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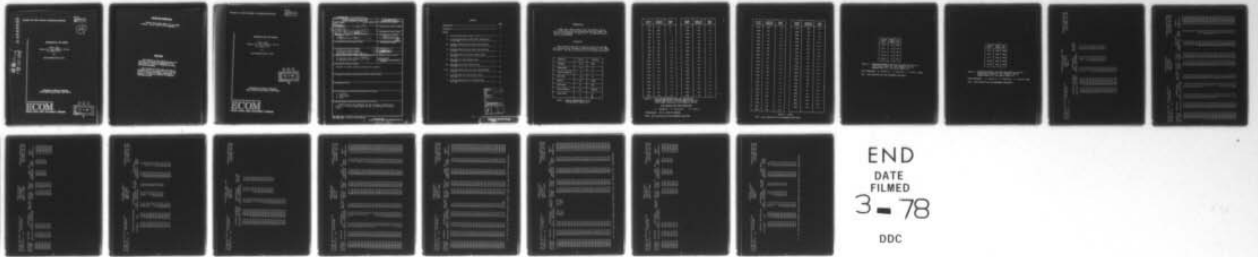
ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
12829C LANCE MISSILE NUMBER 4236, ROUND NUMBER 299 RSL (25 AUGU--ETC(U)
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METEOROLOGICAL DATA REPORT

12829C LANCE
MISSILE NO. 4236, ROUND NO. 299 RSL
(25 AUGUST 1977)

BY

WSMR METEOROLOGICAL TEAM

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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UNITED STATES ARMY ELECTRONICS COMMAND

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UNITED STATES ARMY ELECTRONICS COMMAND

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 12829C Lance, Missile Number 4236, Round Number 299 RSL, are presented in tabular form.		

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INTRODUCTION

12829C Lance, Missile Number 4236, Round Number 299 RSL, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1508 HRS MDT, 25 August 1977. The scheduled launch time was 1500 HRS MDT.

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	3,986.0	FEET/MSL
PRESSURE	877.2	MBS
TEMPERATURE	34.7	°C
RELATIVE HUMIDITY	34	%
DEW POINT	16.6	°C
DENSITY	985	GM/M ³
WIND SPEED	02	MPH
WIND DIRECTION	160	DEGREES
CLOUD COVER	1 2 1	Cu Cb Cs

TABLE I. SURFACE OBSERVATIONS AT LC-33,
1500 HRS MDT/25 AUGUST 1977.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	160	02	2100	240	7.0
100	000	0	2200	240	8.0
200	000	0	2300	230	7.0
300	025	.5	2400	210	5.0
400	350	3.5	2500	230	3.5
500	360	2.5	2600	260	2.0
600	350	1.0	2700	285	3.5
700	185	2.0	2800	265	4.5
800	180	2.5	2900	245	4.5
900	205	6.0	3000	230	4.5
1000	200	6.5	3100	240	5.5
1100	215	5.0	3200	275	3.5
1200	240	6.0	3300	305	5.5
1300	265	6.5	3400	325	7.0
1400	270	4.5	3500	215	5.5
1500	275	3.0	3600	315	3.0
1600	250	4.5	3700	315	2.5
1700	225	5.5	3800	355	1.0
1800	210	2.5	3900	045	2.0
1900	265	3.5	4000	110	2.0
2000	220	4.5	4100	170	3.5

TABLE II. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-33, AT 1507 HRS MDT/25 AUGUST 1977
12829C LANCE, MISSILE NO. 4236, ROUND NO. 299 RSL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,296.83 Y = 185,251.85 Z = 3,986.67

APPROXIMATELY: 300 FT. SOUTH OF LAUNCHER

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	220	3.0	6700	260	6.5
4300	225	5.5	6800	260	7.0
4400	190	4.0	6900	220	5.0
4500	170	4.5	7000	245	9.5
4600	185	5.5	7100	250	15.0
4700	170	5.0	7200	240	14.0
4800	200	4.5	7300	250	14.5
4900	200	7.5	7400	250	17.5
5000	200	6.5	7500	265	16.0
5100	195	3.0	7600	270	15.5
5200	225	2.5	7700	255	11.5
5300	245	2.5	7800	260	13.5
5400	245	1.0	7900	280	13.5
5500	230	2.0	8000	255	10.5
5600	140	1.5	8100	240	11.5
5700	265	2.5	8200	220	11.0
5800	195	1.0	8300	225	10.5
5900	235	1.0	8400	235	11.5
6000	235	2.0	8500	235	12.0
6100	240	4.5	8600	240	13.5
6200	260	3.5	8700	230	11.0
6300	235	1.5	8800	235	10.5
6400	255	2.0	8900	220	10.5
6500	240	7.0	9000	210	8.0
6600	240	5.5			

