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ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/6 4/2
20301A ASSAULT BREAKER; MISSILE NUMBER FTV-1; ROUND NUMBER VI01--ETC(U)
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March 81
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METEOROLOGICAL DATA REPORT

20301A Assault Breaker

Missile No. FTV-1

Round No. VIGI

31 March 1981

by

White Sands Meteorological Team

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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UNITED STATES ARMY ELECTRONICS COMMAND

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 20301A Assault Breaker, Missile Number FTV-1, Round Number VIGI, presented in tabular form.		

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CONTENTS

INTRODUCTION-----	1
DISCUSSION-----	1
MAP-----	2
TABLES:	
1. Surface Observation taken at 0918 MST at LC-33-----	3
2. Surface Observation taken at 0842, 0912 and 0942 MST at Jallen Site-----	4
3. Anemometer-Measured Wind Speed and Direction, LC-33 Fixed Pole, taken at 0918 MST-----	5
3a. Anemometer-Measured Wind Speed and Direction, Tower Levels 1, 2, 3, and 4, taken at 0918 MST-----	5
4. LC-33 Pilot-Balloon-Measured Wind Data at 0908 MST-----	6
5. LC-33 Pilot-Balloon-Measured Wind Data at 0918 MST-----	7
6. WSD Significant Level Data at 0918 MST-----	8
7. WSD Upper Air Data at 0918 MST-----	10
8. WSD Mandatory Levels at 0918 MST-----	16
9. LC-37 Significant Level Data at 0755 MST-----	17
10. LC-37 Upper Air Data at 0755 MST-----	19
11. LC-37 Mandatory Levels at 0755 MST-----	25
12. HMN Significant Level Data at 0655 MST-----	26
13. HMN Upper Air Data at 0655 MST-----	27
14. HMN Mandatory Levels at 0655 MST-----	
15. Ja1 Significant Level Data at 0655 MST-----	
16. Ja1 Upper Air Data at 0655 MST-----	34
17. Ja1 Mandatory Levels at 0655 MST-----	36
18. Ja1 Significant Level Data at 0918 MST-----	37
19. Ja1 Upper Air Data at 0918 MST-----	38
20. Ja1 Mandatory Levels at 0918 MST-----	42

INTRODUCTION

20301A Assault Breaker, Missile Number FTV-1, Round Number V1G1,
was launched from LC-33, White Sands Missile Range (WSMR), New
Mexico, at 0918 on 31 March 1981. The scheduled launch time
was 0855.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations of temperature ($^{\circ}\text{C}$), relative humidity, dew point, wind direction and speed, and cloud cover were taken at the test site at T-0 minutes.

Wind direction from one anemometer was recorded.

Low level wind data were obtained from Single Theodolite
balloon observations at:

SITE AND ALTITUDE

LC-33 1260 Meters and 660 Meters.

(b) Air structure data (rawinsonde) were collected at the following met sites. Data were collected from surface to as high as possible in 500-foot increments.

SITE AND TIME

WSD	0918
LC-37	0755
HMN	0655
Ja1	0655
Ja1	0918

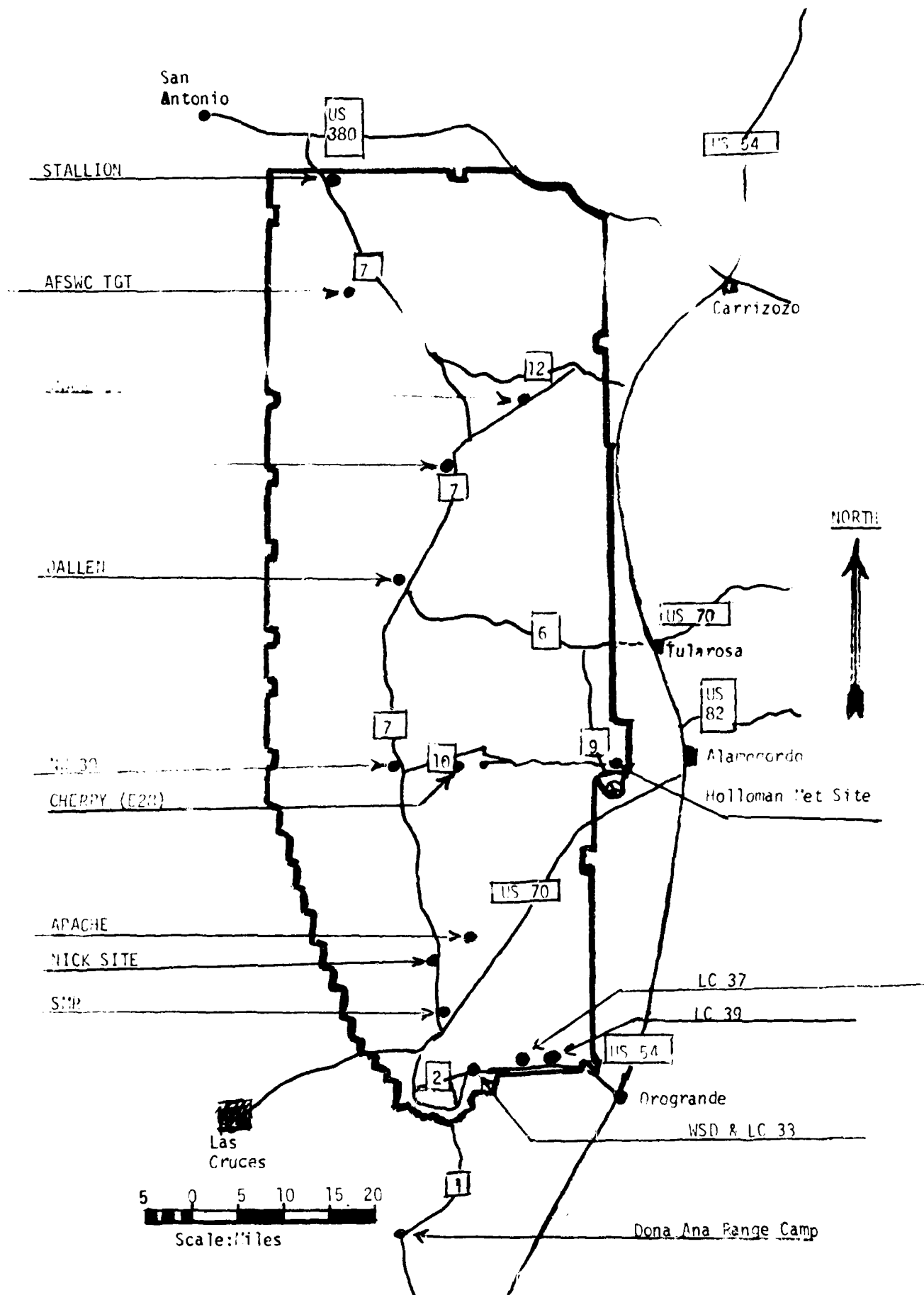


TABLE 1. Surface Observations taken at 0918 MST,
31 March 1981, at LC-33 (E&A) 20301A
Assault Breaker, Missile Number FTV-1,
Round Number V1G1.

ELEVATION	3983	FT/MSL
PRESSURE	882.4	MBS
TEMPERATURE	16	°C
RELATIVE HUMIDITY	31	
DEW POINT	-01	°C
DENSITY	1059	GM/M ³
WIND SPEED	12	KTS
WIND DIRECTION	015	DEGREES
CLOUD COVER	CLEAR	

PROJECT SURFACE OBSERVATION

TABLE 2		STATION JALLEN							
DATE 31 MARCH 1981		X=450,491.60 Y=464,023.05 H=4053.00							
TIME M S I	PRESSURE mbs	TEMPERATURE OF °C	DEW POINT OF °C	RELATIVE HUMIDITY %	DENSITY gm/m ³	DIRECTION degs Tn	WIND SPEED kts	CHARACTER kts	VISIBIL- ITY
0842	879.5	13.5	-13.2	14	1066		CALM		50
0912	879.6	13.9	-10.9	17	1064	270	02		50
0942	879.8	15.1	-11.3	15	1060	240	03		50

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	TYPE	AMT	TYPE	AMT	TYPE	
							CLEAR
							CLEAR
							CLEAR

PSYCHROMETRIC COMPUTATION

TIME:	0842	0912	0942
DRY BULB TEMP.	13.5	13.9	15.1
WET BULB TEMP.	03.5	04.1	04.6
WET BULB DEPR.	10.0	09.8	10.5
DEW POINT	-13.2	-10.9	-11.3
RELATIVE HUMID.	14	17	15

DELAS-WS-MT-WS FORM 12
01 NOV 1980

Supersedes ANSEL-BL-MT-WS Form 12, 28 Aug 72

and all project surface observation forms, except DIVAD Surface Observation for.

OBSERVER

VERIFIER

TABLE 3 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	017	14	-30	022	12	-30	026	15
-20	027	14	-20	011	10	-20	035	15
-10	013	14	-10	027	09	-10	029	15
0.0	028	12	0.0	018	09	0.0	027	16
+10	036	09	+10	025	08	+10	033	14

TABLE 3a LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	027	11	-30	030	15
-20	021	09	-20	038	15
-10	019	10	-10	012	15
0.0	015	12	0.0	015	13
+10	009	12	+10	018	14

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	022	09	-30	016	12
-20	M	11	-20	010	13
-10	018	09	-10	010	12
0.0	024	09	0.0	018	12
+10	008	11	+10	015	14

PILOT BALLOON MEASURED WIND DATA

TABLE 4

RELEASED FROM LC-33 DATE 31 March 1981 TIME 0908 MST

COORDINATES (WSTM) X= 486.037.24 Y= 183.350.16 H= 3977.30

NOTE: WIND DIRECTIONS ARE REFERENCED TO

HEIGHTS ARE METERS AGL X OR FEET AGL .

[illegible][illegible][illegible]

PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM LC-33

DATE 31 March 1981

TIME 0918 MST

COORDINATES (WSTM)

$$X = 486,037.24$$
$$Y = 186,350.16$$
$$H = 3977.30$$

NOTE: WIND DIRECTIONS ARE REFERENCED TO

HEIGHTS ARE METERS AGL X OR FEET AGL .

[illegible][illegible][illegible]

STATION ALTITUDE 3989.00 FEET MSL
31 MAR. 81
ASCENSION NO. 214

SIGNIFICANT LEVEL DATA

0900020214
WHITE SANDS

TABLE 6

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
882.0	3989.0	16.0	-4.0	25.0
865.4	4515.3	12.6	-5.4	28.0
850.0	5009.1	11.9	-5.1	30.0
836.2	5458.2	11.2	-5.3	31.0
759.8	8055.3	5.0	-8.8	36.0
723.0	9379.2	2.3	-17.2	42.0
700.0	10232.9	-2.2	-20.4	20.0
678.0	11071.7	-6.6	-22.6	17.0
500.0	18816.6	-17.5	-37.2	16.0
458.4	20941.0	-21.6	-40.6	16.0
436.8	22103.0	-25.0	-40.9	21.0
408.4	23702.0	-27.7	-44.6	18.0
400.0	24192.3	-29.0	-45.7	18.0
381.2	25317.5	-32.3	-48.0	19.0
374.6	25722.0	-33.4	-49.0	19.0
323.8	29025.0	-42.7		
300.0	30708.5	-46.2		
250.0	34619.3	-55.3		
235.4	35880.2	-56.6		
210.8	38169.4	-59.8		
200.0	39251.5	-60.1		
179.8	41459.9	-56.4		
163.4	43466.3	-55.3		
150.0	45261.7	-56.4		
144.2	46088.6	-55.6		
137.2	47131.7	-56.6		
126.6	48810.0	-57.5		
116.8	50478.8	-60.0		
110.4	51641.8	-59.1		
100.0	53681.6	-60.5		
95.4	54649.9	-60.3		
63.6	62965.2	-61.8		
61.0	63824.0	-59.1		
56.0	65593.8	-59.4		
50.0	67940.2	-57.5		
46.2	69601.4	-56.6		
43.8	70730.9	-52.2		
41.2	72036.6	-53.3		
36.2	74808.9	-50.4		
31.2	78006.3	-51.7		

STATION ALTITUDE 3989.00 FEET MSL
 31 MAR. 81 0918 HRS MST
 ASCENSION NO. 214

SIGNIFICANT LEVEL DATA
 09000/0214
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 6 cont'

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
30.0	78849.4	-50.8		
26.0	81958.7	-47.0		
23.6	84087.0	-45.8		
20.0	87769.3	-41.5		
15.2	93995.0	-37.0		
10.0	103604.4	-36.4		
9.6	104543.5	-36.1		

