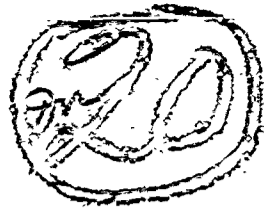


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METEOROLOGICAL DATA REPORT

NIKE-HYDAC STV-95
(10 August 1970)

BY

GEORGE M. FUGATE

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO.

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August 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-95 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-95 was launched from the left boom of L-361, White Sands Missile Range (WSMR), New Mexico, at 1119 hours MDT, 10 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 Gordon L. Dunaway.

DISCUSSION

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

From 216 to 4,000 feet above the surface, wind data were obtained from T-9 Radar tracked 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 and are the basis for the data appearing in Table I.

PAYLOAD	225	Pounds
CORIOLIS DISPLACEMENT	3.9	Miles
SECOND-STAGE IGNITION	13.0	Seconds
	26,200	Feet MSL
PEAK	224.7	Seconds
	685,000	Feet MSL
UNIT WIND EFFECT	2.08	Miles/MPH
	2.15	Miles/MPH
		Miles/MPH
TOWER TILT EFFECT	12.15	Miles/Degree

TABLE I. THEORETICAL ROCKET PERFORMANCE VALUES
NIKE-HYDAC STV-95

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	.055
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-95

AERO-VANE NO. *	MEAN WIND COMPONENTS IN MILES PER HOUR									
	1 0900 MDT		2 0930 MDT		3 1000 MDT		4 1010 MDT		5 1020 MDT	
	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W
1	1.0N	3.0W	1.0N	2.0E	2.0S	2.0E	0.0	0.0	0.0	0.0
2	2.0	2.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
3	2.0	4.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
4	3.0	5.0	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
5	4.0	2.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0

4

AERO-VANE NO. *	MEAN WIND COMPONENTS IN MILES PER HOUR											
	6 1030 MDT		7 1040 MDT		8 1050 MDT		9 1100 MDT		10 1110 MDT		11 1120 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
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0N	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0

TABLE III. ANEMOMETER WIND SPEED AND DIRECTION
NIKE-HYDAC STV-95

* 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 0900 MDT		2 0930 MDT		3 1000 MDT		4 1010 MDT		5 1020 MDT		6 1030 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	3.5N	4.0W	1.5N	1.0E	0.5S	0.5W	0.5N	0.5W	1.5S	1.5E	2.0S	1.0E
300-- 400	4.5	3.5	2.5	0.5W	0.5	1.0	0.0	1.0	0.0	1.5	0.5N	0.5
400-- 600	2.5	4.5	2.5	2.0	0.0	2.0	0.0	1.0	0.0	1.0	1.0	2.0W
600-- 800	1.5	3.5	1.0	2.5	1.0	2.0	0.5S	1.5	1.0N	2.0	0.5S	1.0
800--1000	1.0S	0.5	2.0	2.5	1.5	1.5	1.5	1.0	1.0S	0.5	0.5N	0.5
1000--1400	4.0	2.0E	0.5S	0.5	2.5	3.0E	3.0	3.0E	1.5	2.0	0.0	1.0E
1400--2000	5.0	5.0	4.5	2.5E	2.5	7.0	1.5	6.5	1.0	4.5	0.5N	4.0
2000--2500	2.5	7.0	5.0	5.0	6.0	9.0	0.5	7.5	0.0	7.0	2.5	6.0
2500--3000	0.0	8.0	4.5	5.5	5.5	9.0	4.5	9.0	3.0S	8.0	1.5S	6.0
3000--3500	1.0N	9.0	1.5	10.0	3.0	9.0	5.0	11.5	6.0	11.0	4.0	8.5
3500--4270	3.0S	7.5	0.0	9.0	1.0	10.5	2.5	10.0	3.5	11.5	6.0	10.5

TABLE IV. PILOT-BALLOON-MEASURED WIND DATA
NIKE-HYDAC: STV-95

LAYERS IN FEET ABOVE GROUND	MEAN WIND COMPONENTS IN MILES PER HOUR										
	7		8		9		10		11		
	1040 MDT		1050 MDT		1100 MDT		1110 MDT		1120 MDT		
	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	
216- 300	1.5N	1.0E	0.5N	0.5W	0.5N	1.0W	2.0N	0.0	4.0N	2.0W	
300- 400	2.5	2.0	2.0	1.5	0.5E	1.0E	3.5	1.0E	4.0	0.5	
400- 600	0.5	2.0	2.0	3.0	3.0N	2.5W	4.5	0.5	5.0	0.5E	
600- 800	1.0	2.5W	2.5	2.0	5.0	1.5	5.5	1.0	7.5	1.0	
800-1000	3.0	0.5E	3.5	1.0	5.0	1.5	8.5	2.5	8.0	0.5	
1000-1400	3.0	3.0	4.5	0.0	6.5	1.0	6.5	2.0	8.5	0.5	
1400-2000	2.5	4.0	3.5	2.5E	5.0	3.5E	7.5	1.5	6.5	0.5	
2000-2500	3.0E	5.0	3.5	6.5	3.0	7.5	4.0	5.5	4.0	4.0	
2500-3000	2.0	6.0	1.0E	7.0	1.5E	6.5	0.5	6.5	1.5E	7.0	
3000-3500	4.5	9.0	3.0	9.0	3.5	8.5	4.0E	7.0	5.5	7.5	
3500-4270	6.5	12.0	5.0	10.5	4.5	10.5	3.5	9.0	6.0	11.5	

TABLE IV. PILOT-BALLOON-MEASURED WIND DATA (CONT)
NIKE-HYDAC STV-95

LAYERS IN FEET ABOVE GROUND	MEAN WIND COMPONENTS IN KNOTS					
	1 0800. MDT			2 1120 MDT		
	N-S	E-W	E-W	N-S	E-W	E-W
4275-6000	12.08	2.0E	2.0E	4.58	2.5E	2.5E
6000-11000	7.08	4.0W	4.0W	4.0	0.0	0.0
11000-16000	4.0N	0.0	0.0	4.5	2.5E	2.5E
16000-22200	1.58	5.0E	5.0E	3.0N	5.0	5.0
22200-24000	1.5	1.5	1.5	0.5	2.0	2.0
24000-26000	2.0	2.5	2.5	1.5	1.5	1.5
26000-31000	2.5	8.0	8.0	3.08	2.5	2.5
31000-36000	0.0	13.0	13.0	5.0	8.5	8.5
36000-41000	2.58	7.0	7.0	1.0N	6.0	6.0
41000-46000	14.0N	5.0	5.0	3.08	16.0	16.0
46000-53200	3.5	20.5	20.5	0.0	12.0	12.0

TABLE V. RAWINSONDE-MEASURED WIND DATA
NIKE-HYDAC 8TV-99

STATION ALTITUDE 10000.00 FEET MSL
 10 AUG. 70 0800 HRS MDT
 ASCENSION NO. 101

STATION ALTITUDE DATA
 488500.00 FEET L
 185049.00 FEET N

TABLE VI

PRESSURE MILLIBARS	TEMPERATURE AIR	WIND DIRECTION	RELATIVE PERCENT
881.0	19.0	10.7	94.0
871.0	20.1	17.4	83.0
862.0	17.4	14.7	89.0
845.0	6.8	2.1	72.0
835.0	-0.4	-2.0	85.0
820.0	-6.9	-11.4	80.0
811.0	-11.0	-25.0	30.0
800.0	-15.0	-20.0	20.0
795.0	-18.0	-24.0	23.0
789.0	-20.0	-27.0	23.0
784.0	-20.0	-30.0	42.0
780.0	-23.7	-30.0	31.0
774.0	-24.0	-34.0	14.0
765.0	-24.0	-44.0	25.0
777.0	-23.0	-46.0	20.0
765.0	-15.0		
760.0	-6.0		
750.0	-9.0		
744.0	-7.0		
740.0	-7.0		
730.0	-7.0		
720.0	-7.0		
710.0	-7.0		
700.0	-7.0		
690.0	-7.0		
680.0	-7.0		
670.0	-7.0		
660.0	-7.0		
650.0	-7.0		
640.0	-7.0		
630.0	-7.0		
620.0	-7.0		
610.0	-7.0		
600.0	-7.0		
590.0	-7.0		
580.0	-7.0		
570.0	-7.0		
560.0	-7.0		
550.0	-7.0		
540.0	-7.0		
530.0	-7.0		
520.0	-7.0		
510.0	-7.0		
500.0	-7.0		
490.0	-7.0		
480.0	-7.0		
470.0	-7.0		
460.0	-7.0		
450.0	-7.0		
440.0	-7.0		
430.0	-7.0		
420.0	-7.0		
410.0	-7.0		
400.0	-7.0		
390.0	-7.0		
380.0	-7.0		
370.0	-7.0		
360.0	-7.0		
350.0	-7.0		
340.0	-7.0		
330.0	-7.0		
320.0	-7.0		
310.0	-7.0		
300.0	-7.0		
290.0	-7.0		
280.0	-7.0		
270.0	-7.0		
260.0	-7.0		
250.0	-7.0		
240.0	-7.0		
230.0	-7.0		
220.0	-7.0		
210.0	-7.0		
200.0	-7.0		
190.0	-7.0		
180.0	-7.0		
170.0	-7.0		
160.0	-7.0		
150.0	-7.0		
140.0	-7.0		
130.0	-7.0		
120.0	-7.0		
110.0	-7.0		
100.0	-7.0		
90.0	-7.0		
80.0	-7.0		
70.0	-7.0		
60.0	-7.0		
50.0	-7.0		
40.0	-7.0		
30.0	-7.0		
20.0	-7.0		
10.0	-7.0		
0.0	-7.0		