TABLE II. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	01	290
-20.0	03	240
-10.0	04	243
-00.00	05	245
+10.00	05	210

TABLE III. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION POLE NO. 2
12829C LANCE, MISSILE NO. 4236, ROUND NO. 299 RSL
LAUNCHED FROM LC-33, 1507 MDT/25 AUGUST 1977

WSTM COORDINATES: X = 485,874.93 Y = 186,012.00 H = 4,033.57 (VANE)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	CALM	CALM
-20.0	CALM	CALM
-10.0	CALM	CALM
-00.00	CALM	CALM
+10.00	CALM	CALM

TABLE IV. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 3
 12829C LANCE, MISSILE NO. 4236, ROUND NO. 299 RSL
 LAUNCHED FROM LC-33, 1507 MDT/25 AUGUST 1977

WSTM COORDINATES: X = 485,877.29 Y = 186,116.06 H = 4,063.92 (VANE)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

STATION ALTITUDE 3989.00 FEET MSL
 25 AUG. 77
 ASCENSION NO. 627

SIGNIFICANT LEVEL DATA
 2370020627
 WHITE SANDS
 TABLE V.

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
877.2	3989.0	34.0	33.0
650.0	4926.0	31.4	38.0
700.0	10481.6	14.0	63.0
671.3	11637.6	12.0	50.0
583.8	15415.6	3.3	53.0
526.8	18121.6	-2.0	42.0
500.0	19475.1	-5.0	55.0
429.3	23354.6	-11.7	65.0
420.7	23862.3	-12.2	48.0
400.0	25120.5	-14.7	60.0
392.8	25570.8	-15.0	20.0
357.8	27858.2	-20.4	51.0
300.0	32053.4	-29.4	36.0
262.8	35100.3	-36.7	30.0
250.0	36226.4	-38.9	31.0
206.3	40435.7	-50.0	
200.0	41097.7	-50.6	
150.0	47044.1	-63.9	
120.8	51274.6	-74.0	
111.3	52821.0	-77.6	
110.4	52973.7	-75.7	

STATION ALTITUDE 3989.00 FEET MSL
 25 AUG. 77
 ASCENSION NO. 627

UPPER AIR DATA
 2370020627
 WHITE SANDS
 TABLE VI.

