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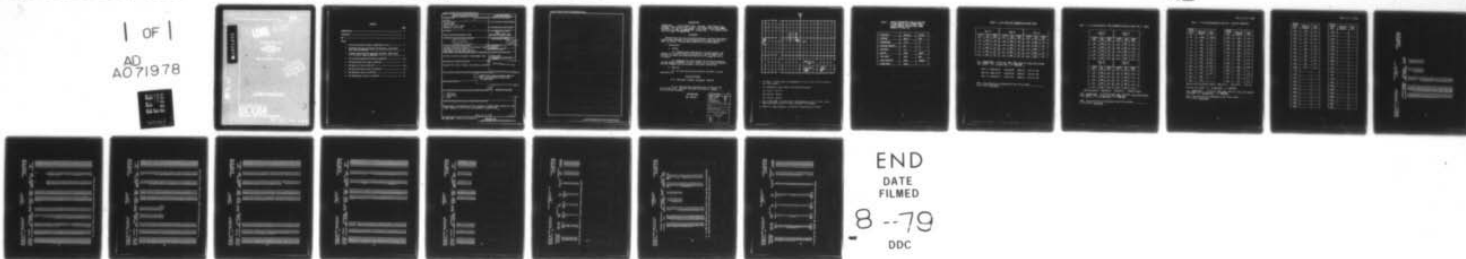
ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
19305BT 6SRS, MISSILE NUMBERS 1067 AND 1064, ROUND NUMBERS V-37--ETC(U)
JUN 79

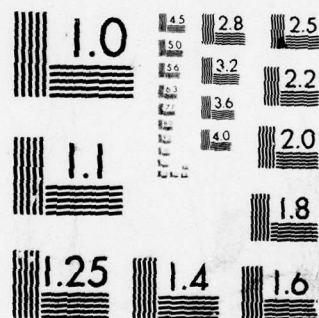
UNCLASSIFIED

ERADCOM/ASL-DR-1027

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1 OF 1
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

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LEVEL

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1027	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 19305BT GSRS Missile No. 1067 & 1064 Round No. V-37 & V-38		5. TYPE OF REPORT & PERIOD COVERED
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17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) (6) 19305BT GSRS, Missile Numbers 1067 and 1064, Round Numbers V-37 and V-38, 12 June 1979.		16. DISTRIBUTION STATEMENT (of this Report) Meteorological data rept.
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) 1. Ballistics 2. Meteorology 3. Wind		14. ERADCOM/ASL-DR-1027
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 19305BT GSRS, Missile No. 1067 & 1064, Round No. V-37 & V-38, are presented in tabular form.		

INTRODUCTION

19305BT GSRS, Missile Numbers 1067 and 1064, Round Numbers V-37 and V-38, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0834 and 0834:03 MDT, 12 June 1979. The scheduled launch times were 0830 and 0830:02 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RPTS T-9 pibal observation at:

SITE AND ALTITUDE

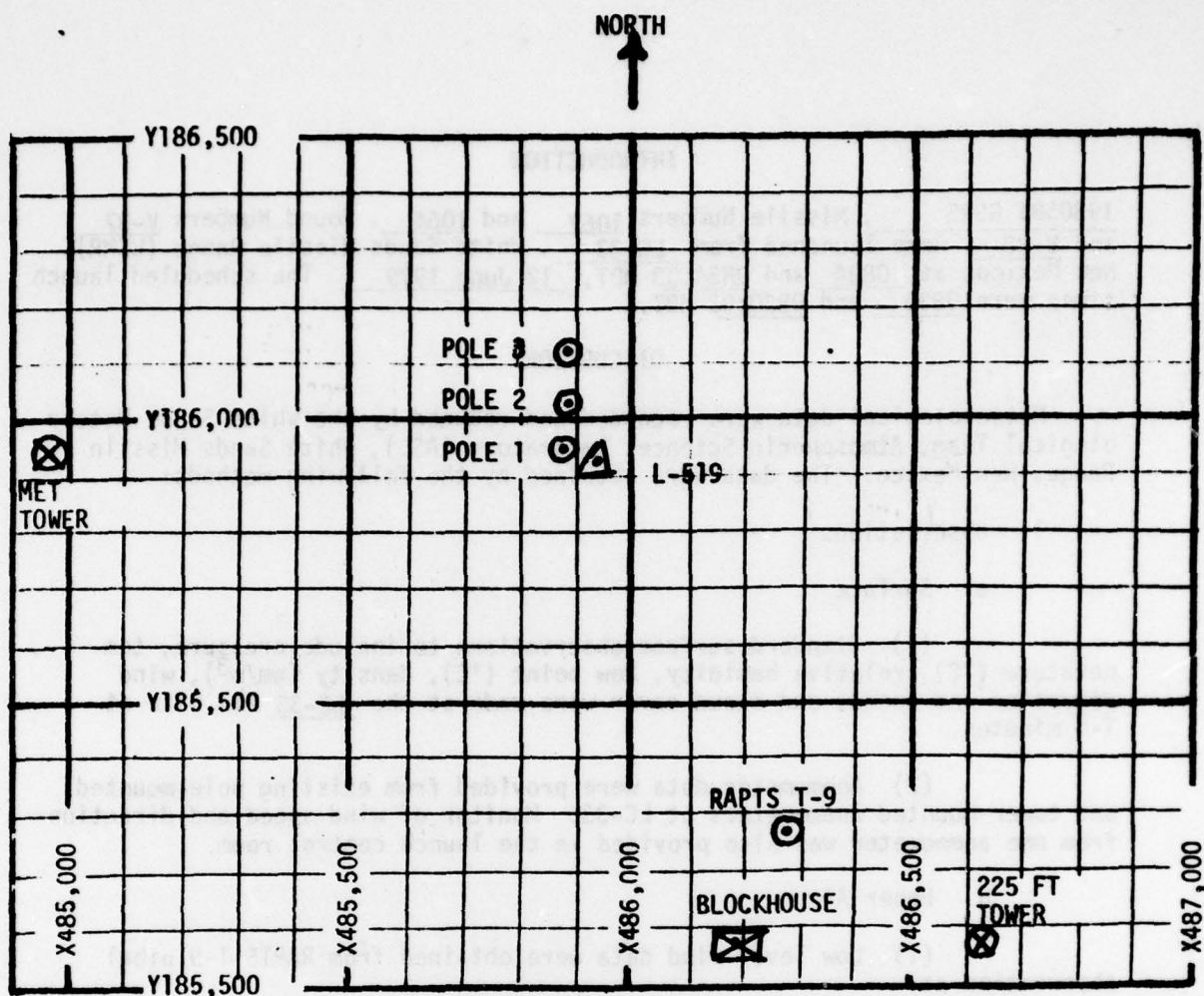
LC-33 1080 meters (30-meter increments) 0842 MDT

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 89,500 feet in 500-foot increments.

SITE AND TIME

SMR 0740 MST

Accession For	
NTIS GRA&I	☒
DDC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or special
A	



1. MET TOWER - 4 Bendix Model T-120 Anemometers at 12 ft, 62 ft, 102 ft and 202 ft with E/A recorders.
2. POLE ANEMOMETER - Bendix Model T-120 with E/A recorders.
 - (a) Pole #1 - 38.7 ft
 - (b) Pole #2 - 53.0 ft
 - (c) Pole #3 - 83.6 ft
3. 225 FT WIND TOWER - 5 Bendix Model T-120 Anemometers at 35 ft, 88 ft, 128 ft, 168 ft and 200 ft with 5 X-Y visual indicators in Blockhouse.
4. RAPTS T-9 - Radar Automatic Pilot-Balloon Tracking System T-9 Radar

**TABLE 1. SURFACE OBSERVATIONS TAKEN AT 0842 MDT,
12 JUNE 1979 AT LC-33, 19305BT GSRS,
MISSILE NUMBERS 1067 AND 1064, ROUND
NUMBERS V-37 AND V-38**

ELEVATION	3977.30	FT/MSL
PRESSURE	887.9	MBS
TEMPERATURE	17.5	°C
RELATIVE HUMIDITY	48	%
DEW POINT	6.4	°C
DENSITY	1058	GM/M ³
WIND SPEED	Calm	MPH
WIND DIRECTION	Calm	DEGREES
CLOUD COVER	Clear	

TABLE 2. LC-33 FIXED POLE ANEMOMETER-MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	000	00	-30	000	00	-30	000	00
-20	000	00	-20	000	00	-20	000	00
-10	000	00	-10	000	00	-10	000	00
0.0	000	00	0.0	000	00	0.0	000	00
+10	000	00	+10	000	00	+10	000	00

Type 19305BT GSRS, Missile No. 1067, 1064, Round No. V-37, V-38 launched
from LC-33 on 12 June 1979 at 0834 MDT.

