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METEOROLOGICAL DATA REPORT

NIKE-HYDAC STV 96
(28 August 1970)

BY

LEN E. CARTER

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

METEOROLOGICAL DATA REPORT

NIKE-HYDAC STV 96
(28 August 1970)

By

Len E. Carter

DR-559

September 1970

DA Task 1T665702D127-02

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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ABSTRACT

Meteorological data gathered for the launching of Nike-Hydrac-STV 96 are presented for the Space and Missile Systems Organization, AFMDC, Holloman Air Force Base, New Mexico and for ballistic studies. The data appear, along with calculated ballistic data, in tabular form.

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INTRODUCTION

Nike-Hydac STV 96 was launched from Launch Complex 33, L-361, White Sands Missile Range (WSMR), New Mexico, at 2200 hours MDT, 28 August 1970.

Meteorological data used in conjunction with theoretical calculations to predict rocket impact were collected by the Meteorological Support Technical Area, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. Ballistics Meteorologists for this firing were George M. Fugate and 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 4,000 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 4,000 to 100,000 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 wind-weighting values as a function of altitude were provided by the Atmospheric Sciences Laboratory (ASL) and are the basis for the data appearing in Table I.

REFERENCES

1. Jacobs, W. N., May 1968: "Automatic pibal tracking system." Rep. No. ECOM-5196, U. S. Army Electronics Command, Atmospheric Sciences Laboratory, White Sands Missile Range, N. Mex. (AD 674 180)
2. Kubinski, S. F., April 1967: "A comparative evaluation of the automatic tracking pilot-balloon wind measuring system." Rep. No. ECOM-5121, U. S. Army Electronics Command, Atmospheric Sciences Laboratory, White Sands Missile Range, N. Mex. (AD 654 991)
3. Walter, E. L., June 1962: "Six-variable ballistic model for a rocket." Rep. No. MM-445, U. S. Army Signal Missile Support Agency, Missile Meteorology Division, White Sands Missile Range, N. Mex.
4. Seagraves, M. A., B. Butler, September 1968: "Performance characteristics and wind effects for the Aerobee 150 with VAM booster." Rep. No. ECOM-5209, U. S. Army Electronics Command, Atmospheric Sciences Research Office, White Sands Missile Range, N. Mex. (AD 680 175)

PAYLOAD	285	Pounds
CORIOLIS DISPLACEMENT	WEST 3.1	Miles
SECOND-STAGE IGNITION	TIME 13	Seconds
	ALTITUDE 25,800	Feet MSL
PEAK	TIME 206	Seconds
	ALTITUDE 579,051	Feet MSL
UNIT WIND EFFECT	RANGE 1.78	Miles/MPH
	CROSS 1.84	Miles/MPH
TOWER TILT EFFECT	10.34	Miles/Degree

TABLE I. THEORETICAL ROCKET PERFORMANCE VALUES
NIKE-HYDAC STV 96

LAYERS IN FEET ABOVE GROUND	BALLISTIC FACTORS
9- 68	.162
68- 108	.079
108- 148	.051
148- 184	.048
184- 216	.035
216- 300	.074
300- 400	.065
400- 600	.084
600- 800	.055
800-1000	.040

LAYERS IN FEET ABOVE GROUND	BALLISTIC FACTORS
1000- 1400	.060
1400- 2000	.054
2000- 2500	.031
2500- 3000	.015
3000- 3500	.013
3500- 4270	.003
4270- 6000	-.005
6000- 11000	-.013
11000- 16000	-.012
16000- 22200	-.016

LAYERS IN FEET ABOVE GROUND	BALLISTIC FACTORS
22200-24000	.041
24000-26000	.031
26000-31000	.047
31000-36000	.026
36000-41000	.016
41000-46000	.011
46000-53200	.005

TABLE II. BALLISTIC FACTORS
NIKE-HYDAC STV 96

LAYERS IN FEET ABOVE GROUND	MEAN WIND COMPONENTS IN MILES PER HOUR											
	2000 ¹ MDT		2030 ² MDT		2100 ³ MDT		2110 ⁴ MDT		2120 ⁵ MDT		2130 ⁶ MDT	
	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W
160-200	8 QS	1.0E	2.0S	2.0W	2.0S	3.0W	3.0S	2.0W	3.0S	3.0S	0.0	1.0W
200-250	8.0	1.0	3.0	1.0E	2.0	2.0	4.0	0.0	4.0	4.0	2.0E	0.0
250-350	8.0	2.0	6.0	2.0	3.0	2.0	6.0	0.0	7.0	4.0	2.0	0.0
350-450	8.0	2.0	8.0	3.0	5.0	2.0	7.0	1.0W	1.0	6.0	0.0	2.0W
450-550	8.0	2.0	9.0	4.0	6.0	2.0	8.0	0.0	8.0	6.0	0.0	1.0

TABLE III TOWER WIND DATA
NIKE-HYDAC STV 96

LAYERS IN FEET ABOVE GROUND	MEAN WIND COMPONENTS MILES PER HOUR					
	7		8		9	
	2140 MDT		2150 MDT		2200 MDT	
	N-S	E-W	N-S	E-W	N-S	E-W
160-200	2.0S	2.0W	0.0	1.0W	4.0S	1.0E
200-250	3.0	0.0	4.0S	0.0	4.0	0.0
250-350	2.0	0.0	5.0	0.0	4.0	0.0
350-450	6.0	3.0W	4.0	2.0W	2.0	2.0W
450-550	7.0	2.0	2.0	2.0	2.0	2.0

TABLE III. TOWER WIND DATA (CONT)
NIKE-HYDAC STV 96

LAYERS IN FEET ABOVE GROUND	MEAN WIND COMPONENTS IN MILES PER HOUR											
	1 2000 MDT		2 2030 MDT		3 2100 MDT		4 2110 MDT		5 2120 MDT		6 2130 MDT	
	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W
216-300	7.0S	3.5E	7.0S	3.5E	5.5S	1.5W	7.5S	0.5E	7.5S	0.0	6.0S	1.0W
300-400	6.0	7.5	7.0	4.0	6.5	0.5	7.0	0.5W	6.0	1.5W	5.5	2.0
400-600	8.5	3.5	11.0	4.0	9.0	0.5	9.0	3.5	7.0	3.0	8.0	3.0
600-800	10.0	3.0	12.0	4.0	11.5	2.5	11.0	3.5	10.0	2.0	9.5	3.0
800-1000	9.5	5.0	10.5	5.0	10.5	4.0	10.5	2.5	10.0	1.5	9.5	2.0
1000-1400	11.0	5.5	11.0	6.0	11.5	2.5	11.5	0.5	10.5	0.5	10.0	1.5
1400-2000	10.0	4.0	12.0	7.5	11.0	1.0	11.0	2.0E	11.5	1.0E	9.0	0.0
2000-2500	10.5	4.0	11.5	6.5	12.0	2.0E	11.0	3.0	11.5	2.5	10.0	3.5E
2500-3000	9.5	5.5	11.5	6.0	11.0	3.0	11.0	5.0	11.0	4.5	11.0	5.5
3000-3500	10.0	4.0	12.0	7.0	10.0	3.0	10.0	5.5	10.0	5.0	10.0	6.0
3500-4000	10.0	4.0	11.0	6.0	10.0	3.0	9.5	6.0	9.5	5.0	10.5	6.0

TABLE IV. PILOT-BALLOON-MEASURED WIND DATA
NIKE-HYDAC STV 96

LAYERS IN FEET ABOVE GROUND	MEAN WIND COMPONENTS MILES PER HOUR							
	7		8		9		9	
	2140 MDT		2150 MDT		2200 MDT		2200 MDT	
	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W
216-300	6.5S	3.5W	2.5S	2.5W	1.0S	1.0W	1.0S	1.0W
300-400	4.0	4.5	3.0	4.5	1.5	1.5	1.5	1.5
400-600	6.0	4.0	4.5	4.0	3.5	2.0	3.5	2.0
600-800	8.0	4.0	6.0	2.5	7.5	1.0	7.5	1.0
800-1000	9.5	3.0	8.5	3.0	9.0	1.5	9.0	1.5
1000-1400	9.0	2.0	8.0	3.0	8.5	2.0	8.5	2.0
1400-2000	10.0	1.5	10.0	0.0	9.5	1.5E	9.5	1.5E
2000-2500	10.0	2.0E	10.0	2.5E	10.5	3.0	10.5	3.0
2500-3000	11.0	3.5	10.5	5.0	12.0	5.5	12.0	5.5
3000-3500	11.0	4.5	8.5	6.0	12.0	7.0	12.0	7.0
3500-4000	11.5	6.0	10.0	6.0	12.0	6.0	12.0	6.0

