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ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
METEOROLOGICAL DATA REPORT. 14821A LANCE MISSILE NUMBER 3296, R--ETC(U)
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METEOROLOGICAL DATA REPORT .

14821A LANCE
 MISSILE NO. 3296, ROUND NO. 303 APT
 (10 NOVEMBER 1977)

Number Number

WSMR METEOROLOGICAL TEAM

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) → Meteorological data gathered for the launching of 14821A Lance, Missile Number 3296, Round Number 303 APT, are presented in tabular form. ↗		

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INTRODUCTION

14821A Lance, Missile Number 3296, Round Number 303 APT, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 1215 HRS MST, 10 November 1977. The scheduled launch time was 1215 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	4,064	FEET/MSL
PRESSURE	854.2	MBS
TEMPERATURE	15.8	°C
RELATIVE HUMIDITY	25	%
DEW POINT	-4.2	°C
DENSITY	1.21	GM/M ³
WIND SPEED	08	MPH
WIND DIRECTION	330	DEGREES
CLOUD COVER	CLEAR	

TABLE 1. SURFACE OBSERVATIONS TAKEN AT LC-39, 1215 HRS MST/10 NOVEMBER 1977.

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HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	330	7.0	2100	358	13.5
100	270	0.5	2200	357	13.0
200	270	0.5	2300	360	17.5
300	270	0.5	2400	353	12.0
400	006	2.0	2500	356	15.5
500	005	7.5	2600	355	15.0
600	001	9.5	2700	355	14.0
700	357	11.5	2800	360	16.5
800	003	11.5	2900	352	12.0
900	004	14.0	3000	348	11.5
1000	003	11.0	3100	349	13.0
1100	005	11.5	3200	343	9.5
1200	003	10.5	3300	341	12.5
1300	002	10.5	3400	344	17.5
1400	360	10.0	3500	346	20.5
1500	360	9.0	3600	347	16.0
1600	351	8.0	3700	336	12.5
1700	347	10.5	3800	335	14.0
1800	351	12.0	3900	319	10.0
1900	355	16.0	4000	321	8.0
2000	356	14.0	4100	317	9.0

TABLE II. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-39, AT 1205 HRS MST/10 NOV. 1977
14821A LANCE, MISSILE NO. 3296, ROUND NO. 303 APT

PIBAL RELEASE POINT WSTM COORDINATES:

X = 530,938.82 Y = 186,564.96 Z = 4,063.75

APPROXIMATELY: 2 MILES NORTH OF LAUNCHER

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	328	12.0
4300	332	14.0
4400	323	12.5
4500	326	11.5
4600	318	10.5
4700	308	8.5
4800	307	8.5
4900	294	5.5
5000	271	6.5
5100	283	5.5
5200	278	6.0
5300	303	5.5
5400	299	6.0
5500	290	7.0
5600	309	7.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
5700	319	7.5
5800	314	8.0
5900	313	8.0
6000	330	11.0
6100	333	11.0
6200	337	5.0
6300	324	7.0
6400	329	9.5
6500	338	10.5
6600	331	10.5
6700	327	10.5
6800	323	7.0
6900	330	10.5
7000	322	10.0
7100	321	9.0

TABLE II. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	330	7.0	2100	354	13.0
100	270	0.0	2200	357	16.0
200	355	8.0	2300	359	18.5
300	357	11.5	2400	360	16.0
400	001	9.5	2500	356	18.5
500	007	9.5	2600	354	17.5
600	004	8.0	2700	353	13.5
700	357	7.0	2800	352	14.0
800	358	9.0	2900	352	12.5
900	357	11.5	3000	348	14.5
1000	357	12.0	3100	349	14.0
1100	356	11.0	3200	342	11.5
1200	355	12.0	3300	343	14.0
1300	354	11.0	3400	339	14.5
1400	353	10.5	3500	345	15.5
1500	355	9.0	3600	336	11.0
1600	358	6.0	3700	341	11.5
1700	356	8.5	3800	333	11.5
1800	356	10.5	3900	325	11.5
1900	352	10.0	4000	322	11.0
2000	353	10.5	4100	318	9.5

TABLE III. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2
RELEASED FROM LC-39, AT 1215 HRS MST/10 NOV. 1977
14821A LANCE, MISSILE NO. 3296, ROUND NO. 303 APT

PIBAL RELEASE POINT WSTM COORDINATES:

X = 530,938.82 Y = 186,564.96 Z = 4,063.75

APPROXIMATELY: 2 MILES NORTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	318	10.0	6600	323	8.0
4300	318	11.0	6700	288	6.5
4400	330	13.0	6800	326	7.0
4500	325	11.0	6900	320	8.0
4600	322	12.0	7000	324	8.5
4700	307	9.0	7100	325	6.0
4800	294	7.0	7200	344	14.5
4900	294	7.0	7300	338	11.0
5000	262	6.0	7400	324	11.0
5100	291	6.0	7500	328	11.0
5200	313	7.0	7600	332	13.0
5300	312	9.5	7700	347	19.5
5400	315	8.5	7800	335	13.0
5500	314	7.5	7900	336	13.5
5600	322	9.5	8000	337	13.0
5700	332	10.5	8100	329	11.5
5800	330	9.0	8200	344	18.0
5900	330	9.0	8300	344	14.5
6000	333	7.5	8400	334	13.0
6100	336	8.5	8500	324	8.0
6200	337	7.0	8600	332	11.0
6300	335	9.0	8700	342	12.5
6400	330	9.5	8800	345	12.5
6500	329	8.0	8900	340	11.0

TABLE III. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
9000	345	14.5	10600	319	12.0
9100	348	17.5	10700	323	12.0
9200	348	14.5	10800	343	19.5
9300	341	14.5	10900	344	18.0
9400	343	12.5	11000	337	16.5
9500	344	11.5	11100	345	17.5
9600	349	13.5	11200	337	17.0
9700	348	16.0	11300	340	16.0
9800	352	11.0	11400	341	17.5
9900	344	14.5	11500	336	19.0
10000	349	15.5	11600	350	18.5
10100	347	16.0	11700	338	18.5
10200	343	15.5	11800	338	15.5
10300	338	15.5	11900	340	16.5
10400	336	17.5	12000	326	18.0
10500	338	17.5			

TABLE III. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

STATION ALTITUDE 4051.00 FEET MSL
 10 NOV. 77 1030 HRS MST
 ASCENSION NO. 430

SIGNIFICANT LEVEL DATA
 3140030430
 JALLEN
 TABLE IV.

GEODETTIC COORDINATES
 33.16712 LAT NFG
 106.49511 LON NFG

PRESSURE GEOMETRIC ALTITUDE		TEMPERATURE		REL. HUM. PERCENT
MILLIBARS	MSL FEET	AIR DEGREEFS	DEMPGINT CENTIGRADE	
887.7	4051.0	10.5	-8.2	26.0
877.6	4365.5	8.2	-11.1	24.0
856.3	5029.1	7.0	-12.7	23.0
850.0	5223.3	7.6	-12.7	22.0
789.3	7218.9	4.8	-14.0	24.0
733.4	9177.9	3.5	-12.0	31.0
700.0	10414.8	2.1	-13.2	31.0
657.3	12070.7	-1.1	-16.4	30.0
618.3	13667.8	-1.8	-20.1	23.0
540.3	17141.9	-8.1	-26.0	22.0
521.8	18024.6	-10.5	-29.6	19.0
500.0	19094.7	-13.4	-32.0	19.0
421.3	23281.1	-23.5	-35.5	32.0
410.3	23912.9	-25.0	-35.1	38.0
400.0	24516.4	-26.5	-36.8	37.0
343.5	28063.4	-34.1	-42.5	42.0
326.8	29200.6	-36.3	-46.4	34.0
300.0	31120.9	-41.8	-50.7	37.0
277.8	32810.3	-46.0		
250.0	35091.3	-48.8		
241.3	35850.1	-50.3		
236.3	36298.1	-49.4		
200.0	39829.6	-54.8		
150.0	45740.6	-62.3		
100.0	53798.4	-68.6		
97.3	54333.5	-68.0		
85.3	56918.9	-66.6		
70.0	60805.2	-68.4		
50.0	67465.9	-62.3		
35.3	74538.3	-59.7		

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STATION ALTITUDE 4051.00 FEET MSL
 10 NOV. 77 1030 HRS MST
 ASCENSION NO. 450

SIGNIFICANT LEVEL DATA
 3140030430
 ALLEN
 TABLE IV. (CONT)

GEODETIC COORDINATES
 33.16712 LAT NFG
 106.49511 LON WFG

TEMPERATURE	RFL. HUMID.
AIR DEWPOINT	PFCENT
DEGREES CENTIGRADE	
-62.1	
-59.7	
-54.3	
-49.7	
-46.8	
-42.5	

PRESSURE GEOMETRIC
ALTITUDE
MILLIBARS MSL FEET
33.3 75719.9
30.0 77833.8
20.0 86193.4
10.6 99571.7
10.0 100819.5
7.0 108576.3

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UPPER AIR DATA
 31+0030430
 JALLEN
 TABLE V.

