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20405BT ASSAULT BREAKER MISSILE NUMBER 0009 ROUND
NUMBER M9G6 30 NOVEMBER 1982(U) ARMY ELECTRONICS
RESEARCH AND DEVELOPMENT COMMAND WSMR NM ATM..

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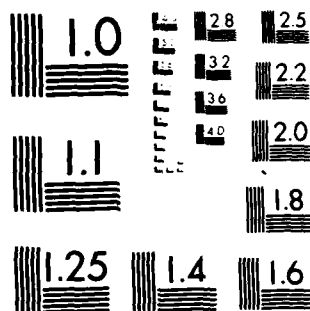
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METEOROLOGICAL DATA REPORT

20405BT ASSAULT BREAKER

Missile Number 0009

Round Number M9G6

30 November 1982

by

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) -Meteorological data gathered for the launching of the 20405BT ASSAULT BREAKER, Missile Number 0009, Round Number M9G6 are presented in tabular form.		

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INTRODUCTION

20405BT ASSAULT BREAKER, Missile Number 0009, Round Number M9G6, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0851:15 MST. 30 Nov 82. The scheduled launch time was 0830 MST.

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 to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from pilot-balloon observations at:

<u>SITE</u>	<u>ALTITUDE</u>	<u>TIME</u>
WSD	2760 Meters	0842 MST
WSD	3000 Meters	0851 MST
JALLEN	3000 Meters	0800 MST
JALLEN	3000 Meters	0900 MST

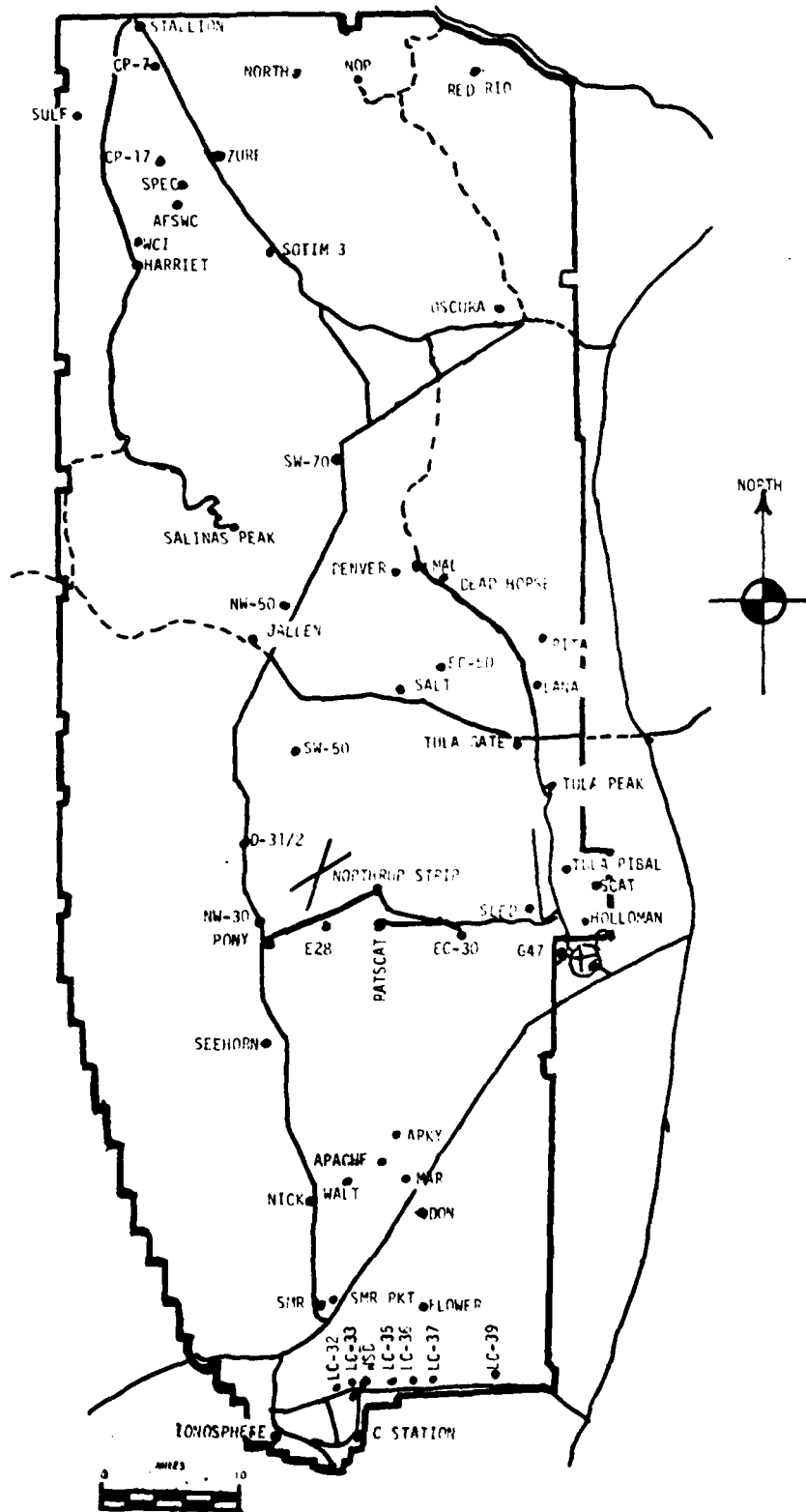
(2) Air structure data (rawinsonde) were collected at the following Met Sites.

<u>SITE AND TIME</u>	
JALLEN	0600 MST
HOLLOMAN	0730 MST
LC-37	0730 MST
WSD	0850 MST
JALLEN	0855 MST



A-23

WSMR METEOROLOGICAL SITES



LC-33
Launch Area

100

170. 2. 50 ft

Y102, 5.50

100
Tower

○ Sugar

1570

-357-

○ How to get a job

Department of Health and Human Services

- 459 -

U-5017

1000

LINE OF FIRE

1-000

PROJECT SURFACE OBSERVATION

TABLE 1
 DATE 30 MAY 1982
 STATION LC 33
 X= 484,982.64 Y= 185,957.73 H= 3995.00

TIME " S I	PRESSURE HES	TEMPERATURE OF OC	DEW POINT OF OC	RELATIVE HUMIDITY %	WIND SPEED KTS	DIRECTION DEGS IN	WIND SPEED KTS	VISIBIL- ITY
0851	875.3	10.0	3.6	64		200	01	50

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS			
	1st LAYER			2nd LAYER		3rd LAYER				
	AMT	TYPE	HGT	AMT	TYPE	HGT		AMT	TYPE	HGT
	2	CU	5,000	2	AS	10,000	2	CI	25,000	

PSYCHROMETRIC COMPUTATION

TIME:	0851
DPY BULD TEMP.	10.0
WET BULD TEMP.	6.7
WET BULD DEWP.	3.3
DEW POINT	3.6
RELATIVE HUMID.	64

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,874.29 Y185,958.00 H4018.74 88.7 ft. AGL			POLE #2 X485,874.29 Y186,012.00 H4033.57 83.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4053.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
T-30	154	03	T-30	158	03	T-30	156	03
T-20	154	03	T-20	158	02	T-20	152	04
T-10	154	03	T-10	166	03	T-10	156	03
T-0.0	147	05	T-0.0	163	04	T-0.0	164	05
T+10	143	07	T+10	160	04	T+10	153	07

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (102 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 KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
T-30	188	02	T-30	178	03
T-20	193	02	T-20	177	04
T-10	196	02	T-10	175	05
T-0.0	199	01	T-0.0	171	04
T+10	192	02	T+10	165	04

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
T-30	182	04	T-30	169	07
T-20	174	04	T-20	172	07
T-10	174	04	T-10	171	08
T-0.0	176	03	T-0.0	170	08
T+10	180	03	T+10	170	08

PROJECT SURFACE OBSERVATION

TABLE <u>4</u> STATION <u>JALLEN</u>										
DATE <u>30</u>		MONTH <u>Nov</u>		YEAR <u>82</u>		X= <u>451,560.00</u> Y= <u>465,177.00</u> H= <u>4051.00</u>				
TIME M S T	DAY	PRESSURE mb	TEMPERATURE OF °C	DEW POINT OF °C	RELATIVE HUMIDITY %	DENSITY gms/m ³	DIRECTION degs	WIND SPEED kts	WIND CHARACTER kts	VISIBIL- ITY
0800		872.3	2.5	0.9	89			CALM		50
0830		872.2	4.7	2.4	85			CALM		50
0850		872.3	5.5	2.4	80			CALM		50

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS			
	1st LAYER		2nd LAYER		3rd LAYER					
	AMT	TYPE	HGT	AMT	TYPE	HGT				
	1	CU	6,000	6	AC	10,000	1	CI	25,000	ACSL N AND SE
	1	CU	5,000	4	AC	10,000	1	CI	25,000	ACSL SE, ACCAS NE
	1	CU	4,500	3	AC	10,000	1	CI	25,000	ACSL SE

PSYCHROMETRIC COMPUTATION

TIME:	0800	0830	0850
DRY BULB TEMP.	2.4	4.7	5.5
WET BULB TEMP.	1.8	3.6	4.0
WET BULB DEPR.	0.7	1.1	1.5
DEW POINT	0.9	2.4	2.4
RELATIVE HUMID.	89	85	80

W39

30 Nov 32

10,052.20

104,000.00

SFC	125	06	1800	263	23
60	156	08	1860	261	25
120	176	08	1920	259	28
180	178	05	1980	251	20
240	163	02	2040	237	06
300	162	00	2100	235	15
360	175	00	2160	231	25
420	160	03	2220	250	18
480	157	02	2280	255	29
540	168	01	2340	250	32
600	210	02	2400	254	30
660	220	05	2460	257	32
720	220	03	2520	260	33
780	220	03	2580	260	35
840	215	03	2640	256	35
900	220	02	2700	258	37
960	225	04	2760	254	36
1020	234	06			
1080	239	08			
1140	255	08			
1200	232	09			
1260	245	10			
1320	255	11			
1380	252	12			
1440	265	14			
1500	263	15			
1560	254	20			
1620	258	18			
1680	251	17			
1740	257	22			

WSD

30 Nov 82

0851

488,852.29

184,982.45

99.75

SFC	150	08	1800	250	24
60	MISG	MISG	1860	252	26
120	183	07	1920	249	26
180	186	06	1980	249	27
240	196	05	2040	247	26
300	168	05	2100	250	27
360	177	06	2160	248	28
420	176	08	2220	252	27
480	155	05	2280	250	28
540	184	06	2340	253	27
600	224	09	2400	252	34
660	233	06	2460	256	32
720	216	06	2520	260	37
780	246	05	2580	256	40
840	223	06	2640	259	38
900	220	07	2700	252	37
960	244	09	2760	252	37
1020	261	08	2820	257	35
1080	264	08	2880	254	33
1140	243	09	2940	257	34
1200	253	14	3000	257	37
1260	269	17			
1320	255	22			
1380	255	21			
1440	243	21			
1500	250	21			
1560	252	21			
1620	253	20			
1680	254	22			
1740	255	21			

JALLEN

30 Nov 82

0800

451,560.00

465,177.00

4051.00

050	000	00	1000	257	24
60	104	02	1000	257	24
100	104	05	1000	256	20
180	104	07	1000	256	31
240	204	10	2040	257	31
300	210	13	2100	252	29
360	214	15	2160	262	20
420	21	16	2200	263	26
480	203	17	2200	274	25
540	211	17	2340	271	24
600	229	18	2400	269	24
660	232	18	2460	265	24
720	235	20	2520	261	23
780	237	21	2580	258	22
840	238	22	2640	257	21
900	239	23	2700	256	20
960	240	25	2760	259	20
1020	240	26	2820	261	21
1080	241	26	2880	263	21
1140	242	26	2940	265	22
1200	245	25	3000	266	23
1260	247	24			
1320	249	23			
1380	251	21			
1440	253	19			
1500	255	17			
1560	257	16			
1620	257	17			
1680	256	18			
1740	256	20			

JALLEN

30 Nov 82

0900

451,560.00

465,177.00

4051.00

SFC	000	00	1800	243	34
60	165	05	1860	245	33
120	165	09	1920	248	30
180	165	14	1980	251	27
240	173	15	2040	252	27
300	180	17	2100	252	22
360	186	18	2160	252	29
420	192	19	2220	252	32
480	198	20	2280	252	35
540	203	20	2340	253	37
600	209	19	2400	255	39
660	214	18	2460	256	41
720	219	18	2520	258	42
780	224	17	2580	259	43
840	228	17	2640	260	44
900	229	17	2700	260	45
960	229	18	2760	261	43
1020	223	19	2820	263	41
1080	227	20	2880	264	39
1140	227	22	2940	267	37
1200	228	23	3000	268	36
1260	230	25			
1320	232	26			
1380	234	27			
1440	236	28			
1500	237	29			
1560	238	30			
1620	239	32			
1680	240	34			
1740	241	35			

AIMING COMPUTER MET MESSAGE

30 Nov 82

JALLEN 0600 MST
METCM1332065
301300124872
00018003 27610872
01083004 27950862
02393004 28050836
03436010 27850796
04475008 27480748
05412012 27040703
06418016 26730660
07526019 26430619
08441011 26080580
09437012 25710543
10419014 25350508
11409015 24990475
12432019 24440428
13459021 23610371

STATION ALTITUDE 4051.00 FEET MSL
30 NOV. 62 0600 HRS MST
ASCENSION NO. 102

SIGNIFICANT LEVEL DATA
1340030102
JALLEN
TABLE 10

GEOGRAPHIC COORDINATES
33.10712 LAT DEG
106.49511 LONG DEG

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	DEWPOINT DEGREES	REL. HUM. PERCENT
HILLIBAKS	MSL FEET	DEGREES	CENTIGRADE	
872.2	4051.0	2.1	.3	88.0
866.7	4219.6	4.4	1.0	82.0
855.9	4557.2	7.3	2.0	69.0
850.0	4744.3	7.2	1.3	66.0
834.3	5247.7	6.3	.2	65.0
823.4	5585.8	6.3	.2	65.0
813.3	5934.7	6.1	-.8	61.0
780.9	7024.5	3.5	-3.1	62.0
772.9	7298.8	2.7	-5.2	65.0
760.9	7714.8	2.4	-4.6	60.0
700.0	9906.5	-3.7	-7.8	73.0
673.8	10893.9	-5.6	-10.2	70.0
637.4	12320.8	-7.5	-15.4	53.0
626.6	12757.5	-8.5	-13.3	68.0
610.6	13043.7	-9.1	-14.6	64.0
611.2	13390.7	-9.8	-14.0	71.0
577.0	14043.1	-13.0	-22.6	44.0
560.6	15564.4	-14.1	-17.5	75.0
528.7	17015.6	-18.2	-18.9	94.0
513.3	17740.6	-19.2	-20.9	86.0
500.0	18381.3	-20.7	-25.1	81.0
474.7	19637.8	-23.5	-23.8	97.0
469.1	19923.1	-23.8	-24.8	91.0
450.9	20658.8	-25.9	-28.4	79.0
443.8	21246.6	-26.6	-34.1	49.0
425.5	22242.1	-29.0	-38.0	41.0
400.0	23685.8	-32.5	-38.6	54.0
346.4	27091.6	-41.6		
323.2	28498.6	-45.2		
300.0	30119.9	-49.6		
291.0	30774.6	-50.8		
275.6	31042.8	-49.9		
263.3	32023.2	-51.1		
257.3	33416.8	-51.1		
250.0	34032.8	-51.4		
237.0	35173.3	-52.1		
221.4	36630.2	-50.6		
209.6	37808.1	-49.9		
200.0	38816.8	-50.5		
183.4	40670.2	-52.5		

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

SIGNIFICANT LEVEL DATA
 3340030162
 JALLEN
 TABLE 10 Cont'd

STATION ALTITUDE 4951.00 FEET MSL
 30 NOV. 82 0600 HRS MST
 ASCENSION NO. 182

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR	DEWPOINT	
	DEGREES	CENTIGRADE	
172.0 42030.8	-54.5		
162.4 43241.7	-55.0		
150.0 44908.0	-56.7		
135.6 47018.0	-56.6		
114.4 50540.4	-60.7		
100.0 53287.6	-62.9		
89.8 55466.9	-64.2		
84.1 56788.8	-65.0		
77.3 58508.3	-59.4		
72.8 59743.8	-60.8		