TABLE IV. PILOT-BALLOON-MEASURED WIND DATA (CONT)
NIKE-HYDAC STV 96

LAYERS IN FEET ABOVE GROUND	MEAN WIND COMPONENTS IN KNOTS					
	1900 MDT		2200 MDT			
	N-S	E-W	N-S	E-W	N-S	E-W
4270-6000	7.0S	6.0E	7.0S	4.0E	7.0S	4.0E
6000-11000	0.0	12.0	0.0	11.0	0.0	11.0
11000-16000	2.0S	2.5	0.0	7.0	0.0	7.0
16000-22200	1.5	9.0	2.5S	7.0	2.5S	7.0
22200-24000	1.0N	7.0	2.5N	8.0	2.5N	8.0
24000-26000	4.5	4.0	5.0	6.0	5.0	6.0
26000-31000	11.0	6.5	12.0	7.0	12.0	7.0
31000-36000	15.5	9.0	13.5	15.5	13.5	15.5
36000-41000	19.5	7.0	17.5	14.5	17.5	14.5
41000-46000	14.0	2.5	16.0	6.0	16.0	6.0
46000-53200	2.0	12.0	5.0S	9.5	5.0S	9.5

TABLE V RAWINSONDE-MEASURED WIND DATA
NIKE-HY AC STV 96

STATION ALTITUDE 7000 FT
 28 AUG. 70 1900 HRS MIDT
 ASCENSION NO. 785

SIGNIFICANT LEVEL DATA
 2400020769
 WHITE SANDS

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

TABLE VI

PRESSURE MILLIBARS	DELMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT
877.1	3989.0	31.8	2.9	16.0
637.0	12994.8	6.1	-12.5	25.0
603.0	14467.7	5.0	-20.4	14.0
509.0	18950.3	-2.1	-26.1	14.0
440.0	22655.6	-10.5	-30.9	17.0
310.0	31215.0	-30.9	-44.6	25.0
277.0	33805.7	-38.0	-46.1	43.0
261.0	35147.1	-40.8	-50.2	36.0
184.0	42708.8	-57.0		
141.0	48115.6	-68.4		
130.0	49712.7	-70.7		
115.0	52092.3	-73.7		
110.0	52956.5	-70.1		
97.0	55422.1	-70.4		
87.0	57585.5	-64.4		
68.0	62578.7	-62.6		
59.0	65504.4	-57.5		
35.0	76442.9	-55.7		
30.0	79717.9	-51.8		
21.0	87377.3	-51.1		
9.5	104781.6	-42.5		
6.8	112346.1	-37.8		

UPPER AIR DATA
 2400020769
 WHITE SANDS

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

STATION ALTITUDE 3585.00 FEET MSL
 28 AUG. 70 1900 HRS MDT
 ASCENSION NO. 769

TABLE VII

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
3989.0	677.1	31.8	2.9	16.0	998.9	681.1	180.0	4.1	1.000253
4000.0	676.8	31.8	2.9	16.0	998.6	681.0	179.9	4.1XX	1.000253
4500.0	661.3	30.3	2.2	16.5	985.7	679.4	174.5	4.4XX	1.000249
5000.0	646.2	28.9	1.5	17.0	973.1	677.8	169.0	4.7XX	1.000245
5500.0	631.3	27.5	0.7	17.5	960.6	676.1	163.6	5.0XX	1.000241
6000.0	616.6	26.1	-0.1	18.0	948.3	674.5	158.2	5.3XX	1.000237
6500.0	602.3	24.6	-0.9	18.5	936.1	672.8	152.7	5.6XX	1.000233
7000.0	788.1	23.2	-1.7	19.0	924.2	671.2	147.3	5.9XX	1.000229
7500.0	774.3	21.8	-2.5	19.5	912.4	669.5	141.9	6.2XX	1.000225
8000.0	760.6	20.4	-3.3	20.0	900.8	667.9	136.5	6.5XX	1.000222
8500.0	747.3	18.9	-4.2	20.5	889.4	666.2	131.0	6.8XX	1.000218
9000.0	734.1	17.5	-5.1	21.0	878.1	664.5	125.6	7.1XX	1.000214
9500.0	721.2	16.1	-6.0	21.5	867.0	662.9	120.2	7.4XX	1.000211
10000.0	708.5	14.6	-6.8	22.0	856.0	661.2	114.7	7.7XX	1.000207
10500.0	696.0	13.2	-7.8	22.5	845.3	659.5	109.3	8.0XX	1.000204
11000.0	683.8	11.8	-8.7	23.0	834.6	657.9	103.9	8.3XX	1.000201
11500.0	671.7	10.4	-9.6	23.5	824.1	656.2	98.5	8.6XX	1.000198
12000.0	659.9	8.9	-10.6	24.0	813.8	654.5	93.0	8.9XX	1.000194
12500.0	648.3	7.5	-11.5	24.5	803.6	652.8	87.6	9.2XX	1.000191
13000.0	636.9	6.1	-12.5	25.0	793.5	651.1	82.2	9.5XX	1.000188
13500.0	625.1	5.7	-14.8	21.2	780.1	650.6	76.8	9.8XX	1.000183
14000.0	613.6	5.3	-17.5	17.5	766.9	650.1	71.3	10.2XX	1.000178
14500.0	602.3	4.9	-20.4	14.0	754.0	649.6	65.9	10.5XX	1.000174
15000.0	591.0	4.2	-21.0	14.0	742.0	648.7	61.9	9.2	1.000171
15500.0	579.9	3.4	-21.7	14.0	730.2	647.7	74.0	7.6	1.000168
16000.0	569.1	2.6	-22.3	14.0	718.6	646.8	81.7	6.2	1.000165
16500.0	558.4	1.8	-23.0	14.0	707.2	645.8	94.8	5.1	1.000162
17000.0	547.9	1.0	-23.6	14.0	696.0	644.9	112.4	4.5	1.000160
17500.0	537.7	0.2	-24.2	14.0	684.9	644.0	122.0	4.1	1.000157
18000.0	527.6	-0.6	-24.9	14.0	674.1	643.0	130.3	3.7	1.000154

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

UPPER AIR DATA
 2400020769
 WHITE SANDS
 WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

STATION ALTITUDE 3585
 28 AUG. 70 1900 HRS MDT
 ASCENSION NO. 155

TABLE VII (Cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
18500.0	517.7	-1.4	14.0	663.4	642.1	138.5	3.3	1.000152
19000.0	508.0	-2.2	14.0	652.9	641.1	146.7	3.0	1.000149
19500.0	498.2	-3.3	14.4	643.0	639.8	157.2	2.5	1.000147
20000.0	488.6	-4.5	14.8	633.3	638.4	175.0	2.0	1.000144
20500.0	479.2	-5.6	15.2	623.7	637.1	180.1	1.7	1.000142
21000.0	470.0	-6.7	15.6	614.3	635.7	166.2	2.1	1.000140
21500.0	460.9	-7.8	16.0	605.0	634.4	134.2	4.3	1.000138
22000.0	452.1	-8.9	16.4	595.9	633.1	123.1	6.1	1.000135
22500.0	443.4	-10.1	16.8	586.9	631.7	114.0	7.5	1.000133
23000.0	434.5	-11.2	17.3	577.8	630.3	105.2	8.6	1.000131
23500.0	425.7	-12.4	17.8	568.7	628.8	98.3	9.1	1.000129
24000.0	417.0	-13.6	18.2	559.7	627.4	92.6	9.7	1.000127
24500.0	408.5	-14.8	18.7	550.8	625.9	89.1	10.4	1.000125
25000.0	400.2	-16.0	19.2	542.1	624.5	87.3	10.3	1.000123
25500.0	392.1	-17.2	19.6	533.6	623.0	86.2	9.9	1.000121
26000.0	384.1	-18.4	20.1	525.2	621.6	83.3	9.0	1.000119
26500.0	376.3	-19.6	20.6	517.0	620.1	79.5	8.1	1.000117
27000.0	368.6	-20.8	21.0	508.9	618.6	73.9	7.1	1.000115
27500.0	361.1	-22.0	21.5	500.9	617.1	66.5	6.6	1.000113
28000.0	353.8	-23.2	22.0	493.1	615.7	58.0	6.4	1.000111
28500.0	346.6	-24.4	22.5	485.4	614.2	49.6	5.4	1.000109
29000.0	339.6	-25.6	22.9	477.8	612.7	41.3	4.6	1.000107
29500.0	332.6	-26.8	23.4	470.4	611.2	33.9	5.2	1.000106
30000.0	325.9	-28.0	23.9	463.1	609.7	28.2	5.8	1.000104
30500.0	319.2	-29.2	24.3	455.9	608.2	26.9	6.5	1.000102
31000.0	312.8	-30.4	24.8	448.8	606.7	27.1	7.7	1.000101
31500.0	306.2	-31.7	27.0	441.7	605.1	29.9	9.9	1.000099
32000.0	299.6	-33.1	30.5	434.7	603.4	30.5	11.5	1.000098
32500.0	293.2	-34.4	33.9	427.8	601.7	28.6	12.6	1.000096
33000.0	286.9	-35.8	37.4	421.0	599.9	28.3	13.7	1.000094