STATION ALTITUDE 3489.00 FEET MSL
1 MAR. 81 0914 HRS MST
PRECIPITATION NO. 214

UPPER AIR DATA
0900020214
WHITE SANDS
TABLE 7

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

ALTITUDE FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (IN)	WIND KNOTS	INDEX OF REFRACTION
3489.0	802.0	16.0	-4.0	25.0	1060.6	663.1	50.0	8.9	1.000257
3500.0	881.6	15.9	-4.0	25.1	1060.4	663.0	29.3	8.9	1.000257
3500.0	865.9	12.7	-5.4	27.9	1053.4	659.3	358.8	9.3	1.000254
3500.0	850.3	11.9	-5.1	30.0	1037.2	658.4	336.2	11.8	1.000251
3500.0	834.9	11.1	-5.3	31.1	1021.3	657.4	322.9	15.5	1.000247
3500.0	819.7	9.9	-6.0	32.0	1007.0	656.0	310.0	17.8	1.000243
3500.0	804.7	8.7	-6.6	33.0	992.8	654.6	298.9	20.3	1.000239
3500.0	790.0	7.5	-7.3	34.0	978.8	653.2	291.5	22.2	1.000235
3500.0	775.5	6.3	-8.0	34.9	965.1	651.8	285.8	23.5	1.000231
3500.0	761.4	5.1	-8.7	35.9	951.6	650.4	281.8	25.2	1.000227
3500.0	747.2	4.1	-11.4	31.3	937.7	649.1	279.9	27.5	1.000222
3500.0	733.4	3.1	-14.5	26.0	923.9	647.8	278.2	29.6	1.000216
3500.0	719.7	1.9	-17.6	21.7	910.7	646.4	276.8	31.5	1.000211
3500.0	706.2	.5	-19.5	20.5	898.5	644.7	275.5	32.9	1.000207
3500.0	692.9	-.3	-21.1	19.0	884.2	643.7	275.1	32.8	1.000203
3500.0	679.9	-.6	-22.4	17.3	868.4	643.4	274.8	32.9	1.000199
3500.0	666.7	-1.5	-23.4	16.9	854.6	642.2	274.7	33.5	1.000195
3500.0	653.7	-2.6	-24.3	16.9	841.4	640.9	274.1	34.3	1.000192
3500.0	641.0	-3.7	-25.3	16.8	828.4	639.6	271.6	36.1	1.000189
3500.0	628.5	-4.8	-26.2	16.8	815.6	638.3	269.9	37.6	1.000185
3500.0	616.3	-5.9	-27.1	16.7	803.0	637.0	269.3	38.6	1.000182
3500.0	604.3	-7.0	-28.1	16.6	790.6	635.7	267.8	38.0	1.000179
3500.0	592.5	-8.1	-29.0	16.6	778.4	634.4	265.6	36.8	1.000176
3500.0	581.0	-9.2	-30.0	16.5	766.5	633.1	262.3	35.1	1.000173
3500.0	569.7	-10.3	-30.9	16.4	754.7	631.8	261.5	35.7	1.000171
3500.0	558.6	-11.4	-31.9	16.4	743.1	630.4	262.6	37.9	1.000168
3500.0	547.7	-12.4	-32.8	16.3	731.7	629.1	262.5	39.6	1.000165
3500.0	536.9	-13.5	-33.7	16.2	720.5	627.8	262.4	40.4	1.000162
3500.0	526.2	-14.6	-34.7	16.2	709.4	626.5	262.1	39.9	1.000160
3500.0	515.7	-15.7	-35.6	16.1	698.6	625.1	261.4	42.2	1.000157
3500.0	505.3	-16.8	-36.6	16.0	687.9	623.8	260.8	45.1	1.000155
3500.0	495.0	-17.9	-37.5	16.0	677.1	622.5	260.0	47.3	1.000152
3500.0	484.8	-18.8	-38.3	16.0	665.9	621.3	259.6	48.0	1.000150
3500.0	474.7	-19.8	-39.1	16.0	654.9	620.2	259.5	46.8	1.000147
3500.0	464.7	-20.7	-39.9	16.0	644.1	619.0	258.8	45.2	1.000145
3500.0	454.8	-21.8	-40.6	16.3	633.6	617.7	257.9	43.7	1.000142
3500.0	444.9	-22.9	-40.6	18.4	624.2	615.9	257.6	44.4	1.000140
3500.0	435.0	-24.0	-40.8	20.6	615.0	614.1	257.3	45.8	1.000138
3500.0	425.1	-25.1	-41.8	20.3	604.6	612.9	257.0	48.3	1.000136
3500.0	420.1	-.5	-43.0	19.3	594.1	611.9	257.0	51.0	1.000133

STATION ALTITUDE 3989.00 FEET
31 MAR. 81 0918 HRS MS
ASCENSION NO. 214

UPPER AIR DATA
0900020214
WHITE SANDS
TABLE 7 cont'

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	411.9	-27.4	84.4	583.7	610.8	257.1	54.0	1.000131
24000.0	403.3	-28.5	84.0	574.2	609.4	257.2	56.6	1.000129
24500.0	394.8	-29.9	83.3	565.3	607.6	257.4	59.0	1.000127
25000.0	386.4	-31.4	82.7	556.7	605.8	257.1	60.4	1.000125
25500.0	378.2	-32.8	82.0	548.1	604.0	256.1	60.6	1.000123
26000.0	370.0	-34.2	81.4	539.4	602.2	254.9	60.6	1.000121
26500.0	362.0	-35.6	80.8	530.8	600.5	253.4	60.3	1.000119
27000.0	354.1	-37.0	80.2	522.3	598.7	252.9	60.3	1.000117
27500.0	346.3	-38.4	79.6	514.0	596.9	253.2	60.7	1.000115
28000.0	338.8	-39.8	79.0	505.8	595.1	253.6	61.1	1.000113
28500.0	331.4	-41.2	78.4	497.8	593.3	254.1	61.5	1.000111
29000.0	324.2	-42.6	77.8	489.9	591.5	253.3	61.7	1.000109
29500.0	316.9	-43.7	77.2	481.1	589.1	252.1	61.8	1.000107
30000.0	309.8	-44.7	76.6	472.5	586.8	250.4	61.4	1.000105
30500.0	302.0	-45.8	76.0	464.0	584.5	248.7	61.1	1.000103
31000.0	295.0	-46.9	75.4	455.6	582.0	247.7	60.9	1.000101
31500.0	289.1	-48.0	74.8	447.4	579.5	247.0	61.7	1.000100
32000.0	282.5	-49.2	74.2	439.4	577.0	247.1	64.9	1.000098
32500.0	276.0	-50.4	73.6	431.5	574.5	247.6	68.6	1.000096
33000.0	269.6	-51.5	73.0	423.8	572.0	248.2	72.7	1.000094
33500.0	263.4	-52.7	72.4	416.2	569.4	248.2	72.0	1.000093
34000.0	257.3	-53.9	71.8	408.8	566.9	248.0	70.0	1.000091
34500.0	251.4	-55.0	71.2	401.5	564.4	247.3	65.0	1.000089
35000.0	245.5	-55.7	70.6	393.3	561.9	246.5	60.8	1.000088
35500.0	239.7	-56.2	70.0	384.9	559.4	246.8	61.3	1.000086
36000.0	234.0	-56.8	69.4	376.8	556.9	247.3	63.3	1.000084
36500.0	228.5	-57.5	68.8	369.0	554.4	248.4	74.0	1.000082
37000.0	223.0	-58.2	68.2	361.4	551.9	250.2	84.9	1.000080
37500.0	217.7	-58.9	67.6	353.9	549.4	251.1	96.2	1.000079
38000.0	212.5	-59.6	67.0	346.6	546.9	251.5	103.9	1.000077
38500.0	207.4	-59.9	66.4	339.4	544.4	251.2	102.1	1.000075
39000.0	202.5	-60.0	65.8	332.2	541.9	250.1	94.4	1.000074
39500.0	197.6	-59.7	65.2	325.0	539.4	247.2	76.8	1.000072
40000.0	192.9	-58.8	64.6	317.8	536.9	243.1	60.2	1.000070
40500.0	188.3	-58.0	64.0	310.6	534.4	243.6	45.3	1.000068
41000.0	183.8	-57.2	63.4	303.4	531.9	234.3	40.4	1.000066
41500.0	179.5	-56.4	62.8	296.2	529.4	240.0	48.4	1.000064
42000.0	175.2	-56.1	62.2	289.0	526.9	245.7	62.1	1.000063
42500.0	171.1	-55.8	61.6	281.8	524.4	250.4	82.9	1.000061
43000.0	167.1	-55.6	61.0	274.6	521.9	252.7	95.9	1.000060

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

STATION ALTITUDE 3989.00 FEET MSL
 31 MAR. 81
 ASCENSION NO. 214

UPPER AIR DATA
 0900020214
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 7 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	METEO DATA		INDEX OF REFRACTION
						WIND SPEED (MPH)	WIND DIRECTION	
43500.0	163.1	-55.3		260.9	575.0	254.1		1.000058
44000.0	159.3	-55.6		255.1	574.6	254.1		1.000057
44500.0	155.5	-55.9		249.5	574.2	253.1		1.000056
45000.0	151.9	-56.2		243.9	573.8	253.1		1.000054
45500.0	148.3	-56.2		238.1	573.9	253.1		1.000053
46000.0	144.8	-55.7		232.0	574.5	253.1		1.000052
46500.0	141.4	-56.0		226.8	574.1	253.1		1.000051
47000.0	138.1	-56.5		222.0	573.5	253.1		1.000049
47500.0	134.8	-56.8		217.1	573.0	256.0		1.000048
48000.0	131.6	-57.1		212.2	572.7	255.8		1.000047
48500.0	128.5	-57.3		207.4	572.3	255.5		1.000046
49000.0	125.4	-57.8		202.9	571.7	254.1		1.000045
49500.0	122.5	-58.5		198.8	570.7	251.7		1.000044
50000.0	119.5	-59.3		194.7	569.7	250.8		1.000043
50500.0	116.7	-60.0		190.7	568.8	250.6		1.000042
51000.0	113.9	-59.6		185.8	569.3	252.0		1.000041
51500.0	111.2	-59.2		181.0	569.8	252.6		1.000040
52000.0	108.5	-59.3		176.8	569.6	252.2		1.000039
52500.0	105.9	-59.7		172.8	569.2	251.4		1.000038
53000.0	103.4	-60.0		169.0	568.7	248.7		1.000038
53500.0	100.9	-60.4		165.2	568.3	245.7		1.000037
54000.0	98.5	-60.4		161.3	568.2	243.7		1.000036
54500.0	96.1	-60.3		157.3	568.3	243.4		1.000035
55000.0	93.8	-60.4		153.5	568.3	243.6		1.000034
55500.0	91.5	-60.5		149.4	568.2	242.4		1.000033
56000.0	89.3	-60.5		146.4	568.0	241.2		1.000033
56500.0	87.2	-60.6		142.9	567.9	239.9		1.000032
57000.0	85.1	-60.7		139.5	567.8	239.2		1.000031
57500.0	83.0	-60.8		136.2	567.7	239.4		1.000030
58000.0	81.0	-60.9		133.0	567.6	240.4		1.000030
58500.0	79.1	-61.0		129.8	567.4	241.1		1.000029
59000.0	77.2	-61.1		126.8	567.3	241.4		1.000028
59500.0	75.3	-61.2		123.8	567.2	241.1		1.000028
60000.0	73.5	-61.3		120.8	567.1	240.9		1.000027
60500.0	71.7	-61.4		118.0	567.0	240.6		1.000026
61000.0	70.0	-61.4		115.2	566.8	240.8		1.000026
61500.0	68.3	-61.5		112.5	566.7	240.6		1.000025
62000.0	66.7	-61.6		109.8	566.6	240.5		1.000024
62500.0	65.1	-61.7		107.2	566.5	239.9		1.000024
63000.0	63.5	-61.7		104.6	566.5	238.7		1.000024

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

UPPER AIR DATA
0900020214
WHITE SANDS
TABLE 7 cont'

STATION ALTITUDE 3989.00 FEET MSL
31 MAR. 81
0918 HRS MST
ASCENSION NO. 214

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
63500.0	62.0	-60.1		101.3	568.6	237.0	32.4	1.000023
64000.0	60.5	-59.1		94.4	569.9	233.9	29.1	1.000022
64500.0	59.0	-59.2		96.1	569.8	230.1	26.2	1.000021
65000.0	57.6	-59.3		93.9	569.7	225.5	23.6	1.000021
65500.0	56.3	-59.4		91.7	569.6	220.7	21.7	1.000020
66000.0	54.9	-59.1		89.4	570.0	215.0	19.9	1.000020
66500.0	53.6	-58.7		87.1	570.5	212.3	16.1	1.000019
67000.0	52.3	-58.3		84.8	571.1	208.4	12.2	1.000019
67500.0	51.1	-57.9		82.7	571.6	213.7	9.0	1.000018
68000.0	49.9	-57.5		80.6	572.1	230.9	6.5	1.000018
68500.0	48.7	-57.2		78.6	572.5	255.0	6.4	1.000017
69000.0	47.5	-56.9		76.6	572.9	266.0	9.8	1.000017
69500.0	46.4	-56.7		74.7	573.2	270.6	13.0	1.000017
70000.0	45.3	-55.0		72.4	575.3	270.6	16.1	1.000016
70500.0	44.3	-53.1		70.1	577.9	270.6	19.1	1.000016
71000.0	43.3	-52.4		68.3	578.8	269.8	21.2	1.000015
71500.0	42.2	-52.8		66.8	578.2	269.1	23.2	1.000015
72000.0	41.3	-53.3		65.4	577.7	267.4	24.4	1.000015
72500.0	40.3	-52.8		63.7	578.3	265.1	25.2	1.000014
73000.0	39.4	-52.3		62.1	579.0	263.4	24.5	1.000014
73500.0	38.5	-51.6		60.6	579.6	262.1	20.7	1.000013
74000.0	37.6	-51.2		59.0	580.3	260.3	16.9	1.000013
74500.0	36.7	-50.7		57.5	581.0	258.4	12.3	1.000013
75000.0	35.9	-50.5		56.1	581.3	254.2	7.8	1.000013
75500.0	35.1	-50.7		54.9	581.1	240.4	3.4	1.000012
76000.0	34.3	-50.9		53.7	580.8	153.4	1.7	1.000012
76500.0	33.5	-51.1		52.5	580.5	102.8	5.0	1.000012
77000.0	32.7	-51.3		51.3	580.3	91.3	9.2	1.000011
77500.0	31.9	-51.5		50.2	580.0	87.0	13.4	1.000011
78000.0	31.2	-51.7		49.1	579.7	88.4	12.7	1.000011
78500.0	30.5	-51.2		47.9	580.4	90.4	11.6	1.000011
79000.0	29.8	-50.6		46.6	581.2	95.4	9.5	1.000010
79500.0	29.1	-50.0		45.5	582.0	108.5	6.5	1.000010
80000.0	28.5	-49.4		44.3	582.8	137.5	4.4	1.000010
80500.0	27.8	-48.8		43.2	583.5	154.3	4.1	1.000010
81000.0	27.2	-48.2		42.1	584.3	171.7	4.1	1.000009
81500.0	26.6	-47.6		41.0	585.1	186.8	4.5	1.000009
82000.0	26.0	-47.0		40.0	585.9	198.4	5.1	1.000009
82500.0	25.4	-46.7		39.0	586.3	207.3	5.9	1.000009
83000.0	24.8	-46.4		38.1	586.6	216.8	7.3	1.000008