POLE #1 = X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL

POLE #2 = X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL

POLE #3 = X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL

NOTE: Wind directions are referenced to the firing azimuth _____
or true north true north.

TABLE 3. LC-33 METEOROLOGICAL TOWER ANEMOMETER-MEASURED WINDS (202 FT. TOWER)

LEVEL #1 12 ft.			LEVEL #2 62 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	000	00	-30	000	00
-20	000	00	-20	039	2.0
-10	000	00	-10	039	2.0
0.0	000	00	0.0	039	0.5
+10	000	00	+10	000	00
LEVEL #3 102 ft.			LEVEL #4 202 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	000	00	-30	064	1.0
-20	000	00	-20	064	1.0
-10	000	00	-10	064	1.0
0.0	000	00	0.0	064	1.0
+10	000	00	+10	064	1.0

WTSM Coordinates: X484,982.64 Y185,957.73 H3983.00 (base)

Type 19305BT GSRS, Missile No. 1067, 1064, Round No. V-37, V-38 launched from LC-33 on 12 June 1979 at 0834 MDT.

NOTE: Wind directions are referenced to the firing azimuth _____ or true north true north.

TABLE 4. PILOT-BALLOON-MEASURED WIND DATA (30-METER INCREMENTS)

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
SFC	Calm	Calm
30	054	1.0
60	107	2.0
90	106	3.0
120	105	4.0
150	108	4.0
180	110	3.5
210	107	4.5
240	103	5.0
270	113	4.5
300	122	4.0
330	150	
360	178	

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
390	152	4.0
420	182	3.5
450	188	5.0
480	194	6.0
510	192	6.5
540	190	7.0
570	189	7.5
600	187	8.0
630	184	8.0
660	180	7.5
690	179	8.0
720	177	8.0
750	174	8.5

Release Point Coordinates (WSTM): X486,037.24 Y486,037.24 113977.30

Released from LC-33 on 12 June 1979 at 0834 MDT.

Type 19305BT GSRS, Missile No. 1067, 1064, Round No. V-37, V-38 launched from LC-33 on 12 June 1979 at 0834 MDT.

NOTE: Wind directions are referenced to the firing azimuth or true north true north.

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
780	170	9.0
810	171	9.0
840	171	8.5
870	172	7.5
900	172	8.5
930	168	5.5
960	164	4.0
990	152	3.5
1020	140	3.0
1050	132	2.5
1080	123	2.0
1110		
1140		
1170		
1200		
1230		
1260		
1290		
1320		
1350		
1380		
1410		

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
1440		
1470		
1500		
1530		
1560		
1590		
1620		
1650		
1680		
1710		
1740		
1770		
1800		
1830		
1860		
1890		
1920		
1950		
1980		
2010		
2040		
2070		

STATION ALTITUDE 3997.30 FEET MSL
12 JUNE 79 0740 HRS MST
ASCENSION NO. 181

SIGNIFICANT LEVEL DATA
1630060161
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	AIR TEMPERATURE DEGREES. CENTIGRADE	REL. HUM. PERCENT
885.4	3997.3	37.0
871.8	4434.1	33.0
850.0	5142.7	32.0
760.3	6238.7	35.0
700.0	10511.9	19.0
684.8	11113.7	15.0
630.3	13367.5	16.0
579.8	15595.3	15.0
500.0	19451.2	14.0
400.0	25033.1	16.0
318.8	30426.8	14.0
300.0	31827.7	16.0
273.3	33944.5	17.0
250.0	35927.6	
200.0	40730.6	
180.8	42843.3	
172.8	43779.7	
150.0	46657.2	
138.8	48205.9	
118.3	51358.7	
111.8	52471.3	
100.0	54664.3	
83.8	58128.3	
80.8	58850.0	
70.0	61718.0	
65.3	63123.7	
62.3	64082.9	
50.0	68623.3	
40.3	73165.1	
30.0	79534.2	
20.0	88500.2	
18.8	89875.1	

