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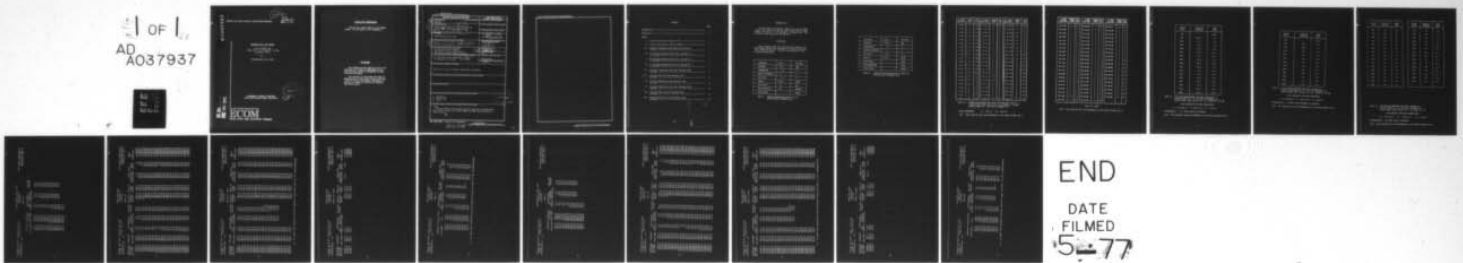
ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
03702A HONEST JOHN MISSILE NUMBER 1547, ROUND NUMBER 655 AML (3--ETC(U)
DEC 76

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DR-932
December 1976

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AD

METEOROLOGICAL DATA REPORT

03702A HONEST JOHN
MISSILE NO. 1547, ROUND NO. 655 AML
(3 December 1976)

BY

WSMR METEOROLOGICAL TEAM

DDC
RECEIVED
APR 8 1977
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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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UNITED STATES ARMY ELECTRONICS COMMAND

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 03702A Honest John, Missile Number 1547, Round Number 655 AML, are presented in tabular form.		

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INTRODUCTION

03702A Honest John, Missile Number 1547, Round Number 655 AML, was launched from CP-7, White Sands Missile Range (WSMR), New Mexico, at 1400 HRS MST, 3 December 1976. The scheduled launch time was 1400 HRS MST.

DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	4,845.0	FEET/MSL
PRESSURE	851.3	MBS
TEMPERATURE	9.0	°C
RELATIVE HUMIDITY	61	%
DEW POINT	1.9	°C
DENSITY	1,046.0	GM/M ³
WIND SPEED	02	MPH
WIND DIRECTION	100	DEGREES
CLOUD COVER		CLEAR

TABLE I. SURFACE OBSERVATIONS TAKEN AT CP-7,
1400 HRS MST/3 DECEMBER 1976.

ELEVATION	4,694.0	FEET/MSL
PRESSURE	859.4	MBS
TEMPERATURE	9.3	°C
RELATIVE HUMIDITY	24	%
DEW POINT	-10.4	°C
DENSITY	1,057.0	GM/M ³
WIND SPEED		CALM
WIND DIRECTION		CALM
CLOUD COVER		CLEAR

TABLE II. SURFACE OBSERVATIONS TAKEN AT AFSWC #1,
1400 HRS MST/3 DECEMBER 1976.

T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG	T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG	T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG
-5.00	2.0	165	-0 9.5	3.0	266	-0 0.50	2.0	266
-4.30	2.0	156	-0 9.0			-0 0.25	1.0	
-4.00	2.0	151	-0 8.5			0 0.00	0.0	
-3.30	0.0	147	-0 8.0			+0 0.25	0.0	
-3.00	1.0	201	-0 7.5			+0 0.50	0.0	
-2.30	1.0	193	-0 7.0			+0 0.75	1.0	
-2.00	0.0	189	-0 6.5			+0 1.00	1.0	
-1.45	0.0	186	-0 6.0			+0 1.25	1.0	
-1.30	0.0	186	-0 5.5			+0 1.50	1.0	266
-1.15	4.0	285	-0 5.0			+0 1.75	2.0	264
-0.60	3.0	275	-0 4.5			+0 2.00		261
-0.55	3.0	261	-0 4.0			+0 2.25		261
-0.50	2.0	258	-0 3.5			+0 2.50		261
-0.45	2.0	257	-0 3.0			+0 2.75		260
-0.40	2.0		-0 2.5	3.0		+0 3.00		258
-0.35	2.0		-0 2.0	2.0		+0 3.25		258
-0.30	3.0		-0 1.75			+0 3.50		257
-0.25			-0 1.50			+0 3.75		257
-2.20			-0 1.25			+0 4.00		256
-0.15		257	-0 1.00			+0 4.25		256
-0.10	3.0	265	-0 0.75	2.0	266	+0 4.50	2.0	256

