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October 1967

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METEOROLOGICAL DATA REPORT

NIKE-HYDAC STV
SR-060 SRG-02
(15 September 1967)

BY

LES E. CARTER

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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METEOROLOGICAL DATA REPORT

NIKE-HYDAC STV
SR-060 SRG-02
(15 September 1967)

By

Len E. Carter

DR-247

October 1967

DA Task IV650212A127-02

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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ABSTRACT

Meteorological data gathered for the launching of Nike-Hydac STV SR-060 are presented for the Ballistic Systems Division U. S. Air Force and for ballistic studies. The data appear, along with calculated ballistic data, in tabular form.

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INTRODUCTION

Nike-Hydac SR-060 (SRG-C2) was launched from Launch Complex 33, L-314, White Sands Missile Range (WSMR), New Mexico, at 0041 hours MDT, 15 September 1967.

Meteorological data used in conjunction with theoretical calculations to predict rocket impact were collected by the Meteorological Support Division, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The Ballistics Meteorologist for this firing was Len E. Carter.

DISCUSSION

Wind data for the first 216 feet above the surface were obtained from a system composed of 5 Aerovanes mounted on a 200 foot tower and cabled to component wind indicators.

From 216 to 4,210 feet above the surface, wind data were obtained from double-theodolite-observed balloon ascents.

Temperature, pressure, and humidity data, along with upper wind data from 4,210 to 73,350 feet above the surface, were obtained from standard rawinsonde observations.

Mean wind component values in each ballistic zone were determined from vertical cross sections by the equal-area method.

Theoretical rocket performance values and ballistic factors as a function of altitude were provided by ASL, and are the basis for data appearing in Table XII.

PAYLOAD		270.0	Pounds
CORIOJIS DISPLACEMENT	WEST	3.7	Miles
SECOND-STAGE IGNITION	TIME	20.0	Seconds
	ALTITUDE	35,450.0	Feet MSL
PEAK	TIME	217.2	Seconds
	ALTITUDE	608,593.0	Feet MSL
UNIT WIND EFFECT	RANGE	2.3978	Miles/MPH
UNIT WIND EFFECT	CROSS	2.4719	Miles/MPH
			Miles/MPH
TOWER TILT EFFECT		12.158	Miles/Degree

TABLE I. THEORETICAL ROCKET PERFORMANCE VALUES
NIKE-HYDAC STV (SR-060)

LAYERS IN FEET ABOVE GROUND	BALLISTIC FACTORS
12- 60	0.1661
60- 108	0.0971
108- 148	0.0791
148- 184	0.0599
184- 216	0.0142
216- 300	0.0802
300- 400	0.0656
400- 600	0.0558
600- 800	0.0562
800-1000	0.0412

LAYERS IN FEET ABOVE GROUND	BALLISTIC FACTORS
1000- 1400	0.0531
1400- 2000	0.0502
2000- 2500	0.0289
2500- 3000	0.0167
3000- 3500	0.0075
3500- 4210	0.0035
4210-11000	-0.0159
11000-16000	-0.0110
16000-21000	-0.0104
21000-26000	-0.0097

LAYERS IN FEET ABOVE GROUND	BALLISTIC FACTORS
26000-31450	-0.0062
31450-34000	0.0794
34000-36000	0.0281
36000-41000	0.0346
41000-46000	0.0137
46000-51000	0.0076
51000-56000	0.0063
56000-61000	0.0044
61000-69350	0.0039

TABLE II. BALLISTIC FACTORS
NIKE-HYDAC STV (SR-060)

MEAN WIND COMPONENTS IN MILES PER HOUR										
AERO- VANE NO. *	1 2230 MDT		2 2300 MDT		3 2350 MDT		4 0001 MDT		5 0005 MDT	
	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W
1	-4.0	7.0	-8.0	6.0	-2.0	7.0	-6.0	3.0	-4.0	3.0
2	-7.0	9.0	-12.0	6.0	-5.0	8.0	-7.0	3.0	-6.0	2.0
3	-9.0	14.0	-15.0	10.0	-7.0	10.0	-8.0	5.0	-7.0	4.0
4	-11.0	14.0	-15.0	12.0	-7.0	10.0	-8.0	4.0	-7.0	3.0
5	-10.0	18.0	-13.0	16.0	-6.0	12.0	-5.0	4.0	-5.0	4.0

AERO- VANE NO. *	MEAN WIND COMPONENTS IN MILES PER HOUR							
	6 0012 MDT		7 0020 MDT		8 0041 MDT			
	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W
1	-4.0	3.0	-4.0	2.0	-6.0	2.0		
2	-7.0	3.0	-7.0	2.0	-9.0	1.0		
3	-7.0	4.0	-7.0	3.0	-10.0	0.0		
4	-6.0	3.0	-7.0	2.0	-10.0	-1.0		
5	-5.0	6.0	-6.0	3.0	-8.0	0.0		

TABLE III. ANEMOMETER WIND SPEED AND DIRECTION
NIKE-HYDAC STV (SR-060)

* Heights corresponding to Aerovane Numbers: 1 = 35 Feet 3 = 128 Feet 5 = 200 Feet
2 = 88 Feet 4 = 168 Feet

LAYERS IN FEET ABOVE GROUND	MEAN WIND COMPONENTS IN MILES PER HOUR									
	1		2		3		4		5	
	2230 MDT		2300 MDT		2350 MDT		0001 MDT		0005 MDT	
	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W
216- 300	-7.5	17.5	-11.5	15.0	-6.0	11.0	-4.5	3.5	-4.0	3.0
300- 400	-5.5	12.5	-9.5	14.0	-6.0	9.5	-4.0	2.5	-2.0	0.5
400- 600	-7.5	13.0	-12.0	13.0	-6.5	5.5	-6.0	-1.5	-12.0	-3.5
600- 800	-13.0	13.0	-15.0	13.5	-9.5	1.5	-15.0	-6.5	-16.5	-5.0
800-1000	-15.0	13.5	-19.0	14.0	-13.0	0.5	-16.5	-6.5	-13.5	-4.5
1000-1400	-15.0	15.0	-20.0	20.0	-17.0	-5.0	-15.5	-3.5	-14.0	-4.5
1400-2000	-14.0	19.5	-20.0	10.0	-15.5	-2.0	-14.5	0.5	-12.0	3.5
2000-2500	-11.5	20.0	-17.5	14.0	-16.0	5.5	-20.0	10.5	-15.5	9.0
2500-3000	-6.5	7.5	-16.5	22.0	-19.0	12.5	-20.0	18.5	-15.0	12.0
3000-3500	-7.5	11.0	-12.0	13.0	-19.5	16.0	-17.0	13.5	-14.5	14.5
3500-4000	-5.5	10.0	-15.5	20.0	-17.5	11.5	-15.0	9.5	-14.0	13.5

TABLE IV. PILOT-BALLOON-MEASURED WIND DATA
NIKE-HYDAC STV (SR-060)

LAYERS IN FEET ABOVE GROUND	MEAN WIND COMPONENTS IN MILES PER HOUR									
	6		7		8					
	0012 MDT		0020 MDT		0043 MDT					
	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W
216- 300	-5.0	5.5	-6.0	3.0	-9.5	1.0				
300- 400	-5.0	2.0	-6.0	2.0	-8.0	3.5				
400- 600	-11.5	-3.5	-6.5	-2.0	-15.0	3.5				
600- 800	-14.0	-5.5	-14.0	-3.5	-14.0	2.5				
800-1000	-13.0	-6.0	-15.0	-6.0	-14.5	1.5				
1000-1400	-13.5	-2.5	-13.0	-4.5	-12.5	1.0				
1400-2000	-14.5	2.5	-12.0	3.5	-13.5	4.5				
2000-2500	-18.5	15.0	-16.5	11.0	-13.0	11.0				
2500-3000	-21.5	16.5	-19.5	15.5	-8.0	16.0				
3000-3500	-18.5	17.0	-22.5	17.5	-15.0	15.0				
3500-4000	-15.0	14.5	-20.5	14.0	-8.0	6.5				

TABLE IV. PILOT-BALLOON-MEASURED WIND DATA (CONT.)
NIKE-HYDAC STV (SR-060)

LAYERS IN FEET ABOVE GROUND	MEAN WIND COMPONENTS IN KNOTS					
	1 2130 MDT			2 0041 MDT		
	N-S	E-W		N-S	E-W	
4210-11000	1.0	7.0		-2.5	8.0	
11000-16000	8.0	-4.5		7.0	-4.0	
16000-21000	5.0	-14.0		2.5	-13.0	
21000-26000	-9.0	-25.0		-8.0	-21.5	
26000-31450	-13.5	-37.5		-21.0	-36.5	
31450-34000	-16.5	-46.0		-27.0	-46.5	
34000-36000	-25.5	-30.5		-24.0	-41.5	
36000-41000	-13.5	-37.5		-16.0	-27.5	
41000-46000	0.0	-34.0		-14.5	-23.0	
46000-51000	0.0	-28.0		-8.5	-23.0	
51000-56000	9.5	-3.5		11.5	4.0	
56000-61000	1.5	9.0		0.0	7.0	
61000-69350	0.0	20.0		-7.0	19.0	

