

PROJECT 10073 RECORD CARD

1. DATE 18 May 64	2. LOCATION Mount Vernon, Virginia		12. CONCLUSIONS <input type="checkbox"/> Was Balloon <input type="checkbox"/> Probably Balloon <input type="checkbox"/> Possibly Balloon <input type="checkbox"/> Was Aircraft <input type="checkbox"/> Probably Aircraft <input type="checkbox"/> Possibly Aircraft <input type="checkbox"/> Was Astronomical <input type="checkbox"/> Probably Astronomical <input type="checkbox"/> Possibly Astronomical <input type="checkbox"/> Other UNIDENTIFIED <input type="checkbox"/> Insufficient Data for Evaluation <input checked="" type="checkbox"/> Unknown
3. DATE-TIME GROUP Local _____ GMT 18/2315Z	4. TYPE OF OBSERVATION <input checked="" type="checkbox"/> Ground-Visual <input type="checkbox"/> Ground-Radar <input type="checkbox"/> Air-Visual <input type="checkbox"/> Air-Intercept Radar		
5. PHOTOS <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. SOURCE mil civilian		
7. LENGTH OF OBSERVATION 17 minutes	8. NUMBER OF OBJECTS one/two	9. COURSE West	
10. BRIEF SUMMARY OF SIGHTING Small oval obj with white glow brighter than the brightest star visible observed in diameter from the Moon at the moon's 3 o'clock position. Obj gradually moved around moon to 12 o'clock position of moon 3 diameter's length. This motion took 15 mins. Then obj moved to W about 15 diameters of Moon in one min. Then obj grew dim, split in two particles with one being a grey cloud-like followed with BX. No longer visible to naked eye. Obj split in two again and gradually faded. This sequence consumed one min. Total duration 17 min. Sighting at dusk toward setting sun.		11. COMMENTS Possibility of research balloon with pkg breaking. Data not sufficient to support this evaluation. Case regarded as UNIDENTIFIED. (Balloon RULED, obj: METEOR AGAINST WIND)	

***Identification**
 WASHINGTON, D. C.
 (STERLING, VA.) LAT. 38° 50' N LONG. 77° 23' W
 RAWIN WERE-60 ORIENTATION 360=S
 OBSERVATION POINT 65 meters ABOVE SEA LEVEL

U.S. DEPARTMENT OF COMMERCE
 WEATHER BUREAU
WINDS-ALOFT COMPUTATION SHEET
 (LANDSTATION FORM)
 WBAN-20

Year
 Actual time 7⁵th mer. 1964
 Scheduled (G.M.T.) 1964
 Ascension No.

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Type of balloon 1000 Orientation, 360° = South

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.)		Rawin ht. above surface (m.)	Elevation angle °		Distance from observation point (m.)	Azimuth angle °	Minute	Wind	
	30 gram	100 gram		Observed	Smoothed				Direction ° 360° = N.	Speed (m.p.s.)
	216	350	350	35.6		490	307.2	1	320	9.5
	414	700	700	31.3		1150	320.1	2	334	9.7
	612	1010	1010	31.3		1650	326.5	3	345	8.7
	801	1400	1400	32.8		2160	332.3	4	344	6.4
	990	1700	1700	34.6		2450	332.0	5	308	6.0
	1170	2100	2100	36.6		2800	326.5	6	286	8.1
	1350	2410	2410	37.6		3200	319.5	7	250	8.7
	1530	2800	2800	37.2		3700	316.9	8	284	11.5
	1710	3160	3160	36.2		4400	305.0	9	282	13.2
	1890	3520	3520	35.2		5100	306.5	10	294	12.0
	2070	3900	3900	33.7		5800	305.7	11	304	13.5
	2250	4300	4300	32.8		6700	315.9	12	314	14.3
	2430	4700	4700	32.1		7500	307.4	13	325	16.0
	2610	5100	5100	31.0		8500	310.7	14	328	20.9
	2790	5500	5500	27.0		8900	312.3	15	314	24.0
	2970	5900	5900	27.4		11400	311.5	16	302	23.4
	3150	6290	6290	26.2		12700	310.0	17	301	22.0
	3330	6700	6700	25.5		14000	309.6	18	311	22.5
	3510	7090	7090	24.7		15400	310.1	19		
	3690			22.7			310.3	20	313	22.0
	3870	7810	7810	22.2		18100	310.7	21		
	4050			22.6			310.2	22	307	25.5
	4230	8610	8610	22.0		21200	310.1	23		
	4410			21.5			310.5	24	317	26.0
	4590	9470	9470	21.2		24300	311.1	25		
	4770			20.6			311.6	26	319	29.0
	4950	10170	10170	20.0		27700	312.2	27		
	5130			19.50			312.6	28	318	30.5
	5310	10900	10900	19.05		31400	312.9	29		
	5490			18.70			313.6	30	330	27.0
	5670	11660	11660	18.50		34500	314.4	31		
	5850			18.35			314.3	32	303	24.0
	6030	12420	12420	18.25		37300	313.5	33		
	6210			17.80			312.9	34	309	28.0
	6390	13220	13220	17.70		40900	312.1	35		
	6570	13670	13670	17.75		42200	312.9	36	304	18.0
	6750	14070	14070	17.90		43000	312.5	37		
	6930	14520	14520	18.25		43500	312.0	38	284	14.0
	7110			18.00			311.2	39		
	7290	15200	15200	18.70		45300	310.9	40	285	13.8
	7470			18.75			310.5	41		
	7650	16400	16400	19.70		46500	310.0	42	276	10.5
	7830			19.65			309.5	43		
	8010	17200	17200	19.75		47300	309.0	44	281	6.5
	8190			20.7			309.0	45		
	8370	18010	18010	20.4		47800	309.0	46	313	5.2
	8550			20.4			308.9	47		
	8730	18860	18860	21.0		48500	309.1	48	321	5.0
	8910			21.3			309.0	49		
	9090	19720	19720	21.6		49300	309.3	50	325	3.5

Contact	Pressure (mb.)
5	1010
10	935
15	754
20	738
25	734
30	724
35	615
40	564
45	514
50	466
55	422
60	381
65	342
70	306
75	273
80	242
85	214
90	188
95	164
100	142
105	122
110	102
115	
120	72
125	52
130	42
135	34
140	21
144	10
145	7
146.6	19

Altitude #	Direction (degrees)	Speed
150 M.	320	5
300 M.	320	8
0.5	320	1
1.0	342	9
1.5	343	7
2.0	320	
2.5	280	1
3	284	10
4	280	1
5	220	1
6	200	2

Coded Date for Transmission

PP72403	05900	3213	2 3319	7418	4 3516	3413	6 3112	2916	8 2917
2920	0 2021	2 2924	4 3127	6 3334	8 3245	0 3045	3 3144	5 3144	7 3251
53259	0 3046	2 3154	5 3034	0 2827	3 2822	2 3110	7 1802	0 1102	8 0802
00202	50202								

Name of Station
 Lat. and long.
 Local Standard time, 7⁵th meridian
 El. of Station
 Method of obs., e.g., rawinsonde, rawin, albal
 Type of equip., e.g., WBRT-57, GAD-1A, GAD-1, SCR-65B, theodolite

Termination
 Alt. for 150 & 300 m. are with respect to ground, alt. for other standard levels are in km., msl.