TABLE III. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 1
03702A HONEST JOHN, MISSILE NO. 1547, ROUND NO. 655 AML
LAUNCHED FROM CP-7, 1400 MST/3 DECEMBER 1976

WSTM COORDINATES: X = 406,477 Y = 693,532

NOTE: WIND DIRECTION DATA ARE REFERENCED TO THE FIRING AZIMUTH 168.5°.

T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG	T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG	T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG
+0 4.75	2.0	256	+0 10.00	1.0	256	+0 20.50	1.0	256
+0 5.00			+0 10.50			+0 21.00		
+0 5.25			+0 11.00			+0 21.50		
+0 5.50			+0 11.50			+0 22.00		
+0 5.75			+0 12.00			+0 22.50		
+0 6.00			+0 12.50			+0 23.00		
+0 6.25			+0 13.00			+0 23.50		
+0 6.50			+0 13.50			+0 24.00		
+0 6.75			+0 14.00			+0 24.50		
+0 7.00			+0 14.50			+0 25.00		256
+0 7.25			+0 15.00			+0 25.50		257
+0 7.50			+0 15.50			+0 26.00		259
+0 7.75			+0 16.00			+0 26.50		261
+0 8.00			+0 16.50			+0 27.00		261
+0 8.25			+0 17.00			+0 27.50		262
+0 8.50			+0 17.50			+0 28.00		262
+0 8.75			+0 18.00			+0 28.50		262
+0 9.00			+0 18.50			+0 29.00		263
+0 9.25			+0 19.00			+0 29.50		263
+0 9.50	2.0		+0 19.50			+0 30.00	1.0	264
+0 9.75	1.0	256	+0 20.00	1.0	256			

TABLE III (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TO THE FIRING AZIMUTH 168.5°.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR		CALM
500	001.5	3.0
1000	071.5	2.0
1500	141.5	5.0
2000	191.5	11.0
2500	166.5	10.0
3000	171.5	14.0
3500	186.5	27.0
4000	181.5	28.0
4500	176.5	17.0
5000	171.5	18.0
5500	171.5	15.0
6000	161.5	15.0
6500	166.5	18.0
7000	171.5	17.0
7500	171.5	17.0
8000	166.5	19.0

TABLE IV. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM CP-17, AT 1330 MST/3 DECEMBER 1976
03702A HONEST JOHN, MISSILE NO. 1547, ROUND NO. 655 AML

PIBAL RELEASE POINT WSTM COORDINATES:

X = 413,576.24 Y = 665,015.33 Z = 4,746.53

APPROXIMATELY: 7 1/2 MILES SOUTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TO THE FIRING AZIMUTH 168.5°.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR		CALM
500	090	5.0
1000	080	7.0
1500	100	6.0
2000	155	8.0
2500	160	13.0
3000	160	17.0
3500	165	22.0
4000	165	21.0
4500	160	15.0
5000	150	14.0
5500	140	13.0
6000	150	12.0

TABLE V. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM AFSWC #1, AT 1400 MST/3 DECEMBER 1976
03702A HONEST JOHN, MISSILE NO. 1547, ROUND NO. 655 AML

PIBAL RELEASE POINT WSTM COORDINATES:

X = 418,568.33 Y = 638,753.98 Z = 4,693.89

APPROXIMATELY: 10 MILES SOUTH SOUTHEAST OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TO THE FIRING AZIMUTH 168.5°.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	278	2.0
100	278	
200	278	
300	278	
400	274	
500	247	1.5
600	217	1.5
700	195	2.0
800	183	3.0
900	177	3.0
1000	174	2.0
1100	168	1.5
1200	161	1.0
1300	157	1.5
1400	153	1.5
1500	151	1.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
1600	154	3.0
1700	156	4.0
1800	156	5.0
1900	160	8.5
2000	161	13.0
2100	162	18.0
2200	162	19.5
2300	162	20.0
2400	161	20.5
2500	161	21.0
2600	160	22.0
2700	160	22.5
2800	159	23.0
2900	159	23.5
3000	159	24.0

