

AD-A058 777 ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2  
12830C LANCE MISSILE NO. 3338, ROUND NO. 316 ESL.(U)  
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METEOROLOGICAL DATA REPORT

12830C LANCE  
MISSILE NO. 3338, ROUND NO. 316 ESL  
(13 JULY 1978)

BY

WSMR METEOROLOGICAL TEAM

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RECEIVED  
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ATMOSPHERIC SCIENCES LABORATORY  
WHITE SANDS MISSILE RANGE, NEW MEXICO

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**ECOM**

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 12830C Lance, Missile Number 3338, Round Number 316 ESL, are presented in tabular form.		

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INTRODUCTION

12830C Lance, Missile Number 3338, Round Number 316 ESL, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0800 HRS MDT, 13 July 1978. The scheduled launch time was 0800 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	3,977.30	FEET/MSL
PRESSURE	883.3	MBS
TEMPERATURE	24.9	°C
RELATIVE HUMIDITY	56	%
DEW POINT	15.5	°C
DENSITY	1,024	GM/M <sup>3</sup>
WIND SPEED/DIREC.	CALM	
CLOUD COVER	1	Ac

TABLE I. SURFACE OBSERVATIONS TAKEN AT LC-33,  
0800 HRS MDT/13 July 1978  
12830C LANCE, MISSILE NO. 3338, ROUND NO. 316 ESL

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HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	CALM		2100	289	04.5
100	CALM		2200	271	04.5
200	CALM		2300	277	04.5
300	037	00.5	2400	282	04.5
400	029	01.0	2500	268	04.5
500	027	02.5	2600	253	04.5
600	025	03.5	2700	252	04.5
700	018	05.0	2800	250	04.5
800	011	06.5	2900	259	04.0
900	014	07.0	3000	268	03.5
1000	017	07.5	3100	271	03.5
1100	018	07.0	3200	273	03.5
1200	018	06.0	3300	280	03.5
1300	014	06.0	3400	287	03.5
1400	009	06.0	3500	298	03.5
1500	009	06.5	3600	308	03.0
1600	008	07.0	3700	309	03.0
1700	343	05.5	3800	310	02.5
1800	318	04.0	3900	304	02.5
1900	313	04.5	4000	298	02.5
2000	307	04.5	4100	278	02.5

TABLE II. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1  
RELEASED FROM LC-33, AT 0750 HRS MDT/13 JULY 1978  
12830C LANCE, MISSILE NO. 3338, ROUND NO. 316 ESL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,037.24      Y = 182,350.16      Z = 3,977.30

APPROXIMATELY: 1 MILE SOUTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	258	02.0
4300	273	02.0
4400	288	02.0
4500	305	02.5
4600	322	03.0
4700	322	02.5
4800	321	02.0
4900	332	02.0
5000	342	01.5
5100	347	01.5
5200	352	01.5
5300	352	01.5
5400	352	01.5
5500	356	01.5
5600	360	01.5
5700	024	01.5
5800	048	01.5
5900	053	02.0
6000	058	02.5
6100	059	03.0
6200	060	03.0
6300	059	03.0
6400	057	03.0
6500	060	03.0
6600	062	02.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6700	051	02.5
6800	039	02.0
6900	034	02.5
7000	029	02.5
7100	030	03.0
7200	030	03.0
7300	027	04.0
7400	023	04.5
7500	025	05.0
7600	027	05.5
7700	030	05.5
7800	032	05.5
7900	032	07.0
8000	031	08.5
8100	039	08.5
8200	047	08.5
8300	053	09.5
8400	058	10.0
8500	064	09.5
8600	070	09.0
8700	072	09.0
8800	074	09.0
8900	078	08.5
9000	082	08.2

TABLE II. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	CALM	
100	CALM	
200	CALM	
300	CALM	
400	CALM	
500	051	00.5
600	056	00.5
700	051	03.5
800	046	06.5
900	032	06.5
1000	017	06.0
1100	029	08.0
1200	041	10.0
1300	046	08.0
1400	051	06.0
1500	042	05.0
1600	033	03.5
1700	023	04.5
1800	013	05.5
1900	012	04.5
2000	011	03.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2100	342	03.0
2200	312	02.5
2300	302	04.0
2400	292	05.0
2500	273	05.0
2600	254	05.0
2700	254	06.0
2800	254	06.5
2900	249	06.5
3000	244	06.0
3100	234	06.5
3200	223	06.5
3300	226	06.0
3400	229	05.5
3500	243	04.5
3600	256	03.0
3700	255	03.5
3800	254	03.5
3900	275	02.5
4000	295	01.5
4100	281	02.0

TABLE III.

PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2  
RELEASED FROM LC-33, at 0800 HRS MDT/13 JULY 1978  
12830C LANCE, MISSILE NO. 3338, ROUND NO. 316 ESL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,037.24      Y = 182,350.16      Z = 3,977.30

APPROXIMATELY: 1 MILE SOUTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	266	02.5	6700	047	06.0
4300	277	03.5	6800	046	06.0
4400	287	04.0	6900	037	05.0
4500	280	04.0	7000	027	04.0
4600	273	03.5	7100	041	03.0
4700	297	03.5	7200	055	01.5
4800	320	03.5	7300	039	02.0
4900	022	02.5	7400	023	02.5
5000	083	01.0	7500	031	04.5
5100	150	02.5	7600	039	06.0
5200	217	03.5	7700	028	06.5
5300	306	02.0	7800	017	07.0
5400	034	00.5	7900	021	07.0
5500	066	01.0	8000	025	06.5
5600	097	01.5	8100	028	06.5
5700	070	01.5	8200	030	06.5
5800	042	01.5	8300	036	07.0
5900	069	02.0	8400	042	07.0
6000	096	02.0	8500	047	08.0
6100	082	03.0	8600	052	09.0
6200	067	03.5	8700	056	09.5
6300	074	04.0	8800	059	09.5
6400	081	04.5	8900	068	09.0
6500	064	05.0	9000	076	08.0
6600	047	05.5			

TABLE III. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	03	093
-20.0	03	093
-10.0	04	096
-00.00	05	096
+10.00	04	091
+20.00	04	093
+30.00	05	097

**TABLE IV.** ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 2  
**LAUNCHED FROM LC-33, 0800 HRS MDT/13 JULY 1978**  
**12830C LANCE, MISSILE NO. 3338, ROUND NO. 316 ESL**

WSTM COORDINATES: X = 485,874.93 Y = 186,012.00 Z = 4,033.57

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

GEODETIC COORDINATES  
 33.16712 LAT DEG  
 106.49511 LON DEG

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SIGNIFICANT LEVEL DATA  
 194003009c  
 JALLEN  
 TABLE V.

STATION ALTITUDE 4051.00 FEET MSL  
 13 JULY 78 0730 HRS MDT  
 ASCENSION NO. 98

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE		TEMPERATURE		REL. HUM. PERCENT
	MSL	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	
878.0	4051.0		23.6	13.5	53.0
867.6	4393.9		24.8	10.7	41.0
850.0	4963.9		24.3	9.5	39.0
785.7	7255.3		21.6	5.5	35.0
700.0	10461.0		13.8	2.4	46.0
578.3	15635.0		1.3	-6.0	58.0
552.0	16802.9		-2.3	-5.6	78.0
536.2	17640.6		-3.5	-8.5	68.0
508.3	19022.5		-6.9	-10.9	73.0
500.0	19445.1		-7.4	-13.4	62.0
465.2	21251.4		-11.2	-16.0	64.0
441.4	22599.9		-14.6	-16.8	63.0
434.6	22966.9		-15.0	-18.7	73.0
425.5	23512.1		-16.7	-19.5	79.0
420.4	23810.4		-16.6	-25.2	47.0
405.0	24751.9		-17.5	-31.5	28.0
400.0	25057.6		-18.4	-28.0	40.0
396.0	25264.5		-18.4	-30.0	35.0
389.5	25690.6		-19.0	-26.5	52.0
382.8	26115.3		-19.6	-28.7	44.0
352.4	28120.4		-24.2	-30.3	57.0
338.6	29075.8		-26.1	-36.7	36.0
300.0	31924.1		-32.2	-43.5	32.0
262.6	34909.4		-39.9	-50.4	51.0
250.0	36009.7		-42.5		
200.0	40903.7		-54.8		
184.4	42598.1		-59.2		
150.0	46766.6		-66.9		
136.0	48751.7		-68.3		
111.8	52544.2		-75.2		

STATION ALTITUDE 4051.00 FEET MSL  
13 JULY 78  
ASCENSION ISL. 58  
0730 HRS MDT

SIGNIFICANT LEVEL DATA  
1940030098  
JALLEN  
TABLE V. (CONT)

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

PRESSURE	GEOMETRIC	TEMPERATURE	REL. HUM.
MILLIBARS	ALTITUDE	AIR DEWPOINT	PERCENT
MSL FEET	DEGREES	CENTIGRADE	
100.0	54695.7	-71.9	
93.0	56104.8	-72.6	
70.0	61708.4	-65.7	
60.3	64739.0	-60.5	
50.0	68591.1	-60.7	
30.0	79257.2	-54.3	
20.0	87901.1	-49.0	
12.3	98738.8	-40.2	

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STATION ALTITUDE 4051.00 FEET MSL  
 13 JULY 78 0730 HRS MDT  
 ASCENSION NO. 98

UPPER AIR DATA  
 194003009b  
 JALLEN  
 TABLE VI.