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

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	877.2	34.0	15.4	33.0	987.4	685.4	.0	.0	1.000201
4000.0	876.9	34.0	15.5	33.1	987.1	685.3	14.6	.0	1.000201
4500.0	862.3	32.6	15.4	35.7	974.9	683.8	14.6	.1	1.000209
5000.0	847.8	31.2	15.3	38.3	963.0	682.3	14.6	.2	1.000206
5500.0	833.1	29.6	14.8	40.6	951.3	680.5	14.6	.3	1.000202
6000.0	818.7	28.0	14.2	42.8	939.8	678.7	14.6	.4	1.000277
6500.0	804.5	26.5	13.6	45.1	928.5	676.8	14.6	.5	1.000273
7000.0	790.6	24.9	12.9	47.3	917.4	675.0	14.6	.7	1.000268
7500.0	776.9	23.3	12.2	49.6	906.5	673.1	274.5	.8	1.000263
8000.0	763.4	21.8	11.4	51.8	895.7	671.3	246.5	2.9	1.000259
8500.0	750.2	20.2	10.6	54.1	885.1	669.4	242.3	5.0	1.000254
9000.0	737.2	18.6	9.8	56.3	874.7	667.6	241.4	7.5	1.000249
9500.0	724.4	17.1	8.9	58.6	864.4	665.7	241.9	10.4	1.000244
10000.0	711.9	15.5	8.0	60.8	854.2	663.8	242.2	13.3	1.000239
10500.0	699.5	14.0	7.0	62.8	844.2	661.9	248.2	13.9	1.000234
11000.0	687.0	13.1	4.8	57.2	832.1	660.7	255.5	14.2	1.000225
11500.0	674.7	12.2	2.6	51.5	820.1	659.5	257.2	13.0	1.000217
12000.0	662.4	11.2	1.2	50.3	808.5	658.1	253.3	10.6	1.000211
12500.0	650.2	10.0	.3	50.7	797.1	656.8	241.6	8.4	1.000207
13000.0	638.3	8.9	-.7	51.1	785.8	655.4	219.1	7.4	1.000203
13500.0	626.6	7.7	-1.6	51.5	774.7	654.0	207.6	8.0	1.000199
14000.0	615.2	6.6	-2.6	51.9	763.6	652.6	205.2	9.3	1.000195
14500.0	603.9	5.4	-3.6	52.3	753.0	651.2	206.7	9.6	1.000191
15000.0	592.8	4.3	-4.5	52.7	742.4	649.8	209.3	9.7	1.000187
15500.0	581.9	3.1	-5.6	52.7	731.8	648.4	213.3	9.0	1.000183
16000.0	571.0	2.2	-7.0	50.6	720.8	647.2	222.1	8.6	1.000179
16500.0	560.3	1.2	-8.4	48.6	709.9	646.0	235.5	8.8	1.000174
17000.0	549.7	.2	-9.9	46.6	699.2	644.7	250.1	9.1	1.000170
17500.0	539.4	-.8	-11.3	44.5	688.6	643.5	261.3	9.6	1.000167
18000.0	529.2	-1.8	-12.8	42.5	678.2	642.3	267.0	9.0	1.000163

UPPER AIR DATA
 2370020627
 WHITE SANDS
 TABLE VI. (CONT)

STATION ALTITUDE 3989.00 FEET MSL
 25 AUG. 77
 ASCENSION NO. 627
 1450 HRS MDT

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

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	
18500.0	519.2	-2.8	-12.9	45.6	666.0	641.0	271.3	8.2	1.000161
19000.0	509.2	-3.9	-12.7	50.4	657.9	639.7	274.7	7.1	1.000159
19500.0	499.5	-5.0	-12.6	55.1	647.9	638.5	272.9	7.3	1.000157
20000.0	489.8	-5.9	-13.2	56.4	637.4	637.4	270.0	8.0	1.000154
20500.0	480.3	-6.8	-13.7	57.6	627.0	636.4	266.8	9.5	1.000151
21000.0	470.9	-7.6	-14.2	58.9	616.9	635.3	265.5	11.0	1.000148
21500.0	461.8	-8.5	-14.8	60.2	606.8	634.3	265.3	12.2	1.000146
22000.0	452.8	-9.4	-15.4	61.5	597.0	633.2	257.3	13.1	1.000143
22500.0	444.0	-10.2	-15.9	62.8	587.3	632.2	248.4	13.7	1.000141
23000.0	435.3	-11.1	-16.5	64.1	577.8	631.1	238.5	14.2	1.000138
23500.0	426.8	-11.8	-18.0	60.1	568.3	630.2	236.4	14.5	1.000135
24000.0	418.4	-12.5	-20.9	49.3	558.5	629.3	235.2	14.6	1.000131
24500.0	410.1	-13.5	-20.7	54.1	549.5	628.1	235.1	14.2	1.000129
25000.0	401.9	-14.5	-20.7	58.9	540.7	626.9	233.2	13.2	1.000127
25500.0	393.9	-15.0	-30.0	26.3	531.2	626.1	229.1	11.6	1.000121
26000.0	386.0	-16.0	-31.1	25.8	522.7	624.8	230.5	11.5	1.000119
26500.0	378.2	-17.2	-29.7	32.6	514.5	623.4	233.5	11.8	1.000118
27000.0	370.6	-18.4	-29.8	39.4	506.4	622.0	234.7	13.3	1.000116
27500.0	363.1	-19.6	-28.1	46.1	498.4	620.6	232.2	14.8	1.000115
28000.0	355.7	-20.7	-28.3	50.5	490.5	619.2	225.0	16.3	1.000113
28500.0	348.3	-21.8	-29.6	48.7	482.4	617.8	222.2	18.3	1.000111
29000.0	341.0	-22.8	-31.0	46.9	474.4	616.5	221.7	20.4	1.000108
29500.0	334.0	-23.9	-32.4	45.1	466.6	615.2	224.1	22.7	1.000106
30000.0	327.0	-25.0	-33.8	43.3	458.9	613.8	225.7	24.1	1.000104
30500.0	320.2	-26.1	-35.2	41.6	451.3	612.5	226.6	25.0	1.000102
31000.0	313.6	-27.1	-36.6	39.8	443.9	611.1	226.8	25.3	1.000101
31500.0	307.1	-28.2	-38.1	38.0	436.6	609.8	224.4	25.3	1.000099
32000.0	300.7	-29.3	-39.5	36.2	429.4	608.4	222.0	24.7	1.000097
32500.0	294.2	-30.5	-40.8	35.1	422.3	607.0	220.3	22.9	1.000095
33000.0	287.9	-31.7	-42.2	34.1	415.3	605.5	221.8	22.4	1.000093