TABLE VI. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM CP-7, AT 1400 MST/3 DECEMBER 1976
03702A HONEST JOHN, MISSILE NO. 1547, ROUND NO. 655

PIBAL RELEASE POINT WSTM COORDINATES:

X = 406,122.94 Y = 693,918.11 Z = 4,844.64

APPROXIMATELY: 600 FEET SOUTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TO THE FIRING AZIMUTH 168.5°.

STATION ALTITUDE 4940.00 FEET MSL
 7 DEC. 76
 ASCENSION NO. 374

SIGNIFICANT LEVEL DATA
 3380040324
 STATION

WSTM SITE COORDINATES
 4C3762.00 FEET E
 701403.00 FEET N

TABLE VII

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM.
MILLIBARS	ALTITUDE MSL FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT
854.1	4940.0	4.0	-6.0	48.0
850.0	5068.3	3.2	-5.7	52.0
840.0	5382.8	2.1	-5.5	57.0
820.2	6015.1	2.0	-10.5	39.0
798.6	6724.4	3.6	-10.4	35.0
777.8	7426.4	2.5	-12.5	32.0
765.0	7867.9	3.7	-12.2	30.0
700.0	10225.7	1.5	-18.4	21.0
674.8	11150.9	-1.0	-21.1	20.0
634.4	12807.2	-1.5	-23.3	17.0
517.4	18010.8	-14.6	-33.6	18.0
500.0	18861.4	-15.4	-35.4	16.0
400.0	24257.1	-28.8	-46.0	17.0
364.2	26439.0	-34.5	-50.4	18.0
300.0	30803.8	-44.7		
250.0	34735.1	-54.3		
235.2	36015.6	-56.9		

STATION ALTITUDE 4040.00 FEET MSL
 3 DEC. 76 1100 HRS MST
 ASCENSION NO. 324

UPPER AIR DATA
 3380040324
 STALLION

WSTM SITE COORDINATES
 403783.00 FEET E
 701403.00 FEET N

TABLE VIII

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTICA
4940.0	854.1	4.0	-6.0	48.0	1071.7	649.1	0.0	0.0	1.000258
5000.0	852.2	3.6	-5.8	45.5	1070.7	648.7	333.6	0.4	1.000258
5500.0	836.3	2.1	-6.3	53.7	1056.7	646.9	333.6	3.8	1.000254
6000.0	820.7	2.0	-10.3	35.4	1037.7	646.6	333.6	7.3	1.000245
6500.0	805.4	3.1	-10.4	36.3	1014.3	647.9	333.6	10.7	1.000240
7000.0	790.4	3.2	-11.2	33.8	995.2	648.0	333.7	14.1	1.000235
7500.0	775.7	2.7	-12.4	31.7	978.4	647.4	345.0	15.1	1.000230
8000.0	761.2	3.6	-12.6	29.5	957.2	648.4	354.7	16.5	1.000225
8500.0	747.0	3.1	-13.8	27.6	941.0	647.9	357.1	16.0	1.000220
9000.0	733.1	2.6	-15.0	25.7	925.1	647.3	358.7	15.3	1.000216
9500.0	719.4	2.2	-16.4	23.8	909.4	646.7	356.8	13.2	1.000211
10000.0	706.0	1.7	-17.8	21.9	894.0	646.1	352.6	10.8	1.000207
10500.0	692.7	.8	-19.2	20.7	880.3	645.0	344.6	9.8	1.000203
11000.0	679.7	-0.5	-20.5	20.2	867.9	643.5	334.9	9.9	1.000199
11500.0	666.9	-1.1	-21.5	19.4	853.4	642.8	325.9	10.7	1.000196
12000.0	654.3	-1.3	-22.2	18.5	837.8	642.6	318.9	12.2	1.000192
12500.0	641.9	-1.4	-22.9	17.6	822.4	642.4	313.6	13.2	1.000188
13000.0	629.6	-2.0	-23.7	17.0	808.4	641.7	309.0	13.0	1.000185
13500.0	617.4	-3.2	-24.7	17.1	796.5	640.2	305.2	12.8	1.000182
14000.0	605.4	-4.5	-25.6	17.2	784.7	638.7	304.5	12.4	1.000179
14500.0	593.7	-5.8	-26.6	17.3	773.2	637.2	303.7	11.5	1.000176
15000.0	582.2	-7.0	-27.6	17.4	761.8	635.7	302.5	12.4	1.000173
15500.0	570.9	-8.3	-28.6	17.5	750.6	634.2	301.4	12.8	1.000170
16000.0	559.8	-9.5	-29.6	17.6	739.5	632.6	301.0	14.2	1.000168
16500.0	548.9	-10.8	-30.6	17.7	728.7	631.1	300.7	15.6	1.000165
17000.0	538.3	-12.1	-31.6	17.8	718.0	629.6	301.1	16.6	1.000162
17500.0	527.9	-13.3	-32.6	17.9	707.5	628.1	301.5	17.4	1.000160
18000.0	517.6	-14.6	-33.6	18.0	697.2	626.5	301.8	16.2	1.000157
18500.0	507.3	-15.1	-34.6	16.8	684.6	625.9	302.2	14.7	1.000154
19000.0	497.1	-15.7	-35.7	16.0	672.7	625.1	300.3	13.6	1.000151