STATION ALTITUDE 4051.00 FEET MSL
 10 NOV. 77 1030 HRS MST
 ASCENSION NO. 430

GEODTIC COORDINATES
 33.16712 LAT NFG
 106.49511 LON NFG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TR)	WIND SPEED KNOTS	INDEX OF REFRACTION
4051.0	887.7	10.5	26.0	1088.7	656.6	140.0	1.9	1.000258
4500.0	873.2	8.0	23.8	1081.0	653.5			1.000253
5000.0	857.2	7.1	23.0	1064.7	652.5			1.000248
5500.0	841.4	7.2	22.3	1044.5	652.6			1.000244
6000.0	825.9	6.5	22.8	1027.8	651.8			1.000240
6500.0	810.7	5.8	23.3	1011.4	651.0			1.000236
7000.0	795.8	5.1	23.8	995.3	650.2			1.000232
7500.0	781.0	4.6	25.0	978.5	649.6			1.000228
8000.0	766.5	4.3	26.8	961.4	649.2			1.000225
8500.0	752.3	3.9	28.6	944.7	648.9			1.000222
9000.0	738.3	3.6	30.4	928.2	648.5			1.000219
9500.0	724.6	3.1	31.0	912.5	648.0			1.000215
10000.0	711.0	2.6	31.0	897.3	647.3			1.000211
10500.0	697.7	1.9	30.9	882.6	646.5			1.000207
11000.0	684.6	1.0	30.6	869.1	645.4			1.000204
11500.0	671.7	.0	30.3	855.0	644.2			1.000200
12000.0	659.1	-1.0	30.0	842.7	643.0			1.000196
12500.0	646.6	-1.3	28.1	827.6	642.6		13.8	1.000192
13000.0	634.3	-1.5	25.9	812.0	642.4		14.2	1.000188
13500.0	622.3	-1.7	23.7	790.1	642.1		17.0	1.000184
14000.0	610.4	-2.4	22.9	784.8	641.3		19.3	1.000181
14500.0	598.6	-3.3	22.8	772.3	640.2		20.4	1.000178
15000.0	587.1	-4.2	22.6	760.1	639.1		21.2	1.000175
15500.0	575.9	-5.1	22.5	748.0	638.0		21.3	1.000172
16000.0	564.8	-6.0	22.3	736.1	636.9		22.4	1.000169
16500.0	553.9	-6.9	22.2	724.5	635.8		23.8	1.000166
17000.0	543.3	-7.8	22.0	713.0	634.7		25.0	1.000163
17500.0	532.7	-9.1	20.8	702.4	633.2		25.6	1.000160
18000.0	522.3	-10.4	19.1	692.3	631.6		25.2	1.000157
18500.0	512.0	-11.8	19.0	682.2	629.9		24.7	1.000155

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

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UPPER AIR DATA
 3140030430
 VALLEY

STATION ALTITUDE 4051.00 FEET MSL
 10 NOV. 77 1030 HRS MST
 ASCENSION NO. 430

GEODTIC COORDINATES
 33.15712 LAT NFG
 106.49511 LON NFG

TABLE V. (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(T)	SPEED KNOTS	INDEX OF REFRACTION
19000.0	501.9	-13.1	19.0	672.2	628.3	318.6	24.2	1.000152
19500.0	491.8	-14.4	20.3	661.8	626.8	317.1	23.7	1.000150
20000.0	481.8	-15.6	21.8	651.5	625.3	315.6	23.5	1.000147
20500.0	472.1	-16.8	23.4	641.3	623.9	314.2	24.1	1.000145
21000.0	462.5	-18.0	24.9	631.3	622.4	312.8	25.2	1.000143
21500.0	453.1	-19.2	26.5	621.4	620.9	311.5	26.6	1.000141
22000.0	444.0	-20.4	28.0	611.8	619.4	310.1	26.4	1.000138
22500.0	435.0	-21.6	29.6	602.3	618.0	308.9	26.2	1.000136
23000.0	426.2	-22.8	31.1	592.9	616.5	311.3	27.1	1.000134
23500.0	417.5	-24.0	34.1	583.6	615.0	313.6	28.1	1.000132
24000.0	408.8	-25.2	37.9	574.2	613.5	316.1	29.1	1.000130
24500.0	400.3	-26.5	37.0	565.1	612.0	310.8	28.4	1.000127
25000.0	391.8	-27.5	37.7	555.6	610.6	297.1	27.2	1.000125
25500.0	383.5	-28.6	38.4	546.1	609.3	290.2	28.3	1.000123
26000.0	375.3	-29.7	39.1	536.9	607.9	285.7	29.9	1.000121
26500.0	367.3	-30.8	39.8	527.8	606.6	288.0	31.1	1.000119
27000.0	359.5	-31.8	40.5	518.9	605.3	290.8	32.4	1.000117
27500.0	351.9	-32.9	41.2	510.2	603.9	286.6	32.9	1.000115
28000.0	344.4	-34.0	41.9	501.6	602.6	286.1	33.4	1.000113
28500.0	337.0	-34.9	38.9	492.8	601.3	285.4	33.3	1.000111
29000.0	329.7	-35.9	35.4	484.1	600.1	284.9	33.1	1.000108
29500.0	322.5	-37.2	34.5	476.0	598.5	283.8	33.4	1.000107
30000.0	315.4	-38.6	35.2	468.3	596.7	282.7	33.8	1.000105
30500.0	308.4	-40.0	36.0	460.8	594.9	281.7	33.9	1.000103
31000.0	301.6	-41.5	36.8	453.5	593.0	280.8	34.1	1.000101
31500.0	294.9	-42.7	28.7**	445.8	591.4	280.2	34.5	1.000100
32000.0	288.2	-44.0	17.7**	438.1	589.8	279.3	34.8	1.000098
32500.0	281.8	-45.2	6.8**	430.6	588.2	278.0	34.8	1.000096
33000.0	275.4	-46.2		422.8	586.9	277.1	34.6	1.000094
33500.0	269.1	-46.8		414.2	586.1	276.8	34.1	1.000092

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

BEST AVAILABLE COPY

STATION ALTITUDE 4051.00 FEET MSL
 10 NOV. 77 1030 HRS MST
 ASCENSION NO. 430

UPPER AIR DATA
 3140030430
 JALLEN
 TABLE V. (CONT)

GEODETIC COORDINATES
 33.16712 LAT NFG
 106.49511 LONG WFG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	DIRECTION DEGREES (TR)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
34000.0	262.9	-47.5		405.9	585.3	280.6	32.8	1.000000
34500.0	256.9	-48.1		397.7	584.5	287.5	31.2	1.000009
35000.0	251.1	-48.7		389.6	583.7	294.2	31.2	1.000007
35500.0	245.3	-49.6		382.2	582.5	300.6	31.9	1.000005
36000.0	239.6	-50.0		374.1	582.0	302.0	32.3	1.000003
36500.0	234.1	-49.7		364.9	582.3	302.0	32.5	1.000001
37000.0	228.6	-50.5		357.6	581.3	304.4	30.8	1.000000
37500.0	223.3	-51.2		350.5	580.3	307.7	28.8	1.000007
38000.0	218.0	-52.0		343.5	579.3	312.5	29.2	1.000007
38500.0	213.0	-52.8		336.6	578.3	316.6	30.0	1.000007
39000.0	208.0	-53.5		329.9	577.3	313.1	30.2	1.000007
39500.0	203.1	-54.3		323.3	576.3	309.7	30.6	1.000007
40000.0	198.3	-55.0		316.8	575.4	305.5	29.7	1.000007
40500.0	193.6	-55.7		310.1	574.5	301.3	28.9	1.000009
41000.0	188.9	-56.3		303.5	573.7	300.2	27.3	1.000008
41500.0	184.4	-56.9		297.1	572.9	299.1	26.0	1.000006
42000.0	180.0	-57.6		290.8	572.0	296.3	27.3	1.000005
42500.0	175.6	-58.2		284.6	571.2	297.4	29.0	1.000003
43000.0	171.4	-58.8		276.6	570.3	296.2	32.7	1.000002
43500.0	167.3	-59.5		272.7	569.5	295.6	35.8	1.000001
44000.0	163.3	-60.1		266.9	568.7	295.3	36.8	1.000009
44500.0	159.3	-60.7		261.3	567.8	297.4	37.4	1.000008
45000.0	155.5	-61.4		255.8	567.0	300.0	36.7	1.000007
45500.0	151.8	-62.0		250.4	566.1	302.2	36.0	1.000006
46000.0	148.1	-62.5		244.6	565.4	302.2	35.4	1.000005
46500.0	144.4	-62.9		239.2	564.9	302.2	34.8	1.000003
47000.0	140.8	-63.3		233.7	564.4	302.2	34.9	1.000002
47500.0	137.3	-63.7		228.3	563.8	302.2	35.1	1.000001
48000.0	133.9	-64.1		223.1	563.3	302.2	35.1	1.000000
48500.0	130.6	-64.5		217.9	562.8	302.2	35.1	1.000000

UPPER AIR DATA
 3140030430
 JALLEN
 TABLE V. (CONT)