UPPER AIR DATA
2400020769
WHITE SANDS

STATION ALTITUDE 3989.0 FT MSL
28 AUG. 70 1900 HRS MDT
ASCENSION NO. 769

WSTM SITE COORDINATES
488580.00 FEET E
185045.00 FEET N

TABLE VII (Cont)

GEOMETRIC ALTITUDE MSL 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
33500.0	280.7	-37.2	40.9	414.4	598.2	29.0	14.8	1.000093
34000.0	274.6	-38.4	42.0	407.6	596.6	29.1	15.0	1.000091
34500.0	268.6	-39.4	39.4	400.4	595.3	28.9	14.8	1.000090
35000.0	262.7	-40.5	36.8	393.4	594.0	30.1	14.4	1.000088
35500.0	256.8	-41.6	34.3**	386.3	592.6	31.5	13.9	1.000086
36000.0	250.9	-42.6	31.9**	379.2	591.2	31.7	14.3	1.000085
36500.0	245.2	-43.7	29.6**	372.3	589.8	31.7	14.8	1.000083
37000.0	239.6	-44.8	27.2**	365.5	588.5	31.1	15.6	1.000082
37500.0	234.1	-45.8	24.8**	358.8	587.1	30.6	16.6	1.000080
38000.0	228.7	-46.9	22.4**	352.3	585.7	30.3	17.8	1.000079
38500.0	223.5	-48.0	20.0**	345.9	584.3	29.1	18.8	1.000077
39000.0	218.4	-49.1	17.7**	339.6	582.9	26.9	19.6	1.000076
39500.0	213.4	-50.1	15.3**	333.4	581.5	26.4	20.5	1.000074
40000.0	208.5	-51.2	12.9**	327.4	580.1	27.7	21.7	1.000073
40500.0	203.8	-52.3	10.5**	321.4	578.7	28.4	22.3	1.000072
41000.0	199.1	-53.3	8.1**	315.6	577.3	28.4	22.2	1.000070
41500.0	194.6	-54.4	5.8**	309.9	575.9	27.9	21.9	1.000069
42000.0	190.1	-55.5	3.4**	304.3	574.5	26.7	21.3	1.000068
42500.0	185.6	-56.6	1.0**	298.8	573.1	25.1	20.7	1.000067
43000.0	181.4	-57.6		293.2	571.7	23.0	20.1	1.000065
43500.0	177.0	-58.7		287.5	570.3	20.7	19.6	1.000064
44000.0	172.7	-59.7		281.9	568.9	18.0	19.3	1.000063
44500.0	168.5	-60.8		276.4	567.4	15.5	18.9	1.000062
45000.0	164.4	-61.8		271.0	566.0	14.7	17.8	1.000060
45500.0	160.4	-62.9		265.7	564.6	13.9	16.8	1.000059
46000.0	156.5	-63.9		260.6	563.2	10.8	15.6	1.000058
46500.0	152.7	-65.0		255.5	561.8	7.5	14.4	1.000057
47000.0	149.0	-66.0		250.6	560.4	5.5	13.7	1.000056
47500.0	145.3	-67.1		245.8	558.9	4.1	13.2	1.000055
48000.0	141.8	-68.2		241.0	557.5	2.3	13.0	1.000054

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

STATION ALTITUDE 3525.0
 28 AUG. 70 1900 HRS MDT
 ASCENSION NO. 769

UPPER AIR DATA
 2400020769
 WHITE SANDS

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

TABLE VII (Cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
48500.0	128.3	-69.0		235.9	556.4	0.1	13.1	1.000053	
49000.0	124.8	-69.7		230.8	555.4	358.8	13.3	1.000051	
49500.0	131.4	-70.4		225.8	554.4	1.8	13.9	1.000050	
50000.0	128.1	-71.1		220.8	553.5	4.9	14.6	1.000049	
50500.0	124.8	-71.7		215.9	552.7	11.3	14.7	1.000048	
51000.0	121.7	-72.3		211.1	551.8	18.2	14.7	1.000047	
51500.0	118.6	-73.0		206.3	550.9	28.3	14.4	1.000046	
52000.0	115.5	-73.6		201.7	550.1	40.7	13.7	1.000045	
52500.0	112.6	-72.0		195.1	552.2	53.4	13.0	1.000043	
53000.0	109.8	-70.1		188.3	554.8	66.7	11.9	1.000042	
53500.0	107.0	-70.2		183.6	554.8	80.0	10.8	1.000041	
54000.0	104.3	-70.2		179.1	554.7	93.2	10.2	1.000040	
54500.0	101.7	-70.3		174.6	554.6	106.4	9.8	1.000039	
55000.0	99.1	-70.3		170.3	554.5	119.5	9.4	1.000038	
55500.0	96.6	-70.2		165.9	554.7	127.8	8.8	1.000037	
56000.0	94.2	-68.8		160.6	556.6	136.1	8.1	1.000036	
56500.0	91.9	-67.4		155.6	558.5	140.2	7.3	1.000035	
57000.0	89.6	-66.0		150.7	560.4	140.6	6.3	1.000034	
57500.0	87.4	-64.6		146.0	562.3	139.7	5.9	1.000033	
58000.0	85.2	-64.3		142.2	562.8	135.3	6.6	1.000032	
58500.0	83.2	-64.1		138.6	563.0	131.2	7.4	1.000031	
59000.0	81.1	-63.9		135.1	563.3	131.0	7.1	1.000030	
59500.0	79.2	-63.7		131.7	563.5	130.7	6.9	1.000029	
60000.0	77.2	-63.5		128.4	563.8	128.7	7.4	1.000029	
60500.0	75.3	-63.3		125.1	564.0	126.3	7.9	1.000028	
61000.0	73.5	-63.2		122.0	564.2	122.8	8.4	1.000027	
61500.0	71.7	-63.0		118.9	564.5	118.2	8.6	1.000026	
62000.0	70.0	-62.8		115.9	564.7	113.6	8.9	1.000026	
62500.0	68.3	-62.6		113.0	565.0	111.3	10.1	1.000025	
63000.0	66.6	-61.9		109.9	566.0	109.0	11.3	1.000024	