Reason for termination
 Computer
 Verifier

Maxim
 Min. alt. wind & 45 m.p.s. or mo
 Alt. of maximum wind speed (m.)
 Dir. (degrees) c (m.p.s.) of Max.
 Max. alt. wind & 45 m.p.s. or mo
 Enter check if appear on rever

U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

59° N LONG. 77° 28' W
AZIMUTH 360=S
5000 FEET ABOVE SEA LEVEL

WINDS-ALOFT COMPUTATION SHEET
(LANDSTATION FORM)
WBAN-20

	Year	Month	Day	Time
Actual time 23 rd mer.	1964	MAY	18	000
Scheduled (G.M.T.)	1964	MAY	18	12
Ascension No. 550				

Orientation, 360°= South

Rawinsonde Time-Altitude Data

Rawin above surface (m.)	Elevation angle°		Distance from observation point (m.)	Azimuth angle °	Minute	Wind	
	Observed	Smoothed				Direction° 360°= N.	Speed (m.p.s.)
270	41.5		300	347.5	1	16	4.2
530	46.4		500	157.7	2	38	5.1
1000	44.3		820	22.0	3	26	5.4
1570	43.8		1120	23.6	4	14	6.1
2180	41.9		1540	18.7	5	2	6.7
2850	40.6		1910	15.0	6	360	6.0
3520	39.6		2300	12.6	7	360	7.8
4200	37.9		2810	9.7	8	360	9.2
4880	36.3		3350	8.0	9	354	11.0
5750	33.5		4080	4.5	10	347	14.8
6000	30.5		5050	0.7	11	341	16.7
6260	28.9		5950	336.8	12	332	13.6
6560	28.5		6500	353.9	13	332	10.3
6870	28.4		7100	352.7	14	336	12.4
7170	27.5		7810	351.0	15	340	17.0
7470	26.0		7100	349.7	16	337	20.4
7760	24.5		10400	347.3	17	327	21.0
8000	23.4		11520	345.1	18	325	19.3
8300	22.6		12600	343.4	19	327	20.8
8600	21.9		13800	341.9	20	324	20.6
8990	21.4		14800	340.5	21	323	18.5
9400	20.9		16000	339.4	22	327	20.1
9800	20.2		17300	338.7	23	331	22.3
10200	19.65		18600	338.1	24	328	22.3
10600	19.25		19900	337.4	25		
	18.95			336.7	26	325	23.3
11620	18.60		22500	335.9	27		
	18.20			335.2	28	322	24.0
12220	17.85		25300	334.3	29		
	17.50			333.7	30	328	27.2
12820	17.05		28500	333.7	31		
	16.60			333.2	32	323	29.5
13420	16.25		32000	332.6	33		
	15.90			332.2	34	327	27.0
14000	15.65		35300	332.1	35		
	15.35			331.9	36	327	30.2
14600	15.05		38400	331.7	37		
	14.87			331.6	38	323	27.8
15200	14.65		41200	330.9	39		
	14.49			330.3	40	323	26.0
15800	14.36		45300	330.2	41		
	14.16			330.1	42	326	30.5
16400	13.99		49000	330.1	43		
	13.83			329.9	44	320	27.0
17000	13.77		52000	329.5	45		
	13.76			329.5	46	321	17.3
17600	13.58		54100	329.2	47		
18200	13.42		55000	328.8	48	307	16.5
18800	14.00		55900	328.6	49		
19400	14.03		56900	328.3	50	298	13.7

Contact	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)
5	1010	120	0.3
10	999	720	2.3
15	982	1330	4.7
20	967	1960	6.7
25	957	2600	9.2
30	947	3180	11.6
35	936	3950	13.7
40	924	4580	16.1
45	916	5250	18.5
50	908	5920	21.0
55	894	6660	23.7
60	880	7450	26.2
65	862	8150	28.7
70	846	8900	31.1
75	830	9700	33.7
80	810	10450	36.5
85	799	11280	39.0
90	780	12110	41.6
95	775	12950	44.7
100	757	13780	47.2
105	750	14770	50.5
110	740	15800	54.0
115	733	16850	57.5
120	727	18020	61.2
125	722	19380	65.2
130	719	20880	69.7
135	716	22080	74.7
140	713	25800	81.1
145	710	31420	92.0
MS. 6	9	32151	93.6

Punched Card Data

Altitude #	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude #	Direction (degrees)	Speed (m.p.s.)
Card No. 1		15	Card No. 2			
Type of equipment	8	16	Type of equipment	8		
sfc.	00	00	17- 21	7	327	22
150 M.	16	3	22- 26	8	322	24
300 M.	18	4	27- 31	9	325	25
0.5	25	5	32- 36	10	326	26
1.0	22	6	37- 41	11	323	27
1.5	1	7	42- 46	12	325	28
2.0	360	8	47- 51	13	314	29
2.5	355	11	52- 56	14	299	16
3	341	16	57- 61	15	296	14
4	336	13	62- 66	16	283	12
5	326	20	67- 71	17	308	9
6	323	19	72- 76	18	290	5

Maximum Wind Speed Data

Min. alt. wind speed 45 m.p.s. or more (m.)	
Alt. of maximum wind speed (m.)	
Dir. (degrees) and speed (m.p.s.) of Max. wind	
Max. alt. wind speed 45 m.p.s. or more (m.)	
Enter check if additional levels appear on reverse side.	

Coded Data for Transmission

2	0410	0311	4	0112	3613	6	3613	3617	8	3620
10	4	3432	6	2240	8	3243	0	3233	5	3246
30	0	3026	7	3123						
60	0	2912	0	3507	0	0536	0	0802	0	0802

*Identification
 WASHINGTON, D. C.
 (SPRINGFIELD, VA.) LAT. 38° 59' N LONG. 77° 28' W
 RAWIN WBR-60 ORIENTATION 360=S
 OBSERVATION POINT 65 METERS ABOVE SEA LEVEL