STATION ALTITUDE 3997.30 FEET MSL
12 JUNE 79 0740 HRS MST
ASCENSION NO. 181

UPPER AIR DATA
1630060181
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
3997.3	885.4	20.8	5.6	37.0	1045.2	669.2	0	0	1.000273
4000.0	885.3	20.8	5.6	37.0	1045.2	669.2			1.000273
4500.0	869.7	17.5	1.0	32.9	1039.6	665.1			1.000261
5000.0	854.3	16.6	-1	32.2	1024.6	664.0			1.000256
5500.0	839.1	15.9	-6	32.3	1008.6	663.2			1.000251
6000.0	824.2	15.4	-9	32.6	992.4	662.0			1.000247
6500.0	809.4	14.9	-11	33.3	976.5	662.0			1.000243
7000.0	795.0	14.3	-14	33.8	960.9	661.4			1.000239
7500.0	780.8	13.8	-17	34.3	945.5	660.8			1.000236
8000.0	766.9	13.3	-19	34.8	930.3	660.2			1.000232
8500.0	753.1	12.8	-30	33.2	915.2	659.6			1.000227
9000.0	739.5	12.4	-48	29.6	900.2	659.1			1.000220
9500.0	726.2	12.1	-68	26.1	885.4	658.6			1.000214
10000.0	713.1	11.7	-89	22.6	870.8	658.0			1.000208
10500.0	700.3	11.3	-114	19.1	856.5	657.5			1.000203
11000.0	687.6	11.3	-138	15.8	841.2	657.4			1.000197
11500.0	675.1	10.5	-149	15.2	828.3	656.5			1.000194
12000.0	662.8	9.4	-156	15.4	816.3	655.2			1.000190
12500.0	650.7	8.3	-163	15.6	804.5	654.0			1.000187
13000.0	638.9	7.3	-170	15.8	792.9	652.7			1.000184
13500.0	627.2	6.2	-178	15.9	781.5	651.4			1.000181
14000.0	615.5	4.9	-190	15.7	770.5	649.9			1.000178
14500.0	604.1	3.7	-202	15.5	759.7	648.4			1.000175
15000.0	592.9	2.4	-213	15.3	749.0	646.9			1.000172
15500.0	581.9	1.1	-225	15.0	738.5	645.4			1.000170
16000.0	570.4	.1	-235	14.9	727.3	644.2			1.000167
16500.0	560.0	-9	-244	14.8	716.1	643.0			1.000164
17000.0	549.4	-19	-253	14.6	705.1	641.8			1.000161
17500.0	538.9	-29	-262	14.5	694.2	640.7			1.000158
18000.0	528.7	-38	-271	14.4	683.5	639.5			1.000156
18500.0	518.6	-48	-280	14.2	673.0	638.3			1.000153
19000.0	508.7	-58	-289	14.1	662.7	637.1			1.000151
19500.0	499.0	-68	-298	14.0	652.5	635.9			1.000148
20000.0	489.2	-81	-306	14.2	642.6	634.4			1.000146
20500.0	479.5	-93	-315	14.4	632.8	632.9			1.000143
21000.0	470.0	-105	-324	14.6	623.2	631.4			1.000141
21500.0	460.7	-118	-333	14.7	613.8	629.9			1.000139
22000.0	451.6	-130	-342	14.9	604.5	628.4			1.000137
22500.0	442.6	-142	-351	15.1	595.4	626.9			1.000134
23000.0	433.9	-155	-360	15.3	586.4	625.4			1.000132

XX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3997.30 FEET MSL
12 JUNE 79 0740 HRS MST
ASCENSION NO. 181