STATION ALTITUDE 3989.00 FEET MSL
 25 AUG. 77
 ASCENSION NO. 627
 1450 HRS MDT

UPPER AIR DATA
 2370020627
 WHITE SANDS
 TABLE VI. (CONT)

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	ATA SPEED KNOTS	INDEX OF REFRACTION
33500.0	281.7	-32.9	33.2	408.4	603.9	224.5	22.4	1.000092
34000.0	275.7	-34.1	32.2	401.6	602.4	226.0	23.5	1.000090
34500.0	269.7	-35.3	31.2	395.0	600.9	226.7	24.4	1.000089
35000.0	263.9	-36.5	30.2	388.4	599.4	226.2	24.9	1.000087
35500.0	258.2	-37.5	30.4	381.6	598.1	226.7	25.6	1.000085
36000.0	252.5	-38.5	30.8	374.8	596.9	227.8	26.4	1.000084
36500.0	246.9	-39.6	29.0**	368.3	595.4	228.4	26.8	1.000082
37000.0	241.3	-40.9	25.3**	362.0	593.7	228.9	26.7	1.000081
37500.0	235.9	-42.3	21.6**	355.9	592.0	229.2	26.1	1.000079
38000.0	230.6	-43.6	17.9**	349.8	590.3	231.9	26.6	1.000078
38500.0	225.4	-44.9	14.3**	343.9	588.6	235.8	27.7	1.000077
39000.0	220.3	-46.2	10.6**	338.1	586.9	239.1	29.3	1.000075
39500.0	215.3	-47.5	6.9**	332.4	585.2	242.1	30.8	1.000074
40000.0	210.4	-48.9	3.2**	326.8	583.5	244.6	30.3	1.000073
40500.0	205.7	-50.1		321.2	581.9	247.3	29.8	1.000072
41000.0	200.9	-50.5		314.4	581.3	250.7	29.6	1.000070
41500.0	196.1	-51.5		308.3	580.0	252.1	29.6	1.000069
42000.0	191.5	-52.6		302.4	578.5	251.7	29.6	1.000067
42500.0	186.9	-53.7		296.7	577.1	248.6	29.2	1.000066
43000.0	182.4	-54.9		291.1	575.6	244.7	28.8	1.000065
43500.0	178.1	-56.0		285.6	574.1	241.6	28.7	1.000064
44000.0	173.8	-57.1		280.2	572.6	238.8	29.0	1.000062
44500.0	169.6	-58.2		275.0	571.2	237.1	30.5	1.000061
45000.0	165.6	-59.3		269.8	569.7	235.7	31.8	1.000060
45500.0	161.6	-60.4		264.7	568.2	236.3	31.2	1.000059
46000.0	157.3	-61.6		259.8	566.7	236.9	30.6	1.000058
46500.0	154.0	-62.7		254.9	565.2	241.2	28.8	1.000057
47000.0	150.3	-63.8		250.1	563.7	246.5	27.1	1.000056
47500.0	146.5	-65.0		245.2	562.1	249.2	26.1	1.000055
48000.0	142.8	-66.2		240.4	560.5	250.7	25.4	1.000054