U.S. DEPARTMENT OF COMMERCE
 WEATHER BUREAU
 WINDS-ALOFT COMPUTATION SHEET
 (LAND STATION FORM)
 WBAN-20

Act
 time
 Sched
 (G.M.
 Ascen

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Slant range (m.) (yds.)	Pibal ht. above sfc. (m.)		Minute	Rawin ht. above surface (m.)	Elevation angle °		Distance from observation point (m.)	Azimuth angle °	Minute	Wind		Cor tac
	30 gram	100 gram			Observed	Smoothed				Direction ° 360° = N.	Speed (m.p.s.)	
	218	350	1	270	41.5		300	347.5	1	16	4.2	
	414	670	2	530	46.4		500	15.7	2	38	5.1	
	612	980	3	800	44.3		820	22.0	3	26	5.4	
	801	1285	4	1090	43.8		1120	23.6	4	14	6.1	
	990	1585	5	1380	41.9		1370	18.7	5	2	6.7	
	1170	1880	6	1650	40.6		1710	15.0	6	360	6.0	
	1350	2170	7	1920	39.6		2300	12.6	7	360	7.8	
	1530	2455	8	2200	37.9		2810	9.7	8	360	9.2	
	1710	2740	9	2480	36.3		3350	8.0	9	354	11.0	
	1890	3020	10	2730	33.5		4080	4.5	10	347	14.8	
	2070	3300	11	3000	30.5		5050	0.7	11	341	16.7	
	2250	3580	12	3260	28.9		5950	336.8	12	332	13.6	
	2430	3855	13	3560	28.5		6500	353.9	13	332	10.3	
	2610	4130	14	3870	28.4		7100	352.7	14	336	12.4	
	2790	4405	15	4170	27.5		7950	351.0	15	340	17.0	
	2970	4675	16	4470	26.0		7700	349.7	16	337	20.4	
	3150	4945	17	4760	24.5		10700	347.3	17	327	21.0	
	3330	5215	18	5000	23.4		11520	345.1	18	325	19.3	
	3510	5485	19	5300	22.6		12000	343.4	19	327	20.8	
	3690	5755	20	5600	21.9		13900	341.9	20	324	20.6	
	3870	6025	21	5890	21.4		14900	340.5	21	323	18.5	
	4050	6295	22	6140	20.9		16000	339.4	22	327	20.1	
	4230	6565	23	6400	20.2		17300	338.7	23	331	22.3	
	4410	6835	24	6700	19.65		18600	338.1	24	328	22.3	
	4590	7105	25	7000	19.25		19900	337.4	25			
	4770	7375	26		18.95			336.7	26	325	23.3	
	4950	7645	27	7620	18.60		22500	335.9	27			
	5130	7915	28		18.20			335.2	28	322	24.0	
	5310	8185	29	8220	17.85		25300	334.3	29			
	5490	8455	30		17.50			333.9	30	328	27.2	
	5670	8730	31	8820	17.05		28500	333.7	31			
	5850	9005	32		16.60			333.2	32	323	24.5	
	6030	9285	33	9420	16.25		32000	332.6	33			
	6210	9565	34		15.90			332.2	34	327	27.0	
	6390	9850	35	10000	15.65		35300	332.1	35			
	6570	10135	36		15.35			331.9	36	327	30.2	
	6750	10420	37	10600	15.05		38900	331.7	37			
	6930	10710	38		14.87			331.6	38	323	27.8	
	7110	11005	39	11200	14.65		40200	330.9	39			
	7290	11300	40		14.49			330.3	40	323	26.0	
	7470	11595	41	11800	14.36		45300	330.2	41			
	7650	11890	42		14.16			330.1	42	326	30.5	
	7830	12185	43	12400	13.99		49000	330.1	43			
	8010	12480	44		13.83			329.9	44	320	27.0	
	8190	12775	45	13000	13.79		52000	329.5	45			
	8370	13075	46		13.76			329.5	46	321	17.3	
	8550	13375	47	13600	13.84		54100	329.2	47			
	8730	13675	48	13900	13.92		55000	328.8	48	307	16.5	
	8910	13975	49	14300	14.00		55900	328.6	49			
	9090	14275	50	14500	14.03		56900	328.3	50	298	13.7	

Name of Station
 Lat. and long.
 Local Standard time, 75th meridian
 El. of Station
 Method of obs., e.g., rawinsonde, rawin, pibal
 Type of equip., e.g., WBRT-57, GMD-1A, GMD-1, SCR-658, theodolite

Termination
 Alt. for 150 & 300 m. are with respect to ground, alt. for other standard levels are in km., msl.

Reason for termination
 Computer
 Verifier

Coded Data for Transmission

00724	10100	0207	20410	0311	40112	3613	63613	3617	83620
3527	03402	23320	43432	63240	83340	03233	53334	53246	03257
53356	03357	53053	03026	73123					
554	72103	11911	9776	02412	03507	00506	00802	00802	30802

Lat. 53° 59' N Long. 77° 28' W
 Orientation 360=S
 25 METERS ABOVE SEA LEVEL

U.S. DEPARTMENT OF COMMERCE
 WEATHER BUREAU
WINDS-ALOFT COMPUTATION SHEET
 (LAND STATION FORM)
 WBAN-20

Year: 1904, Month: MAY, Day: 10, Time: 1220
 Scheduled (G.M.T.): 1904, Day: 10, Time: 18
 Ascension No. 551

Minute	Raw in ht. above surface (m.)	Elevation angle °		Distance from observation point (m.)	Azimuth angle °	Minute	Wind	
		Observed	Smoothed				Direction ° 360=N.	Speed (m.p.s.)
1	350	50.7		2800	325.8	1	318	5.0
2	900	51.4		6000	318.2	2	302	5.0
3	1400	58.2		8700	310.5	3	306	5.5
4	1890	55.8		12800	311.5	4	326	7.0
5	2240	52.6		17000	318.1	5	335	10.2
6	2590	46.6		24500	323.3	6	337	12.0
7	2940	43.2		31000	326.4	7	339	10.3
8	3290	41.7		36600	328.5	8	344	10.7
9	3670	39.8		47600	332.0	9	343	12.1
10	4080	38.3		51000	332.5	10	343	12.8
11	4500	37.7		59000	334.6	11	349	14.5
12	4900	35.8		68000	336.9	12	345	17.5
13	5300	33.7		80000	337.1	13	335	18.0
14	5700	32.6		90000	336.7	14	332	15.5
15	6100	31.6		99000	336.2	15	332	16.0
16	6500	30.9		109000	335.9	16	332	15.7
17	6900	30.3		118000	335.5	17		
18		29.6			334.2	18	323	18.0
19	7710	28.8		140000	333.5	19		
20		27.9			332.8	20	327	20.7
21	8400	27.0		165000	332.6	21		
22		26.2			332.6	22	326	20.9
23	9060	25.3		190000	331.8	23		
24		24.4			331.8	24	333	24.0
25	9790	23.9		219000	332.1	25		
26		23.5			332.1	26	334	21.0
27	10610	23.3		245000	332.3	27		
28		22.9			332.6	28	337	23.4
29	11400	21.6		285000	333.0	29		
30		21.2			333.5	30	344	30.0
31	12240	20.6		323000	334.3	31		
32		20.6			334.5	32	325	18.0
33	13070	20.6		345000	333.8	33		
34	13550	20.6		356000	333.0	34	312	14.0
35	13990	20.9		365000	332.4	35		
36	14430	21.2		368000	331.0	36	301	16.0
37		21.2			330.2	37		
38	15400	21.3		391000	329.7	38	309	16.0
39		21.5			329.0	39		
40	16390	21.8		400000	328.6	40	305	10.0
41		22.2			328.1	41		
42	17320	22.5		410000	328.0	42	309	10.0
43		22.5			328.0	43		
44	18280	22.9		427500	327.6	44	303	8.0
45		23.2			327.0	45		
46	19260	23.6		435000	326.7	46	300	6.0
47		23.0			326.8	47		
48	20150	24.3		442000	326.6	48	316	4.0
49		25.1			326.5	49		
50	21100	25.2		445000	326.5	50	113	2.4

Rawinsonde Time-Altitude Data			
Contact	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)
5	1011	100	0.1
10	936	750	1.6
15	866	1380	2.8
20	800	2060	4.4
25	736	2730	6.4
30	676	3410	8.2
35	620	4100	9.9
40	564	4850	11.9
45	516	5550	13.7
50	468	6290	15.5
55	420	7040	17.4
60	380	7510	19.3
65	342	8570	21.4
70	305	9310	23.2
75	272	10140	25.8
80	240	10970	27.9
85	211	11780	30.3
90	184	12640	32.0
95	161	13410	34.0
100	138	14380	35.9
105	118	15350	37.8
110	100	16390	39.9
115	84	17490	42.1
120	70	18640	44.7
125	55	20140	47.8
130	42	21890	51.6
135	30	24060	57.5
140	1		
1474	25	25260	59.4