STATION ALTITUDE 4051.00 FEET MSL
30 NOV. 82 0600 HRS MST
ASCENSION NO. 132

UPPER AIR DATA
3340030182
JALLEN
TABLE 11

GEOPHYSIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	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	872.2	2.1	.3	88.0	1100.9	647.2	10.0	2.9	1.000277
4500.0	857.7	6.8	2.0	71.2	1064.0	652.9	322.7	1.4	1.000271
5000.0	842.0	6.7	.7	65.5	1044.9	652.7	249.6	2.5	1.000264
5500.0	826.5	6.3	.2	65.0	1027.4	652.2	235.5	4.8	1.000259
6000.0	811.3	5.9	-1.0	61.1	1010.0	651.7	227.9	7.2	1.000253
6500.0	796.3	4.8	-2.0	61.5	995.7	650.3	244.7	8.5	1.000248
7000.0	781.6	3.6	-3.0	62.0	981.7	648.8	237.1	10.3	1.000243
7500.0	767.1	2.6	-3.8	62.6	967.0	647.6	239.2	10.9	1.000238
8000.0	752.7	1.6	-4.9	61.7	952.3	646.4	239.6	11.3	1.000233
8500.0	738.5	.2	-5.6	64.7	939.2	644.8	235.0	10.4	1.000230
9000.0	724.6	-1.2	-6.4	67.6	926.3	643.1	245.4	9.1	1.000226
9500.0	710.9	-2.6	-7.2	70.6	913.5	641.4	237.9	9.3	1.000222
10000.0	697.5	-3.9	-8.0	72.7	900.7	639.9	234.6	10.7	1.000218
10500.0	684.1	-4.8	-9.2	71.2	886.0	638.7	235.4	12.3	1.000214
11000.0	671.0	-5.7	-10.5	68.7	872.8	637.6	233.7	14.1	1.000209
11500.0	658.1	-6.4	-12.3	62.8	858.3	636.7	244.6	14.7	1.000204
12000.0	645.4	-7.1	-14.2	56.8	844.0	635.9	260.2	15.9	1.000199
12500.0	632.9	-7.9	-14.5	59.2	830.3	634.9	278.8	17.5	1.000196
13000.0	620.7	-9.0	-14.4	64.6	817.6	633.5	285.0	18.2	1.000193
13500.0	608.6	-10.0	-14.6	69.0	804.8	632.3	285.2	17.6	1.000190
14000.0	596.6	-11.1	-17.4	59.7	792.5	630.9	272.6	14.6	1.000185
14500.0	584.9	-12.2	-20.4	50.4	780.4	629.5	256.7	12.7	1.000181
15000.0	573.4	-13.2	-21.3	50.7	768.0	628.3	247.9	11.9	1.000177
15500.0	562.0	-14.0	-17.9	72.2	754.8	627.5	238.1	11.4	1.000177
16000.0	550.8	-15.3	-17.9	80.7	743.5	625.9	235.4	11.5	1.000174
16500.0	539.8	-16.7	-18.4	87.2	732.7	624.1	233.5	11.6	1.000171
17000.0	529.0	-18.2	-18.9	93.8	722.0	622.4	232.3	12.4	1.000169
17500.0	518.4	-18.9	-20.3	88.7	709.5	621.5	231.4	13.2	1.000165
18000.0	507.9	-19.8	-21.8	84.0	697.6	620.3	232.6	13.6	1.000162
18500.0	497.6	-21.0	-23.1	82.5	686.8	618.9	234.2	14.0	1.000159
19000.0	487.4	-22.1	-23.4	88.9	675.8	617.5	235.7	14.2	1.000156
19500.0	477.4	-23.2	-23.7	95.2	664.9	616.1	237.2	14.3	1.000154
20000.0	467.6	-24.0	-25.2	89.7	653.4	615.1	236.6	14.3	1.000150
20500.0	457.9	-25.4	-27.7	81.6	643.7	613.3	239.9	15.6	1.000147
21000.0	448.4	-26.3	-31.4	61.6	632.6	612.2	241.1	17.0	1.000144
21500.0	439.1	-27.2	-35.0	47.0	621.8	611.0	242.8	18.1	1.000140
22000.0	429.9	-28.4	-37.0	42.9	611.8	609.5	245.2	18.9	1.000138
22500.0	420.8	-29.6	-39.1	43.3	601.9	608.0	247.3	19.7	1.000135
23000.0	411.9	-30.8	-39.2	47.8	592.1	606.5	250.1	19.9	1.000133
23500.0	403.2	-32.0	-38.5	52.3	582.5	605.0	252.7	20.2	1.000131

STATION ALTITUDE 4051.00 FEET MSL
30 NOV. 82
ASCENSION NO. 132

UPPER AIR DATA
3340030182
JALLEN
TABLE II CONT'D

GEOMETRIC COORDINATES
33.16712 LAT DEG
106.49511 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, SPEED (DEGREES, KNOTS)	INDEX OF REFRACTION
24000.0	394.5	-33.3	49.0**	573.0	603.3	254.3 20.7	1.000129
24500.0	385.9	-34.7	41.1**	563.7	601.6	254.9 21.4	1.000126
25000.0	377.6	-36.0	33.2**	554.6	600.0	255.6 22.0	1.000124
25500.0	369.3	-37.3	25.2**	545.6	598.2	257.3 22.1	1.000122
26000.0	361.3	-38.7	17.3**	536.8	596.5	259.0 22.3	1.000120
26500.0	353.5	-40.0	9.4**	528.2	594.8	260.0 22.4	1.000118
27000.0	345.8	-41.4	1.5**	519.7	593.1	259.5 22.5	1.000116
27500.0	338.1	-42.6		511.0	591.5	259.1 22.5	1.000114
28000.0	330.6	-43.9		502.4	589.8	257.5 21.9	1.000112
28500.0	323.2	-45.2		493.9	588.2	255.4 21.2	1.000110
29000.0	315.8	-46.6		485.6	586.4	253.8 20.9	1.000108
29500.0	308.7	-47.9		477.4	584.7	254.1 21.7	1.000106
30000.0	301.7	-49.3		469.4	582.9	254.4 22.5	1.000105
30500.0	294.7	-50.3		460.7	581.6	253.6 22.6	1.000103
31000.0	288.0	-50.6		450.8	581.1	252.4 22.6	1.000100
31500.0	281.3	-50.2		439.7	581.6	251.5 22.4	1.000098
32000.0	274.9	-50.0		429.0	582.0	251.2 21.9	1.000096
32500.0	268.5	-50.6		420.3	581.2	250.9 21.5	1.000094
33000.0	262.4	-51.1		411.6	580.5	250.5 21.4	1.000092
33500.0	256.3	-51.1		402.2	580.5	250.2 21.4	1.000090
34000.0	250.4	-51.4		393.3	580.2	249.8 21.5	1.000088
34500.0	244.6	-51.7		384.7	579.8	249.7 21.1	1.000086
35000.0	238.9	-52.0		376.4	579.4	252.4 21.1	1.000084
35500.0	233.4	-51.8		367.3	579.7	253.7 21.7	1.000082
36000.0	228.0	-51.2		358.0	580.3	252.2 22.1	1.000080
36500.0	222.8	-50.7		348.9	581.0	251.1 22.8	1.000078
37000.0	217.6	-50.4		340.3	581.5	250.4 23.1	1.000076
37500.0	212.6	-50.1		332.1	581.9	253.1 22.8	1.000074
38000.0	207.7	-50.0		324.3	581.9	252.6 22.6	1.000072
38500.0	203.0	-50.3		317.3	581.6	253.9 23.9	1.000071
39000.0	198.3	-50.7		310.5	581.1	252.2 25.2	1.000069
39500.0	193.7	-51.2		304.1	580.5	252.0 24.4	1.000068
40000.0	189.2	-51.8		297.8	579.6	250.8 22.1	1.000066
40500.0	184.9	-52.3		291.6	578.9	251.0 20.4	1.000065
41000.0	180.6	-53.0		285.7	578.1	252.2 19.2	1.000064
41500.0	176.4	-53.7		280.0	577.1	250.2 18.6	1.000062
42000.0	172.3	-54.5		274.4	576.1	246.6 18.8	1.000061
42500.0	168.2	-54.7		268.2	575.0	245.1 19.2	1.000060
43000.0	164.3	-54.9		262.2	575.5	244.1 19.5	1.000058
43500.0	160.4	-55.3		256.5	575.1	250.9 19.1	1.000057

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

STATION ALTITUDE 4051.00 FEET MSL
30 NOV. 82 0600 HRS MST
ASCISSION NO. 102

UPPER AIR DATA
3340030182
JALLEN
TABLE 11 Cont'd

GEODETIC COORDINATES
33-16/12 LAT N
106-49/511 LONG W

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	DEWPOINT CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
44000.0	150.6	-55.8			251.0	574.4	258.0	18.9	1.000056
44500.0	152.9	-56.3			245.7	573.7	264.0	18.6	1.000055
45000.0	149.3	-56.7			240.4	573.2	271.7	18.6	1.000054
45500.0	145.8	-56.7			234.6	573.2	280.5	16.8	1.000052
46000.0	142.4	-56.6			229.1	573.2	289.3	16.8	1.000051
46500.0	139.0	-56.6			223.6	573.3	294.4	17.9	1.000050
47000.0	135.7	-56.6			218.3	573.3	298.8	19.3	1.000049
47500.0	132.5	-57.2			213.7	572.5	299.5	19.1	1.000048
48000.0	129.3	-57.7			209.1	571.8	299.4	18.0	1.000047
48500.0	126.2	-58.3			204.7	571.0	296.2	17.7	1.000046
49000.0	123.2	-58.9			200.4	570.2	297.6	17.8	1.000045
49500.0	120.3	-59.5			196.1	569.5	298.6	18.0	1.000044
50000.0	117.4	-60.1			192.0	568.7	297.9	18.6	1.000043
50500.0	114.6	-60.7			187.9	567.9	297.3	19.2	1.000042
51000.0	111.9	-61.1			183.7	567.3	292.3	18.9	1.000041
51500.0	109.1	-61.5			179.6	566.8	298.4	18.7	1.000040
52000.0	106.5	-61.9			175.6	566.3	292.4	16.5	1.000039
52500.0	103.9	-62.3			171.7	565.7	295.4	12.8	1.000038
53000.0	101.4	-62.7			167.9	565.2	295.1	10.3	1.000037
53500.0	99.0	-63.0			164.1	564.7	292.9	11.0	1.000037
54000.0	96.5	-63.3			160.3	564.3	294.3	12.5	1.000036
54500.0	94.2	-63.6			156.6	563.9	297.0	15.9	1.000035
55000.0	91.9	-63.9			153.0	563.5	298.0	19.4	1.000034
55500.0	89.7	-64.2			149.5	563.1	290.4	19.2	1.000033
56000.0	87.5	-64.5			146.0	562.7	292.0	19.0	1.000033
56500.0	85.3	-64.8			142.7	562.3	291.5	20.2	1.000032
57000.0	83.2	-64.3			138.8	563.0	290.6	21.7	1.000031
57500.0	81.2	-62.7			134.4	565.2	297.0	18.3	1.000030
58000.0	79.3	-61.1			130.2	567.4	294.1	15.8	1.000029
58500.0	77.3	-59.4			126.0	569.5	291.2	16.2	1.000028
59000.0	75.5	-60.0			123.3	568.8			1.000027
59500.0	73.7	-60.5			120.7	568.1			1.000027

STATION ALTITUDE 4051.00 FEET MSL
30 NOV. 82 0600 HRS PST
ASCENSION NO. 182

MANDATORY LEVELS
3340030182
JALLEN
TABLE 12

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4741.	7.2	1.3	60.	275.3	1.6
800.0	6373.	5.0	-1.7	61.	240.8	0.1
750.0	8001.	1.3	-5.1	62.	259.9	11.4
700.0	9008.	-3.7	-7.8	73.	235.2	10.5
650.0	11807.	-6.8	-13.5	59.	258.7	15.2
600.0	13844.	-10.8	-16.6	62.	276.8	15.4
550.0	16021.	-15.4	-17.9	81.	235.2	11.5
500.0	18357.	-20.7	-23.1	81.	233.8	13.9
450.0	20887.	-26.2	-30.7	66.	240.9	16.7
400.0	23649.	-32.5	-38.6	54.	253.6	20.3
350.0	26685.	-40.6	-49.6	6.***	259.8	22.4
300.0	30063.	-49.6	-51.4		254.5	22.7
250.0	33963.	-51.4	-50.5		249.8	21.5
200.0	38728.	-50.5	-54.0		198.8	24.7
175.0	41564.	-54.0	-56.7		243.5	18.6
150.0	44792.	-56.7	-58.6		270.2	16.6
125.0	48578.	-58.6	-62.9		236.8	17.8
100.0	53129.	-62.9	-61.7		246.4	10.6
80.0	57618.	-61.7			251.8	10.6

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

STATION ALTITUDE 4126.9 FEET MSL
 50 NOV. 63 0730 HRS. LMT
 AS0605101 NO. 313

SIGNIFICANT LEVEL DATA
 3340010313
 HOLLOWAY
 TABLE 13

SEOFFIC COMPARABLES
 32-00-005 LAT. 46
 100-00-005 LONG. 46

PRESSURE GEOMETRIC MILLIBARS	ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
871.0	4126.6	4.7	2.1	53.9
860.2	4463.2	8.3	1.5	62.0
850.0	4787.4	8.8	1.0	53.0
842.4	5031.2	9.4	.3	53.0
792.0	6701.3	5.4	-2.2	56.0
745.4	8316.7	.7	-3.2	75.9
700.0	9967.4	-2.2	-7.9	67.0
673.1	10986.8	-4.5	-6.2	75.9
621.1	13053.0	-8.6	-10.2	54.0
603.7	13774.9	-10.4	-10.8	72.0
587.1	14679.1	-11.9	-12.4	90.0
553.9	15036.3	-15.1	-16.1	92.0
500.0	18457.3	-20.3	-22.2	62.0
451.9	20892.7	-26.4	-26.7	47.0
447.5	21490.2	-28.2	-28.6	90.0
429.5	22094.5	-28.8	-33.4	64.0
400.0	23756.5	-32.8	-37.7	61.0
365.0	25798.9	-37.9	-44.4	56.0
336.2	27699.8	-42.5		
320.9	28457.4	-44.1		
312.8	29293.1	-45.4		
309.0	30209.0	-46.2		
282.0	31553.8	-47.3		
275.0	32045.0	-46.4		
266.0	32762.0	-46.6		
250.0	34182.5	-49.4		
235.4	35474.0	-51.9		
232.6	35730.3	-50.4		
213.0	37620.9	-50.7		
202.4	38676.2	-52.4		
200.0	38966.8	-51.8		
197.6	40330.7	-52.9		
172.8	42076.2	-53.1		
167.0	42702.0	-52.1		
152.4	44742.5	-55.1		
150.0	45077.0	-54.7		
115.8	50463.1	-60.6		
109.3	51034.2	-61.8		
100.7	52139.1	-60.5		
100.0	53067.6	-61.8		

GEOMETRIC COORDINATES
32.000005 LAT DEG
106.099995 LONG DEG

SIGNIFICANT LEVEL DATA
3340010513
HOLLONAH
TABLE 13 CONT'D

STATION ALTITUDE 4120.00 FEET ASL
30 DAY. 02 0736 HRS EST
ASCENSION NO. 313

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
91.5	55270.9	-64.4
82.9	57265.5	-63.8
77.4	58536.0	-60.0
70.0	60734.7	-61.0
60.5	63713.3	-63.0
54.5	65847.8	-60.8
50.1	67628.0	-58.5
45.1	69804.5	-60.9
37.9	73360.9	-57.5
32.7	76418.3	-60.9
31.7	77060.7	-58.3
30.0	78203.0	-60.1
28.4	79339.2	-58.2
27.1	80328.3	-52.3
25.2	81477.1	-54.2
20.0	86840.9	-48.9
16.5	91023.0	-49.0