GEODETIC COORDINATES  
 33.16712 LAT DEG  
 106.49511 LON DEG

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(TN)	SPEED KNOTS	INDEX OF REFRACTION
4051.0	876.0	23.6	53.0	1023.9	673.3	290.0	1.9	1.000295
4500.0	864.4	24.7	40.6	1005.4	674.2	291.0	2.2	1.000278
5000.0	849.5	24.3	39.0	989.8	673.7	291.8	2.5	1.000271
5500.0	834.8	23.7	38.1	974.8	672.9	292.5	2.8	1.000265
6000.0	820.4	23.1	37.2	960.1	672.1	293.9	3.0	1.000259
6500.0	806.1	22.5	36.3	945.5	671.4	298.8	2.8	1.000254
7000.0	792.2	21.9	35.4	931.2	670.6	297.2	2.3	1.000248
7500.0	778.3	21.0	35.9	917.9	669.6	278.4	1.6	1.000244
8000.0	764.6	19.8	37.6	905.5	668.2	330.6	.7	1.000240
8500.0	751.1	18.6	39.3	893.2	666.8	36.3	2.2	1.000236
9000.0	737.9	17.4	41.0	881.1	665.4	53.6	3.7	1.000233
9500.0	724.9	16.2	42.7	869.3	664.0	61.7	5.0	1.000229
10000.0	712.1	15.0	44.4	857.6	662.6	65.4	4.1	1.000226
10500.0	699.5	13.8	46.0	846.0	661.2	61.7	3.0	1.000222
11000.0	686.7	12.5	47.2	834.2	659.7	36.1	2.2	1.000218
11500.0	674.2	11.3	48.4	822.6	658.3	18.5	.8	1.000214
12000.0	661.9	10.1	49.5	811.1	656.8	254.6	.8	1.000210
12500.0	649.8	8.9	50.7	799.8	655.4	246.1	2.0	1.000206
13000.0	637.9	7.7	51.9	788.7	653.9	236.9	2.2	1.000202
13500.0	626.2	6.5	53.0	777.7	652.5	221.7	2.0	1.000198
14000.0	614.8	5.3	54.2	767.0	651.0	224.9	2.4	1.000194
14500.0	603.5	4.1	55.4	756.3	649.5	227.7	2.7	1.000191
15000.0	592.5	2.8	56.5	745.9	648.1	231.0	3.0	1.000187
15500.0	581.7	1.6	57.7	735.6	646.6	217.4	2.8	1.000184
16000.0	570.8	.2	63.9	725.4	645.0	186.5	2.9	1.000182
16500.0	560.1	-1.2	71.9	715.5	643.3	181.0	3.3	1.000180
17000.0	549.5	-2.5	76.5	705.4	641.8	178.2	4.2	1.000177
17500.0	539.1	-3.3	69.9	694.3	640.7	169.3	7.2	1.000172
18000.0	528.8	-4.4	69.3	683.9	639.4	164.9	9.3	1.000168
18500.0	518.7	-5.6	71.1	674.0	637.9	161.4	10.7	1.000165

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STATION ALTITUDE 4051.00 FEET MSL  
 13 JULY 78 0730 HRS MDT  
 ASCENSION NO. 98

UPPER AIR DATA  
 1940030096  
 ALLEN  
 TABLE VI. (CONT)

GEODETIC COORDINATES  
 33.16712 LAT DEG  
 106.49511 LON DEG

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GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION (TN) DEGREES	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
19000.0	508.7	-0.8	72.9	664.2	636.4	161.9	9.9	1.000162
19500.0	496.9	-7.5	62.1	653.2	635.5	163.4	8.6	1.000157
20000.0	489.2	-8.5	62.6	643.1	634.2	166.0	8.1	1.000154
20500.0	479.7	-9.6	63.1	633.1	632.9	169.1	7.7	1.000151
21000.0	470.4	-10.6	63.7	623.3	631.7	174.0	6.7	1.000148
21500.0	461.2	-11.8	67.2	613.8	630.3	180.8	5.8	1.000146
22000.0	452.1	-13.1	74.4	604.7	628.7	182.0	5.2	1.000144
22500.0	443.2	-14.3	81.6	595.7	627.2	181.7	4.5	1.000142
23000.0	434.4	-15.0	73.1	585.6	626.3	173.6	3.5	1.000138
23500.0	425.7	-16.7	78.9	577.5	624.3	164.8	2.4	1.000136
24000.0	417.2	-16.8	43.1	566.5	624.0	157.5	.9	1.000130
24500.0	408.8	-17.3	32.8	556.3	623.3	22.8	.6	1.000127
25000.0	400.6	-18.3	38.5	547.3	622.1	5.8	2.0	1.000125
25500.0	392.5	-18.7	44.0	537.1	621.6	.6	3.4	1.000123
26000.0	384.6	-19.4	46.2	527.8	620.7	358.3	4.8	1.000121
26500.0	376.8	-20.5	46.5	519.2	619.4	1.5	5.5	1.000119
27000.0	369.1	-21.6	49.7	510.9	618.0	3.7	6.2	1.000117
27500.0	361.5	-22.8	53.0	502.8	616.6	4.8	6.8	1.000115
28000.0	354.2	-23.9	56.2	494.8	615.2	6.0	6.9	1.000113
28500.0	346.9	-25.0	48.7	486.6	613.9	7.9	6.1	1.000111
29000.0	339.7	-25.9	37.7	478.5	612.6	16.9	5.2	1.000108
29500.0	332.6	-27.0	35.4	470.5	611.3	43.5	5.0	1.000106
30000.0	325.6	-28.1	34.7	462.7	609.9	63.5	5.8	1.000104
30500.0	318.7	-29.2	34.0	454.9	608.6	70.9	7.0	1.000103
31000.0	312.0	-30.2	33.3	447.3	607.3	74.9	7.8	1.000101
31500.0	305.5	-31.3	32.6	439.9	605.9	76.5	7.9	1.000099
32000.0	299.0	-32.4	32.0	432.6	604.5	75.8	7.7	1.000097
32500.0	292.5	-33.7	31.8	425.5	602.9	72.8	7.4	1.000096
33000.0	286.2	-34.9	31.6	418.5	601.3	70.6	6.4	1.000094
33500.0	280.0	-36.2	31.5	411.6	599.7	68.8	5.1	1.000092

UPPER AIR DATA  
 194003009b  
 JALLEN  
 TABLE VI. (CONT)

STATION ALTITUDE 4051.00 FEET MSL  
 13 JULY 78  
 ASCENSION NO. 98 0730 HRS MDT

GEODETIC COORDINATES  
 33.16712 LAT DEG  
 106.49511 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)	SPEED KNOTS	INDEX OF REFRACTION
34000.0	274.0	-37.4	31.3	404.9	598.1	69.3	3.6	1.000091
34500.0	268.0	-38.7	31.2	396.3	596.5	73.1	2.0	1.000089
35000.0	262.2	-40.0	30.1**	391.8	594.9	47.2	1.4	1.000088
35500.0	256.4	-41.2	16.1**	385.1	593.4	10.3	1.6	1.000086
36000.0	250.8	-42.3	2.0**	376.5	591.9	7.1	3.5	1.000084
36500.0	245.1	-43.6		371.9	590.3	8.0	5.8	1.000083
37000.0	239.5	-44.9		365.5	588.6	10.6	8.0	1.000081
37500.0	234.0	-46.1		359.1	587.0	12.6	10.1	1.000080
38000.0	228.7	-47.4		352.9	585.3	19.4	10.1	1.000079
38500.0	223.5	-48.7		346.8	583.7	29.0	9.6	1.000077
39000.0	218.4	-50.0		340.8	582.0	37.1	8.6	1.000076
39500.0	213.4	-51.2		335.0	580.4	46.1	7.5	1.000075
40000.0	208.5	-52.5		329.2	578.7	47.6	6.8	1.000073
40500.0	203.8	-53.8		323.6	577.0	41.4	6.5	1.000072
41000.0	199.1	-55.1		318.0	575.3	34.2	6.0	1.000071
41500.0	194.4	-56.3		312.3	573.6	24.2	5.3	1.000070
42000.0	189.8	-57.6		306.8	571.9	13.3	4.9	1.000068
42500.0	185.3	-58.9		301.3	570.2	12.6	5.6	1.000067
43000.0	180.6	-59.9		295.4	568.9	12.5	6.4	1.000066
43500.0	176.4	-60.9		289.4	567.6	26.6	6.7	1.000064
44000.0	172.1	-61.8		283.6	566.4	40.5	7.3	1.000063
44500.0	167.9	-62.7		277.9	565.2	53.0	6.8	1.000062
45000.0	163.8	-63.6		272.3	563.9	70.4	5.7	1.000061
45500.0	159.8	-64.5		266.9	562.7	86.0	5.0	1.000059
46000.0	155.9	-65.5		261.5	561.4	91.0	3.9	1.000058
46500.0	152.1	-66.4		256.3	560.2	99.0	2.9	1.000057
47000.0	148.4	-67.1		250.8	559.3	93.2	2.1	1.000056
47500.0	144.7	-67.4		245.0	558.8	80.6	1.3	1.000055
48000.0	141.1	-67.8		239.3	558.3	105.8	1.2	1.000053
48500.0	137.6	-68.1		233.6	557.8	132.1	1.6	1.000052