TABLE V. RAWINSONDE-MEASURED WIND DATA
NIKE-HYDAC STV (SR-060)

WSTM SITE COORDINATES
E 488,580 FEET
N 185,045 FEET

SIGNIFICANT LEVEL DATA
0260003902
WHITE SANDS SITE
TABLE VI

STATION ALTITUDE 3989.0 FEET MSL
14 SEPT. 67
ASCENSION NO. 745

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE		REL. HUM.
		AIR	DEWPOINT	
MILLIBARS	MSL FEET	DEGREES	CENTIGRADE	PERCENT
877.8	3989.0	22.8	5.7	33.0
868.0	4310.9	25.0	4.2	26.0
812.0	6215.3	20.7	-0.6	24.0
690.0	10729.9	8.0	-2.6	47.0
630.0	13165.0	0.6	-5.4	64.0
603.0	14315.2	-2.7	-4.4	88.0
588.0	14970.6	-4.4	-6.1	88.0
578.0	15414.3	-5.8	-8.0	85.0
562.0	16139.8	-4.4	-22.0	24.0
488.0	19734.4	-13.3	-29.2	25.0
470.0	20677.7	-14.8	-25.8	39.0
446.0	21971.8	-17.1	-33.0	24.0
375.0	26181.4	-25.3	-35.6	38.0
353.0	27615.1	-29.0	-35.7	53.0
288.0	32297.1	-40.0	-48.0	43.0
282.0	32769.5	-41.0	-50.4	36.0
271.0	33657.7	-42.3	0.	0.
227.0	37524.3	-51.4	0.	0.
184.0	41947.2	-58.3	0.	0.
162.0	44564.4	-62.1	0.	0.
128.0	45368.3	-67.0	0.	0.
109.0	52452.8	-68.9	0.	0.
105.0	53236.6	-65.6	0.	0.
102.0	53817.7	-65.7	0.	0.
98.0	54624.5	-63.2	0.	0.
86.0	57250.5	-67.0	0.	0.
76.0	59747.0	-61.4	0.	0.
46.0	70098.6	-58.4	0.	0.
40.0	73042.4	-52.6	0.	0.
34.0	76483.9	-56.2	0.	0.

** RELATIVE HUMIDITY NOT SUPPLIED. ZERO VALUE ASSUMED FOR COMPUTATIONS.

STATION ALTITUDE 3989.0 FEET MSL
 14 SEPT. 67 2130 HRS MDT
 ASCENSION NO. 745

SIGNIFICANT LEVEL DATA
 0260003902
 WHITE SANDS SITE
 TABLE VI (Cont)

WSTM SITE COORDINATES
 E 488.580 FEET
 N 185.045 FEET

PRESSURE GEOMETRIC ALTITUDE		TEMPERATURE		REL. HUM. PERCENT
MILLIBARS	MSL FEET	AIR DEGREES	DEWPOINT CENTIGRADE	
22.0	85766.0	-49.7	0.	-0. **
19.0	88938.8	-50.0	0.	-0. **
16.5	92014.8	-46.5	0.	-0. **

** RELATIVE HUMIDITY NOT SUPPLIED. ZERO VALUE ASSUMED FOR COMPUTATIONS.

STATION ALTITUDE 3989.0 FEET MSL
14 SEPT. 67 2130 HRS NDT
ASCENSION NO. 745

UPPER AIR DATA
0260003902
WHITE SANDS SITE
TABLE VII

WSTM SITE COORDINATES
E 488.580 FEET
N 185.045 FEET

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)	SPED KNOTS	INDEX OF REFRACTION
3989.0	877.8	22.8	33.0	1029.3	671.2	0.	0.	1.000269
4000.0	877.5	22.9	32.8	1028.7	671.3	0.4	0.0	1.000269
4500.0	862.3	24.6	25.8	1005.6	673.0	17.6	1.4	1.000258
5000.0	847.3	23.4	25.3	992.1	671.7	34.8	2.7	1.000252
5500.0	832.6	22.3	24.8	978.8	670.3	52.0	4.0	1.000247
6000.0	818.1	21.2	24.2	965.7	669.0	69.2	5.4	1.000242
6500.0	803.7	19.9	25.5	952.9	667.5	86.4	6.7	1.000238
7000.0	789.3	18.5	28.0	940.3	665.9	95.9	7.0	1.000236
7500.0	775.2	17.1	30.5	927.9	664.3	81.6	7.1	1.000234
8000.0	761.4	15.7	33.1	915.8	662.7	82.8	7.0	1.000231
8500.0	747.8	14.3	35.6	903.8	661.1	88.6	6.7	1.000228
9000.0	734.4	12.9	38.2	892.0	659.5	94.2	6.3	1.000225
9500.0	721.3	11.5	40.7	880.5	657.8	99.3	5.6	1.000222
10000.0	708.4	10.1	43.3	869.0	656.2	102.7	4.8	1.000219
10500.0	695.7	8.6	45.8	857.8	654.6	100.0	3.7	1.000216
11000.0	683.1	7.2	48.9	846.7	652.8	87.8	3.0	1.000213
11500.0	670.4	5.7	52.4	835.6	651.0	51.8	3.2	1.000209
12000.0	658.0	4.1	55.9	824.6	649.2	25.1	4.5	1.000206
12500.0	645.8	2.6	59.4	813.9	647.4	7.5	6.9	1.000203
13000.0	633.9	1.1	62.8	803.3	645.6	35.1	9.7	1.000200
13500.0	622.0	-0.4	71.0	792.4	643.9	34.7	12.6	1.000198
14000.0	610.3	-1.8	81.4	781.5	642.3	338.0	15.8	1.000197
14500.0	598.7	-3.2	88.0	770.6	640.6	334.6	17.3	1.000194
15000.0	587.3	-4.5	87.8	759.8	639.0	333.4	17.6	1.000189
15500.0	576.1	-5.6	77.8	748.8	637.5	335.7	15.7	1.000183
16000.0	565.0	-4.7	35.8	732.5	638.3	337.6	13.3	1.000171
16500.0	554.1	-5.3	24.1	720.3	637.5	339.8	10.4	1.000166
17000.0	543.3	-6.5	24.2	709.6	636.0	339.2	8.1	1.000163
17500.0	532.8	-7.8	24.4	699.0	634.5	337.0	6.1	1.000160
18000.0	522.4	-9.0	24.5	688.7	633.0	330.5	5.4	1.000157

STATION ALTITUDE 3989.0 FEET MSL

14 SEPT. 67

ASCENSION NO. 745

UPPER AIR DATA

0260003902

WHITE SANDS SITE

TABLE VII (Cont)

WSTM SITE COORDINATES

E 488,580 FEET

N 185,045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	KNOTS			
18500.0	512.2	-10.2	-26.7	24.7	678.5	631.5	322.4	322.4	5.1	1.000155
19000.0	502.3	-11.5	-27.8	24.8	668.5	630.0	311.9	311.9	6.1	1.000152
19500.0	492.5	-12.7	-28.8	24.9	658.6	628.5	301.0	301.0	7.3	1.000150
20000.0	482.8	-13.7	-28.0	29.0	648.2	627.3	291.8	291.8	9.4	1.000148
20500.0	473.3	-14.5	-26.3	36.4	637.2	626.4	282.7	282.7	11.6	1.000146
21000.0	463.8	-15.4	-27.4	35.2	626.6	625.3	273.9	273.9	13.9	1.000343
21500.0	454.3	-16.3	-30.1	29.4	616.3	624.2	265.4	265.4	15.8	1.000140
22000.0	444.9	-17.2	-33.0	24.1	606.1	623.1	257.4	257.4	17.1	1.000137
22500.0	436.4	-18.1	-33.1	25.8	596.0	621.9	251.3	251.3	18.2	1.000135
23000.0	427.5	-19.1	-33.4	27.4	586.1	620.7	246.6	246.6	19.2	1.000133
23500.0	418.8	-20.1	-33.6	29.1	576.4	619.5	242.8	242.8	19.9	1.000130
24000.0	410.3	-21.1	-33.9	30.7	566.8	618.3	239.5	239.5	20.6	1.000128
24500.0	401.9	-22.0	-34.3	32.4	557.4	617.1	239.4	239.4	21.3	1.000126
25000.0	393.7	-23.0	-34.6	34.1	548.2	615.9	239.8	239.8	22.2	1.000124
25500.0	385.7	-24.0	-35.0	35.7	539.1	614.7	241.4	241.4	23.7	1.000122
26000.0	377.8	-24.9	-35.4	37.4	530.2	613.5	242.7	242.7	25.1	1.000120
26500.0	370.0	-26.1	-35.5	41.3	521.7	612.1	243.6	243.6	26.6	1.000118
27000.0	362.3	-27.4	-35.5	46.6	513.5	610.5	244.2	244.2	27.8	1.000116
27500.0	354.7	-28.7	-35.7	51.8	505.4	608.9	244.4	244.4	28.9	1.000114
28000.0	347.1	-29.9	-36.7	52.2	497.1	607.4	244.8	244.8	29.7	1.000112
28500.0	339.7	-31.1	-38.0	51.1	488.8	605.9	245.3	245.3	30.2	1.000110
29000.0	332.4	-32.3	-39.3	50.0	480.6	604.4	245.8	245.8	30.8	1.000108
29500.0	325.2	-33.4	-40.6	49.0	472.6	602.9	246.0	246.0	31.4	1.000106
30000.0	318.2	-34.6	-42.0	47.9	464.7	601.4	245.9	245.9	31.9	1.000105
30500.0	311.4	-35.8	-43.3	46.8	457.0	600.0	245.3	245.3	32.5	1.000103
31000.0	304.7	-37.0	-44.6	45.8	449.4	598.5	244.0	244.0	32.9	1.000101
31500.0	298.2	-38.1	-45.9	44.7	441.9	597.0	242.3	242.3	33.2	1.000099
32000.0	291.7	-39.3	-47.2	43.6	434.6	595.5	243.6	243.6	33.9	1.000097
32500.0	285.4	-40.4	-49.0	40.0	427.3	594.0	246.0	246.0	34.8	1.000096
33000.0	279.1	-41.3	-53.3	26.7**	419.5	592.9	248.2	248.2	37.7	1.000094