UPPER AIR DATA
 2400020769
 WHITE SANDS

STATION ALTITUDE 5985.
 28 AUG. 70 1900 IRS MDF
 ASCENSION NO. 769

WSIM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

TABLE VII (Cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE					SPEED KNOTS	SPEED KNOTS	
63500.0	65.0	-61.0			106.8	567.2	108.2	108.2	12.0	1.000024
64000.0	63.5	-60.1			103.8	568.3	108.7	108.7	12.3	1.000023
64500.0	61.9	-59.3			100.9	569.5	109.2	109.2	12.5	1.000022
65000.0	60.5	-58.4			98.1	570.6	109.3	109.3	11.9	1.000022
65500.0	59.0	-57.5			95.3	571.8	109.3	109.3	11.2	1.000021
66000.0	57.6	-57.4			93.1	571.9	107.3	107.3	11.6	1.000021
66500.0	56.3	-57.3			90.8	572.0	104.2	104.2	12.5	1.000020
67000.0	54.9	-57.3			88.7	572.1	101.2	101.2	13.5	1.000020
67500.0	53.6	-57.2			86.5	572.2	98.8	98.8	14.6	1.000019
68000.0	52.4	-57.1			84.5	572.3	96.4	96.4	15.7	1.000019
68500.0	51.1	-57.0			82.4	572.5	97.1	97.1	17.5	1.000018
69000.0	49.9	-56.9			80.5	572.6	98.5	98.5	19.4	1.000018
69500.0	48.6	-56.8			78.5	572.7	99.2	99.2	20.7	1.000017
70000.0	47.6	-56.8			76.6	572.8	98.9	98.9	21.0	1.000017
70500.0	46.5	-56.7			74.8	572.9	98.6	98.6	21.4	1.000017
71000.0	45.4	-56.6			73.0	573.0	98.5	98.5	21.9	1.000016
71500.0	44.3	-56.5			71.3	573.1	98.6	98.6	22.5	1.000016
72000.0	43.3	-56.4			69.6	573.2	98.7	98.7	23.0	1.000015
72500.0	42.2	-56.3			67.9	573.3	97.1	97.1	23.1	1.000015
73000.0	41.3	-56.3			66.3	573.4	95.1	95.1	23.1	1.000015
73500.0	40.3	-56.2			64.7	573.5	93.1	93.1	23.1	1.000014
74000.0	39.3	-56.1			63.1	573.7	91.4	91.4	23.0	1.000014
74500.0	38.4	-56.0			61.6	573.8	89.6	89.6	23.0	1.000014
75000.0	37.5	-55.9			60.1	573.9	87.9	87.9	23.0	1.000013
75500.0	36.6	-55.9			58.7	574.0	85.9	85.9	23.2	1.000013
76000.0	35.7	-55.8			57.3	574.1	83.8	83.8	23.6	1.000013
76500.0	34.9	-55.6			55.9	574.3	81.7	81.7	23.9	1.000012
77000.0	34.1	-55.0			54.5	575.1	81.8	81.8	23.8	1.000012
77500.0	33.3	-54.4			53.1	575.8	82.7	82.7	23.4	1.000012
78000.0	32.5	-53.8			51.7	576.6	83.7	83.7	23.1	1.000012

UPPER AIR DATA
 2400020769
 WHITE SANDS

STATION ALTITUDE
 28 AUG. 70
 ASCENSION NU.

1900 HRS
 WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

TABLE VII (Cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE 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	31.8	-53.3		50.3	577.4	84.9	22.5	1.000011
79000.0	31.0	-52.7		49.0	578.2	86.4	21.8	1.000011
79500.0	30.3	-52.1		47.8	579.0	87.9	21.1	1.000011
80000.0	29.6	-51.8		46.6	579.3	88.4	20.4	1.000010
80500.0	28.9	-51.7		45.5	579.4	88.4	19.8	1.000010
81000.0	28.3	-51.7		44.5	579.5	88.4	19.1	1.000010
81500.0	27.6	-51.6		43.4	579.5	85.8	18.6	1.000010
82000.0	27.0	-51.6		42.4	579.6	82.9	18.0	1.000009
82500.0	26.4	-51.5		41.4	579.6	80.8	17.8	1.000009
83000.0	25.7	-51.5		40.5	579.7	82.0	18.9	1.000009
83500.0	25.2	-51.5		39.5	579.8	83.1	20.0	1.000009
84000.0	24.6	-51.4		38.6	579.8	84.1	21.0	1.000009
84500.0	24.0	-51.4		37.7	579.9	85.0	22.0	1.000008
85000.0	23.5	-51.3		36.8	579.9	85.8	23.0	1.000008
85500.0	22.9	-51.3		36.0	580.0	84.3	24.2	1.000008
86000.0	22.4	-51.2		35.2	580.1	82.4	25.4	1.000008
86500.0	21.9	-51.2		34.3	580.1	80.7	26.7	1.000008
87000.0	21.4	-51.1		33.5	580.2	80.1	28.3	1.000007
87500.0	20.9	-51.0		32.8	580.3	79.4	29.8	1.000007
88000.0	20.4	-50.8		32.0	580.6	79.1	30.8	1.000007
88500.0	20.0	-50.5		31.2	581.0	79.2	31.3	1.000007
89000.0	19.5	-50.3		30.5	581.3	79.2	31.3	1.000007
89500.0	19.1	-50.1		29.8	581.6	80.7	33.1	1.000007
90000.0	18.6	-49.8		29.1	581.9	82.6	34.5	1.000006
90500.0	18.2	-49.6		28.4	582.2	84.5	35.9	1.000006
91000.0	17.8	-49.3		27.7	582.6	85.1	35.3	1.000006
91500.0	17.4	-49.1		27.1	582.9	85.7	34.7	1.000006
92000.0	17.0	-48.8		26.4	583.2	86.6	34.4	1.000006
92500.0	16.6	-48.6		25.8	583.5	88.4	34.6	1.000006
93000.0	16.3	-48.3		25.2	583.8	90.1	34.8	1.000006

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

UPPER AIR DATA
2400020769
WHITE SANDS

WSTM SITE COORDINATES
488580.00 FEET E
185045.00 FEET N

STATION ALTITUDE 7000
28 AUG. 70 1900 HRS MDT
ASCENSION NO. 700

TABLE VII (Cont.)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
93500.0	15.9	-48.1		24.6	584.2	92.1	34.5XX	1.000005
94000.0	15.5	-47.8		24.0	584.5	94.6	33.4XX	1.000005
94500.0	15.2	-47.6		23.4	584.8	97.0	32.2XX	1.000005
95000.0	14.8	-47.3		22.9	585.1	98.8	31.3XX	1.000005
95500.0	14.5	-47.1		22.4	585.4	98.9	30.9XX	1.000005
96000.0	14.2	-46.8		21.8	585.8	98.9	30.5XX	1.000005
96500.0	13.9	-46.6		21.3	586.1	99.0	30.1XX	1.000005
97000.0	13.5	-46.3		20.8	586.4	99.0	29.7XX	1.000005
97500.0	13.2	-46.1		20.3	586.7	98.5	29.5XX	1.000005
98000.0	12.9	-45.9		19.8	587.0	97.6	29.5XX	1.000004
98500.0	12.6	-45.6		19.4	587.4	96.7	29.5XX	1.000004
99000.0	12.4	-45.4		18.9	587.7	95.8	29.5XX	1.000004
99500.0	12.1	-45.1		18.5	588.0	94.9	29.6XX	1.000004
100000.0	11.8	-44.9		18.0	588.3	93.6	29.8XX	1.000004
100500.0	11.5	-44.6		17.6	588.6	92.3	30.0XX	1.000004
101000.0	11.3	-44.4		17.2	589.0	90.9	30.3XX	1.000004
101500.0	11.0	-44.1		16.8	589.3	89.8	30.6	1.000004
102000.0	10.8	-43.9		16.4	589.6	88.7	30.9	1.000004
102500.0	10.5	-43.6		16.0	589.9	87.6	31.2	1.000004
103000.0	10.3	-43.4		15.6	590.2	87.5	31.3	1.000003
103500.0	10.1	-43.1		15.3	590.5	88.1	31.2	1.000003
104000.0	9.8	-42.9		14.9	590.9	88.6	31.1	1.000003
104500.0	9.6	-42.6		14.5	591.2	88.2	31.3	1.000003
105000.0	9.4	-42.4		14.2	591.5	86.3	32.0	1.000003
105500.0	9.2	-42.1		13.9	591.9	84.5	32.7	1.000003
106000.0	9.0	-41.7		13.6	592.3	83.3	33.4	1.000003
106500.0	8.8	-41.4		13.2	592.7	84.0	34.4	1.000003
107000.0	8.6	-41.1		12.9	593.1	84.6	35.3	1.000003
107500.0	8.4	-40.8		12.6	593.5	85.2	36.3	1.000003
108000.0	8.2	-40.5		12.3	593.9	84.3	36.0	1.000003

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

UPPER AIR DATA
2400020709
WHITE SANDS

WSTM SITE COORDINATES
485580.00 FEET E
185045.00 FEET N

STATION ALTITUDE 1900 HRS MDT
28 AUG 70
ASCENSION NO.