* RELATIVE HUMIDITY DOUBTFUL * RAW INSURE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

STATION ALTITUDE 3989.00 FEET MSL
10 AUG. 70
ASCENSION NO. 707

SIGNIFICANT LEVEL DATA
2220020707
WHITE SANDS
TABLE VI. (CONT)

WSTM SITE COORDINATES
488580.00 FEET E
185045.00 FEET N

PRESSURE	GEOMETRIC	TEMPERATURE	REL. HUM.
MILLIBARS	ALTITUDE	AIR DEWPOINT	PERCENT
	MSL FEET	DEGREES CENTIGRADE	(SEE *)
5.0	12016.4	-55.2	

* RELATIVE HUMIDITY UNRELIABLE. RAINFALL EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

STATION ALTITUDE 3909.00 FEET MSL
 10 AUG. 70
 ASCENSION NO. 707
 0800 HRS MDT
 UPPER AIR DATA
 2420020707
 WHITE SANDS
 TABLE VII
 WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	REL. HUM. PERCENT (SEE #)	DENSITY GM/CUBIC MEETER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
3909.00	601.0	19.0	94.0	1038.9	669.3	200.0	1.9	1.000326
4000.00	600.7	19.0	93.0	1038.4	669.3	199.5	2.0	1.000326
4500.00	602.3	19.9	81.9	1020.3	669.3	177.6	3.4	1.000311
5000.00	600.1	19.3	78.9	1004.8	668.5	155.7	4.8	1.000302
5500.00	602.2	18.7	75.9	989.6	667.7	133.7	6.3	1.000294
6000.00	620.6	18.1	72.9	974.6	666.9	111.8	7.7	1.000285
6500.00	600.2	17.0	69.9	959.8	666.1	113.2	8.0	1.000277
7000.00	791.0	16.8	69.2	945.6	665.1	120.5	8.1	1.000270
7500.00	777.0	15.9	69.4	931.6	664.0	133.5	9.0	1.000265
8000.00	702.0	15.0	69.7	917.9	662.9	145.5	10.1	1.000259
8500.00	745.3	14.1	69.9	904.3	661.9	155.5	11.4	1.000253
9000.00	700.4	13.3	70.2	891.0	660.8	162.5	12.4	1.000248
9500.00	723.2	12.4	70.4	877.9	659.7	166.4	13.1	1.000243
10000.00	710.2	11.5	70.7	864.9	658.6	170.0	12.8	1.000238
10500.00	697.5	10.6	70.9	852.2	657.5	173.3	11.9	1.000233
11000.00	604.9	9.7	71.2	839.7	656.4	175.0	10.5	1.000228
11500.00	672.0	8.8	71.4	827.3	655.4	176.4	9.0	1.000223
12000.00	600.0	8.0	71.7	815.1	654.3	178.1	6.8	1.000218
12500.00	640.7	7.1	71.9	803.1	653.2	180.9	4.8	1.000214
13000.00	630.0	6.1	73.2	791.2	652.0	185.5	3.2	1.000210
13500.00	625.0	5.1	75.0	779.4	650.8	208.6	2.0	1.000206
14000.00	615.4	4.1	76.8	767.7	649.7	243.8	1.0	1.000202
14500.00	602.0	3.1	78.6	756.3	648.5	330.9	1.0	1.000198
15000.00	590.0	2.2	80.4	745.0	647.3	25.5	1.2	1.000195
15500.00	579.9	1.2	82.2	733.9	646.1	24.1	2.0	1.000191
16000.00	569.1	0.2	84.0	723.0	644.8	25.0	2.7	1.000187
16500.00	558.4	-0.8	84.8	711.9	643.7	28.6	3.3	1.000184
17000.00	547.7	-1.6	84.2	700.7	642.6	23.1	4.1	1.000180
17500.00	537.3	-2.5	83.7	689.6	641.5	5.9	5.2	1.000176
18000.00	527.0	-3.4	83.2	678.7	640.5	2.5	4.8	1.000172

* RELATIVE HUMIDITY DOUBTFUL. RAWINSUNDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

STATION ALTITUDE 5969.00 FEET MSL
 10 AUG. 70 0800 HRS MDT
 ASCENSION NO. 701

UPPER AIR DATA
 2220020707
 WHITE SANDS

WSTM SITE COORDINATES
 488580.00 FEET E
 165045.00 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	WIND POINT DEGREE				DIRECTION DEGREES(TN)	SPEED KNOTS	
18500.0	517.0	-4.2	-6.8	82.6	068.0	639.4	11.7	2.8	1.000168
19000.0	507.1	-5.1	-7.7	82.1	057.4	638.3	257.6	2.2	1.000165
19500.0	497.4	-6.0	-8.6	81.6	047.1	637.3	331.2	2.3	1.000161
20000.0	487.9	-6.8	-9.6	81.0	038.8	636.2	404.0	3.1	1.000158
20500.0	478.6	-7.7	-10.5	80.5	029.8	635.1	479.6	4.2	1.000154
21000.0	469.5	-8.5	-11.5	79.3	016.9	634.0	571.5	3.4	1.000151
21500.0	460.3	-9.2	-14.1	67.8	005.6	633.1	602.8	1.6	1.000146
22000.0	451.5	-9.8	-17.0	56.0	596.4	632.3	679.9	0.8	1.000142
22500.0	442.5	-10.5	-20.4	44.3	580.4	631.4	728.3	0.6	1.000137
23000.0	433.9	-11.2	-24.5	32.6	576.6	630.5	745.5	3.6	1.000133
23500.0	425.4	-12.1	-28.6	29.2	567.5	629.5	736.3	6.3	1.000130
24000.0	416.9	-13.2	-27.9	28.2	558.6	627.9	739.8	6.4	1.000128
24500.0	408.7	-14.3	-29.3	27.1	549.9	626.6	740.7	6.1	1.000126
25000.0	400.6	-15.4	-30.6	26.1	541.3	625.5	738.9	5.4	1.000123
25500.0	392.6	-16.5	-28.9	33.2	532.3	624.2	749.7	3.7	1.000122
26000.0	384.7	-17.2	-27.4	41.0	523.5	623.2	6.2	1.5	1.000120
26500.0	377.0	-18.0	-26.5	48.9	514.5	622.1	57.3	1.3	1.000119
27000.0	369.4	-19.5	-26.4	53.8	506.7	620.6	117.4	1.6	1.000117
27500.0	361.9	-20.5	-27.8	52.4	498.8	619.1	125.5	2.1	1.000115
28000.0	354.6	-20.5	-30.0	42.8	488.7	619.1	121.4	2.5	1.000112
28500.0	347.4	-21.7	-32.3	36.0	481.0	617.6	117.0	2.6	1.000110
29000.0	340.5	-22.9	-34.7	33.7	473.8	616.0	112.4	2.6	1.000107
29500.0	333.5	-23.9	-38.4	25.3	465.8	614.8	105.3	3.1	1.000105
30000.0	326.4	-24.7	-44.5	14.5	457.8	613.8	91.9	4.0	1.000103
30500.0	319.6	-25.9	-44.0	16.7	450.2	612.5	97.2	4.8	1.000101
31000.0	312.9	-27.1	-45.9	18.9	442.9	610.9	107.9	5.6	1.000099
31500.0	306.4	-28.3	-43.9	21.1	435.8	609.4	115.6	6.8	1.000098
32000.0	300.0	-29.5	-44.0	23.3	428.8	607.9	122.8	7.8	1.000096
32500.0	293.7	-30.5	-44.5	24.8	421.8	606.4	128.9	7.8	1.000095
33000.0	287.4	-31.7	-45.1	22.5	414.8	605.1	129.2	7.2	1.000093