** AT 1 FAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
14 SEPT. 67 2130 HRS MDT
ASCENSION NO. 735

UPPER AIR DATA
0260003902
WHITE SANDS SITE
TABLE VII (Cont.)

GEOMETRIC ALTITUDE MSEAL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	TEMPERATURE DEWPOINT CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
33500.0	272.9	-42.1	-65.0	6.4**	411.5	591.9	249.5	40.6	1.000092
34000.0	266.8	-43.1	0.	-0.0**	404.1	590.6	248.8	43.5	1.000090
34500.0	260.7	-44.3	0.	-0.0**	396.9	589.1	247.5	45.2	1.000089
35000.0	254.8	-45.5	0.	-0.0**	390.0	587.6	245.6	46.0	1.000087
35500.0	249.1	-46.6	0.	-0.0**	383.1	586.0	244.1	47.6	1.000085
36000.0	243.4	-47.8	0.	-0.0**	376.4	584.5	243.0	49.8	1.000084
36500.0	237.9	-49.0	0.	-0.0**	369.8	583.0	240.6	49.3	1.000082
37000.0	232.5	-50.2	0.	-0.0**	363.3	581.4	236.3	45.0	1.000081
37500.0	227.3	-51.3	0.	-0.0**	357.0	579.9	232.7	41.3	1.000079
38000.0	221.9	-52.1	0.	-0.0**	349.9	578.9	231.5	40.5	1.000078
38500.0	216.7	-52.9	0.	-0.0**	342.9	577.8	230.2	39.7	1.000076
39000.0	211.6	-53.7	0.	-0.0**	336.0	576.8	227.3	37.4	1.000075
39500.0	206.7	-54.5	0.	-0.0**	329.3	575.8	224.3	35.1	1.000073
40000.0	201.8	-55.3	0.	-0.0**	322.7	574.8	228.0	36.2	1.000072
40500.0	197.1	-56.0	0.	-0.0**	316.3	573.7	234.8	38.8	1.000070
41000.0	192.5	-56.8	0.	-0.0**	310.0	572.7	240.4	40.8	1.000069
41500.0	187.9	-57.6	0.	-0.0**	303.8	571.7	243.9	41.6	1.000068
42000.0	183.5	-58.4	0.	-0.0**	297.7	570.6	247.8	42.3	1.000065
42500.0	179.1	-59.1	0.	-0.0**	291.6	569.7	253.7	42.4	1.000065
43000.0	174.8	-59.8	0.	-0.0**	285.5	568.7	259.1	42.4	1.000064
43500.0	170.6	-60.6	0.	-0.0**	279.6	567.7	262.2	42.1	1.000062
44000.0	166.5	-61.3	0.	-0.0**	273.8	566.8	265.3	41.8	1.000061
44500.0	162.5	-62.0	0.	-0.0**	268.2	565.8	266.2	40.1	1.000060
45000.0	158.5	-62.5	0.	-0.0**	262.3	565.1	267.2	38.4	1.000058
45500.0	154.6	-63.1	0.	-0.0**	256.5	564.4	267.8	36.8	1.000057
46000.0	150.9	-63.6	0.	-0.0**	250.8	563.7	268.3	35.1	1.000056
46500.0	147.2	-64.1	0.	-0.0**	245.3	563.0	267.7	33.7	1.000055
47000.0	143.5	-64.6	0.	-0.0**	239.8	562.3	265.3	32.7	1.000053
47500.0	140.0	-65.1	0.	-0.0**	234.5	561.6	262.9	31.7	1.000052
48000.0	136.6	-65.6	0.	-0.0**	229.3	560.9	262.3	32.1	1.000051

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

STATION ALTITUDE 3989.0 FEET MSL
14 SEPT. 67 2130 HRS MDT
ASCENSION NO. 745

UPPER AIR DATA
0260003902
WHITE SANDS SITE
TABLE VII (Cont)

WSTM SITE COORDINATES
E 488,580 FEET
N 185,045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	KNOTS	DIRECTION DEGREES(TN)	SPEED KNOTS	
48500.0	133.2	-66.2	0.	-0.	224.3	560.2	261.8	261.8	32.4	1.000050
49000.0	130.0	-66.7	0.	-0.	219.3	559.5	261.5	261.5	32.7	1.000049
49500.0	126.8	-67.1	0.	-0.	214.4	558.9	261.4	261.4	33.0	1.000048
50000.0	123.6	-67.4	0.	-0.	209.3	558.5	261.5	261.5	33.4	1.000047
50500.0	120.5	-67.7	0.	-0.	204.4	558.1	264.8	264.8	33.9	1.000046
51000.0	117.5	-68.0	0.	-0.	199.6	557.7	268.1	268.1	34.5	1.000044
51500.0	114.6	-68.3	0.	-0.	194.9	557.3	270.4	270.4	34.3	1.000043
52000.0	111.7	-68.6	0.	-0.	190.3	556.9	271.0	271.0	33.0	1.000042
52500.0	109.0	-68.9	0.	-0.	185.8	556.5	271.7	271.7	31.6	1.000041
53000.0	106.3	-69.6	0.	-0.	179.3	559.5	272.1	272.1	28.0	1.000040
53500.0	103.6	-65.6	0.	-0.	174.0	560.9	272.6	272.6	24.0	1.000039
54000.0	101.1	-65.1	0.	-0.	169.3	561.6	272.1	272.1	19.4	1.000038
54500.0	98.6	-63.6	0.	-0.	163.9	563.7	270.5	270.5	14.2	1.000037
55000.0	96.2	-63.7	0.	-0.	160.0	563.5	273.0	273.0	9.1	1.000036
55500.0	93.8	-64.5	0.	-0.	156.6	562.5	316.2	316.2	5.4	1.000035
56000.0	91.5	-65.2	0.	-0.	153.3	561.5	359.5	359.5	1.7	1.000034
56500.0	89.3	-65.9	0.	-0.	150.1	560.5	21.0	21.0	1.2	1.000033
57000.0	87.1	-66.6	0.	-0.	146.9	559.6	34.3	34.3	1.8	1.000033
57500.0	84.9	-66.4	0.	-0.	143.2	559.8	46.3	46.3	2.5	1.000032
58000.0	82.9	-65.3	0.	-0.	138.9	561.3	55.4	55.4	3.0	1.000031
58500.0	80.8	-64.2	0.	-0.	134.8	562.9	64.5	64.5	3.5	1.000030
59000.0	78.9	-63.1	0.	-0.	130.8	564.4	62.3	62.3	3.7	1.000029
59500.0	76.9	-62.0	0.	-0.	126.9	565.9	59.1	59.1	3.9	1.000028
60000.0	75.1	-61.3	0.	-0.	123.5	566.7	58.8	58.8	5.0	1.000027
60500.0	73.3	-61.2	0.	-0.	120.4	566.9	61.1	61.1	6.9	1.000027
61000.0	71.5	-61.0	0.	-0.	117.5	567.1	63.3	63.3	8.7	1.000026
61500.0	69.8	-60.9	0.	-0.	114.6	567.3	64.7	64.7	10.0	1.000026
62000.0	68.1	-60.7	0.	-0.	111.8	567.5	66.1	66.1	11.3	1.000025
62500.0	66.5	-60.6	0.	-0.	109.0	567.7	70.1	70.1	14.1	1.000024
63000.0	64.9	-60.5	0.	-0.	106.3	567.9	75.1	75.1	17.4	1.000024