TABLE VII (Cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED KNOTS	SPEED KNOTS	WIND DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
108500.0	8.1	-40.2	12.1	594.3	83.4	35.8	1.000003	
109000.0	7.9	-39.9	11.8	594.7	82.4	35.5	1.000003	
109500.0	7.7	-39.6	11.5	595.1			1.000003	
110000.0	7.5	-39.3	11.2	595.5			1.000002	
110500.0	7.4	-38.9	11.0	595.9			1.000002	
111000.0	7.2	-38.6	10.7	596.3			1.000002	
111500.0	7.1	-38.3	10.5	596.7			1.000002	
112000.0	6.9	-38.0	10.2	597.1			1.000002	

STATION ALTITUDE 5555.0
 28 AUG. 70 1900 HRS MDT
 ASCENSION NO. 105

MANDATORY LEVELS
 2400020769
 WHITE SANDS

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

TABLE VIII.

PRESSURE EQUIVALENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	4907.	29.3	1.6	17.	170.0	4.6XX	
800.0	6660.	24.4	-1.0	19.	151.0	5.7XX	
750.0	8494.	19.2	-4.0	20.	131.1	6.8XX	
700.0	10418.	13.7	-7.5	22.	110.2	8.0XX	
650.0	12443.	7.7	-11.4	24.	88.1	9.2XX	
600.0	14592.	4.8	-20.5	14.	65.5	10.4	
550.0	16902.	1.1	-23.5	14.	109.5	4.6	
500.0	19397.	-3.1	-26.7	14.	154.2	2.6	
450.0	22102.	-9.2	-30.1	17.	120.8	6.5	
400.0	25052.	-16.1	-34.4	19.	87.2	10.3	
350.0	28302.	-23.8	-39.6	22.	52.3	5.7	
300.0	31929.	-33.0	-44.7	30.	30.6	11.5	
250.0	36045.	-42.8	-53.2	32.**	31.8	14.4	
200.0	40874.	-53.1	-71.8	9.**	28.4	22.2	
175.0	43658.	-59.1			19.3	19.5	
150.0	46780.	-65.7			5.8	13.8	
125.0	50356.	-71.7			11.0	14.7	
100.0	54680.	-70.3			115.0	9.6	
80.0	59110.	-63.8			130.8	7.0	
70.0	61803.	-62.8			113.7	8.9	
60.0	64949.	-58.1			109.3	11.7	
50.0	68731.	-56.9			98.4	19.3	
40.0	73376.	-56.2			92.0	23.1	
30.0	79414.	-51.8			88.4	20.8	
25.0	83295.	-51.4			8.4	20.3	
20.0	88055.	-50.6			79.2	31.3'	
15.0	94252.	-47.5			97.9	31.8XX	
10.0	103132.	-43.1			88.3	31.2	
7.0	111099.	-38.2					

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

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

STATION ALTITUDE 770
 28 AUG. 70 2200 HRS MDT
 ASCENSION NO. 770

SIGNIFICANT LEVEL DATA
 2400020770
 WHITE SANDS

WSTM SITE COORDINATES
 488580.00 FEET E
 165045.00 FEET N

TABLE IX

PRESSURE MILLIBARS	BULMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
878.5	3989.0	21.4	4.5	33.0
869.0	4302.0	28.5	8.8	29.0
864.0	4470.2	28.5	6.0	24.0
775.0	7592.9	20.7	-3.7	19.0
623.0	13594.8	3.4	-9.6	38.0
616.0	13897.2	5.5	-12.5	26.0
608.0	14248.0	5.2	-19.4	15.0
554.0	16727.2	1.9	-22.9	14.0
429.0	23330.6	-12.1	-28.2	25.0
317.0	30687.5	-29.6	-42.1	29.0
254.0	32438.7	-34.5	-42.2	46.0
288.0	32911.8	-36.0	-42.1	54.0
275.0	33963.1	-38.3	-47.0	40.0
255.0	35658.6	-42.4	-50.6	41.0
209.0	39992.4	-52.2		
150.0	46845.3	-65.9		
114.0	52236.7	-73.5		
107.0	53464.2	-71.8		
101.0	54587.7	-71.5		
91.0	56636.4	-68.1		
85.0	57986.6	-68.6		
80.0	59196.4	-64.8		
76.0	60228.8	-65.1		
67.0	62790.9	-60.7		
59.0	65421.2	-57.8		
54.0	67260.8	-59.0		
42.0	72521.2	-54.6		
34.0	76979.1	-55.8		
27.0	81863.5	-52.9		
23.0	85274.9	-54.2		

STATION ALTITUDE 2585
 28 AUG. 70 2200 HRS MDT
 ASCENSION NO. 71

SIGNIFICANT LEVEL DATA
 2400020770
 WHITE SANDS

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

TABLE IX (Cont)

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
16.0	93118.0	-46.1	
11.5	100425.5	-43.9	
9.8	104023.5	-38.9	
6.3	114044.1	-40.2	
4.7	120759.4	-34.4	
4.4	122290.0	-34.6	

STATIC ALTITUDE 2200 HRS MDT
 28 AUG. 70
 ASCENSION NO.

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

TABLE X

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
3585.0	878.5	21.4	33.0	1035.4	669.5	150.0	4.1	1.000267
4000.0	878.2	21.6	32.9	1034.1	669.8	150.1	4.1	1.000268
4500.0	863.1	28.4	24.0	993.1	677.6	153.5	5.3	1.000260
5000.0	848.2	27.2	23.2	980.4	676.0	156.9	6.6	1.000254
5500.0	833.6	25.9	22.4	967.8	674.5	160.4	7.8	1.000247
6000.0	819.2	24.7	21.6	955.4	673.0	163.8	9.1	1.000241
6500.0	805.1	23.4	20.7	943.1	671.5	162.1	9.9	1.000236
7000.0	791.2	22.2	19.9	931.0	670.0	159.3	10.5	1.000231
7500.0	777.5	20.9	19.1	919.0	668.5	160.3	10.6	1.000226
8000.0	763.6	19.5	20.3	907.0	666.9	160.2	10.3	1.000222
8500.0	749.8	18.1	21.9	895.0	665.3	158.9	9.5	1.000220
9000.0	736.3	16.6	23.5	883.3	663.6	154.1	8.6	1.000217
9500.0	723.1	15.2	25.0	871.7	661.9	146.0	7.9	1.000214
10000.0	710.0	13.8	26.6	860.3	660.3	131.7	7.4	1.000211
10500.0	697.2	12.3	28.2	849.1	658.6	120.2	7.9	1.000208
11000.0	684.7	10.9	29.8	838.1	656.9	109.9	8.9	1.000205
11500.0	672.3	9.4	31.4	827.2	655.2	99.8	10.3	1.000202
12000.0	660.2	8.0	33.0	816.5	653.5	91.3	11.6	1.000199
12500.0	648.3	6.6	34.5	806.0	651.8	84.2	12.7	1.000196
13000.0	636.6	5.1	36.1	795.6	650.1	75.8	11.7	1.000193
13500.0	625.2	3.7	37.7	785.4	648.4	70.9	10.7	1.000190
14000.0	613.6	5.4	22.8	766.6	650.3	70.0	9.8	1.000181
14500.0	602.3	4.9	14.9	754.2	649.5	76.1	9.0	1.000174
15000.0	591.1	4.2	14.7	742.0	648.7	83.2	8.6	1.000171
15500.0	580.1	3.5	14.5	730.0	647.9	90.8	9.4	1.000168
16000.0	569.3	2.9	14.3	718.1	647.1	94.1	9.6	1.000165
16500.0	558.7	2.2	14.1	706.5	646.3	95.3	9.4	1.000162
17000.0	548.2	1.3	14.5	695.4	645.3	93.0	8.3	1.000160
17500.0	537.7	0.3	15.3	684.7	644.1	91.4	7.3	1.000157
18000.0	527.4	-0.8	16.1	674.2	642.8	91.8	6.4	1.000155