STATION ALTITUDE 4126.9 FEET SL
 50.40V. 82
 ASCENDING NO. 513

UPPER AIR DATA
 3340010315
 HOLLANDIA
 TABLE 14

STATION ALTITUDE 4126.9 FEET SL
 50.40V. 82
 ASCENDING NO. 513

STATION ALTITUDE 4126.9 FEET SL
 50.40V. 82
 ASCENDING NO. 513

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	WIND DIRECTION DEGREES (true)	WIND SPEED KNOTS	REFRACT INDEX
4126.0	571.0	4.7	2.1	155.0	1.000277
4500.0	552.0	8.0	1.4	153.2	1.000269
5000.0	542.4	9.3	.4	154.0	1.000261
5500.0	530.0	8.5	-4	113.3	1.000250
6000.0	512.8	7.1	-1.1	127.2	1.000242
6500.0	497.4	5.9	-1.9	134.7	1.000247
7000.0	482.2	4.5	-2.3	150.9	1.000244
7500.0	466.6	3.1	-2.6	157.0	1.000241
8000.0	454.3	1.6	-2.9	159.5	1.000237
8500.0	440.2	.4	-3.7	141.9	1.000233
9000.0	425.3	-1.5	-5.1	144.5	1.000228
9500.0	412.6	-1.4	-6.5	147.9	1.000222
10000.0	399.1	-2.3	-7.9	151.0	1.000217
10500.0	385.8	-3.4	-8.0	153.2	1.000214
11000.0	372.8	-4.5	-8.3	156.3	1.000211
11500.0	359.8	-5.5	-10.1	157.4	1.000206
12000.0	347.1	-6.5	-12.0	164.2	1.000201
12500.0	334.6	-7.5	-14.0	165.3	1.000196
13000.0	322.4	-8.5	-16.0	168.4	1.000192
13500.0	310.3	-9.7	-16.6	168.2	1.000189
14000.0	299.3	-10.9	-15.1	165.6	1.000187
14500.0	288.6	-11.9	-12.5	165.4	1.000187
15000.0	277.0	-13.0	-13.7	169.1	1.000185
15500.0	265.6	-14.1	-15.0	167.1	1.000179
16000.0	254.5	-15.2	-16.3	164.0	1.000176
16500.0	243.4	-16.3	-17.5	161.2	1.000176
17000.0	232.5	-17.3	-18.7	160.1	1.000172
17500.0	221.8	-18.3	-19.9	159.4	1.000169
18000.0	211.4	-19.4	-21.1	158.7	1.000166
18500.0	201.1	-20.4	-22.2	158.1	1.000162
19000.0	190.9	-21.7	-23.2	157.6	1.000159
19500.0	180.8	-22.9	-24.1	157.0	1.000156
20000.0	170.9	-24.2	-25.0	156.6	1.000154
20500.0	161.1	-25.4	-26.0	156.1	1.000151
21000.0	151.4	-26.7	-27.1	155.4	1.000148
21500.0	141.9	-28.2	-28.6	154.6	1.000146
22000.0	132.2	-29.6	-30.6	153.9	1.000143
22500.0	122.7	-31.0	-32.6	153.2	1.000139
23000.0	113.2	-32.4	-34.5	152.5	1.000137
23500.0	103.7	-33.8	-36.5	151.8	1.000134
24000.0	94.2	-35.2	-37.1	151.0	1.000132
24500.0	84.7	-36.6		150.3	
25000.0	75.2	-38.0		149.6	
25500.0	65.7	-39.4		148.9	
26000.0	56.2	-40.8		148.2	
26500.0	46.7	-42.2		147.5	
27000.0	37.2	-43.6		146.8	
27500.0	27.7	-45.0		146.1	
28000.0	18.2	-46.4		145.4	
28500.0	8.7	-47.8		144.7	
29000.0	-6.8	-49.2		144.0	
29500.0	-17.3	-50.6		143.3	
30000.0	-27.8	-52.0		142.6	
30500.0	-38.3	-53.4		141.9	
31000.0	-48.8	-54.8		141.2	
31500.0	-59.3	-56.2		140.5	
32000.0	-69.8	-57.6		139.8	
32500.0	-80.3	-59.0		139.1	
33000.0	-90.8	-60.4		138.4	
33500.0	-101.3	-61.8		137.7	
34000.0	-111.8	-63.2		137.0	
34500.0	-122.3	-64.6		136.3	
35000.0	-132.8	-66.0		135.6	
35500.0	-143.3	-67.4		134.9	
36000.0	-153.8	-68.8		134.2	
36500.0	-164.3	-70.2		133.5	
37000.0	-174.8	-71.6		132.8	
37500.0	-185.3	-73.0		132.1	
38000.0	-195.8	-74.4		131.4	
38500.0	-206.3	-75.8		130.7	
39000.0	-216.8	-77.2		130.0	
39500.0	-227.3	-78.6		129.3	
40000.0	-237.8	-80.0		128.6	
40500.0	-248.3	-81.4		127.9	
41000.0	-258.8	-82.8		127.2	
41500.0	-269.3	-84.2		126.5	
42000.0	-279.8	-85.6		125.8	
42500.0	-290.3	-87.0		125.1	
43000.0	-300.8	-88.4		124.4	
43500.0	-311.3	-89.8		123.7	
44000.0	-321.8	-91.2		123.0	
44500.0	-332.3	-92.6		122.3	
45000.0	-342.8	-94.0		121.6	
45500.0	-353.3	-95.4		120.9	
46000.0	-363.8	-96.8		120.2	
46500.0	-374.3	-98.2		119.5	
47000.0	-384.8	-99.6		118.8	
47500.0	-395.3	-101.0		118.1	
48000.0	-405.8	-102.4		117.4	
48500.0	-416.3	-103.8		116.7	
49000.0	-426.8	-105.2		116.0	
49500.0	-437.3	-106.6		115.3	
50000.0	-447.8	-108.0		114.6	
50500.0	-458.3	-109.4		113.9	
51000.0	-468.8	-110.8		113.2	
51500.0	-479.3	-112.2		112.5	
52000.0	-489.8	-113.6		111.8	
52500.0	-500.3	-115.0		111.1	
53000.0	-510.8	-116.4		110.4	
53500.0	-521.3	-117.8		109.7	
54000.0	-531.8	-119.2		109.0	
54500.0	-542.3	-120.6		108.3	
55000.0	-552.8	-122.0		107.6	
55500.0	-563.3	-123.4		106.9	
56000.0	-573.8	-124.8		106.2	
56500.0	-584.3	-126.2		105.5	
57000.0	-594.8	-127.6		104.8	
57500.0	-605.3	-129.0		104.1	
58000.0	-615.8	-130.4		103.4	
58500.0	-626.3	-131.8		102.7	
59000.0	-636.8	-133.2		102.0	
59500.0	-647.3	-134.6		101.3	
60000.0	-657.8	-136.0		100.6	
60500.0	-668.3	-137.4		99.9	
61000.0	-678.8	-138.8		99.2	
61500.0	-689.3	-140.2		98.5	
62000.0	-699.8	-141.6		97.8	
62500.0	-710.3	-143.0		97.1	
63000.0	-720.8	-144.4		96.4	
63500.0	-731.3	-145.8		95.7	
64000.0	-741.8	-147.2		95.0	
64500.0	-752.3	-148.6		94.3	
65000.0	-762.8	-150.0		93.6	
65500.0	-773.3	-151.4		92.9	
66000.0	-783.8	-152.8		92.2	
66500.0	-794.3	-154.2		91.5	
67000.0	-804.8	-155.6		90.8	
67500.0	-815.3	-157.0		90.1	
68000.0	-825.8	-158.4		89.4	
68500.0	-836.3	-159.8		88.7	
69000.0	-846.8	-161.2		88.0	
69500.0	-857.3	-162.6		87.3	
70000.0	-867.8	-164.0		86.6	
70500.0	-878.3	-165.4		85.9	
71000.0	-888.8	-166.8		85.2	
71500.0	-899.3	-168.2		84.5	
72000.0	-909.8	-169.6		83.8	
72500.0	-920.3	-171.0		83.1	
73000.0	-930.8	-172.4		82.4	
73500.0	-941.3	-173.8		81.7	
74000.0	-951.8	-175.2		81.0	
74500.0	-962.3	-176.6		80.3	
75000.0	-972.8	-178.0		79.6	
75500.0	-983.3	-179.4		78.9	
76000.0	-993.8	-180.8		78.2	
76500.0	-1004.3	-182.2		77.5	
77000.0	-1014.8	-183.6		76.8	
77500.0	-1025.3	-185.0		76.1	
78000.0	-1035.8	-186.4		75.4	
78500.0	-1046.3	-187.8		74.7	
79000.0	-1056.8	-189.2		74.0	
79500.0	-1067.3	-190.6		73.3	
80000.0	-1077.8	-192.0		72.6	
80500.0	-1088.3	-193.4		71.9	
81000.0	-1098.8	-194.8		71.2	
81500.0	-1109.3	-196.2		70.5	
82000.0	-1119.8	-197.6		69.8	
82500.0	-1130.3	-199.0		69.1	
83000.0	-1140.8	-200.4		68.4	
83500.0	-1151.3	-201.8		67.7	
84000.0	-1161.8	-203.2		67.0	
84500.0	-1172.3	-204.6		66.3	
85000.0	-1182.8	-206.0		65.6	
85500.0	-1193.3	-207.4		64.9	
86000.0	-1203.8	-208.8		64.2	
86500.0	-1214.3	-210.2		63.5	
87000.0	-1224.8	-211.6		62.8	
87500.0	-1235.3	-213.0		62.1	
88000.0	-1245.8	-214.4		61.4	
88500.0	-1256.3	-215.8		60.7	
89000.0	-1266.8	-217.2		60.0	
89500.0	-1277.3	-218.6		59.3	
90000.0	-1287.8	-220.0		58.6	
90500.0	-1298.3	-221.4		57.9	
91000.0	-1308.8	-222.8		57.2	
91500.0	-1319.3	-224.2		56.5	
92000.0	-1329.8	-225.6		55.8	
92500.0	-1340.3	-227.0		55.1	
93000.0	-1350.8	-228.4		54.4	
93500.0	-1361.3	-229.8		53.7	
94000.0	-1371.8	-231.2		53.0	
94500.0	-1382.3	-232.6		52.3	
95000.0	-1392.8	-234.0		51.6	
95500.0	-1403.3	-235.4		50.9	
96000.0	-1413.8	-236.8		50.2	
96500.0	-1424.3	-238.2		49.5	
97000.0	-1434.8	-239.6		48.8	
97500.0	-1445.3	-241.0		48.1	
98000.0	-1455.8	-242.4		47.4	
98500.0	-1466.3	-243.8		46.7	
99000.0	-1476.8	-245.2		46.0	
99500.0	-1487.3	-246.6		45.3	
100000.0	-1497.8	-248.0		44.6	

STATION ALTITUDE 4126.69 FEET LSL
30 NOV. 42 0730 HRS GST
ASCENSION NO. 313

UPPER AIR DATA
330010315
HOLLOMAN

TABLE 14 CONTD

GEOGRAPHIC COORDINATES
32°00'00" LAT 116°
106°09'05" LONG

GEOMETRIC ALTITUDE FSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	300.8	-33.4	59.7	575.0	603.5	255.5	39.5	1.000129
24500.0	307.2	-34.7	57.0	565.5	601.7	250.3	37.4	1.000127
25000.0	310.9	-35.9	54.3	556.3	600.1	227.2	34.5	1.000125
25500.0	316.7	-37.2	51.6	547.1	598.5	225.7	34.3	1.000123
26000.0	322.0	-38.4	44.7**	538.1	596.9	224.6	34.8	1.000121
26500.0	324.7	-39.6	31.6**	529.0	595.4	224.0	37.7	1.000118
27000.0	326.8	-40.8	18.4**	520.0	593.0	224.0	40.5	1.000116
27500.0	329.2	-42.0	5.3**	511.2	592.5	224.1	42.0	1.000114
28000.0	331.7	-43.1		502.5	590.8	223.9	43.1	1.000112
28500.0	324.3	-44.2		493.3	589.5	223.2	41.9	1.000110
29000.0	317.0	-44.9		483.9	588.5	226.9	40.8	1.000108
29500.0	309.9	-45.6		474.3	587.7	229.5	34.8	1.000106
30000.0	302.9	-46.0		464.5	587.1	231.2	38.7	1.000103
30500.0	296.0	-46.4		454.9	586.6	232.0	37.6	1.000101
31000.0	289.3	-46.8		445.4	586.1	234.7	36.5	1.000099
31500.0	282.8	-47.3		436.1	585.5	238.2	35.5	1.000097
32000.0	276.0	-46.5		424.6	586.5	239.3	32.8	1.000095
32500.0	270.1	-46.5		415.2	586.5	240.2	30.4	1.000092
33000.0	264.0	-47.1		406.8	585.8	239.4	28.5	1.000091
33500.0	258.0	-48.1		399.3	584.5	238.6	28.7	1.000089
34000.0	252.1	-49.0		391.9	583.2	240.1	29.6	1.000087
34500.0	246.3	-50.0		384.6	581.9	241.5	30.6	1.000086
35000.0	240.7	-51.0		377.4	580.7	241.1	33.2	1.000084
35500.0	235.1	-51.7		369.9	579.7	240.5	36.0	1.000082
36000.0	229.7	-50.4		359.3	581.4	240.3	37.5	1.000080
36500.0	224.4	-50.5		351.2	581.5	240.5	38.3	1.000078
37000.0	219.2	-50.6		343.2	581.2	241.5	39.5	1.000076
37500.0	214.2	-50.7		335.4	581.1	244.4	41.2	1.000075
38000.0	209.3	-51.3		328.6	580.2	247.0	43.0	1.000073
38500.0	204.4	-52.1		322.2	579.2	248.5	45.6	1.000072
39000.0	199.7	-51.8		314.3	579.6	249.0	48.1	1.000070
39500.0	195.1	-52.2		307.6	579.0	249.6	46.6	1.000069
40000.0	190.5	-52.6		301.0	578.5	249.1	44.4	1.000067
40500.0	186.1	-52.9		294.4	578.1	247.3	43.2	1.000066
41000.0	181.8	-53.0		287.6	578.1	244.8	42.8	1.000064
41500.0	177.6	-53.0		281.0	578.0	242.6	43.2	1.000063
42000.0	173.4	-53.1		274.5	577.9	239.1	44.0	1.000061
42500.0	169.4	-52.4		267.4	576.8	237.5	46.1	1.000060
43000.0	165.5	-52.5		261.3	576.0	230.6	48.8	1.000058
43500.0	161.6	-53.5		256.0	577.7	237.2	51.1	1.000057

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

GEODETIC COORDINATES
32-0805 LAT 116
100-0905 LONG 010

UPPER AIR DATA
334001013
HOLLOMAN
TABLE 14 Cont'd

STATION ALTITUDE 4126.09 FEET ASL
30.00V. 02
ASCESSION 100. 313
0730 HRC 01

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION SPEED KNOTS	INDEX OF REFRACTION
44000.0	157.0	-64.0		250.9	576.7	238.6	1.000046
44500.0	154.2	-64.7		245.9	575.7	239.6	1.000045
45000.0	150.5	-64.8		240.2	575.7	241.4	1.000045
45500.0	147.0	-65.2		234.9	575.2	243.3	1.000042
46000.0	143.5	-65.7		229.9	574.5	245.1	1.000041
46500.0	140.1	-66.3		225.0	573.7	246.9	1.000040
47000.0	136.8	-66.8		220.2	573.0	248.7	1.000040
47500.0	133.5	-67.4		215.5	572.3	249.7	1.000040
48000.0	130.3	-67.9		211.0	571.6	250.6	1.000040
48500.0	127.5	-68.4		206.5	570.6	251.0	1.000040
49000.0	124.2	-69.0		202.1	570.1	251.2	1.000045
49500.0	121.3	-69.5		197.0	569.4	251.6	1.000044
50000.0	118.6	-70.1		193.6	568.6	252.2	1.000043
50500.0	115.6	-70.6		189.5	567.9	252.4	1.000042
51000.0	112.6	-71.1		185.5	567.3	251.7	1.000041
51500.0	110.1	-71.5		181.2	566.8	251.4	1.000040
52000.0	107.4	-71.9		176.5	566.3	250.8	1.000039
52500.0	104.8	-72.3		172.0	567.0	250.6	1.000038
53000.0	102.3	-71.3		168.3	567.0	257.1	1.000037
53500.0	99.8	-71.8		164.6	568.3	255.6	1.000037
54000.0	97.4	-72.6		161.1	565.3	250.0	1.000036
54500.0	95.0	-73.3		157.8	564.4	244.2	1.000035
55000.0	92.7	-74.0		154.5	563.4	241.0	1.000034
55500.0	90.5	-74.3		150.9	563.0	239.6	1.000034
56000.0	88.3	-74.2		147.1	563.2	238.7	1.000033
56500.0	86.1	-74.0		143.4	563.4	238.4	1.000032
57000.0	84.0	-73.9		139.8	563.6	236.2	1.000031
57500.0	82.0	-73.1		135.9	564.6	240.7	1.000030
58000.0	80.0	-71.6		131.7	566.6	244.0	1.000029
58500.0	78.0	-70.1		127.6	568.6	246.6	1.000028
59000.0	76.2	-70.2		124.6	568.5	247.7	1.000028
59500.0	74.5	-70.4		121.7	568.2	248.0	1.000027
60000.0	72.5	-70.7		118.9	567.9	246.9	1.000026
60500.0	70.8	-70.9		116.2	567.6	245.1	1.000026
61000.0	69.1	-71.2		113.6	567.2	240.6	1.000025
61500.0	67.4	-71.5		111.0	566.7	235.6	1.000025
62000.0	65.8	-71.8		108.5	566.3	231.4	1.000024
62500.0	64.2	-72.2		106.0	565.8	229.8	1.000024
63000.0	62.7	-72.5		103.6	565.4	225.5	1.000023
63500.0	61.1	-72.9		101.3	564.9	243.6	1.000023