* RELATIVE HUMIDITY UNUSUAL. KAWINSUNDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

UPPER AIR DATA
2420020707
WHITE SANDS
TABLE VII (CONT)

STATION ALTITUDE 3505.00 FEET MSL
10 AUG. 70
0800 HRS MDT
ASCENSION NO. 707

WSTM SITE COORDINATES
488580.00 FEET E
185045.00 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT (SEE #)	DENSITY GM/CM ³ METER	SPEED OF SOUND KNUTS	WIND DIRECTION DEGREES(TN)	WIND DATA SPEED KNUTS	INDEX OF REFRACTION
33500.0	281.0	-22.0	21.2	407.8	603.7	122.5	6.2	1.000091
34000.0	275.4	-23.4	19.7**	400.9	602.2	107.7	5.7	1.000090
34500.0	269.1	-25.2	18.6**	393.9	600.7	91.0	5.6	1.000088
35000.0	263.0	-26.4	17.5**	387.1	599.1	80.0	6.5	1.000087
35500.0	257.1	-27.7	16.4**	380.4	597.5	73.5	7.8	1.000085
36000.0	251.3	-28.9	15.3**	373.6	595.9	82.9	10.4	1.000083
36500.0	245.7	-30.2	14.2**	367.4	594.3	89.9	12.3	1.000082
37000.0	240.2	-31.4	13.1**	361.1	592.8	90.8	13.0	1.000081
37500.0	234.8	-32.7	12.0**	354.9	591.2	92.5	13.7	1.000079
38000.0	229.5	-33.9	10.9**	348.6	589.6	95.0	14.3	1.000078
38500.0	224.3	-35.1	9.8**	342.6	588.0	91.6	13.5	1.000076
39000.0	219.3	-36.4	8.7**	337.0	586.4	84.6	11.9	1.000075
39500.0	214.4	-37.6	7.6**	331.2	584.7	87.3	11.0	1.000074
40000.0	209.6	-38.9	6.5**	325.6	583.1	92.0	10.3	1.000073
40500.0	204.9	-40.1	5.4**	320.0	581.5	95.9	9.8	1.000071
41000.0	200.3	-41.4	4.3**	314.6	579.9	99.6	9.2	1.000070
41500.0	195.8	-42.6	3.3**	309.3	578.3	107.6	8.7	1.000069
42000.0	191.4	-43.9	2.2**	304.0	576.6	116.2	8.2	1.000068
42500.0	187.1	-45.1	1.1**	298.9	575.0	120.0	6.9	1.000067
43000.0	182.9	-46.3		293.8	573.4	123.2	5.5	1.000065
43500.0	178.8	-47.2		288.8	572.1	99.3	3.3	1.000064
44000.0	174.2	-48.2		282.4	570.9	72.5	1.2	1.000063
44500.0	170.1	-49.1		276.6	569.7	38.9	4.1	1.000062
45000.0	166.0	-50.0		271.3	568.5	10.0	6.9	1.000060
45500.0	162.0	-50.9		266.0	567.3	7.6	9.7	1.000059
46000.0	158.1	-52.0		260.9	565.8	6.8	12.4	1.000058
46500.0	154.2	-53.4		256.2	563.9	12.2	14.2	1.000057
47000.0	150.4	-54.7		251.5	562.1	17.3	15.7	1.000056
47500.0	146.7	-56.1		246.9	560.3	21.3	15.8	1.000055
48000.0	143.1	-57.4		242.4	558.5	27.0	16.3	1.000054

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

* RELATIVE HUMIDITY DROBTFUL. RAWINSUNDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

UPPER AIR DATA
 2220020707
 WHITE SANDS
 TABLE VII (CONT)

STATION ALTITUDE 3969.00 FEET MSL
 10 AUG. 70
 ASCENSION NO. 707
 0800. KRSR NDT

WSTN SITE COORDINATES
 48850.00 FEET E
 185045.00 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT (SEE #)	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
48500.0	139.6	-60.0		238.0	556.7	38.0	18.1	1.000053
49000.0	130.1	-69.6		233.0	555.5	48.7	19.8	1.000052
49500.0	132.7	-70.4		226.0	554.4	58.9	40.9	1.000051
50000.0	129.3	-71.2		223.1	553.3	67.6	21.9	1.000050
50500.0	126.0	-72.0		216.3	552.2	74.7	22.7	1.000049
51000.0	122.8	-72.7		213.5	551.3	81.2	22.6	1.000048
51500.0	119.7	-73.2		208.6	550.5	87.2	21.6	1.000046
52000.0	116.6	-73.8		203.8	549.8	92.6	20.5	1.000045
52500.0	113.7	-72.6		197.5	551.4	97.2	19.2	1.000044
53000.0	110.8	-70.9		190.9	553.7	101.3	17.8	1.000043
53500.0	108.0	-70.1		185.3	554.8	100.6	16.5	1.000041
54000.0	105.3	-70.5		180.9	554.4	99.9	15.1	1.000040
54500.0	102.6	-69.9		175.9	555.1	94.2	17.5	1.000039
55000.0	100.0	-69.4		171.1	555.8	87.3	20.3	1.000038
55500.0	97.5	-70.3		167.5	554.6	76.7	19.0	1.000037
56000.0	95.1	-71.2		164.0	553.4	68.5	14.1	1.000037
56500.0	92.7	-72.1		160.5	552.2	62.3	10.4	1.000036
57000.0	90.3	-71.7		156.2	552.7	68.1	10.6	1.000035
57500.0	88.1	-70.8		151.7	553.8	74.0	10.8	1.000034
58000.0	85.9	-70.0		147.4	555.0	116.0	6.5	1.000033
58500.0	83.8	-69.1		143.1	550.1	157.9	6.1	1.000032
59000.0	81.7	-68.3		139.0	557.3	144.2	9.5	1.000031
59500.0	79.7	-67.5		135.0	558.5	120.6	13.9	1.000030
60000.0	77.7	-66.8		131.1	559.0	109.6	15.2	1.000029
60500.0	75.8	-66.0		127.3	560.7	103.1	15.6	1.000028
61000.0	73.9	-64.9		123.7	561.9	93.2	16.8	1.000028
61500.0	72.1	-64.1		120.1	563.0	81.5	18.7	1.000027
62000.0	70.3	-63.2		116.7	564.2	75.3	20.7	1.000026
62500.0	68.6	-62.4		113.3	565.3	75.0	22.9	1.000025
63000.0	66.9	-61.6		110.1	566.3	75.2	24.6	1.000025

* RELATIVE HUMIDITY DUBITFUL. RAWINSUNDE EQUIPMENT LIMITATIONS. DASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

UPPER AIR DATA
 2220020707
 WHITE SANDS
 TABLE VII (CONT)

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

STATION ALTITUDE 2700.00 FEET MSL
 10 AUG. 70
 0800 HRS MDT
 ASCENSION NO. 101

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CCUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		MIN	DELTA POINT DEGREES CENTIGRADE			DEGREES (T)	DEGREES (T)	DEGREES (T)	DEGREES (T)	
6500.0	65.4	-02.0		107.6	565.8	76.7	24.8	1.000024		
6400.0	63.7	-02.3		105.2	565.3	78.3	25.1	1.000023		
6450.0	64.1	-02.2		102.6	565.6	80.0	25.3	1.000023		
6500.0	60.7	-61.5		99.9	566.4	81.7	25.6	1.000022		
6550.0	59.2	-00.9		97.3	567.2	84.2	25.7	1.000022		
6600.0	57.8	-00.3		94.7	568.0	86.9	25.8	1.000021		
6650.0	50.3	-59.7		92.2	568.8	89.1	25.3	1.000021		
6700.0	55.1	-59.1		89.8	569.6	90.0	23.8	1.000020		
6750.0	53.8	-58.3		87.4	570.4	91.0	22.3	1.000019		
6800.0	52.8	-57.9		85.1	571.2	92.4	23.8	1.000019		
6850.0	51.3	-57.3		82.9	572.0	94.0	26.0	1.000018		
6900.0	50.1	-56.7		80.7	572.8	95.2	27.6	1.000018		
6950.0	48.9	-56.1		78.6	573.6	95.5	27.8	1.000017		
7000.0	47.6	-55.5		76.5	574.4	95.7	28.1	1.000017		
7050.0	46.7	-54.9		74.5	575.2	94.8	29.3	1.000017		
7100.0	42.8	-54.3		72.5	576.0	93.4	30.9	1.000016		
7150.0	44.5	-53.7		70.6	576.8	92.2	31.8	1.000016		
7200.0	43.4	-53.1		68.8	577.6	92.1	28.7	1.000015		
7250.0	42.4	-52.5		67.0	578.4	92.0	25.6	1.000015		
7300.0	41.4	-51.9		65.2	579.2	91.0	24.2	1.000015		
7350.0	40.4	-51.3		63.5	580.0	89.2	24.1	1.000014		
7400.0	39.5	-51.0		61.9	580.4	87.4	24.0	1.000014		
7450.0	38.8	-51.0		60.5	580.3	87.8	24.1	1.000013		
7500.0	37.7	-51.0		59.1	580.3	88.7	24.3	1.000013		
7550.0	36.8	-51.0		57.8	580.3	89.6	24.6	1.000013		
7600.0	36.0	-51.0		56.4	580.3	90.9	26.0	1.000013		
7650.0	35.2	-51.0		55.1	580.3	92.1	27.5	1.000012		
7700.0	34.3	-51.0		53.9	580.3	93.4	28.6	1.000012		
7750.0	33.6	-51.0		52.6	580.3	95.2	28.8	1.000012		
7800.0	32.8	-51.0		51.4	580.3	97.0	29.0	1.000011		