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

UPPER AIR DATA  
 1940030090  
 JALLET  
 TABLE VI. (CONT)

STATION ALTITUDE 4051.00 FEET MSL  
 13 JULY 78 0730 HRS MDT  
 ASCENSION NO. 98

GEODETIC COORDINATES  
 33.16712 LAT DEG  
 106.49511 LON DEG

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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(TN)	SPEED KNOTS	INDEX OF REFRACTION
49500.0	130.7	-69.7	223.8	555.7	94.1	2.0	1.000050	
50000.0	127.4	-70.6	219.1	554.5	76.7	3.4	1.000049	
50500.0	124.2	-71.5	214.5	553.2	73.4	6.6	1.000048	
51000.0	121.0	-72.4	210.0	552.0	72.2	9.8	1.000047	
51500.0	118.0	-73.3	205.6	550.7	86.9	12.0	1.000046	
52000.0	115.0	-74.2	201.3	549.5	96.6	14.8	1.000045	
52500.0	112.1	-75.1	197.1	548.2	108.7	15.1	1.000044	
53000.0	109.2	-74.5	191.5	549.1	126.2	14.3	1.000043	
53500.0	106.4	-73.7	185.9	550.1	143.3	14.3	1.000041	
54000.0	103.7	-73.0	180.4	551.2	160.9	11.1	1.000040	
54500.0	101.0	-72.2	175.1	552.3	187.6	9.6	1.000039	
55000.0	98.4	-72.1	170.5	552.5	211.5	5.4	1.000038	
55500.0	95.9	-72.3	166.4	552.1	303.0	3.6	1.000037	
56000.0	93.5	-72.5	162.4	551.8	350.8	7.3	1.000036	
56500.0	91.2	-72.1	156.0	552.4	33.9	10.7	1.000035	
57000.0	88.9	-71.5	153.5	553.2	51.0	16.9	1.000034	
57500.0	86.6	-70.9	149.2	554.1	66.2	18.3	1.000033	
58000.0	84.5	-70.3	145.1	554.9	81.4	19.7	1.000032	
58500.0	82.4	-69.7	141.0	555.7	91.8	20.6	1.000031	
59000.0	80.3	-69.0	137.1	556.6	98.2	18.9	1.000031	
59500.0	78.3	-68.4	133.2	557.4	105.6	17.4	1.000030	
60000.0	76.3	-67.8	129.5	558.3	102.1	18.3	1.000029	
60500.0	74.4	-67.2	125.9	559.1	97.5	19.7	1.000028	
61000.0	72.6	-66.6	122.4	559.9	94.7	20.5	1.000027	
61500.0	70.7	-66.0	118.9	560.8	93.4	20.3	1.000026	
62000.0	69.0	-65.2	115.6	561.8	92.2	20.2	1.000026	
62500.0	67.3	-64.3	112.3	562.9	94.5	18.3	1.000025	
63000.0	65.7	-63.5	109.1	564.1	97.5	16.5	1.000024	
63500.0	64.1	-62.6	106.1	565.3	96.3	15.7	1.000024	

STATION ALTITUDE 4051.00 FEET MSL  
 13 JULY 78  
 ASCENSION NO. 98

UPPER AIR DATA  
 1940030096  
 JALLEN  
 TABLE VI. (CONT)

GEODETIC COORDINATES  
 33.16712 LAT DEG  
 106.49511 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	
04000.0	02.5	-61.8			103.1	560.4	92.4	15.5	1.000023
04500.0	01.0	-60.9			100.1	567.6	88.7	15.6	1.000022
05000.0	09.5	-60.5			97.5	568.1	87.1	16.3	1.000022
06500.0	08.1	-60.5			95.2	568.1	85.7	17.1	1.000021
06000.0	06.7	-60.6			92.9	568.0	84.8	17.7	1.000021
06500.0	05.4	-60.6			90.7	568.0	85.1	17.9	1.000020
07000.0	04.0	-60.6			88.5	567.9	85.5	18.2	1.000020
07500.0	02.7	-60.6			86.4	567.9	85.7	18.4	1.000019
08000.0	01.5	-60.7			84.4	567.9	85.6	18.6	1.000019
08500.0	00.2	-60.7			82.3	567.8	85.5	18.9	1.000018
09000.0	49.0	-60.5			80.3	568.2	87.3	19.2	1.000018
09500.0	47.9	-60.2			78.3	568.6	91.3	19.5	1.000017
70000.0	46.7	-59.9			76.3	569.0	95.1	19.9	1.000017
70500.0	45.6	-59.6			74.4	569.4	99.1	20.4	1.000017
71000.0	44.6	-59.3			72.6	569.8	103.2	21.1	1.000016
71500.0	43.5	-59.0			70.7	570.2	107.0	21.8	1.000016
72000.0	42.5	-58.7			69.0	570.6	104.3	22.1	1.000015
72500.0	41.5	-58.4			67.2	571.0	100.6	22.4	1.000015
73000.0	40.5	-58.1			65.6	571.4	96.2	22.7	1.000015
73500.0	39.5	-57.8			63.9	571.8	89.2	23.4	1.000014
74000.0	38.6	-57.5			62.3	572.2	82.6	24.4	1.000014
74500.0	37.7	-57.2			60.8	572.6	80.5	25.4	1.000014
75000.0	36.8	-56.9			59.2	573.0	81.3	26.2	1.000013
75500.0	35.9	-56.6			57.8	573.4	82.1	27.0	1.000013
76000.0	35.1	-56.3			56.3	573.7	83.3	28.0	1.000013
76500.0	34.2	-56.0			54.9	574.1	84.5	29.0	1.000012
77000.0	33.4	-55.7			53.5	574.5	85.2	30.0	1.000012
77500.0	32.6	-55.4			52.2	574.9	85.3	30.9	1.000012
78000.0	31.9	-55.1			49.9	575.3	85.3	31.9	1.000011
78500.0	31.1	-54.8			49.6	575.7	86.3	31.8	1.000011

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STATION ALTITUDE 4051.00 FEET MSL  
 13 JULY 78  
 ASCENSION NO. 98

UPPER AIR DATA  
 1940030098  
 JALLEN  
 TABLE VI. (CONT)

GEODETIC COORDINATES  
 33.16712 LAT DEG  
 106.49511 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			KNOTS	KNOTS	DIRECTION DEGREES(TN)	SPEED KNOTS	
79000.0	30.4	-54.5			48.4	576.1	87.6	31.2	1.000011	
79500.0	29.7	-54.2			47.2	576.5	89.4	30.6	1.000011	
80000.0	29.0	-53.8			46.0	576.9	90.0	30.8	1.000010	
80500.0	28.3	-53.5			44.9	577.3	90.5	31.1	1.000010	
81000.0	27.7	-53.2			43.8	577.7	91.0	31.5	1.000010	
81500.0	27.0	-52.9			42.7	578.1	91.5	32.1	1.000010	
82000.0	26.4	-52.6			41.7	578.5	92.0	32.7	1.000009	
82500.0	25.8	-52.3			40.7	578.9	92.4	33.2	1.000009	
83000.0	25.2	-52.0			39.7	579.3	92.9	33.2	1.000009	
83500.0	24.6	-51.7			38.7	579.7	93.3	33.2	1.000009	
84000.0	24.1	-51.4			37.8	580.1	93.4	33.6	1.000008	
84500.0	23.5	-51.1			36.9	580.5	93.2	34.4	1.000008	
85000.0	23.0	-50.8			36.0	580.9	93.0	35.2	1.000008	
85500.0	22.4	-50.5			35.1	581.3	93.3	35.7	1.000008	
86000.0	21.9	-50.2			34.2	581.7	93.7	36.2	1.000008	
86500.0	21.4	-49.9			33.4	582.1	94.2	36.7	1.000007	
87000.0	20.9	-49.6			32.6	582.5	94.3	37.2	1.000007	
87500.0	20.4	-49.3			31.8	582.9	94.5	37.8	1.000007	
88000.0	20.0	-49.0			31.0	583.3	94.6	38.4	1.000007	
88500.0	19.5	-48.6			30.3	583.8	94.1	39.0	1.000007	
89000.0	19.1	-48.2			29.5	584.4	93.6	39.6	1.000007	
89500.0	18.7	-47.7			28.8	584.9	93.4	40.2	1.000006	
90000.0	18.2	-47.3			28.1	585.4	93.9	40.8	1.000006	
90500.0	17.8	-46.9			27.5	586.0	94.3	41.4	1.000006	
91000.0	17.4	-46.5			26.8	586.5	93.8	41.1	1.000006	
91500.0	17.0	-46.1			26.2	587.0	91.6	39.5	1.000006	
92000.0	16.7	-45.7			25.5	587.5	89.2	37.9	1.000006	
92500.0	16.3	-45.3			24.9	588.1	86.2	36.3	1.000006	
93000.0	15.9	-44.9			24.3	588.6	82.7	34.8	1.000005	
93500.0	15.6	-44.5			23.7	589.1	78.6	33.3	1.000005	