STATION ALTITUDE 3989.00 FEET MSL
 31 MAR. 61 0914 HRS MST
 ASCENSION NO. 214

UPPER AIR DATA
 0900020214
 WHITE SANDS
 TABLE 7 cont'

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
83500.0	24.2	-46.1		37.2	547.0	223.3	8.9	1.000008
84000.0	23.7	-45.8		36.3	547.3	228.4	10.5	1.000008
84500.0	23.2	-45.3		35.4	548.0	232.9	12.1	1.000008
85000.0	22.7	-44.7		34.5	548.8	236.3	13.8	1.000008
85500.0	22.1	-44.1		33.7	549.5	238.9	15.4	1.000007
86000.0	21.7	-43.6		32.9	550.3	241.0	17.1	1.000007
86500.0	21.2	-43.0		32.0	551.0	242.5	18.5	1.000007
87000.0	20.7	-42.4		31.3	551.8	243.1	19.3	1.000007
87500.0	20.2	-41.8		30.5	552.5	243.6	20.0	1.000007
88000.0	19.8	-41.3		29.8	553.2	243.6	19.8	1.000007
88500.0	19.4	-41.0		29.1	553.6	243.2	19.0	1.000006
89000.0	18.9	-40.6		28.4	554.1	242.7	18.2	1.000006
89500.0	18.5	-40.2		27.7	554.5	242.3	17.2	1.000006
90000.0	18.1	-39.9		27.1	555.0	241.9	16.2	1.000006
90500.0	17.7	-39.5		26.4	555.5	242.0	15.6	1.000006
91000.0	17.3	-39.2		25.8	555.9	242.9	15.6	1.000006
91500.0	17.0	-38.8		25.2	556.4	243.6	15.7	1.000006
92000.0	16.6	-38.4		24.6	556.8	244.0	14.2	1.000005
92500.0	16.2	-38.1		24.1	557.3	243.4	11.4	1.000005
93000.0	15.9	-37.7		23.5	557.8	242.5	8.5	1.000005
93500.0	15.5	-37.4		23.0	558.2	225.7	2.7	1.000005
94000.0	15.2	-37.0		22.4	558.7	83.8	5.0	1.000005
94500.0	14.9	-37.0		21.9	558.7	76.0	12.3	1.000005
95000.0	14.5	-36.9		21.5	558.8	73.5	17.9	1.000005
95500.0	14.2	-36.9		21.0	558.8	72.0	23.1	1.000005
96000.0	13.9	-36.9		20.5	558.8	71.1	28.3	1.000005
96500.0	13.6	-36.8		20.1	558.9	70.6	25.8	1.000004
97000.0	13.3	-36.8		19.7	558.9	69.9	22.8	1.000004
97500.0	13.0	-36.8		19.2	558.9	69.3	19.4	1.000004
98000.0	12.8	-36.7		18.8	559.0	78.7	8.6	1.000004
98500.0	12.5	-36.7		18.4	559.0	201.3	3.8	1.000004
99000.0	12.2	-36.7		18.0	559.1	230.0	13.6	1.000004
99500.0	12.0	-36.7		17.6	559.1	228.9	20.9	1.000004
100000.0	11.7	-36.6		17.2	559.1	228.3	28.3	1.000004
100500.0	11.4	-36.6		16.9	559.2	227.0	33.2	1.000004
101000.0	11.2	-36.6		16.5	559.2	222.8	31.9	1.000004
101500.0	11.0	-36.5		16.1	559.3	218.4	30.7	1.000004
102000.0	10.7	-36.5		15.8	559.3			1.000004
102500.0	10.5	-36.5		15.4	559.3			1.000003
103000.0	10.3	-36.4		15.1	559.4			1.000003

STATION ALTITUDE 3989.00 FEET MSL
 31 MAR. 81
 ASCENSION NO. 214 0918 HRS MST

UPPER AIR DATA
 0400020214
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 7 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR	DEW-POINT DEGREES CENTIGRADE				DIRECTION DEGREES(TI)	SPEED KNOTS	
103500.0	10.0	-36.4			14.8	599.4			1.000003
104000.0	9.8	-36.3			14.5	599.6			1.000003
104500.0	9.6	-36.1			14.1	599.8			1.000003

STATION ALTITUDE 3989.00 FEET MSL
31 MAR. 81
0918 HRS MST
ASCENSION I.O. 214

MANDATORY LEVELS
0900020214
WHITE SANDS
TABLE 8

GEODETTIC COORDINATES
32.40043 LAT DEG
106.57033 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5005.	11.9	-5.1	30.	336.0	11.9
800.0	6660.	8.3	-6.4	33.	295.9	21.3
750.0	8395.	4.3	-10.4	32.	280.2	27.0
700.0	10223.	-2.2	-20.4	20.	275.3	32.9
650.0	12161.	-2.9	-24.6	17.	273.2	34.9
600.0	14223.	-7.4	-28.4	17.	266.8	37.4
550.0	16426.	-12.2	-32.6	16.	262.5	39.4
500.0	18792.	-17.5	-37.2	16.	260.3	46.5
450.0	21356.	-22.9	-40.6	18.	257.7	44.2
400.0	24152.	-29.0	-45.7	18.	257.3	57.5
350.0	27229.	-37.7	-57.7	10.**	253.1	60.5
300.0	30648.	-46.2			248.3	61.0
250.0	34545.	-55.3			247.1	64.0
200.0	39158.	-60.1			248.9	80.2
175.0	41921.	-56.1			245.7	62.3
150.0	45141.	-56.4			255.2	62.6
125.0	48935.	-57.9			253.9	56.1
100.0	53517.	-60.5			245.2	39.9
80.0	58076.	-61.0			240.8	44.6
70.0	60795.	-61.4			240.8	44.7
60.0	63938.	-59.2			233.0	28.3
50.0	67694.	-57.5			227.1	6.8
40.0	72378.	-52.6			264.6	25.4
30.0	78513.	-50.8			92.4	10.7
25.0	82450.	-46.5			212.9	6.7
20.0	87358.	-41.5			243.8	20.2
15.0	93827.	-37.0			78.2	4.7
10.0	103041.	-36.4				

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

STATION ALTITUDE 4051.37 FEET MSL
31 MAR. 81 0755 HRS MST
ASCENSION NO. 16

SIGNIFICANT LEVEL DATA
0900110011,
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

TABLE 9

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
880.3	4051.4	13.6	-1.9	34.0
873.2	4274.5	11.8	-4.3	32.0
862.6	4609.3	10.9	-5.1	32.0
850.0	5012.2	11.0	-5.5	31.0
793.0	6901.0	7.4	-6.7	36.0
734.8	8942.5	2.0	-7.6	49.0
725.2	9291.1	1.9	-11.6	36.0
700.0	10224.6	-3	-16.1	29.0
678.4	11045.2	-2.4	-18.8	27.0
660.0	11761.9	-2.7	-21.9	21.0
579.8	15100.0	-8.6	-27.4	20.0
500.0	18808.0	-17.8	-35.7	19.0
479.2	19850.5	-19.2	-36.9	19.0
417.8	23147.0	-28.1	-41.9	25.0
400.0	24170.2	-30.5	-43.0	28.0
388.6	24844.9	-31.6	-44.6	26.0
347.2	27428.8	-38.8	-49.7	30.0
333.8	28313.3	-41.3		
300.0	30676.2	-45.9		
265.6	33306.1	-52.6		
250.0	34586.2	-55.2		
226.6	36634.6	-59.0		
211.0	38104.1	-60.3		
200.0	39206.7	-59.2		
191.0	40159.4	-58.3		
186.4	40664.2	-59.0		
181.4	41228.4	-57.3		
168.0	42835.6	-55.1		
163.6	43393.3	-55.9		
150.0	45213.9	-55.9		
141.8	46392.5	-56.2		
114.2	50867.2	-62.1		
106.8	52234.3	-61.8		
100.0	53574.5	-62.9		
96.0	54403.2	-63.3		
79.2	58330.7	-60.6		
70.0	60862.6	-61.6		
59.8	64110.3	-58.3		
55.0	65837.0	-61.4		
50.9	67423.6	-61.6		

STATION ALTITUDE 4051.37 FEET MSL
 31 MAR. 81 0755 HRS MST
 ASCENSION NO. 16

SIGNIFICANT LEVEL DATA
 09001A001b
 LC-37
 TABLE 9 cont'

GEODETIC COORDINATES
 32.40175 LAT UEG
 106.31232 LON UEG

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	DEWPOINT	REL. HUM.
MILLIBARS	MSL FEET	DEGREES	CENTIGRADE	PERCENT
50.0	67790.1	-60.1		
43.2	70851.9	-53.4		
40.5	72218.6	-55.4		
37.5	73859.1	-50.6		
30.0	74655.3	-51.8		
24.2	83336.6	-44.8		
21.4	86048.7	-46.4		
20.0	87541.3	-44.8		
15.4	93425.9	-37.2		
13.6	96284.1	-35.1		
12.4	98409.6	-37.0		
10.0	103341.1	-37.0		
7.0	111509.3	-37.8		
6.6	112860.0	-36.1		
6.6	112860.0	-36.1		

STATION ALTITUDE 4051.37 FEET MSL
31 MAR. 61 0755 HRS MST
ASCENSION NO. 16

UPPER AIR DATA
0900160016
LC-37
TABLE 10

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) SPEED KNOTS	INDEX OF REFRACTION
4051.4	860.3	13.6	-1.9	34.0	1067.0	640.5	350.0	1.000262
4500.0	860.0	11.2	-4.9	32.0	1054.1	657.5	345.3	1.000256
5000.0	850.4	11.0	-5.4	31.0	1040.7	657.3	341.6	1.000251
5500.0	834.9	10.1	-5.7	32.3	1025.1	656.2	338.9	1.000247
6000.0	819.7	9.1	-6.0	33.6	1004.8	655.1	320.5	1.000243
6500.0	804.8	8.2	-6.4	34.9	994.8	654.0	297.5	1.000240
7000.0	790.1	7.1	-6.7	36.6	980.2	652.8	289.8	1.000236
7500.0	773.5	5.8	-6.8	39.8	960.6	651.3	286.2	1.000233
8000.0	761.1	4.5	-7.0	43.0	953.3	649.7	285.1	1.000230
8500.0	747.0	3.2	-7.3	46.2	940.1	648.2	282.6	1.000227
9000.0	733.2	2.0	-8.2	46.9	926.8	646.7	279.9	1.000223
9500.0	719.5	1.4	-12.5	34.4	911.8	645.9	278.1	1.000215
10000.0	700.0	.2	-15.0	30.7	898.7	644.5	277.1	1.000210
10500.0	692.7	-1.0	-17.0	28.3	885.9	643.0	277.2	1.000206
11000.0	679.6	-2.3	-18.7	27.1	873.3	641.4	275.6	1.000202
11500.0	660.7	-2.6	-20.7	23.2	857.8	641.0	273.2	1.000197
12000.0	653.9	-3.1	-22.3	20.9	843.1	640.4	270.7	1.000193
12500.0	641.4	-4.0	-23.2	20.8	824.7	639.3	269.3	1.000190
13000.0	629.0	-4.9	-24.0	20.6	816.4	638.2	269.0	1.000186
13500.0	610.9	-5.8	-24.8	20.5	803.4	637.2	268.2	1.000183
14000.0	605.1	-6.7	-25.6	20.3	790.6	636.1	267.4	1.000180
14500.0	593.5	-7.5	-26.5	20.2	778.0	635.1	266.4	1.000177
15000.0	582.1	-8.4	-27.3	20.0	765.6	634.0	265.5	1.000174
15500.0	570.6	-9.6	-28.3	19.9	753.9	632.6	264.8	1.000171
16000.0	559.3	-10.8	-29.5	19.8	742.5	631.1	263.2	1.000168
16500.0	540.3	-12.1	-30.6	19.6	731.3	629.6	260.7	1.000166
17000.0	537.4	-13.3	-31.7	19.5	720.3	628.1	259.5	1.000163
17500.0	520.8	-14.6	-32.8	19.4	704.5	626.6	258.8	1.000160
18000.0	510.4	-15.8	-33.9	19.2	694.8	625.0	258.7	1.000158
18500.0	500.2	-17.0	-35.0	19.1	684.4	623.5	258.7	1.000155
19000.0	490.1	-18.1	-35.9	19.0	677.4	622.3	258.3	1.000152
19500.0	480.1	-18.7	-36.5	19.0	665.4	621.5	257.7	1.000150
20000.0	470.2	-19.6	-37.1	19.3	654.2	620.4	257.6	1.000147
20500.0	460.4	-21.0	-37.8	20.2	644.2	618.7	257.8	1.000145
21000.0	450.8	-22.3	-38.5	21.1	634.3	617.1	258.3	1.000143
21500.0	447.4	-23.7	-39.3	22.0	624.6	615.4	259.1	1.000140
22000.0	430.2	-25.0	-40.1	22.9	615.1	613.7	259.2	1.000138
22500.0	429.2	-26.4	-40.9	23.8	605.7	612.1	258.5	1.000136
23000.0	420.4	-27.7	-41.7	24.7	596.5	610.4	257.2	1.000134
23500.0	411.6	-28.9	-42.3	26.0	587.0	608.9	255.0	1.000132