* RELATIVE HUMIDITY UNDIFFERENTIAL. RAWINSUNDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

STATION ALTITUDE 3989.00 FEET MSL
 10 AUG. 70
 ASCENSION NU. 707

UPPER AIR DATA
 2220020707
 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	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
78500.0	32.0	-51.0		50.2	580.3	98.8	29.1	1.000011	
79000.0	31.3	-51.0		49.1	580.3	100.6	28.9	1.000011	
79500.0	30.6	-51.0		48.0	580.3	102.4	28.7	1.000011	
80000.0	29.9	-51.1		46.9	580.3	101.8	27.6	1.000010	
80500.0	29.2	-51.1		45.8	580.3	99.5	25.8	1.000010	
81000.0	28.5	-51.1		44.7	580.3	97.2	24.1	1.000010	
81500.0	27.9	-51.1		43.7	580.3	95.1	24.8	1.000010	
82000.0	27.2	-51.1		42.7	580.3	93.1	26.1	1.000010	
82500.0	26.6	-51.1		41.7	580.3	91.3	27.1	1.000009	
83000.0	26.0	-51.1		40.8	580.3	90.4	27.0	1.000009	
83500.0	25.4	-51.1		39.8	580.2	89.4	26.8	1.000009	
84000.0	24.8	-51.1		38.9	580.2	89.6	28.5	1.000009	
84500.0	24.2	-51.1		38.0	580.2	90.6	31.2	1.000008	
85000.0	23.7	-51.1		37.1	580.2	91.5	33.8	1.000008	
85500.0	23.1	-51.1		36.3	580.2	90.3	32.0	1.000008	
86000.0	22.6	-50.8		35.4	580.6	89.2	30.3	1.000006	
86500.0	22.1	-50.5		34.6	581.1	87.6	30.5	1.000003	
87000.0	21.6	-50.1		33.8	581.5	85.5	33.2	1.000008	
87500.0	21.1	-49.7		33.0	582.0	83.4	35.8	1.000007	
88000.0	20.7	-49.4		32.2	582.5	83.7	36.4	1.000007	
88500.0	20.2	-49.0		31.4	583.0	84.6	36.5	1.000007	
89000.0	19.7	-48.6		30.6	583.4	85.5	36.8	1.000007	
89500.0	19.3	-48.3		29.9	583.9	86.4	37.9	1.000007	
90000.0	18.9	-47.9		29.2	584.4	87.4	39.1	1.000006	
90500.0	18.5	-47.6		28.5	584.8	88.6	39.6	1.000006	
91000.0	18.0	-47.2		27.8	585.3	90.1	39.6	1.000006	
91500.0	17.6	-46.8		27.2	585.8	91.7	39.5	1.000006	
92000.0	17.2	-46.5		26.5	586.2	93.3	41.2	1.000006	
92500.0	16.9	-46.1		25.9	586.7	94.9	43.1	1.000006	
93000.0	16.5	-45.7		25.3	587.2	96.2	44.9	1.000006	

* RELATIVE HUMIDITY DUBBTFUL. KAWINSUNDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

UPPER AIR DATA
 2220020707
 WHITE SANDS
 TABLE VII (CONT)

STATION ALTITUDE 3709.00 FEET MSL
 10 AUG. 70
 ASCENSION NO. 001

WSJM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC MLITER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
93500.0	10.1	-42.4		24.7	567.6	96.6	46.1	1.000005
94000.0	10.6	-42.0		24.1	588.1	96.9	47.3	1.000005
94500.0	11.4	-44.7		23.5	588.6	97.2	48.4	1.000005
95000.0	12.1	-44.3		22.9	589.1	97.1	49.3	1.000005
95500.0	14.7	-43.9		22.4	589.5	96.8	50.1	1.000005
96000.0	14.4	-43.6		21.9	590.0	96.4	50.8	1.000005
96500.0	14.1	-43.2		21.3	590.5	96.1	51.5	1.000005
97000.0	13.8	-42.8		20.8	590.9	95.7	52.3	1.000005
97500.0	13.5	-42.5		20.3	591.4	94.4	51.4	1.000005
98000.0	13.2	-42.1		19.8	591.8	93.1	50.3	1.000004
98500.0	12.9	-41.8		19.4	592.3	91.7	49.2	1.000004
99000.0	12.6	-41.4		18.9	592.8	90.3	48.2	1.000004
99500.0	12.3	-41.0		18.5	593.2	89.0	47.2	1.000004
100000.0	12.0	-40.7		18.0	593.7	87.6	47.2	1.000004
100500.0	11.8	-40.3		17.6	594.2	86.2	47.1	1.000004
101000.0	11.5	-39.9		17.2	594.6	84.9	47.0	1.000004
101500.0	11.2	-39.6		16.8	595.1	83.5	47.0	1.000004
102000.0	11.0	-39.2		16.4	595.6	82.3	46.8	1.000004
102500.0	10.7	-38.9		16.0	596.0	81.5	46.5	1.000004
103000.0	10.5	-38.5		15.6	596.5	80.8	46.1	1.000003
103500.0	10.3	-38.1		15.2	596.9	80.0	45.8	1.000003
104000.0	10.0	-37.6		14.9	597.4	79.2	45.4	1.000003
104500.0	9.8	-37.5		14.5	597.7	78.8	45.5	1.000003
105000.0	9.6	-37.3		14.2	598.0	78.8	46.2	1.000003
105500.0	9.4	-37.0		13.9	598.5	78.9	46.9	1.000003
106000.0	9.2	-36.8		13.6	598.6	78.9	47.6	1.000003
106500.0	9.0	-36.6		13.3	598.9	79.0	48.3	1.000003
107000.0	8.8	-36.3		13.0	599.2	79.7	48.7	1.000003
107500.0	8.6	-36.1		12.7	599.5	81.3	48.5	1.000003
108000.0	8.4	-35.9		12.4	599.8	82.9	48.4	1.000003

* RELATIVE HUMIDITY DOUBTFUL. RAWINSONDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

STATION ALTITUDE 3989.00 FEET MSL
 10 AUG. 70
 ASCENSION NU. 707

UPPER AIR DATA
 2220020707
 WHITE SANDS
 TABLE VII (CONT)

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT (SEE #)	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
108500.0	8.3	-35.6		12.1	600.1	84.5	48.3	1.000003
109000.0	8.1	-35.4		11.8	600.4	86.1	48.2	1.000003
109500.0	7.9	-35.1		11.6	600.7	87.6	48.0	1.000003
110000.0	7.7	-34.9		11.3	601.0	89.0	47.9	1.000003
110500.0	7.6	-34.7		11.1	601.3	90.4	47.8	1.000002
111000.0	7.4	-34.4		10.8	601.6	91.7	47.6	1.000002
111500.0	7.3	-34.2		10.6	601.9	93.1	47.5	1.000002
112000.0	7.1	-34.0		10.3	602.2	94.4	47.0	1.000002
112500.0	6.9	-33.7		10.1	602.5	95.4	45.9	1.000002
113000.0	6.8	-33.5		9.9	602.8	96.5	44.8	1.000002
113500.0	6.7	-33.3		9.7	603.1	97.6	43.6	1.000002
114000.0	6.5	-33.0		9.4	603.4	98.7	42.5	1.000002
114500.0	6.4	-33.2		9.2	603.2			1.000002
115000.0	6.2	-33.3		9.1	603.0			1.000002
115500.0	6.1	-33.5		8.9	602.7			1.000002
116000.0	6.0	-33.7		8.7	602.5			1.000002
116500.0	5.8	-33.9		8.5	602.3			1.000002
117000.0	5.7	-34.1		8.3	602.1			1.000002
117500.0	5.6	-34.3		8.2	601.8			1.000002
118000.0	5.5	-34.4		8.0	601.6			1.000002
118500.0	5.4	-34.0		7.8	601.4			1.000002
119000.0	5.2	-34.8		7.7	601.2			1.000002
119500.0	5.1	-35.0		7.5	600.9			1.000002
120000.0	5.0	-35.2		7.4	600.7			1.000002