Punched Card Data						
Altitude #	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude #	Direction (degrees)	Speed (m.p.s.)
Card No. 1			15	Card No. 2		
Type of equipment		f	16	Type of equipment		g
sfc.	310	4	17-21	7	328	17
150 M.	314	5	22-26	8	326	20
300 M.	317	5	27-31	9	330	22
0.5	319	5	32-36	10	334	22
1.0	302	5	37-41	11	336	33
1.5	306	5	42-46	12	341	28
2.0	324	7	47-51	13	320	16
2.5	335	11	52-56	14	308	15
3	340	10	57-61	15	305	16
4	344	12	62-66	16	308	12
5	345	17	67-71	17	309	10
6	333	16	72-76	18	305	9

Maximum Wind Speed Data	
Min. alt. wind speed 45 m.p.s. or more (m.)	
Alt. of maximum wind speed (m.)	
Dir. (degrees) and speed (m.p.s.) of Max. wind	
Max. alt. wind speed 45 m.p.s. or more (m.)	
Enter check if additional levels appear on reverse side.	

Coded Data for Transmission														
2207	2	3210	3110	4	3010	3111	6	3212	3315	8	3421			
3423	4	3425	6	3532	8	3334	0	3331	3	3332	5	3236	0	3344
3449	5	3128	0	3131	3	3122	0	3016	7	3507	0	1104	8	1104

*Identification
WASHINGTON, D. C.
(STERLING, VA.) LAT. 38° 59' N LONG. 77° 28' W
RAWIN WBAN-20 ORIENTATION 360=S
OBSERVATION POINT 55 METERS ABOVE SEA LEVEL

U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAU
WINDS-ALOFT COMPUTATION SHEET
(LANDSTATION FORM)
WBAN-20

Year 1964
Actual time 21st Mar.
Scheduled (G.M.T.) 150
Ascension No. 55

Type of balloon 1000 Orientation, 360°= South Rawinsonde

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.)		Rawin ht. above surface (m.)	Elevation angle °		Distance from observation point (m.)	Azimuth angle °	Wind		Minute
	30 gram	100 gram		Observed	Smoothed			Direction ° 360°= N.	Speed (m.p.s.)	
	216	350	350	50.7		2800	325.8	318	4.1	1
	414	470	900	51.4		6000	318.2	302	5.0	2
	612	680	1400	58.2		8700	310.5	306	5.5	3
	801	1285	1890	55.8		12800	311.5	326	7.0	4
	990	1585	2240	52.6		17000	318.1	335	10.2	5
	1170	1880	2590	46.6		24500	323.3	337	12.0	6
	1350	2170	2940	43.2		31000	326.4	339	10.7	7
	1530	2455	3290	41.7		36600	328.5	344	10.7	8
	1710	2740	3670	39.8		47600	332.0	343	12.1	9
	1890	3020	4080	38.3		51000	332.5	343	12.8	10
	2070	3300	4500	37.7		59000	334.6	349	14.5	11
	2250	3580	4900	35.8		68200	336.9	345	17.5	12
	2430	3855	5300	33.7		80000	337.1	335	18.0	13
	2610	4130	5700	32.6		90000	336.7	332	15.5	14
	2790	4405	6100	31.6		99000	336.2	332	16.0	15
	2970	4675	6500	30.9		109000	335.9	332	15.7	16
	3150	4945	6900	30.3		118000	335.5	332	15.0	17
	3330	5215	7300	29.6			334.2	333	18.0	18
	3510	5485	7700	28.8		140000	333.5	333	18.0	19
	3690	5755	8100	27.7			333.5	333	18.0	20
	3870	6025	8500	27.0		150000	333.6	333	20.0	21
	4050	6295	8900	26.2			333.6	333	20.0	22
	4230	6565	9040	25.3		190000	333.8	333	21.0	23
	4410	6835		24.4			333.8	333	21.0	24
	4590	7105	9790	23.9		219000	333.1	333	21.0	25
	4770	7375		23.5			333.1	334	21.0	26
	4950	7645	10610	23.3		245000	332.3	334	21.0	27
	5130	7915		22.9			332.6	337	23.4	28
	5310	8185	11400	21.6		285000	333.0	344	30.0	29
	5490	8455		21.2			333.5	344	30.0	30
	5670	8730	12240	20.6		323000	334.3	344	30.0	31
	5850	9005		20.6			334.5	325	18.0	32
	6030	9285	13070	20.6		345000	333.8	312	14.0	33
	6210	9565	13550	20.6		356000	333.0	312	14.0	34
	6390	9850	13990	20.9		365000	332.6	312	14.0	35
	6570	10135	14430	21.2		368000	331.0	301	16.0	36
	6750	10420		21.2			330.2			37
	6930	10710	15400	21.3		390000	329.7	309	16.0	38
	7110	11005		21.5			329.0			39
	7290	11300	16390	21.8		400000	328.8	305	10.0	40
	7470	11595		22.2			328.1			41
	7650	11890	17320	22.5		410000	328.0	309	10.0	42
	7830	12185		22.5			328.0			43
	8010	12480	18280	22.9		427500	327.6	303	8.0	44
	8190	12775		23.2			327.0			45
	8370	13070	19260	23.6		435000	326.7	300	6.0	46
	8550	13375		23.0			326.8			47
	8730	13675	20150	24.3		442000	326.6	316	4.0	48
	8910	13975		25.1			326.5			49
	9090	14275	21100	25.2		445000	326.5	113	2.4	50

Contact	Pressure (mb.)
5	1011
10	936
15	866
20	800
25	736
30	676
35	620
40	564
45	516
50	468
55	420
60	380
65	342
70	305
75	272
80	240
85	211
90	184
95	161
100	137
105	111
110	84
115	57
120	30
125	3
130	4
135	30
140	1
1474	25

Altitude #	Direction (Degrees)	Speed
310	4	
150 M.	314	5
300 M.	317	5
0.5	319	5
1.0	302	5
1.5	306	5
2.0	324	7
2.5	335	11
3	340	1
4	344	1
5	345	1
6	333	1

4417 72403 1111 / 0362 34065 Coded Date for Transmission

PP 72403	17771	3209	2 3210	3110	4 3010	3111	6 3212	3315	8 3421
7422	0 3420	2 3423	4 3425	6 3532	8 3334	0 3331	3 3332	5 3336	0 3344
5 3452	7 3463	0 3449	5 3128	0 3131	3 3122	0 3016	7 3507	0 1104	8 1104
0 1104	1 1104	00							

Maximum
Min. alt. wind 45 m.p.s. or more
Alt. of maximum wind speed (m.)
Dir. (degrees) at Max. alt. wind 45 m.p.s. or more
Enter check if appear on reverse

Name of Station
Let. and long.
Local Standard time, 25th meridian
El. of Station
Method of obs., e.g., rawinsonde, rawin, pibal
Type of obs., e.g., WIRT-17, GAD-1A, GAD-1, SCR-65B, theodolite

Termination
Alt. for 150 & 300 m. are with respect to ground, alt. for other standard levels are in km., msl.