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

WSTM SITE COORDINATES
E 488,580 FEET
N 185,045 FEET

UPPER AIR DATA
0260003902
WHITE SANDS SITE
TABLE VII (Cont)

STATION ALTITUDE 3989.0 FEET MSL
14 SEPT. 67 2130 HRS MDT
ASCENSION NO. 745

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNUTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNUTS	INDEX OF REFRACTION
63500.0	63.4	-60.3	-0.	103.7	568.1	81.4	18.8	1.000023
64000.0	61.8	-60.2	-0.	101.2	568.3	90.1	16.9	1.000023
64500.0	60.4	-60.0	-0.	98.7	568.5	98.7	15.1	1.000022
65000.0	58.9	-59.9	-0.	96.2	568.6	98.7	15.8	1.000021
65500.0	57.5	-59.7	-0.	93.9	568.8	98.1	16.6	1.000021
66000.0	56.1	-59.6	-0.	91.6	569.0	98.0	16.5	1.000020
66500.0	54.8	-59.4	-0.	89.3	569.2	99.0	14.8	1.000020
67000.0	53.5	-59.3	-0.	87.1	569.4	99.9	13.1	1.000019
67500.0	52.2	-59.2	-0.	85.0	569.6	98.7	14.3	1.000019
68000.0	50.9	-59.0	-0.	82.9	569.8	96.2	17.3	1.000018
68500.0	49.7	-58.9	-0.	80.8	570.0	93.7	20.2	1.000018
69000.0	48.5	-58.7	-0.	78.8	570.2	95.4	19.3	1.000018
69500.0	47.4	-58.6	-0.	76.9	570.4	97.2	18.2	1.000017
70000.0	46.2	-58.4	-0.	75.0	570.6	98.5	17.5	1.000017
70500.0	45.1	-57.6	-0.	73.0	571.7	97.9	17.7	1.000016
71000.0	44.1	-56.6	-0.	70.9	573.0	97.3	17.8	1.000016
71500.0	43.0	-55.6	-0.	68.9	574.3	96.0	17.5	1.000015
72000.0	42.0	-54.7	-0.	67.0	575.6	93.9	16.6	1.000015
72500.0	41.0	-53.7	-0.	65.2	576.9	91.8	15.7	1.000014
73000.0	40.1	-52.7	-0.	63.3	578.2	92.1	17.1	1.000014
73500.0	39.1	-53.1	-0.	62.0	577.6	92.9	18.8	1.000014
74000.0	38.2	-53.6	-0.	60.7	576.9	93.2	20.2	1.000014
74500.0	37.3	-54.1	-0.	58.4	576.3	91.2	19.8	1.000013
75000.0	36.5	-54.6	-0.	56.2	575.6	89.1	19.4	1.000013
75500.0	35.6	-55.2	-0.	54.9	574.9	87.8	19.7	1.000012
76000.0	34.8	-55.7	-0.	53.7	574.2	87.2	20.7	1.000012
76500.0	34.0	-56.2	-0.	54.6	573.5	86.6	21.7	1.000012
77000.0	33.2	-55.8	-0.	53.2	574.0	86.2	20.8	1.000012
77500.0	32.4	-55.5	-0.	51.9	574.5	85.8	19.4	1.000012
78000.0	31.7	-55.1	-0.	50.6	574.9	85.9	18.3	1.000011

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

STATION ALTITUDE 3989.0 FFFT MSL
14 SEPT. 67 2130 HRS PDT
ASCENSION NO. 745

UPPER AIR DATA
0260003902
WHITE SANDS SITE
TABLE VII (Cont)

WSTM SITE COORDINATES
E 488.580 FEET
N 185.045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	KNOTS	DIRECTION DEGREES (TN)	SPEED KNOTS	
78500.0	30.9	-54.8	0.	-0.	49.4	575.4	89.2	18.7	1.000011	
79000.0	30.2	-54.6	0.	-0.	48.1	575.8	92.5	19.0	1.000011	
79500.0	29.5	-54.1	0.	-0.	46.9	576.3	94.4	19.0	1.000010	
80000.0	28.8	-53.7	0.	-0.	45.8	576.8	94.6	18.6	1.000010	
80500.0	28.2	-53.4	0.	-0.	44.6	577.2	94.7	18.1	1.000010	
81000.0	27.5	-53.0	0.	-0.	43.5	577.7	92.4	18.0	1.000010	
81500.0	26.9	-52.7	0.	-0.	42.5	578.1	89.4	18.0	1.000009	
82000.0	26.2	-52.3	0.	-0.	41.4	578.6	86.2	18.1	1.000009	
82500.0	25.6	-52.0	0.	-0.	40.4	579.1	82.5	18.9	1.000009	
83000.0	25.0	-51.6	0.	-0.	39.4	579.5	78.8	19.7	1.000009	
83500.0	24.5	-51.3	0.	-0.	38.4	580.0	77.1	20.3	1.000009	
84000.0	23.9	-50.9	0.	-0.	37.5	580.4	78.9	20.5	1.000008	
84500.0	23.3	-50.6	0.	-0.	36.5	580.9	80.6	20.7	1.000008	
85000.0	22.8	-50.2	0.	-0.	35.6	581.4	81.9	20.4	1.000008	
85500.0	22.3	-49.9	0.	-0.	34.8	581.8	83.0	19.8	1.000008	
86000.0	21.8	-49.7	0.	-0.	33.9	582.0	84.2	19.3	1.000008	
86500.0	21.3	-49.8	0.	-0.	33.2	582.0	86.0	19.8	1.000007	
87000.0	20.8	-49.8	0.	-0.	32.4	581.9	87.8	20.3	1.000007	
87500.0	20.3	-49.9	0.	-0.	31.7	581.8	89.1	20.4	1.000007	
88000.0	19.8	-49.9	0.	-0.	31.0	581.8	89.0	19.2	1.000007	
88500.0	19.4	-50.0	0.	-0.	30.3	581.7	88.9	18.0	1.000007	
89000.0	18.9	-49.9	0.	-0.	29.6	581.8			1.000006	
89500.0	18.5	-49.4	0.	-0.	28.8	582.5			1.000006	
90000.0	18.1	-48.8	0.	-0.	28.1	583.2			1.000006	
90500.0	17.7	-48.2	0.	-0.	27.4	584.0			1.000006	
91000.0	17.3	-47.7	0.	-0.	26.7	584.7			1.000006	
91500.0	16.9	-47.1	0.	-0.	26.0	585.4			1.000006	
92000.0	16.5	-46.5	0.	-0.	25.4	586.2			1.000006	

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

STATION ALTITUDE 3989.0 FEET MSL
14 SEPT. 67 2130 HRS MDT
ASCENSION NO. 745

MANDATORY LEVELS
0260003902
WHITE SANDS SITE
TABLE VIII

WSTM SITE COORDINATES
E 488.580 FEET
N 185.045 FEET

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4911.	23.6	2.7	25.	31.8	2.5
800.0	6634.	19.5	-0.4	26.	89.0	7.0
750.0	8439.	14.5	-0.7	35.	87.9	6.7
700.0	10333.	9.1	-2.2	45.	100.8	4.1
650.0	12327.	3.1	-4.3	58.	13.3	6.1
600.0	14434.	-3.0	-4.8	88.	334.7	17.2
550.0	16682.	-5.8	-23.1	24.	340.5	9.3
500.0	19104.	-11.8	-28.0	25.	309.3	6.4
450.0	21726.	-16.7	-31.6	27.	261.4	16.4
400.0	24598.	-22.2	-34.3	33.	239.4	21.4
350.0	27775.	-29.5	-36.2	53.	244.6	29.5
300.0	31324.	-37.8	-45.5	45.	242.8	33.1
250.0	35372.	-46.4	0.	-0.**	244.3	47.3
200.0	40125.	-55.6	0.	-0.**	230.8	37.2
175.0	42889.	-59.8	0.	-0.**	259.0	42.4
150.0	46018.	-53.7	0.	-0.**	268.5	34.7
125.0	49655.	-67.3	0.	-0.**	261.4	33.2
100.0	54068.	-64.5	0.	-0.**	271.4	17.2
80.0	58530.	-63.7	0.	-0.**	64.2	3.6
70.0	61243.	-60.9	0.	-0.**	64.5	9.8
60.0	64394.	-60.0	0.	-0.**	99.2	15.1
50.0	68139.	-58.9	0.	-0.**	94.4	19.4
40.0	72781.	-52.6	0.	-0.**	92.2	17.2
30.0	78818.	-54.3	0.	-0.**	93.3	19.1
25.0	82676.	-51.6	0.	-0.**	78.7	19.7
20.0	87455.	-49.9	0.	-0.**	89.0	19.6