* RELATIVE HUMIDITY DUBTFUL. KAMINSUNDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

STATION ALTITUDE 5000.00 FEET MSL
 10 AUG. 70 0800 HRS MDT
 ASCENSION NO. 707

MANDALAY CITY
 488500.00 FEET E
 185045.00 FEET N
 TABLE VIII

MILLIBARSA	PRESSURE SUPPLEMENTAL	FEET	TEMPERATURE		REL. HUMID.		WIND DATA	
			AIR	DEW POINT	PERCENT	WIND DIRECTION	SPEED	WIND VELOCITY
			DEGREES	DEGREES	(SEE #)	DEGREES (TN)	KNUTS	
650.0		5005.	17.3	15.7	79.	122.4	4.9	
600.0		6715.	18.3	11.6	69.	110.2	8.0	
550.0		8510.	14.4	8.0	70.	124.0	11.4	
500.0		10422.	10.6	5.6	71.	172.6	12.0	
450.0		12440.	7.2	2.5	72.	160.4	9.0	
400.0		14307.	3.6	0.3	79.	348.1	0.9	
350.0		16087.	-1.0	-3.0	84.	20.5	3.9	
300.0		17303.	-5.7	-8.4	82.	57.6	2.3	
250.0		18023.	-9.7	-12.5	84.	172.0	0.8	
200.0		18670.	-13.3	-16.8	26.	336.8	5.4	
150.0		19270.	-17.2	-21.4	40.	118.7	2.6	
100.0		19829.	-21.0	-25.1	23.	122.8	7.8	
50.0		20417.	-24.9	-28.1	15.**	80.7	11.3	
00.0		20950.	-28.1	-30.0	7.**	100.8	9.1	
150.0		40770.	-8.9	-11.4		27.4	1.4	
125.0		50530.	-7.3	-9.9		17.9	15.7	
100.0		59857.	-6.4	-9.4		70.9	23.0	
80.0		69290.	-6.7	-9.6		87.3	20.3	
70.0		81075.	-6.1	-9.1		120.4	12.8	
60.0		90001.	-6.3	-9.3		75.3	21.0	
50.0		98734.	-6.6	-9.6		82.5	25.7	
40.0		10727.	-6.9	-9.9		95.2	27.6	
30.0		11650.	-7.1	-10.1		80.6	24.0	
25.0		12489.	-7.1	-10.1		102.2	27.9	
20.0		13360.	-7.9	-10.9		89.3	27.5	
15.0		14251.	-8.2	-11.2		86.8	36.5	
10.0		15170.	-8.7	-11.7		77.2	49.3	
5.0		16150.	-9.3	-12.3		79.1	45.4	
						95.0	40.3	

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

* RELATIVE HUMIDITY UNRELIABLE. KAWINSUNDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOUT 40 PERCENT.

STATION ALTITUDE 2700.00 FEET MSL
 1120 HRS MDT
 10 AUG 70
 ASSUMPTION 14, 703

STATION AND LEVEL DATA
 220000Z00
 WHTLE 241000

STATION 5114
 480500.00 FEET L
 103045.00 FEET N

TABLE IX

PRESSURE MILLIBARS	TEMPERATURE AIR	RELATIVE HUMIDITY PERCENT
002.0	17.0	99.0
001.0	11.4	97.0
000.0	0.0	92.0
000.0	-2.0	72.0
000.0	-17.0	60.0
000.0	-20.0	50.0
000.0	-43.4	14.0
000.0	-50.0	17.0

RELATIVE HUMIDITY PERCENT
 HUMIDITY PERCENT

STATION ALTITUDE 3989.00 FEET MSL
 10 AUG. 70 1120 HRS MDT
 ASCENSION NO. 708

UPPER AIR DATA
 220000Z/00
 WHITE SANDS
 TABLE X

WSTM SITE COORDINATES
 488800.00 FEET L
 189045.00 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES C	REL. HUM. PERCENT (SEE *)	DENSITY GM/CM ³ METRIC	SPEED OF SOUND KNOTS	WIND VELOCITY DEGREES (TN)	WIND DATA KNOTS	INDEX OF REFRACTION
3989.0	862.0	24.4	66.0	1024.0	674.0	350.0	8.0	1.000319
4000.0	862.5	24.4	66.0	1024.5	674.5	350.4	7.9	1.000318
4500.0	867.0	22.9	63.9	1012.2	672.0	8.0	7.1	1.000303
5000.0	871.5	21.5	61.9	1000.2	670.0	25.0	6.2	1.000292
5500.0	877.2	20.1	59.9	988.5	668.5	43.2	5.4	1.000282
6000.0	882.4	18.9	57.2	975.0	667.5	69.8	4.5	1.000275
6500.0	887.8	18.2	55.6	960.8	666.4	81.5	3.5	1.000269
7000.0	893.4	17.4	60.0	946.7	665.4	102.5	6.7	1.000264
7500.0	899.3	16.3	60.4	932.9	664.5	110.5	7.0	1.000259
8000.0	905.4	15.4	60.8	919.3	663.2	118.4	7.1	1.000253
8500.0	911.8	14.5	61.1	905.9	662.1	126.0	6.3	1.000248
9000.0	918.4	13.6	61.5	892.7	661.0	137.5	5.5	1.000243
9500.0	925.3	12.7	61.9	879.7	659.9	154.1	4.5	1.000238
10000.0	932.4	11.9	62.3	866.9	658.9	169.3	4.1	1.000234
10500.0	939.7	11.0	62.7	854.3	657.8	182.8	4.2	1.000229
11000.0	947.2	10.1	63.2	841.8	656.7	192.5	4.3	1.000224
11500.0	954.6	9.1	64.3	829.3	655.6	199.5	4.4	1.000220
12000.0	962.2	8.1	65.5	817.1	654.5	208.5	4.7	1.000216
12500.0	970.1	7.1	66.6	805.0	653.1	218.4	2.7	1.000212
13000.0	978.1	6.1	67.6	793.1	651.9	192.8	2.7	1.000208
13500.0	986.4	5.1	68.9	781.4	650.8	156.1	3.0	1.000204
14000.0	994.9	4.2	70.1	769.9	649.6	148.7	3.1	1.000200
14500.0	1003.6	3.2	71.2	758.5	648.4	144.9	3.2	1.000196
15000.0	1012.5	2.2	71.5	747.1	647.2	148.4	4.0	1.000192
15500.0	1021.2	1.4	69.2	735.3	646.2	150.9	4.7	1.000187
16000.0	1030.2	0.8	67.0	723.8	645.2	146.8	4.6	1.000183
16500.0	1039.4	0.2	64.9	712.1	644.2	142.3	4.6	1.000179
17000.0	1048.8	1.0	62.7	700.9	643.1	134.7	4.9	1.000174
17500.0	1058.4	1.8	60.6	689.7	642.1	128.0	5.1	1.000170
18000.0	1068.2	2.6	58.4	678.8	641.1	130.0	4.8	1.000166

* RELATIVE HUMIDITY DUPLICATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

STATION ALTITUDE 1500.00 FEET MSL
 10 AUG. 70
 ASCENSION NUM. 700

UPPER AIR DATA
 2240020700
 WHITE SANDS
 TABLE X (CONT)