UPPER AIR DATA
1630060181
S M R

GEOMETRIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
23500.0	425.3	-16.7	15.5	577.6	623.9	43.7	10.3	1.000130
24000.0	416.9	-17.9	15.6	568.9	622.4	44.3	10.1	1.000128
24500.0	408.6	-19.2	15.8	560.4	620.9	41.1	9.8	1.000126
25000.0	400.5	-20.4	16.0	552.0	619.4	36.3	9.3	1.000124
25500.0	392.2	-21.6	16.1	543.0	618.0	26.2	8.7	1.000122
26000.0	384.1	-22.7	16.2	534.1	616.6	12.3	8.6	1.000120
26500.0	376.1	-23.8	16.3	525.4	615.2	356.4	9.3	1.000118
27000.0	368.2	-24.9	16.4	516.8	613.8	343.8	9.2	1.000116
27500.0	360.6	-26.1	16.5	508.3	612.4	331.2	9.2	1.000114
28000.0	353.1	-27.2	16.6	500.0	611.0	329.2	9.6	1.000112
28500.0	345.7	-28.3	16.6	491.9	609.6	329.3	10.3	1.000110
29000.0	338.5	-29.5	16.7	483.9	608.2	333.8	11.9	1.000108
29500.0	331.5	-30.6	16.8	476.0	606.8	332.9	14.2	1.000107
30000.0	324.6	-31.7	16.9	468.3	605.3	328.1	17.5	1.000105
30500.0	317.8	-32.9	16.1**	460.7	603.9	323.8	21.4	1.000103
31000.0	311.0	-33.9	10.0**	452.7	602.6	320.3	25.7	1.000101
31500.0	304.3	-34.9	4.0**	445.0	601.3	317.8	27.5	1.000099
32000.0	297.7	-35.9		437.3	600.0	315.5	28.6	1.000097
32500.0	291.2	-36.9		429.5	598.8	311.2	29.7	1.000096
33000.0	284.9	-37.9		421.9	597.5	307.1	31.1	1.000094
33500.0	278.7	-38.9		414.5	596.2	303.6	32.9	1.000092
34000.0	272.6	-39.9		407.2	594.9	300.4	34.9	1.000091
34500.0	266.6	-41.3		400.5	593.2	298.0	36.2	1.000089
35000.0	260.6	-42.6		393.9	591.5	295.7	37.7	1.000088
35500.0	254.8	-44.0		387.4	589.8	292.8	38.4	1.000086
36000.0	249.2	-45.3		380.9	588.1	290.2	39.1	1.000085
36500.0	243.4	-46.3		373.6	586.8	290.9	38.9	1.000083
37000.0	237.8	-47.3		366.9	585.4	291.7	38.5	1.000082
37500.0	232.4	-48.4		360.2	584.1	292.6	37.2	1.000080
38000.0	227.1	-49.4		353.5	582.7	293.1	36.1	1.000079
38500.0	221.8	-50.5		347.0	581.4	290.9	35.5	1.000077
39000.0	216.7	-51.5		340.6	580.0	289.2	35.2	1.000076
39500.0	211.8	-52.5		334.4	578.6	288.8	35.9	1.000074
40000.0	206.9	-53.6		328.3	577.3	288.8	36.4	1.000073
40500.0	202.2	-54.6		322.3	575.9	290.1	36.4	1.000072
41000.0	197.4	-55.4		315.9	574.9	291.2	36.4	1.000070
41500.0	192.8	-56.0		309.2	574.1	290.9	36.3	1.000069
42000.0	188.2	-56.5		302.7	573.4	290.6	36.3	1.000067
42500.0	183.8	-57.1		296.4	572.6	289.7	37.3	1.000066
43000.0	179.4	-58.0		290.5	571.5	288.0	38.2	1.000065

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3997.30 FEET MSL
12 JUNE 79 0740 HRS MST
ASCENSION NO. 181