STATION ALTITUDE 4120.0 FT. 125.
 NO. 22 0730.000000
 ASCE 5100 NO. 315

DEPT. AIR DATA
 3340010313
 1001000000
 TABLE 10 CONT'D

STATION ALTITUDE 4120.0 FT. 125.
 NO. 22 0730.000000
 ASCE 5100 NO. 315

GEOMETRIC ALTITUDE FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KI/MS	WIND DATA DIRECTION SPEED KI/MS	INDEX OF REFRACTION
64000.0	59.7	-42.7		98.8	565.2	245.1	1.000022
64500.0	59.2	-42.2		98.1	565.8	246.0	1.000041
65000.0	58.8	-41.7		97.5	566.5	246.7	1.000021
65500.0	58.4	-41.2		96.9	567.2	247.4	1.000000
66000.0	58.1	-40.6		96.3	568.0	248.2	1.000020
66500.0	57.8	-40.0		95.7	568.8	249.0	1.000019
67000.0	57.5	-39.3		95.1	569.7	249.8	1.000019
67500.0	57.2	-38.7		94.5	570.5	250.6	1.000018
68000.0	56.9	-38.0		93.9	571.2	251.4	1.000018
68500.0	56.6	-37.3		93.3	572.0	252.2	1.000017
69000.0	56.3	-36.7		92.7	572.8	253.0	1.000017
69500.0	56.0	-36.0		92.1	573.6	253.8	1.000016
70000.0	55.7	-35.3		91.5	574.4	254.6	1.000015
70500.0	55.4	-34.7		90.9	575.2	255.4	1.000015
71000.0	55.1	-34.0		90.3	576.0	256.2	1.000014
71500.0	54.8	-33.3		89.7	576.8	257.0	1.000014
72000.0	54.5	-32.7		89.1	577.6	257.8	1.000013
72500.0	54.2	-32.0		88.5	578.4	258.6	1.000013
73000.0	53.9	-31.3		87.9	579.2	259.4	1.000012
73500.0	53.6	-30.7		87.3	580.0	260.2	1.000012
74000.0	53.3	-30.0		86.7	580.8	261.0	1.000011
74500.0	53.0	-29.3		86.1	581.6	261.8	1.000011
75000.0	52.7	-28.7		85.5	582.4	262.6	1.000010
75500.0	52.4	-28.0		84.9	583.2	263.4	1.000010
76000.0	52.1	-27.3		84.3	584.0	264.2	1.000009
76500.0	51.8	-26.7		83.7	584.8	265.0	1.000009
77000.0	51.5	-26.0		83.1	585.6	265.8	1.000009
77500.0	51.2	-25.3		82.5	586.4	266.6	1.000008
78000.0	50.9	-24.7		81.9	587.2	267.4	1.000008
78500.0	50.6	-24.0		81.3	588.0	268.2	1.000008
79000.0	50.3	-23.3		80.7	588.8	269.0	1.000008
79500.0	50.0	-22.7		80.1	589.6	269.8	1.000008
80000.0	49.7	-22.0		79.5	590.4	270.6	1.000008
80500.0	49.4	-21.3		78.9	591.2	271.4	1.000008
81000.0	49.1	-20.7		78.3	592.0	272.2	1.000008
81500.0	48.8	-20.0		77.7	592.8	273.0	1.000008
82000.0	48.5	-19.3		77.1	593.6	273.8	1.000008
82500.0	48.2	-18.7		76.5	594.4	274.6	1.000008
83000.0	47.9	-18.0		75.9	595.2	275.4	1.000008
83500.0	47.6	-17.3		75.3	596.0	276.2	1.000008
84000.0	47.3	-16.7		74.7	596.8	277.0	1.000008
84500.0	47.0	-16.0		74.1	597.6	277.8	1.000008
85000.0	46.7	-15.3		73.5	598.4	278.6	1.000008
85500.0	46.4	-14.7		72.9	599.2	279.4	1.000008
86000.0	46.1	-14.0		72.3	600.0	280.2	1.000008
86500.0	45.8	-13.3		71.7	600.8	281.0	1.000008
87000.0	45.5	-12.7		71.1	601.6	281.8	1.000008
87500.0	45.2	-12.0		70.5	602.4	282.6	1.000008
88000.0	44.9	-11.3		69.9	603.2	283.4	1.000008
88500.0	44.6	-10.7		69.3	604.0	284.2	1.000008
89000.0	44.3	-10.0		68.7	604.8	285.0	1.000008
89500.0	44.0	-9.3		68.1	605.6	285.8	1.000008
90000.0	43.7	-8.7		67.5	606.4	286.6	1.000008
90500.0	43.4	-8.0		66.9	607.2	287.4	1.000008
91000.0	43.1	-7.3		66.3	608.0	288.2	1.000008
91500.0	42.8	-6.7		65.7	608.8	289.0	1.000008
92000.0	42.5	-6.0		65.1	609.6	289.8	1.000008
92500.0	42.2	-5.3		64.5	610.4	290.6	1.000008
93000.0	41.9	-4.7		63.9	611.2	291.4	1.000008
93500.0	41.6	-4.0		63.3	612.0	292.2	1.000008
94000.0	41.3	-3.3		62.7	612.8	293.0	1.000008
94500.0	41.0	-2.7		62.1	613.6	293.8	1.000008
95000.0	40.7	-2.0		61.5	614.4	294.6	1.000008
95500.0	40.4	-1.3		60.9	615.2	295.4	1.000008
96000.0	40.1	-0.7		60.3	616.0	296.2	1.000008
96500.0	39.8	-0.0		59.7	616.8	297.0	1.000008
97000.0	39.5	0.7		59.1	617.6	297.8	1.000008
97500.0	39.2	1.4		58.5	618.4	298.6	1.000008
98000.0	38.9	2.1		57.9	619.2	299.4	1.000008
98500.0	38.6	2.8		57.3	620.0	300.2	1.000008
99000.0	38.3	3.5		56.7	620.8	301.0	1.000008
99500.0	38.0	4.2		56.1	621.6	301.8	1.000008
100000.0	37.7	4.9		55.5	622.4	302.6	1.000008
100500.0	37.4	5.6		54.9	623.2	303.4	1.000008
101000.0	37.1	6.3		54.3	624.0	304.2	1.000008
101500.0	36.8	7.0		53.7	624.8	305.0	1.000008
102000.0	36.5	7.7		53.1	625.6	305.8	1.000008
102500.0	36.2	8.4		52.5	626.4	306.6	1.000008
103000.0	35.9	9.1		51.9	627.2	307.4	1.000008
103500.0	35.6	9.8		51.3	628.0	308.2	1.000008
104000.0	35.3	10.5		50.7	628.8	309.0	1.000008
104500.0	35.0	11.2		50.1	629.6	309.8	1.000008
105000.0	34.7	11.9		49.5	630.4	310.6	1.000008
105500.0	34.4	12.6		48.9	631.2	311.4	1.000008
106000.0	34.1	13.3		48.3	632.0	312.2	1.000008
106500.0	33.8	14.0		47.7	632.8	313.0	1.000008
107000.0	33.5	14.7		47.1	633.6	313.8	1.000008
107500.0	33.2	15.4		46.5	634.4	314.6	1.000008
108000.0	32.9	16.1		45.9	635.2	315.4	1.000008
108500.0	32.6	16.8		45.3	636.0	316.2	1.000008
109000.0	32.3	17.5		44.7	636.8	317.0	1.000008
109500.0	32.0	18.2		44.1	637.6	317.8	1.000008
110000.0	31.7	18.9		43.5	638.4	318.6	1.000008
110500.0	31.4	19.6		42.9	639.2	319.4	1.000008
111000.0	31.1	20.3		42.3	640.0	320.2	1.000008
111500.0	30.8	21.0		41.7	640.8	321.0	1.000008
112000.0	30.5	21.7		41.1	641.6	321.8	1.000008
112500.0	30.2	22.4		40.5	642.4	322.6	1.000008
113000.0	29.9	23.1		39.9	643.2	323.4	1.000008
113500.0	29.6	23.8		39.3	644.0	324.2	1.000008
114000.0	29.3	24.5		38.7	644.8	325.0	1.000008
114500.0	29.0	25.2		38.1	645.6	325.8	1.000008
115000.0	28.7	25.9		37.5	646.4	326.6	1.000008
115500.0	28.4	26.6		36.9	647.2	327.4	1.000008
116000.0	28.1	27.3		36.3	648.0	328.2	1.000008
116500.0	27.8	28.0		35.7	648.8	329.0	1.000008
117000.0	27.5	28.7		35.1	649.6	329.8	1.000008
117500.0	27.2	29.4		34.5	650.4	330.6	1.000008
118000.0	26.9	30.1		33.9	651.2	331.4	1.000008
118500.0	26.6	30.8		33.3	652.0	332.2	1.000008
119000.0	26.3	31.5		32.7	652.8	333.0	1.000008
119500.0	26.0	32.2		32.1	653.6	333.8	1.000008
120000.0	25.7	32.9		31.5	654.4	334.6	1.000008
120500.0	25.4	33.6		30.9	655.2	335.4	1.000008
121000.0	25.1	34.3		30.3	656.0	336.2	1.000008
121500.0	24.8	35.0		29.7	656.8	337.0	1.000008
122000.0	24.5	35.7		29.1	657.6	337.8	1.000008
122500.0	24.2	36.4		28.5	658.4	338.6	1.000008
123000.0	23.9	37.1		27.9	659.2	339.4	1.000008
123500.0	23.6	37.8		27.3	660.0	340.2	1.000008
124000.0	23.3	38.5		26.7	660.8	341.0	1.000008
124500.0	23.0	39.2		26.1	661.6	341.8	1.000008
125000.0	22.7	39.9		25.5	662.4	342.6	1.000008
125500.0	22.4	40.6		24.9	663.2	343.4	1.000008
126000.0	22.1	41.3		24.3	664.0	344.2	1.000008
126500.0	21.8	42.0		23.7	664.8	345.0	1.000008
127000.0	21.5	42.7		23.1	665.6	345.8	1.000008
127500.0	21.2	43.4		22.5	666.4	346.6	1.000008
128000.0	20.9	44.1		21.9	667.2	347.4	1.000008
128500.0	20.6	44.8		21.3	668.0	348.2	1.000008
129000.0	20.3	45.5		20.7	668.8	349.0	1.000008
129500.0	20.0	46.2		20.1	669.6	349.8	1.000008
130000.0	19.7	46.9		19.5	670.4	350.6	1.000008
130500.0	19.4	47.6		18.9	671.2	351.4	1.000008
131000.0	19.1	48.3		18.3	672.0	352.2	1.000008
131500.0	18.8	49.0		17.7	672.8	353.0	1.000008
132000.0	18.5	49.7		17.1	673.6	353.8	1.000008
132500.0	18.2	50.4		16.5	674.4	354.6	1.000008
133000.0	17.9	51.1		15.9	675.2	355.4	1.000008
133500.0	17.6	51.8		15.3	676.0	356.2	1.000008
134000.0	17.3	52.5		14.7	676.8	357.0	1.000008
134500.0	17.0	53.2		14.1	677.6	357.8	1.000008
135000.0	16.7	53.9		13.5	678.4	358.6	1.000008
135500.0	16.4	54.6		12.9	679.2	359.4	1.000008
136000.0	16.1	55.3		12.3	680.0	360.2	1.000008
136500.0	15.8	56.0		11.7	680.8	361.0	1.000008
137000.0	15.5	56.7		11.1	681.6	361.8	1.000008

STATION ALTITUDE 4120.09 FEET
 20 NOV. 62 0730 HRS. EST
 ASCENSION NO. 313

UPPER AIR DATA
 3340010J13
 FOLLOWING
 TABLE 14 Cont'd

GEOMETRIC ALTITUDE 4120.09 FEET
 20 NOV. 62 0730 HRS. EST
 ASCENSION NO. 313

GEOMETRIC ALTITUDE 4120.09 FEET
 20 NOV. 62 0730 HRS. EST
 ASCENSION NO. 313

GEOMETRIC ALTITUDE FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND METERS PER SECOND	WIND DATA DIRECTION, SPEED METERS PER SECOND	INDEX OF REFRACTION
44000.0	22.3	-41.0		35.9	579.4	250.0	1.000003
44500.0	22.3	-41.4		35.0	580.1	260.3	1.000006
45000.0	21.8	-50.9		34.1	580.8	270.0	1.000008
45500.0	21.3	-50.3		33.3	581.5	284.9	1.000007
46000.0	20.8	-49.8		32.4	582.2	292.3	1.000007
46500.0	20.3	-49.3		31.6	582.9	296.9	1.000007
47000.0	19.9	-48.9		30.8	583.4	298.7	1.000007
47500.0	19.4	-48.9		30.1	583.4	296.5	1.000007
48000.0	19.0	-48.9		29.3	583.4	297.1	1.000007
48500.0	18.5	-48.9		28.8	583.3	285.7	1.000006
49000.0	18.1	-49.0		28.1	583.3	270.0	1.000006
49500.0	17.7	-49.0		27.5	583.3		1.000006
50000.0	17.3	-49.0		26.9	583.3		1.000006
50500.0	16.9	-49.0		26.3	583.3		1.000006
51000.0	16.5	-49.0		25.7	583.3		1.000006

STATION ALTITUDE 4120.09 FEET 100
 59 NOV. 82 0730 HRS MST
 ASCENSION NO. 313

MANDATORY LEVELS
 3340010313
 HOLLoman
 TABLE 15

STODOLIC COORDINATES
 32.00865 LAT DEG
 106.09965 LONG DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4704.	8.8	1.0	50.	195.0	0.7
800.0	6426.	6.1	-1.0	57.	233.7	13.8
750.0	8147.	1.2	-3.1	73.	240.2	20.0
700.0	9958.	-2.2	-7.9	65.	251.3	18.6
650.0	11876.	-6.3	-11.6	60.	263.7	25.6
600.0	13915.	-10.7	-15.6	67.	265.4	34.0
550.0	16022.	-15.5	-16.5	92.	260.0	31.1
500.0	18433.	-20.3	-22.2	85.	252.1	30.0
450.0	20962.	-26.7	-27.0	97.	240.0	32.0
400.0	23719.	-32.8	-37.7	61.	235.3	40.1
350.0	26755.	-40.3	-53.0	24.***	224.0	39.4
300.0	30152.	-46.2			231.5	33.3
250.0	34111.	-49.4			240.0	29.9
200.0	38376.	-51.8			249.7	47.8
175.0	41705.	-53.1			240.3	43.6
150.0	44959.	-54.7			241.0	51.2
125.0	48750.	-58.0			251.2	44.7
100.0	53307.	-61.8			255.0	30.1
80.0	57803.	-61.6			243.0	33.5
70.0	60531.	-61.0			230.4	26.3
60.0	63658.	-62.8			244.7	23.4
50.0	67379.	-58.5			287.4	14.3
40.0	71955.	-58.6			240.3	11.7
30.0	77875.	-60.1			342.9	4.6
25.0	81687.	-54.0			241.1	23.3
20.0	86441.	-48.9			290.8	10.5