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UPPER AIR DATA  
 1940030096  
 JALLEN  
 TABLE VI. (CONT)

STATION ALTITUDE 4051.00 FEET MSL  
 13 JULY 78  
 ASCENSION NO. 93

GEODETIC COORDINATES  
 33.16712 LAT DEG  
 106.49511 LON DEG

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(TN)	SPEED KNOTS	INDEX OF REFRACTION
9400.0	15.2	-44.1		23.2	589.0	76.0	32.9	1.000005
9450.0	14.9	-43.7		22.6	590.2	75.3	32.8	1.000005
9500.0	14.6	-43.3		22.1	590.7	73.9	32.8	1.000005
9550.0	14.2	-42.8		21.5	591.2	72.4	32.6	1.000005
9600.0	13.9	-42.4		21.0	591.7	70.9	32.3	1.000005
9650.0	13.6	-42.0		20.5	592.3			1.000005
9700.0	13.3	-41.6		20.0	592.6			1.000004
9750.0	13.0	-41.2		19.5	593.3			1.000004
9800.0	12.7	-40.8		19.1	593.8			1.000004
9850.0	12.4	-40.4		18.0	594.4			1.000004

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STATION ALTITUDE 4051.00 FEET MSL  
 13 JULY 78  
 ASCENSION A.C. 38 0730 HRS MDT

MANDATORY LEVELS  
 1940030096  
 JALLEN  
 TABLE VII.

GEODETIC COORDINATES  
 33.16712 LAT DEG  
 106.49511 LON DEG

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PRESSURE MILLIBARS	GEOPOTENTIAL FEET	AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4981.0	24.3	9.5	39.	291.8	2.5
800.0	6710.0	22.2	6.4	30.	301.2	2.7
750.0	8540.0	18.5	4.4	39.	37.8	2.4
700.0	10471.0	13.8	2.4	40.	62.0	3.1
650.0	12505.0	8.9	-0.7	51.	240.1	2.1
600.0	14661.0	3.7	-4.3	50.	226.9	2.8
550.0	16957.0	-2.4	-6.0	77.	179.1	4.0
500.0	19419.0	-7.4	-13.4	62.	163.2	0.7
450.0	22084.0	-13.4	-16.7	70.	182.4	5.1
400.0	24997.0	-18.4	-28.0	40.	5.0	2.0
350.0	28234.0	-24.5	-31.2	53.	7.0	6.5
300.0	31662.0	-32.2	-43.3	32.	76.3	7.8
250.0	35392.0	-42.5			7.3	3.8
200.0	40800.0	-54.8			30.1	0.2
175.0	43564.0	-61.2			31.2	0.8
150.0	46662.0	-60.9			90.4	2.4
125.0	50243.0	-71.3			73.9	5.7
100.0	54529.0	-71.9			196.8	9.3
80.0	58850.0	-68.9			98.5	16.8
70.0	61500.0	-65.7			20.3	20.3
60.0	64610.0	-60.5			67.7	10.0
50.0	68337.0	-60.7			85.5	10.9
40.0	72922.0	-57.9			93.7	22.9
30.0	78923.0	-54.3			88.5	30.9
25.0	82770.0	-51.9			92.9	33.2
20.0	87553.0	-49.0			94.7	38.3
15.0	93522.0	-43.8			75.9	32.9

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

STATION ALTITUDE 3009.00 FEET MSL  
 13 JULY 73 0750 HRS MDT  
 ASCENS. PT. NO. 432

SIGNIFICANT LEVEL DATA  
 1940020432  
 WHITE SANDS  
 TABLE VIII.

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

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PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE	REL. HUM.
MILLIBARS	MSL FEET	AIR DEWPOINT DEGREES CENTIGRADE	PERCENT
586.1	3809.0	14.0	51.0
550.0	4094.7	9.0	38.0
754.0	6417.0	4.4	37.0
700.0	10498.7	2.7	46.0
586.0	15245.0	-3.0	52.0
528.6	18053.8	-8.2	88.0
500.0	19445.5	-19.0	32.0
482.4	20416.2	-30.2	14.0
467.2	21233.5	-19.8	+2.0
436.4	22843.4	-26.5	29.0
+17.4	24073.5	-22.7	49.0
415.4	24143.3	-20.7	01.0
410.8	24470.5	-26.9	36.0
402.7	24805.0	-34.0	18.0
400.0	25131.7	-25.0	47.0
378.0	26543.5	-23.5	72.0
347.2	28522.6	-34.4	38.0
335.6	29345.9	-32.1	55.0
324.0	30233.3	-37.7	35.0
300.0	32045.4	-31.2	+3.0
260.6	35257.9	-30.5	36.0
250.0	36206.3	-41.6	
210.6	39955.0	-51.5	
200.0	41034.4	-53.7	
190.2	42116.5	-54.6	
150.0	47005.0	-65.0	
130.6	49777.9	-67.2	
107.0	53601.5	-73.7	
100.0	54943.0	-71.5	
70.0	62032.3	-65.4	

STATION ALTITUDE 2999.00 FEET MSL  
13 JULY 78 0750 HRS MDT  
ASCENSION NO. 432

SIGNIFICANT LEVEL DATA  
1940020432  
WHITE SANDS  
TABLE VIII. (CONT)

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FELT	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
65.4 64006.8	-60.3	
50.0 63945.9	-61.3	
38.6 74219.1	-55.4	

GEODETIC COORDINATES  
32.40043 LAT DEG  
106.37033 LON DEG

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STATION ALTITUDE 9999.00 FEET MSL  
 13 JULY 79  
 ASCENSION NO. 432

0750 HRS MDT

UPPER AIR DATA  
 1940020432  
 WHITE SAUNDS  
 TABLE IX.

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA KNOTS	SPEED KNOTS	INDEX OF REFRACTION
9999.0	860.1	25.7	51.0	1010.5	675.9	.0	.0	.0	1.000299
4000.0	879.8	25.7	50.9	1010.1	675.9	.7	.7	.0	1.000298
4500.0	804.7	25.4	44.4	1002.0	675.3	.7	.7	.7	1.000285
5000.0	849.8	25.1	38.0	987.3	674.6	.7	.7	1.5	1.000272
5500.0	835.1	24.3	37.9	975.1	673.0	.7	.7	2.2	1.000266
6000.0	820.6	23.4	37.7	959.1	672.6	317.5	317.5	2.2	1.000261
6500.0	806.4	22.6	37.6	945.2	671.0	270.5	270.5	4.0	1.000255
7000.0	792.4	21.8	37.4	931.0	670.0	262.2	262.2	4.2	1.000250
7500.0	778.0	20.9	37.3	918.2	669.0	257.5	257.5	3.9	1.000245
8000.0	765.1	20.1	37.1	905.0	669.0	273.2	273.2	2.3	1.000240
8500.0	751.8	19.2	37.4	892.1	667.5	310.9	310.9	1.4	1.000236
9000.0	738.5	17.9	39.5	880.2	660.0	2.4	2.4	1.7	1.000232
9500.0	725.4	16.6	41.7	868.4	604.6	38.3	38.3	2.1	1.000229
10000.0	712.6	15.4	43.8	856.9	663.1	60.0	60.0	2.9	1.000226
10500.0	700.0	14.1	46.0	845.5	661.6	69.5	69.5	3.3	1.000222
11000.0	687.2	13.0	46.6	835.0	660.2	69.5	69.5	3.5	1.000218
11500.0	674.7	11.8	47.3	821.0	658.9	53.5	53.5	3.9	1.000214
12000.0	662.4	10.7	47.9	810.2	657.5	49.8	49.8	4.6	1.000210
12500.0	650.4	9.5	48.5	798.8	656.1	64.2	64.2	5.6	1.000205
13000.0	638.5	8.4	49.2	787.5	654.8	80.8	80.8	6.5	1.000201
13500.0	626.9	7.3	49.8	776.4	653.4	90.7	90.7	7.9	1.000197
14000.0	615.5	6.1	50.4	765.5	652.0	99.4	99.4	8.3	1.000194
14500.0	604.2	5.0	51.1	754.8	650.6	100.7	100.7	8.5	1.000190
15000.0	593.3	3.9	51.7	744.2	649.3	90.0	90.0	8.3	1.000186
15500.0	582.3	2.7	53.5	733.5	647.9	91.1	91.1	8.2	1.000183
16000.0	571.4	1.6	56.3	722.8	646.5	80.5	80.5	8.6	1.000180
16500.0	560.7	.4	59.1	712.2	645.1	83.6	83.6	8.9	1.000178
17000.0	550.1	-.8	62.0	701.9	643.8	83.4	83.4	9.0	1.000175
17500.0	539.6	-1.9	64.8	691.7	642.4	83.0	83.0	7.9	1.000172
18000.0	529.7	-3.1	67.7	681.0	641.0	101.4	101.4	6.4	1.000169