Computer: P. J. ...
Verifier: H. L. CHADAYE

*Identification, D. C.
(DORLING, VA.) LAT. 38° 59' N LONG. 77° 28' W
RAWIN WIND SO ORIENTATION 360=S
OBSERVATION AT 86 METERS ABOVE SEA LEVEL

U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAU
WINDS-ALOFT COMPUTATION SHEET
(LANDSTATION FORM)
WBAN-20

Year 1964
Actual time 21st mer.
Scheduled (G.M.T.) 1954
Ascension No. 552

Type of balloon 600

Orientation, 360° = South

Rawinsonde

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.) 30 gram 100 gram	Minute	Rawin ht. above surface (m.)	Elevation angle °		Distance from observation point (m.)	Azimuth angle °	Wind		Contact	Pressure (mb.)	Rawinsonde
				Observed	Smoothed			Direction ° 360° = N.	Speed (m.p.s.)			
	216	1	270	69.5		100	12.9	347	2.1	5	1010	
	350									10	938	
	414	2	540	66.6		230	347.4	327	3.0	15	870	1
	470									20	806	7
	612	3	860	63.8		420	337.6	320	3.4	25	746	2
	680									30	687	3
	801	4	1120	60.3		640	332.4	320	4.6	35	632	4
	1285									40	580	4
	990	5	1400	56.2		980	328.1	320	5.4	45	532	5
	1588									50	484	6
	1170	6	1660	52.5		1300	325.3	313	7.2	55	440	6
	1880									60	399	7
	1350	7	1920	48.0		1800	320.9	302	7.3	65	360	8
	2170									70	324	9
	1630	8	2180	44.5		2200	317.3	306	8.4	75	288	9
	2455									80	256	1
	1710	9	2440	41.0		2800	315.5	325	10.3	85	227	1
	2740									90	200	1
	1890	10	2720	38.6		3400	320.0	346	10.2	95	175	1
	3020									100	152	1
	2070	11	2980	37.3		3900	324.5	348	11.0	105	130	1
	3300									110	111	1
	2280	12	3280	35.9		4600	327.6	342	12.0	115	94	1
	3580									120	78	1
	2430	13	3600	34.1		5300	329.4	326	12.5	125	64	1
	3855									130	50	2
	2610	14	3900	32.8		6100	327.4	307	9.6	135	35	2
	4130									140	21	3
	2790	15	4180	32.6		6500	325.6	308	8.4			
	4405											
	2970	16	4470	32.2		7100	324.5	313	11.2			
	4675											
	3150	17	4760	31.0		7800	322.9	315	13.6			
	4945											
	3330	18	5060	29.8		8800	322.4	313	16.0			
	5215											
	3510	19	5360	28.8		9700	321.4	312	15.0			
	5485											
	3690	20	5660	28.0		10600	320.7	313	15.0			
	5755											
	3870	21	5930	27.3		11500	320.2	313	13.0			
	6025											
	4050	22	6220	26.8		12200	319.8	313	14.0			
	6295											
	4230	23	6530	26.2		13200	319.3	313	17.0			
	6565											
	4410	24	6840	25.6		14200	318.7	317	15.8			
	6835											
	4590	25	7160	25.3		15100	318.1					
	7105											
	4770	26		25.0			320.0	332	14.8			
	7375											
	4950	27	7840	24.8		16900	320.5					
	7645											
	5130	28		24.4			320.8	324	12.4			
	7915											
	5310	29	8310	24.2		18400	320.5					
	8185											
	5490	30		24.1			320.7	325	11.0			
	8455											
	5670	31	8820	24.0		19700	320.7					
	8730											
	5850	32		24.0			320.7	332	11.0			
	9005											
	6030	33	9440	24.0		21100	321.4					
	9285											
	6210	34		24.2			322.1	340	11.5			
	9565											
	6390	35	10120	24.2		22300	322.7					
	9850											
	6570	36		24.2			323.1	334	14.0			
	10135											
	6750	37	10730	24.0		24000	323.4					
	10420											
	6930	38		23.9			323.8	340	15.0			
	10710											
	7110	39	11340	23.6		25700	324.8					
	11005											
	7290	40		23.3			326.4	355	21.0			
	11300											
	7470	41	11950	23.0		27900	327.8					
	11595											
	7650	42		22.7			329.0	357	20.0			
	11890											
	7830	43	12600	22.6		30000	329.7					
	12185											
	8010	44		22.5			330.0	324	16.0			
	12480											
	8190	45	13200	22.3		31900	329.6					
	12775											
	8370	46		22.0			329.6	314	17.0			
	13075											
	8550	47	13800	21.9		34000	329.6					
	13375											
	8730	48	14110	21.7		35100	327.7	304	15.0			
	13675											
	8910	49	14410	21.6		36000	327.0					
	13975											
	9090	50	14730	21.4		37200	326.4	313	13.4			
	14275											

Name of Station
Local Standard time, 25th meridian
El. of Station
Method of obs., e.g., rawinsonde, rawin, pibal
Type of equip., e.g., WBR-57, GMD-1A, GMD-1, SCR-658, theodolite

Termination
Alt. for 150 & 300 m. are with respect to ground, alt. for other standard levels are in km., masl.

Reason for termination
Computer
Verifier

Contact	Pressure (mb.)	Rawinsonde
5	1010	
10	938	
15	870	1
20	806	7
25	746	2
30	687	3
35	632	4
40	580	4
45	532	5
50	484	6
55	440	6
60	399	7
65	360	8
70	324	9
75	288	9
80	256	1
85	227	1
90	200	1
95	175	1
100	152	1
105	130	1
110	111	1
115	94	1
120	78	1
125	64	1
130	50	2
135	35	2
140	21	3

Altitude #	Direction (degrees)	Speed
Card No. 1		
Type of equipment		
sfc.	0	
150 M.	347	1
300 M.	342	2
0.5	334	3
1.0	321	4
1.5	318	6
2.0	302	8
2.5	323	1
3	347	1
4	308	1
5	313	1
6	314	1

Coded Data for Transmission

240	23900	3503	23306	3208	3210	3212	3116	3017	3219
3420	03550	23324	43117	63277	83131	03126	83323	53329	03322
53428	03640	53133	03230	33224	10				
2013	70000	73911	99116	03418	60302	03404	00314	70316	10

Min. alt. wind s 45 m.p.s. or mo
Alt. of maximum wind speed (m.)
Dir. (degrees) u (m.p.s.) of Max.
Max. alt. wind s 45 m.p.s. or mo
Enter check if appear on rever

(2) 50 DEGREES ABOVE HORIZON -- APPROX 1 DIAMETER OF MOON SOUTH OF MOON, S 3 0, CLOCK POSITION.

(3) 50 DEGREES ABOVE HORIZON -- APPROX 3 DIAMETERS OF MOON WEST OF 12 0, CLOCK POSITION.

(4) OBJECT OBSERVED AT 3 0, CLOCK POSITION OF MOON -- GRADUALLY MOVED AROUND MOON TO 12 OCLOCK POSITION. THIS MOVEMENT TOOK APPROXIMATELY 15 MINUTES. THEN RATE OF MOVEMENT INCREASED AND OBJECT MOVED TOWARD WEST, 12 TO 15 DIAMETERS OF MOON. THIS MOVEMENT REQUIRED APPROXIMATELY ONE MINUTE.