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

STATION: ALTITUDE 4051.87 FEET MSL
30 NOV. 82 0736 HRS MST
ASCENSION IS. 116

SIGNIFICANT LEVEL DATA
3340180116
LC-37
TABLE 16

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LONG DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT
872.9	4051.4	4.7	2.9	88.0
869.8	4429.0	9.6	3.6	86.0
850.0	4773.2	9.1	.8	50.0
837.1	5189.8	9.4	.6	55.0
818.1	5814.2	8.1	.1	57.0
786.5	6074.9	3.9	-2.9	61.0
748.7	8181.4	-1.1	-4.2	74.0
723.7	9074.5	-8.8	-5.0	73.0
712.6	9479.7	-1.9	-0.4	71.0
700.0	9946.2	-2.0	-7.5	66.0
693.6	10185.8	-3.1	-10.0	59.0
655.6	11644.8	-5.9	-12.0	62.0
651.1	11022.2	-6.0	-14.0	53.0
642.2	12176.0	-6.9	-12.7	63.0
616.0	13241.7	-8.5	-15.7	50.0
607.1	13612.2	-9.4	-15.7	60.0
580.3	14753.0	-12.7	-13.1	97.0
563.6	15084.4	-14.0	-14.9	93.0
557.0	15778.5	-14.4	-17.6	75.0
543.6	16386.1	-14.2	-19.5	64.0
529.0	17062.8	-16.3	-21.3	65.0
521.8	17401.1	-17.7	-21.8	70.0
513.8	17780.9	-18.5	-23.1	67.0
500.0	18448.1	-19.3	-22.9	73.0
489.2	18979.6	-21.9	-23.9	84.0
473.3	19777.5	-23.4	-24.9	87.0
461.2	20401.2	-23.1	-30.0	53.0
435.6	21767.0	-26.9	-32.6	58.0
416.4	22832.1	-29.1	-36.4	49.0
400.0	23772.0	-31.8	-39.1	46.0
387.6	24490.0	-33.5	-41.3	45.0
353.0	26633.9	-39.7	-46.8	46.0
333.1	27931.7	-42.6		
300.0	30233.4	-47.5		
275.0	32052.1	-48.4		
267.2	32748.9	-46.0		
250.0	34200.6	-47.0		
240.0	35010.1	-46.7		
235.3	35522.6	-47.9		
210.4	37045.1	-47.3		

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

SIGNIFICANT LEVEL DATA
3300180110
LC-37
TABLE 10 CONT'D

STATION ALTITUDE 9051.7 FEET MSL
30 NOV. 82 0730 HRS MST
ASCENSION NO. 116

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
200.0	39057.0	-48.6		
192.3	39005.3	-49.9		
177.4	41635.1	-52.0		
167.0	42841.1	-54.6		
158.2	44063.2	-53.1		
150.0	45190.0	-54.7		
144.6	45963.7	-54.6		
127.2	48652.0	-57.5		
110.4	51616.9	-55.5		
100.0	53672.4	-60.8		
84.0	57238.5	-62.3		
77.2	58970.9	-59.5		
70.0	60994.5	-59.3		
58.4	64735.3	-60.1		
50.0	67935.8	-60.2		
45.2	70022.3	-58.9		
34.7	75503.5	-59.1		
31.5	76239.5	-55.3		
30.0	78559.5	-56.9		
26.5	81146.5	-58.9		
23.0	84129.5	-52.8		
20.0	87110.2	-53.5		
19.1	88093.0	-52.5		

GEODETIC COORDINATES
32°40'15" LAT DEG
106°31'23" LONG DEG

UPPER AIR DATA
3340130110
LC-37
TABLE 17

STATION ALTITUDE 4051.37 FEET MSL
30 NOV. 82
0730 HRS PST
ASCENSION ID. 116

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KILOTS	WIND DATA DIRECTION DEGREES (TD)	SPEED KILOTS	INDEX OF REFRACTION
4051.4	872.9	4.7	2.9	88.0	1090.9	650.4	150.0	2.9	1.000200
4500.0	858.6	9.5	3.0	63.9	1054.6	656.1	161.0	2.4	1.000271
5000.0	843.0	9.3	0.8	55.5	1030.8	655.0	217.7	2.8	1.000262
5500.0	827.6	8.8	0.5	56.0	1019.8	653.0	238.7	4.0	1.000257
6000.0	812.5	7.4	-0.4	57.7	1006.2	653.4	249.4	5.4	1.000253
6500.0	797.5	5.4	-1.8	59.6	994.9	651.0	252.2	9.8	1.000248
7000.0	782.8	3.5	-3.0	62.2	983.3	648.8	253.1	14.5	1.000243
7500.0	768.2	2.0	-3.4	67.2	970.4	647.0	254.3	16.6	1.000240
8000.0	753.8	0.5	-4.0	72.2	957.6	645.1	255.5	18.5	1.000236
8500.0	739.7	-0.3	-4.5	73.6	942.5	644.2	257.1	18.9	1.000232
9000.0	725.8	-0.7	-4.9	73.1	926.1	643.7	258.7	19.3	1.000228
9500.0	712.0	-1.9	-6.5	70.8	912.7	642.3	258.8	21.3	1.000223
10000.0	699.6	-2.2	-8.0	64.4	896.7	641.8	258.6	23.6	1.000217
10500.0	685.2	-3.7	-10.4	59.6	884.6	640.0	259.9	26.1	1.000212
11000.0	672.1	-4.7	-11.1	60.7	870.8	638.8	262.3	28.6	1.000208
11500.0	659.3	-5.6	-11.8	61.7	857.3	637.7	264.1	31.0	1.000204
12000.0	646.6	-6.5	-13.3	58.0	843.5	636.6	264.7	33.0	1.000200
12500.0	634.1	-7.4	-13.6	60.9	830.2	635.5	265.2	35.1	1.000196
13000.0	621.8	-8.1	-15.0	57.6	816.5	634.6	264.1	35.7	1.000192
13500.0	609.8	-9.1	-15.7	58.8	803.7	633.4	262.2	35.8	1.000189
14000.0	597.9	-10.5	-14.5	72.6	792.0	631.7	260.5	35.7	1.000187
14500.0	586.1	-12.0	-13.4	88.8	780.7	630.0	260.1	35.0	1.000186
15000.0	574.6	-13.1	-13.7	95.6	768.8	628.6	259.7	34.2	1.000183
15500.0	563.2	-14.0	-15.0	92.0	756.2	627.5	260.9	34.0	1.000179
16000.0	552.1	-14.3	-18.4	71.0	742.3	627.1	262.3	34.0	1.000173
16500.0	541.1	-14.6	-19.8	64.2	728.3	626.8	262.3	33.4	1.000169
17000.0	530.3	-16.1	-21.1	64.9	718.2	624.8	262.0	32.6	1.000166
17500.0	519.7	-17.9	-22.1	69.2	708.8	622.6	260.0	32.9	1.000164
18000.0	509.2	-18.8	-23.0	69.0	698.9	621.6	257.3	33.5	1.000161
18500.0	498.9	-19.6	-23.0	74.1	684.9	620.6	255.4	34.5	1.000158
19000.0	488.8	-21.9	-23.9	84.1	677.4	617.7	253.8	35.7	1.000156
19500.0	478.8	-22.9	-24.6	86.0	668.0	616.5	251.9	36.6	1.000153
20000.0	468.9	-23.3	-26.5	74.9	653.5	616.0	249.1	37.1	1.000150
20500.0	459.3	-23.4	-30.2	53.4	640.3	615.8	248.4	37.6	1.000146
21000.0	449.8	-24.8	-31.1	55.2	630.6	614.1	244.1	37.9	1.000143
21500.0	440.5	-26.2	-32.1	57.0	621.1	612.4	241.8	38.3	1.000141
22000.0	431.3	-27.4	-33.4	56.0	611.2	610.8	240.1	38.6	1.000138
22500.0	422.3	-28.4	-35.2	51.8	600.9	609.5	239.1	38.8	1.000136
23000.0	413.4	-29.6	-36.9	48.8	591.2	608.1	238.0	39.0	1.000133
23500.0	404.7	-31.0	-38.3	48.3	582.1	606.3	236.5	39.1	1.000131

STATION ALTITUDE 4051.7 FEET SL
30 NOV. 82 0730 HRS WST
ASLENSION NO. 116

UPPER AIR DATA
3340190116
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LONG DEG

TABLE 17 Cont'd

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	590.1	-32.3	47.0	572.9	604.6	234.8	39.2	1.000129
24500.0	597.6	-33.5	45.0	563.5	603.1	233.0	39.3	1.000127
25000.0	579.2	-35.0	45.2	554.6	601.3	232.1	38.2	1.000124
25500.0	571.0	-36.4	45.5	545.9	599.4	231.2	37.1	1.000122
26000.0	563.0	-37.9	45.7	537.3	597.6	229.7	36.4	1.000120
26500.0	555.1	-39.3	45.9	528.9	595.8	227.4	36.3	1.000118
27000.0	547.3	-40.5	33.0**	520.0	594.2	225.0	36.2	1.000116
27500.0	539.6	-41.6	15.3**	511.0	592.8	225.0	38.3	1.000114
28000.0	532.1	-42.7		502.1	591.3	225.4	40.8	1.000112
28500.0	524.6	-43.8		493.1	590.0	226.8	42.3	1.000110
29000.0	517.3	-44.9		484.2	588.6	229.7	42.7	1.000108
29500.0	510.2	-45.9		475.6	587.2	232.6	43.2	1.000106
30000.0	503.2	-47.0		467.1	585.9	234.8	43.3	1.000104
30500.0	290.3	-47.6		457.8	585.0	236.7	43.2	1.000102
31000.0	269.6	-47.9		447.8	584.7	238.6	43.1	1.000100
31500.0	263.0	-48.1		438.1	584.4	239.3	44.3	1.000098
32000.0	270.6	-48.4		428.6	584.1	239.7	45.8	1.000095
32500.0	270.3	-47.4		417.1	585.3	239.9	46.8	1.000093
33000.0	264.1	-46.9		406.7	586.0	239.7	46.9	1.000091
33500.0	258.2	-47.0		397.6	585.9	239.4	47.1	1.000089
34000.0	252.3	-47.0		388.6	585.9	239.9	47.3	1.000087
34500.0	240.6	-46.9		379.7	586.0	240.9	47.8	1.000085
35000.0	241.0	-46.7		370.8	586.2	242.0	48.2	1.000083
35500.0	235.5	-47.8		364.2	584.8	243.4	48.8	1.000081
36000.0	230.2	-47.7		355.7	584.9	245.0	49.5	1.000079
36500.0	225.0	-47.5		347.3	585.2	246.4	49.9	1.000077
37000.0	219.9	-47.3		339.1	585.4	247.2	47.9	1.000076
37500.0	214.9	-47.6		331.8	585.1	248.2	46.0	1.000074
38000.0	210.0	-47.9		324.8	584.7	250.5	43.6	1.000072
38500.0	205.2	-48.2		317.8	584.3	254.2	41.0	1.000071
39000.0	200.5	-48.6		311.0	583.8	256.4	38.5	1.000069
39500.0	195.9	-49.3		304.9	582.9	260.7	37.3	1.000068
40000.0	191.5	-50.0		298.9	581.9	263.1	36.2	1.000067
40500.0	187.0	-50.6		292.8	581.1	262.1	35.9	1.000065
41000.0	182.7	-51.2		286.8	580.4	255.5	37.1	1.000064
41500.0	178.5	-51.8		281.0	579.6	249.3	38.8	1.000063
42000.0	174.4	-52.8		275.7	578.3	243.6	41.7	1.000061
42500.0	170.3	-53.9		270.6	576.9	238.7	44.9	1.000060
43000.0	166.3	-54.4		264.9	576.2	238.8	46.0	1.000059
43500.0	162.5	-53.8		258.0	577.0	239.2	46.8	1.000057

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

STATION ALTITUDE 4051.17 FEET MSL
30 NOV. 42
ASCENSION NO. 116

UPPER AIR DATA
3340160116
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LONG DEG

TABLE 17 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE				DIRECTION DEGREES (TH)	SPEED KNOTS	
44000.0	150.7	-53.2			251.3	577.8	240.4	50.4	1.000056
44500.0	150.0	-53.7			246.0	577.1	241.5	54.5	1.000055
45000.0	151.4	-54.4			241.1	576.2	242.7	57.6	1.000054
45500.0	147.8	-54.7			235.7	575.9	244.0	60.0	1.000052
46000.0	144.3	-54.6			230.1	575.9	245.2	62.1	1.000051
46500.0	140.9	-55.2			225.3	575.2	246.4	60.4	1.000050
47000.0	137.6	-55.7			220.5	574.5	247.7	58.8	1.000049
47500.0	134.4	-56.3			215.8	573.7	248.6	58.7	1.000048
48000.0	131.2	-56.8			211.3	573.0	249.3	59.5	1.000047
48500.0	128.1	-57.3			206.8	572.3	249.2	59.8	1.000046
49000.0	125.1	-57.3			201.9	572.4	248.7	59.7	1.000045
49500.0	122.1	-56.9			196.8	572.9	247.2	57.9	1.000044
50000.0	119.3	-56.6			191.9	573.3	245.2	55.5	1.000043
50500.0	116.5	-56.3			187.0	573.7	246.7	53.9	1.000042
51000.0	113.7	-55.9			182.3	574.2	249.0	52.5	1.000041
51500.0	111.0	-55.6			177.8	574.6	252.7	52.0	1.000040
52000.0	108.4	-56.5			174.3	573.4	250.8	51.9	1.000039
52500.0	105.8	-57.8			171.1	571.7	250.8	50.8	1.000038
53000.0	103.3	-59.1			168.1	570.0	258.9	48.5	1.000037
53500.0	100.8	-60.4			165.1	568.3	258.1	46.2	1.000037
54000.0	98.4	-60.9			161.6	567.5	253.1	43.9	1.000036
54500.0	96.0	-61.1			157.8	567.2	247.6	42.0	1.000035
55000.0	93.7	-61.4			154.1	567.0	243.3	42.9	1.000034
55500.0	91.5	-61.6			150.6	566.7	239.5	44.4	1.000034
56000.0	89.2	-61.8			147.1	566.4	237.4	45.1	1.000033
56500.0	87.1	-62.0			143.7	566.1	237.2	44.8	1.000032
57000.0	85.0	-62.2			140.3	565.8	236.9	44.4	1.000031
57500.0	82.9	-61.9			136.8	566.3	237.6	41.0	1.000030
58000.0	80.9	-61.1			133.0	567.3	238.5	37.4	1.000030
58500.0	79.0	-60.3			129.3	568.4	241.3	35.0	1.000029
59000.0	77.1	-59.5			125.7	569.4	246.5	34.1	1.000028
59500.0	75.2	-59.4			122.7	569.5	251.9	33.5	1.000027
60000.0	73.5	-59.4			119.7	569.6	254.3	33.4	1.000027
60500.0	71.7	-59.3			116.8	569.6	256.7	33.3	1.000026
61000.0	70.0	-59.3			114.0	569.7	254.9	32.1	1.000025
61500.0	68.3	-59.4			111.3	569.6	249.1	30.2	1.000025
62000.0	66.7	-59.5			108.7	569.4	242.8	28.8	1.000024
62500.0	65.1	-59.6			106.2	569.3	237.2	28.8	1.000024
63000.0	63.5	-59.7			103.7	569.1	231.8	29.1	1.000023
63500.0	62.0	-59.8			101.3	569.0	231.1	29.8	1.000023

GEOMETRIC COORDINATES
32.40175 LAT DEG
100.51252 LONG DEG

UNDER AIR DATA
3340180116
LC-37
TABLE 17 CONT'D

STATION ALTITUDE 9051.77 FEET MSL
30 NOV. 82 0730 HRS MST
ACCEL. NO. 116

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 TRUE)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.5	-59.9		98.9	568.8	232.6	30.6	1.000022
64500.0	59.1	-60.0		96.6	568.7	235.2	30.5	1.000022
65000.0	57.7	-60.1		94.3	568.6	244.9	26.5	1.000021
65500.0	56.3	-60.1		92.0	568.6	257.5	23.5	1.000020
66000.0	54.9	-60.1		89.8	568.6	266.7	20.9	1.000020
66500.0	53.6	-60.2		87.7	568.6	272.9	17.8	1.000020
67000.0	52.3	-60.2		85.6	568.5	281.3	15.1	1.000019
67500.0	51.1	-60.2		83.5	568.5	273.3	13.6	1.000019
68000.0	49.8	-60.2		81.5	568.6	262.7	12.5	1.000018
68500.0	48.7	-59.8		79.5	569.0	258.3	12.2	1.000018
69000.0	47.5	-59.5		77.4	569.4	267.6	12.6	1.000017
69500.0	46.4	-59.2		75.5	569.8	270.1	13.3	1.000017
70000.0	45.2	-58.9		73.6	570.2	274.6	14.1	1.000016
70500.0	44.2	-58.9		71.8	570.2	270.2	15.0	1.000016
71000.0	43.1	-58.9		70.1	570.2	266.4	16.0	1.000016
71500.0	42.1	-59.0		68.5	570.2	262.1	15.7	1.000015
72000.0	41.1	-59.0		66.8	570.1	257.8	15.5	1.000015
72500.0	40.1	-59.0		65.2	570.1	253.7	15.6	1.000015
73000.0	39.2	-59.0		63.7	570.1	253.0	17.5	1.000014
73500.0	38.2	-59.0		62.2	570.1	252.4	19.4	1.000014
74000.0	37.3	-59.0		60.7	570.0	251.1	21.2	1.000014
74500.0	36.4	-59.1		59.3	570.0	247.7	22.9	1.000013
75000.0	35.6	-59.1		57.9	570.0	244.7	24.7	1.000013
75500.0	34.7	-59.1		56.5	570.0	244.8	25.1	1.000013
76000.0	33.9	-56.5		54.5	573.4	249.3	23.7	1.000012
76500.0	33.1	-55.5		53.0	574.8	254.4	22.4	1.000012
77000.0	32.3	-55.8		51.8	574.3	261.7	20.1	1.000012
77500.0	31.6	-56.2		50.7	573.9	273.1	17.4	1.000011
78000.0	30.9	-56.5		49.5	573.4	288.0	15.5	1.000011
78500.0	30.1	-56.9		48.5	572.9	295.5	13.8	1.000011
79000.0	29.4	-57.2		47.4	572.4	297.7	11.8	1.000011
79500.0	28.7	-57.6		46.4	571.9	300.8	9.7	1.000010
80000.0	28.0	-58.0		45.3	571.4	296.8	8.0	1.000010
80500.0	27.3	-58.4		44.3	570.9	286.4	6.7	1.000010
81000.0	26.7	-58.8		43.4	570.4	271.6	5.7	1.000010
81500.0	26.1	-58.2		42.2	571.2	256.5	5.8	1.000009
82000.0	25.4	-57.2		41.0	572.6	244.3	6.5	1.000009
82500.0	24.9	-56.1		39.9	573.9	234.8	7.4	1.000009
83000.0	24.3	-55.1		38.8	575.3	238.6	8.7	1.000009
83500.0	23.7	-54.1		37.7	576.6	243.7	10.1	1.000008