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

STATION ALTITUDE 3989.0 FEET MSL
15 SEPT. 67 0041 HRS MDT
ASCENSION NO. 746

SIGNIFICANT LEVEL DATA
0260003903
WHITE SANDS SITE
TABLE IX

WSTM SITE COORDINATES
E 488,580 FEET
N 185,045 FEET

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM.
ALTITUDE	MSL FEET	AIR	DEWPOINT	
MILLIBARS		DEGREES	CENTIGRADE	PERCENT
879.6	3989.0	19.0	8.1	49.0
869.0	4332.3	20.5	11.0	54.0
825.0	5804.0	19.1	6.9	45.0
646.0	12516.6	3.2	-3.6	61.0
586.0	15077.3	-5.0	-7.0	86.0
559.0	16290.9	-8.0	-8.1	100.0
556.0	16428.5	-8.5	-8.6	100.0
537.0	17316.6	-8.0	-21.9	32.0
518.0	18235.5	-8.8	-23.7	29.0
508.0	18730.4	-10.6	-24.9	30.0
499.0	19082.5	-10.7	-25.4	29.0
442.0	22208.3	-17.8	-30.9	31.0
397.0	24822.8	-23.2	-29.9	55.0
348.0	27551.0	-30.3	-35.1	64.0
290.0	32133.4	-40.2	-47.4	47.0
286.0	32445.4	-40.2	-49.7	36.0
201.0	40116.4	-55.0	0.	0.
182.0	42199.5	-56.5	0.	0.
152.0	45908.7	-63.1	0.	0.
139.0	47711.5	-65.5	0.	0.
135.0	48297.8	-65.0	0.	0.
122.0	50315.6	-68.6	0.	0.
100.0	54269.4	-66.0	0.	0.
40.0	73031.1	-56.5	0.	0.
35.0	75817.9	-58.6	0.	0.
30.0	79050.0	-54.5	0.	0.
9.4	104183.9	-44.6	0.	0.
7.8	108357.7	-40.9	0.	0.
5.4	116663.6	-40.3	0.	0.
4.3	121858.0	-36.8	0.	0.

** RELATIVE HUMIDITY NOT SUPPLIED. ZERO VALUE ASSUMED FOR COMPUTATIONS.

STATION ALTITUDE 3989.0 FEET MSI
 15 SEPT. 67 0041 HRS MDT
 ASCENSION NO. 746

UPPER AIR DATA
 0260003903
 WHITE SANDS SITE
 TABLE X

WSTM SITE COORDINATES
 E 488.580 FEET
 N 185.045 FEET

GEOMETRIC ALTITUDE MSE FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
3989.0	879.6	19.0	49.0	1044.2	667.1	180.0	6.0	1.000281
4006.0	879.3	19.1	49.2	1043.5	667.2	179.8	6.1	1.000281
4500.0	863.9	20.4	53.0	1019.5	669.0	168.6	8.8	1.000283
5000.0	848.8	19.9	49.9	1003.8	668.3	157.4	11.5	1.000275
5500.0	833.9	19.4	46.9	988.4	667.6	146.2	14.2	1.000267
6000.0	819.1	18.6	45.5	973.7	666.6	135.0	16.9	1.000260
6500.0	804.3	17.5	46.7	960.2	665.2	132.4	17.4	1.000256
7000.0	789.8	16.3	47.9	946.8	663.8	131.9	17.3	1.000251
7500.0	775.6	15.1	49.0	933.7	662.4	137.9	15.8	1.000246
8000.0	761.6	13.9	50.2	920.7	661.0	144.7	14.3	1.000242
8500.0	747.8	12.7	51.4	908.0	659.6	152.9	12.7	1.000237
9000.0	734.3	11.5	52.6	895.4	658.2	158.8	10.9	1.000233
9500.0	721.1	10.3	53.8	883.0	656.8	163.0	9.0	1.000229
10000.0	708.0	9.2	55.0	870.9	655.4	157.6	7.0	1.000224
10500.0	695.3	8.0	56.2	858.9	653.9	145.3	5.1	1.000220
11000.0	682.7	6.8	57.4	847.0	652.5	107.1	3.3	1.000216
11500.0	670.4	5.6	58.6	835.4	651.1	65.6	3.0	1.000212
12000.0	658.3	4.4	59.8	823.9	649.7	20.1	4.4	1.000208
12500.0	646.4	3.2	61.0	812.6	648.2	359.8	6.1	1.000204
13000.0	634.2	2.7	65.7	802.0	646.3	348.0	7.9	1.000201
13500.0	622.3	0.1	70.6	791.5	644.4	340.3	9.2	1.000198
14000.0	610.5	-1.6	75.5	781.2	642.5	335.6	10.2	1.000195
14500.0	599.0	-3.2	80.4	771.1	640.6	331.6	11.2	1.000192
15000.0	587.7	-4.8	85.2	761.2	638.7	326.4	12.1	1.000189
15500.0	576.5	-6.0	90.9	750.2	637.1	320.6	12.6	1.000186
16000.0	565.4	-7.3	96.1	739.2	635.6	315.5	12.7	1.000183
16500.0	554.4	-8.5	94.5	728.3	634.1	312.6	11.9	1.000179
17000.0	543.7	-8.2	56.2	714.0	634.2	314.2	9.3	1.000169
17500.0	533.2	-8.2	31.4	700.5	634.1	324.1	6.7	1.000162
18000.0	522.8	-8.6	24.8	688.1	633.5	352.6	5.3	1.000158

STATION ALTITUDE 3989.0 FEET MSL

15 SEP. 67

ASCENSION NO. 746

UPPER AIR DATA

0260003903

WHITE SANDS SITE

TABLE X (Cont)

WSIM SITE COORDINATES

E 488.580 FEET

N 185.045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	KNOTS	DIRECTION DEGREES(TN)	SPEED KNOTS	
18500.0	512.6	-9.8	-24.3	29.5	677.7	632.1		20.1	4.5	1.000156
19000.0	502.6	-10.7	-25.2	29.4	666.7	631.0		44.5	4.0	1.000153
19500.0	492.7	-11.4	-25.9	29.2	655.6	630.1		44.9	3.9	1.000150
20000.0	482.9	-12.6	-26.9	29.5	645.5	628.7		6.8	3.3	1.000148
20500.0	473.3	-13.8	-27.8	29.9	635.5	627.2		280.3	2.0	1.000145
21000.0	463.9	-15.0	-28.7	30.2	625.8	625.8		255.5	4.0	1.000143
21500.0	454.7	-16.1	-29.6	30.5	616.2	624.4		252.2	7.1	1.000140
22000.0	445.7	-17.3	-30.5	30.9	606.7	622.9		251.2	10.2	1.000138
22500.0	436.7	-18.4	-30.6	31.7	597.1	621.6		250.2	13.0	1.000136
23000.0	427.9	-19.4	-30.2	38.3	587.3	620.4		249.4	15.3	1.000134
23500.0	419.2	-20.5	-29.9	42.9	577.7	619.1		248.3	17.5	1.000132
24000.0	410.6	-21.5	-29.8	47.4	568.3	617.6		247.1	19.7	1.000130
24500.0	402.3	-22.5	-29.8	52.0	559.0	616.6		246.5	21.3	1.000128
25000.0	394.0	-23.6	-30.1	55.5	549.9	615.3		246.1	22.6	1.000126
25500.0	385.8	-24.7	-30.9	56.9	540.9	613.8		246.2	23.5	1.000123
26000.0	377.8	-25.9	-31.8	58.4	532.1	612.4		246.4	23.9	1.000121
26500.0	369.9	-27.0	-32.6	59.8	523.4	611.0		246.7	24.2	1.000119
27000.0	362.2	-28.1	-33.4	61.3	514.9	609.6		245.1	25.6	1.000117
27500.0	354.7	-29.3	-34.3	62.7	506.5	608.2		243.6	26.8	1.000115
28000.0	347.3	-30.4	-35.2	63.8	498.3	606.8		242.3	27.7	1.000113
28500.0	339.8	-31.6	-36.7	61.8	490.0	605.3		240.7	28.6	1.000111
29000.0	332.5	-32.8	-38.1	59.7	481.8	603.8		238.8	29.4	1.000109
29500.0	325.3	-34.0	-39.6	57.7	473.7	602.3		238.5	29.6	1.000107
30000.0	318.3	-35.1	-41.1	55.7	465.8	600.8		238.3	29.8	1.000105
30500.0	311.4	-36.3	-42.5	53.6	458.1	599.3		237.8	30.9	1.000103
31000.0	304.7	-37.5	-44.0	51.6	450.5	597.8		237.7	32.5	1.000101
31500.0	298.1	-38.7	-45.5	49.6	443.0	596.2		238.1	34.7	1.000099
32000.0	291.7	-39.9	-47.0	47.5	435.6	594.7		238.4	37.3	1.000098
32500.0	285.3	-40.3	-49.9	35.7**	426.8	594.2		238.6	40.3	1.000096
33000.0	278.8	-41.3	-51.3	33.4**	418.9	593.0		238.8	43.2	1.000094