STATION ALTITUDE 4051.37 FEET MSL
 31 MAR. 61 0755 HRS MST
 ASCENSION NO. 16

UPPER AIR DATA
 09001A0016
 LC-37
 TABLE 10 cont'

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION, DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
24000.0	402.9	-30.1	-42.8	27.5	577.4	607.4	253.1	54.0	1.000129
24500.0	394.4	-31.0	-43.8	27.0	567.4	606.2	251.8	54.9	1.000127
25000.0	386.0	-32.0	-44.9	26.2	557.6	605.0	250.9	55.8	1.000125
25500.0	377.7	-33.4	-45.9	27.0	548.8	603.2	250.3	56.8	1.000123
26000.0	369.5	-34.8	-46.9	27.8	540.1	601.5	249.7	57.6	1.000121
26500.0	361.5	-36.2	-47.9	28.6	531.5	599.7	249.2	58.1	1.000119
27000.0	353.8	-37.6	-48.9	29.3	523.2	597.9	248.4	58.7	1.000117
27500.0	346.1	-39.0	-50.6	27.6**	514.9	596.1	247.6	59.4	1.000115
28000.0	338.5	-40.4	-50.6	10.6**	506.6	594.3	246.5	60.4	1.000113
28500.0	331.6	-41.7			498.1	592.7	245.4	61.5	1.000111
29000.0	323.6	-42.6			489.0	591.5	244.5	62.6	1.000109
29500.0	316.4	-43.6			480.2	590.2	244.0	63.5	1.000107
30000.0	309.3	-44.6			471.4	589.0	244.7	63.8	1.000105
30500.0	302.4	-45.6			462.9	587.7	245.5	63.9	1.000103
31000.0	295.5	-46.7			454.7	586.2	246.6	63.4	1.000101
31500.0	288.8	-48.0			446.8	584.6	247.5	63.2	1.000100
32000.0	282.2	-49.3			439.1	582.9	247.7	63.5	1.000098
32500.0	275.7	-50.5			431.5	581.2	247.7	63.9	1.000096
33000.0	269.4	-51.8			424.0	579.6	247.6	64.8	1.000094
33500.0	263.2	-53.0			416.4	578.0	247.5	66.4	1.000093
34000.0	257.0	-54.0			408.6	576.7	247.5	68.9	1.000091
34500.0	251.0	-55.0			400.9	575.4	247.6	71.3	1.000089
35000.0	245.1	-56.0			393.1	574.1	247.6	73.6	1.000088
35500.0	239.3	-56.9			385.5	572.9	247.4	74.7	1.000086
36000.0	233.6	-57.8			377.9	571.7	246.9	74.4	1.000084
36500.0	228.1	-58.8			370.6	570.4	246.3	73.8	1.000083
37000.0	222.6	-59.3			362.7	569.7	245.5	72.9	1.000081
37500.0	217.3	-59.8			354.7	569.1	244.8	72.3	1.000079
38000.0	212.1	-60.2			346.9	568.5	244.2	72.5	1.000077
38500.0	207.0	-59.9			339.1	568.9	243.8	73.2	1.000075
39000.0	202.0	-59.4			329.3	569.6	243.7	74.7	1.000073
39500.0	197.2	-58.9			320.7	570.2	243.8	76.2	1.000071
40000.0	192.5	-58.5			312.3	570.8	244.4	77.7	1.000070
40500.0	187.9	-58.8			305.3	570.4	244.9	78.8	1.000068
41000.0	183.4	-58.0			297.0	571.4	245.3	78.7	1.000066
41500.0	179.1	-56.9			288.5	572.9	245.6	78.5	1.000064
42000.0	174.8	-56.2			280.8	573.8	245.7	78.0	1.000063
42500.0	170.7	-55.6			273.3	574.7	245.8	77.4	1.000061
43000.0	166.7	-55.3			266.6	575.0	246.6	78.9	1.000059
43500.0	162.8	-55.9			261.0	574.2	247.4	80.5	1.000058

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

STATION ALTITUDE 4051.37 FEET MSL
 31 MAR. 81
 ASCENSION NO. 16
 UPPER AIR DATA
 0900140016
 LC-37
 TABLE 10 cont'
 GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES(TN))	SPEED KNOTS	INDEX OF REFRACTION
44000.0	158.9	-55.9		254.9	574.2	248.5	81.3	1.000057
44500.0	155.2	-55.9		248.9	574.2	249.7	82.0	1.000055
45000.0	151.5	-55.9		243.0	574.2	250.5	80.2	1.000054
45500.0	148.0	-56.0		237.3	574.1	251.4	77.1	1.000053
46000.0	144.5	-56.1		231.9	574.0	252.0	73.9	1.000052
46500.0	141.1	-56.3		226.7	573.6	252.2	70.7	1.000050
47000.0	137.7	-57.0		221.9	572.8	252.5	67.7	1.000049
47500.0	134.4	-57.7		217.3	571.9	252.0	66.0	1.000048
48000.0	131.2	-58.3		212.7	571.0	251.6	64.4	1.000047
48500.0	128.1	-59.0		208.3	570.1	251.1	63.0	1.000046
49000.0	125.0	-59.6		203.9	569.3	250.7	61.7	1.000045
49500.0	122.0	-60.3		199.7	568.4	250.1	60.4	1.000044
50000.0	119.1	-61.0		195.5	567.5	248.8	58.2	1.000044
50500.0	116.2	-61.6		191.4	566.6	247.3	56.0	1.000043
51000.0	113.5	-62.1		187.3	565.0	245.5	54.8	1.000042
51500.0	110.7	-62.0		182.6	566.1	243.4	54.4	1.000041
52000.0	108.0	-61.9		178.1	566.3	242.3	55.1	1.000040
52500.0	105.4	-62.0		173.9	566.1	243.1	57.7	1.000039
53000.0	102.9	-62.4		170.0	565.5	244.0	60.2	1.000038
53500.0	100.4	-62.8		166.2	565.0	245.5	61.7	1.000037
54000.0	97.9	-63.1		162.4	564.6	246.9	63.3	1.000036
54500.0	95.5	-63.2		158.6	564.4	248.1	64.8	1.000035
55000.0	93.2	-62.9		154.5	564.9	249.3	66.2	1.000034
55500.0	91.0	-62.5		150.5	565.4	250.2	66.5	1.000034
56000.0	88.8	-62.2		146.6	565.8	251.2	66.8	1.000033
56500.0	86.6	-61.9		142.8	566.3	251.3	64.3	1.000032
57000.0	84.5	-61.5		139.1	566.7	251.0	60.6	1.000031
57500.0	82.5	-61.2		135.6	567.2	250.3	57.9	1.000030
58000.0	80.5	-60.8		132.1	567.7	249.3	56.1	1.000029
58500.0	78.5	-60.7		128.8	567.9	248.5	55.2	1.000029
59000.0	76.7	-60.9		125.8	567.6	248.2	56.2	1.000028
59500.0	74.8	-61.1		122.9	567.4	247.9	57.2	1.000027
60000.0	73.0	-61.3		120.0	567.1	247.7	57.4	1.000027
60500.0	71.2	-61.5		117.2	566.8	247.5	57.4	1.000026
61000.0	69.5	-61.5		114.4	566.8	247.3	56.8	1.000025
61500.0	67.9	-61.0		111.4	567.5	246.9	53.9	1.000025
62000.0	66.2	-60.4		108.5	568.2	246.5	50.9	1.000024
62500.0	64.7	-59.9		105.6	568.9	245.7	45.4	1.000024
63000.0	63.1	-59.4		102.9	569.5	244.4	38.3	1.000023
63500.0	61.6	-58.9		100.2	570.2	242.5	31.2	1.000022

STATION ALTITUDE 4051.37 FEET MSL
31 MAR. 81 0755 HRS MST
ASCENSION NO. 16

UPPER AIR DATA
09001A0016
LC-37

TABLE 10 cont'

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES(TN))	SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.1	-58.4		97.5	570.9	240.0	25.0	1.000022
64500.0	58.7	-59.0		95.5	570.1	235.8	18.9	1.000021
65000.0	57.3	-59.9		93.6	568.9	229.2	13.7	1.000021
65500.0	55.9	-60.8		91.7	567.7	224.5	11.6	1.000020
66000.0	54.6	-61.4		89.8	566.9	217.9	9.6	1.000020
66500.0	53.2	-61.5		87.6	566.8	213.7	8.7	1.000020
67000.0	52.0	-61.5		85.5	566.7	215.4	9.1	1.000019
67500.0	50.7	-61.3		83.4	567.1	217.0	9.5	1.000019
68000.0	49.5	-59.6		80.8	569.3	219.4	10.1	1.000018
68500.0	48.3	-58.5		78.5	570.7	221.9	10.8	1.000017
69000.0	47.2	-57.5		76.2	572.2	224.0	11.6	1.000017
69500.0	46.1	-56.4		74.0	573.6	226.9	12.2	1.000016
70000.0	45.0	-55.3		71.9	575.1	229.7	12.8	1.000016
70500.0	43.9	-54.2		69.9	576.5	232.6	13.4	1.000016
71000.0	42.9	-53.6		68.1	577.2	236.7	13.9	1.000015
71500.0	41.9	-54.3		66.7	576.3	240.4	14.5	1.000015
72000.0	40.9	-55.1		65.4	575.3	243.8	14.4	1.000015
72500.0	40.0	-54.6		63.7	576.0	247.2	13.6	1.000014
73000.0	39.0	-53.1		61.8	577.9	251.1	12.8	1.000014
73500.0	38.1	-51.7		60.0	579.8	254.9	11.7	1.000013
74000.0	37.3	-50.6		58.3	581.1	259.4	10.4	1.000013
74500.0	36.4	-50.8		57.0	581.0	265.2	9.2	1.000013
75000.0	35.6	-50.9		55.7	580.8	266.7	8.8	1.000012
75500.0	34.7	-51.0		54.5	580.6	268.2	8.4	1.000012
76000.0	33.9	-51.1		53.3	580.5	269.5	8.0	1.000012
76500.0	33.2	-51.3		52.1	580.3	269.2	7.4	1.000012
77000.0	32.4	-51.4		50.9	580.2	268.8	6.8	1.000011
77500.0	31.7	-51.5		49.8	580.0	269.1	6.0	1.000011
78000.0	30.9	-51.6		48.6	579.8	271.9	4.9	1.000011
78500.0	30.2	-51.8		47.5	579.7	276.4	3.7	1.000011
79000.0	29.5	-51.3		46.4	580.3	286.2	2.5	1.000010
79500.0	28.9	-50.5		45.2	581.3	319.4	1.4	1.000010
80000.0	28.2	-49.8		44.0	582.2	24.1	1.5	1.000010
80500.0	27.6	-49.0		42.8	583.2	50.1	2.6	1.000010
81000.0	26.9	-48.3		41.7	584.2	58.7	3.5	1.000009
81500.0	26.3	-47.5		40.7	585.2	63.7	4.5	1.000009
82000.0	25.7	-46.8		39.6	586.1	66.1	5.0	1.000009
82500.0	25.1	-46.1		38.6	587.1	65.2	3.4	1.000009
83000.0	24.6	-45.3		37.6	588.1	62.9	1.8	1.000008
83500.0	24.0	-44.9		36.7	588.6	333.3	.2	1.000008