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

STATION ALTITUDE 3989.00 FEET MSL
 25 AUG. 77
 ASCENSION NO. 627
 1450 HRS MDT

UPPER AIR DATA
 2370020627
 WHITE SANDS
 TABLE VI. (CONT)

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	ATA SPEED KNOTS	INDEX OF REFRACTION
48500.0	139.2	-67.4		235.7	558.8	249.5	24.5	1.000052
49000.0	135.7	-68.6		231.1	557.2	246.9	23.6	1.000051
49500.0	132.3	-69.8		226.6	555.6	243.6	23.7	1.000050
50000.0	128.9	-71.0		222.2	554.0	240.1	24.3	1.000049
50500.0	125.7	-72.2		217.8	552.3	237.6	24.2	1.000049
51000.0	122.5	-73.3		213.6	550.7	235.9	23.2	1.000048
51500.0	119.4	-74.5		209.4	549.1			1.000047
52000.0	116.2	-75.7		205.1	547.4			1.000046
52500.0	113.2	-76.9		200.9	545.8			1.000045

STATION ALTITUDE 3989.00 FEET MSL
 25 AUG. 77
 ASCENSION NO. 627

MANDATORY LEVELS
 2370020627
 WHITE SANDS
 TABLE VII.

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		RFL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PFRCENT	DIRECTION DEGREES(T)	SPEED KNOTS	
850.0	4925.	31.4	15.4	38.	14.6	.2	
800.0	6697.	26.0	13.4	40.	14.6	.6	
750.0	8546.	20.2	10.6	54.	242.1	5.3	
700.0	10482.	14.0	7.1	63.	248.0	13.9	
650.0	12522.	10.0	.3	51.	240.5	8.3	
600.0	14688.	5.0	-3.9	52.	207.7	9.7	
550.0	16999.	.2	-9.8	47.	250.4	9.1	
500.0	19484.	-5.0	-12.6	55.	272.8	7.3	
450.0	22180.	-9.6	-15.5	62.	254.3	13.6	
400.0	25138.	-14.7	-20.7	60.	231.9	12.6	
350.0	28416.	-21.5	-29.3	49.	222.3	18.1	
300.0	32087.	-29.4	-39.6	36.	221.5	24.2	
250.0	36272.	-38.9	-49.5	31.	228.2	26.7	
200.0	41159.	-50.6			252.4	29.5	
175.0	43975.	-56.8			238.6	29.2	
150.0	47127.	-63.9			248.4	26.5	
125.0	50719.	-72.4			236.5	23.5	

STATION ALTITUDE 4940.00 FEET MSL
 25 AUG. 77
 ASCENSION NO. 184

SIGNIFICANT LEVEL DATA
 2370040184
 STALLION
 TABLE VIII.

GEODETIC COORDINATES
 33.81920 LAT DEG
 106.66501 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		RFL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
848.3	4940.0	32.0	12.8	31.0
821.8	5871.8	27.0	6.9	28.0
721.3	9578.4	15.6	4.9	49.0
717.1	9741.0	15.3	2.1	41.0
700.0	10409.9	13.4	1.1	43.0
648.8	12486.3	7.8	-2.5	48.0
620.8	13675.1	5.9	-10.3	30.0
600.3	14574.3	4.9	-17.4	18.0
529.3	17865.9	-3.5	-21.1	24.0
521.3	18280.7	-2.9	-25.1	16.0
500.0	19359.9	-4.5	-27.9	14.0
469.3	20980.6	-8.9	-30.7	15.0
446.8	22223.3	-10.3	-30.6	17.0
400.0	24976.9	-17.3	-30.7	30.0
346.8	28441.0	-22.9	-39.1	21.0
300.0	31862.7	-31.0	-46.9	19.0
280.3	33427.4	-34.6	-48.7	22.0
250.0	36007.2	-41.0		
200.0	40843.9	-52.7		
150.0	46730.6	-66.1		
127.8	49853.4	-72.7		
111.5	52438.4	-77.5		
108.3	52991.4	-71.7		
103.8	53809.1	-71.7		

UPPER AIR DATA
 2370040184
 STALLION
 TABLE IX.