STATION ALTITUDE 4051.00 FEET MSL
 10 NOV. 77 1030 HRS MST
 ASCENSION NO. 430

GEODTIC COORDINATES
 33.16712 LAT NFG
 106.49511 LON NFG

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 (TR)	SPEED KNOTS	
49000.0	127.3	-64.8		212.9	562.3	302.2	34.8	1.000047	
49500.0	124.1	-65.2		208.0	561.7	302.2	34.2	1.000046	
50000.0	121.1	-65.6		203.2	561.2	302.2	33.6	1.000045	
50500.0	118.1	-66.0		198.0	560.7	302.2	32.8	1.000044	
51000.0	115.1	-66.4		194.0	560.2	302.2	32.0	1.000043	
51500.0	112.3	-66.8		189.5	559.6	280.0	33.7	1.000042	
52000.0	109.5	-67.2		185.2	559.1	261.5	40.2	1.000041	
52500.0	106.8	-67.6		180.9	558.6	259.6	42.4	1.000040	
53000.0	104.1	-68.0		176.7	558.0	260.1	43.4	1.000039	
53500.0	101.5	-68.4		172.7	557.5	270.2	38.9	1.000038	
54000.0	99.0	-68.7		168.7	557.0	287.5	34.8	1.000038	
54500.0	96.5	-68.8		164.4	557.0	299.7	33.9	1.000037	
55000.0	94.1	-68.3		160.0	557.6	299.7	33.1	1.000036	
55500.0	91.7	-67.9		155.6	558.2	299.7	32.3	1.000035	
56000.0	89.4	-67.4		151.4	558.8	299.7	31.8	1.000034	
56500.0	87.1	-67.0		147.2	559.4	299.7	31.3	1.000033	
57000.0	84.9	-66.6		143.3	559.8	301.2	24.0	1.000032	
57500.0	82.8	-66.9		139.9	559.5	307.7	11.9	1.000031	
58000.0	80.7	-67.1		136.5	559.2	348.9	3.4	1.000030	
58500.0	78.7	-67.3		133.2	558.9	12.2	2.6	1.000030	
59000.0	76.7	-67.6		130.0	558.6	45.7	2.6	1.000029	
59500.0	74.8	-67.8		126.9	556.3	313.0	5.1	1.000028	
60000.0	72.9	-68.0		123.9	558.0	302.8	11.1	1.000028	
60500.0	71.1	-68.3		120.9	557.6	299.9	13.9	1.000027	
61000.0	69.3	-68.2		117.8	557.7	299.9	12.4	1.000026	
61500.0	67.6	-67.8		114.6	558.3	299.9	10.8	1.000026	
62000.0	65.9	-67.3		111.5	558.9	294.1	12.3	1.000025	
62500.0	64.3	-66.9		108.5	559.6	289.2	14.6	1.000024	
63000.0	62.7	-66.4		105.6	560.2	288.6	16.7	1.000024	
63500.0	61.1	-65.9		102.7	560.8	267.5	18.1	1.000023	

STATION ALTITUDE 4051.00 FEET MSL
 10 NOV. 77 1030 HRS MST
 ASCENSION NO. 430

UPPER AIR DATA
 3140030430
 JALLET
 TABLE V. (CONT)

GEODTIC COORDINATES
 33.16712 LAT NFG
 106.49511 LON NFG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND METERS PER SECOND	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEMPPOINT DEGREE				DIRECTION DEGREES (T)	SPEED KNOTS	
64000.0	59.6	-65.5			170.0	561.4	268.3	19.4	1.000022
64500.0	59.1	-65.0			97.3	562.0	291.8	19.9	1.000022
65000.0	58.7	-64.6			94.6	562.6	296.2	20.2	1.000021
65500.0	58.3	-64.1			92.1	563.3	299.6	20.7	1.000021
66000.0	57.9	-63.7			89.6	563.9	299.6	21.8	1.000020
66500.0	52.5	-63.2			87.2	564.5	299.6	22.8	1.000019
67000.0	51.2	-62.7			84.8	565.1	299.6	18.9	1.000019
67500.0	50.0	-62.3			82.5	565.7	299.6	13.3	1.000018
68000.0	48.7	-62.1			80.5	565.9	299.6	8.4	1.000018
68500.0	47.6	-61.9			78.4	566.2	299.6	5.6	1.000017
69000.0	46.4	-61.7			76.5	566.4	299.6	2.8	1.000017
69500.0	45.3	-61.6			74.5	566.7	299.6	4.4	1.000017
70000.0	44.2	-61.4			72.6	566.9	299.6	8.2	1.000016
70500.0	43.1	-61.2			70.8	567.2	299.6	11.7	1.000016
71000.0	42.0	-61.0			69.0	567.4	299.6	12.8	1.000015
71500.0	41.0	-60.8			67.3	567.7	299.6	13.9	1.000015
72000.0	40.0	-60.6			65.6	567.9	299.6	13.3	1.000015
72500.0	39.0	-60.5			63.9	568.2	299.6	11.3	1.000014
73000.0	38.1	-60.3			62.3	568.4	299.6	9.2	1.000014
73500.0	37.2	-60.1			60.8	568.7	299.6	5.6	1.000014
74000.0	36.3	-59.9			59.2	568.9	299.6	1.8	1.000013
74500.0	35.4	-59.7			57.7	569.2	113.6	2.0	1.000013
75000.0	34.5	-60.6			56.6	567.9	119.6	4.9	1.000013
75500.0	33.7	-61.7			55.4	566.6	113.6	7.8	1.000012
76000.0	32.9	-61.8			54.1	566.4	123.2	10.2	1.000012
76500.0	32.0	-61.2			52.7	567.1	140.8	11.0	1.000012
77000.0	31.3	-60.5			51.2	567.9	155.0	12.6	1.000011
77500.0	30.5	-60.1			49.9	568.7	164.8	13.5	1.000011
78000.0	29.6	-59.6			48.5	569.3	173.5	12.5	1.000011
78500.0	29.0	-59.3			47.3	569.7	183.5	11.7	1.000011

UPPER AIR DATA
 3140030430
 JALLEH
 TABLE V. (CONT)

STATION ALTITUDE 4051.00 FEET MSL
 10 NOV. 77 1030 HRS MST
 ASCENSION NO. 430

GEODESLIC COORDINATES
 33.16712 LAT NFG
 106.49511 LONG WFG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KILOIS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE				DIRECTION, DEGREES(T.P)	SPEED KNOTS	
79000.0	28.4	-58.9		46.1	570.2	189.5	9.7	1.000010	
79500.0	27.7	-58.6		44.9	570.5	191.4	6.2	1.000010	
80000.0	27.0	-58.3		43.8	571.0	198.2	2.7	1.000010	
80500.0	26.4	-58.0		42.7	571.5	220.8	1.4	1.000009	
81000.0	25.7	-57.7		41.6	571.9	235.4	1.5	1.000009	
81500.0	25.1	-57.3		40.5	572.3	246.8	1.8	1.000009	
82000.0	24.5	-57.0		39.5	572.7	227.8	1.7	1.000009	
82500.0	23.9	-56.7		38.5	573.2	199.5	2.0	1.000009	
83000.0	23.4	-56.4		37.5	573.6	181.0	2.6	1.000008	
83500.0	22.8	-56.0		36.0	574.0	236.0	2.3	1.000008	
84000.0	22.2	-55.7		35.6	574.5	275.7	4.3	1.000008	
84500.0	21.7	-55.4		34.7	574.9	287.9	7.0	1.000008	
85000.0	21.2	-55.1		33.9	575.3	293.0	9.9	1.000008	
85500.0	20.7	-54.7		33.0	575.7	295.8	13.0	1.000007	
86000.0	20.2	-54.4		32.2	576.2	297.4	15.8	1.000007	
86500.0	19.7	-54.2		31.4	576.5	297.8	15.9	1.000007	
87000.0	19.2	-54.0		30.6	576.7	298.1	16.0	1.000007	
87500.0	18.6	-53.9		29.9	576.9	298.5	16.2	1.000007	
88000.0	18.4	-53.7		29.1	577.1	298.6	16.0	1.000006	
88500.0	17.9	-53.5		28.4	577.4	298.6	15.7	1.000006	
89000.0	17.5	-53.3		27.7	577.6	298.6	15.4	1.000006	
89500.0	17.1	-53.2		27.1	577.8	298.6	15.0	1.000006	
90000.0	16.7	-53.0		26.4	578.0	298.6	14.9	1.000006	
90500.0	16.3	-52.8		25.6	578.3	298.6	14.9	1.000006	
91000.0	15.9	-52.6		25.2	578.5	298.6	14.6	1.000006	
91500.0	15.5	-52.5		24.5	578.7	298.6	14.8	1.000005	
92000.0	15.2	-52.3		23.9	578.9	298.6	14.4	1.000005	
92500.0	14.8	-52.1		23.4	579.2	298.6	14.1	1.000005	
93000.0	14.5	-52.0		22.6	579.4	298.6	13.8	1.000005	
93500.0	14.1	-51.8		22.3	579.6	298.6	13.6	1.000005	

STATION ALTITUDE 4051.00 FEET MSL
 10 NOV. 77 1030 HRS MST
 ASCENSION NO. 430

UPPER AIR DATA
 3140000430
 JALLEN
 TABLE V. (CONT)