STATION ALTITUDE 4051.37 FEET MSL
 31 MAR. 81 0755 HRS MST
 ASCENSION NO. 16

UPPER AIR DATA
 09001H0016
 LC-37

GEODETIC COORDINATE
 32.40175 LAT N
 106.31232 LONG W

TABLE 10 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	
84000.0	23.5	-45.2		35.9	588.2	254.7	3.0	1.000008
84500.0	23.0	-45.5		35.1	587.8	252.9	6.0	1.000008
85000.0	22.4	-45.8		34.4	587.4	252.3	8.7	1.000008
85500.0	21.9	-46.1		33.7	587.1	252.2	9.4	1.000007
86000.0	21.4	-46.4		32.9	586.7	252.1	10.1	1.000007
86500.0	21.0	-45.9		32.1	587.3	252.0	10.6	1.000007
87000.0	20.5	-45.4		31.3	588.0	251.1	9.3	1.000007
87500.0	20.0	-44.8		30.6	588.6	250.0	8.0	1.000007
88000.0	19.6	-44.2		29.8	589.5	248.5	6.7	1.000007
88500.0	19.2	-43.6		29.1	589.3	245.5	6.1	1.000006
89000.0	18.7	-42.9		28.4	581.1	241.9	5.6	1.000006
89500.0	18.3	-42.3		27.7	582.0	237.7	5.1	1.000006
90000.0	17.9	-41.6		27.0	582.8	234.4	5.0	1.000006
90500.0	17.5	-41.0		26.3	583.6	231.3	5.0	1.000006
91000.0	17.2	-40.3		25.7	584.4	228.2	4.9	1.000006
91500.0	16.8	-39.7		25.0	585.3	223.4	4.6	1.000006
92000.0	16.4	-39.0		24.4	586.1	216.2	4.0	1.000005
92500.0	16.0	-38.4		23.8	586.9	207.0	3.6	1.000005
93000.0	15.7	-37.8		23.2	587.7	194.3	3.2	1.000005
93500.0	15.4	-37.1		22.7	588.5	176.1	2.9	1.000005
94000.0	15.0	-36.8		22.1	589.0	156.7	3.0	1.000005
94500.0	14.7	-36.4		21.6	589.4	140.1	3.4	1.000005
95000.0	14.4	-36.0		21.1	589.9	130.1	3.7	1.000005
95500.0	14.1	-35.7		20.6	600.3	122.1	4.2	1.000005
96000.0	13.8	-35.3		20.2	600.8	115.7	4.7	1.000004
96500.0	13.5	-35.3		19.7	600.8	118.3	4.4	1.000004
97000.0	13.2	-35.7		19.3	600.3	124.1	4.4	1.000004
97500.0	12.9	-36.2		19.0	589.7	129.8	4.9	1.000004
98000.0	12.6	-36.6		18.6	589.1	139.5	5.0	1.000004
98500.0	12.4	-37.0		18.2	588.7	154.3	5.4	1.000004
99000.0	12.1	-37.0		17.8	588.7	166.4	6.1	1.000004
99500.0	11.8	-37.0		17.4	588.7	175.3	7.0	1.000004
100000.0	11.6	-37.0		17.1	588.7	179.0	7.1	1.000004
100500.0	11.3	-37.0		16.7	588.7	182.6	7.3	1.000004
101000.0	11.1	-37.0		16.3	588.7	186.0	7.5	1.000004
101500.0	10.8	-37.0		16.0	588.7	186.0	8.7	1.000004
102000.0	10.6	-37.0		15.6	588.7	185.2	10.1	1.000003
102500.0	10.4	-37.0		15.3	588.7	184.6	11.5	1.000003
103000.0	10.1	-37.0		15.0	588.7	182.7	13.3	1.000003
103500.0	9.9	-37.0		14.7	588.7	179.9	15.8	1.000003

STATION ALTITUDE 4051.37 FEET MSL				UPPER AIR DATA				GEODETIC COORDINATES			
31 MAR. 81				0900180016				32.40175 LAT DEG			
ASCENSION NO. 16				LC-37				106.31232 LON DEG			
				TABLE 10 cont'							
GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION		
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES (TN)	SPEED KNOTS			
104000.0	9.7	-37.1			14.3	548.6	177.8	18.3	1.000003		
104500.0	9.5	-37.1			14.0	548.5	176.4	20.4	1.000003		
105000.0	9.3	-37.2			13.7	548.5	176.2	20.4	1.000003		
105500.0	9.1	-37.2			13.4	548.4	176.0	20.4	1.000003		
106000.0	8.9	-37.3			13.1	548.3	175.8	20.4	1.000003		
106500.0	8.7	-37.3			12.9	548.3	178.2	20.0	1.000003		
107000.0	8.5	-37.4			12.6	548.2	181.2	19.4	1.000003		
107500.0	8.3	-37.4			12.3	548.2	184.4	19.0	1.000003		
108000.0	8.2	-37.5			12.1	548.1	184.4	19.6	1.000003		
108500.0	8.0	-37.5			11.8	548.0	182.0	21.1	1.000003		
109000.0	7.8	-37.6			11.5	548.0	180.0	22.7	1.000003		
109500.0	7.6	-37.6			11.3	547.9	179.7	23.9	1.000003		
110000.0	7.5	-37.7			11.1	547.8	184.6	23.8	1.000002		
110500.0	7.3	-37.7			10.8	547.8	189.5	24.0	1.000002		
111000.0	7.2	-37.8			10.6	547.7	194.3	24.3	1.000002		
111500.0	7.0	-37.8			10.4	547.7			1.000002		
112000.0	6.9	-37.2			10.1	548.4			1.000002		
112500.0	6.7	-36.6			9.9	549.2			1.000002		

STATION ALTITUDE 4051.37 FEET MSL
31 MAR. 81
ASCENSION NO. 16

MANDATORY LEVELS
0900140016
LC-37

GEODETIC COORDINATES
32.40175 LAT UEG
106.31232 LON DEG

TABLE 11

PRESSURE GEOPOTENTIAL			TEMPERATURE		HUMIDITY PERCENT	WIND DATA		
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	DIRECTION DEGREES(TN)		SPEED KNOTS		
850.0	5009.	11.0	-5.5	31.	341.5	4.7		
800.0	6658.	7.9	-6.5	35.	294.1	14.2		
750.0	8390.	3.5	-7.2	46.	283.2	26.5		
700.0	10215.	-3	-16.1	59.	277.2	29.8		
650.0	12146.	-3.4	-22.6	21.	270.1	32.7		
600.0	14208.	-7.0	-26.0	20.	266.9	34.0		
550.0	16415.	-11.9	-30.4	20.	261.1	38.7		
500.0	18782.	-17.8	-35.7	19.	258.5	45.3		
450.0	21344.	-23.3	-39.1	22.	258.9	49.6		
400.0	24130.	-30.5	-43.0	28.	252.7	54.3		
350.0	27198.	-38.3	-49.4	30.	248.0	59.0		
300.0	30616.	-45.9			245.8	63.7		
250.0	34512.	-55.2			247.6	71.6		
200.0	39114.	-59.2			243.6	75.3		
175.0	41873.	-56.3			245.7	78.0		
150.0	45094.	-55.9			250.8	79.0		
125.0	48875.	-59.6			250.7	61.8		
100.0	53411.	-62.9			245.6	61.9		
80.0	57934.	-60.7			249.1	55.7		
70.0	60655.	-61.6			247.4	57.4		
60.0	63813.	-58.4			239.9	24.9		
50.0	67537.	-50.1			218.1	9.7		
40.0	72194.	-54.6			246.8	13.7		
30.0	78321.	-51.8			277.9	3.4		
25.0	82251.	-45.9			65.0	3.2		
20.0	87132.	-44.8			250.1	4.0		
15.0	93560.	-36.8			157.4	3.0		
10.0	102780.	-37.0			181.0	14.8		
7.0	110861.	-37.8						

STATION ALTITUDE 4126.59 FEET MSL
31 MAR. 81
ASCENSION NO. 53

SIGNIFICANT LEVEL DATA
0900010053
HOLLOWMAN
TABLE 12

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM. PERCENT
MILLIBARS	ALTITUDE MSL FEET	AIR DEGREES	DEWPOINT CENTIGRADE	
876.4	4126.6	5.6	-5.7	44.0
866.2	4444.3	11.3	-2.8	37.0
850.0	4961.3	10.6	-3.8	36.0
700.0	10156.8	-1.6	-11.1	48.0
668.4	11360.3	-3.9	-17.1	35.0
659.0	11727.8	-3.7	-21.8	23.0
629.3	12920.1	-5.7	-25.0	20.0
500.0	18696.9	-19.1	-33.3	27.0
472.6	20071.2	-21.0	-36.2	24.0
400.0	24040.9	-31.3	-42.8	31.0
388.4	24725.8	-32.1	-42.1	36.0
334.4	28142.9	-40.6	-49.3	38.0
327.9	28583.0	-40.6		
300.0	30555.0	-45.7		
250.0	34475.2	-54.7		
232.8	35966.7	-57.8		
228.0	36401.2	-56.2		
200.0	39120.1	-60.0		
185.0	40636.5	-59.6		
171.3	42317.7	-58.0		
163.8	43245.4	-59.0		
162.5	43411.1	-56.7		
150.0	45082.3	-57.1		
128.0	48372.4	-59.6		
117.2	50190.8	-59.6		
109.1	51674.6	-57.8		
100.0	53478.6	-59.8		
81.2	57744.9	-62.6		
70.0	60782.3	-60.4		
63.1	62928.1	-58.3		
55.4	65631.1	-58.6		
50.0	67741.3	-62.4		
43.8	70504.4	-52.6		
39.2	72859.9	-55.1		
33.6	76152.0	-50.1		
30.0	78593.2	-51.4		
22.8	84580.5	-44.6		
20.0	87475.2	-45.9		
17.0	91076.9	-43.3		

STATION ALTITUDE 4126.59 FEET MSL
31 MAR. 61 0655 HRS MST
ASCENSION NO. 53

UPPER AIR DATA
0900010053
HOLLOMAN
TABLE 13

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
4126.6	876.4	5.6	-5.7	44.0	1093.4	651.0	30.0	4.1	1.000263
4500.0	864.4	11.2	-2.9	36.9	1056.7	657.7	12.4	6.4	1.000258
5000.0	844.8	10.5	-3.9	36.1	1040.3	656.8	2.7	9.8	1.000253
5500.0	833.1	9.3	-4.5	37.2	1025.3	655.4	358.2	13.4	1.000249
6000.0	817.6	8.2	-5.1	38.4	1010.6	654.0	353.1	13.4	1.000245
6500.0	802.5	7.0	-5.8	39.6	996.1	652.7	344.0	10.8	1.000241
7000.0	787.6	5.8	-6.5	40.7	981.8	651.3	327.0	9.0	1.000237
7500.0	773.1	4.6	-7.2	41.9	967.8	649.9	304.5	8.5	1.000233
8000.0	758.8	3.5	-7.9	43.0	954.0	648.5	289.0	10.6	1.000229
8500.0	744.7	2.3	-8.6	44.2	940.4	647.1	279.0	12.9	1.000225
9000.0	730.9	1.1	-9.4	45.3	927.0	645.7	271.7	14.8	1.000222
9500.0	717.4	-1	-10.1	46.5	913.8	644.3	268.9	16.6	1.000218
10000.0	704.1	-1.2	-10.9	47.6	900.8	642.9	267.6	18.2	1.000214
10500.0	690.8	-2.3	-12.7	44.3	887.3	641.6	271.6	22.3	1.000209
11000.0	677.7	-3.2	-15.2	38.9	873.7	640.4	274.4	26.6	1.000204
11500.0	664.8	-3.8	-18.6	30.4	859.2	639.6	276.5	31.3	1.000199
12000.0	652.1	-4.2	-22.5	22.3	844.0	639.1	277.6	35.1	1.000193
12500.0	639.6	-5.0	-23.8	21.1	830.5	638.1	277.7	36.9	1.000190
13000.0	627.3	-5.9	-25.1	20.1	817.3	637.0	277.0	38.4	1.000186
13500.0	614.9	-7.0	-25.8	20.7	804.7	635.7	275.5	39.3	1.000183
14000.0	602.8	-8.2	-26.4	21.3	792.3	634.3	272.9	39.7	1.000180
14500.0	590.9	-9.4	-27.1	21.9	780.1	632.9	269.8	40.0	1.000177
15000.0	579.3	-10.5	-27.8	22.5	768.1	631.5	268.0	40.2	1.000174
15500.0	567.9	-11.7	-28.5	23.1	756.3	630.1	266.6	40.4	1.000172
16000.0	556.7	-12.8	-29.2	23.7	744.7	628.7	268.1	40.2	1.000169
16500.0	545.7	-14.0	-30.0	24.3	733.3	627.3	269.1	40.0	1.000166
17000.0	534.9	-15.2	-30.7	24.9	722.1	625.8	269.1	39.4	1.000164
17500.0	524.4	-16.3	-31.5	25.5	711.1	624.4	268.5	39.8	1.000161
18000.0	514.1	-17.5	-32.2	26.2	700.2	623.0	267.1	41.1	1.000158
18500.0	503.9	-18.6	-33.0	26.8	689.6	621.6	264.2	43.7	1.000156
19000.0	493.8	-19.5	-33.9	26.3	678.1	620.5	260.9	46.7	1.000153
19500.0	483.8	-20.2	-35.0	25.2	666.2	619.7	257.9	49.1	1.000150
20000.0	474.0	-20.9	-36.0	24.2	654.4	618.8	255.1	51.5	1.000147
20500.0	464.2	-22.1	-36.8	24.8	644.0	617.3	253.4	53.6	1.000145
21000.0	454.5	-23.4	-37.6	25.6	633.9	615.7	251.9	55.6	1.000143
21500.0	445.1	-24.7	-38.4	26.5	624.0	614.1	251.0	57.5	1.000140
22000.0	435.8	-26.0	-39.2	27.4	614.2	612.5	250.3	59.1	1.000138
22500.0	426.8	-27.3	-40.1	28.3	604.6	610.9	251.4	59.1	1.000136
23000.0	417.9	-28.6	-40.9	29.2	595.2	609.3	252.5	59.0	1.000134
23500.0	409.2	-29.9	-41.8	30.0	585.9	607.7	252.3	57.9	1.000131