1120 HRS MDT

WSTM SIFL COORDINATES
 466500.00 FEET E
 185049.00 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	REL. HUM. PERCENT (SELT #)	DENSITY UN/CUBIC METERS	SPEED OF SOUND METERS	WIND VELOCITY (KTS)	WIND DIRECTION (T)	WIND DATA	INDEX OF REFRACTION
16500.00	510.2	-3.4	56.3	066.1	040.1	4.0	2	1.000163	
19000.00	503.3	-4.2	54.1	057.5	039.1	4.4	3	1.000159	
19500.00	498.7	-5.1	52.0	047.1	038.1	4.3	7	1.000156	
20000.00	494.3	-5.7	49.6	036.0	037.1	4.0	9	1.000152	
20500.00	489.8	-6.7	47.0	026.7	036.1	4.3	4	1.000149	
21000.00	485.2	-7.3	45.7	016.7	035.0	4.5	2	1.000146	
21500.00	481.0	-8.4	44.6	006.6	034.0	4.2	2	1.000143	
22000.00	476.5	-9.2	43.4	006.6	032.9	4.4	3	1.000140	
22500.00	472.7	-10.1	42.3	007.1	031.8	4.5	0	1.000137	
23000.00	468.5	-11.0	41.1	007.3	030.6	4.3	3	1.000133	
23500.00	464.1	-11.8	40.0	008.4	029.7	4.1	3	1.000132	
24000.00	459.7	-12.7	38.9	008.8	028.8	4.5	1	1.000129	
24500.00	455.3	-13.5	37.7	008.8	027.8	4.1	1	1.000127	
25000.00	451.0	-14.3	36.6	008.8	026.9	4.1	5	1.000125	
25500.00	446.7	-14.8	35.5	008.8	026.0	4.0	4	1.000122	
26000.00	442.5	-15.3	34.4	008.8	025.4	4.0	4	1.000120	
26500.00	438.1	-15.8	33.3	008.8	024.4	4.0	3	1.000117	
27000.00	433.8	-16.2	32.2	008.8	023.1	4.0	1	1.000115	
27500.00	429.5	-16.6	31.1	008.8	021.7	4.0	1	1.000112	
28000.00	425.1	-17.0	30.0	008.8	020.6	4.0	1	1.000110	
28500.00	420.7	-17.4	28.9	008.8	019.5	4.0	1	1.000107	
29000.00	416.4	-17.8	27.8	008.8	018.4	4.0	1	1.000105	
29500.00	412.0	-18.2	26.7	008.8	017.4	4.0	1	1.000103	
30000.00	407.6	-18.6	25.6	008.8	016.4	4.0	1	1.000101	
30500.00	403.2	-19.0	24.5	008.8	015.4	4.0	1	1.000099	
31000.00	398.8	-19.4	23.4	008.8	014.4	4.0	1	1.000098	
31500.00	394.4	-19.8	22.3	008.8	013.4	4.0	1	1.000096	
32000.00	390.0	-20.2	21.2	008.8	012.4	4.0	1	1.000095	
32500.00	385.6	-20.6	20.1	008.8	011.4	4.0	1	1.000093	
33000.00	381.2	-21.0	19.0	008.8	010.4	4.0	1	1.000093	

* RELATIVE HUMIDITY CALCULATED FROM THE WIND VELOCITY LIMITATIONS. WIND DIRECTION RELATIVE TO WIND VELOCITY ABOVE 40 FEET.

UPPER AIR DATA
 2200Z/00
 WIND DATA
 TABLE X (CONT)

STATION ALTITUDE 3750.00 FEET MSL
 10 AUG. 70 1120 HRS MDT
 ASCENSION NO. 700

GEOMETRIC ALTITUDE	PRESSURE	AIR TEMPERATURE	REL. HUM. PERCENT	DENSITY GM/CM ³	WIND VELOCITY KNOTS	WIND DIRECTION DEGREES (TN)	WIND VELOCITY KNOTS	WIND DIRECTION DEGREES (TN)	INFLATION UP
33500.0	202.2	-32.2	10.0	400.9	604.1	164.5	3.8	1.000092	
34000.0	270.2	-33.7	15.9**	402.2	602.0	125.3	4.4	1.000090	
34500.0	270.5	-34.0	15.1**	395.4	601.2	146.5	5.2	1.000088	
35000.0	204.7	-35.9	10.3**	388.6	599.8	141.7	7.4	1.000087	
35500.0	228.9	-37.0	7.5**	382.0	598.4	135.5	9.2	1.000085	
36000.0	225.2	-38.1	4.7**	375.2	597.0	127.2	10.6	1.000084	
36500.0	247.0	-39.2	2.0**	369.1	595.6	121.9	11.6	1.000082	
37000.0	242.4	-40.4		362.8	594.1	118.8	12.3	1.000081	
37500.0	230.9	-41.7		356.0	592.4	116.0	12.2	1.000079	
38000.0	231.0	-42.9		350.5	590.8	113.2	11.6	1.000078	
38500.0	220.4	-44.2		344.6	589.2	111.9	10.8	1.000077	
39000.0	221.2	-45.2		338.7	587.5	112.0	9.9	1.000075	
39500.0	210.4	-46.0		333.0	585.9	111.9	9.1	1.000074	
40000.0	211.5	-48.0		327.4	584.2	111.5	8.3	1.000073	
40500.0	200.8	-49.3		321.8	582.6	111.2	7.2	1.000072	
41000.0	202.0	-50.2		316.1	581.0	111.0	5.4	1.000070	
41500.0	197.2	-51.7		310.3	579.5	109.8	4.1	1.000069	
42000.0	192.7	-52.8		304.7	578.0	107.7	3.3	1.000068	
42500.0	188.2	-53.9		299.1	576.5	85.2	3.2	1.000067	
43000.0	183.8	-55.1		293.6	575.0	48.6	3.6	1.000065	
43500.0	179.5	-56.2		288.3	573.5	39.2	4.8	1.000064	
44000.0	175.2	-57.4		283.0	572.0	47.6	6.6	1.000063	
44500.0	171.2	-58.5		277.8	570.5	53.6	8.5	1.000062	
45000.0	167.0	-59.5		272.3	569.1	57.9	10.4	1.000061	
45500.0	162.9	-60.0		267.0	567.7	65.1	12.3	1.000059	
46000.0	158.9	-61.0		261.7	566.4	76.2	14.3	1.000058	
46500.0	155.0	-62.0		256.0	565.0	87.2	16.2	1.000057	
47000.0	151.2	-63.0		251.5	563.6	92.4	16.1	1.000056	
47500.0	147.6	-64.7		246.0	562.2	97.5	16.0	1.000055	
48000.0	144.0	-65.7		241.8	560.8	100.5	15.9	1.000054	

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

* RELATIVE HUMIDITY UNUSUAL. RAWINSUNDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

UPPER AIR DATA
 220020703
 WHITE SANDS
 TABLE X (CONT)

STATION ALTITUDE 3939.00 FEET MSL
 10 AUG 70
 ASCENDING NO. 708

WSTM SITE COORDINATES
 48580.00 FEET E
 185045.00 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	WIND DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
48500.0	140.4	-66.7		237.0	102.1	15.9	1.000053
49000.0	137.0	-67.8		232.4	101.2	15.8	1.000052
49500.0	133.7	-68.9		227.4	99.9	15.7	1.000051
50000.0	130.3	-70.2		222.9	92.7	16.0	1.000050
50500.0	127.0	-70.7		218.0	88.6	17.0	1.000049
51000.0	123.6	-71.4		213.1	86.3	18.0	1.000047
51500.0	120.7	-71.9		208.4	87.7	18.8	1.000046
52000.0	117.7	-71.7		203.7	89.6	18.7	1.000045
52500.0	114.7	-71.7		198.3	93.1	18.4	1.000044
53000.0	111.8	-71.5		193.2	96.0	14.4	1.000043
53500.0	108.9	-71.4		188.1	96.3	14.9	1.000042
54000.0	106.2	-71.2		183.2	96.5	13.9	1.000041
54500.0	103.5	-71.0		178.4	94.5	12.9	1.000040
55000.0	100.9	-70.8		173.7	92.5	11.9	1.000039
55500.0	98.3	-70.6		169.1	92.9	13.1	1.000038
56000.0	95.9	-70.0		164.4	93.7	14.7	1.000037
56500.0	93.5	-69.4		159.9	97.0	15.7	1.000036
57000.0	91.2	-68.9		155.5	102.4	16.1	1.000035
57500.0	88.9	-68.3		151.2	106.8	16.4	1.000034
58000.0	86.7	-67.8		147.0	108.7	16.2	1.000033
58500.0	84.5	-67.2		143.0	110.5	16.0	1.000032
59000.0	82.4	-66.6		139.0	102.7	14.8	1.000031
59500.0	80.4	-66.1		135.0	93.8	13.6	1.000030
60000.0	78.4	-65.6		131.5	85.3	13.9	1.000029
60500.0	76.5	-65.2		128.1	77.4	15.9	1.000029
61000.0	74.6	-64.7		124.7	69.7	17.9	1.000028
61500.0	72.8	-64.3		121.5	71.8	20.6	1.000027
62000.0	71.0	-63.9		118.5	73.8	23.2	1.000026
62500.0	69.3	-63.5		115.2	77.4	24.4	1.000026
63000.0	67.6	-63.1		112.4	82.1	24.7	1.000025

* ALL ALTITUDE NUMERALLY UNCORRECTED. WIND DIRECTION EQUIPMENT LIMITATIONS. BASE LINE RELATIVE NUMERALLY ABOVE 40 PERCENT.