(5) OBJECT BEGAN TO GROW DIM AND THEN SPLIT IN TWO, BOTH OBJECT REMAINED DIM AND A YELLOWISH-GRAY CLOUD FORMED. OBJECTS THEN HAD TO BE OBSERVED WITH BINOCULARS AND ONLY ONE OBJECT FOLLOWED. OBJECT SPLIT IN TWO AGAIN AND GRADUALLY FADED OUT OF SIGHT.

(6) APPROXIMATELY 17 MINUTES.

C. (1) GROUND VISUAL.

(2) BINOCULARS.

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(3) N/A.

D. (1) 19/0015Z, MAY 64.

(2) DUSK, SUN SETTING.

E. 77 07 WEST; 38 43 NORTH -- APPROXIMATELY 1 MILE WEST OF MOUNT VERNON ESTATES, VIRGINIA.

F. MR. ~~XXXXXXXXXXXXXXXXXXXX~~ DRIVE, ALEXANDRIA, VA. CIVIL ENGINEER WITH GIMRADA, FORT BELVOIR, VA. SOUNDED RELIABLE.

G. (1) HIGH, THIN, BROKEN; VISIBILITY 10 72/57 CALM/014

(2) PIBAL. SFC - 2611; 6M - 2711; 10M - 3216; 16M - 3020;

20M - 3023; 30M - 3223; 50M - 3127; 80M - NOT AVAILABLE.

18 May Dusk

1915 Local

Check Holoman for Queen
MOUNT VERNON, VIRGINIA

20 MAY 64 00 19z

NNNN

SQW004WPA002CZCSOA517ZCJYX435

PP RUCDSQ

PRIORITY

DE RUEAGL 151 19/2114Z

ZNR

P 192113Z

FM 1001 ABW ANDREWS AFB MD

TO RUEASN/26 ADIV HANCOCK FLD NY

RUCDSQ/AFSC FTD WPAFB OHIO

ZEN/CSAF WASHDC

ZEN/OSAF WASHDC

BT

UNCLAS 1001 AB WG (DOOT) 19-E-115. CSAF FOR AFNIN. OSAF FOR
SAFOI. UFO. REFERENCE PARA 14, AFR 200-2.

A. (1) OVAL.

(2) HEAD OF A PIN.

(3) WHITE GLOW, BRIGHTER THAN THE BRIGHTEST STAR.

(4) ONE.

(5) N/A.

(6) N/A.

(7) NONE.

(8) NONE.

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(9) NONE

B. (1) VISUAL SIGHTING.

~~1-5 E (UFO)~~
1-5 E (UFO)

(3) UNLIMITED.

(4) 10 MILES.

(5) THIN, BROKEN, CLOUDS TRANSPARENT.

(6) NONE.

(7) STRONG SUBSIDENCE 780 MBS, APPROXIMATELY 7,000 FT.

QUASI STABLE GRADIENT 780 MBS TO TROPOPAUSE. AVERAGE TEMPERATURE, SFC TO TROPOPAUSE ABOVE STANDARD LAPSE RATE ABOUT PLUS 60 DEGREE C.

H. NO UNUSUAL METEOROLOGICAL CONDITIONS EXISTED AT THIS

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TIME.

I. NONE.

J. NONE.

K. CAPT WILLIAM W. MCLEAN, ASST BASE OPS OFFICER, ANDREWS AFB, WASHINGTON, DC 20331. INFORMATION INDICATES IT MIGHT HAVE BEEN A MISSILE SIGHTING WITH SEPARATION OF VARIOUS STAGES. HOWEVER, NO CONTRAIL WAS EVIDENCED AND MR. MEYER WAS SPECIFICALLY ASKED THIS QUESTION.

L. NONE.

BT

NNNN

Washington, D.C., QTE&D

U.S. DEPARTMENT OF COMMERCE - WEATHER BUREAU

STATION (Sterling, Va.)

DATE 1964 MAY 18

SURFACE WEATHER OBSERVATIONS

Visibility (Statute Miles)		Weather and obstructions to vision (3)	Sea level press. (Mba.) (6)	Temp. (F) (7)	Dew pt. (F) (8)	Wind			Altimeter setting (Inch.) (12)	Remarks and supplemental coded data			Observer initials (15)
Surface (4)	Tower (4a)					Direction (9)	Speed (Kts) (10)	Character and shifts (11)		(13)	(14a)	(14b)	
1/8		F	187	56	56	00	00		007	F6/ 303	82		HLC
6		GF	192	58	58	35	07		008				SH
6		GF	194	58	57	35	08		009				SH
5		GF	203	54	54	00	00		011	212			SH
5		GF	211	51	51	00	00		014				SH
7			216	52	52	10	00		015				SG
12			224	61	57	00	00		018	224	51		EH
15			231	66	58	00	00		020				EH
157			233	72	52	01	07		021				EH
157			233	74	53	36	04		021	108			EH
157			231	77	52	28	07		020				EH
157			227	79	54	34	10		019				EH
157			224	80	53	29	07		018	708	1101	51	EH
157			223	81	48	33	05		018				TP
157			220	83	47	36	07		016				TP
157			216	83	48	36	05		015	710	1100		TP
157			215	83	54	36	05		015				TP
157			213	81	60	00	00		014				TP
157			214	72	60	00	00		015	500	1005	83	TP
12			211	66	61	00	00		016				HLC
12			223	61	59	00	00		018				HLC
12			226	60	57	00	00		019	114	1006		HLC
12			226	60	57	00	00		019				HLC
15			226	57	56	00	00		019				HLC

WBAH FORM 10A
(REV. 11-1-60)

U.S. DEPARTMENT OF COMMERCE - WEATHER BUREAU

Washington, D.C.
STATION (Sterling, Va.)

SURFACE WEATHER OBSERVATIONS

DATE 1964 MAY

Type (1)	Time (LST) (2)	Sky and ceiling (Hundreds of Feet) (3)	Visibility (Statute Miles)		Weather and obstructions to vision (5)	Sea level press. (Mbs.) (6)	Temp. (°F) (7)	Dew pt. (°F) (8)	Wind			Altimeter setting (Inch.) (12)	Remarks and supplemental codes (13)
			Surface (4)	Tower (4a)					Direction (9)	Speed (Kts) (10)	Character and shifts (11)		
R	0255	-X	1/8		F	187	56	56	00	00	007	F6/ 303	
R	0158	0	6		GF	192	56	52	35	07	009		
R	0255	0	6		GF	194	58	57	35	08	009		
R	0355	0	5		GF	203	54	54	00	00	011	212	
R	0455	0	5		GF	211	51	51	00	00	014		
R	0555	0	7			216	52	52	00	00	015		
R	0658	0	12			224	61	57	00	00	018	224	
R	0758	0	15			231	66	55	00	00	020		
R	0858	0	15			233	72	52	01	07	021		
R	0958	0	15			233	74	53	36	04	021	108	
R	1058	0	15			231	77	52	28	07	020		
R	1158	400 / -0	15			227	79	54	34	10	019		
R	1258	400 / -0	15			224	80	53	29	07	018	708 1101	
R	1359	400	15			223	81	48	33	05	018		
R	1455	400	15			220	83	47	36	07	016		
R	1555	400	15			216	83	48	36	05	015	710 1100	
R	1655	1-0	15			215	83	54	36	05	015		
R	1759	0	15			213	81	60	00	00	014		
R	1859	1-0	15			214	72	60	00	00	015	500 1005	
R	1958	1-0	12			211	66	61	00	00	016		
R	2058	1-0	12			223	61	59	00	00	018		
R	2158	1-0	12			226	60	57	00	00	019	114 1006	
R	2256	1-0	12			226	60	57	00	00	019		
R	2355	1-0	15			226	57	56	00	00	019		

A synoptic observation, in WMO code format FM11A, is entered on line following related aviation observation.