UPPER AIR DATA
1630060181
S M R

GEODETTIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	175.2	-59.4		285.4	569.6	288.7	37.9	1.000064
44000.0	170.9	-60.6		280.1	568.0	288.8	37.3	1.000062
44500.0	166.8	-61.4		274.4	566.9	289.1	36.4	1.000061
45000.0	162.7	-62.2		268.7	565.8	289.7	35.5	1.000060
45500.0	158.8	-63.0		263.2	564.7	290.5	34.7	1.000059
46000.0	154.9	-63.8		257.8	563.8	291.5	34.2	1.000057
46500.0	151.2	-64.6		252.6	562.5	292.7	33.7	1.000056
47000.0	147.4	-65.6		247.4	561.3	294.2	33.0	1.000055
47500.0	143.8	-66.5		242.5	560.0	295.7	32.3	1.000054
48000.0	140.2	-67.5		237.6	558.7	299.8	30.7	1.000053
48500.0	136.8	-68.1		232.3	557.9	304.3	29.4	1.000052
49000.0	133.3	-68.5		226.9	557.4	308.3	27.4	1.000051
49500.0	130.0	-68.8		221.6	556.9	311.6	24.7	1.000049
50000.0	126.7	-69.2		216.4	556.4	316.2	22.0	1.000048
50500.0	123.6	-69.5		211.4	556.0	316.5	20.3	1.000047
51000.0	120.5	-69.8		206.4	555.5	315.8	18.8	1.000046
51500.0	117.5	-69.9		201.3	555.4	315.4	17.5	1.000045
52000.0	114.5	-69.3		195.7	556.2	316.8	17.3	1.000044
52500.0	111.6	-68.7		190.2	557.0	318.4	17.1	1.000042
53000.0	108.8	-69.2		185.9	556.4	321.1	16.5	1.000041
53500.0	106.1	-69.6		181.6	555.8	325.0	15.8	1.000040
54000.0	103.4	-70.1		177.5	555.1	329.6	15.1	1.000040
54500.0	100.8	-70.6		173.4	554.5	336.0	14.2	1.000039
55000.0	98.3	-70.6		169.1	554.4	343.2	13.5	1.000038
55500.0	95.8	-70.6		164.8	554.5	346.7	12.9	1.000037
56000.0	93.4	-70.5		160.6	554.8	349.8	12.4	1.000036
56500.0	91.1	-70.4		156.4	554.7	354.1	11.6	1.000035
57000.0	88.8	-70.3		152.4	554.9	.8	10.5	1.000034
57500.0	86.5	-70.2		148.5	555.0	8.8	9.6	1.000033
58000.0	84.4	-70.1		144.7	555.1	20.4	10.6	1.000032
58500.0	82.2	-68.3		139.9	557.5	29.8	12.2	1.000031
59000.0	80.2	-66.7		135.3	559.8	36.3	13.6	1.000030
59500.0	78.2	-66.6		131.9	559.9	41.0	13.9	1.000029
60000.0	76.3	-66.5		128.6	560.0	45.5	14.2	1.000029
60500.0	74.4	-66.4		125.4	560.2	51.1	14.0	1.000028
61000.0	72.6	-66.3		122.2	560.3	57.6	13.6	1.000027
61500.0	70.8	-66.2		119.1	560.4	63.9	13.4	1.000027
62000.0	69.0	-65.3		115.7	561.8	67.6	13.5	1.000026
62500.0	67.3	-63.8		112.1	563.7	71.1	13.7	1.000025
63000.0	65.7	-62.3		108.5	565.7	73.3	14.0	1.000024