UPPER AIR DATA
 485500700
 WHITE SANDS
 TABLE X (CONT)

STATION ALTITUDE 3999.00 FEET MSL
 1120 HRS MDT
 ASLENSION NO. 700

WSTM SITE COORDINATES
 485500.00 FEET E
 185042.00 FEET N

GEOMETRIC ALTITUDE MSL FEET	PKLSSURE	AIR TEMPERATURE DEGREES CELSIUS	REL. HUM. PERCENT (SEL #)	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
63500.00	00.0	-02.7		109.2	564.9	86.6	25.0	1.000024
64000.00	04.4	-02.2		106.5	565.5	90.3	24.6	1.000024
64200.00	02.8	-01.8		103.6	566.0	94.1	24.3	1.000023
65000.00	01.3	-01.4		100.4	566.6	95.9	23.7	1.000022
65500.00	07.8	-01.0		98.2	567.1	96.9	23.2	1.000022
66000.00	06.5	-00.6		95.6	567.7	97.6	22.9	1.000021
66500.00	03.9	-00.2		93.1	568.2	98.4	23.3	1.000021
67000.00	02.0	-04.5		90.6	569.1	98.9	23.7	1.000020
67500.00	04.2	-00.4		88.0	570.7	98.8	23.6	1.000020
68000.00	02.0	-07.2		85.4	572.2	98.6	23.5	1.000019
68500.00	01.7	-06.0		83.0	573.7	97.5	23.2	1.000018
69000.00	00.3	-04.9		80.6	575.3	94.4	23.0	1.000018
69500.00	44.3	-04.3		78.5	576.0	91.3	22.7	1.000017
70000.00	40.2	-04.2		76.8	576.8	88.1	22.8	1.000017
70500.00	47.0	-04.1		74.8	576.3	84.8	22.9	1.000017
71000.00	40.0	-04.0		73.0	576.5	82.1	23.2	1.000016
71500.00	44.9	-03.9		71.3	576.6	80.9	23.9	1.000016
72000.00	43.8	-03.7		69.6	576.8	79.7	24.6	1.000015
72500.00	42.8	-03.6		68.0	576.9	79.8	25.4	1.000015
73000.00	41.8	-03.5		66.4	577.1	80.4	26.4	1.000015
73500.00	40.7	-03.4		64.8	577.2	81.1	27.4	1.000014
74000.00	39.9	-03.3		63.2	577.4	83.5	27.9	1.000014
74500.00	37.0	-03.2		61.7	577.5	86.0	28.4	1.000014
75000.00	36.1	-03.0		60.3	577.7	88.6	29.3	1.000013
75500.00	37.2	-02.9		58.8	577.9	91.9	29.6	1.000013
76000.00	36.3	-02.8		57.4	578.0	94.4	29.7	1.000013
76500.00	35.5	-02.7		56.1	578.2	97.5	29.7	1.000012
77000.00	34.7	-02.6		54.7	578.3	101.0	29.3	1.000012
77500.00	33.7	-02.4		53.4	578.5	104.5	29.0	1.000012
78000.00	33.1	-02.3		52.2	578.6	107.6	28.8	1.000012

* RELATIVE HUMIDITY USEFUL. RAW INSURE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 60 PERCENT.

UPPLK AIX DATA
 2220020708
 WHITE SANDS
 TABLE X (CONT)

STATION ALTITUDE 3989.00 FEET MSL
 TO ADD. 30
 ASCENSION NU. 108
 1120 HRS MDT

WSM SITE COORDINATES
 488580.00 FEET E
 165045.00 FEET N

GEOMETRIC HEIGHT MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT (SEE *)	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA VELOCITY (TN) KNOTS	SPEED OF LIGHT KNOTS	INDEX OF REFRACTION
78500.0	22.2	-52.2		50.7	576.6	109.0	29.4	1.000011
79000.0	21.6	-52.1		49.7	576.9	110.4	30.0	1.000011
79500.0	20.9	-51.9		48.5	579.1	111.0	30.2	1.000011
80000.0	20.1	-51.0		47.4	579.5	109.5	29.3	1.000011
80500.0	19.4	-51.3		46.3	579.9	107.9	28.5	1.000010
81000.0	18.6	-51.0		45.1	580.3	106.1	28.0	1.000010
81500.0	17.8	-50.7		44.1	580.7	103.2	28.5	1.000010
82000.0	17.1	-50.4		43.0	581.1	100.4	28.9	1.000010
82500.0	16.4	-50.1		42.0	581.5	97.8	29.4	1.000009
83000.0	15.6	-49.8		41.0	581.9	96.0	30.0	1.000009
83500.0	14.9	-49.5		40.0	582.3	94.1	30.5	1.000009
84000.0	14.1	-49.2		39.0	582.6	92.3	31.2	1.000009
84500.0	13.4	-48.9		38.1	583.0	89.9	32.3	1.000008
85000.0	12.7	-48.6		37.2	583.4	87.6	33.4	1.000008
85500.0	12.0	-48.3		36.3	583.8	85.3	34.5	1.000008
86000.0	11.3	-48.1		35.4	584.2	84.3	35.7	1.000008
86500.0	10.6	-47.8		34.6	584.6	83.4	36.8	1.000008
87000.0	10.0	-47.5		33.8	585.0	82.5	38.0	1.000008
87500.0	9.4	-47.2		32.9	585.3	81.6	38.5	1.000007
88000.0	8.8	-46.9		32.2	585.7	79.5	38.7	1.000007
88500.0	8.2	-46.6		31.4	586.1	77.9	38.9	1.000007
89000.0	7.6	-46.3		30.6	586.5	77.2	39.2	1.000007
89500.0	7.1	-46.0		29.9	586.9	79.0	40.2	1.000007
90000.0	6.5	-45.7		29.2	587.3	80.9	41.2	1.000006
90500.0	6.0	-45.4		28.5	587.7	82.7	42.1	1.000006
91000.0	5.4	-45.1		27.8	588.0	84.7	42.7	1.000006
91500.0	4.9	-44.8		27.1	588.4	86.6	43.3	1.000006
92000.0	4.3	-44.5		26.5	588.8	88.6	43.8	1.000006
92500.0	3.8	-44.2		25.9	589.2	90.8	45.1	1.000006
93000.0	3.2	-43.9		25.2	589.6	93.1	46.6	1.000006

* RELATIVE HUMIDITY UNUSUAL. MAX INSUNDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

STATION ALTITUDE 2709.00 FEET MSL
 10 AUG. 70 1120 HRS MDT
 ASCENSION NO. 700

UPPLK AIX DATA
 2220020700
 WHITE SANDS
 TABLE X (CONT)

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

GEOMETRIC ALTITUDE	PRESSURE	TEMPERATURE	REL. HUM.	DENSITY	SPEED OF	WIND DATA	INDEX
MSL FEET	MILLIBARS	AIR DEWPOINT	PERCENT	GM/CM ³	SOUND	DIRECTION	OF
		DEGREES	(SEE *)	METER	KNUTS	DEGREES(TN)	REFRACTION
		CENTIGRADE				KNUTS	
93500.0	10.2	-43.6		24.6	590.0	85.5	1.000005
94000.0	15.9	-43.3		24.1	590.4	97.5	1.000005
94500.0	15.5	-42.9		23.5	590.8	100.3	1.000005
95000.0	15.2	-42.6		22.9	591.2	102.8	1.000005
95500.0	14.8	-42.3		22.4	591.6	105.2	1.000005
96000.0	14.5	-41.9		21.9	592.1	106.1	1.000005
96500.0	14.2	-41.6		21.4	592.5	106.9	1.000005
97000.0	13.9	-41.3		20.9	592.9	107.6	1.000005
97500.0	13.6	-41.0		20.4	593.3	107.1	1.000005
98000.0	13.3	-40.6		19.9	593.8	105.6	1.000004
98500.0	13.0	-40.3		19.4	594.2	104.1	1.000004
99000.0	12.7	-40.4		19.0	594.6	102.1	1.000004
99500.0	12.4	-40.5		18.6	593.9	97.1	1.000004
100000.0	12.2	-40.6		18.2	593.8	92.1	1.000004
100500.0	11.9	-40.7		17.8	593.7	87.1	1.000004
101000.0	11.6	-40.8		17.4	593.6	84.1	1.000004
101500.0	11.4	-40.9		17.1	593.5	81.8	1.000004
102000.0	11.1	-41.0		16.7	593.3	79.6	1.000004
102500.0	10.9	-41.0		16.3	593.2	78.4	1.000004
103000.0	10.6	-41.1		16.0	593.1	79.5	1.000004
103500.0	10.4	-41.2		15.6	593.0	80.7	1.000003
104000.0	10.2	-41.3		15.3	592.9	81.8	1.000003
104500.0	10.0	-41.2		14.9	593.1	82.6	1.000003
105000.0	9.7	-40.1		14.6	594.4	83.5	1.000003
105500.0	9.5	-39.0		14.2	595.8	84.3	1.000003
106000.0	9.3	-38.0		13.8	597.1	85.1	1.000003
106500.0	9.1	-36.9		13.4	598.5	87.0	1.000003
107000.0	8.9	-36.2		13.1	599.3	88.9	1.000003
107500.0	8.7	-35.1		12.8	599.5	90.7	1.000003
108000.0	8.5	-35.9		12.5	599.7		1.000003