STATION ALTITUDE 4940.00 FEET MSL
 25 AUG. 77
 ASCENSION NO. 184

1450 HRS MDT

GEODETIC COORDINATES
 33.81920 LAT DEG
 106.66501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	ATA SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE						
4940.0	848.3	32.0	12.8	31.0	962.1	682.8	210.0	7.0	1.000275
5000.0	846.6	31.7	12.4	30.8	961.3	682.4	210.5	7.1	1.000273
5500.0	832.3	29.0	9.3	29.2	954.5	679.0	213.8	8.0	1.000261
6000.0	818.1	26.6	7.0	28.7	946.4	676.1	216.5	8.9	1.000253
6500.0	803.8	25.1	7.0	31.6	934.6	674.4	218.6	9.8	1.000251
7000.0	789.8	23.5	6.9	34.4	923.0	672.6	220.4	10.7	1.000249
7500.0	776.0	22.0	6.7	37.2	911.6	670.9	221.1	10.5	1.000246
8000.0	762.5	20.5	6.4	40.1	900.4	669.1	221.0	9.3	1.000243
8500.0	749.2	18.9	6.0	42.9	889.4	667.4	215.2	9.5	1.000240
9000.0	736.1	17.4	5.6	45.7	878.6	665.6	207.9	10.5	1.000237
9500.0	723.3	15.8	5.0	48.6	867.9	663.8	213.4	11.1	1.000233
10000.0	710.4	14.6	1.7	41.8	857.0	662.0	219.8	11.6	1.000223
10500.0	697.7	13.2	.9	43.2	845.9	660.4	228.7	11.9	1.000219
11000.0	685.1	11.8	.1	44.4	834.6	658.8	233.8	12.9	1.000215
11500.0	672.6	10.5	-.8	45.6	823.5	657.1	237.1	14.1	1.000211
12000.0	660.4	9.1	-1.6	46.8	812.6	655.5	247.2	15.5	1.000207
12500.0	648.5	7.8	-2.6	47.8	801.8	653.9	255.1	17.3	1.000203
13000.0	636.5	7.0	-5.6	40.2	789.7	652.8	258.9	18.6	1.000195
13500.0	624.8	6.2	-9.0	32.7	777.8	651.7	262.2	19.9	1.000188
14000.0	613.3	5.5	-12.6	25.7	765.6	650.8	259.1	19.9	1.000182
14500.0	602.0	5.0	-16.7	19.0	753.2	650.0	253.7	19.5	1.000176
15000.0	590.7	3.8	-17.8	18.8	742.2	648.7	250.3	19.5	1.000173
15500.0	579.5	2.6	-18.3	19.7	731.6	647.2	249.2	19.6	1.000170
16000.0	568.6	1.3	-18.8	20.6	721.2	645.7	249.6	20.0	1.000168
16500.0	557.9	.0	-19.4	21.5	710.9	644.2	254.0	21.2	1.000165
17000.0	547.4	-1.3	-20.0	22.4	700.8	642.7	257.5	22.0	1.000162
17500.0	537.1	-2.5	-20.6	23.3	690.8	641.2	260.1	21.1	1.000160
18000.0	527.0	-3.3	-22.1	21.7	679.9	640.2	262.7	19.6	1.000157
18500.0	516.9	-3.2	-25.7	15.6	666.7	640.2	265.2	16.0	1.000152
19000.0	507.0	-4.0	-27.0	14.7	655.8	639.3	268.4	12.6	1.000150

UPPER AIR DATA
 2370040184
 STALLION
 TABLE IX. (CONT)