STATION ALTITUDE 3959.00 FEET MSL  
 13 JULY 78  
 ASCENSION NO. 432

UPPER AIR DATA  
 1940020432  
 WHITE SANDS  
 TABLE IX. (CONT)

GEODETTIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARMS	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
13500.0	519.6	-4.0	56.9	671.2	639.7	125.9	5.2	1.000163
19000.0	509.7	-4.9	44.4	661.0	636.5	154.1	5.2	1.000157
14500.0	499.9	-5.6	31.9	650.6	637.3	161.5	5.8	1.000152
20000.0	490.3	-6.7	22.1	640.5	636.1	165.8	6.2	1.000147
20500.0	480.8	-7.6	16.9	630.5	635.0	166.8	6.1	1.000144
21000.0	471.5	-8.3	34.0	620.7	633.7	165.3	6.0	1.000144
21500.0	462.3	-9.5	39.8	610.9	632.5	159.2	5.7	1.000142
22000.0	453.5	-10.7	35.8	601.1	631.4	150.1	5.0	1.000139
22500.0	444.4	-11.6	31.8	591.5	630.3	130.4	3.8	1.000136
23000.0	435.7	-12.5	31.5	581.9	629.2	103.1	3.0	1.000134
23500.0	427.1	-13.4	39.7	572.5	628.1	66.1	2.5	1.000132
24000.0	418.6	-14.3	47.8	562.8	627.1	43.9	2.8	1.000131
24500.0	410.3	-15.2	34.9	553.9	625.8	38.2	3.0	1.000127
25000.0	402.1	-16.1	24.1	544.7	624.7	31.2	3.6	1.000124
25500.0	394.1	-17.3	53.6	536.1	623.4	25.7	4.4	1.000124
26000.0	386.1	-18.5	62.6	527.8	621.9	28.4	5.2	1.000123
26500.0	378.4	-19.7	71.6	519.7	620.4	32.1	5.8	1.000121
27000.0	370.6	-20.8	64.1	511.3	619.1	37.0	4.5	1.000118
27500.0	363.1	-21.9	55.9	503.1	617.7	47.4	3.2	1.000116
28000.0	355.7	-23.0	47.6	495.0	616.4	69.0	4.1	1.000113
28500.0	348.4	-24.0	39.4	487.0	615.0	78.5	5.7	1.000111
29000.0	341.2	-25.0	46.7	478.8	613.8	76.4	8.7	1.000109
29500.0	334.1	-25.9	52.5	470.6	612.7	74.7	10.4	1.000107
30000.0	327.2	-26.6	40.6	462.1	611.8	72.3	10.7	1.000105
30500.0	320.4	-27.5	36.2	454.2	610.6	69.8	9.9	1.000103
31000.0	313.6	-28.7	39.4	446.9	609.2	66.0	8.3	1.000101
31500.0	307.6	-29.9	40.6	439.0	607.7	60.2	7.3	1.000099
32000.0	300.6	-31.1	42.6	432.3	606.2	51.3	6.5	1.000098
32500.0	294.1	-32.4	42.0	425.4	604.6	42.8	6.7	1.000096
33000.0	287.6	-33.7	40.9	418.5	602.9	35.7	7.2	1.000094

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STATION ALTITUDE 3989.00 FEET MSL  
 13 JULY 76  
 ASCENSION NO. 432

UPPER AIR DATA  
 1940020432  
 WHITE SANDS  
 TABLE IX. (CONT)

GEODEIC 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	INEX OF REFRACTION
		AIR DEGREES	DEWPOINT DEGREES						
33500.0	261.8	-35.0	-43.8	39.6	411.7	601.3	28.9	6.8	1.000093
34000.0	275.5	-36.3	-45.2	38.7	405.1	599.7	21.2	6.3	1.000091
34500.0	269.6	-37.5	-46.5	37.7	398.5	595.0	23.5	6.4	1.000089
35000.0	263.7	-38.8	-48.1	36.6	392.1	590.4	25.8	6.6	1.000088
35500.0	258.0	-40.1	-51.8	26.0**	385.0	594.8	25.0	6.8	1.000086
36000.0	252.3	-41.3	-02.0	7.6**	379.1	593.2	25.1	7.1	1.000065
36500.0	246.7	-42.6			372.7	591.0	25.9	7.5	1.000043
37000.0	241.1	-43.9			366.3	589.3	27.1	6.0	1.000082
37500.0	235.6	-45.1			360.0	588.3	26.4	8.2	1.000060
38000.0	230.3	-46.4			353.9	586.0	24.9	8.2	1.000079
38500.0	225.1	-47.7			347.9	584.9	15.9	7.8	1.000077
39000.0	220.0	-49.0			342.0	583.2	359.3	7.4	1.000076
39500.0	215.0	-50.3			336.4	581.5	348.1	8.8	1.000075
40000.0	210.2	-51.6			330.4	579.9	343.2	11.0	1.000074
40500.0	205.3	-52.6			324.2	578.6	349.9	12.6	1.000072
41000.0	200.5	-53.6			316.1	577.3	.0	14.1	1.000071
41500.0	195.8	-54.1			311.4	576.0	10.0	14.6	1.000069
42000.0	191.3	-54.5			304.7	575.1	22.1	15.1	1.000068
42500.0	187.7	-55.4			298.7	574.9	30.4	13.7	1.000067
43000.0	182.2	-56.5			293.0	573.5	40.1	12.2	1.000065
43500.0	177.6	-57.5			287.4	572.0	52.0	11.2	1.000064
44000.0	173.6	-58.6			281.0	570.6	65.5	10.8	1.000063
44500.0	169.4	-59.7			276.5	569.2	68.9	10.2	1.000062
45000.0	165.4	-60.7			271.2	567.8	69.6	9.6	1.000060
45500.0	161.4	-61.8			266.0	566.4	71.2	8.7	1.000059
46000.0	157.5	-62.9			260.9	564.9	73.7	7.7	1.000058
46500.0	153.7	-63.9			256.0	563.5	78.3	6.9	1.000057
47000.0	150.1	-65.0			251.1	562.1	80.2	6.3	1.000056
47500.0	146.4	-65.4			245.4	561.5	94.9	5.9	1.000055
48000.0	142.7	-65.0			239.8	561.0	100.0	5.9	1.000053

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UPPER AIR DATA  
1940020432  
WHITE SANDS  
TABLE IX. (XONT)