STATION ALTITUDE 4126.59 FEET MSL
31 MAR. 81 0655 HRS MST
ASCENSION NO. 53

UPPER AIR DATA
0900010053
HOLLOMAN

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

TABLE 13 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
24000.0	400.7	-31.2	-42.7	30.9	576.8	606.0	251.8	57.5	1.000129
24500.0	392.2	-31.8	-42.3	34.4	566.1	605.2	250.4	59.0	1.000127
25000.0	383.8	-32.8	-42.7	36.2	556.1	604.0	249.8	61.5	1.000125
25500.0	375.4	-34.0	-43.7	36.5	546.9	602.5	249.9	65.0	1.000123
26000.0	367.3	-35.3	-44.8	36.7	537.9	600.9	249.6	67.9	1.000121
26500.0	359.4	-36.5	-45.8	37.0	529.0	599.3	249.3	70.6	1.000118
27000.0	351.6	-37.8	-46.9	37.3	520.2	597.7	249.1	72.6	1.000116
27500.0	344.0	-39.0	-48.0	37.6	511.7	596.2	248.8	73.3	1.000115
28000.0	336.5	-40.2	-49.0	37.9	503.3	594.6	248.3	72.1	1.000113
28500.0	329.1	-40.6	-49.0	7.2**	493.0	594.1	247.6	68.9	1.000110
29000.0	321.8	-41.7	-49.0		484.3	592.7	247.2	66.5	1.000108
29500.0	314.6	-43.0	-49.0		476.2	591.1	247.1	65.7	1.000106
30000.0	307.6	-44.3	-49.0		468.2	589.4	246.9	65.2	1.000104
30500.0	300.7	-45.6	-49.0		460.3	587.7	246.6	64.6	1.000103
31000.0	293.9	-46.7	-49.0		452.1	586.2	245.8	63.4	1.000101
31500.0	287.1	-47.9	-49.0		444.0	584.7	245.1	63.0	1.000099
32000.0	280.5	-49.0	-49.0		436.0	583.2	244.4	63.1	1.000097
32500.0	274.1	-50.2	-49.0		428.1	581.7	244.1	63.4	1.000095
33000.0	267.8	-51.3	-49.0		420.5	580.2	243.7	63.7	1.000094
33500.0	261.6	-52.5	-49.0		412.9	578.7	243.9	65.0	1.000092
34000.0	255.6	-53.6	-49.0		405.6	577.2	244.3	66.5	1.000090
34500.0	249.7	-54.8	-49.0		398.3	575.7	244.4	67.3	1.000089
35000.0	243.8	-55.8	-49.0		390.8	574.4	244.5	67.7	1.000087
35500.0	238.1	-56.8	-49.0		383.4	573.0	244.4	67.3	1.000085
36000.0	232.4	-57.7	-49.0		375.8	571.9	243.7	65.0	1.000084
36500.0	226.9	-58.3	-49.0		364.6	573.6	243.0	62.7	1.000081
37000.0	221.5	-59.0	-49.0		357.1	572.7	242.3	62.4	1.000080
37500.0	216.2	-59.7	-49.0		349.7	571.8	241.6	62.1	1.000078
38000.0	211.1	-58.4	-49.0		342.5	570.9	242.3	65.4	1.000076
38500.0	206.1	-59.1	-49.0		335.4	569.9	243.2	69.5	1.000075
39000.0	201.2	-59.8	-49.0		328.5	569.0	244.5	73.1	1.000073
39500.0	196.3	-59.9	-49.0		320.7	568.9	246.1	76.5	1.000071
40000.0	191.6	-59.8	-49.0		312.9	569.1	247.4	79.2	1.000070
40500.0	187.0	-59.6	-49.0		305.2	569.3	248.0	78.8	1.000068
41000.0	182.6	-59.3	-49.0		297.3	569.8	248.7	78.4	1.000066
41500.0	178.2	-58.8	-49.0		289.6	570.4	248.8	76.8	1.000064
42000.0	174.0	-58.3	-49.0		282.1	571.0	248.6	74.7	1.000063
42500.0	169.8	-58.2	-49.0		275.2	571.2	248.4	73.0	1.000061
43000.0	165.8	-58.7	-49.0		269.3	570.5	248.2	71.7	1.000060
43500.0	161.8	-56.7	-49.0		260.4	573.1	248.2	71.1	1.000058

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

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

UPPER AIR DATA
0900010053
HOLLOMAN
TABLE 13 cont'

STATION ALTITUDE 4126.59 FEET MSL
31 MAR. 61 0655 HRS MST
ASCENSION NO. 53

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
44000.0	150.0	-56.8		254.4	573.0	248.6	72.1	1.000057
44500.0	154.2	-57.0		248.5	572.8	249.0	73.3	1.000055
45000.0	150.6	-57.1		242.8	572.7	249.9	75.9	1.000054
45500.0	147.0	-57.4		237.4	572.2	250.6	77.7	1.000053
46000.0	143.5	-57.8		232.1	571.7	250.7	76.0	1.000052
46500.0	140.1	-58.2		227.0	571.2	250.7	73.9	1.000051
47000.0	136.8	-58.6		222.0	570.7	250.1	69.4	1.000049
47500.0	133.5	-58.9		217.1	570.2	249.3	64.9	1.000048
48000.0	130.3	-59.3		212.3	569.7	248.2	62.0	1.000047
48500.0	127.2	-59.6		207.5	569.3	247.0	59.1	1.000046
49000.0	124.2	-59.6		202.5	569.3	246.3	59.7	1.000045
49500.0	121.2	-59.6		197.7	569.3	245.7	60.5	1.000044
50000.0	118.3	-59.6		193.0	569.3	245.5	62.6	1.000043
50500.0	115.5	-59.2		188.0	569.8	245.5	64.9	1.000042
51000.0	112.7	-58.6		183.0	570.6	245.5	66.6	1.000041
51500.0	110.0	-58.0		178.2	571.4	245.7	67.6	1.000040
52000.0	107.4	-58.2		174.0	571.2	245.9	68.4	1.000039
52500.0	104.8	-58.7		170.3	570.5	246.5	66.4	1.000038
53000.0	102.3	-59.3		166.7	569.7	247.1	64.4	1.000037
53500.0	99.9	-59.8		163.1	569.0	247.0	60.9	1.000036
54000.0	97.5	-60.1		159.4	568.6	248.7	56.7	1.000036
54500.0	95.1	-60.5		155.8	568.1	249.6	52.9	1.000035
55000.0	92.8	-60.8		152.3	567.7	250.3	50.0	1.000034
55500.0	90.6	-61.1		148.9	567.3	251.0	47.2	1.000033
56000.0	88.4	-61.5		145.5	566.8	250.7	45.4	1.000032
56500.0	86.3	-61.8		142.2	566.4	250.1	43.8	1.000032
57000.0	84.2	-62.1		139.0	565.9	248.8	43.0	1.000031
57500.0	82.2	-62.4		135.9	565.5	246.5	43.3	1.000030
58000.0	80.2	-62.4		132.6	565.5	244.2	43.4	1.000030
58500.0	78.3	-62.1		129.1	566.0	241.5	44.9	1.000029
59000.0	76.4	-61.7		125.8	566.5	238.8	46.3	1.000028
59500.0	74.5	-61.3		122.6	567.0	236.7	46.1	1.000027
60000.0	72.7	-61.0		119.4	567.5	235.1	42.5	1.000027
60500.0	71.0	-60.6		116.3	568.0	233.2	39.0	1.000026
61000.0	69.3	-60.2		113.3	568.5	234.3	32.4	1.000025
61500.0	67.6	-59.7		110.3	569.2	237.3	25.8	1.000025
62000.0	66.0	-59.2		107.5	569.8	241.7	19.6	1.000024
62500.0	64.4	-58.7		104.7	570.5	240.8	18.2	1.000023
63000.0	62.9	-58.3		102.0	571.0	240.0	17.2	1.000023
63500.0	61.4	-58.4		99.6	571.0	242.6	17.2	1.000022

STATION ALTITUDE 4126.59 FEET ASL
31 MAR. 41 0655 HRS MST
ASCENSION NO. 53

UPPER AIR DATA
0900010055
HOLLOWMAN
TABLE 13 cont'

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIR. CTN DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
64000.0	59.9	-58.4		97.2	570.9	256.7	18.1	1.000022
64500.0	58.5	-58.5		94.9	570.8	251.5	19.2	1.000021
65000.0	57.1	-58.5		92.7	570.7	243.9	20.4	1.000021
65500.0	55.8	-58.6		90.5	570.7	236.5	21.9	1.000020
66000.0	54.4	-59.3		88.6	569.8	231.2	23.8	1.000020
66500.0	53.1	-60.2		86.9	568.6	229.6	25.9	1.000019
67000.0	51.8	-61.1		85.1	567.3	228.2	28.0	1.000019
67500.0	50.6	-62.0		83.5	566.1	226.6	26.9	1.000019
68000.0	49.4	-61.5		81.3	566.8	224.5	24.5	1.000018
68500.0	48.2	-59.7		78.7	569.2	222.6	21.9	1.000018
69000.0	47.1	-57.9		76.2	571.5	224.0	18.3	1.000017
69500.0	46.0	-56.2		73.8	573.9	226.1	14.7	1.000016
70000.0	44.9	-54.4		71.5	576.2	233.7	13.0	1.000016
70500.0	43.8	-52.6		69.2	578.5	244.5	12.8	1.000015
71000.0	42.8	-53.1		67.7	577.9	255.4	13.0	1.000015
71500.0	41.8	-53.7		65.3	577.2	260.3	13.5	1.000015
72000.0	40.8	-54.2		64.9	576.5	264.2	14.1	1.000014
72500.0	39.9	-54.7		63.6	575.8	267.5	14.7	1.000014
73000.0	38.9	-54.9		62.2	575.6	266.3	14.7	1.000014
73500.0	38.0	-54.1		60.5	576.6	265.2	14.8	1.000013
74000.0	37.2	-53.4		58.9	577.6	264.0	14.6	1.000013
74500.0	36.3	-52.6		57.3	578.5	262.8	13.5	1.000013
75000.0	35.5	-51.8		55.8	579.5	261.3	12.5	1.000012
75500.0	34.6	-51.1		54.3	580.5	260.3	10.9	1.000012
76000.0	33.8	-50.3		52.9	581.5	260.6	8.5	1.000012
76500.0	33.1	-50.3		51.7	581.6	261.1	6.1	1.000012
77000.0	32.3	-50.6		50.6	581.2	259.7	4.2	1.000011
77500.0	31.6	-50.8		49.5	580.9	253.3	2.8	1.000011
78000.0	30.8	-51.1		48.4	580.5	236.0	1.6	1.000011
78500.0	30.1	-51.4		47.3	580.2	213.9	1.5	1.000011
79000.0	29.4	-50.9		46.2	580.7	208.4	2.0	1.000010
79500.0	28.8	-50.4		45.0	581.5	205.2	2.5	1.000010
80000.0	28.1	-49.8		43.9	582.2	209.1	2.9	1.000010
80500.0	27.5	-49.2		42.8	583.0	217.1	3.2	1.000010
81000.0	26.9	-48.7		41.7	583.7	223.5	3.6	1.000009
81500.0	26.3	-48.1		40.6	584.4	231.6	3.9	1.000009
82000.0	25.7	-47.5		39.6	585.2	242.1	4.1	1.000009
82500.0	25.1	-47.0		38.6	585.9	250.9	4.5	1.000009
83000.0	24.5	-46.4		37.7	586.6	258.1	4.7	1.000008
83500.0	24.0	-45.8		36.7	587.4	264.9	4.5	1.000008

STATION ALTITUDE 4126.59 FEET MSL
31 MAR. 61 0655 HRS MST
ASCENSION NO. 53

UPPLR AIR DATA

0900010053

HOLLOMAN

TABLE 13 cont'

GEODETIC COORDINATES
32.08865 LAT DEG
106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (IN)	SPEED KNOTS	
8400.0	23.4	-45.3		35.8	548.1	272.3	4.4	1.000008
8450.0	22.9	-44.7		34.9	548.8	277.0	4.1	1.000008
8500.0	22.4	-44.8		34.1	548.7	277.0	3.2	1.000008
8550.0	21.9	-45.0		33.4	548.4	276.0	2.4	1.000007
8600.0	21.4	-45.2		32.7	548.1	269.3	1.7	1.000007
8650.0	20.9	-45.5		32.0	547.8	245.8	2.1	1.000007
8700.0	20.4	-45.7		31.3	547.6	231.9	2.6	1.000007
8750.0	20.0	-45.9		30.6	547.3	224.5	3.6	1.000007
8800.0	19.5	-45.5		29.9	547.8	232.4	5.0	1.000007
8850.0	19.1	-45.2		29.2	548.2	236.8	6.5	1.000006
8900.0	18.7	-44.8		28.5	548.7	239.5	8.0	1.000006
8950.0	18.3	-44.4		27.8	549.2			1.000006
9000.0	17.8	-44.1		27.1	549.6			1.000006
9050.0	17.4	-43.7		26.5	549.1			1.000006
9100.0	17.1	-43.4		25.9	549.6			1.000006

STATION ALTITUDE 4126.59 FEET MSL
31 MAR. 1951
ASCENSION NO. 53

MANDATORY LEVELS
0900010053
HOLLOMAN

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

TABLE 14

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4958.	10.6	-3.8	36.	3.2	4.6
800.0	6603.	6.8	-5.9	40.	341.3	10.4
750.0	8330.	2.7	-8.4	44.	282.0	12.3
700.0	10147.	-1.6	-11.1	48.	269.0	19.4
650.0	12072.	-4.3	-22.7	22.	277.7	35.3
600.0	14126.	-8.5	-26.6	21.	272.1	39.8
550.0	16319.	-13.5	-29.7	24.	269.0	40.1
500.0	18672.	-19.1	-33.3	27.	262.9	44.8
450.0	21223.	-24.0	-38.0	26.	251.4	56.5
400.0	24002.	-31.3	-42.8	31.	251.7	57.6
350.0	27067.	-38.0	-47.1	37.	249.0	73.0
300.0	30496.	-45.7			246.5	64.5
250.0	34403.	-54.7			244.4	67.2
200.0	39029.	-60.0			244.8	73.8
175.0	41771.	-58.4			248.7	75.3
150.0	44965.	-57.1			250.0	76.2
125.0	48725.	-59.6			246.5	59.5
100.0	53317.	-59.8			247.7	61.3
80.0	57861.	-62.4			244.1	43.8
70.0	60578.	-60.4			233.2	36.3
60.0	63750.	-58.4			257.3	18.0
50.0	67491.	-62.4			225.7	25.9
40.0	72149.	-54.6			267.0	14.6
30.0	78262.	-51.4			213.1	1.5
25.0	82187.	-46.9			251.1	4.5
20.0	87070.	-45.9			224.5	3.4