STATION ALTITUDE 4051.37 FEET MSL
 30 NOV. 82 0730 HRS MST
 ASCENSION NO. 116

UPPER AIR DATA
 3340180116
 LC-37

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

TABLE 17 Cont'd

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
04000.0	23.1	-53.1		36.6	578.0	247.4	11.6	1.000000
04500.0	22.6	-52.9		35.7	578.2	250.3	12.4	1.000000
05000.0	22.1	-53.0		34.9	578.0	252.9	13.1	1.000000
05500.0	21.6	-53.1		34.1	577.9	255.2	13.9	1.000000
06000.0	21.1	-53.2		33.4	577.7			1.000007
06500.0	20.6	-53.4		32.6	577.6			1.000007
07000.0	20.1	-53.5		31.9	577.4			1.000007
07500.0	19.6	-53.1		31.1	577.9			1.000007
08000.0	19.2	-52.6		30.3	578.6			1.000007

STATION ALTITUDE 4051.37 FEET TSL
30 NOV. 62 0730 HRS EST
ASCENSION NO. 116

MANDATORY LEVELS
3340160110
LC-37
TABLE 10

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LONG DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
		AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
MILLIBARS	FEET					
850.0	4770.	9.1	.8	56.	202.4	2.5
800.0	6413.	5.7	-1.6	59.	252.0	9.0
750.0	8128.	.0	-4.1	74.	255.9	10.6
700.0	9937.	-2.0	-7.5	66.	258.6	23.4
650.0	11853.	-6.1	-13.8	54.	264.5	32.5
600.0	13895.	-10.3	-14.7	70.	260.7	35.8
550.0	16074.	-14.3	-18.7	69.	262.5	34.0
500.0	18423.	-19.3	-22.9	73.	255.6	34.4
450.0	20960.	-24.7	-31.1	55.	244.2	37.9
400.0	23733.	-31.8	-39.1	48.	235.6	39.1
350.0	26778.	-40.1	-48.6	39.**	225.9	30.2
300.0	30175.	-47.5			235.6	43.3
250.0	34128.	-47.0			240.3	47.5
200.0	38965.	-48.6			258.6	38.4
175.0	41821.	-52.6			244.6	41.1
150.0	45070.	-54.7			243.2	58.4
125.0	48876.	-57.3			246.7	59.7
100.0	53508.	-60.8			256.7	45.5
80.0	60786.	-60.7			238.9	30.0
60.0	63949.	-59.3			255.3	32.3
50.0	67681.	-60.0			235.1	30.8
40.0	72269.	-59.0			264.9	12.7
30.0	78226.	-56.9			253.6	15.7
25.0	81998.	-56.4			295.5	13.7
20.0	86704.	-53.5			230.0	7.0

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

STATION ALTITUDE 3089.0 FEET MSL
30 NOV. 62 0450 HRS PST
ASCENDING 1.0. 593

SIGNIFICANT LEVEL DATA
3340020593
WHITE SANDS
TABLE 10

GEOLOGIC COORDINATES
32°40043 LAT ELG
106°37033 LONG ELG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL HUM. PERCENT
674.9 3989.0	8.7 4.1	73.0
865.3 4290.1	10.5 3.3	61.0
850.0 4777.8	9.9 -6	48.0
801.8 6357.8	5.1 -2.2	59.0
751.3 8087.1	-2 -3.1	81.0
700.0 9039.0	-3.1 -6.7	70.0
653.8 11707.2	-5.8 -19.1	34.0
645.3 12044.1	-6.2 -13.3	57.0
626.7 12794.8	-7.4 -16.0	50.0
500.2 18428.5	-21.3 -21.6	97.0
450.2 20526.4	-26.4 -28.0	80.0
450.8 20913.3	-26.7 -33.7	51.0
442.8 21338.2	-27.1 -37.3	37.0
431.3 21960.4	-28.5 -38.6	37.0
400.0 23719.3	-33.3 -42.0	41.0
339.1 27460.6	-43.0	
319.4 28746.6	-45.6	
317.5 28912.3	-44.3	
300.0 30163.3	-44.3	
273.3 32206.9	-47.3	
266.5 32757.2	-46.1	
250.0 34153.5	-47.2	
225.0 36450.2	-47.2	
200.0 39000.6	-50.3	
183.2 40882.2	-51.6	
150.0 45102.9	-57.4	
130.4 47400.0	-55.7	
125.2 48890.3	-55.4	
119.8 49812.4	-57.9	
100.0 53526.1	-62.9	
85.6 56682.8	-63.3	
79.4 58227.1	-58.1	
70.0 60841.2	-59.1	
65.5 62207.5	-62.0	
50.0 67740.6	-60.7	
44.7 70062.4	-57.4	
36.3 74396.2	-58.8	
33.7 75041.1	-58.2	
30.0 78380.0	-55.1	
20.0 87056.2	-49.6	

GEODETIC COORDINATES
 32.40043 LAT UEG
 106.37033 LONG UEG

SIGNIFICANT LEVEL DATA
 3340020593
 WHITE SANDS
 TABLE 19 CONT'D

STATION ALTITUDE 3989.00 FEET MSL
 30 NOV. 82
 ASCENDING NO. 593

PRESSURE	GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT
15.3	92927.4	-44.7		
14.1	94732.5	-46.0		
10.0	102385.9	-41.3		
7.9	107725.7	-38.5		

STATION ALTITUDE 3989.00 FEET MSL
30 NOV. 62 0850 HRS MST
ASCENSION IS. 593

UPPER AIR DATA
3340020593
WHITE SANDS
TABLE 20

GEOMETRIC COORDINATES
32.40045 LAT DEG
106.37033 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 TRUE)	SPEED KNOTS	INDEX OF REFRACTION
3989.0	874.9	8.7	73.0	1077.5	655.2	150.0	8.0	1.000279
4000.0	874.5	8.8	72.6	1076.9	655.3	150.2	7.9	1.000279
4500.0	858.7	10.2	55.4	1052.3	656.8	150.5	6.7	1.000267
5000.0	845.1	9.2	49.5	1037.4	655.5	170.2	5.7	1.000259
5500.0	827.6	7.7	53.0	1023.9	653.7	180.2	4.9	1.000255
6000.0	812.5	6.2	56.5	1010.7	651.9	200.7	4.7	1.000251
6500.0	797.5	4.7	60.8	997.6	650.1	231.9	5.5	1.000248
7000.0	782.7	3.1	67.2	984.4	648.4	248.4	7.1	1.000245
7500.0	768.1	1.6	73.5	971.5	646.6	253.3	11.3	1.000242
8000.0	753.8	.1	79.9	958.7	644.7	255.6	15.5	1.000239
8500.0	739.5	-8	79.9	943.9	643.6	254.9	18.7	1.000234
9000.0	725.6	-1.6	78.5	928.8	642.7	254.5	21.8	1.000229
9500.0	711.8	-2.4	77.2	914.0	641.7	253.2	23.2	1.000224
10000.0	698.4	-3.2	74.6	899.4	640.7	252.2	24.5	1.000219
10500.0	685.0	-4.0	62.7	885.1	639.7	251.7	25.9	1.000212
11000.0	671.9	-4.7	50.8	870.9	638.7	253.2	27.6	1.000206
11500.0	659.1	-5.5	38.9	857.0	637.7	255.3	30.4	1.000199
12000.0	646.4	-6.1	54.0	842.4	637.0	256.1	36.0	1.000194
12500.0	633.9	-6.9	52.7	828.6	636.0	256.8	37.0	1.000195
13000.0	621.6	-7.4	51.7	815.5	634.8	257.7	36.9	1.000191
13500.0	609.2	-9.1	55.9	803.0	633.3	259.4	34.5	1.000188
14000.0	597.1	-10.4	60.1	790.8	631.9	260.7	33.2	1.000185
14500.0	585.3	-11.6	64.2	778.8	630.4	260.9	34.0	1.000180
15000.0	573.7	-12.8	68.4	766.9	628.9	261.0	34.7	1.000177
15500.0	562.3	-14.1	72.6	755.3	627.4	260.7	34.0	1.000174
16000.0	551.1	-15.3	76.7	743.9	625.9	260.3	33.1	1.000171
16500.0	540.2	-16.5	80.9	732.7	624.4	259.5	32.2	1.000168
17000.0	529.5	-17.8	85.1	721.6	622.8	258.3	31.1	1.000165
17500.0	519.7	-19.0	89.3	710.7	621.3	257.7	30.4	1.000163
18000.0	509.7	-20.2	93.4	700.1	619.8	258.4	30.9	1.000160
18500.0	499.5	-21.5	96.6	689.5	618.3	258.9	31.1	1.000157
19000.0	489.2	-22.7	94.0	678.6	616.8	259.3	30.7	1.000154
19500.0	478.2	-23.9	91.4	667.9	615.2	258.7	30.5	1.000151
20000.0	468.3	-25.1	88.8	657.4	613.7	257.7	30.4	1.000148
20500.0	458.7	-26.3	86.1	647.1	612.2	257.4	31.9	1.000143
21000.0	449.2	-27.6	84.1	634.9	611.6	257.4	33.4	1.000140
21500.0	439.8	-28.8	37.0	623.5	610.7	255.4	34.6	1.000136
22000.0	430.6	-28.6	37.0	613.3	609.3	252.4	33.8	1.000133
22500.0	421.4	-30.0	38.2	603.6	607.6	250.0	33.1	1.000130
23000.0	412.5	-31.3	39.4	594.2	605.9	248.6	32.6	1.000133

STATION ALTITUDE 3989.00 FEET MSL
30 NOV. 62 0850 HRS. CST
ASCENSION NO. 393

UNWEIGHED AIR DATA
3340020593
WHITE SANDS
TABLE 20 CONT'D

GEOMETRIC ALTITUDE 3989.00 FEET MSL
30 NOV. 62 0850 HRS. CST
ASCENSION NO. 393

GEOMETRIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES (CENTIGRADE)	DEWPOINT DEGREES (CENTIGRADE)	REL. HUM. PERCENT	DENSITY GM/CMIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES (TN))	SPEED KNOTS	INDEX OR REFRACTION
23500.0	403.8	-12.7	-41.5	40.5	584.9	604.1	247.9	32.8	1.000131
24000.0	395.1	-14.0	-43.4	37.9**	575.5	602.5	247.7	33.4	1.000129
24500.0	386.4	-15.3	-45.9	32.4**	566.0	600.8	248.3	33.6	1.000127
25000.0	378.0	-16.6	-48.7	27.0**	556.7	599.2	249.7	33.7	1.000124
25500.0	369.8	-17.9	-51.8	21.5**	547.6	597.5	251.6	34.3	1.000122
26000.0	361.7	-19.2	-55.3	16.0**	538.6	595.9	254.2	35.9	1.000120
26500.0	353.8	-20.5	-59.7	10.5**	529.8	594.2	256.8	37.5	1.000118
27000.0	346.1	-21.8	-66.2	5.0**	521.1	592.6	259.5	39.1	1.000116
27500.0	338.5	-23.1			512.5	590.9	261.5	40.2	1.000114
28000.0	330.9	-24.4			503.3	589.6	262.3	40.3	1.000112
28500.0	323.5	-25.1			494.2	588.3	262.4	40.7	1.000110
29000.0	316.2	-26.3			481.4	589.3	261.7	41.4	1.000107
29500.0	309.2	-27.6			470.6	589.3	263.3	41.3	1.000105
30000.0	302.2	-28.9			460.1	589.3	265.9	41.0	1.000102
30500.0	295.4	-30.2			450.7	588.7	274.0	42.5	1.000100
31000.0	288.8	-31.5			441.9	587.8	280.1	44.6	1.000098
31500.0	282.3	-32.8			433.4	586.8	282.3	46.9	1.000097
32000.0	275.9	-34.1			425.0	585.9	281.5	45.9	1.000095
32500.0	269.7	-35.4			414.8	586.3	277.6	42.1	1.000092
33000.0	263.6	-36.7			404.7	586.8	274.1	37.4	1.000090
33500.0	257.6	-38.0			396.2	586.3	269.8	33.4	1.000088
34000.0	251.8	-39.3			388.0	585.8	264.7	32.5	1.000086
34500.0	246.1	-40.6			379.4	585.6	262.6	33.5	1.000084
35000.0	240.5	-41.9			370.8	585.6	262.6	35.5	1.000083
35500.0	235.0	-43.2			362.4	585.6	264.1	37.9	1.000081
36000.0	229.7	-44.5			354.1	585.6	265.0	40.1	1.000079
36500.0	224.5	-45.8			346.2	585.5	264.3	41.3	1.000077
37000.0	219.4	-47.1			339.2	584.7	263.3	42.9	1.000076
37500.0	214.4	-48.4			332.4	583.9	261.9	45.0	1.000074
38000.0	209.5	-49.7			325.7	583.2	261.0	45.0	1.000073
38500.0	204.7	-51.0			319.1	582.4	260.5	45.4	1.000071
39000.0	200.0	-52.3			312.7	581.6	260.7	44.6	1.000070
39500.0	195.4	-53.6			305.9	581.1	262.7	43.0	1.000068
40000.0	190.9	-54.9			299.3	580.7	264.7	41.6	1.000067
40500.0	186.5	-56.2			292.9	580.2	263.3	41.2	1.000065
41000.0	182.2	-57.5			286.7	579.7	261.9	40.9	1.000064
41500.0	177.9	-58.8			280.8	578.8	255.8	41.3	1.000063
42000.0	173.8	-60.1			275.1	577.9	249.3	42.3	1.000061
42500.0	169.7	-61.4			269.5	577.0	245.9	43.6	1.000060
43000.0	165.7	-62.7			264.0	576.0	243.8	45.0	1.000059