STATION ALTITUDE 3999.00 FEET MSL  
13 JULY 78  
ASCENSION NO. 452

GEODETIC COORDINATES  
32.4J042 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)	WIND SPEED KNOTS	INDEX OF REFRACTION
48500.0	139.2	-66.2	234.3	560.0	105.0	6.0	1.000052	
49000.0	135.8	-66.6	229.0	559.9	109.7	5.8	1.000051	
49500.0	132.4	-67.0	225.8	559.4	114.0	5.7	1.000050	
50000.0	129.1	-67.6	218.8	558.0	113.4	5.1	1.000049	
50500.0	125.9	-68.4	214.2	557.4	106.0	4.2	1.000048	
51000.0	122.7	-69.2	209.0	556.3	92.8	5.9	1.000047	
51500.0	119.6	-70.1	205.2	555.2	89.2	9.0	1.000046	
52000.0	116.6	-70.9	200.8	554.0	93.9	12.5	1.000045	
52500.0	113.7	-71.7	196.0	552.9	102.1	16.4	1.000044	
53000.0	110.8	-72.6	192.4	551.8	110.7	18.9	1.000043	
53500.0	108.0	-73.4	188.3	550.8	121.0	20.4	1.000042	
54000.0	105.3	-73.2	183.4	550.9	129.4	21.1	1.000041	
54500.0	102.6	-72.3	177.9	552.1	132.2	18.6	1.000040	
55000.0	100.0	-71.5	172.7	553.2	131.2	14.9	1.000038	
55500.0	97.5	-71.1	168.0	553.8	97.2	8.9	1.000037	
56000.0	95.0	-70.6	163.5	554.4	49.2	9.3	1.000036	
56500.0	92.7	-70.2	159.1	555.0	45.6	10.7	1.000035	
57000.0	90.4	-69.8	154.6	555.6	47.4	11.5	1.000034	
57500.0	88.1	-69.3	150.0	556.2	69.7	10.6	1.000034	
58000.0	85.9	-68.9	146.5	556.8	91.0	11.4	1.000033	
58500.0	83.8	-68.5	142.0	557.4	88.5	12.5	1.000032	
59000.0	81.7	-68.0	136.7	557.9	86.4	13.6	1.000031	
59500.0	79.6	-67.6	135.0	558.5	83.9	15.5	1.000030	
60000.0	77.6	-67.2	131.3	559.1	81.9	17.5	1.000029	
60500.0	75.7	-66.7	127.8	559.7	62.9	21.5	1.000028	
61000.0	73.8	-66.3	124.3	560.3	84.2	26.3	1.000028	
61500.0	72.0	-65.9	121.0	560.9	87.2	27.7	1.000027	
62000.0	70.2	-65.4	117.7	561.5	93.0	24.9	1.000026	
62500.0	68.5	-64.3	114.2	563.1	102.0	22.3	1.000025	
63000.0	66.8	-63.0	110.6	564.8	114.5	18.4	1.000025	

UPPER AIR DATA  
 1940020432  
 WHITE SANDS  
 TABLE IX. (CONT)

STATION ALTITUDE 2989.00 FEET MSL  
 13 JULY 76  
 ASCENSION NO. 432

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)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
03500.0	05.2	-61.7		107.4	560.5	132.4	15.8	1.000024
04000.0	05.6	-60.5		104.2	560.1	135.1	16.0	1.000023
04500.0	02.1	-60.4		101.6	563.3	133.4	16.7	1.000023
05000.0	00.6	-60.5		99.2	560.1	130.0	16.1	1.000022
05500.0	59.1	-60.6		96.9	569.0	125.5	14.1	1.000022
06000.0	57.7	-60.7		94.6	567.8	117.4	12.5	1.000021
06500.0	50.3	-60.8		92.4	567.7	99.5	12.5	1.000021
07000.0	55.0	-60.9		90.2	567.0	83.3	13.8	1.000020
07500.0	53.6	-61.0		88.1	567.4	76.4	17.0	1.000020
08000.0	52.4	-61.1		86.0	567.3	72.8	20.8	1.000019
08500.0	51.1	-61.2		84.0	567.2	71.9	23.9	1.000019
09000.0	49.9	-61.2		82.0	567.1	74.5	25.4	1.000018
09500.0	48.7	-60.7		79.8	567.9	76.9	26.9	1.000018
70000.0	47.5	-60.1		77.7	568.6	78.9	26.8	1.000017
70500.0	48.4	-59.5		75.7	569.4	81.0	26.2	1.000017
71000.0	45.3	-59.0		73.7	570.1	83.3	25.7	1.000016
71500.0	44.2	-58.4		71.7	570.8	97.3	25.6	1.000016
72000.0	43.2	-57.9		69.9	571.0	91.2	25.5	1.000016
72500.0	42.1	-57.3		66.0	572.3			1.000015
73000.0	41.1	-56.8		66.2	573.1			1.000015
73500.0	40.2	-56.2		64.5	573.8			1.000014
74000.0	39.2	-55.0		62.8	574.0			1.000014

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STATION ALTITUDE 7989.00 FEET MSL  
 13 JULY 73  
 ASCENSION NO. 432

MANDATORY LEVELS  
 1940020432  
 WHITE SANDS  
 TABLE X.

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

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PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT DEGREE	PERCENT	DIRECTION DEGREES (TN)	SPEED KNOTS	
550.0	4991.	25.1	9.0	35.	.7	1.5	
800.0	6729.	22.2	7.0	37.	203.0	4.3	
750.0	8560.	19.0	4.3	30.	323.4	1.4	
700.0	10480.	14.1	2.7	40.	69.5	3.3	
650.0	12525.	9.5	-0.8	49.	64.9	5.6	
600.0	14687.	4.6	-4.6	51.	98.9	3.4	
550.0	16993.	-0.8	-7.1	02.	63.4	9.0	
500.0	19460.	-5.8	-19.6	32.	161.3	3.8	
450.0	22150.	-11.0	-23.6	34.	144.5	4.6	
400.0	25029.	-15.4	-25.0	47.	29.0	3.8	
350.0	28337.	-23.8	-33.2	41.	79.3	4.9	
300.0	31980.	-31.2	-39.6	43.	50.7	6.5	
250.0	36120.	-41.6			25.1	7.2	
200.0	40950.	-53.7			.0	14.3	
175.0	43740.	-58.2			01.0	10.8	
150.0	46879.	-65.0			66.0	0.3	
125.0	50495.	-68.6			103.7	4.0	
100.0	54621.	-71.5			132.4	15.5	
80.0	59180.	-67.7			84.0	14.8	
70.0	61837.	-65.4			94.1	24.8	
60.0	64960.	-60.5			129.1	15.4	
50.0	68594.	-61.3			74.1	25.1	
40.0	73200.	-50.1					

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

GEODETIC COORDINATES  
 33.36888 LAT DEG  
 106.40406 LON DEG

SIGNIFICANT LEVEL DATA  
 1940230005  
 SW 70  
 TABLE XI.

STATION ALTITUDE 4395.50 FEET MSL  
 13 JULY 78  
 ASCENSION NO. 5  
 0750 HRS MDT

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE		TEMPERATURE AIR TEMPT		REL. HUM. PERCENT
	MSL FEET	DEGREES	DEMOINT	CENTIGRADE	
868.6	4395.5	27.0	11.9	39.0	
850.0	5022.4	25.5	9.3	36.0	
831.0	5673.6	24.0	9.2	39.0	
819.8	6063.8	24.5	7.6	34.0	
765.4	8027.4	21.0	5.4	36.0	
700.0	10540.0	14.9	3.1	45.0	
558.2	16675.4	.0	-6.0	64.0	
531.6	17955.9	-3.1	-6.0	60.0	
522.8	18390.3	-4.1	-8.7	70.0	
500.0	19542.0	-7.0	-10.7	75.0	
488.8	20122.5	-8.4	-11.5	78.0	
472.2	21002.3	-10.1	-14.3	71.0	
464.0	21446.4	-10.7	-18.0	55.0	
448.0	22332.1	-12.3	-17.5	65.0	
400.0	25162.5	-16.1	-27.7	36.0	
387.0	25978.1	-18.2	-27.9	42.0	
372.6	26907.1	-20.1	-25.5	62.0	
337.6	29289.6	-25.4	-33.6	46.0	
317.8	30727.0	-27.7	-40.5	28.0	
300.0	32062.3	-31.0	-44.1	26.0	
268.2	34661.1	-38.1	-48.6	31.0	
250.0	36241.0	-42.1			
200.0	41085.8	-54.2			
171.0	44358.3	-59.3			
150.0	47024.8	-65.5			
116.6	51993.2	-72.4			
100.0	54967.4	-70.4			
79.0	59632.5	-68.2			
70.0	62064.2	-62.3			
62.8	64297.1	-58.6			

STATION ALTITUDE 4395.50 FEET MSL  
13 JULY 78  
ASCENSION NO. 5

SIGNIFICANT LEVEL DATA  
1940230005  
SW 70  
TABLE XI. (CONT)

GEODETIC COORDINATES  
33.36888 LAT DEG  
106.40406 LON DEG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
50.0 69019.9	-59.4	
30.0 79760.5	-52.6	
21.5 86964.9	-47.4	

STATION ALTITUDE 4395.50 FEET MSL  
 13 JULY 78  
 ASCENSION NO. 5

UPPER AIR DATA  
 1940230005  
 SW 70  
 TABLE XII.