UPPER AIR DATA
2400020770
WHITE SANDS

WSTM SITE COORDINATES
488580.00 FEET E
185045.00 FEET N

STATION ALTITUDE 29000.0
28 AUG. 70 2200 HRS MDT
ASCENSION NO. 77

TABLE X (Cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE						
18500.0	517.2	-1.9	-23.8	17.0	663.9	641.6	88.1	5.4	1.000152
19000.0	507.3	-2.9	-24.1	17.8	653.7	640.3	82.0	4.3	1.000150
19500.0	497.6	-4.0	-24.5	18.6	643.7	639.0	78.7	3.9	1.000148
20000.0	488.1	-5.0	-24.9	19.5	633.8	637.8	85.5	3.6	1.000145
20500.0	478.7	-6.1	-25.3	20.3	624.2	636.5	103.2	3.4	1.000143
21000.0	469.5	-7.2	-25.8	21.1	614.6	635.2	122.6	3.8	1.000141
21500.0	460.5	-8.2	-26.3	22.0	605.3	634.0	135.4	4.5	1.000139
22000.0	451.7	-9.3	-26.8	22.8	596.1	632.7	137.4	5.6	1.000136
22500.0	443.0	-10.3	-27.3	23.6	587.0	631.4	127.2	5.9	1.000134
23000.0	434.5	-11.4	-27.8	24.4	578.1	630.1	113.6	6.1	1.000132
23500.0	426.0	-12.5	-28.5	25.1	569.2	628.8	101.6	7.5	1.000130
24000.0	417.4	-13.7	-29.4	25.4	560.2	627.4	95.0	8.1	1.000128
24500.0	408.9	-14.9	-30.4	25.6	551.3	625.9	92.7	8.2	1.000126
25000.0	400.5	-16.1	-31.3	25.9	542.6	624.4	90.1	7.7	1.000123
25500.0	392.4	-17.3	-32.2	26.2	534.1	623.0	85.7	6.9	1.000121
26000.0	384.4	-18.4	-33.2	26.5	525.6	621.5	79.5	5.8	1.000119
26500.0	376.6	-19.6	-34.1	26.7	517.4	620.1	70.0	5.9	1.000117
27000.0	368.9	-20.8	-35.0	27.0	509.2	618.6	62.3	6.3	1.000115
27500.0	361.4	-22.0	-36.0	27.3	501.3	617.1	59.9	7.2	1.000113
28000.0	354.0	-23.2	-36.9	27.5	493.4	615.7	58.4	7.7	1.000111
28500.0	346.8	-24.4	-37.9	27.8	485.7	614.2	57.5	7.8	1.000110
29000.0	339.8	-25.6	-38.8	28.1	478.1	612.7	45.6	7.8	1.000108
29500.0	332.9	-26.8	-39.8	28.4	470.6	611.2	33.8	7.9	1.000106
30000.0	326.1	-28.0	-40.8	28.6	463.3	609.8	20.9	8.4	1.000104
30500.0	319.5	-29.2	-41.7	28.9	456.1	608.3	22.5	9.3	1.000103
31000.0	312.8	-30.5	-41.9	32.0	449.0	606.6	20.8	10.4	1.000101
31500.0	306.1	-31.5	-41.9	36.9	442.0	604.9	24.5	11.7	1.000099
32000.0	299.6	-33.3	-42.0	41.7	435.1	603.1	29.0	12.9	1.000098
32500.0	293.2	-34.7	-42.2	47.0	428.3	601.3	30.6	14.0	1.000096
33000.0	286.9	-36.2	-42.5	52.8	421.7	599.4	32.1	15.0	1.000095

STATION ALTITUDE 28 AUG. 70
 ASCENSION NO. 11

JPPER AIR DATA
 2400020770
 WHITE SANDS

2200 HRS MDT

WSTM SITE COORDINATES
 48.8580.00 FEET E
 1.85045.00 FEET N

TABLE X (Cont)

GEOMETRIC ALTITUDE MSL 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
33500.0	280.7	-37.3	46.2	414.5	598.0	33.2	15.6	1.000093
34000.0	274.5	-38.4	40.0	407.4	596.6	34.4	16.2	1.000091
34500.0	268.5	-39.6	40.3	400.5	595.1	36.1	16.8	1.000090
35000.0	262.6	-40.8	40.6	393.7	593.6	37.4	17.4	1.000088
35500.0	256.8	-42.0	40.9	387.1	592.0	37.8	17.7	1.000087
36000.0	251.0	-43.2	37.8**	380.3	590.5	38.3	18.3	1.000085
36500.0	245.3	-44.3	33.0**	373.5	589.1	38.9	19.4	1.000083
37000.0	239.8	-45.4	28.3**	366.8	587.6	37.1	20.1	1.000082
37500.0	234.3	-46.6	23.6**	360.3	586.1	34.4	20.7	1.000080
38000.0	229.0	-47.7	18.8**	353.9	584.7	31.7	22.3	1.000079
38500.0	223.8	-48.8	14.1**	347.6	583.2	29.6	24.0	1.000077
39000.0	218.7	-50.0	9.4**	341.5	581.7	29.3	26.0	1.000076
39500.0	213.8	-51.1	4.7**	335.4	580.2	29.8	27.3	1.000075
40000.0	208.9	-52.2		329.5	578.8	31.3	27.6	1.000073
40500.0	203.9	-53.2		323.1	577.5	32.5	26.9	1.000072
41000.0	199.1	-54.2		316.8	576.1	33.5	25.7	1.000071
41500.0	194.3	-55.2		310.6	574.8	33.5	23.6	1.000069
42000.0	189.6	-56.2		304.6	573.5	33.4	21.7	1.000068
42500.0	185.1	-57.2		298.7	572.2	33.5	21.4	1.000067
43000.0	180.7	-58.2		292.9	570.9	33.5	21.2	1.000065
43500.0	176.4	-59.2		287.2	569.5	33.3	21.1	1.000064
44000.0	172.1	-60.2		281.7	568.2	32.4	20.9	1.000063
44500.0	168.0	-61.2		276.2	566.9	30.2	20.6	1.000062
45000.0	164.0	-62.2		270.9	565.5	27.2	20.0	1.000060
45500.0	160.1	-63.2		265.7	564.2	22.6	18.9	1.000059
46000.0	156.3	-64.2		260.6	562.8	17.9	18.1	1.000058
46500.0	152.5	-65.2		255.6	561.5	13.0	17.7	1.000057
47000.0	148.8	-66.1		250.5	560.3	9.2	17.3	1.000056
47500.0	145.1	-66.8		245.0	559.3	7.9	16.9	1.000055
48000.0	141.4	-67.5		239.7	558.4	9.4	16.3	1.000053

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

UPPER AIR DATA
2400020770
WHITE SANDS

STATION ALTITUDE 2200 HRS MDT
28 AUG. 70
ASCENSION NO. 7

WSIM SITE COORDINATES
488580.00 FEET E
185045.00 FEET N

TABLE X (Cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
48500.0	137.9	-68.2		234.4	557.4	15.4	15.5	1.000052
49000.0	134.4	-68.9		229.3	556.4	21.6	14.7	1.000051
49500.0	131.0	-69.6		224.3	555.5	28.1	13.8	1.000050
50000.0	127.7	-70.3		219.5	554.5	34.6	12.9	1.000049
50500.0	124.5	-71.1		214.7	553.5	41.4	12.0	1.000048
51000.0	121.4	-71.8		210.0	552.6	48.2	11.2	1.000047
51500.0	118.4	-72.5		205.5	551.6	62.3	10.4	1.000046
52000.0	115.4	-73.2		201.0	550.6	78.3	9.6	1.000045
52500.0	112.5	-73.1		195.9	550.7	92.8	9.4	1.000044
53000.0	109.6	-72.4		190.2	551.6	106.0	9.6	1.000042
53500.0	106.8	-71.8		184.8	552.5	118.5	10.1	1.000041
54000.0	104.1	-71.7		180.0	552.7	129.3	11.3	1.000040
54500.0	101.5	-71.5		175.3	552.9	140.0	12.5	1.000039
55000.0	98.9	-70.8		170.3	553.9	148.3	10.8	1.000038
55500.0	96.4	-70.0		165.4	555.0	156.6	9.2	1.000037
56000.0	94.0	-69.2		160.5	556.1	163.7	8.0	1.000036
56500.0	91.6	-68.3		155.9	557.3	170.1	7.1	1.000035
57000.0	89.3	-68.2		151.9	557.4	171.6	6.2	1.000034
57500.0	87.1	-68.4		148.3	557.1	155.2	4.9	1.000033
58000.0	84.9	-68.6		144.7	557.0	138.8	3.7	1.000032
58500.0	82.8	-67.0		140.0	559.1	125.8	3.8	1.000031
59000.0	80.8	-65.4		135.5	561.2	114.1	4.4	1.000030
59500.0	78.8	-64.9		131.8	561.9	104.1	5.2	1.000029
60000.0	76.9	-65.0		128.7	561.7	102.4	6.8	1.000029
60500.0	75.0	-64.6		125.3	562.3	100.7	8.3	1.000028
61000.0	73.2	-63.8		121.8	563.4	103.0	9.3	1.000027
61500.0	71.4	-62.9		118.3	564.6	108.3	9.9	1.000026
62000.0	69.7	-62.1		115.0	565.7	113.6	10.5	1.000026
62500.0	68.0	-61.2		111.7	566.9	113.8	10.8	1.000025
63000.0	66.3	-60.5		108.7	567.9	114.0	11.2	1.000024