STATION ALTITUDE 4940.00 FEET MSL
 7 DEC. 76 1100 HRS MST
 ASCENSION NO. 324

UPPER AIR DATA
 3380040324
 STATION

WSIM SITE COORDINATES
 403782.00 FEET E
 701403.00 FEET N

TABLE VIII (CONT)

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(TM)	SPEED KNOTS	INDEX OF REFRACTION
19500.0	487.0	-17.0	16.1	662.1	623.6	297.6	12.6	1.000145
20000.0	477.0	-18.2	16.2	651.7	622.1	295.6	12.7	1.000147
20500.0	467.2	-19.5	16.3	641.5	620.5	294.1	13.3	1.000144
21000.0	457.7	-20.7	15.4	631.5	619.0	294.6	14.3	1.000142
21500.0	448.3	-22.0	16.5	621.6	617.5	296.4	15.5	1.000140
22000.0	439.1	-23.2	16.6	611.9	616.0	297.7	16.9	1.000137
22500.0	430.1	-24.4	16.7	602.4	614.4	298.3	18.4	1.000135
23000.0	421.3	-25.7	16.8	593.1	612.9	298.6	19.7	1.000133
23500.0	412.7	-26.9	16.9	583.5	611.3	297.7	20.3	1.000131
24000.0	404.3	-28.2	17.0	574.8	609.8	296.8	20.9	1.000129
24500.0	395.8	-29.4	17.1	565.8	608.2	298.1	22.6	1.000127
25000.0	387.4	-30.7	17.3	556.7	606.6	299.2	24.6	1.000125
25500.0	379.2	-32.0	17.6	547.5	604.9	300.9	25.3	1.000123
26000.0	371.1	-33.4	17.8	539.1	603.3	302.6	25.7	1.000121
26500.0	363.2	-34.6	17.7**	530.5	601.7	304.0	24.0	1.000119
27000.0	355.2	-35.8	15.7**	521.4	600.2	305.4	21.5	1.000116
27500.0	347.4	-37.0	13.6**	512.5	598.7	304.5	20.4	1.000114
28000.0	339.8	-38.1	11.6**	503.7	597.2	302.2	19.9	1.000112
28500.0	332.3	-39.3	9.5**	495.1	595.7	299.5	20.4	1.000110
29000.0	325.0	-40.5	7.4**	486.7	594.2	296.8	21.5	1.000108
29500.0	317.9	-41.7	5.4**	478.4	592.7	296.8	22.8	1.000107
30000.0	310.9	-42.8	3.3**	470.2	591.2	298.7	24.4	1.000105
30500.0	304.1	-44.0	1.3**	462.3	589.7	301.9	25.5	1.000103
31000.0	297.3	-45.2		454.3	588.2	307.8	25.6	1.000101
31500.0	290.5	-46.4		446.3	586.6	313.0	26.1	1.000099
32000.0	283.8	-47.6		438.4	585.1	315.0	25.2	1.000098
32500.0	277.3	-48.8		430.7	583.5	317.2	24.2	1.000096
33000.0	270.9	-50.1		423.1	581.9	312.2	25.0	1.000094
33500.0	264.7	-51.3		415.7	580.3	306.9	26.1	1.000093
34000.0	258.7	-52.5		408.4	578.7	302.6	27.7	1.000091