GEODETIC COORDINATES  
 33.3688A LAT DEG  
 106.40406 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE						
4395.5	868.6	27.0	11.9	39.0	1002.0	677.0	60.0	6.0	1.000282
4500.0	865.5	26.7	11.5	38.5	999.4	676.7	51.3	5.3	1.000280
5000.0	850.7	25.6	9.4	36.1	986.9	675.1	347.5	4.9	1.000270
5500.0	836.0	24.4	9.2	38.2	973.6	673.8	314.7	8.8	1.000267
6000.0	821.6	24.4	7.9	34.8	957.2	673.7	305.1	10.0	1.000259
6500.0	807.4	23.7	7.1	34.4	942.9	672.8	300.0	8.8	1.000254
7000.0	793.4	22.8	6.6	35.0	929.5	671.8	302.7	6.9	1.000249
7500.0	779.6	21.9	6.0	35.5	916.2	670.7	309.1	5.9	1.000245
8000.0	766.1	21.0	5.4	36.0	903.2	669.7	315.7	4.8	1.000241
8500.0	752.6	19.9	5.0	37.7	890.9	668.3	321.9	3.5	1.000237
9000.0	739.4	18.6	4.6	39.5	878.9	666.9	324.4	1.6	1.000234
9500.0	726.4	17.4	4.1	41.3	867.1	665.5	110.9	.3	1.000230
10000.0	713.6	16.2	3.7	43.1	855.5	664.1	113.9	1.6	1.000227
10500.0	701.0	15.0	3.1	44.9	844.0	662.7	102.6	2.2	1.000223
11000.0	688.2	13.8	2.5	46.4	832.2	661.2	84.0	2.3	1.000219
11500.0	675.6	12.6	1.9	48.0	820.6	659.8	187.5	.4	1.000215
12000.0	663.3	11.4	1.2	49.5	809.1	658.4	246.9	2.7	1.000211
12500.0	651.2	10.1	.5	51.1	797.8	656.9	252.4	5.1	1.000208
13000.0	639.3	8.9	-.2	52.6	786.7	655.5	254.0	6.0	1.000204
13500.0	627.6	7.7	-1.0	54.2	775.7	654.0	255.0	6.1	1.000200
14000.0	616.1	6.5	-1.7	55.7	765.0	652.6	247.9	5.7	1.000197
14500.0	604.8	5.3	-2.5	57.3	754.4	651.1	238.1	5.3	1.000193
15000.0	593.8	4.1	-3.2	58.8	743.9	649.6	218.1	4.4	1.000189
15500.0	582.9	2.9	-4.0	60.4	733.6	648.2	191.0	4.5	1.000186
16000.0	572.3	1.6	-4.9	61.9	723.5	646.7	169.6	6.0	1.000183
16500.0	561.8	.4	-5.7	63.5	713.5	645.2	163.7	7.5	1.000179
17000.0	551.3	-.8	-5.9	68.1	703.3	643.8	163.3	8.7	1.000177
17500.0	540.9	-2.0	-5.9	74.3	693.0	642.4	164.0	9.0	1.000175
18000.0	530.7	-3.2	-6.3	79.0	683.0	641.0	164.9	9.2	1.000172
18500.0	520.6	-4.4	-8.9	70.5	673.2	639.4	167.4	8.4	1.000166

UPPER AIR DATA  
 1940230005  
 SW 70  
 TABLE XII. (CONT)

STATION ALTITUDE 4395.50 FEET MSL  
 13 JULY 78  
 ASCENSION NO. 5  
 0750 HRS MDT

GEODETIC COORDINATES  
 33.36888 LAT DEG  
 106.40406 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
19000.0	510.6	-5.6	72.6	663.5	637.9	169.6	8.6	1.000163
19500.0	500.8	-6.9	74.8	653.9	636.3	170.3	10.6	1.000160
20000.0	491.1	-8.1	77.4	644.3	634.9	172.3	12.1	1.000157
20500.0	481.6	-9.1	75.0	634.3	633.6	174.8	13.2	1.000154
21000.0	472.2	-10.1	71.0	624.4	632.4	183.2	11.2	1.000150
21500.0	463.0	-10.8	55.6	614.1	631.4	194.2	9.3	1.000145
22000.0	453.9	-11.7	61.3	604.1	630.3	202.0	7.7	1.000143
22500.0	445.0	-12.5	63.3	594.1	629.3	199.9	5.5	1.000141
23000.0	436.2	-13.2	58.2	583.9	628.5	172.2	3.2	1.000137
23500.0	427.5	-13.9	53.0	573.9	627.6	122.7	2.5	1.000134
24000.0	419.1	-14.5	47.9	564.0	626.8	82.1	2.9	1.000131
24500.0	410.8	-15.2	42.8	554.3	625.9	21.6	2.0	1.000128
25000.0	402.6	-15.9	37.7	544.8	625.1	339.4	3.3	1.000125
25500.0	394.6	-17.0	38.5	536.2	623.7	325.2	5.0	1.000123
26000.0	386.7	-18.2	42.5	528.1	622.2	326.8	5.8	1.000121
26500.0	378.8	-19.3	53.2	519.5	621.0	334.8	6.1	1.000120
27000.0	371.2	-20.3	61.4	511.0	619.7	352.3	5.4	1.000118
27500.0	363.6	-21.4	58.0	502.8	618.3	18.3	5.1	1.000116
28000.0	356.1	-22.5	54.7	494.7	616.9	34.5	5.6	1.000113
28500.0	348.8	-23.6	51.3	486.8	615.5	45.5	6.3	1.000111
29000.0	341.7	-24.8	47.9	479.0	614.1	48.7	6.2	1.000109
29500.0	334.6	-25.7	43.4	471.0	612.9	50.6	6.0	1.000107
30000.0	327.7	-26.5	37.1	462.7	611.9	55.9	5.8	1.000105
30500.0	320.8	-27.3	30.8	454.6	610.9	60.5	5.8	1.000103
31000.0	314.1	-28.4	27.6	447.0	609.6	62.1	6.2	1.000101
31500.0	307.5	-29.6	26.9	439.8	608.1	60.6	6.6	1.000099
32000.0	301.1	-30.8	26.1	432.7	606.5	57.0	6.9	1.000097
32500.0	294.6	-32.1	26.8	425.8	604.8	55.0	7.2	1.000096
33000.0	288.3	-33.5	27.8	419.0	603.1	54.1	7.6	1.000094
33500.0	282.1	-34.9	28.7	412.4	601.4	60.0	9.4	1.000092

STATION ALTITUDE 4395.50 FEET MSL  
 13 JULY 78  
 ASCENSION NO. 5  
 0750 HRS MDT

UPPER AIR DATA  
 1940230005  
 SW 70  
 TABLE XII. (CONT)

GEODETIC COORDINATES  
 33.36888 LAT DEG  
 106.40406 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
34000.0	276.0	-36.3	29.7	405.9	599.6	66.2	12.2	1.000091
34500.0	270.1	-37.7	30.7	399.5	597.9	65.7	13.7	1.000089
35000.0	264.2	-39.0	24.4**	393.0	596.2	62.9	14.5	1.000088
35500.0	258.4	-40.2	14.5**	386.4	594.6	59.2	12.7	1.000086
36000.0	252.7	-41.5	4.7**	380.0	593.0	52.6	9.5	1.000085
36500.0	247.0	-42.7		373.5	591.3	51.6	6.8	1.000083
37000.0	241.4	-44.0		367.0	589.7	58.4	4.4	1.000082
37500.0	235.9	-45.2		360.6	588.1	47.6	4.0	1.000080
38000.0	230.5	-46.5		354.3	586.5	31.2	4.0	1.000079
38500.0	225.3	-47.7		348.2	584.9	8.7	5.0	1.000078
39000.0	220.2	-49.0		342.2	583.3	3.9	6.0	1.000076
39500.0	215.2	-50.2		336.2	581.6	7.9	6.8	1.000075
40000.0	210.3	-51.5		330.4	580.0	15.0	7.0	1.000074
40500.0	205.5	-52.7		324.7	578.4	23.5	7.0	1.000072
41000.0	200.8	-54.0		319.2	576.7	26.3	6.5	1.000071
41500.0	196.1	-54.8		312.9	575.6	27.7	6.1	1.000070
42000.0	191.4	-55.6		306.6	574.6	19.6	6.9	1.000068
42500.0	186.9	-56.4		300.4	573.5	13.7	7.8	1.000067
43000.0	182.5	-57.2		294.4	572.5	17.4	8.0	1.000066
43500.0	178.2	-58.0		288.4	571.5	20.8	8.4	1.000064
44000.0	174.0	-58.7		282.6	570.4	43.3	7.2	1.000063
44500.0	169.8	-59.6		277.1	569.3	69.6	7.5	1.000062
45000.0	165.7	-60.8		271.8	567.7	84.0	7.7	1.000061
45500.0	161.7	-62.0		266.7	566.2	95.3	8.0	1.000059
46000.0	157.7	-63.1		261.6	564.6	100.4	7.2	1.000058
46500.0	153.9	-64.3		256.7	563.0	101.8	5.4	1.000057
47000.0	150.2	-65.4		251.9	561.5	97.5	3.8	1.000056
47500.0	146.4	-66.2		246.4	560.5	72.3	2.6	1.000055
48000.0	142.8	-66.9		241.1	559.6	45.1	2.6	1.000054
48500.0	139.2	-67.5		235.8	558.6	47.2	3.5	1.000053

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

STATION ALTITUDE 4395.50 FEET MSL  
 13 JULY 78  
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UPPER AIR DATA  
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GEODETIC COORDINATES  
 33.36888 LAT DEG  
 106.40406 LON DEG