GEOGRAPHIC COORDINATES
 33.16712 LAT NFG
 106.49511 LON WFG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE			KNOTS	KNOTS	DIRECTION DEGREES (TR)	SPEED KNOTS	
94000.0	13.8	-51.6		21.7	579.9	296.6	13.3		1.000005	
94500.0	13.5	-51.4		21.2	580.1	298.6	13.0		1.000005	
95000.0	13.2	-51.3		20.7	580.3	298.6	12.7		1.000005	
95500.0	12.9	-51.1		20.2	580.5	300.0	12.3		1.000004	
96000.0	12.6	-50.9		19.7	580.7	301.9	11.9		1.000004	
96500.0	12.3	-50.8		19.2	581.0	304.0	11.6		1.000004	
97000.0	12.0	-50.6		18.7	581.2	307.0	11.3		1.000004	
97500.0	11.7	-50.4		18.2	581.4	319.9	12.1		1.000004	
98000.0	11.4	-50.2		17.6	581.6	330.8	13.4		1.000004	
98500.0	11.2	-50.1		17.4	581.9	339.4	15.1		1.000004	
99000.0	10.9	-49.9		17.0	582.1	344.2	16.1		1.000004	
99500.0	10.6	-49.7		16.6	582.3	345.1	15.3		1.000004	
100000.0	10.4	-48.7		16.1	583.6	348.0	14.6		1.000004	
100500.0	10.2	-47.5		15.7	585.2	347.1	13.8		1.000003	
101000.0	9.9	-46.7		15.3	588.2	344.2	13.5		1.000003	
101500.0	9.7	-46.4		14.9	586.6	338.8	13.5		1.000003	
102000.0	9.5	-46.1		14.5	587.0	333.4	13.5		1.000003	
102500.0	9.3	-45.9		14.2	587.3	329.1	13.7		1.000003	
103000.0	9.0	-45.6		13.8	587.7	324.5	13.9		1.000003	
103500.0	8.8	-45.3		13.5	588.0	324.6	13.9		1.000003	
104000.0	8.6	-45.0		13.2	588.4	324.7	13.6		1.000003	
104500.0	8.4	-44.8		12.9	588.8	324.8	13.8		1.000003	
105000.0	8.3	-44.5		12.6	589.1	325.0	13.7		1.000003	
105500.0	8.1	-44.2		12.3	589.5				1.000003	
106000.0	7.9	-43.9		12.0	589.8				1.000003	
106500.0	7.7	-43.7		11.7	590.2				1.000003	
107000.0	7.5	-43.4		11.4	590.5				1.000003	
107500.0	7.4	-43.1		11.1	590.9				1.000002	
108000.0	7.2	-42.8		10.9	591.2				1.000002	
108500.0	7.0	-42.5		10.6	591.6				1.000002	

STATION ALTITUDE 4051.00 FEET MSL
 10 NOV. 77
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MANDATORY LEVELS
 3400.50 430
 JALLET
 TABLE VI.

GEODETTIC COORDINATES
 33.16712 LAT NFG
 106.49511 LON NFG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR	DEWPOINT	PERCENT	DIRECTION	SPEED	
		DEGREES	CELSIUS		DEGREES(TN)	KNOTS	
850.0	5227.	7.6	-12.7	22.	9999.0	9999.0XX	
800.0	6850.	5.3	-13.0	24.	9999.0	9999.0XX	
750.0	8532.	3.9	-12.5	29.	9999.0	9999.0XX	
700.0	10410.	2.1	-13.2	31.	9999.0	9999.0XX	
650.0	12365.	-1.2	-17.1	29.	317.9	13.8	
600.0	14453.	-3.2	-21.4	23.	320.0	20.4	
550.0	16694.	-7.3	-25.2	22.	317.0	24.3	
500.0	19104.	-13.4	-32.0	19.	316.3	24.1	
450.0	21703.	-19.6	-33.8	27.	310.8	26.6	
400.0	24535.	-26.5	-36.8	37.	309.2	28.2	
350.0	27658.	-33.2	-41.8	41.	297.6	33.1	
300.0	31154.	-41.8	-50.7	37.	280.6	34.3	
250.0	35135.	-48.8			296.7	31.4	
200.0	39889.	-54.8			305.8	29.7	
175.0	42668.	-53.3			295.8	30.9	
150.0	45822.	-62.3			302.2	35.5	
125.0	49491.	-65.1			302.2	34.1	
100.0	53915.	-68.6			289.5	34.6	
80.0	58322.	-67.2			11.3	2.6	
70.0	60957.	-68.4			299.9	11.9	
60.0	64011.	-65.6			289.1	19.8	
50.0	67676.	-62.3			299.6	9.0	
40.0	72210.	-60.6			299.0	11.4	
30.0	78092.	-59.7			161.1	11.9	
25.0	81853.	-57.3			217.1	1.8	
20.0	86514.	-54.3			296.0	16.0	
15.0	92594.	-52.2			290.0	13.8	
10.0	101265.	-46.8			336.0	13.5	
7.0	109098.	-42.5					

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

BEST AVAILABLE COPY

STATION ALTITUDE 3989.00 FEET MSL
 10 NOV. 77
 ASCENSION NO. 808
 1205 HRS MST

SIGNIFICANT LEVFL DATA
 3140020RUB
 WHITE SANDS
 TABLE VII.

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT
888.8	3989.0	14.5	17.0
850.0	5215.9	8.7	23.0
761.8	8163.2	4.4	24.0
736.8	9055.2	5.2	28.0
700.0	10419.4	2.2	30.0
643.8	12741.4	-1.8	25.0
618.8	13653.0	-1.4	18.0
539.3	17194.9	-8.6	24.0
500.0	19097.8	-13.9	27.0
432.8	22637.6	-21.4	34.0
400.0	24523.6	-26.1	24.0
379.8	25744.5	-29.0	31.0
349.8	27653.7	-33.5	69.0
342.8	28117.7	-34.2	52.0
327.9	29137.2	-36.9	44.0
308.3	30515.8	-40.5	54.0
300.0	31122.1	-42.4	48.0
259.3	34306.1	-48.2	
250.0	35093.5	-48.2	
200.0	39828.6	-55.1	
150.0	45741.3	-61.9	
126.3	49206.1	-63.4	
104.3	52996.5	-68.9	
100.0	53819.0	-68.9	
85.3	56942.3	-66.6	
75.3	59391.1	-68.9	
70.0	60816.1	-68.9	
50.0	67518.1	-60.5	
35.3	74564.3	-61.9	
30.0	77879.4	-57.4	

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

SIGNIFICANT LEVEL DATA
 3140020RGR
 WHITE SANDS
 TABLE VII.(CONT)

STATION ALTITUDE 3989.00 FEET MSL
 10 NOV. 77 1205 HRS MST
 ASCENSION NO. 808

PRESSURE GOMMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR TEMPT DEGREES CENTIGRADE	REL. HUM. PERCENT
20.0 86256.9	-55.7	
18.8 87540.6	-55.4	
15.0 100941.2	-45.3	
9.3 12518.3	-44.5	

BEST AVAILABLE COPY

UPPER AIR DATA
 3140020808
 WHITE SANDS
 TABLE VIII.

STATION ALTITUDE 3989.0 FT MSL
 10 NOV. 77
 ASCENSION NO. 808

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	888.8	14.5	-10.2	17.0	1975.1	641.1	330.0	8.0	1.000252
4000.0	888.4	14.4	-10.2	17.1	1074.9	661.1	330.2	8.0	1.000252
4500.0	872.4	12.1	-10.5	19.5	1064.3	658.3	337.5	8.3	1.000250
5000.0	856.7	9.7	-11.0	21.9	1053.8	655.4	344.2	8.7	1.000247
5500.0	841.1	8.3	-11.5	23.1	1039.9	653.9	350.2	9.2	1.000244
6000.0	825.6	7.6	-12.1	23.3	1023.4	653.1	348.7	9.6	1.000240
6500.0	810.4	6.8	-12.6	23.4	1007.2	652.2	337.6	10.1	1.000236
7000.0	795.5	6.1	-13.1	23.6	991.3	651.4	324.0	10.1	1.000232
7500.0	780.8	5.4	-13.7	23.8	975.6	650.5	307.5	10.3	1.000228
8000.0	766.4	4.6	-14.2	23.9	960.2	649.6	298.5	10.6	1.000224
8500.0	752.3	4.7	-13.4	25.5	942.1	649.7	293.1	10.8	1.000221
9000.0	738.3	5.2	-11.9	27.8	923.0	650.3	295.1	10.5	1.000218
9500.0	724.6	4.2	-12.3	28.7	908.9	649.2	298.7	10.1	1.000214
10000.0	711.1	3.1	-13.0	29.4	895.6	647.9	304.3	9.7	1.000211
10500.0	697.9	2.1	-13.7	29.8	882.3	646.7	308.2	10.0	1.000207
11000.0	684.7	1.2	-14.9	28.7	868.5	645.6	310.1	10.8	1.000203
11500.0	671.8	.3	-16.1	27.7	854.9	644.6	310.7	11.8	1.000199
12000.0	659.1	-.5	-17.4	26.6	841.5	643.5	311.2	12.8	1.000195
12500.0	646.7	-1.4	-18.6	25.5	828.3	642.5	316.3	13.2	1.000192
13000.0	634.5	-1.7	-20.0	23.0	813.6	642.1	321.0	13.7	1.000188
13500.0	622.4	-1.5	-21.9	19.2	797.6	642.3	325.1	14.2	1.000183
14000.0	610.5	-2.1	-22.8	18.6	784.2	641.6	326.1	14.8	1.000180
14500.0	598.8	-3.1	-23.2	19.4	772.0	640.4	325.1	15.4	1.000177
15000.0	587.3	-4.1	-23.5	20.3	760.1	639.2	323.1	16.4	1.000174
15500.0	576.0	-5.2	-23.9	21.1	748.3	637.9	321.1	17.4	1.000171
16000.0	564.9	-6.2	-24.4	22.0	736.7	636.7	320.2	17.7	1.000169
16500.0	554.0	-7.2	-24.8	22.8	725.3	635.5	319.2	17.9	1.000166
17000.0	543.4	-8.2	-25.3	23.7	714.1	634.3	318.3	17.5	1.000163
17500.0	532.8	-9.4	-26.0	24.5	703.5	632.8	317.3	17.1	1.000161
18000.0	522.3	-10.8	-26.8	25.3	693.3	631.1	317.7	17.5	1.000158