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

UPPER AIR DATA
 3380040324
 STATION
 WSTM SITE COORDINATES
 403703.00 FEET E
 701403.00 FEET N

STATION ALTITUDE 4940.00 FEET MSL
 1 DEC. 76 1100 HRS MST
 ASCENSION NO. 324

TABLE VIII (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION (DEGREES(TN))	SPEED KNOTS	
34500.0	252.7	-53.7		401.3	577.1	259.1	29.6	1.000000
35000.0	246.9	-54.8		393.9	575.6			1.000000
35500.0	241.1	-55.9		386.4	574.7			1.000000
36000.0	235.4	-56.9		379.1	572.9			1.000000

STATION ALTITUDE 4940.00 FEET MSL
 7 DEC. 76 1100 HRS MST
 ASCENSION NC. 224

MANDATORY LEVELS
 3380040324
 STALLION

WSTM SITE COORDINATES
 403783.00 FEET E
 701403.00 FEET N

TABLE IX

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION [DEGREES(TN)]	SPEED KNOTS	
850.0	5067.	3.2	-5.7	52.	333.6	.9	
800.0	6675.	3.5	-10.4	35.	333.6	11.9	
750.0	8391.	3.2	-13.5	28.	356.7	16.2	
700.0	10219.	1.5	-18.4	21.	350.0	9.8	
650.0	12163.	-1.3	-22.4	18.	316.9	12.7	
600.0	14244.	-5.1	-26.1	17.	304.1	12.1	
550.0	16463.	-10.7	-30.5	18.	300.7	15.6	
500.0	18842.	-15.4	-35.4	16.	301.0	13.9	
450.0	21420.	-21.7	-40.4	16.	256.2	15.4	
400.0	24226.	-28.8	-46.0	17.	297.5	21.8	
350.0	27311.	-36.6	-54.0	14.**	305.1	20.6	
300.0	30755.	-44.7			305.5	25.6	
250.0	34673.	-54.3			257.6	30.4	

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

STATION ALTITUDE 4940.00 FEET MSL
 3 DEC. 76 1400 HRS MST
 ASCENSION NC. 376

SIGNIFICANT LEVEL DATA
 3260040326
 STALLION

WSTM SITE COORDINATES
 403783.00 FEET E
 701403.00 FEET N

TABLE X

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT
951.4	4940.0	8.8	-5.6	26.0
850.0	4984.5	6.5	-7.1	37.0
817.0	5045.2	3.4	-8.9	40.0
772.8	5228.5	4.1	-10.7	32.0
752.8	8229.1	4.3	-10.9	32.0
700.0	10161.4	1.2	-16.6	25.0
650.8	12080.4	-0.6	-21.3	19.0
545.4	16434.9	-11.7	-25.1	22.0
515.2	18047.7	-13.5	-32.1	19.0
500.0	18754.0	-15.4	-33.7	19.0
400.0	24180.1	-29.7	-45.4	20.0
355.8	26635.1	-35.5	-45.1	23.0
328.8	29675.3	-40.9		
300.0	30709.8	-44.9		
250.0	34645.5	-53.6		
232.8	36146.6	-56.0		