TABLE XII. (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
49000.0	135.7	-68.2		230.7	557.7	51.2		1.000051
49500.0	132.3	-68.9		225.7	556.7	63.4		1.000050
50000.0	129.0	-69.6		220.8	555.8	72.1		1.000049
50500.0	125.8	-70.3		216.0	554.8	63.9		1.000048
51000.0	122.6	-71.0		211.3	553.9	57.6		1.000047
51500.0	119.6	-71.7		206.8	552.9	73.4		1.000046
52000.0	116.6	-72.4		202.3	552.0	83.6		1.000045
52500.0	113.6	-72.1		196.8	552.4	101.1		1.000044
53000.0	110.7	-71.7		191.5	552.9	115.2		1.000043
53500.0	107.9	-71.4		186.4	553.4	127.8		1.000041
54000.0	105.2	-71.1		181.3	553.8	143.4		1.000040
54500.0	102.5	-70.7		176.5	554.3	160.9		1.000039
55000.0	99.9	-70.4		171.7	554.7	180.6		1.000038
55500.0	97.4	-70.2		167.2	555.1	196.1		1.000037
56000.0	95.0	-69.9		162.8	555.4	208.5		1.000036
56500.0	92.6	-69.7		158.6	555.7	231.7		1.000035
57000.0	90.3	-69.4		154.4	556.0	317.2		1.000034
57500.0	88.0	-69.2		150.4	556.3	14.7		1.000033
58000.0	85.8	-69.0		146.4	556.7	33.9		1.000033
58500.0	83.7	-68.7		142.6	557.0	55.2		1.000032
59000.0	81.6	-68.5		138.9	557.3	68.7		1.000031
59500.0	79.5	-68.3		135.2	557.6	85.0		1.000030
60000.0	77.6	-67.3		131.3	558.9	101.8		1.000029
60500.0	75.7	-66.1		127.3	560.6	111.3		1.000028
61000.0	73.8	-64.9		123.5	562.2	122.9		1.000027
61500.0	72.0	-63.7		119.7	563.9	119.4		1.000027
62000.0	70.2	-62.5		116.1	565.5	114.0		1.000026
62500.0	68.5	-61.6		112.8	566.7	110.9		1.000025
63000.0	66.9	-60.7		109.7	567.8	109.0		1.000024
63500.0	65.3	-59.9		106.7	568.9	107.6		1.000024

STATION ALTITUDE 4395.50 FEET MSL  
 13 JULY 78 0750 HRS MDT  
 ASCENSION NO. 5

UPPER AIR DATA  
 1940230005  
 SW 70  
 TABLE XII. (CONT)

GEODETIC COORDINATES  
 33.36888 LAT DEG  
 106.40406 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
64000.0	63.7	-59.1	103.7	570.0	108.4	17.9	1.000023	
64500.0	62.2	-58.6	101.0	570.6	109.3	16.9	1.000022	
65000.0	60.7	-58.7	98.6	570.5	103.0	15.4	1.000022	
65500.0	59.3	-58.8	96.3	570.4	92.6	14.0	1.000021	
66000.0	57.8	-58.9	94.0	570.3	82.1	13.4	1.000021	
66500.0	56.5	-59.0	91.8	570.1	74.2	13.4	1.000020	
67000.0	55.1	-59.1	89.7	570.0	66.4	13.6	1.000020	
67500.0	53.8	-59.1	87.6	569.9	70.2	15.0	1.000020	
68000.0	52.5	-59.2	85.5	569.8	73.8	16.5	1.000019	
68500.0	51.3	-59.3	83.5	569.7	77.6	18.6	1.000019	
69000.0	50.0	-59.4	81.6	569.6	80.9	21.1	1.000018	
69500.0	48.9	-59.1	79.5	570.0	83.5	23.1	1.000018	
70000.0	47.7	-58.8	77.6	570.4	86.0	23.7	1.000017	
70500.0	46.6	-58.5	75.6	570.8	88.3	24.3	1.000017	
71000.0	45.5	-58.1	73.7	571.2	90.3	24.2	1.000016	
71500.0	44.4	-57.8	71.9	571.7	92.4	24.0	1.000016	
72000.0	43.4	-57.5	70.1	572.1	93.8	24.2	1.000016	
72500.0	42.4	-57.2	68.4	572.5	94.6	24.7	1.000015	
73000.0	41.4	-56.9	66.6	572.9	95.1	25.2	1.000015	
73500.0	40.4	-56.6	65.0	573.3	93.4	25.3	1.000014	
74000.0	39.5	-56.2	63.4	573.8	91.7	25.5	1.000014	
74500.0	38.5	-55.9	61.8	574.2	88.5	26.1	1.000014	
75000.0	37.6	-55.6	60.2	574.6	84.9	27.0	1.000013	
75500.0	36.7	-55.3	58.7	575.0	82.4	27.9	1.000013	
76000.0	35.9	-55.0	57.3	575.4	81.7	28.7	1.000013	
76500.0	35.0	-54.7	55.9	575.8	81.2	29.5	1.000012	
77000.0	34.2	-54.3	54.5	576.3	80.9	30.9	1.000012	
77500.0	33.4	-54.0	53.1	576.7	80.7	32.3	1.000012	
78000.0	32.6	-53.7	51.8	577.1	81.1	34.0	1.000012	
78500.0	31.9	-53.4	50.5	577.5	82.1	36.0	1.000011	

STATION ALTITUDE 4395.50 FEET MSL  
 13 JULY 78 0750 HRS MDT  
 ASCENSION NO. 5

UPPER AIR DATA  
 1940230005  
 SW 70  
 TABLE XII. (CONT)

GEODETIC COORDINATES  
 33.36888 LAT DEG  
 106.40406 LONG DEG

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(TN)	SPEED KNOTS	INDEX OF REFRACTION
79000.0	31.1	-53.1		49.2	577.9	82.9	38.0	1.000011
79500.0	30.4	-52.8		48.0	578.3	87.2	38.1	1.000011
80000.0	29.7	-52.4		46.8	578.8	91.7	38.2	1.000010
80500.0	29.0	-52.1		45.7	579.3	94.8	37.9	1.000010
81000.0	28.3	-51.7		44.6	579.7	95.8	36.4	1.000010
81500.0	27.7	-51.3		43.5	580.2	96.9	35.0	1.000010
82000.0	27.0	-51.0		42.4	580.7	95.6	35.1	1.000009
82500.0	26.4	-50.6		41.4	581.1	93.7	35.5	1.000009
83000.0	25.8	-50.3		40.4	581.6	92.2	36.0	1.000009
83500.0	25.2	-49.9		39.4	582.1	92.0	35.9	1.000009
84000.0	24.7	-49.5		38.4	582.6	91.9	35.9	1.000009
84500.0	24.1	-49.2		37.5	583.0	91.8	35.5	1.000008
85000.0	23.5	-48.8		36.6	583.5	91.7	34.9	1.000008
85500.0	23.0	-48.5		35.7	584.0	91.7	34.9	1.000008
86000.0	22.5	-48.1		34.8	584.4	91.6	34.4	1.000008
86500.0	22.0	-47.7		33.9	584.9			1.000008

STATION ALTITUDE 4395.50 FEET MSL  
 13 JULY 78  
 ASCENSION NO. 5

MANDATORY LEVELS  
 1940230005  
 SW 70  
 TABLE XIII.

GEODETIC COORDINATES  
 33.36888 LAT DEG  
 106.40406 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5019.	25.5	9.3	36.	345.3	5.0
800.0	6761.	23.3	6.8	35.	301.2	7.8
750.0	8597.	19.6	4.9	38.	323.6	3.3
700.0	10530.	14.9	3.1	45.	101.2	2.2
650.0	12572.	10.0	.4	51.	252.9	5.5
600.0	14738.	4.8	-2.8	58.	229.1	4.8
550.0	17044.	-.9	-5.9	69.	163.2	8.8
500.0	19516.	-7.0	-10.7	75.	170.3	10.7
450.0	22187.	-12.1	-17.5	64.	206.4	7.1
400.0	25122.	-16.1	-27.7	36.	333.8	3.8
350.0	28374.	-23.5	-30.5	52.	43.7	6.2
300.0	32020.	-31.0	-44.1	26.	56.5	6.9
250.0	36163.	-42.1			49.5	8.2
200.0	40986.	-54.2			26.7	6.4
175.0	43770.	-58.5			36.3	7.4
150.0	46899.	-65.5			97.3	3.8
125.0	50494.	-70.5			62.3	5.6
100.0	54820.	-70.4			179.2	14.1
80.0	59190.	-68.3			80.1	22.9
70.0	61854.	-62.3			113.6	19.9
60.0	65013.	-58.8			98.7	14.7
50.0	68764.	-59.4			80.8	21.1
40.0	73379.	-56.4			92.9	25.4
30.0	79423.	-52.6			89.3	38.1
25.0	83313.	-49.8			92.0	35.9

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