STATION ALTITUDE 3997.30 FEET MSL
12 JUNE 79 0740 HRS MST
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UPPER AIR DATA
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GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
63500.0	64.1	-62.2		105.9	565.8	74.3	14.3	1.000024
64000.0	62.6	-62.6		103.5	565.3	75.2	14.6	1.000023
64500.0	61.1	-62.2		100.8	565.9	73.7	15.4	1.000022
65000.0	59.6	-61.5		98.1	566.7	72.0	16.4	1.000022
65500.0	58.2	-60.9		95.5	567.6	72.1	17.0	1.000021
66000.0	56.8	-60.3		92.9	568.4	78.4	16.6	1.000021
66500.0	55.4	-59.6		90.4	569.3	84.9	16.4	1.000020
67000.0	54.1	-59.0		88.0	570.1	91.2	15.6	1.000020
67500.0	52.8	-58.3		85.6	571.0	98.3	14.0	1.000019
68000.0	51.5	-57.7		83.3	571.8	106.9	12.7	1.000019
68500.0	50.3	-57.1		81.1	572.7	102.6	11.3	1.000018
69000.0	49.1	-56.7		79.0	573.2	93.1	10.0	1.000018
69500.0	48.0	-56.4		77.1	573.6	81.3	9.1	1.000017
70000.0	46.8	-56.1		75.2	573.9	77.1	9.4	1.000017
70500.0	45.7	-55.8		73.3	574.3	73.4	9.8	1.000016
71000.0	44.7	-55.5		71.5	574.7	69.9	10.5	1.000016
71500.0	43.6	-55.3		69.7	575.1	66.3	12.9	1.000016
72000.0	42.6	-55.0		68.0	575.4	63.7	15.3	1.000015
72500.0	41.6	-54.7		66.3	575.8	63.6	18.1	1.000015
73000.0	40.6	-54.4		64.7	576.2	67.1	21.7	1.000014
73500.0	39.7	-53.9		63.0	576.9	69.6	25.4	1.000014
74000.0	38.8	-53.3		61.4	577.7	73.9	28.1	1.000014
74500.0	37.9	-52.6		59.8	578.5	81.4	29.5	1.000013
75000.0	37.0	-52.0		58.3	579.3	88.1	31.3	1.000013
75500.0	36.2	-51.4		56.8	580.1	93.1	31.8	1.000013
76000.0	35.3	-50.8		55.4	580.9	97.2	30.7	1.000012
76500.0	34.5	-50.2		53.9	581.7	101.6	29.8	1.000012
77000.0	33.7	-49.5		52.6	582.6	103.6	28.1	1.000012
77500.0	33.0	-48.9		51.2	583.4	104.8	26.0	1.000011
78000.0	32.2	-48.3		49.9	584.2	105.8	24.0	1.000011
78500.0	31.5	-47.7		48.6	585.0	103.4	22.5	1.000011
79000.0	30.8	-47.1		47.4	585.8	100.2	21.1	1.000011
79500.0	30.0	-46.4		46.2	586.6	96.6	19.9	1.000010
80000.0	29.4	-46.3		45.1	586.8	95.5	19.8	1.000010
80500.0	28.7	-46.1		44.1	587.0	94.3	19.6	1.000010
81000.0	28.1	-45.9		43.0	587.2	93.3	19.5	1.000010
81500.0	27.4	-45.8		42.1	587.4	93.0	19.5	1.000009
82000.0	26.8	-45.6		41.1	587.6	92.7	19.5	1.000009
82500.0	26.2	-45.5		40.1	587.8	93.4	19.3	1.000009
83000.0	25.6	-45.3		39.2	588.0	96.6	18.8	1.000009

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UPPER AIR DATA
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GEODETTIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
83500.0	25.1	-45.2			38.3	588.2	100.1	18.3	1.000009
84000.0	24.5	-45.0			37.4	588.4	103.2	17.9	1.000008
84500.0	24.0	-44.8			36.6	588.6	105.6	17.6	1.000008
85000.0	23.4	-44.7			35.7	588.8	108.5	17.3	1.000008
85500.0	22.9	-44.5			34.9	589.0	110.1	18.0	1.000008
86000.0	22.4	-44.4			34.1	589.2	110.7	19.6	1.000008
86500.0	21.9	-44.2			33.3	589.4	111.2	21.1	1.000007
87000.0	21.4	-44.1			32.5	589.6	111.1	21.2	1.000007
87500.0	20.9	-43.9			31.8	589.8	110.8	20.7	1.000007
88000.0	20.5	-43.8			31.1	590.0			1.000007
88500.0	20.0	-43.6			30.4	590.2			1.000007
89000.0	19.6	-43.9			29.7	589.9			1.000007
89500.0	19.1	-44.2			29.1	589.5			1.000006

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MRN SIGNIFICANT LEVEL DATA
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 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	DIRECTION DEG (TN)	WIND DATA		E-W MPS	DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
		SPEED MPS	N-S MPS			AIR DEG C		
2726.	9999.**	9999.**	-9999.**	-9999.**	99	-44.4	1.880+1	
2685.	9999.**	9999.**	-9999.**	-9999.**	99	-43.6	2.000+1	
2414.	97.	10.	1.	-10.	99	-46.4	3.000+1	
2221.	68.	12.	-4.	-11.	99	-54.3	4.030+1	
2084.	100.	6.	1.	-6.	99	-56.9	5.000+1	
1946.	75.	8.	-2.	-7.	99	-62.7	6.230+1	
1917.	74.	7.	-2.	-7.	99	-61.9	6.530+1	
1875.	66.	7.	-3.	-6.	99	-66.2	7.000+1	
1788.	35.	7.	-6.	-4.	99	-66.7	8.080+1	
1766.	23.	6.	-5.	-2.	99	-70.1	8.380+1	
1661.	338.	7.	-7.	3.	99	-70.7	1.000+2	

** WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3997.30 FEET MSL
12 JUNE 79 0740 HRS MST
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MANDATORY LEVELS
1630060181
S M R

GEODETTIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT DEGREE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5139.	16.3	-1.4	32.	9999.0	9999.0XX
800.0	6824.	14.5	-1.3	34.	9999.0	9999.0XX
750.0	8607.	12.7	-3.4	32.	81.3	10.8
700.0	10501.	11.3	-11.5	19.	63.9	17.0
650.0	12522.	8.3	-16.3	16.	76.6	8.7
600.0	14670.	3.2	-20.6	15.	49.5	8.6
550.0	16960.	-1.8	-25.2	15.	36.9	10.5
500.0	19424.	-6.7	-29.7	14.	20.9	10.7
450.0	22089.	-13.2	-34.3	15.	37.5	10.1
400.0	24991.	-20.5	-39.7	16.	36.0	9.3
350.0	28187.	-27.7	-45.3	17.	328.4	9.8
300.0	31764.	-35.6			316.4	28.2
250.0	35848.	-45.1			290.5	39.0
200.0	40631.	-55.1			290.7	36.4
175.0	43407.	-59.4			288.7	37.9
150.0	46530.	-64.9			293.1	33.5
125.0	50130.	-69.3			316.8	21.1
100.0	54495.	-70.7			337.9	14.0
80.0	58853.	-66.7			36.5	13.6
70.0	61506.	-66.2			65.3	13.4
60.0	64618.	-61.7			72.6	16.0
50.0	68365.	-56.9			101.1	11.1
40.0	73031.	-54.1			48.6	23.8
30.0	79193.	-46.4			96.7	19.9
25.0	83177.	-45.1			100.1	18.3
20.0	88083.	-43.6				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

XX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3997.30 FEET MSL
 12 JUNE 79 0740 HRS MST
 ASCENSION NO. 181

MRN MANDATORY LEVELS
 1630060181
 S M R

GEODETTIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

GEOPOTENTIAL ALTITUDE DECEMETERS	DIRECTION DEG (TN)	SPEED MPS	WIND DATA N-S MPS	E-W MPS	DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
						AIR DEG C		
2035.	9999.**	9999.**	-9999.**	-9999.**	99	-43.6		2.000+1
2535.	100.	9.	2.	-9.	99	-45.1		2.500+1
2414.	97.	10.	1.	-10.	99	-46.4		3.000+1
2226.	69.	12.	-4.	-11.	99	-54.1		4.000+1
2084.	101.	6.	1.	-6.	99	-56.9		5.000+1
1970.	73.	8.	-2.	-8.	99	-61.7		6.000+1
1875.	65.	7.	-3.	-6.	99	-66.2		7.000+1
1794.	36.	7.	-6.	-4.	99	-66.7		8.000+1
1861.	338.	7.	-7.	3.	99	-70.7		1.000+2
1528.	317.	11.	-8.	7.	99	-69.3		1.250+2
1418.	293.	17.	-7.	16.	99	-64.9		1.500+2
1323.	289.	19.	-6.	18.	99	-59.4		1.750+2
1238.	291.	19.	-7.	18.	99	-55.1		2.000+2
1093.	290.	20.	-7.	19.	99	-45.1		2.500+2
968.	316.	14.	-10.	10.	99	-35.6		3.000+2
859.	328.	5.	-4.	3.	18	-27.7		3.500+2
762.	36.	5.	-4.	-3.	19	-20.5		4.000+2
673.	37.	5.	-4.	-3.	21	-13.2		4.500+2
592.	21.	5.	-5.	-2.	23	-6.7		5.000+2
517.	37.	5.	-4.	-3.	23	-1.8		5.500+2
447.	49.	4.	-3.	-3.	24	3.2		6.000+2
382.	77.	4.	-1.	-4.	25	8.3		6.500+2
320.	64.	9.	-4.	-8.	23	11.3		7.000+2
262.	81.	6.	-1.	-5.	16	12.7		7.500+2
208.	9999.**	9999.**	-9999.**	-9999.**	16	14.5		8.000+2
157.	9999.**	9999.**	-9999.**	-9999.**	17	16.3		8.500+2

** WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.