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

STATION ALTITUDE 3989.0 FEET MSL
15 SEPT. 67 0041 HRS MDT
ASCENSION NO. 746

UPPER AIR DATA
0260003903
WHITE SANDS SITE
TABLE X (CONT)

WSM SITE COORDINATES
E 488.580 FEET
N 185.045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	TEMPERATURE DEWPOINT	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
33500.0	272.6	-42.2	-52.8	31.1**	411.1	591.7	239.0	46.2	1.000092
34000.0	266.3	-43.2	-54.3	28.7**	403.4	590.5	239.6	47.9	1.000090
34500.0	260.2	-44.2	-55.9	26.4**	395.9	589.2	240.3	49.7	1.000088
35000.0	254.3	-45.1	-57.5	24.0**	388.6	588.0	241.2	51.8	1.000087
35500.0	248.5	-46.1	-59.1	21.7**	381.3	586.7	242.0	53.0	1.000085
36000.0	242.9	-47.1	-60.9	19.3**	374.3	585.5	242.8	53.7	1.000083
36500.0	237.4	-48.0	-62.7	17.0**	367.3	584.2	242.2	53.4	1.000082
37000.0	232.0	-49.0	-64.6	14.6**	360.5	583.0	241.5	52.7	1.000080
37500.0	226.7	-50.0	-66.7	12.3**	353.9	581.7	241.1	50.8	1.000079
38000.0	221.5	-50.9	-69.0	9.9**	347.3	580.5	241.0	49.5	1.000077
38500.0	216.5	-51.9	-71.6	7.6**	340.9	579.2	241.5	48.8	1.000076
39000.0	211.6	-52.8	-74.8	5.2**	334.6	577.9	243.1	47.9	1.000075
39500.0	206.8	-53.8	-79.3	2.9**	328.5	576.7	245.2	46.9	1.000073
40000.0	202.1	-54.8	-89.5	0.5**	322.4	575.4	247.0	44.4	1.000072
40500.0	197.4	-55.3	0.	0.	315.6	574.7	248.6	41.5	1.000070
41000.0	192.7	-55.6	0.	0.	308.7	574.3	250.1	36.9	1.000069
41500.0	188.2	-56.0	0.	0.	301.9	573.8	251.5	32.6	1.000067
42000.0	183.7	-56.4	0.	0.	295.3	573.3	252.4	28.9	1.000066
42500.0	179.4	-57.0	0.	0.	289.2	572.4	253.6	26.3	1.000064
43000.0	175.7	-57.9	0.	0.	283.4	571.2	255.2	25.1	1.000063
43500.0	170.9	-58.8	0.	0.	277.7	570.1	256.1	24.7	1.000062
44000.0	166.8	-59.7	0.	0.	272.2	568.9	256.4	24.9	1.000061
44500.0	162.8	-60.6	0.	0.	266.8	567.7	256.8	25.1	1.000059
45000.0	158.9	-61.5	0.	0.	261.5	566.5	257.0	25.3	1.000058
45500.0	155.0	-62.4	0.	0.	256.3	565.3	256.3	26.1	1.000057
46000.0	151.3	-63.2	0.	0.	251.1	564.2	256.0	26.9	1.000056
46500.0	147.6	-63.9	0.	0.	245.8	563.3	256.9	27.3	1.000055
47000.0	144.0	-64.6	0.	0.	240.5	562.4	257.3	27.6	1.000054
47500.0	140.5	-65.2	0.	0.	235.4	561.5	257.0	27.8	1.000052
48000.0	137.0	-65.3	0.	0.	229.6	561.4	257.1	27.6	1.000051

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

STATION ALTITUDE 3989.0 FEET MSL

15 SEP. 67

ASCENSION NO. 746

UPPER AIR DATA

0260003903

WHITE SANDS SITE

TABLE X (Cont)

WSTM SITE COORDINATES

E 488,580 FEET

N 185,045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	DEWPOINT	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
46500.0	133.6	-65.4	0.	-0.	224.1	561.3	257.7	27.2	1.000050
49000.0	130.3	-66.3	0.	-0.	219.5	560.1	260.2	27.5	1.000049
49500.0	127.1	-67.1	0.	-0.	215.0	558.9	263.7	28.3	1.000048
50000.0	123.9	-68.0	0.	-0.	210.5	557.7	265.8	29.9	1.000047
50500.0	120.9	-68.5	0.	-0.	205.8	557.1	267.4	31.7	1.000046
51000.0	117.9	-68.1	0.	-0.	200.3	557.5	270.0	32.9	1.000045
51500.0	114.9	-67.8	0.	-0.	195.0	558.0	273.0	33.8	1.000043
52000.0	112.1	-67.5	0.	-0.	189.9	558.4	273.9	33.4	1.000042
52500.0	109.3	-67.2	0.	-0.	184.9	558.8	272.6	31.8	1.000041
53000.0	106.6	-66.8	0.	-0.	180.0	559.3	271.4	30.0	1.000040
53500.0	103.9	-66.5	0.	-0.	175.3	559.7	270.5	27.7	1.000039
54000.0	101.4	-66.2	0.	-0.	170.6	560.2	269.8	25.3	1.000038
54500.0	98.9	-65.9	0.	-0.	166.2	560.6	270.1	22.1	1.000037
55000.0	96.5	-65.6	0.	-0.	162.0	560.9	271.4	18.8	1.000036
55500.0	94.2	-65.4	0.	-0.	157.9	561.3	278.2	14.9	1.000035
56000.0	91.9	-65.1	0.	-0.	153.9	561.6	287.8	11.2	1.000034
56500.0	89.7	-64.9	0.	-0.	150.0	561.9	325.8	8.6	1.000033
57000.0	87.5	-64.6	0.	-0.	146.2	562.3	33.5	6.0	1.000033
57500.0	85.4	-64.4	0.	-0.	142.5	562.6	29.1	6.0	1.000032
58000.0	83.3	-64.1	0.	-0.	138.9	563.0	54.7	6.1	1.000031
58500.0	81.3	-63.9	0.	-0.	135.4	563.3	76.1	7.6	1.000030
59000.0	79.4	-63.6	0.	-0.	132.0	563.7	97.3	9.1	1.000029
59500.0	77.5	-63.4	0.	-0.	128.6	564.0	104.0	7.0	1.000029
60000.0	75.6	-63.1	0.	-0.	125.4	564.3	109.4	4.4	1.000028
60500.0	73.8	-62.8	0.	-0.	122.2	564.7	106.4	3.4	1.000027
61000.0	72.0	-62.6	0.	-0.	119.1	565.0	102.0	2.6	1.000027
61500.0	70.2	-62.3	0.	-0.	116.1	565.4	59.6	3.1	1.000026
62000.0	68.6	-62.1	0.	-0.	113.2	565.7	10.2	3.7	1.000025
62500.0	66.9	-61.8	0.	-0.	110.3	566.0	41.4	5.1	1.000025
63000.0	65.3	-61.6	0.	-0.	107.5	566.4	80.1	6.6	1.000024

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

STATION ALTITUDE 3989.0 FEET MSL
15 SEPT. 67 0041 HRS MDT
ASCENSION NO. 746

UPPER AIR DATA
0260003903
WHITE SANDS SITE
TABLE X (Cont)