STATION ALTITUDE 4940.00 FEET MSL
 25 AUG. 77 1450 HRS MDT
 ASCENSION NO. 184

GEODETIC COORDINATES
 33.81920 LAT NEG
 106.66501 LON NEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	ATA SPEED KNOTS	INDEX OF REFRACTION
19500.0	497.3	-4.9	14.1	645.4	638.2	267.8	10.7	1.000147
20000.0	487.6	-6.2	14.4	636.2	636.6	266.9	8.8	1.000145
20500.0	478.2	-7.6	14.7	627.1	635.0	260.2	10.8	1.000142
21000.0	468.9	-8.9	15.0	618.0	633.4	255.3	13.0	1.000140
21500.0	459.8	-9.5	15.8	607.2	632.7	249.4	17.0	1.000138
22000.0	450.8	-10.0	16.6	596.6	632.0	246.2	20.6	1.000135
22500.0	441.9	-11.0	18.3	586.9	630.9	245.2	23.3	1.000133
23000.0	433.1	-12.3	20.7	578.1	629.4	244.5	24.4	1.000132
23500.0	424.5	-13.5	23.0	569.3	627.8	244.1	24.1	1.000130
24000.0	416.0	-14.8	25.4	560.8	626.3	243.5	23.2	1.000128
24500.0	407.7	-16.1	27.7	552.3	624.8	242.8	22.0	1.000126
25000.0	399.6	-17.3	29.9	544.0	623.2	241.3	22.1	1.000124
25500.0	391.5	-18.1	28.6	534.6	622.2	239.8	22.6	1.000122
26000.0	383.5	-19.0	27.3	525.4	621.2	236.3	23.4	1.000119
26500.0	375.7	-19.8	26.0	516.3	620.2	232.8	24.3	1.000117
27000.0	368.0	-20.6	24.7	507.4	619.2	232.4	26.5	1.000115
27500.0	360.5	-21.4	23.4	498.7	618.2	232.3	28.9	1.000113
28000.0	353.2	-22.2	22.1	490.1	617.2	233.2	31.0	1.000111
28500.0	345.9	-23.0	21.0	481.7	616.2	234.1	33.1	1.000109
29000.0	338.7	-24.2	20.7	473.9	614.7	236.1	33.6	1.000107
29500.0	331.6	-25.4	20.4	466.2	613.2	238.2	34.1	1.000105
30000.0	324.6	-26.6	20.1	458.6	611.8	239.6	34.4	1.000103
30500.0	317.8	-27.8	19.8	451.2	610.3	240.9	34.6	1.000101
31000.0	311.2	-29.0	19.5	443.9	608.8	240.7	34.0	1.000100
31500.0	304.6	-30.1	19.2	436.7	607.3	240.5	33.5	1.000098
32000.0	298.2	-31.3	19.3	429.5	605.9	239.9	33.9	1.000096
32500.0	291.8	-32.5	20.2	422.3	604.4	239.2	34.5	1.000095
33000.0	285.5	-33.6	21.2	415.2	603.0	238.3	35.9	1.000093
33500.0	279.4	-34.8	21.4**	408.3	601.5	237.6	36.8	1.000091
34000.0	273.3	-36.0	17.1**	401.4	599.9	237.3	36.6	1.000090

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

UPPER AIR DATA
 2370040184
 STALLION
 TABLE IX. (CONT)