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

STATION ALTITUDE 3909.00 FEET MSL
30 NOV. 82 0850 HRS MST
ASCENSION NO. 593

UPPER AIR DATA
3340020593
WHITE SANDS
TABLE 20 Cont'd

GEODETIC COORDINATES
32.40043 LAT DEG
100.37033 LONG 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 TRUE)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	161.8	-55.2			258.7	575.1	243.1	45.7	1.000058
44000.0	158.0	-55.9			253.4	574.2	243.4	45.9	1.000050
44500.0	154.3	-56.6			248.3	573.3	244.6	48.9	1.000055
45000.0	150.7	-57.3			243.2	572.4	246.5	54.2	1.000054
45500.0	147.2	-57.1			237.3	572.0	248.3	60.3	1.000053
46000.0	143.7	-56.7			231.3	573.1	250.3	66.9	1.000052
46500.0	140.3	-56.4			225.5	573.6	251.4	69.1	1.000050
47000.0	137.0	-56.0			219.8	574.1	252.1	68.1	1.000049
47500.0	133.8	-55.7			214.3	574.5	252.1	64.7	1.000048
48000.0	130.6	-55.6			209.1	574.6	251.3	59.4	1.000047
48500.0	127.5	-55.5			204.1	574.8	250.2	55.3	1.000045
49000.0	124.5	-55.7			199.5	574.5	248.6	52.3	1.000044
49500.0	121.6	-57.1			196.0	572.7	247.6	50.9	1.000044
50000.0	118.7	-58.2			192.4	571.2	247.3	51.1	1.000043
50500.0	115.9	-58.8			188.3	570.3	247.6	51.2	1.000042
51000.0	113.1	-59.5			184.4	569.4	248.8	51.0	1.000041
51500.0	110.4	-60.2			180.5	568.5	250.0	50.7	1.000040
52000.0	107.7	-60.8			176.7	567.6	250.4	49.3	1.000039
52500.0	105.1	-61.5			173.0	566.7	250.8	47.9	1.000039
53000.0	102.6	-62.2			169.4	565.8	249.1	46.9	1.000038
53500.0	100.1	-62.9			165.9	564.9	246.7	46.1	1.000037
54000.0	97.7	-63.0			161.9	564.8	244.1	45.6	1.000036
54500.0	95.3	-63.1			158.0	564.7	241.6	45.3	1.000035
55000.0	93.0	-63.1			154.2	564.6	239.3	45.1	1.000034
55500.0	90.7	-63.2			150.5	564.0	239.8	44.1	1.000034
56000.0	88.5	-63.2			146.9	564.5	240.3	43.1	1.000033
56500.0	86.4	-63.3			143.4	564.4	243.1	41.8	1.000032
57000.0	84.3	-62.2			139.2	565.8	247.2	40.5	1.000031
57500.0	82.3	-60.5			134.8	568.0	251.2	39.3	1.000030
58000.0	80.3	-58.9			130.5	570.3	254.7	38.1	1.000029
58500.0	78.4	-58.2			127.0	571.2	258.6	36.9	1.000028
59000.0	76.5	-58.4			124.1	570.9	258.9	35.1	1.000028
59500.0	74.7	-58.6			121.2	570.7	258.4	33.1	1.000027
60000.0	72.9	-58.8			118.5	570.4	256.6	31.1	1.000026
60500.0	71.2	-59.0			115.7	570.1	252.1	29.4	1.000026
61000.0	69.5	-59.4			113.2	569.5	247.0	27.9	1.000025
61500.0	67.8	-60.5			111.1	568.1	242.3	26.7	1.000025
62000.0	66.2	-61.6			108.9	566.7	237.4	25.6	1.000024
62500.0	64.6	-61.9			106.5	566.2	234.6	24.4	1.000024
63000.0	63.0	-61.8			103.9	566.3	235.3	22.6	1.000023

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

UNTER AIR DATA
3360020393
WHITE SANDS
TABLE 20 Cont'd

STATION ALTITUDE 3989.00 FEET MSL
30 NOV. 82
ASCENSION NO. 593

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 (IN)	SPEED KNOTS	INDEX OF REFRACTION.
63500.0	61.5	-61.7		101.3	566.5	236.1	20.8	1.000023
64000.0	60.0	-61.6		98.8	566.7	243.4	19.1	1.000022
64500.0	58.6	-61.5		96.4	566.8	252.1	17.8	1.000021
65000.0	57.2	-61.3		94.0	567.0	257.7	16.1	1.000021
65500.0	55.8	-61.2		91.7	567.1	261.0	13.8	1.000020
66000.0	54.4	-61.1		89.4	567.3	263.9	11.6	1.000020
66500.0	53.1	-61.0		87.2	567.4	255.9	10.1	1.000019
67000.0	51.8	-60.9		85.1	567.6	245.3	8.8	1.000019
67500.0	50.6	-60.8		83.0	567.8	238.4	8.7	1.000018
68000.0	49.4	-60.3		80.8	568.3	233.7	9.1	1.000018
68500.0	48.2	-59.6		78.6	569.3	227.7	9.5	1.000018
69000.0	47.1	-58.9		76.5	570.2	217.9	10.0	1.000017
69500.0	45.9	-58.2		74.4	571.2	209.4	10.9	1.000017
70000.0	44.8	-57.5		72.4	572.1	209.7	11.3	1.000016
70500.0	43.8	-57.5		70.7	572.1	212.0	11.6	1.000016
71000.0	42.7	-57.7		69.1	571.8	216.4	11.4	1.000015
71500.0	41.7	-57.9		67.5	571.6	227.3	10.0	1.000015
72000.0	40.7	-58.0		66.0	571.4	241.1	9.1	1.000015
72500.0	39.8	-58.2		64.4	571.2	243.5	9.2	1.000014
73000.0	38.8	-58.3		63.0	571.0	243.0	9.4	1.000014
73500.0	37.9	-58.5		61.5	570.8	242.9	9.8	1.000014
74000.0	37.0	-58.7		60.1	570.5	243.8	10.6	1.000013
74500.0	36.1	-58.8		58.7	570.4	244.6	11.5	1.000013
75000.0	35.3	-58.6		57.2	570.7	248.4	11.9	1.000013
75500.0	34.4	-58.4		55.8	570.9	252.8	12.4	1.000012
76000.0	33.6	-58.1		54.4	571.3	255.9	12.8	1.000012
76500.0	32.8	-57.5		53.0	572.1	255.5	13.1	1.000012
77000.0	32.0	-56.9		51.6	573.0	255.1	13.3	1.000011
77500.0	31.3	-56.2		50.2	573.8	254.5	13.9	1.000011
78000.0	30.5	-55.6		48.9	574.6	253.9	14.6	1.000011
78500.0	29.8	-55.0		47.6	575.4	253.3	15.4	1.000011
79000.0	29.1	-54.7		46.5	575.8	253.6	15.3	1.000010
79500.0	28.5	-54.4		45.3	576.2	253.9	15.2	1.000010
80000.0	27.8	-54.1		44.2	576.6	254.2	14.9	1.000010
80500.0	27.2	-53.8		43.1	577.0	254.3	14.1	1.000010
81000.0	26.5	-53.4		42.1	577.5	254.4	13.4	1.000009
81500.0	25.9	-53.1		41.1	577.9	254.5	12.7	1.000009
82000.0	25.3	-52.8		40.0	578.3	254.5	12.2	1.000009
82500.0	24.7	-52.5		39.1	578.7	254.5	11.6	1.000009
83000.0	24.2	-52.2		38.1	579.1	255.4	12.3	1.000008

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

UPPER AIR DATA
3340020593
WHITE SANDS
TABLE 20 Cont'd

STATION ALTITUDE 3989.00 FEET MSL
30 NOV. 62 0850 HRS MST
ASCENSION NO. 593

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
83500.0	23.6	-51.9		37.2	579.5	274.9	13.3	1.000008
84000.0	23.1	-51.5		36.3	580.0	283.1	14.4	1.000008
84500.0	22.5	-51.2		35.4	580.4	290.8	15.3	1.000008
85000.0	22.0	-50.9		34.5	580.8	297.7	16.3	1.000008
85500.0	21.5	-50.6		33.7	581.2	301.3	16.8	1.000007
86000.0	21.0	-50.3		32.8	581.6	300.8	16.0	1.000007
86500.0	20.5	-50.0		32.0	582.0	300.3	15.2	1.000007
87000.0	20.1	-49.6		31.3	582.4	297.6	15.0	1.000007
87500.0	19.6	-49.2		30.5	583.0	292.5	15.6	1.000007
88000.0	19.2	-48.8		29.7	583.5	287.7	16.3	1.000007
88500.0	18.7	-48.4		29.0	584.0	284.8	16.7	1.000006
89000.0	18.3	-48.0		28.3	584.6	283.6	16.4	1.000006
89500.0	17.9	-47.6		27.6	585.1	282.4	16.1	1.000006
90000.0	17.5	-47.1		27.0	585.7	280.4	16.4	1.000006
90500.0	17.1	-46.7		26.3	586.2	278.0	17.6	1.000006
91000.0	16.7	-46.3		25.7	586.8	275.8	18.9	1.000006
91500.0	16.3	-45.9		25.0	587.3	274.0	20.5	1.000006
92000.0	16.0	-45.5		24.4	587.8	272.7	22.5	1.000005
92500.0	15.6	-45.1		23.8	588.4	271.6	24.6	1.000005
93000.0	15.2	-44.8		23.3	588.8	270.8	26.1	1.000005
93500.0	14.9	-45.1		22.8	588.3	270.3	26.7	1.000005
94000.0	14.6	-45.5		22.3	587.8	269.8	27.3	1.000005
94500.0	14.2	-45.8		21.8	587.4	268.9	28.4	1.000005
95000.0	13.9	-45.8		21.4	587.4	267.4	30.5	1.000005
95500.0	13.6	-45.5		20.8	587.8	266.1	32.6	1.000005
96000.0	13.3	-45.2		20.4	588.2	265.5	34.5	1.000005
96500.0	13.0	-44.9		19.9	588.6	265.7	36.3	1.000004
97000.0	12.7	-44.6		19.4	589.0	265.9	38.1	1.000004
97500.0	12.5	-44.3		19.0	589.3	266.6	39.4	1.000004
98000.0	12.2	-44.0		18.5	589.7	268.9	39.7	1.000004
98500.0	11.9	-43.7		18.1	590.1	271.0	40.0	1.000004
99000.0	11.6	-43.4		17.7	590.5	271.6	40.1	1.000004
99500.0	11.4	-43.1		17.2	590.9	266.4	39.2	1.000004
100000.0	11.1	-42.8		16.8	591.3	261.0	38.7	1.000004
100500.0	10.9	-42.5		16.4	591.7	257.0	38.7	1.000004
101000.0	10.6	-42.2		16.0	592.1	260.5	39.4	1.000004
101500.0	10.4	-41.8		15.7	592.5	263.8	40.2	1.000003
102000.0	10.2	-41.5		15.3	592.9	266.9	41.1	1.000003
102500.0	9.9	-41.2		14.9	593.3	263.9	41.7	1.000003
103000.0	9.7	-41.0		14.6	593.6	270.9	42.2	1.000003

STATION ALTITUDE 3989.00 F 11 MSL
30 NOV. 62
ASCENSION NO. 593

UPPER AIR DATA
3340020593
WHITE SANDS
TABLE 20 Cont'd

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TH)	SPEED KNOTS	INDEX OF REFRACTION
103500.0	9.5	-40.7			14.3	593.9	271.9	42.7	1.000003
104000.0	9.3	-40.5			13.9	594.3	262.3	43.0	1.000003
104500.0	9.1	-40.2			13.6	594.6	253.1	44.3	1.000003
105000.0	8.9	-39.9			13.3	594.9			1.000003
105500.0	8.7	-39.7			13.0	595.3			1.000003
106000.0	8.5	-39.4			12.7	595.6			1.000003
106500.0	8.3	-39.1			12.4	595.9			1.000003
107000.0	8.2	-38.9			12.1	596.3			1.000003
107500.0	8.0	-38.6			11.9	596.6			1.000003

STATION ALTITUDE 3909.00 FEET MSL
30 NOV. 62 0850 HRS PST
ASCENSION NO. 593

MANDATORY LEVELS
33400.0593
WHITE SANDS
TABLE 21

GEOGRAPHIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

PRESSURE (GEOPOTENTIAL)	MILLIBARS	FEET	TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
			AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4774.	9.9	-0.6	48.	164.4	0.1	
800.0	6413.	4.9	-2.2	60.	220.2	5.3	
750.0	8125.	-0.3	-3.1	81.	253.4	10.3	
700.0	9929.	-3.1	-6.7	76.	252.2	24.4	
650.0	11845.	-6.0	-16.2	44.	255.9	34.3	
600.0	13898.	-10.1	-16.5	59.	260.6	33.0	
550.0	16068.	-15.4	-18.5	77.	260.2	33.0	
500.0	18403.	-21.3	-21.6	97.	258.9	31.1	
450.0	20924.	-26.7	-34.1	50.	257.6	33.2	
400.0	23681.	-33.3	-42.0	41.	247.8	33.0	
350.0	26708.	-41.1	-62.4	8.**	258.1	38.3	
300.0	30105.	-44.3			260.3	41.4	
250.0	34081.	-47.2			263.2	32.3	
200.0	38908.	-50.3			260.6	44.7	
175.0	41754.	-52.9			251.4	41.9	
150.0	44983.	-57.4			246.5	55.1	
125.0	48785.	-55.5			248.9	52.9	
100.0	53362.	-62.9			240.7	46.1	
80.0	57881.	-58.6			255.1	38.0	
70.0	60634.	-59.1			249.0	28.4	
60.0	63773.	-61.6			242.9	19.2	
50.0	67448.	-60.7			236.4	8.9	
40.0	72092.	-58.1			243.7	9.1	
30.0	78048.	-55.1			253.5	15.1	
25.0	81890.	-52.6			254.5	12.0	
20.0	86651.	-49.6			297.5	15.0	
15.0	92903.	-45.0			270.5	20.4	
10.0	101835.	-41.3			268.2	41.5	

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

STATION ALTITUDE 4051.00 FEET MSL
30 NOV. 82 0855 HRS WST
ASCENSION NO. 184

SIGNIFICANT LEVEL DATA
3340030184
JALLEN
TABLE 22

GEODETIC COORDINATES
33-16712 LAT DEG
106-49511 LONG DEG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEW POINT CENTIGRADE	
872.3 4051.0	4.7	-9	67.0
864.5 4291.7	4.7	.1	72.0
858.0 4494.8	7.1	2.4	72.0
850.0 4748.2	7.3	1.6	67.0
834.6 5242.0	7.3	1.4	66.0
722.3 9089.7	-1.8	-2.8	93.0
700.0 9908.2	-3.4	-4.2	94.0
680.1 10316.4	-3.5	-7.3	75.0
634.7 12444.0	-6.1	-10.8	69.0
577.4 14852.4	-12.1	-15.9	73.0
528.7 17050.6	-16.5	-22.8	58.0
500.0 18420.8	-20.3	-25.1	65.0
442.7 21342.1	-27.9	-31.4	72.0
435.0 21756.9	-27.8	-35.0	50.0
400.0 23720.4	-32.7	-41.4	41.0
376.1 25138.6	-35.9	-46.6	32.0
351.4 26679.3	-39.8	-49.8	33.0
313.4 29219.5	-46.0		
307.2 29657.6	-45.5		
300.0 30176.6	-46.9		
283.6 31397.6	-48.9		
258.9 33380.6	-46.1		
250.0 34144.4	-47.4		
233.6 35610.5	-50.9		
213.2 37574.3	-49.9		
200.0 38949.6	-50.4		
190.6 39981.2	-51.8		
187.3 40354.9	-51.1		
168.5 42620.0	-51.5		
157.3 44081.1	-54.7		
153.9 44542.8	-54.0		
150.0 45084.0	-55.5		
137.5 46900.6	-58.4		
128.3 48344.3	-56.2		
121.8 49431.3	-57.2		
116.7 50324.0	-56.6		
100.5 51652.9	-58.0		
100.0 53521.6	-62.1		
90.8 55501.3	-59.7		
81.8 57637.8	-63.1		

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

SIGNIFICANT LEVEL DATA
 3340030184
 JALLEN
 TABLE 22 Cont'd

STATION ALTITUDE 9951.00 FEET MSL
 30 NOV. 62 0855 HRS MST
 ASCENSION NO. 184

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
78.3	58531.6	-60.4		
70.0	60833.9	-60.9		
66.9	61760.8	-62.2		
59.0	64343.6	-59.1		
55.3	65681.0	-60.3		
52.0	66958.5	-56.8		
50.0	67776.2	-58.6		
43.1	70846.1	-60.5		
36.9	74083.3	-55.2		
31.8	77198.2	-58.6		
30.0	78414.0	-56.9		
24.0	83118.4	-54.2		
20.4	86594.1	-50.8		