* RELATIVE HUMIDITY UNRELIABLE. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

KAWINSUNDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE

UPPER AIR DATA
 2220020708
 WHILL SANDS
 TABLE X (CONT)

STATION ALTITUDE 3989.00 FEET MSL
 10 AUG. 70
 ASCENSION NO. 700
 1120 HRS MDT

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT (SEE #)	DENSITY GM/CC	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) KNOTS	INDEX OF REFRACTION
108500.0	8.4	-35.8		12.5	599.4		1.000003
109000.0	8.2	-35.0		12.0	600.1		1.000003
109500.0	8.0	-35.5		11.7	600.3		1.000003
110000.0	7.8	-35.5		11.5	600.5		1.000003
110500.0	7.7	-35.1		11.2	600.7		1.000002
111000.0	7.5	-35.0		11.0	600.9		1.000002
111500.0	7.3	-34.8		10.7	601.1		1.000002
112000.0	7.2	-34.7		10.5	601.3		1.000002
112500.0	7.0	-34.5		10.3	601.5		1.000002

* RELATIVE HUMIDITY DUBIOUS. RAWINSUNDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

STATION ALTITUDE 5785.00 FEET
 10 AUG. 70
 ASCENSION NO. 100

MANDATORY LEVELS
 220020700
 WHITE SAHMS
 TABLE X(CONT)

WSTM SITE COORDINATES
 488580.00 FEET E
 185045.00 FEET N

PRESSURE MILLIBARS	POTENTIAL FEET	AIR DEGREES	TEMPERATURE DEGREE CENTIGRADE	REL. HUM. PERCENT	WIND DATA		
					DIRECTION DEGREES(TN)	SPEED KNOTS	
820.0	5067.	21.3	13.8	62.	28.0	6.1	
800.0	6701.	17.6	9.8	60.	93.6	6.2	
750.0	8584.	14.4	7.1	61.	126.2	6.2	
700.0	10489.	11.0	4.2	63.	182.7	4.2	
650.0	12507.	7.1	1.3	67.	218.6	2.7	
600.0	14654.	2.9	-1.8	72.	146.0	3.5	
550.0	16953.	-0.5	-7.1	63.	155.2	4.9	
500.0	19433.	-4.3	-13.3	52.	159.4	2.7	
450.0	22130.	-9.3	-19.8	43.	13.6	3.8	
400.0	25088.	-14.7	-26.5	36.	60.7	5.7	
350.0	28360.	-20.7	-37.0	21.	9.6	4.1	
300.0	32050.	-29.0	-47.1	16.	131.7	8.1	
250.0	36240.	-38.3	-67.7	3.***	123.1	11.4	
200.0	41132.	-51.0			110.9	4.7	
175.0	43944.	-57.5			48.3	6.7	
150.0	47090.	-64.0			94.4	16.0	
125.0	50691.	-70.5			82.9	17.7	
100.0	55020.	-70.6			92.3	12.0	
80.0	59409.	-66.0			92.4	13.4	
70.0	62083.	-63.7			75.2	24.3	
60.0	65206.	-61.1			96.7	23.3	
50.0	68908.	-54.4			93.2	22.8	
40.0	73671.	-53.3			83.2	27.8	
30.0	79770.	-51.6			109.2	29.2	
25.0	83673.	-49.2			92.2	31.2	
20.0	88500.	-46.3			76.7	39.0	
15.0	94830.	-42.4			104.1	47.3	
10.0	103874.	-41.4			82.5	42.6	
7.0	111988.	-34.5					

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

* RELATIVE HUMIDITY DOUBTFUL. RAWINSUNDE EQUIPMENT LIMITATIONS. BASE LINE RELATIVE HUMIDITY ABOVE 40 PERCENT.

RELEASE TIME (MDT)		SECOND-STAGE IMPACT DISPLACEMENT IN MILES DUE TO WIND												AZI- MUTH (DE- GREES)	THEORETICAL IMPACT FROM LAUNCHER (IN MILES)				
		11-216 FT				216-4270 FT				4270-53200 FT								TOTAL	
		RAWIN- SONDE	PIRAL	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W	N-S	E-W		RANGE	N-S	E-W		
0800	0900	1.5N	2.5W	0.4N	0.5W	0.0	2.7E	1.9N	0.3W	1.9N	2.7E	0.0	2.7E	1.9N	0.3W	347.7	68.1	66.7N	14.5W
0800	0930	0.7N	1.8E	0.3N	0.3E	0.0	2.7E	1.0N	4.8E	1.0N	2.7E	0.0	2.7E	1.0N	4.8E	351.9	66.7	65.8N	9.4W
0800	1000	0.2S	0.2E	1.7S	1.5E	0.0	2.7E	1.9S	4.4E	1.9S	2.7E	0.0	2.7E	1.9S	4.4E	351.1	63.7	62.9N	9.8W
0800	1010	0.0	0.0	1.0S	1.6E	0.0	2.7E	1.0S	4.3E	1.0S	2.7E	0.0	2.7E	1.0S	4.3E	351.2	64.7	63.8N	9.9W
0800	1020	0.0	0.0	0.8S	2.8E	0.0	2.7E	0.8S	5.5E	0.8S	2.7E	0.0	2.7E	0.8S	5.5E	352.4	64.9	64.0N	8.7W
0800	1030	0.0	0.0	0.1N	1.5E	0.0	2.7E	0.1N	4.2E	0.1N	2.7E	0.0	2.7E	0.1N	4.2E	351.4	65.4	64.9N	10.0W
0800	1040	0.0	0.0	1.9N	2.6E	0.0	2.7E	1.9N	5.3E	1.9N	2.7E	0.0	2.7E	1.9N	5.3E	352.4	67.2	66.7N	8.9W
0800	1050	0.0	0.0	2.4N	0.1E	0.0	2.7E	2.4N	2.8E	2.4N	2.7E	0.0	2.7E	2.4N	2.8E	350.4	68.4	67.2N	11.4W
0800	1100	0.0	0.0	2.8N	0.6E	0.0	2.7E	2.8N	3.3E	2.8N	2.7E	0.0	2.7E	2.8N	3.3E	350.9	68.9	67.6N	10.9W
0800	1110	1.8N	0.0	4.8N	1.8E	0.0	2.7E	6.6N	4.5E	6.6N	2.7E	0.0	2.7E	6.6N	4.5E	352.3	72.4	71.4N	9.7W
*1120	1120	4.7N	0.0	5.4N	0.8E	0.4S	1.7E	9.7N	2.5E	9.7N	1.7E	0.4S	1.7E	9.7N	2.5E	351.1	75.6	74.5N	11.7W

TABLE XII. IMPACT PREDICTION DATA
NIKE-HYDAC STV-95

* Post shoot data

	AZI- MUTH (DE- GREES)	MILES FROM LAUNCHER		
		RANGE	N-S	E-W
LAUNCHER SETTING (ELEVATION 84.6 DEGREES QE)	351.0	65.6	64.8N	10.3W
NO WIND IMPACT	347.6	66.3	64.8N	14.2W
PREDICTED SECOND STAGE IMPACT	354.0	71.0	70.6N	7.4W
SECOND-STAGE IMPACT, SOTIM TRACK	352.8	75.2	74.6N	9.4W
PREDICTED BOOSTER IMPACT	351.0	1.1	1.1N	0.2W
ACTUAL BOOSTER IMPACT	N/A	N/A	N/A	N/A

TABLE XII. IMPACT PREDICTION DATA (CONT)
NINE-HYDAC STV-95

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 Atmospheric Sciences Laboratory
 White Sands Missile Range, New Mexico

13. ABSTRACT

Meteorological data gathered for the launching of Nike-Hydac STV-95 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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