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

SURFACE WEATHER OBSERVATIONS

Washington, D.C., 00000

DATE 1964 MAY 18

STATION

REL. HUMIDITY (%)	TOTAL SKY COVER	CLOUDS AND OBSCURING PHENOMENA														TOTAL OPAQUE SKY COVER	PRESSURE TENDENCY	NET 3-HR. CHANGE	SUN-SHINE (MINUTES)	PRECIPITATION (INCHES)	
		LOWEST LAYER			SECOND LAYER			SUMMATION TOTAL	THIRD LAYER			SUMMATION TOTAL	FOURTH LAYER								
		AMT.	TYPE & DIR.	HEIGHT	AMT.	TYPE & DIR.	HEIGHT		AMT.	TYPE & DIR.	HEIGHT		AMT.	TYPE & DIR.	HEIGHT						
80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	40	
	6	6	F	-	0			6	0			6	0			6	3	010			
	0	0			0			0	0			0	0			0					
	0	0			0			0	0			0	0			0	2	035			
	0	0			0			0	0			0	0			0					
	0	0			0			0	0			0	0			0	2	070			
	0	0			0			0	0			0	0			0					
	0	0			0			0	0			0	0			0	1	105			
	0	0			0			0	0			0	0			0					
	2	1	cu	40	1	ci	1	2	0			2	0			1					
	4	1	cu	40	3	ci	1	4	0			4	0			1	7	075			
	3	3	cu	40	0			3	0			3	0			3					
	2	2	cu	40	0			2	0			2	0			2					
	1	1	cu	40	0			1	0			1	0			1	7	030			
	1	0	cu	40	1	ci	1	1	0			1	0			0					
	0	0			0			0	0			0	0			0					
	4	4	ci	1	0			4	0			4	0			1	1000				
	6	6	ci	1	0			6	0			6	0			2					
	8	8	ci	1	0			8	0			8	0			3					
	8	8	ci	1	0			8	0			8	0			3	040				
	6	6	ci	1	0			6	0			6	0			3					
	4	4	cs	1	0			4	0			4	0			2					

SYNOPTIC OBSERVATIONS

WIND DIRECTION (°)	MAX. TEMP. (°F.)	MIN. TEMP. (°F.)	HGT. 850 MB. SURFACE	STATE OF GRND.	SEA STATE & DIR.	SWELL HGT. & DIR.	SWELL PERIOD	SURF H ₂ O, H ₂ M ₂ P ₂ D ₂	WATER TEMP.	SOIL TEMP.	STATION PRESSURE COMPUTATIONS										
											TIME (L.S.T.)	0555	0655	1255	1855						
58	56																				
70	56																				
61	51																				
80	61																				
83	72																				
72	57																				

OF DAY (MIDNIGHT TO MIDNIGHT)

WIND DIRECTION (°)	PEAK GUST			THICKNESS OF ICE ON WATER (INS.)	FROZEN GRND. LAYER (INS.)		RIVER GAGE	24-HR. MAX. R. H.	24-HR. MIN. R. H.	WATER EQUIV. (INS.)	PRECIP. & THDRSTM.	BEGAN	ENDED	DUR.	OBSTR. TO VIS.	BEGAN	ENDED	DUR.
	SPEED (KNOTS)	DI-REC-TION	TIME L.S.T.		TOP	BASE												
14	14	14	1245												GF	0030	0030	
															F	0030	0150	
															GF	0150	0555	

PHENOMENA
 Sunrise _____ Sunset _____
 speed _____ m. p. h., or
 p. h.; associated direction _____ and time: _____

15	20	30	45	60	80	100	120	150	180
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U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

SURFACE WEATHER OBSERVATIONS

STATION Washington, D.C. 0000 DATE 1964 MAY 18

TIME (L.S.T.)	STATION PRESSURE (INS.)	DRY BULB (°F.)	WET BULB (°F.)	REL. HUMIDITY (%)	TOTAL SKY COVER	CLOUDS AND OBSCURING PHENOMENA												TOTAL OPAQUE SKY COVER	PRESSURE TENDENCY		
						LOWEST LAYER			SECOND LAYER			SUMMATION TOTAL	THIRD LAYER			SUMMATION TOTAL	FOURTH LAYER				
						AMT.	TYPE & DIR.	HEIGHT	AMT.	TYPE & DIR.	HEIGHT		AMT.	TYPE & DIR.	HEIGHT		AMT.			TYPE & DIR.	HEIGHT
0055	29.785	56			6	6	F	-	0			6	0			6	0			6	3
0158	29.790	57			0	0			0			0	0			0	0			0	
0255	29.785	57			0	0			0			0	0			0	0			0	
0358	29.820	54			0	0			0			0	0			0	0			0	2
0455	29.850	51			0	0			0			0	0			0	0			0	
0555	29.860	52			0	0			0			0	0			0	0			0	
0658	29.890	61			0	0			0			0	0			0	0			0	2
0758	29.910	66			0	0			0			0	0			0	0			0	
0858	29.915	72			0	0			0			0	0			0	0			0	
0958	29.915	74			0	0			0			0	0			0	0			0	1
1058	29.910	77			0	0			0			0	0			0	0			0	
1158	29.900	79			2	1	Cu	40	1	Ci	1	2	0			2	0			1	
1258	29.890	80			4	1	Cu	40	3	Ci	1	4	0			4	0			1	7
1359	29.885	81			3	3	Cu	40	0			3	0			3	0			3	
1455	29.875	83			2	2	Cu	40	0			2	0			2	0			2	
1555	29.860	83			1	1	Cu	40	0			1	0			1	0			1	7
1655	29.860	83			1	0	Cu	40	1	Ci	1	1	0			1	0			0	
1759	29.855	81			0	0			0			0	0			0	0			0	
1859	29.860	72			4	4	Ci	1	0			4	0			4	0			1	
1958	29.870	66			6	6	Ci	1	0			6	0			6	0			2	
2058	29.890	61			8	8	Ci	1	0			8	0			8	0			3	
2158	29.900	60			8	8	Ci	1	0			8	0			8	0			3	
2256	29.900	60			6	6	Ci	1	0			6	0			6	0			3	
2355	29.900	57			4	4	Cs	1	0			4	0			4	0			2	