UPPER AIR D.T.A
 3140020028
 WHITE SANDS
 TABLE VIII. (CONT)

STATION ALTITUDE 3989.00 FEET MSL
 10 NOV. 77 1205 HRS MST
 ASCENSION NO. 808

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 DIRECTION (DEGREES(TN))	WIND SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT						
18500.0	512.0	-12.2	-27.7	24.1	683.3	629.4	317.6	17.8	1.000156
19000.0	501.9	-13.6	-28.6	26.8	673.5	627.7	315.4	18.4	1.000153
19500.0	491.9	-14.8	-29.2	27.8	662.8	626.4	313.6	19.0	1.000151
20000.0	481.9	-15.8	-29.8	28.8	652.2	625.1	312.3	19.5	1.000148
20500.0	472.2	-16.9	-30.4	29.8	641.6	623.8	309.8	20.1	1.000146
21000.0	462.7	-17.9	-31.0	30.8	631.3	622.5	306.2	20.8	1.000143
21500.0	453.3	-19.0	-31.6	31.6	621.2	621.2	303.2	21.8	1.000141
22000.0	444.2	-20.0	-32.2	32.7	611.2	619.9	300.6	23.0	1.000139
22500.0	435.2	-21.1	-32.8	33.7	601.4	618.6	300.0	24.1	1.000136
23000.0	426.3	-22.3	-34.4	32.1	591.8	617.1	300.0	25.1	1.000134
23500.0	417.5	-23.5	-36.4	29.4	582.5	615.6	299.3	25.7	1.000131
24000.0	408.8	-24.8	-38.4	26.8	573.4	614.0	298.5	26.2	1.000129
24500.0	400.4	-26.0	-40.5	24.1	564.4	612.5	298.3	26.5	1.000127
25000.0	392.0	-27.2	-40.5	26.7	555.2	611.0	298.0	27.0	1.000125
25500.0	383.8	-28.4	-40.6	29.6	546.2	609.5	296.2	28.3	1.000123
26000.0	375.6	-29.6	-39.8	36.1	537.2	608.0	294.4	29.6	1.000121
26500.0	367.6	-30.8	-38.6	46.0	528.3	606.6	292.4	31.1	1.000119
27000.0	359.8	-32.0	-37.8	56.0	519.5	605.1	290.4	32.3	1.000117
27500.0	352.1	-33.1	-37.3	65.9	511.0	603.6	288.3	33.2	1.000115
28000.0	344.6	-34.0	-39.7	56.3	501.9	602.5	286.1	34.2	1.000113
28500.0	337.1	-35.2	-42.1	49.0	493.5	601.0	283.9	35.3	1.000111
29000.0	329.8	-36.5	-44.1	45.1	485.5	599.3	281.9	35.9	1.000109
29500.0	322.6	-37.8	-45.0	46.6	477.5	597.6	280.0	36.1	1.000107
30000.0	315.5	-39.2	-45.5	50.3	469.6	596.0	279.4	35.9	1.000105
30500.0	308.5	-40.5	-46.1	53.9	461.8	594.3	279.8	35.5	1.000104
31000.0	301.7	-42.0	-48.4	49.2	454.6	592.3	281.1	35.2	1.000102
31500.0	294.9	-43.1	-50.7	42.3**	446.4	590.9	283.1	35.1	1.000100
32000.0	288.2	-44.0	-53.2	34.8**	438.1	589.7	285.1	34.8	1.000098
32500.0	281.7	-44.9	-56.0	27.2**	429.9	588.6	287.2	34.4	1.000096
33000.0	275.3	-45.8	-59.3	19.7**	421.8	587.4	290.1	34.2	1.000094

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

UPPER AIR DATA
 3140J20808
 WHITE SANDS
 TABLE VIII. (CONT)

STATION ALTITUDE 3989.00 FEET MSL
 10 NOV. 77
 1205 HRS MST
 ASCENSION NO. 808

STATION ALTITUDE 3989.00 FEET MSL
 10 NOV. 77
 1205 HRS MST
 ASCENSION NO. 808

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 DEGREES				DIRECTION DEGREES(TN)	SPEED KNOTS	
33500.0	269.1	-46.7	-63.7	12.2**	414.0	586.2	293.3	34.0	1.000192
34000.0	263.0	-47.6	-71.3	4.6**	406.2	585.0	297.5	33.9	1.000091
34500.0	257.0	-48.2			398.0	584.3	301.8	34.0	1.000089
35000.0	251.1	-48.2			388.8	584.3	302.8	34.5	1.000087
35500.0	245.3	-48.8			380.8	583.5	303.5	34.9	1.000085
36000.0	239.5	-49.5			373.2	582.6	302.1	35.0	1.000083
36500.0	234.0	-50.2			365.7	581.6	300.8	34.9	1.000081
37000.0	228.5	-51.0			358.3	580.7	300.2	33.3	1.000080
37500.0	223.2	-51.7			351.1	579.7	299.6	31.7	1.000078
38000.0	218.0	-52.4			344.1	578.8	298.9	30.7	1.000077
38500.0	212.9	-53.2			337.2	577.8	298.2	29.8	1.000075
39000.0	208.0	-53.9			330.4	576.9	296.1	29.6	1.000074
39500.0	203.1	-54.6			323.8	575.9	293.8	29.6	1.000072
40000.0	198.3	-55.3			317.2	575.0	293.4	29.8	1.000071
40500.0	193.6	-55.9			310.4	574.3	293.2	30.1	1.000069
41000.0	188.9	-56.4			303.7	573.5	293.8	31.0	1.000068
41500.0	184.4	-57.0			297.2	572.7	294.4	32.0	1.000066
42000.0	179.9	-57.6			290.8	572.0	295.1	32.8	1.000065
42500.0	175.6	-58.2			284.6	571.2	295.7	33.7	1.000063
43000.0	171.4	-58.7			278.5	570.4	296.8	33.8	1.000062
43500.0	167.3	-59.3			272.5	569.7	298.0	33.8	1.000061
44000.0	163.3	-59.9			266.7	568.9	296.8	33.6	1.000059
44500.0	159.3	-60.5			261.0	568.1	294.5	33.3	1.000058
45000.0	155.5	-61.0			255.4	567.4	291.6	33.3	1.000057
45500.0	151.8	-61.6			250.0	566.6	288.4	33.4	1.000056
46000.0	148.1	-62.0			244.3	566.1	285.5	34.0	1.000054
46500.0	144.5	-62.2			238.6	565.8	283.1	34.8	1.000053
47000.0	140.9	-62.4			233.0	565.5	282.8	35.1	1.000052
47500.0	137.5	-62.7			227.5	565.2	283.9	35.1	1.000051
48000.0	134.1	-62.9			222.2	564.9	285.5	34.9	1.000049

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

BEST AVAILABLE COPY

UPPER AIR DATA
 5140020RUB
 WHITE SANDS
 TABLE VIII. (CONT)