1111...
 40580.00 FEET E
 105045.00 FEET N

2200 HRS MDT
 28 AUG 70

TABLE X (Cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
63500.0	64.7	-59.9			105.8	568.6	113.7	11.5	1.000024
64000.0	63.2	-59.4			103.0	569.3	112.9	11.7	1.000023
64500.0	61.7	-58.8			100.5	570.1	112.0	12.0	1.000022
65000.0	60.2	-58.3			97.6	570.8	105.5	11.8	1.000022
65500.0	58.8	-57.9			95.1	571.3	98.9	11.7	1.000021
66000.0	57.4	-58.2			93.0	570.9	93.6	12.2	1.000021
66500.0	56.0	-58.5			90.9	570.5	90.2	13.7	1.000020
67000.0	54.7	-58.8			88.9	570.0	86.7	15.3	1.000020
67500.0	53.4	-58.8			86.8	570.1	84.2	16.7	1.000019
68000.0	52.1	-58.4			84.6	570.6	83.0	17.8	1.000019
68500.0	50.9	-58.0			82.4	571.2	81.8	19.0	1.000018
69000.0	49.7	-57.5			80.3	571.7	81.0	20.0	1.000018
69500.0	48.5	-57.1			78.3	572.3	82.7	20.6	1.000017
70000.0	47.4	-56.7			76.3	572.9	84.3	21.1	1.000017
70500.0	46.3	-56.3			74.3	573.4	86.0	21.7	1.000017
71000.0	45.2	-55.9			72.4	574.0	88.0	21.8	1.000016
71500.0	44.1	-55.5			70.6	574.5	90.0	21.9	1.000016
72000.0	43.1	-55.0			68.8	575.1	92.1	22.0	1.000015
72500.0	42.0	-54.6			67.0	575.6	94.4	21.8	1.000015
73000.0	41.1	-54.7			65.5	575.5	96.9	21.5	1.000015
73500.0	40.1	-54.9			64.0	575.3	99.3	21.2	1.000014
74000.0	39.2	-55.0			62.5	575.1	100.7	20.9	1.000014
74500.0	38.2	-55.1			61.1	574.9	102.1	20.7	1.000014
75000.0	37.3	-55.3			59.7	574.8	102.2	20.0	1.000013
75500.0	36.5	-55.4			58.4	574.6	101.8	19.1	1.000013
76000.0	35.6	-55.5			57.0	574.4	101.6	18.9	1.000013
76500.0	34.8	-55.7			55.7	574.2	101.7	19.6	1.000012
77000.0	34.0	-55.8			54.4	574.1	101.8	20.3	1.000012
77500.0	33.2	-55.5			53.1	574.5	101.2	20.8	1.000012
78000.0	32.4	-55.2			51.8	574.9	100.6	21.3	1.000012

STATION ALTITUDE 3985.00
 28 AUG. 70 2200 HRS MDT
 ASCENSION NU. 110

UPPER AIR LATA
 2400020770
 WHITE SANDS

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

TABLE X (Cont)

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
78500.0	31.6	-54.9		50.5	575.2	100.1	21.6	1.000011
79000.0	30.9	-54.6		49.3	575.6	99.7	21.9	1.000011
79500.0	30.2	-54.3		48.1	576.0	98.9	22.1	1.000011
80000.0	29.5	-54.0		46.9	576.4	94.6	21.3	1.000010
80500.0	28.8	-53.7		45.7	576.8	90.4	20.4	1.000010
81000.0	28.1	-53.4		44.6	577.2	87.0	20.4	1.000010
81500.0	27.5	-53.1		43.5	577.6	84.5	21.2	1.000010
82000.0	26.8	-53.0		42.4	577.8	82.1	22.0	1.000009
82500.0	26.2	-53.1		41.5	577.6	80.8	23.1	1.000009
83000.0	25.6	-53.3		40.6	577.3	79.9	24.2	1.000009
83500.0	25.0	-53.5		39.7	577.1	79.2	25.5	1.000009
84000.0	24.4	-53.7		38.8	576.8	79.9	27.4	1.000009
84500.0	23.9	-53.9		37.9	576.6	80.6	29.4	1.000008
85000.0	23.3	-54.1		37.1	576.3	80.9	30.9	1.000008
85500.0	22.8	-54.0		36.2	576.5	80.8	32.0	1.000008
86000.0	22.2	-53.5		35.3	577.1	80.8	33.1	1.000008
86500.0	21.7	-52.9		34.4	577.8	80.7	34.5	1.000008
87000.0	21.2	-52.4		33.5	578.5	80.6	35.8	1.000007
87500.0	20.7	-51.9		32.7	579.2	80.7	37.0	1.000007
88000.0	20.3	-51.4		31.9	579.9	81.8	37.2	1.000007
88500.0	19.8	-50.9		31.1	580.5	82.9	37.5	1.000007
89000.0	19.4	-50.4		30.3	581.2	84.1	37.8	1.000007
89500.0	18.9	-49.8		29.5	581.9	85.8	38.2	1.000007
90000.0	18.5	-49.3		28.8	582.5	87.4	38.7	1.000006
90500.0	18.1	-48.8		28.0	583.2	88.8	38.7	1.000006
91000.0	17.6	-48.3		27.3	583.9	89.7	38.0	1.000006
91500.0	17.2	-47.8		26.7	584.6	90.7	37.3	1.000006
92000.0	16.8	-47.3		26.0	585.2	91.7	37.0	1.000006
92500.0	16.5	-46.7		25.3	585.9	92.8	37.0	1.000006
93000.0	16.1	-46.2		24.7	586.6	93.9	37.0	1.000005

UPPER AIR DATA
 2400020770
 WHITE SANDS

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

STATION ALTITUDE 2200 HRS MDT
 28 AUG. 70
 ASCENSION NC.

TABLE X (Cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
93500.0	15.7	-46.0		24.1	586.9	94.6	36.4	1.000005
94000.0	15.4	-45.8		23.6	587.1	95.1	35.4	1.000005
94500.0	15.0	-45.7		23.0	587.3	95.5	34.3	1.000005
95000.0	14.7	-45.5		22.5	587.5	96.3	33.9	1.000005
95500.0	14.4	-45.4		22.0	587.6	97.4	33.9	1.000005
96000.0	14.0	-45.2		21.5	587.8	98.5	33.9	1.000005
96500.0	13.7	-45.1		21.0	588.0	98.6	33.6	1.000005
97000.0	13.4	-44.9		20.5	588.2	97.8	33.0	1.000005
97500.0	13.1	-44.8		20.0	588.4	97.1	32.4	1.000004
98000.0	12.8	-44.6		19.6	588.6	95.9	32.3	1.000004
98500.0	12.5	-44.5		19.1	588.8	94.4	32.7	1.000004
99000.0	12.3	-44.3		18.7	589.0	92.9	33.0	1.000004
99500.0	12.0	-44.2		18.2	589.2	91.5	33.0	1.000004
100000.0	11.7	-44.0		17.8	589.4	90.3	32.8	1.000004
100500.0	11.5	-43.8		17.4	589.7	89.0	32.5	1.000004
101000.0	11.2	-43.1		17.0	590.6	87.9	32.1	1.000004
101500.0	11.0	-42.4		16.6	591.5	87.0	31.5	1.000004
102000.0	10.7	-41.7		16.1	592.4	86.1	30.9	1.000004
102500.0	10.5	-41.0		15.7	593.3	86.3	31.5	1.000004
103000.0	10.3	-40.3		15.3	594.1	87.4	33.0	1.000003
103500.0	10.0	-39.6		15.0	595.0	88.4	34.4	1.000003
104000.0	9.8	-38.9		14.6	595.9	89.5	35.7	1.000003
104500.0	9.6	-39.0		14.3	595.9	90.6	36.9	1.000003
105000.0	9.4	-39.0		14.0	595.8	91.8	38.0	1.000003
105500.0	9.2	-39.1		13.7	595.7	92.9	39.1	1.000003
106000.0	9.0	-39.2		13.4	595.6	93.9	40.1	1.000003
106500.0	8.8	-39.2		13.1	595.5	94.9	41.1	1.000003
107000.0	8.6	-39.3		12.8	595.5	95.9	42.1	1.000003
107500.0	8.4	-39.4		12.5	595.4	96.4	42.5	1.000003
108000.0	8.2	-39.4		12.3	595.3	95.5	40.8	1.000003