SYNOPTIC OBSERVATIONS

TIME (G.C.T.)	TIME (L.S.T.)	NO.	PRECIP. (INS.)	SNOW FALL (INS.)	SNOW DEPTH (INS.)	MAX. TEMP. (°F.)	MIN. TEMP. (°F.)	HGT. 850 MB. SURFACE	STATE OF GRND.	SEA STATE & DIR.	SWELL HGT. & DIR.	SWELL PERIOD	SURF H ₂ M ₂ P ₂ D ₂	WATER TEMP.	SOIL TEMP.	STATION PRESSURE			
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58		
	MID. TO 0055	X	0	0	X	58	56	X	X	X	X	X	X	X	X	X	TIME (L.S.T.) 0055	061	
	0055	1	0	0	0	70	56										ATT. THERM. 60	-	
	0655	2	0	0	0	61	51										OBSRVD. BAR. 61	1008.6	101.
	0655	2	0	0	0	61	51										TOTAL CORR. 62	-	
	0255	3	0	0	0	80	61										STA. PRESS. 63	29.785	29.
	1857	4	0	0	0	83	72										BAROGRAPH 64	29.785	29.
	MID.	X	0	0	0	72	57	X	X	X	X	X	X	X	X	X	BAR. CORR. 65	± 0	±

SUMMARY OF DAY (MIDNIGHT TO MIDNIGHT)

24-HR. MAX. TEMP. (°F.)	24-HR. MIN. TEMP. (°F.)	24-HR. PRECIP. WATER EQUIV. (INS.)	24-HR. SNOWFALL UNMLTD. (INS.)	SNOW DEPTH (INS.)	PEAK GUST			THICKNESS OF ICE ON WATER (INS.)	FROZEN GRND. LAYER (INS.)		RIVER GAGE	24-HR. MAX. R. H.	24-HR. MIN. R. H.	WATER EQUIV. (INS.)	PRECIP. & THDRSTM.	BEGAN	ENDED	DUR. (Hrs. Min.)	OBSTR. TO VIS.
					SPEED (KNOTS)	DI. REC-TION	TIME L.S.T.		TOP	BASE									
83	51	0	0	0	14	11	245												GF 30

REMARKS, NOTES AND MISCELLANEOUS PHENOMENA

Total sunshine _____ Sunrise _____ Sunset _____
 Fastest observed 1-minute wind speed _____ m. p. h., or
 Fastest mile _____ m. p. h.; associated direction _____ and time: _____

Excessive precipitation:

At (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)												

1. LAT. 33° 50' N LONG. 77° 28' W
 ORIENTATION 360=S
 CLIM 95 METERS ABOVE SEA LEVEL

U.S. DEPARTMENT OF COMMERCE
 WEATHER BUREAU
WINDS-ALOFT COMPUTATION SHEET
 (LANDSTATION FORM)
 WBAN-20

Year Month Day Time
 1964 MAY 18 0020
 Scheduled (G.M.T.) 1964 MAY 18 06
 Ascension No. 549

Minute	Rawin ht. above surface (m.)	Elevation angle °		Distance from observation point (m.)	Azimuth angle °	Minute	Wind	
		Observed	Smoothed				Direction ° 360=N.	Speed (m.p.s.)
1	250	35.6		490	307.2	1	320	9.5
2	700	31.3		1150	320.1	2	334	9.7
3	1010	31.3		1650	326.5	3	345	8.7
4	1400	32.8		2160	332.3	4	344	6.8
5	1700	34.6		2450	332.0	5	308	6.0
6	2100	36.6		2800	326.5	6	286	8.1
7	2410	37.6		3200	319.5	7	250	8.7
8	2800	37.2		3700	316.9	8	284	11.5
9	3160	36.2		4400	305.0	9	222	13.2
10	3520	35.2		5100	306.5	10	294	12.0
11	3900	33.7		5800	305.7	11	304	13.5
12	4300	32.8		6700	305.9	12	314	14.3
13	4700	32.1		7500	307.4	13	325	16.0
14	5100	31.0		8500	310.7	14	328	20.9
15	5500	27.0		9900	312.3	15	314	24.0
16	5900	27.4		11400	311.5	16	302	23.8
17	6290	26.2		12700	310.0	17	301	23.0
18	6700	25.5		14000	309.6	18	310	22.5
19	7080	24.7		15400	310.0	19		
20		23.7			310.3	20	313	22.0
21	7810	23.2		18100	310.7	21		
22		22.6			310.7	22	309	25.5
23	8610	22.0		21200	310.1	23		
24		21.5			310.5	24	317	26.0
25	9470	21.2		24300	311.1	25		
26		20.6			311.6	26	319	29.0
27	10170	20.0		27700	312.2	27		
28		19.50			312.6	28	318	30.5
29	10900	19.05		31400	312.9	29		
30		18.70			313.6	30	330	27.0
31	11660	18.50		34500	314.4	31		
32		18.35			314.3	32	303	24.0
33	12420	18.25		37300	313.5	33		
34		17.80			312.9	34	309	28.0
35	13220	17.70		40900	312.1	35		
36	13670	17.75		42200	312.5	36	304	18.0
37	14070	17.50		43000	312.5	37		
38	14520	18.35		43500	312.0	38	284	14.0
39		18.00			311.2	39		
40	15200	18.70		45300	310.9	40	285	13.8
41		18.75			310.5	41		
42	16400	19.70		46500	310.0	42	276	10.5
43		19.05			309.5	43		
44	17200	19.25		47300	309.0	44	281	6.5
45		20.1			309.0	45		
46	18010	20.4		47800	309.0	46	313	5.0
47		20.6			308.7	47		
48	18860	21.0		48500	309.1	48	321	5.0
49		21.3			309.0	49		
50	19700	21.6		49300	309.3	50	325	3.5

Rawinsonde Time-Altitude Data			
Contact	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)
5	1010		
10	935	710	2.0
15	864	1390	4.0
20	795	2060	5.7
25	734	2710	7.1
30	674	3410	9.6
35	616	4140	11.4
40	564	4810	13.2
45	514	5510	15.1
50	466	6270	16.9
55	422	7000	18.7
60	381	7720	20.7
65	342	8500	22.6
70	306	9290	24.5
75	273	10040	26.6
80	242	10820	28.6
85	214	11610	30.7
90	188	12400	32.7
95	164	13280	34.7
100	143	14130	37.0
105	123	15090	39.2
110	104	16100	41.3
115	88	17140	43.5
120	73	18330	46.5
125	59	19680	49.0
130	47	21110	53.1
135	34	23200	58.1
140	21	26360	65.2
144	10	31370	
145	7	33270	
146	19	22000	65.8

Punched Card Data						
Altitude #	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude #	Direction (degrees)	Speed (m.p.s.)
Card No. 1		15	Card No. 2			
Type of equipment	8	16	Type of equipment	8		
sfc.	00	00	17-21	7	311	22
150 M.	320	5	22-26	8	311	24
300 M.	320	8	27-31	9	317	26
0.5	320	10	32-36	10	319	27
1.0	342	9	37-41	11	325	29
1.5	343	7	42-46	12	326	25
2.0	286	7	47-51	13	300	26
2.5	280	9	52-56	14	297	17
3	284	12	57-61	15	284	14
4	286	14	62-66	16	281	17
5	326	19	67-71	17	280	8
6	206	24	72-76	18	300	5

Coded Data for Transmission							
1	2	3	4	5	6	7	8
3319	3418	3516	3413	3112	2916	2917	
3224	3127	3334	3245	3045	3144	3251	
23154	53034	02827	32822	23110	71802	01102	80802

Maximum Wind Speed Data	
Min. alt. wind speed 45 m.p.s. or more (m.)	
Alt. of maximum wind speed (m.)	
Dir. (degrees) and speed (m.p.s.) of Max. wind	
Max. alt. wind speed 45 m.p.s. or more (m.)	
Enter check if additional levels appear on reverse side.	