UPPER AIR DATA
33ECC4C326
STALLION

STATION ALTITUDE 4940.00 FEET MSL
3 DEC. 76 1400 HRS MST
ASCENSION NO. 326

WSTM SITE COORDINATES
403783.00 FEET E
701403.00 FEET N

TABLE XI

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION (DEGREES(TN))	WIND SPEED (KNOTS)	INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE						
4940.0	851.4	8.8	-9.6	26.0	1050.6	654.6	0.0	0.0	1.000243
5000.0	846.5	6.5	-7.1	37.0	1058.7	651.9	332.5	0.2	1.000253
5500.0	833.8	5.0	-8.0	38.5	1042.7	650.2	338.5	3.1	1.000249
6000.0	818.4	3.5	-8.8	35.9	1028.9	648.5	338.5	5.5	1.000245
6500.0	803.2	3.6	-9.4	37.9	1009.6	648.6	338.5	8.7	1.000240
7000.0	788.3	3.9	-10.0	35.5	990.0	648.8	344.3	11.5	1.000235
7500.0	773.6	4.1	-10.7	33.1	970.8	649.1	348.9	15.4	1.000230
8000.0	759.3	4.2	-10.8	32.3	952.3	649.3	350.3	16.4	1.000225
8500.0	745.2	3.9	-11.7	31.0	935.9	648.8	351.1	16.9	1.000221
9000.0	731.3	3.1	-13.1	29.2	921.2	647.8	348.0	15.1	1.000216
9500.0	717.6	2.3	-14.6	27.4	906.8	646.9	343.7	13.9	1.000212
10000.0	704.3	1.5	-16.1	25.6	892.6	645.9	338.3	14.4	1.000208
10500.0	691.1	.9	-17.4	23.9	877.9	645.2	335.9	15.1	1.000203
11000.0	678.1	.4	-18.6	22.4	862.8	644.6	335.2	16.0	1.000199
11500.0	665.3	-.1	-19.8	20.8	848.1	644.0	333.7	14.7	1.000195
12000.0	652.8	-.5	-21.1	19.3	833.6	643.5	331.5	13.0	1.000191
12500.0	640.3	-1.7	-22.0	19.3	821.1	642.1	325.2	11.4	1.000188
13000.0	627.9	-2.9	-22.9	15.6	809.1	640.6	316.5	10.1	1.000185
13500.0	615.8	-4.2	-23.8	20.0	797.3	639.0	310.4	9.3	1.000182
14000.0	604.0	-5.5	-24.7	20.3	785.7	637.5	303.5	8.8	1.000179
14500.0	592.3	-6.8	-25.5	20.7	774.3	636.0	298.8	9.6	1.000177
15000.0	580.9	-8.0	-26.4	21.0	763.0	634.5	295.3	10.6	1.000174
15500.0	569.7	-9.3	-27.3	21.4	752.0	632.9	295.5	12.1	1.000171
16000.0	558.8	-10.6	-28.3	21.7	741.1	631.4	297.0	13.5	1.000168
16500.0	548.0	-11.8	-29.2	21.9	730.1	630.0	302.0	14.5	1.000166
17000.0	537.2	-12.9	-30.1	20.9	717.2	628.3	306.1	14.7	1.000163
17500.0	526.6	-12.9	-31.1	20.0	704.6	628.6	309.5	14.2	1.000159
18000.0	516.2	-13.4	-32.0	15.1	692.2	627.9	310.8	13.8	1.000157
18500.0	505.9	-14.7	-33.1	19.0	681.6	626.4	309.8	14.1	1.000154
19000.0	495.8	-15.9	-34.1	15.0	671.3	624.9	307.9	14.7	1.000151