STATION ALTITUDE 5985.00 FT (1 MSL)
 28 AUG. 70 2200 HRS MDT
 ASCENSION NO. 11

UPPER AIR DATA
 2400020770
 WHITE SANDS

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

TABLE X (Cont)

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
106500.0	8.0	-39.5		12.0	595.2	94.5	39.0	1.000003
109000.0	7.9	-39.5		11.7	595.1	93.5	37.3	1.000003
109500.0	7.7	-39.6		11.5	595.0	92.4	36.0	1.000003
110000.0	7.5	-39.7		11.2	595.0	91.1	35.1	1.000002
110500.0	7.4	-39.7		11.0	594.9	89.7	34.3	1.000002
111000.0	7.2	-39.8		10.8	594.8	88.4	33.4	1.000002
111500.0	7.0	-39.9		10.5	594.7	88.2	32.9	1.000002
112000.0	6.9	-39.9		10.3	594.6	88.5	32.4	1.000002
112500.0	6.7	-40.0		10.1	594.6	88.8	32.0	1.000002
113000.0	6.6	-40.1		9.9	594.5	89.2	31.5	1.000002
113500.0	6.5	-40.1		9.6	594.4	91.1	32.8	1.000002
114000.0	6.3	-40.2		9.4	594.3	93.1	34.0	1.000002
114500.0	6.2	-39.8		9.2	594.8	95.1	35.3	1.000002
115000.0	6.0	-39.4		9.0	595.3	97.0	36.6	1.000002
115500.0	5.9	-38.9		8.8	595.9	98.7	37.9	1.000002
116000.0	5.8	-38.5		8.6	596.4	100.4	39.2	1.000002
116500.0	5.7	-38.1		8.4	597.0	102.1	40.5	1.000002
117000.0	5.5	-37.6		8.2	597.5	102.6	41.0	1.000002
117500.0	5.4	-37.2		8.0	598.1	101.3	40.3	1.000002
118000.0	5.3	-36.8		7.8	598.6	100.0	39.7	1.000002
118500.0	5.2	-36.4		7.6	599.2	98.8	39.1	1.000002
119000.0	5.1	-35.9		7.5	599.7			1.000002
119500.0	5.0	-35.5		7.3	600.3			1.000002
120000.0	4.9	-35.1		7.1	600.8			1.000002
120500.0	4.8	-34.6		6.9	601.4			1.000002
121000.0	4.7	-34.4		6.8	601.6			1.000002
121500.0	4.6	-34.5		6.6	601.5			1.000001
122000.0	4.5	-34.6		6.5	601.4			1.000001

STATION ALTITUDE 28 AUG. 70
 ASCENSION NO. 2200 HRS NDT

NAVIGATORY LEVELS
 240000770
 WIND CORRECTIONS

STATION ALTITUDE 28 AUG. 70
 ASCENSION NO. 2200 HRS NDT

NAVIGATORY LEVELS
 240000770
 WIND CORRECTIONS

TABLE XI

MILLIBARS	FEET	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUMIDITY PERCENT	WIND VELOCITY (KT)	WIND DIRECTION	WIND SPEED KNOTS
850.0	4944.	27.3	23.	156.6	6.5	6.5
800.0	6687.	23.0	20.	160.9	10.1	10.1
750.0	8513.	18.1	22.	158.8	9.5	9.5
700.0	10431.	12.6	28.	121.5	7.8	7.8
650.0	12449.	6.8	44.	84.8	12.6	12.6
600.0	14592.	4.7	15.	77.5	8.8	8.8
550.0	16904.	1.5	14.	53.3	8.5	8.5
500.0	19397.	-3.7	18.	79.3	4.0	4.0
450.0	22098.	-9.5	23.	137.6	5.8	5.8
400.0	25046.	-16.1	26.	89.7	7.6	7.6
350.0	28296.	-23.9	28.	57.8	7.7	7.7
300.0	31922.	-33.2	41.	28.9	12.9	12.9
250.0	36034.	-43.4	37.**	38.4	18.5	18.5
200.0	40844.	-54.0		33.4	25.9	25.9
175.0	43621.	-59.5		33.1	21.0	21.0
150.0	46738.	-65.9		9.6	17.5	17.5
125.0	50325.	-70.9		40.7	12.1	12.1
100.0	54635.	-71.2		144.6	11.6	11.6
80.0	59025.	-64.8		109.5	4.7	4.7
70.0	61707.	-62.2		112.4	10.4	10.4
60.0	64864.	-58.2		104.7	11.8	11.8
50.0	68628.	-57.7		80.9	19.8	19.8
40.0	73288.	-54.9		99.4	21.2	21.2
30.0	79314.	-54.2		97.9	21.9	21.9
25.0	83163.	-53.5		79.2	25.4	25.4
20.0	87882.	-51.1		82.3	37.4	37.4
15.0	94107.	-45.7		95.5	34.2	34.2
10.0	103047.	-39.5		88.5	34.6	34.6
7.0	111059.	-39.9		88.3	32.7	32.7
5.0	118644.	-35.6				

** 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 (DE- GREES)	THEORETICAL IMPACT FROM LAUNCHER (IN MILES)		
		TOWER 9-216 FT		PIBAL 216-4270 FT		RAWIN 4270-53200 FT		TOTAL		RANGE	N-S		E-W		
		N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W						
1900	RAWIN- SONDE	PIBAL	2000	4.5S	0.9E	7.8S	4.0E	3.4N	1.8E	8.9S	6.8E	66.8	66.6N	5.0E	
1900			2030	2.8S	0.3E	8.9S	4.5E	3.4N	1.8E	8.3S	6.6E	67.4	67.2N	4.8E	
1900			2100	1.9S	1.7W	8.2S	1.0W	3.4N	1.8E	6.7S	0.9W	68.8	68.8N	0.9W	
1900			2110	3.1S	0.7W	8.4S	0.5W	3.4N	1.8E	8.1S	0.6E	67.4	67.4N	1.2W	
1900			2120	3.6S	0.5E	7.8S	0.5W	3.4N	1.8E	8.0S	1.8E	67.5	67.5N	0.0E-W	
1900			2130	1.7S	0.5W	7.3S	0.8W	3.4N	1.8E	5.6S	1.5E	69.9	69.9N	0.3W	
1900			2140	2.2S	0.9W	6.7S	2.3W	3.4N	1.8E	5.5S	1.4W	70.1	70.0N	3.2W	
1900			2150	1.4S	0.6W	5.5S	1.8W	3.4N	1.8E	3.5S	0.6W	72.0	72.0N	2.4W	
1900			2200	2.0S	0.0	5.2S	0.4W	3.4N	1.8E	3.8S	1.4E	71.8	71.7N	3.2W	
2200			2200	2.0S	0.0	5.2S	0.4W	3.7N	2.6E	3.5S	2.2E	72.0	72.0N	0.4E	

TABLE XII. IMPACT PREDICTION DATA
NIKE-HYDAC STV 96

AP

	AZIMUTH (DE- GREES)	MILES FROM LAUNCHER RANGE	N-S	E-W
LAUNCHER SETTING (ELEVATION 82.7 DEGREES QE)	001.0	75.5	75.5	0.4E
NO WIND IMPACT	358.6	75.5	75.5N	1.8W
PREDICTED SECOND-STAGE IMPACT	357.0	70.1	70.0N	3.7W
SECOND-STAGE IMPACT, RADAR TRACK	354.1	70.1	69.7N	7.2W
PREDICTED BOOSTER IMPACT	358.0	1.4	1.4N	0.1W
ACTUAL BOOSTER IMPACT	354.2	1.6	0.2W	1.6N

TABLE XII. IMPACT PREDICTION DATA (CONT)
NIKE-HYDAC STV 96

UNCLASSIFIED

Security Classification

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13. ABSTRACT Meteorological data gathered for the launching of Nike-Hydac STV 96 are presented for the Space and Missile Systems Organization, AFMDC, Holloman Air Force Base, New Mexico, and for ballistic studies. The data appear, along with calculated ballistic data, in tabular form.			

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2. Meteorology						
3. Wind						