STATION ALTITUDE 3989.00 FEET MSL
 10 NOV. 77 1205 HRS MST
 ASCENSION NO. RUB

GEOMETRIC ALTITUDE 3989.00 FEET MSL
 10 NOV. 77 1205 HRS MST
 ASCENSION NO. RUB

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMID. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
48500.0	130.8	-63.1		216.9	564.6	287.5	34.7	1.000048
49000.0	127.6	-63.3		211.8	564.3	287.7	35.2	1.000047
49500.0	124.4	-63.8		207.1	563.6	286.8	36.0	1.000046
50000.0	121.3	-64.6		202.6	562.7	287.9	36.8	1.000045
50500.0	118.3	-65.3		198.3	561.7	290.3	37.6	1.000044
51000.0	115.4	-66.0		194.0	560.7	292.8	36.2	1.000043
51500.0	112.5	-66.7		189.8	559.7	295.7	33.4	1.000042
52000.0	109.7	-67.5		185.8	568.7	298.8	30.4	1.000041
52500.0	106.9	-68.2		181.8	557.8	302.1	27.2	1.000040
53000.0	104.3	-68.9		177.9	556.8	304.8	25.8	1.000040
53500.0	101.6	-68.9		173.4	556.8	304.2	28.3	1.000039
54000.0	99.1	-68.8		168.9	557.0	303.7	30.8	1.000038
54500.0	96.6	-68.4		164.3	557.5	303.0	32.5	1.000037
55000.0	94.2	-68.0		159.9	558.0	302.4	34.3	1.000036
55500.0	91.8	-67.7		155.6	558.5	303.8	28.9	1.000035
56000.0	89.5	-67.3		151.4	559.0	306.3	22.7	1.000034
56500.0	87.2	-66.9		147.4	559.5	308.3	14.5	1.000033
57000.0	85.0	-66.7		143.5	559.8	312.8	5.3	1.000032
57500.0	82.9	-67.1		140.2	559.2	336.0	.9	1.000031
58000.0	80.8	-67.6		137.0	558.5	306.1	1.6	1.000031
58500.0	78.8	-68.1		133.8	557.9	295.1	3.7	1.000030
59000.0	76.8	-68.5		130.8	557.3	293.0	8.7	1.000029
59500.0	74.9	-68.9		127.7	556.8	292.2	13.2	1.000028
60000.0	73.0	-68.9		124.5	556.8	290.7	14.9	1.000028
60500.0	71.1	-68.9		121.3	556.8	289.5	16.6	1.000027
61000.0	69.4	-68.7		118.2	557.1	285.5	16.1	1.000026
61500.0	67.6	-68.0		114.9	557.9	281.1	15.6	1.000026
62000.0	66.0	-67.4		111.7	558.8	273.1	14.9	1.000025
62500.0	64.3	-66.8		108.6	559.6	262.3	14.3	1.000024
63000.0	62.7	-66.2		105.6	560.5	253.8	14.2	1.000024

UPPER AIR DATA
 3140021808
 WHITE SANDS
 TABLE VIII. (CONT)

STATION ALTITUDE 3987.0m FELT MSL
 10 NOV. 77 1205 HRS MST
 ASCENSION NO. 808

GEODETIC COORDINATES
 32.40043 LAT NEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
63500.0	61.2	-65.5		102.6	561.3	253.0	14.1	1.000023
64000.0	59.7	-64.9		99.9	562.2	252.2	14.0	1.000022
64500.0	58.2	-64.3		97.3	563.0	252.5	13.2	1.000022
65000.0	56.7	-63.7		94.3	563.9	252.9	12.4	1.000021
65500.0	55.3	-63.0		91.7	564.7	252.7	11.6	1.000020
66000.0	54.0	-62.4		89.2	565.6	251.7	11.0	1.000020
66500.0	52.6	-61.8		86.7	566.4	251.4	10.5	1.000019
67000.0	51.3	-61.1		84.3	567.2	257.5	10.5	1.000019
67500.0	50.0	-60.5		82.0	568.1	263.4	10.7	1.000018
68000.0	48.8	-60.6		80.0	568.0	267.4	10.6	1.000018
68500.0	47.6	-60.7		78.1	567.8	270.8	10.3	1.000017
69000.0	46.5	-60.8		76.2	567.7	273.9	9.9	1.000017
69500.0	45.3	-60.9		74.4	567.6	274.8	9.0	1.000017
70000.0	44.2	-61.0		72.6	567.4	275.8	8.1	1.000016
70500.0	43.2	-61.1		70.9	567.3	284.3	7.1	1.000016
71000.0	42.1	-61.2		69.2	567.2	300.6	6.6	1.000015
71500.0	41.1	-61.3		67.5	567.0	318.2	6.6	1.000015
72000.0	40.1	-61.4		65.9	566.9	323.2	6.5	1.000015
72500.0	39.1	-61.5		64.3	566.8	328.2	6.3	1.000014
73000.0	38.1	-61.6		62.9	566.6	327.3	6.0	1.000014
73500.0	37.2	-61.7		61.3	566.5	315.0	5.3	1.000014
74000.0	36.3	-61.8		59.8	566.4	300.3	5.0	1.000013
74500.0	35.4	-61.9		58.4	566.2	296.5	4.7	1.000013
75000.0	34.6	-61.3		56.8	567.0	297.5	4.4	1.000013
75500.0	33.7	-60.6		55.3	567.9	298.6	4.1	1.000012
76000.0	32.9	-60.0		53.8	568.8	298.2	3.2	1.000012
76500.0	32.1	-59.3		52.3	569.7	297.3	2.3	1.000012
77000.0	31.3	-58.6		50.9	570.6	295.9	1.4	1.000011
77500.0	30.6	-57.9		49.5	571.5	115.9	.0	1.000011
78000.0	29.8	-57.4		48.2	572.3	115.9	1.4	1.000011

BEST AVAILABLE COPY

UPPER AIR DATA
 3140021808
 WHITE SANDS
 TABLE VIII. (CONT)

STATION ALTITUDE 3989.00 FEET MSL
 10 NOV. 77
 1205 HRS MST
 ASCENSION NO. 808

GEODETIC COORDINATES
 32°40'43" LAT DEG
 106°37'03" LON DEG

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
78500.0	29.1	-57.3		47.0	572.4	121.9	1.6	1.000010
79000.0	28.4	-57.2		45.8	572.5	226.6	.7	1.000010
79500.0	27.7	-57.1		44.7	572.7	268.4	2.4	1.000010
80000.0	27.1	-57.0		43.6	572.8	260.5	3.9	1.000010
80500.0	26.4	-56.9		42.6	572.9	248.2	5.5	1.000009
81000.0	25.8	-56.8		41.5	573.1	241.5	7.3	1.000009
81500.0	25.2	-56.7		40.5	573.2	241.2	8.6	1.000009
82000.0	24.6	-56.6		39.5	573.3	242.7	9.8	1.000009
82500.0	24.0	-56.5		38.6	573.5	243.8	11.0	1.000009
83000.0	23.4	-56.4		37.6	573.6	250.3	12.3	1.000008
83500.0	22.9	-56.3		36.7	573.7	263.8	14.4	1.000008
84000.0	22.3	-56.2		35.8	573.9	273.4	17.1	1.000008
84500.0	21.8	-56.1		34.9	574.0	280.2	19.9	1.000008
85000.0	21.3	-56.0		34.1	574.1	285.4	18.7	1.000008
85500.0	20.7	-55.9		33.3	574.3	291.3	17.6	1.000007
86000.0	20.3	-55.8		32.4	574.4	297.9	16.7	1.000007
86500.0	19.8	-55.6		31.7	574.6	300.9	16.2	1.000007
87000.0	19.3	-55.5		30.9	574.7	302.6	15.7	1.000007
87500.0	18.8	-55.4		30.1	574.9	304.4	15.2	1.000007
88000.0	18.4	-55.1		29.4	575.3	305.3	15.3	1.000007
88500.0	18.0	-54.7		28.7	575.8	304.7	16.3	1.000006
89000.0	17.6	-54.3		27.9	576.3	304.3	17.3	1.000006
89500.0	17.1	-53.9		27.2	576.8	303.8	18.3	1.000006
90000.0	16.7	-53.5		26.6	577.3	307.2	19.1	1.000006
90500.0	16.4	-53.2		25.9	577.8	310.3	19.9	1.000006
91000.0	16.0	-52.8		25.3	578.3	313.2	20.8	1.000006
91500.0	15.6	-52.4		24.6	578.8	315.8	20.5	1.000005
92000.0	15.2	-52.0		24.0	579.3	318.5	19.3	1.000005
92500.0	14.9	-51.7		23.4	579.9	321.5	18.2	1.000005
93000.0	14.5	-51.3		22.8	580.3	325.9	16.8	1.000005

UPPER AIR DATA
 3140020808
 WHITE SANDS
 TABLE VIII. (CONT)

STATION ALTITUDE 3989.00 FEET MSL
 1205 HRS MST
 ASCENSION NO. 808

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
93500.0	14.2	-50.9	22.3	580.8	337.1	14.1	1.000005	
94000.0	13.9	-50.5	21.7	581.3	352.7	12.2	1.000005	
94500.0	13.5	-50.2	21.2	581.8	12.1	11.4	1.000005	
95000.0	13.2	-49.8	20.6	582.3	17.3	10.4	1.000005	
95500.0	12.9	-49.4	20.1	582.7	21.4	9.4	1.000004	
96000.0	12.6	-49.0	19.6	583.2	26.6	8.5	1.000004	
96500.0	12.3	-48.6	19.1	583.7	17.1	5.5	1.000004	
97000.0	12.0	-48.3	18.7	584.2	343.7	2.9	1.000004	
97500.0	11.8	-47.9	18.2	584.7	276.9	3.3	1.000004	
98000.0	11.5	-47.5	17.7	585.2	272.4	3.4	1.000004	
98500.0	11.2	-47.1	17.3	585.7	271.9	3.4	1.000004	
99000.0	11.0	-46.8	16.9	586.2	271.3	3.3	1.000004	
99500.0	10.7	-46.4	16.4	586.7	285.5	2.8	1.000004	
100000.0	10.5	-46.0	16.0	587.1	305.3	2.6	1.000004	
100500.0	10.2	-45.6	15.6	587.6	326.3	2.7	1.000003	
101000.0	10.0	-45.3	15.2	588.1			1.000003	
101500.0	9.7	-45.0	14.9	588.4			1.000003	
102000.0	9.5	-44.8	14.5	588.7			1.000003	
102500.0	9.3	-44.5	14.2	589.1			1.000003	

MANDATORY LEVELS
314002080R
WHITE SANDS
TABLE IX.