WSTM SITE COORDINATES
E 488,580 FEET
N 185,045 FEET

GEOMETRIC ALTITUDE MSE FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
63500.0	63.7	-61.3	-0.	104.8	566.7	94.1	9.8	1.000023
64000.0	62.2	-61.1	-0.	102.1	567.0	107.1	12.9	1.000023
64500.0	60.7	-60.8	-0.	99.6	567.4	112.5	14.9	1.000022
65000.0	59.2	-60.6	-0.	97.0	567.7	117.1	16.2	1.000022
65500.0	57.8	-60.3	-0.	94.6	568.1	118.4	14.5	1.000021
66000.0	56.4	-60.1	-0.	92.2	568.4	117.6	13.1	1.000021
66500.0	55.0	-59.8	-0.	89.9	568.7	110.8	12.3	1.000020
67000.0	53.7	-59.6	-0.	87.6	569.1	104.6	11.6	1.000020
67500.0	52.4	-59.3	-0.	85.4	569.4	102.5	12.1	1.000019
68000.0	51.1	-59.0	-0.	83.2	569.7	100.5	12.5	1.000019
68500.0	49.9	-58.8	-0.	81.1	570.1	102.8	14.7	1.000018
69000.0	48.7	-58.5	-0.	79.1	570.4	105.9	17.2	1.000018
69500.0	47.5	-58.3	-0.	77.1	570.8	107.1	18.8	1.000017
70000.0	46.4	-58.0	-0.	75.1	571.1	107.2	19.8	1.000017
70500.0	45.3	-57.8	-0.	73.2	571.4	107.3	20.4	1.000016
71000.0	44.2	-57.5	-0.	71.4	571.8	107.6	20.1	1.000016
71500.0	43.1	-57.3	-0.	69.6	572.1	107.7	19.7	1.000015
72000.0	42.1	-57.0	-0.	67.8	572.4	103.8	19.0	1.000015
72500.0	41.1	-56.8	-0.	66.1	572.8	99.8	18.2	1.000015
73000.0	40.1	-56.5	-0.	64.4	573.1	116.5	15.4	1.000014
73500.0	39.1	-56.9	-0.	63.0	572.7	138.9	12.1	1.000014
74000.0	38.2	-57.2	-0.	61.6	572.2	137.3	12.3	1.000014
74500.0	37.3	-57.6	-0.	60.3	571.7	112.5	16.0	1.000013
75000.0	36.4	-58.0	-0.	58.9	571.2	95.0	18.4	1.000013
75500.0	35.5	-58.4	-0.	57.6	570.7	93.7	17.8	1.000013
76000.0	34.7	-58.4	-0.	56.3	570.7	91.6	18.5	1.000013
76500.0	33.9	-57.7	-0.	54.8	571.5	85.0	25.2	1.000012
77000.0	33.1	-57.1	-0.	53.3	572.3	78.7	31.6	1.000012
77500.0	32.3	-56.5	-0.	51.9	573.2	81.6	25.8	1.000012
78000.0	31.5	-55.8	-0.	50.6	574.0	84.5	20.1	1.000011

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

STATION ALTITUDE 3989.0 FFFY MSL
 15 SEPT. 67 0041 HRS MDT
 ASCENSION NO. 746
 UPPER AIR DATA
 0260003903
 WHITE SANDS SITE
 TABLE X (Cont)
 WSTM SITE COORDINATES
 E 488,580 FEET
 N 185,045 FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
78500.0	30.8	-55.2	-0.	49.2	574.8	84.7	20.5	1.000011
79000.0	30.1	-54.6	-0.	47.9	575.7	84.6	21.6	1.000011
79500.0	29.4	-54.3	-0.	46.8	576.0	83.9	20.8	1.000010
80000.0	28.7	-54.1	-0.	45.7	576.3	83.0	19.2	1.000010
80500.0	28.1	-53.9	-0.	44.6	576.5	81.8	17.5	1.000010
81000.0	27.4	-53.7	-0.	43.5	576.8	80.5	15.5	1.000010
81500.0	26.8	-53.5	-0.	42.5	577.0	79.0	13.9	1.000009
82000.0	26.2	-53.3	-0.	41.5	577.3	77.1	12.7	1.000009
82500.0	25.6	-53.1	-0.	40.5	577.6	75.2	11.8	1.000009
83000.0	25.0	-52.9	-0.	39.6	577.8	73.4	13.1	1.000009
83500.0	24.4	-52.7	-0.	38.6	578.1	71.6	14.3	1.000009
84000.0	23.9	-52.6	-0.	37.7	578.3	76.6	15.3	1.000008
84500.0	23.3	-52.4	-0.	36.8	578.6	82.4	16.3	1.000008
85000.0	22.8	-52.2	-0.	35.9	578.8	86.2	17.8	1.000008
85500.0	22.3	-52.0	-0.	35.1	579.1	89.0	19.6	1.000008
86000.0	21.8	-51.8	-0.	34.3	579.4	93.5	20.0	1.000008
86500.0	21.3	-51.6	-0.	33.4	579.6	99.8	18.6	1.000007
87000.0	20.8	-51.4	-0.	32.7	579.9	103.2	17.7	1.000007
87500.0	20.3	-51.2	-0.	31.9	580.1	97.0	18.4	1.000007
88000.0	19.8	-51.0	-0.	31.1	580.4	90.8	19.1	1.000007
88500.0	19.4	-50.8	-0.	30.4	580.6	91.3	19.2	1.000007
89000.0	19.0	-50.6	-0.	29.7	580.9	91.9	19.2	1.000007
89500.0	18.5	-50.4	-0.	29.0	581.2	92.0	19.1	1.000006
90000.0	18.1	-50.2	-0.	28.3	581.4	92.0	18.8	1.000006
90500.0	17.7	-50.0	-0.	27.6	581.7	98.7	16.2	1.000006
91000.0	17.3	-49.8	-0.	27.0	581.9	110.6	17.1	1.000006
91500.0	16.9	-49.6	-0.	26.3	582.2	120.5	16.1	1.000006
92000.0	16.5	-49.4	-0.	25.7	582.4	126.6	15.0	1.000006
92500.0	16.1	-49.2	-0.	25.1	582.7	131.3	14.0	1.000006
93000.0	15.8	-49.0	-0.	24.5	583.0	125.6	14.1	1.000005

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

STATION ALTITUDE 3989.0 FEET MSL
15 SEPT. 67
ASCENSION NO. 746

UPPER AIR DATA
0260003903
WHITE SANDS SITE
TABLE X (Cont)

WSM SITE COORDINATES
E 488.580 FEET
N 185.045 FEET

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 (TN)	SPEED KNOTS	INDEX OF REFRACTION
93500.0	15.4	-48.8	-0.	23.9	583.2	119.9	14.2	1.000005
94000.0	15.0	-48.6	-0.	23.3	583.5	120.9	15.0	1.000005
94500.0	14.7	-48.4	-0.	22.8	583.7	122.7	15.9	1.000005
95000.0	14.4	-48.2	-0.	22.3	584.0	122.9	15.9	1.000005
95500.0	14.0	-48.0	-0.	21.7	584.2	122.4	15.4	1.000005
96000.0	13.7	-47.8	-0.	21.2	584.5	121.8	14.8	1.000005
96500.0	13.4	-47.6	-0.	20.7	584.7	120.9	14.1	1.000005
97000.0	13.1	-47.4	-0.	20.2	585.0	117.5	13.7	1.000005
97500.0	12.8	-47.2	-0.	19.7	585.3	105.4	14.3	1.000004
98000.0	12.5	-47.0	-0.	19.3	585.5	93.3	14.8	1.000004
98500.0	12.2	-46.8	-0.	18.8	585.8	91.5	17.4	1.000004
99000.0	11.9	-46.6	-0.	18.4	586.0	89.7	20.0	1.000004
99500.0	11.7	-46.4	-0.	17.9	586.3	91.0	20.8	1.000004
100000.0	11.4	-46.2	-0.	17.5	586.5	93.1	21.1	1.000004
100500.0	11.1	-46.1	-0.	17.1	586.8	94.5	21.9	1.000004
101000.0	10.9	-45.9	-0.	16.7	587.0	95.3	22.9	1.000004
101500.0	10.6	-45.7	-0.	16.3	587.3	96.0	23.9	1.000004
102000.0	10.4	-45.5	-0.	15.9	587.5	98.7	23.6	1.000004
102500.0	10.2	-45.3	-0.	15.5	587.8	101.4	23.3	1.000003
103000.0	9.9	-45.1	-0.	15.2	588.1	104.2	22.9	1.000003
103500.0	9.7	-44.9	-0.	14.8	588.3	105.8	23.3	1.000003
104000.0	9.5	-44.7	-0.	14.5	588.6	107.4	23.7	1.000003
104500.0	9.3	-44.3	-0.	14.1	589.0	109.0	24.1	1.000003
105000.0	9.1	-43.9	-0.	13.8	589.6	110.8	23.2	1.000003
105500.0	8.9	-43.4	-0.	13.4	590.2	112.6	22.3	1.000003
106000.0	8.7	-43.0	-0.	13.1	590.7	114.4	21.3	1.000003
106500.0	8.5	-42.5	-0.	12.8	591.3	116.7	20.5	1.000003
107000.0	8.3	-42.1	-0.	12.5	591.9	119.0	19.8	1.000003
107500.0	8.1	-41.7	-0.	12.2	592.4	121.4	19.0	1.000003
108000.0	7.9	-41.2	-0.	11.9	593.0	124.9	18.2	1.000003

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

STATION ALTITUDE 3989.0 FEET MSL
15 SEPT. 67 0041 HRS MDT
ASCENSION NO. 746

UPPER AIR DATA
02600003903
WHITE SANDS SITE
TABLE X (Cont)

