	645	0		
2:15.....	971.5	7.0	60	nnw.	4.9	750	930.8	2.0	.....	84	5.93	nw.	8.0	735	160		
2:45.....	971.4	7.2	69	nw.	4.5	1,000	902.0	0.0	.....	85	5.19	nw.	9.5	980	320	Altitude of St.Cu. base about 1,050 m.	
3:08.....	971.2	7.1	67	nw.	4.9	1,012	900.6	-0.1	0.82	85	5.15	nw.	9.6	992	300		
3:22.....	970.9	7.0	67	nw.	5.4	1,250	874.1	-1.4	.....	85	4.62	wnw.	.....	1,295	20		
3:30.....	970.8	6.8	68	nw.	5.8	1,482	948.8	-2.6	0.53	85	4.18	wnw.	.....	1,453	0		
						1,500	846.8	-2.6	.....	79	3.89	wnw.	.....	1,470	.....		
						1,750	820.6	-2.6	.....	72	3.54	wnw.	.....	1,715	.....		
						2,000	795.0	-2.6	.....	66	3.25	wnw.	.....	1,950	.....		
						2,250	770.7	-2.6	.....	59	2.90	wnw.	.....	2,205	.....		
						2,318	764.3	-2.6	0.40	57	2.80	wnw.	.....	2,271	.....		
						2,250	770.7	-2.1	.....	55	2.82	wnw.	.....	2,205	.....		
						2,030	792.5	-0.3	-0.34	48	2.86	wdw.	.....	1,989	.....		
						2,000	795.0	-0.4	.....	50	2.96	wdw.	.....	1,960	.....		
						1,750	820.4	-1.2	.....	66	3.65	wnw.	.....	1,715	.....		
						1,500	846.3	-2.1	.....	82	4.21	wnw.	.....	1,470	0		
						1,447	852.4	-2.3	0.50	85	4.28	wnw.	9.3	1,418	0		
						1,250	873.5	-1.3	.....	85	4.66	wnw.	9.6	1,225	0		
						1,029	898.2	-0.2	0.91	85	5.11	nw.	10.1	1,009	0		
						1,000	901.1	0.1	.....	84	5.17	nw.	10.0	980	0		
						750	929.3	2.4	.....	80	5.81	nw.	9.4	735	0		
						683	930.0	3.1	1.36	78	5.95	nw.	9.2	655	0		
						500	958.3	5.4	.....	72	6.46	nw.	7.1	490	0		
						396	970.8	6.8	.....	68	6.72	nw.	5.8	388	.....	10/10 St.Cu., nw.	