STATION ALTITUDE 3989.00 FEET MSL
10 NOV. 77
ASCENSION NO. 808
1205 HRS MST

GEODEIC COORDINATES
32.49043 LAT DEG
106.37033 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5215.	8.7	23.	346.9	8.9
800.0	6852.	6.3	24.	328.7	10.2
750.0	8579.	4.8	26.	293.4	10.8
700.0	10419.	2.2	30.	307.8	9.9
650.0	12370.	-1.2	26.	315.1	13.1
600.0	14459.	-3.0	19.	325.1	15.4
550.0	16700.	-7.6	23.	318.8	17.7
500.0	19106.	-13.9	27.	314.8	18.5
450.0	21704.	-19.4	32.	302.0	22.4
400.0	24540.	-26.1	24.	298.3	26.6
350.0	27664.	-33.5	69.	287.5	33.6
300.0	31153.	-42.4	48.	281.9	35.2
250.0	35135.	-48.2		303.2	34.7
200.0	39885.	-55.1		293.4	29.8
175.0	42663.	-58.3		296.2	33.8
150.0	45819.	-61.9		286.0	33.9
125.0	49507.	-63.7		286.6	36.2
100.0	53932.	-68.9		303.6	31.0
90.0	58340.	-67.8		295.1	3.8
70.0	60964.	-68.9		284.2	16.0
60.0	64018.	-65.1		252.2	13.7
50.0	67704.	-60.5		266.9	10.6
40.0	72255.	-61.4		328.3	6.3
30.0	78133.	-57.4		119.0	1.9
25.0	81920.	-56.4		243.3	10.4
20.0	86573.	-55.7		302.3	15.7
15.0	92631.	-51.8		326.7	16.6
10.0	101383.	-45.3			

BEST AVAILABLE COPY

STATION ALTITUDE 4940.00 FEET MSL
 10 NOV. 77
 ASCENSION NO. 245

SIGNIFICANT LEVEL DATA

J140740245
 STALLION
 TABLE X.

PRESSURE GEOMETRIC ALTITUDE		TEMPERATURE AIR DEWPOINT		REL. HUM.
MILLIBARS	MSL FEET	DEGREES	CENTIGRAD F	PERCENT
858.6	4940.0	10.9	-10.5	21.0
850.0	5217.7	8.7	-11.8	22.0
800.3	6837.2	3.9	-12.1	30.0
790.8	7154.9	3.0	-17.0	32.0
773.3	7750.9	4.5	-9.6	35.0
700.0	10391.6	.6	-13.1	35.0
645.3	12523.9	-1.6	-20.5	22.0
582.3	15187.2	-5.0	-22.9	23.0
500.0	19040.0	-14.7	-26.7	35.0
479.8	20058.0	-17.3	-32.1	26.0
452.8	21471.4	-20.5	-30.0	42.0
421.8	23175.1	-25.1	-36.9	32.0
400.0	24430.6	-28.0	-34.4	54.0
300.0	30987.0	-43.0	-49.2	50.0
250.0	34956.8	-48.9		
200.0	39681.7	-55.3		
150.0	45593.9	-61.7		
138.9	47151.2	-61.3		
100.0	53678.9	-69.7		
94.0	54877.4	-71.5		
84.3	57004.0	-66.4		
77.8	58582.0	-68.5		
70.0	60656.2	-67.0		
65.7	61907.9	-66.1		

GEODETIC COORDINATES
 33.81920 LAT DEG
 106.66501 LON DEG

BEST AVAILABLE COPY

UPPER AIR DATA
 314004J245
 STATION
 TABLE XI.

STATION ALTITUDE 4940.00 FEET MSL
 10 NOV. 77 1205 HRS MST
 ASCENSION NO. 245

GEODETIC COORDINATES
 33.81920 LAT DEG
 106.66501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
4940.0	858.6	10.9	21.0	1051.7	657.0	340.0	14.0	1.000247
5000.0	856.7	10.4	21.2	1051.2	656.4	340.1	14.0	1.000247
5500.0	841.1	7.9	23.4	1041.6	653.4	340.5	13.7	1.000244
6000.0	825.6	6.4	25.9	1027.8	651.7	341.0	13.4	1.000241
6500.0	810.4	4.9	28.3	1014.2	650.0	341.5	13.1	1.000238
7000.0	795.4	3.4	31.0	1000.7	648.3	343.4	12.1	1.000235
7500.0	780.6	3.9	33.7	990.4	648.8	346.4	10.9	1.000232
8000.0	766.1	4.1	35.0	961.1	649.2	349.9	10.0	1.000228
8500.0	751.8	3.4	35.0	945.7	648.3	351.3	9.1	1.000224
9000.0	737.7	2.7	35.0	930.6	647.4	337.9	7.9	1.000220
9500.0	723.9	1.9	35.0	915.7	646.5	333.1	8.2	1.000216
10000.0	710.4	1.2	35.0	901.0	645.7	339.9	10.0	1.000212
10500.0	697.1	.5	34.3	886.4	644.8	342.3	11.9	1.000208
11000.0	683.9	-.0	31.3	871.4	644.2	342.6	13.3	1.000204
11500.0	671.0	-.5	28.2	856.7	643.5	340.0	13.3	1.000199
12000.0	658.3	-.5	25.2	842.2	642.9	336.5	13.1	1.000195
12500.0	645.9	-1.1	22.1	827.9	642.2	334.8	13.6	1.000191
13000.0	633.6	-2.2	22.2	814.0	641.5	335.0	15.0	1.000187
13500.0	621.5	-2.8	22.4	800.4	640.7	335.4	15.8	1.000184
14000.0	609.6	-3.5	22.6	787.0	640.0	335.4	17.0	1.000181
14500.0	597.9	-4.1	22.7	773.8	639.2	335.0	18.7	1.000178
15000.0	586.5	-4.8	22.9	760.8	638.4	333.7	19.9	1.000175
15500.0	575.1	-5.8	24.0	748.9	637.2	331.9	20.9	1.000172
16000.0	563.9	-7.0	25.5	737.7	635.7	329.1	21.5	1.000169
16500.0	552.8	-8.3	27.1	726.7	634.2	325.8	22.7	1.000167
17000.0	542.0	-9.6	28.6	715.9	632.7	322.3	24.1	1.000164
17500.0	531.4	-10.8	30.2	705.3	631.2	319.7	24.8	1.000162
18000.0	521.0	-12.1	31.8	694.8	629.6	317.7	25.3	1.000159
18500.0	510.8	-13.3	33.3	684.5	628.1	316.8	24.9	1.000157
19000.0	500.8	-14.6	34.9	674.4	626.6	316.0	24.7	1.000154

UPPER AIR DATA
 J140040246
 STATION
 TABLE XI. (CONT)