UPPER AIR DATA

STATION ALTITUDE 4940.00 FEET MSL
 3 DEC. 76 1400 HRS MST
 ASCENSION NC. 326

WSTM SITE COORDINATES
 403783.00 FEET E
 701403.00 FEET N

TABLE XI (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 DEGREES CENTIGRADE				DIRECTION (DEGREES(TN))	SPEED KNOTS	
19500.0	445.6	-17.3	-35.2	19.1	661.0	623.2	305.9	305.9	1.000149
20000.0	475.6	-18.6	-36.3	15.2	650.8	621.6	303.3	303.3	1.000147
20500.0	465.9	-19.9	-37.4	19.3	640.8	620.0	299.7	299.7	1.000144
21000.0	456.3	-21.3	-38.4	15.4	631.0	618.4	296.5	296.5	1.000142
21500.0	447.0	-22.6	-39.5	19.5	621.3	616.7	293.8	293.8	1.000140
22000.0	437.8	-23.9	-40.6	15.6	611.8	615.1	294.5	294.5	1.000137
22500.0	428.8	-25.2	-41.7	19.7	602.5	613.4	294.6	294.6	1.000135
23000.0	420.0	-26.6	-42.8	15.8	593.4	611.8	292.4	292.4	1.000133
23500.0	411.4	-27.9	-43.9	19.9	584.3	610.1	290.1	290.1	1.000131
24000.0	403.0	-29.2	-45.0	20.0	575.5	608.5	288.0	288.0	1.000129
24500.0	394.5	-30.5	-45.8	20.4	566.2	606.9	285.3	285.3	1.000127
25000.0	386.1	-31.6	-46.6	21.0	556.5	605.5	283.5	283.5	1.000125
25500.0	377.9	-32.8	-47.3	21.6	547.7	604.0	283.5	283.5	1.000123
26000.0	369.8	-34.0	-48.1	22.2	538.6	602.5	283.9	283.9	1.000120
26500.0	361.9	-35.2	-48.9	22.8	529.8	601.0	284.4	284.4	1.000118
27000.0	354.0	-36.5	-51.6	18.9**	521.1	599.4	283.2	283.2	1.000116
27500.0	346.3	-37.8	-55.7	13.3**	512.6	597.7	283.3	283.3	1.000114
28000.0	338.8	-39.1	-61.1	7.6**	504.2	596.0	285.3	285.3	1.000112
28500.0	331.4	-40.4	-71.7	2.0**	496.0	594.3	287.2	287.2	1.000111
29000.0	324.0	-41.5			487.4	592.9	289.1	289.1	1.000109
29500.0	316.8	-42.5			478.5	591.6	291.4	291.4	1.000107
30000.0	309.7	-43.5			469.9	590.4	293.8	293.8	1.000105
30500.0	302.8	-44.5			461.4	589.1	295.8	295.8	1.000103
31000.0	296.0	-45.5			453.0	587.7	294.1	294.1	1.000101
31500.0	289.2	-46.6			444.8	586.3	292.0	292.0	1.000099
32000.0	282.6	-47.8			436.8	584.9	293.2	293.2	1.000097
32500.0	276.1	-48.9			428.9	583.4	295.8	295.8	1.000096
33000.0	269.8	-50.0			421.1	582.0	299.5	299.5	1.000094
33500.0	263.6	-51.1			413.5	580.6	301.1	301.1	1.000092
34000.0	257.6	-52.2			406.1	579.1	302.0	302.0	1.000090

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

UPPER AIR DATA
3380040326
STATION

WSTM SITE COORDINATES
403783.00 FEET E
701403.00 FEET N

STATION ALTITUDE 4940.00 FEET MSL
7 DEC. 76 1400 HRS MST
ASCENSION NO. 326

TABLE XI (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 REFRACTICA
34500.0	251.7	-53.3		398.8	577.7	301.3	28.5	1.000089
35000.0	245.8	-54.2		391.1	576.5			1.000087
35500.0	240.1	-55.0		383.3	575.4			1.000085
36000.0	234.4	-55.8		375.7	574.4			1.000084

STATION ALTITUDE 4940.00 FEET MSL
 3 DEC. 76 1400 HRS MST
 ASCENSION NO. 326

MANDATORY LEVELS
 338004C326
 STALLION

WSTM SITE COORDINATES
 4C3782.00 FEET E
 701403.00 FEET N

TABLE XII

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION [DEGREES(TN)]	SPEED KNOTS
850.0	4983.	6.5	-7.1	37.	338.5	.2
800.0	6603.	3.7	-5.5	37.	338.5	9.3
750.0	8324.	4.1	-11.2	32.	351.0	16.9
700.0	10155.	1.2	-16.6	25.	338.7	14.6
650.0	12104.	-0.7	-21.4	19.	330.6	12.6
600.0	14181.	-5.9	-25.0	20.	301.6	9.1
550.0	16392.	-11.6	-29.0	22.	301.1	14.3
500.0	18774.	-15.4	-37.7	19.	308.7	14.5
450.0	21350.	-22.2	-39.2	19.	294.5	16.4
400.0	24145.	-25.7	-45.4	20.	287.1	21.5
350.0	27226.	-37.2	-53.6	16.**	282.6	22.2
300.0	30660.	-44.9			295.7	14.1
250.0	34583.	-53.6			301.2	28.8

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