STATION ALTITUDE 4051.00 FEET MSL
31 MAR. 81 0655 HRS MST
ASCENSION NO. 17

SIGNIFICANT LEVEL DATA
0900030017
JALLEN
TABLE 15

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
878.6	4051.0	6.8	-9.1	31.0
863.4	4524.1	8.7	-3.2	40.0
850.0	4949.8	8.7	-4.1	40.0
745.2	8480.6	1.9	-10.2	40.0
700.0	10126.9	-2.1	-12.7	44.0
649.8	12053.1	-6.9	-16.0	48.0
640.2	12434.6	-7.3	-23.0	27.0
631.2	12797.1	-7.3	-24.6	23.0
585.8	14697.5	-10.3	-26.9	24.0
500.0	18637.3	-19.5	-32.6	30.0
427.6	22396.8	-27.9	-36.8	34.0
400.0	23963.9	-31.0	-38.2	49.0
328.0	28495.8	-41.5	-49.7	40.0
300.0	30466.4	-46.7		
273.0	32504.0	-51.5		

STATION ALTITUDE 4051.00 FEET MSL
 31 MAR. 61 0655 HRS MST
 ASCENSION NO. 17

UPPER AIR DATA
 0900030017
 JALLEN
 TABLE 16

GEODETIC COORDINATES
 33.1671° LAT DEG
 106.4951° LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
4051.0	878.6	6.8	-9.1	31.0	1091.9	652.3	360.0	1.9	1.000258
4500.0	864.2	9.6	-3.5	39.5	1062.7	655.7	338.3	2.3	1.000259
5000.0	848.4	8.6	-4.2	40.0	1046.9	654.6	322.6	3.0	1.000255
5500.0	832.7	7.6	-5.1	40.0	1031.2	653.4	313.1	3.7	1.000250
6000.0	817.4	6.7	-5.9	40.0	1015.7	652.3	307.0	4.6	1.000245
6500.0	802.3	5.7	-6.8	40.0	1000.5	651.1	305.0	6.6	1.000241
7000.0	787.5	4.8	-7.7	40.0	985.5	650.0	303.9	8.7	1.000236
7500.0	772.9	3.8	-8.5	40.0	970.8	648.8	291.1	10.3	1.000232
8000.0	758.7	2.8	-9.4	40.0	956.2	647.7	280.2	12.4	1.000228
8500.0	744.7	1.9	-10.3	40.0	942.0	646.5	270.3	14.3	1.000224
9000.0	730.6	.6	-11.0	41.3	928.4	645.1	261.0	16.2	1.000220
9500.0	716.9	-6	-11.7	42.5	915.0	643.6	256.3	18.4	1.000217
10000.0	703.4	-1.8	-12.5	43.7	901.9	642.2	255.0	20.4	1.000213
10500.0	690.0	-3.0	-13.3	44.8	888.8	640.7	256.3	22.6	1.000209
11000.0	676.8	-4.3	-14.2	45.8	875.9	639.2	262.1	25.2	1.000206
11500.0	663.8	-5.5	-15.1	46.9	863.2	637.7	266.9	27.9	1.000202
12000.0	651.1	-6.8	-15.9	47.9	850.7	636.2	271.9	31.0	1.000199
12500.0	638.6	-7.3	-23.3	26.3	836.3	635.4	276.0	34.3	1.000191
13000.0	626.2	-7.6	-25.0	23.1	821.1	635.0	277.4	36.7	1.000187
13500.0	614.0	-8.4	-25.6	23.4	807.6	634.0	278.5	39.1	1.000184
14000.0	602.1	-9.2	-26.2	23.6	794.3	633.1	276.4	41.2	1.000181
14500.0	590.4	-10.0	-26.7	23.9	781.2	632.1	274.1	43.2	1.000178
15000.0	578.7	-11.0	-27.3	24.5	768.7	630.9	271.0	43.5	1.000175
15500.0	567.2	-12.2	-28.0	25.2	756.8	629.5	268.6	43.5	1.000172
16000.0	555.9	-13.3	-28.7	26.0	745.1	628.1	267.6	42.7	1.000169
16500.0	544.9	-14.5	-29.4	26.7	733.6	626.8	267.3	42.4	1.000166
17000.0	534.0	-15.7	-30.1	27.5	722.3	625.2	267.8	43.1	1.000164
17500.0	523.4	-16.8	-30.9	28.3	711.1	623.8	268.5	43.2	1.000161
18000.0	513.0	-18.0	-31.6	29.0	700.2	622.4	269.4	42.8	1.000158
18500.0	502.8	-19.2	-32.4	29.8	689.4	620.9	270.0	43.5	1.000156
19000.0	492.5	-20.3	-33.2	30.4	678.4	619.6	270.3	45.2	1.000153
19500.0	482.4	-21.4	-34.0	30.9	667.4	618.2	266.2	48.1	1.000151
20000.0	472.4	-22.5	-34.8	31.4	656.6	616.8	260.5	52.2	1.000148
20500.0	462.7	-23.7	-35.6	32.0	645.9	615.4	256.3	55.3	1.000146
21000.0	453.2	-24.8	-36.5	32.5	635.5	614.0	252.8	58.1	1.000143
21500.0	443.9	-25.9	-37.3	33.0	625.2	612.6	252.9	60.3	1.000141
22000.0	434.7	-27.0	-38.2	33.6	615.2	611.3	254.2	62.2	1.000138
22500.0	425.7	-28.1	-38.7	35.0	605.1	609.9	254.4	63.8	1.000136
23000.0	416.8	-29.1	-38.4	39.8	594.8	608.7	254.1	65.3	1.000134
23500.0	408.0	-30.1	-38.2	44.6	584.6	607.4	254.3	66.8	1.000132

STATION ALTITUDE 4051.00 FEET MSL
 31 MAR. 61 0655 HRS MST
 ASCENSION NO. 17

UPPER AIR DATA
 0900030017
 JALLEN
 TABLE 16 cont'

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
24000.0	399.4	-31.1	48.9	574.6	606.2	254.0	68.2	1.000129
24500.0	390.7	-32.2	47.9	564.9	604.7	255.2	69.0	1.000127
25000.0	382.3	-33.4	46.9	555.3	603.3	256.0	69.5	1.000125
25500.0	374.0	-34.6	45.9	546.0	601.8	256.0	68.9	1.000123
26000.0	365.9	-35.7	45.0	536.8	600.3	257.1	68.1	1.000120
26500.0	356.0	-36.9	44.0	527.7	598.9	256.6	67.7	1.000118
27000.0	350.2	-38.0	43.0	518.8	597.4	256.0	67.3	1.000116
27500.0	342.6	-39.2	42.0	510.1	595.9	254.6	67.5	1.000114
28000.0	335.2	-40.4	41.0	501.6	594.4	253.3	68.1	1.000112
28500.0	327.9	-41.5	39.9**	493.2	592.9	251.0	69.7	1.000110
29000.0	320.6	-42.8	29.8**	484.9	591.2	250.5	71.1	1.000108
29500.0	313.4	-44.1	19.6**	476.8	589.5	249.4	72.0	1.000106
30000.0	306.4	-45.5	9.5**	468.8	587.8	248.4	72.7	1.000104
30500.0	299.5	-46.8		461.0	586.1	247.8	73.0	1.000103
31000.0	292.7	-48.0		452.8	584.6	247.3	74.1	1.000101
31500.0	286.0	-49.1		444.7	583.1	247.0	76.0	1.000099
32000.0	279.4	-50.3		436.9	581.6			1.000097
32500.0	273.1	-51.5		429.1	580.0			1.000096

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

STATION ALTITUDE 4051.00 FEET MSL
31 MAR. 61 0655 HRS MST
ASCENSION 110. 17

MANDATORY LEVELS

0900030017

JALLEN

TABLE 17

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		HPT HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4946.	8.7	-4.1	40.	323.9	2.9
800.0	6582.	5.6	-6.9	40.	304.8	7.0
750.0	8303.	2.2	-9.9	40.	274.5	13.7
700.0	10118.	-2.1	-12.7	44.	254.7	20.9
650.0	12033.	-6.9	-16.0	48.	272.3	31.3
600.0	14074.	-9.3	-26.3	24.	276.0	41.5
550.0	16263.	-14.0	-29.1	26.	267.1	42.2
500.0	18613.	-19.5	-32.6	30.	270.1	44.0
450.0	21153.	-25.2	-36.8	33.	252.0	54.1
400.0	23926.	-31.0	-38.2	49.	254.6	68.1
350.0	26989.	-38.1	-45.9	43.	255.9	67.3
300.0	30409.	-46.7			247.8	73.0

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

STATION ALTITUDE 4051.00 FEET MSL
31 MAR. 61 0918 HRS NST
ASCENSION NO. 18

SIGNIFICANT LEVEL DATA
0900030018
JALLEN
TABLE 18

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

PRESSURE	GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
879.6	4051.0	13.9	-10.7	17.0
870.0	4353.4	11.9	-3.4	34.0
850.0	4989.9	9.8	-5.3	34.0
726.2	9206.1	-2	-10.4	46.0
700.0	10169.7	-1.7	-15.5	34.0
651.6	12024.7	-4.7	-22.1	24.0
598.2	14227.8	-8.5	-24.5	26.0
500.0	18701.7	-19.8	-32.2	32.0
466.8	20365.6	-23.8	-34.3	37.0
451.2	21180.6	-24.8	-35.5	36.0
400.0	24026.1	-31.2	-42.4	32.0
338.2	27869.7	-39.9	-50.4	31.0
300.0	30526.9	-46.5		
250.0	34429.5	-55.9		
216.8	37386.2	-60.2		
207.4	38300.0	-58.8		
200.0	39049.9	-59.7		
197.8	39277.7	-59.8		
184.0	40785.0	-54.6		
175.2	41814.8	-56.3		
150.0	45070.4	-55.7		
106.8	52094.8	-62.4		
100.0	53437.4	-61.5		
91.0	55366.5	-61.5		
76.0	59118.9	-53.8		
70.0	60851.3	-56.8		
56.8	65144.1	-64.7		
50.0	67782.5	-53.9		
43.4	70776.8	-55.3		
40.8	72084.0	-53.8		
35.2	75220.9	-53.6		
30.0	78652.4	-49.4		
24.4	83151.6	-47.4		

STATION ALTITUDE 4051.00 FEET MSL
31 MAR. 61 0918 HRS MST
ASCENSION NO. 18

UPPER AIR DATA
090003001b
JALLEN
TABLE 19

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
4051.0	879.6	13.9	-10.7	17.0	1066.3	640.4	270.0	1.9	1.000250
4500.0	865.4	11.4	-3.9	34.0	1057.2	647.8	286.4	1.6	1.000257
5000.0	849.7	9.8	-5.3	34.0	1044.3	655.9	310.5	1.5	1.000252
5500.0	834.0	8.6	-5.8	35.5	1029.3	654.5	332.7	1.7	1.000248
6000.0	818.5	7.4	-6.4	36.9	1014.6	653.1	323.0	3.1	1.000244
6500.0	803.4	6.2	-6.9	38.3	1000.1	641.7	308.0	4.5	1.000240
7000.0	788.5	5.0	-7.5	39.7	985.8	650.3	291.9	6.3	1.000237
7500.0	774.0	3.8	-8.1	41.1	971.8	648.9	273.5	8.1	1.000233
8000.0	759.6	2.7	-8.8	42.6	958.0	647.5	259.8	10.6	1.000229
8500.0	745.6	1.5	-9.4	44.0	944.4	646.1	252.6	13.8	1.000225
9000.0	731.8	.3	-10.1	45.4	931.0	644.7	249.4	17.1	1.000222
9500.0	718.1	-7	-11.8	42.3	916.9	643.5	256.5	19.7	1.000217
10000.0	704.5	-1.4	-14.5	36.1	902.3	642.5	264.2	22.6	1.000211
10500.0	691.2	-2.2	-16.6	32.2	887.9	641.5	273.5	26.1	1.000206
11000.0	678.0	-3.0	-18.3	29.5	873.7	640.5	278.7	28.9	1.000202
11500.0	665.1	-3.9	-20.1	26.8	859.8	639.5	282.0	31.1	1.000198
12000.0	652.4	-4.7	-22.0	24.1	846.0	638.5	282.1	32.6	1.000194
12500.0	639.8	-5.5	-22.6	24.4	832.4	637.5	281.5	34.0	1.000191
13000.0	627.5	-6.4	-23.2	24.9	819.0	636.5	278.1	37.1	1.000187
13500.0	615.4	-7.2	-23.7	25.3	805.8	635.4	275.0	39.7	1.000184
14000.0	603.5	-8.1	-24.3	25.8	792.8	634.4	271.0	40.8	1.000181
14500.0	591.7	-9.2	-24.9	26.4	780.5	633.1	267.6	41.7	1.000178
15000.0	580.0	-10.5	-25.6	27.0	768.7	631.6	265.1	42.2	1.000175
15500.0	568.5	-11.7	-26.6	27.7	757.1	630.1	264.1	42.8	1.000172
16000.0	557.2	-13.0	-27.4	28.4	745.7	628.5	264.5	43.3	1.000170
16500.0	546.1	-14.2	-28.3	29.0	734.5	627.0	265.1	42.9	1.000167
17000.0	535.3	-15.5	-29.2	29.7	723.5	625.4	266.1	41.9	1.000164
17500.0	524.7	-16.8	-30.0	30.4	712.6	623.9	266.0	41.7	1.000162
18000.0	514.3	-18.0	-30.9	31.1	702.0	622.4	264.9	42.2	1.000159
18500.0	504.1	-19.3	-31.8	31.7	691.5	620.8	263.1	44.2	1.000156
19000.0	493.9	-20.5	-32.6	32.9	680.0	619.3	261.1	46.9	1.000154
19500.0	483.8	-21.7	-33.2	34.4	670.1	617.8	259.7	49.5	1.000151
20000.0	473.9	-22.9	-33.8	35.9	659.6	616.3	258.5	52.2	1.000149
20500.0	464.2	-24.0	-34.5	36.8	648.8	615.1	258.7	53.3	1.000146
21000.0	454.6	-24.6	-35.2	36.2	637.0	614.3	259.1	54.4	1.000144
21500.0	445.1	-25.5	-36.3	35.6	626.1	613.1	260.0	55.2	1.000141
22000.0	435.8	-26.6	-37.5	34.8	615.8	611.7	260.6	56.1	1.000139
22500.0	426.7	-27.8	-38.7	34.1	605.7	610.3	260.8	57.3	1.000136
23000.0	417.8	-28.9	-39.9	33.4	595.7	608.9	260.4	58.6	1.000134
23500.0	409.0	-30.0	-41.1	32.7	585.9	607.5	259.5	60.2	1.000132