STATION ALTITUDE 4940.00 FEET MSL
 10 NOV. 77
 ASCENSION NO. 245

GFODETIC 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		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT DEGREES CENTIGRADE			METERS	KNOTS	DIRECTION DEGREES(TN)	SPEED KNOTS	
19500.0	490.8	-15.9	-29.1	30.9	664.3	625.0	315.4	24.7	1.000151	
20000.0	480.9	-17.2	-31.8	26.5	654.2	623.4	315.9	24.9	1.000148	
20500.0	471.2	-18.3	-31.2	31.0	643.9	622.0	316.7	25.1	1.000146	
21000.0	461.6	-19.4	-30.5	36.7	633.6	620.7	317.1	25.5	1.000144	
21500.0	452.3	-20.6	-30.1	41.8	623.5	619.3	316.2	26.0	1.000142	
22000.0	442.9	-21.9	-32.1	38.9	614.0	617.6	314.4	26.7	1.000139	
22500.0	433.8	-23.3	-34.1	36.0	604.6	615.9	311.5	27.1	1.000137	
23000.0	424.9	-24.6	-36.2	33.0	595.4	614.2	308.4	27.5	1.000134	
23500.0	416.0	-25.9	-36.0	37.7	585.9	612.7	304.8	27.4	1.000132	
24000.0	407.3	-27.0	-35.0	46.5	576.3	611.3	301.0	26.9	1.000130	
24500.0	398.8	-28.2	-34.5	54.0	566.9	609.9	297.0	26.4	1.000128	
25000.0	390.1	-29.3	-35.7	53.7	557.2	608.4	293.7	27.3	1.000126	
25500.0	381.7	-30.4	-36.8	53.3	547.7	607.0	291.6	28.3	1.000124	
26000.0	373.4	-31.6	-37.9	53.0	538.3	605.6	291.9	29.3	1.000121	
26500.0	365.3	-32.7	-39.1	52.7	529.2	604.1	295.4	29.9	1.000119	
27000.0	357.4	-33.9	-40.2	52.4	520.2	602.7	301.2	30.4	1.000117	
27500.0	349.6	-35.0	-41.3	52.1	511.4	601.2	304.9	31.1	1.000115	
28000.0	342.0	-36.2	-42.5	51.8	502.7	599.8	306.5	31.5	1.000113	
28500.0	334.6	-37.3	-43.6	51.5	494.2	598.3	304.1	30.8	1.000111	
29000.0	327.3	-38.5	-44.7	51.2	485.8	596.9	301.5	30.0	1.000109	
29500.0	320.2	-39.6	-45.8	50.9	477.6	595.4	299.0	29.2	1.000107	
30000.0	313.3	-40.7	-47.0	50.6	469.5	593.9	299.9	29.2	1.000105	
30500.0	306.5	-41.9	-48.1	50.3	461.6	592.5	301.4	29.3	1.000103	
31000.0	299.8	-43.0	-49.2	49.8	453.8	591.0	303.5	29.7	1.000102	
31500.0	293.0	-43.8	-51.1	43.5	445.0	590.1	302.9	29.6	1.000099	
32000.0	286.4	-44.5	-53.1	37.2	436.3	589.1	301.4	29.4	1.000097	
32500.0	279.9	-45.2	-55.3	30.9	427.8	588.1	300.2	29.9	1.000096	
33000.0	273.5	-46.0	-57.7	24.6	419.4	587.2	299.5	30.9	1.000094	
33500.0	267.3	-46.7	-60.7	18.3	411.3	586.2	299.7	32.9	1.000092	
34000.0	261.2	-47.5	-64.4	12.1	403.2	585.2	300.5	34.4	1.000090	

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

UPPER AIR DATA
 J140043245
 STATION ALTITUDE 4940.00 FEET MSL
 10 NOV. 77 1205 HRS MST
 ASCENSION NO. 245

STATION ALTITUDE 4940.00 FEET MSL
 10 NOV. 77 1205 HRS MST
 ASCENSION NO. 245

STATION ALTITUDE 4940.00 FEET MSL
 10 NOV. 77 1205 HRS MST
 ASCENSION NO. 245

STATION ALTITUDE 4940.00 FEET MSL
 10 NOV. 77 1205 HRS MST
 ASCENSION NO. 245

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	
34500.0	255.3	-48.2	-70.2	5.8..	395.4	584.3	301.6	35.6	1.000088
35000.0	249.5	-49.0			387.7	583.3	303.1	35.7	1.000086
35500.0	243.7	-49.6			379.8	582.4	303.9	35.6	1.000085
36000.0	238.0	-50.3			372.0	581.6	303.3	34.8	1.000083
36500.0	232.4	-51.0			364.5	580.7	302.7	34.7	1.000081
37000.0	227.0	-51.7			357.3	579.8	302.3	34.9	1.000080
37500.0	221.7	-52.3			349.8	578.9	303.2	35.0	1.000078
38000.0	216.5	-53.0			342.7	578.0	304.4	34.8	1.000076
38500.0	211.5	-53.7			335.7	577.1	305.3	33.2	1.000075
39000.0	206.5	-54.4			328.9	576.2	305.4	32.0	1.000073
39500.0	201.7	-55.1			322.2	575.3	304.2	31.6	1.000072
40000.0	196.9	-55.6			315.4	574.6	303.0	31.7	1.000070
40500.0	192.2	-56.2			308.6	573.8	301.8	32.1	1.000069
41000.0	187.6	-56.7			301.9	573.1	299.9	33.2	1.000067
41500.0	183.1	-57.3			295.4	572.4	297.9	34.2	1.000066
42000.0	178.7	-57.8			289.0	571.7	296.0	35.3	1.000064
42500.0	174.4	-58.4			282.8	571.0	295.3	36.7	1.000063
43000.0	170.2	-58.9			276.7	570.2	295.5	38.3	1.000062
43500.0	166.1	-59.4			270.7	569.5	296.1	40.4	1.000060
44000.0	162.1	-60.0			264.9	568.8	296.5	42.2	1.000059
44500.0	158.2	-60.5			259.2	568.1	296.2	41.8	1.000058
45000.0	154.4	-61.1			253.6	567.4	296.0	42.0	1.000056
45500.0	150.7	-61.6			248.1	566.6	296.2	43.1	1.000055
46000.0	147.0	-61.6			242.1	566.6	295.9	44.2	1.000054
46500.0	143.4	-61.5			236.1	566.8	295.4	45.4	1.000053
47000.0	139.9	-61.3			230.2	567.0	296.0	43.0	1.000051
47500.0	136.5	-61.7			224.9	566.4	296.5	40.3	1.000050
48000.0	133.1	-62.4			220.0	565.6	296.1	37.3	1.000049
48500.0	129.8	-63.0			215.2	564.7	295.1	35.3	1.000048
49000.0	126.6	-63.7			210.5	563.8	293.3	34.5	1.000047

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

UPPER AIR D.T.A
 3143040.245
 STATION
 TABLE XI. (CONT)

STATION ALTITUDE 4940.00 FEET MSL
 10 NOV. 77
 ASCENSION NO. 245
 1205 HRS MST

GEODETIC COORDINATES
 33° 81' 20" LAT DEG
 106° 66' 50" LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUMID. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
49500.0	123.4	-64.3			205.9	563.0	294.4	34.7	1.000046
50000.0	120.3	-65.0			201.4	562.1	296.6	35.5	1.000045
50500.0	117.4	-65.6			197.0	561.2	296.4	35.2	1.000044
51000.0	114.4	-66.3			192.7	560.4	296.1	34.8	1.000043
51500.0	111.6	-66.9			188.5	559.5	297.0	34.8	1.000042
52000.0	108.8	-67.5			184.4	558.6	298.2	34.6	1.000041
52500.0	106.1	-68.2			180.4	557.7	303.6	32.3	1.000040
53000.0	103.5	-68.8			176.4	556.9	308.7	30.3	1.000039
53500.0	100.9	-69.5			172.6	556.0	307.4	28.5	1.000038
54000.0	98.4	-70.2			168.8	555.0	305.6	27.2	1.000037
54500.0	95.8	-70.9			165.1	554.0	302.4	27.9	1.000036
55000.0	93.4	-71.2			161.1	553.6	301.2	27.6	1.000035
55500.0	91.1	-70.0			156.1	553.3	302.5	25.9	1.000034
56000.0	88.7	-68.8			151.3	556.9	300.0	23.0	1.000033
56500.0	86.5	-67.6			146.6	558.5	294.1	19.6	1.000032
57000.0	84.3	-66.4			142.1	560.2	282.5	15.9	1.000031
57500.0	82.2	-67.1			138.9	559.3	265.5	13.3	1.000030
58000.0	80.1	-67.7			135.9	558.4	270.8	13.7	1.000029
58500.0	78.1	-68.4			132.9	557.5	278.1	14.3	1.000028
59000.0	76.2	-68.2			129.5	557.7	298.4	16.3	1.000027
59500.0	74.2	-67.8			126.0	558.2	311.1	18.9	1.000026
60000.0	72.4	-67.5			122.6	558.7	316.0	18.7	1.000025
60500.0	70.6	-67.1			119.3	559.2			
61000.0	68.8	-66.8			116.1	559.7			
61500.0	67.1	-66.4			113.0	560.2			

MANDATORY LEVELS
3140040245
STATION
TABLE XII.

STATION ALTITUDE 4940.00 FEET MSL
30 NOV. 77 1225 HRS MST
ASCENSION NO. 245

GEODETIC COORDINATES
33.81920 LAT DEG
106.66501 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUMID. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5217.	8.7	-11.8	22.	340.3	13.8
800.0	6847.	3.9	-12.1	30.	342.7	12.5
750.0	8567.	3.3	-10.7	35.	349.6	8.9
700.0	10393.	.6	-13.1	35.	342.0	11.5
650.0	12337.	-1.4	-19.7	23.	334.8	13.2
600.0	14419.	-4.0	-22.2	23.	335.1	18.5
550.0	16654.	-8.6	-24.0	27.	324.5	23.2
500.0	19050.	-14.7	-26.7	35.	315.9	24.7
450.0	21636.	-20.9	-30.6	41.	315.6	26.2
400.0	24450.	-28.0	-34.4	54.	297.1	26.5
350.0	27552.	-35.0	-41.3	52.	305.5	31.3
300.0	31022.	-43.0	-49.2	50.	303.7	29.7
250.0	35002.	-48.9			303.2	35.7
200.0	39743.	-55.3			303.4	31.6
175.0	42519.	-58.3			295.3	37.0
150.0	45677.	-61.7			296.1	43.7
125.0	49373.	-64.0			294.3	34.7
100.0	53797.	-69.7			306.0	27.1
80.0	58176.	-67.8			274.1	14.1
70.0	62811.	-67.0				

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

BEST AVAILABLE COPY