STATION ALTITUDE 4051.00 FEET MSL
30 NOV. 82 0855 HRS. MST
ASCENSION NO. 184

WINDY AIR DATA
3340030184
JALLPH
TABLE 23

GEOMETRIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES TRUE)	SPEED KNOTS	INDEX OF REFRACTION
4051.0	872.3	4.7	67.0	1091.0	650.2	0.0	0.0	1.000271
4500.0	857.8	7.1	71.9	1062.9	653.2	223.0	3.8	1.000272
5000.0	842.1	7.3	66.5	1042.9	653.4	223.0	8.1	1.000265
5500.0	826.6	6.7	67.8	1025.8	652.7	223.0	12.4	1.000261
6000.0	811.2	5.5	71.3	1011.1	651.3	223.0	16.7	1.000257
6500.0	796.1	4.3	74.8	996.5	649.9	227.2	18.4	1.000253
7000.0	781.3	3.1	78.3	982.2	648.5	231.9	19.5	1.000249
7500.0	766.7	2.0	81.8	968.2	647.1	234.9	20.9	1.000245
8000.0	752.5	.8	85.4	954.3	645.7	236.9	22.4	1.000240
8500.0	738.5	-4.4	88.9	940.7	644.3	239.1	23.8	1.000236
9000.0	724.7	-1.6	92.4	927.3	642.8	241.5	25.2	1.000232
9500.0	711.0	-2.6	93.5	913.2	641.6	244.6	26.3	1.000228
10000.0	697.5	-3.4	89.7	896.8	640.6	249.4	26.9	1.000222
10500.0	684.2	-3.7	74.5	883.0	640.1	254.2	28.2	1.000215
11000.0	671.1	-4.3	73.1	868.2	639.3	258.8	31.2	1.000210
11500.0	658.3	-4.9	71.7	853.5	638.6	261.5	33.2	1.000206
12000.0	645.7	-5.6	70.3	839.2	637.8	262.3	33.4	1.000202
12500.0	633.3	-6.2	69.1	825.3	637.0	262.7	32.6	1.000198
13000.0	621.0	-7.5	69.9	813.1	635.5	262.8	30.8	1.000194
13500.0	608.9	-8.7	70.8	801.1	633.9	262.8	30.3	1.000191
14000.0	597.1	-10.0	71.6	789.3	632.4	262.7	31.0	1.000187
14500.0	585.4	-11.2	72.4	777.7	630.9	262.7	31.2	1.000184
15000.0	574.0	-12.4	72.0	766.0	629.4	262.6	31.1	1.000180
15500.0	562.6	-13.4	68.6	753.8	628.2	262.6	30.6	1.000176
16000.0	551.4	-14.4	65.2	741.8	626.9	262.7	28.6	1.000173
16500.0	540.5	-15.4	61.8	729.9	625.7	262.8	26.6	1.000169
17000.0	529.8	-16.4	58.3	718.3	624.5	260.8	25.5	1.000166
17500.0	519.1	-17.7	60.3	707.6	622.8	258.3	24.6	1.000163
18000.0	508.6	-19.1	62.9	697.1	621.1	255.3	24.8	1.000160
18500.0	498.4	-20.5	65.2	686.8	619.4	252.3	25.5	1.000158
19000.0	488.1	-21.8	66.4	676.1	617.8	249.5	26.0	1.000155
19500.0	478.0	-23.1	67.6	665.6	616.2	247.4	25.7	1.000152
20000.0	468.2	-24.4	68.8	655.4	614.6	245.2	25.4	1.000150
20500.0	458.5	-25.7	70.0	645.2	612.9	244.5	25.1	1.000147
21000.0	449.1	-27.0	71.2	635.3	611.3	243.0	24.9	1.000144
21500.0	439.8	-27.9	63.6	624.3	610.2	247.2	24.7	1.000142
22000.0	430.5	-28.4	48.9	612.6	609.5	251.2	25.0	1.000138
22500.0	421.4	-29.7	46.6	602.8	608.0	255.2	25.4	1.000136
23000.0	412.5	-30.9	44.3	593.1	606.4	258.5	26.3	1.000133
23500.0	403.8	-32.2	42.0	583.6	604.8	261.2	27.5	1.000131

STATION ALTITUDE 4051.0 FT. 1 MSL
30 NOV. 52 0655 HRS PST
ASCENSION NO. 184

UPPER AIR DATA
3540030184
JALLEN
TABLE 23 Cont'd

GEODETIC COORDINATES
33.16712 LAT DEC
106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES (CENTIGRADE)	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED SOUND KNOTS	DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	393.2	-23.3	-42.4	39.2	574.0	603.3	292.6	29.3	1.000129
24500.0	380.7	-24.5	-44.2	36.1	564.3	601.9	263.0	32.3	1.000126
25000.0	378.4	-25.6	-46.1	32.9	554.6	600.5	263.2	35.3	1.000124
25500.0	370.2	-26.8	-47.3	32.2	545.6	598.9	262.9	36.4	1.000122
26000.0	362.1	-28.1	-48.4	32.6	536.6	597.3	262.6	37.6	1.000120
26500.0	354.2	-29.3	-49.4	32.9	527.7	595.7	264.4	37.4	1.000118
27000.0	340.4	-30.6	-51.7	28.8**	518.8	594.1	267.0	36.8	1.000116
27500.0	330.6	-31.8	-54.8	22.3**	509.9	592.6	269.5	36.5	1.000114
28000.0	321.1	-33.0	-58.6	15.8**	501.2	591.0	271.6	36.5	1.000112
28500.0	310.7	-34.2	-63.6	9.3**	492.7	589.4	273.6	36.6	1.000110
29000.0	300.5	-35.5	-72.8	2.9**	484.3	587.8	276.7	36.2	1.000108
29500.0	293.4	-36.7			473.9	587.6	279.6	35.9	1.000106
30000.0	282.4	-37.4			464.7	586.6	282.3	35.4	1.000104
30500.0	295.6	-37.4			456.2	585.3	284.3	34.5	1.000102
31000.0	280.8	-38.2			447.4	584.2	286.5	33.5	1.000100
31500.0	282.3	-38.8			438.2	583.6	289.7	33.3	1.000098
32000.0	275.9	-38.0			426.9	584.5	281.6	33.8	1.000095
32500.0	269.6	-37.3			415.9	585.4	278.0	34.4	1.000093
33000.0	263.5	-36.6			405.2	586.3	275.3	35.6	1.000090
33500.0	257.5	-36.3			395.4	586.8	273.7	37.4	1.000088
34000.0	251.7	-37.2			387.9	585.7	272.2	39.2	1.000086
34500.0	245.9	-38.2			380.9	584.2	270.5	38.8	1.000085
35000.0	240.3	-39.4			374.2	582.7	268.8	38.1	1.000083
35500.0	234.8	-40.6			367.6	581.1	266.8	38.6	1.000082
36000.0	229.4	-50.7			359.3	581.0	264.7	41.3	1.000080
36500.0	224.1	-50.4			350.6	581.4	262.9	44.1	1.000078
37000.0	219.0	-50.2			342.1	581.7	263.7	45.2	1.000076
37500.0	213.9	-49.9			333.9	582.0	264.4	46.3	1.000074
38000.0	209.0	-50.1			326.4	581.9	263.7	45.6	1.000073
38500.0	204.2	-50.2			319.2	581.7	261.9	43.8	1.000071
39000.0	199.5	-50.5			312.1	581.5	260.1	42.2	1.000070
39500.0	194.9	-51.1			305.9	580.5	258.6	41.9	1.000068
40000.0	190.4	-51.8			299.7	579.7	257.5	41.5	1.000067
40500.0	186.0	-51.1			291.9	580.5	254.9	40.5	1.000065
41000.0	181.7	-51.2			285.3	580.4	251.4	39.1	1.000064
41500.0	177.5	-51.3			278.8	580.3	247.4	37.8	1.000062
42000.0	173.4	-51.4			272.5	580.1	242.3	36.3	1.000061
42500.0	169.4	-51.5			266.3	580.0	236.9	35.0	1.000059
43000.0	165.5	-52.3			261.1	578.9	233.7	34.8	1.000058
43500.0	161.7	-53.4			256.3	577.5	233.3	34.8	1.000057

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

STATION ALTITUDE 4051.00 FEET MSL
30 NOV. 62
ASCENSION NO. 184

UPPER AIR DATA
3340030184
JALLEN
TABLE 23 Cont'd

GEOMETRIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
44000.0	157.9	-54.5		251.6	576.0	236.2	35.8	1.000056
44500.0	154.2	-54.1		249.2	576.6	239.6	38.1	1.000055
45000.0	150.6	-53.3		240.8	575.1	240.7	40.6	1.000054
45500.0	147.0	-56.2		236.1	573.9	242.6	45.1	1.000053
46000.0	143.6	-57.0		231.3	572.8	244.3	49.7	1.000052
46500.0	140.2	-57.8		226.7	571.8	245.9	53.4	1.000050
47000.0	136.8	-58.2		221.8	571.1	247.3	56.7	1.000049
47500.0	133.6	-57.5		215.8	572.1	249.1	57.6	1.000048
48000.0	130.4	-56.7		210.0	573.1	251.3	57.0	1.000047
48500.0	127.3	-56.3		204.6	573.6	253.9	57.2	1.000046
49000.0	124.3	-56.8		200.2	573.0	257.0	58.0	1.000045
49500.0	121.4	-57.2		195.8	572.6	260.0	56.4	1.000044
50000.0	118.5	-56.8		190.9	573.0	263.5	51.6	1.000043
50500.0	115.7	-56.8		186.3	573.0	266.4	46.8	1.000041
51000.0	113.0	-57.3		182.4	572.3	267.2	41.5	1.000041
51500.0	110.3	-57.8		178.5	571.6	267.6	37.2	1.000040
52000.0	107.7	-58.8		175.0	570.4	265.0	38.0	1.000039
52500.0	105.1	-59.9		171.6	569.0	262.5	38.7	1.000038
53000.0	102.6	-61.0		168.4	567.5	258.8	37.6	1.000038
53500.0	100.1	-62.1		165.2	566.0	254.9	36.6	1.000037
54000.0	97.7	-61.5		160.8	566.7	251.2	36.1	1.000036
54500.0	95.3	-60.9		156.5	567.6	247.7	36.1	1.000035
55000.0	93.0	-60.3		152.3	568.4	244.2	35.9	1.000034
55500.0	90.8	-59.7		148.2	569.2	240.3	33.8	1.000033
56000.0	88.6	-60.5		145.2	568.1	236.0	31.9	1.000032
56500.0	86.5	-61.3		142.2	567.0	232.7	31.2	1.000032
57000.0	84.4	-62.1		139.3	566.0	230.2	31.2	1.000031
57500.0	82.4	-62.9		136.4	564.9	228.2	31.1	1.000030
58000.0	80.4	-62.0		132.6	566.1	231.7	29.0	1.000030
58500.0	78.4	-60.5		128.5	568.1	235.7	27.1	1.000029
59000.0	76.5	-60.5		125.4	568.1	236.3	24.4	1.000028
59500.0	74.7	-60.6		122.4	568.0	239.7	20.9	1.000027
60000.0	72.9	-60.7		119.5	567.8	241.7	17.5	1.000027
60500.0	71.1	-60.8		116.7	567.7	244.4	22.0	1.000026
61000.0	69.4	-61.1		114.1	567.3	246.2	26.5	1.000025
61500.0	67.8	-61.8		111.7	566.3	246.3	30.1	1.000025
62000.0	66.1	-61.9		109.1	566.2	244.8	32.4	1.000024
62500.0	64.5	-61.3		106.1	567.0	243.5	34.8	1.000024
63000.0	63.0	-60.7		103.3	567.8	243.6	34.0	1.000023
63500.0	61.5	-60.1		100.5	568.6	244.0	32.5	1.000022

STATION ALTITUDE 4051.00 FT. 145,
 30 NOV. 82 0855 HRS. PST
 ASCENSION NO. 144

UPPER AIR DATA
 3340030184
 JULIEN
 TABLE 23 Cont'd

GEOMETRIC COORDINATES
 33.10712 LAT DEG
 106.49511 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 SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.0	-59.5		97.8	569.4	245.7	1.000022
64500.0	58.6	-59.2		95.4	569.8	252.0	1.000021
65000.0	57.2	-59.7		93.3	569.2	257.8	1.000021
65500.0	55.8	-60.1		91.2	568.6	260.9	1.000020
66000.0	54.5	-59.4		88.8	569.5	262.7	1.000020
66500.0	53.2	-58.1		86.1	571.4	265.0	1.000019
67000.0	51.9	-56.9		83.6	572.9	268.9	1.000019
67500.0	50.7	-58.0		82.0	571.4	273.3	1.000018
68000.0	49.5	-58.7		80.4	570.5	353.9	1.4
68500.0	48.3	-59.0		78.6	570.0	52.9	1.000017
69000.0	47.1	-59.4		76.8	569.6	71.6	1.000017
69500.0	46.0	-59.7		75.1	569.2	122.9	1.000017
70000.0	44.9	-60.0		73.4	568.8	245.9	1.000016
70500.0	43.8	-60.3		71.7	568.4	248.6	1.000016
71000.0	42.8	-60.2		70.0	568.4	249.2	1.000016
71500.0	41.8	-59.4		68.1	569.5	249.7	1.000015
72000.0	40.8	-58.6		66.2	570.6	250.5	1.000015
72500.0	39.8	-57.8		64.4	571.7	252.1	1.000014
73000.0	38.9	-57.0		62.6	572.8	254.2	1.000014
73500.0	37.9	-56.2		60.9	573.9	251.0	1.000014
74000.0	37.0	-55.3		59.3	575.0	244.2	1.000013
74500.0	36.2	-55.7		57.9	574.5	250.7	1.000013
75000.0	35.3	-56.2		56.7	573.8	253.9	1.000013
75500.0	34.5	-56.7		55.5	575.1	250.2	1.000012
76000.0	33.7	-57.3		54.3	572.4	226.4	1.000012
76500.0	32.9	-57.8		53.2	571.6	222.1	1.000012
77000.0	32.1	-58.4		52.1	570.9	211.5	1.000012
77500.0	31.3	-58.2		50.8	571.2	217.0	1.000011
78000.0	30.6	-57.5		49.4	572.1	225.0	1.000011
78500.0	29.9	-56.9		48.1	573.0	230.6	1.000011
79000.0	29.2	-56.6		46.9	573.3	233.9	1.000010
79500.0	28.5	-56.3		45.8	573.7	235.0	1.000010
80000.0	27.8	-56.0		44.6	574.1	236.0	1.000010
80500.0	27.2	-55.7		43.5	574.5	240.3	1.000010
81000.0	26.5	-55.4		42.5	574.9	243.6	1.000009
81500.0	25.9	-55.1		41.4	575.2	246.2	1.000009
82000.0	25.3	-54.8		40.4	575.6	251.2	1.000009
82500.0	24.7	-54.6		39.4	576.0	256.7	1.000009
83000.0	24.1	-54.3		38.4	576.4	270.6	1.000009
83500.0	23.6	-53.8		37.4	576.9	271.5	1.000008

STATION ALTITUDE 4051.00 F, 1.234
 30 NOV. 82 0850 HRS EST
 ASCENSION NO. 134

GEOPHYSICAL DATA

1540050184

JALLEN

TABLE 23 10712

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CC MET	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES (T)	SPEED KNOTS	
84000.0	23.0	-53.3			30.5	577.0	271.7	11.0	1.000008
84500.0	22.5	-52.8			30.6	576.2	271.9	11.0	1.000008
85000.0	22.0	-52.4			34.7	576.9			1.000008
85500.0	21.5	-51.9			33.8	579.5			1.000008
86000.0	21.0	-51.4			32.9	580.2			1.000007
86500.0	20.5	-50.9			32.1	580.8			1.000007

STATION ALTITUDE 4051.0 FEET MSL
30 NOV. 62
ASCENSION NO. 184

MAGNETIC LEVELS
3340050184
JALLEN
TABLE 24

GEODETIC COORDINATES
23.16712 LAT DEG
106.49911 LONG DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMID. PERCENT	WIND DATA	
				DIRECTION DEGREES (True)	SPEED KNOTS
650.0	4745.	7.3	67.	225.0	0.0
800.0	6578.	4.6	74.	220.0	10.1
750.0	8004.	.6	86.	237.3	27.6
700.0	9899.	-3.4	94.	240.5	20.0
650.0	11818.	-5.3	71.	262.0	33.3
600.0	13867.	-9.7	71.	262.7	30.8
550.0	16051.	-14.5	65.	262.7	28.3
500.0	18397.	-20.3	65.	250.0	25.3
450.0	20325.	-26.4	71.	245.7	24.0
400.0	23683.	-32.7	91.	260.0	20.0
350.0	26723.	-40.0	32.***	265.7	37.1
300.0	30120.	-46.9		260.0	35.1
250.0	34074.	-47.4		271.0	39.3
200.0	39860.	-50.4		260.3	40.3
175.0	41708.	-51.4		249.5	36.4
150.0	44967.	-55.5		240.3	41.1
125.0	48754.	-56.7		250.0	57.0
100.0	53361.	-62.1		259.9	30.0
80.0	57905.	-61.7		230.7	0.0
70.0	60631.	-60.9		240.5	29.8
60.0	63773.	-59.5		240.3	31.5
50.0	67527.	-58.6		240.7	0.1
40.0	72110.	-58.0		251.0	10.0
30.0	78086.	-56.9		200.0	3.7
25.0	81824.	-54.7		250.0	10.4

** AT 11 LAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED FOR INTERPOLATION.