STATION ALTITUDE 4940.00 FEET MSL
 25 AUG. 77
 ASCENSION NO. 184

1450 HRS MDT

GEODETIC COORDINATES
 33.81920 LAT NEG
 106.66501 LON NEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	ATA SPEED KNOTS	INDEX OF REFRACTION
34500.0	267.3	-37.3	-55.5	12.9**	394.7	598.4	237.1	36.3	1.000088
35000.0	261.4	-38.5	-59.7	8.6**	388.1	596.8	237.3	36.1	1.000087
35500.0	255.7	-39.7	-65.7	4.3**	381.6	595.2	238.3	37.3	1.000085
36000.0	250.1	-41.0	-92.3	.1**	375.2	593.6	239.7	39.5	1.000084
36500.0	244.4	-42.2			368.6	592.1	240.2	40.9	1.000082
37000.0	238.8	-43.4			362.1	590.5	240.6	41.9	1.000081
37500.0	233.4	-44.6			355.7	588.9	240.7	42.4	1.000079
38000.0	228.0	-45.8			349.5	587.4	240.7	42.4	1.000078
38500.0	222.8	-47.0			343.3	585.8	241.5	42.7	1.000076
39000.0	217.8	-48.2			337.3	584.3	243.5	43.6	1.000075
39500.0	212.8	-49.4			331.4	582.7	245.4	44.6	1.000074
40000.0	207.9	-50.7			325.6	581.1	246.6	46.2	1.000073
40500.0	203.2	-51.9			319.9	579.5	247.7	47.9	1.000071
41000.0	198.5	-53.1			314.2	578.0	247.9	49.1	1.000070
41500.0	193.7	-54.2			308.2	576.5	247.7	50.0	1.000069
42000.0	189.0	-55.3			302.3	575.0	247.8	50.7	1.000067
42500.0	184.5	-56.5			296.5	573.5	249.0	50.2	1.000066
43000.0	180.0	-57.6			290.9	572.0	250.2	49.8	1.000065
43500.0	175.7	-58.7			285.4	570.4	251.7	48.5	1.000064
44000.0	171.4	-59.9			280.0	568.9	253.3	47.1	1.000062
44500.0	167.3	-61.0			274.7	567.4	255.1	45.7	1.000061
45000.0	163.2	-62.2			269.5	565.9	255.8	44.6	1.000060
45500.0	159.3	-63.3			264.4	564.4	256.5	43.6	1.000059
46000.0	155.5	-64.4			259.5	562.8	257.2	42.6	1.000058
46500.0	151.7	-65.6			254.6	561.3	254.1	39.4	1.000057
47000.0	147.9	-66.7			249.6	559.8	249.5	35.9	1.000056
47500.0	144.2	-67.7			244.5	558.4	244.0	32.7	1.000054
48000.0	140.5	-68.8			239.6	556.9	236.5	31.4	1.000053
48500.0	137.0	-69.8			234.7	555.5	228.3	31.4	1.000052
49000.0	133.5	-70.9			230.0	554.0	220.2	32.0	1.000051

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

STATION ALTITUDE 4940.00 FEET MSL
 25 AUG. 77
 ASCENSION NO. 184

UPPER AIR DATA
 2370040184
 STALLION
 TABLE IX. (CONT)

GEODETIC COORDINATES
 33.81920 LAT DEG
 106.66501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	ATA SPEED KNOTS	INDEX OF REFRACTION
49500.0	130.1	-72.0		225.3	552.6	222.4	34.0	1.000050
50000.0	126.8	-73.0		220.7	551.2	224.6	36.0	1.000049
50500.0	123.5	-73.9		215.9	549.9	227.4	36.4	1.000048
51000.0	120.3	-74.8		211.3	548.6	232.2	34.4	1.000047
51500.0	117.2	-75.8		206.8	547.3	236.2	32.2	1.000046
52000.0	114.1	-76.7		202.3	546.1	238.4	29.2	1.000045
52500.0	111.1	-76.9		197.2	545.8			1.000044
53000.0	108.3	-71.7		187.2	552.9			1.000042
53500.0	105.5	-71.7		182.4	552.9			1.000041

STATION ALTITUDE 4940.00 FEET MSL
 25 AUG. 77
 ASCENSION NO. 184

MANDATORY LEVELS
 2370040184
 STALLION
 TABLE X.

GEODETIC COORDINATES
 33.81920 LAT DEG
 106.66501 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		RFL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTIO DEGREES(T)	SPEED KNOTS	
800.0	6647.	24.7	7.0	32.	219.2	10.1	
750.0	8485.	19.0	6.1	43.	215.4	9.5	
700.0	10411.	13.4	1.1	43.	227.2	11.8	
650.0	12439.	7.9	-2.4	48.	254.6	17.1	
600.0	14592.	4.9	-17.4	18.	252.6	19.5	
550.0	16895.	-0.9	-19.8	22.	257.1	22.1	
500.0	19371.	-4.5	-27.9	14.	268.0	11.1	
450.0	22058.	-10.1	-30.6	17.	246.0	21.1	
400.0	24998.	-17.3	-30.7	30.	241.2	22.1	
350.0	28248.	-22.5	-38.5	22.	233.7	32.2	
300.0	31900.	-31.0	-46.9	19.	240.0	33.9	
250.0	36056.	-41.0			240.0	40.0	
200.0	40909.	-52.7			247.9	49.1	
175.0	43698.	-58.9			252.6	47.7	
150.0	46818.	-66.1			250.3	36.4	
125.0	50380.	-73.5			227.5	36.4	

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