STATION ALTITUDE 4051.00 FEET MSL
31 MAR. 81 0914 HRS MST
ASCENSION NO. 18

UPPER AIR DATA

0900030010

JALLEN

TABLE 19 cont'

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
24000.0	400.4	-31.1	32.0	576.3	606.1	258.4	61.6	1.000129
24500.0	391.8	-32.3	31.9	566.6	604.7	257.1	62.9	1.000127
25000.0	383.3	-33.4	31.7	557.0	603.2	256.4	64.0	1.000125
25500.0	375.1	-34.5	31.6	547.5	601.8	255.9	65.1	1.000123
26000.0	367.0	-35.7	31.5	538.3	600.4	255.3	66.3	1.000120
26500.0	359.0	-36.8	31.4	529.2	599.0	254.7	67.7	1.000118
27000.0	351.3	-37.9	31.2	520.2	597.5	253.3	68.7	1.000116
27500.0	343.7	-39.1	31.1	511.5	596.1	251.7	69.5	1.000114
28000.0	336.2	-40.2	29.5**	502.8	594.6	250.0	70.2	1.000112
28500.0	328.7	-41.5	23.6**	494.2	593.0	248.4	70.8	1.000110
29000.0	321.4	-42.7	17.8**	485.8	591.4	247.6	70.7	1.000108
29500.0	314.2	-43.9	12.0**	477.6	589.8	247.3	70.1	1.000106
30000.0	307.2	-45.2	6.1**	469.5	588.2	247.5	69.4	1.000105
30500.0	300.4	-46.4	.3**	461.5	586.6	248.0	68.5	1.000103
31000.0	293.4	-47.6		453.3	585.0	248.4	69.0	1.000101
31500.0	286.7	-48.8		445.2	583.5	248.7	70.5	1.000099
32000.0	280.0	-50.0		437.3	581.9	248.8	72.3	1.000097
32500.0	273.6	-51.3		429.5	580.3	248.9	74.4	1.000096
33000.0	267.3	-52.5		421.9	578.7	249.3	75.8	1.000094
33500.0	261.1	-53.7		414.4	577.2	249.9	76.2	1.000092
34000.0	255.1	-54.9		407.1	575.6	250.7	76.5	1.000091
34500.0	249.2	-56.0		399.7	574.1	251.8	76.6	1.000089
35000.0	243.2	-56.7		391.5	573.1	252.7	76.7	1.000087
35500.0	237.4	-57.5		383.5	572.2	253.0	76.9	1.000085
36000.0	231.8	-58.2		375.6	571.2	253.1	77.0	1.000084
36500.0	226.3	-58.9		367.9	570.2	252.4	76.4	1.000082
37000.0	220.9	-59.6		360.4	569.3	251.6	75.8	1.000080
37500.0	215.6	-60.0		352.4	568.7	250.9	74.6	1.000078
38000.0	210.4	-59.3		342.7	569.8	250.2	73.4	1.000076
38500.0	205.4	-59.0		334.2	570.1	250.0	72.7	1.000074
39000.0	200.5	-59.6		327.1	569.3	249.8	71.9	1.000073
39500.0	195.7	-59.0		318.4	570.1	249.9	71.0	1.000071
40000.0	191.1	-57.3		308.4	572.4	250.0	70.0	1.000069
40500.0	186.5	-55.6		298.7	574.6	250.3	68.5	1.000067
41000.0	182.1	-55.0		290.8	575.5	250.6	67.0	1.000065
41500.0	177.8	-55.8		285.0	574.4	250.8	66.0	1.000063
42000.0	173.7	-56.3		278.9	573.7	251.0	65.5	1.000062
42500.0	169.6	-56.2		272.2	573.9	251.2	64.9	1.000061
43000.0	165.6	-56.1		265.7	574.0	251.1	64.3	1.000059
43500.0	161.7	-56.0		259.3	574.1	251.1	63.6	1.000058

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

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

UPPER AIR DATA
0900030016
JALLEN
TABLE 19 cont'

STATION ALTITUDE 4051.00 FEET MSL
31 MAR. 81 0918 URS MST
ASCENSION I.O. 18

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	
44000.0	157.9	-55.9			253.1	574.2	251.1	62.5	1.000056
44500.0	154.1	-55.8			247.1	574.3	251.2	61.1	1.000055
45000.0	150.5	-55.7			241.1	574.5	251.4	60.0	1.000054
45500.0	146.9	-56.1			235.8	573.9	252.1	60.0	1.000053
46000.0	143.4	-56.6			230.7	573.3	252.9	60.0	1.000051
46500.0	140.0	-57.1			225.7	572.7	250.9	62.2	1.000050
47000.0	136.6	-57.5			220.8	572.0	248.7	64.7	1.000049
47500.0	133.4	-58.0			216.0	571.4	246.2	67.0	1.000048
48000.0	130.2	-58.5			211.3	570.8	243.3	69.0	1.000047
48500.0	127.1	-59.0			206.7	570.1	240.6	71.1	1.000046
49000.0	124.0	-59.4			202.2	569.5	240.1	71.6	1.000045
49500.0	121.1	-59.9			197.8	568.9	241.4	70.5	1.000044
50000.0	118.2	-60.4			193.5	568.2	242.6	69.5	1.000043
50500.0	115.4	-60.9			189.3	567.6	245.5	69.5	1.000042
51000.0	112.6	-61.4			185.2	567.0	248.6	70.1	1.000041
51500.0	109.9	-61.8			181.2	566.3	251.3	70.8	1.000040
52000.0	107.3	-62.3			177.3	565.7	252.2	72.0	1.000039
52500.0	104.7	-62.1			172.8	565.9	253.0	73.2	1.000038
53000.0	102.2	-61.8			168.4	566.4	253.7	72.1	1.000038
53500.0	99.7	-61.5			164.1	566.8	254.2	68.5	1.000037
54000.0	97.3	-61.5			160.1	566.8	254.7	65.0	1.000036
54500.0	94.9	-61.5			156.3	566.8	255.0	61.6	1.000035
55000.0	92.6	-61.5			152.5	566.8	255.2	58.2	1.000034
55500.0	90.4	-61.2			148.6	567.1	255.1	55.7	1.000033
56000.0	88.3	-60.2			144.4	568.5	254.1	54.9	1.000032
56500.0	86.2	-59.2			140.3	569.9	253.2	54.1	1.000031
57000.0	84.1	-58.1			136.3	571.2	252.0	51.7	1.000030
57500.0	82.1	-57.1			132.5	572.6	250.7	48.9	1.000030
58000.0	80.2	-56.1			128.7	574.0	249.5	45.6	1.000029
58500.0	78.3	-55.1			125.1	575.3	248.7	41.3	1.000028
59000.0	76.4	-54.0			121.5	576.7	247.7	37.1	1.000027
59500.0	74.6	-54.5			118.9	578.1	246.4	31.6	1.000026
60000.0	72.9	-55.3			116.6	579.0	244.5	25.9	1.000026
60500.0	71.2	-56.2			114.3	573.8	241.4	20.7	1.000025
61000.0	69.5	-57.1			112.0	572.7	236.3	16.2	1.000025
61500.0	67.8	-58.0			109.8	571.4	227.5	11.9	1.000024
62000.0	66.2	-58.9			107.6	570.2	220.7	10.2	1.000024
62500.0	64.6	-59.8			105.5	569.0	220.7	10.5	1.000023
63000.0	63.0	-60.8			103.4	567.8	220.6	10.7	1.000023
63500.0	61.5	-61.7			101.4	566.5	226.4	12.9	1.000023

STATION ALTITUDE 4051.00 FEET MSL
31 MAR. 81 0918 HRS NST
ASCENSION NO. 18

UPPER AIR DATA
0900030010
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 19 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(TN))	SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.1	-62.6		99.4	565.3	231.6	15.9	1.000022
64500.0	58.6	-63.5		97.4	564.1	235.1	18.9	1.000022
65000.0	57.2	-64.4		95.5	562.8	236.7	22.7	1.000021
65500.0	55.8	-63.2		92.7	564.4	237.9	26.5	1.000021
66000.0	54.5	-61.2		89.6	567.2	238.7	30.3	1.000020
66500.0	53.2	-59.1		86.6	569.9	239.9	33.1	1.000019
67000.0	51.9	-57.1		83.7	572.6	240.9	35.9	1.000019
67500.0	50.7	-55.1		81.0	575.3			1.000018
68000.0	49.5	-54.0		78.7	576.7			1.000018
68500.0	48.3	-54.2		76.9	576.4			1.000017
69000.0	47.2	-54.5		75.2	576.1			1.000017
69500.0	46.1	-54.7		73.5	575.8			1.000016
70000.0	45.0	-54.9		71.9	575.5			1.000016
70500.0	44.0	-55.2		70.3	575.2			1.000016
71000.0	42.9	-55.0		68.6	575.3			1.000015
71500.0	41.9	-54.5		66.8	576.1			1.000015
72000.0	41.0	-53.9		65.1	576.9			1.000014
72500.0	40.0	-53.8		63.5	577.0			1.000014
73000.0	39.1	-53.7		62.0	577.1			1.000014
73500.0	38.2	-53.7		60.6	577.1			1.000013
74000.0	37.3	-53.7		59.2	577.1			1.000013
74500.0	36.4	-53.6		57.8	577.2			1.000013
75000.0	35.6	-53.6		56.4	577.2			1.000013
75500.0	34.7	-53.3		55.0	577.7			1.000012
76000.0	33.9	-52.6		53.6	578.5			1.000012
76500.0	33.2	-52.0		52.2	579.3			1.000012
77000.0	32.4	-51.4		50.9	580.1			1.000011
77500.0	31.7	-50.8		49.6	580.9			1.000011
78000.0	30.9	-50.2		48.3	581.7			1.000011
78500.0	30.2	-49.6		47.1	582.5			1.000010
79000.0	29.5	-49.2		45.9	582.9			1.000010
79500.0	28.9	-49.0		44.8	583.2			1.000010
80000.0	28.2	-48.8		43.8	583.5			1.000010
80500.0	27.6	-48.6		42.8	583.8			1.000010
81000.0	26.9	-48.4		41.7	584.1			1.000009
81500.0	26.3	-48.1		40.8	584.4			1.000009
82000.0	25.7	-47.9		39.8	584.7			1.000009
82500.0	25.1	-47.7		38.8	585.0			1.000009
83000.0	24.6	-47.5		37.9	585.3			1.000008

STATION ALTITUDE 4051.00 FEET MSL
31 MAR. 81 0914 HRS MST
ASCENSION NO. 18

MANDATORY LEVELS
0900030014
JALLEN
TABLE 20

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		HUMIDITY PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4987.	9.8	-5.3	34.	309.8	1.5
800.0	6627.	5.9	-7.1	39.	302.8	4.9
750.0	8348.	1.8	-9.2	44.	254.3	12.8
700.0	10160.	-1.7	-15.5	34.	267.6	23.7
650.0	12084.	-4.8	-22.2	24.	282.0	32.8
600.0	14135.	-8.4	-24.4	26.	269.9	41.1
550.0	16328.	-13.8	-28.0	29.	264.8	43.3
500.0	18677.	-19.8	-32.2	32.	262.3	45.2
450.0	21214.	-24.9	-35.6	36.	259.5	54.8
400.0	23988.	-31.2	-42.4	32.	258.3	61.7
350.0	27049.	-38.1	-48.8	31.	253.0	68.8
300.0	30469.	-46.5			248.1	68.5
250.0	34358.	-55.0			251.6	76.5
200.0	38960.	-59.7			249.8	71.9
175.0	41737.	-56.3			250.9	65.7
150.0	44954.	-55.7			251.4	60.0
125.0	48732.	-59.3			239.7	71.9
100.0	53278.	-61.5			254.1	69.1
80.0	57850.	-56.0			249.5	45.5
70.0	62648.	-56.8			238.4	17.8
60.0	63810.	-62.6			231.6	15.9
50.0	67534.	-53.9				
40.0	72222.	-53.8				
30.0	78323.	-49.4				
25.0	82259.	-47.6				

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