WSTM SITE COORDINATES
E 488+580 FEET
N 185+045 FEET

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(TN)	SPEED KNOTS	INDEX OF REFRACTION
108500.0	7.8	-40.9	-0. **	11.6	593.4	128.7	17.3	1.0000003
109000.0	7.6	-40.9	-0. **	11.4	593.5	132.5	16.4	1.0000003
109500.0	7.4	-40.8	-0. **	11.1	593.5	136.3	15.7	1.0000002
110000.0	7.3	-40.8	-0. **	10.9	593.6	140.0	15.0	1.0000002
110500.0	7.1	-40.7	-0. **	10.6	593.6	143.7	14.3	1.0000002
111000.0	6.9	-40.7	-0. **	10.4	593.6	144.9	12.9	1.0000002
111500.0	6.8	-40.7	-0. **	10.2	593.7	144.0	10.8	1.0000002
112000.0	6.6	-40.6	-0. **	9.9	593.7	143.1	8.8	1.0000002
112500.0	6.5	-40.6	-0. **	9.7	593.8	141.1	7.1	1.0000002
113000.0	6.4	-40.6	-0. **	9.5	593.8	137.4	6.0	1.0000002
113500.0	6.2	-40.5	-0. **	9.3	593.9	133.8	4.8	1.0000002
114000.0	6.1	-40.5	-0. **	9.1	593.9	126.0	4.1	1.0000002
114500.0	5.9	-40.5	-0. **	8.9	594.0	108.3	4.1	1.0000002
115000.0	5.8	-40.4	-0. **	8.7	594.0	90.6	4.1	1.0000002
115500.0	5.7	-40.4	-0. **	8.5	594.1	78.0	4.6	1.0000002
116000.0	5.6	-40.3	-0. **	8.3	594.1	89.7	7.0	1.0000002
116500.0	5.4	-40.3	-0. **	8.1	594.2	101.4	9.4	1.0000002
117000.0	5.3	-40.1	-0. **	8.0	594.5	112.5	11.8	1.0000002
117500.0	5.2	-39.7	-0. **	7.8	594.9	111.4	12.8	1.0000002
118000.0	5.1	-39.4	-0. **	7.6	595.3	110.2	13.7	1.0000002
118500.0	5.0	-39.1	-0. **	7.4	595.7	109.0	14.7	1.0000002
119000.0	4.9	-38.7	-0. **	7.2	596.2			1.0000002
119500.0	4.8	-38.4	-0. **	7.1	596.6			1.0000002
120000.0	4.7	-38.1	-0. **	6.9	597.0			1.0000002
120500.0	4.6	-37.7	-0. **	6.8	597.5			1.0000001
121000.0	4.5	-37.4	-0. **	6.6	597.9			1.0000001
121500.0	4.4	-37.0	-0. **	6.4	598.3			1.0000001

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

STATION ALTITUDE 3989.0 FEET MSL
15 SEPT. 67 0041 HRS MDT
ASCENSION NO. 746

MANDATORY LEVELS
0260003903
WHITE SANDS SITE
TABLE XI

WSTM SITE COORDINATES
E 488,580 FEET
N 185,045 FEET

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4958.	20.0	9.3	50.	158.3	11.3
800.0	6667.	17.1	5.8	47.	132.2	17.4
750.0	8461.	12.9	3.1	51.	152.4	12.8
700.0	10350.	8.4	0.1	56.	153.0	5.7
650.0	12344.	3.6	-3.3	61.	3.7	5.6
600.0	14454.	-3.0	-6.0	80.	331.9	11.1
550.0	16491.	-8.3	-11.4	79.	312.7	11.0
500.0	19112.	-10.7	-25.3	29.	44.6	4.0
450.0	21741.	-16.8	-30.1	31.	251.7	8.7
400.0	24609.	-22.8	-29.8	53.	246.4	21.7
350.0	27777.	-30.0	-34.8	64.	242.8	27.3
300.0	31318.	-38.4	-45.1	50.	238.0	34.1
250.0	35366.	-45.8	-58.7	22.**	241.9	52.9
200.0	40141.	-55.1	0.	-0.**	247.7	43.1
175.0	42924.	-57.9	0.	-0.**	255.3	25.0
150.0	46071.	-63.5	0.	-0.**	256.3	27.0
125.0	49711.	-67.7	0.	-0.**	265.2	29.2
100.0	54123.	-66.0	0.	-0.**	270.0	23.6
80.0	58590.	-63.7	0.	-0.**	86.9	8.4
70.0	61287.	-62.3	0.	-0.**	62.8	3.0
60.0	64422.	-60.7	0.	-0.**	113.8	15.4
50.0	68161.	-58.8	0.	-0.**	102.1	14.1
40.0	72782.	-56.5	0.	-0.**	118.1	15.2
30.0	78757.	-54.5	0.	-0.**	84.5	21.8
25.0	82602.	-52.9	0.	-0.**	73.6	12.9
20.0	87344.	-51.0	0.	-0.**	94.3	18.7
15.0	93518.	-48.6	0.	-0.**	120.7	14.9
10.0	102336.	-45.1	0.	-0.**	103.3	23.0
7.0	110241.	-40.7	0.	-0.**	145.2	13.6
5.0	117769.	-30.1	0.	-0.**	109.2	14.5

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

RELEASE TIME (MDT)		SECOND-STAGE IMPACT DISPLACEMENT IN MILES DUE TO WIND										AZI- MUTH (DEG- REES)	THEORETICAL IMPACT FROM LAUNCHER (IN MILES)		
		12-216 FT				216-4210 FT				TOTAL					
		N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W						
RAWIN- SONDE	YTBAL										RANGE				
2130	2230	7.1S	10.5E	11.8S	16.9E	6.6S	16.0W	11.4E	25.5S	11.4E	018.2	63.2	60.0N	19.7E	
2130	2300	11.8S	8.3E	16.8S	16.6E	6.6S	16.0W	8.9E	35.2S	8.9E	018.9	53.2	50.3N	17.2E	
2130	2350	4.7S	8.7E	12.5S	6.9E	6.6S	16.0W	0.4W	23.8S	0.4W	007.3	62.2	61.7N	7.9E	
2130	0001	7.1S	3.7E	13.0S	4.0E	6.6S	16.0W	8.3W	26.7S	8.3W	360.0	58.0	58.8N	0.0	
2130	0005	5.6S	3.1E	11.9S	0.4E	6.6S	16.0W	12.5W	24.1S	12.5W	355.1	61.5	61.4N	4.2W	
2130	0012	5.8S	3.4E	12.9S	3.3E	6.6S	16.0W	9.3W	25.3S	9.3W	359.1	60.2	60.2N	1.0W	
2130	0020	5.9S	2.3E	12.0S	5.0E	6.6S	16.0W	10.5W	24.5S	10.5W	357.9	61.0	61.0N	2.2W	
2130	0041	8.3S	2.6E	13.6S	6.7E	6.6S	16.0W	6.7W	28.5S	6.7W	001.6	57.0	57.0N	1.6E	
0041	0041	8.3S	2.6E	13.6S	6.7E	9.5S	16.2W	6.9W	31.4S	6.9W	001.5	54.1	54.1N	1.4E	

LAUNCHER SETTING (ELEVATION 82.9 DEGREES QE)	NO WIND IMPACT	PREDICTED SECOND-STAGE IMPACT	SECOND-STAGE IMPACT, RADAR TRACK	PREDICTED BOOSTER IMPACT	ACTUAL BOOSTER IMPACT	AZI- MUTH (DEG- REES)	MILES FROM LAUNCHER		
							RANGE	N-S	E-W
LAUNCHER SETTING (ELEVATION 82.9 DEGREES QE)	NO WIND IMPACT	PREDICTED SECOND-STAGE IMPACT	SECOND-STAGE IMPACT, RADAR TRACK	PREDICTED BOOSTER IMPACT	ACTUAL BOOSTER IMPACT	008.0	86.3	85.5N	12.0E
						005.6	85.9	85.5N	8.3E
						360.0	60.0	60.0N	0.0
						360.0	68.6	68.6N	0.0
						005.0	1.3	1.3N	0.1E
						N/A	N/A	N/A	N/A

TABLE XII. IMPACT PREDICTION DATA
NIKE-HYPAC STV (SR-060)

UNCLASSIFIED

Security Classification

DOCUMENT CONTROL DATA - R&D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author) U.S. Army Electronics Command Ft. Monmouth, New Jersey		2a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	
		2b. GROUP	
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11. SUPPLEMENTARY NOTES		12. SPONSORING MILITARY ACTIVITY U.S. Army Electronics Command Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico	
13. ABSTRACT Meteorological data gathered for the launching of Nike-Hydrac STV (SR-060) are presented for the Ballistic Systems Division U.S. Air Force and for ballistic studies. The data appear, along with calculated ballistic data, in tabular form.			

DD FORM 1473
1 JAN 64

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Security Classification

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Security Classification

KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
1. Ballistics						
2. Meteorology						
3. Wind						

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