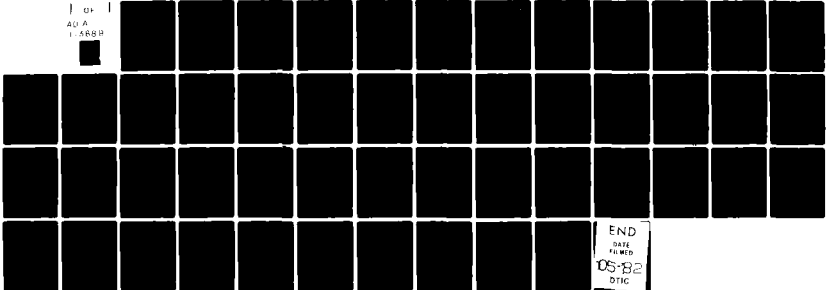


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 20302A ASSAULT BREAKER; MISSILE NUMBER TFT-4; ROUND NUMBER V3A2--ETC(U)
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METEOROLOGICAL DATA REPORT
20302A Assault Breaker
Missile Number TFT-4
Round Number V3A2
20 Feb 1982

by

DONALD C. KELLER
Program Support Coordinator
Phone Number (505) 679-9568
AVN Number 349-9568

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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1. REPORT NUMBER DR 1223	2. GOVT ACCESSION NO. AD-A113889	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 20302A Assault Breaker, Missile Number TFT-4 Round Number V3A2		5. TYPE OF REPORT & PERIOD COVERED
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) White Sands Meteorological Team		8. CONTRACT OR GRANT NUMBER(s) DA TASK IF665702D127-02
9. PERFORMING ORGANIZATION NAME AND ADDRESS		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cmd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002		12. REPORT DATE Feb. 82
		13. NUMBER OF PAGES 50
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research & Development Cmd Adelphi, MD 20783		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
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17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) Approved for public release; distribution unlimited.		
18. SUPPLEMENTARY NOTES		
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 20302A Assault Breaker Missile Number TFT-4, Round Number V3A2, presented in tabular form. ¹⁵		

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INTRODUCTION

20302A Assault Breaker, Missile Number TFT-4, Round Number V3A2, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0910:45 MST, 20 Feb 1982. The scheduled launch time was 0900 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 and Jallen Met Sites.

(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:

SITE AND ALTITUDE

LC-33	2760 Meters	0855 MST
LC-33	2760 Meters	0911 MST
Jallen	1380 Meters	0850 MST
Jallen	480 Meters	0911 MST

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

SITE AND TIME

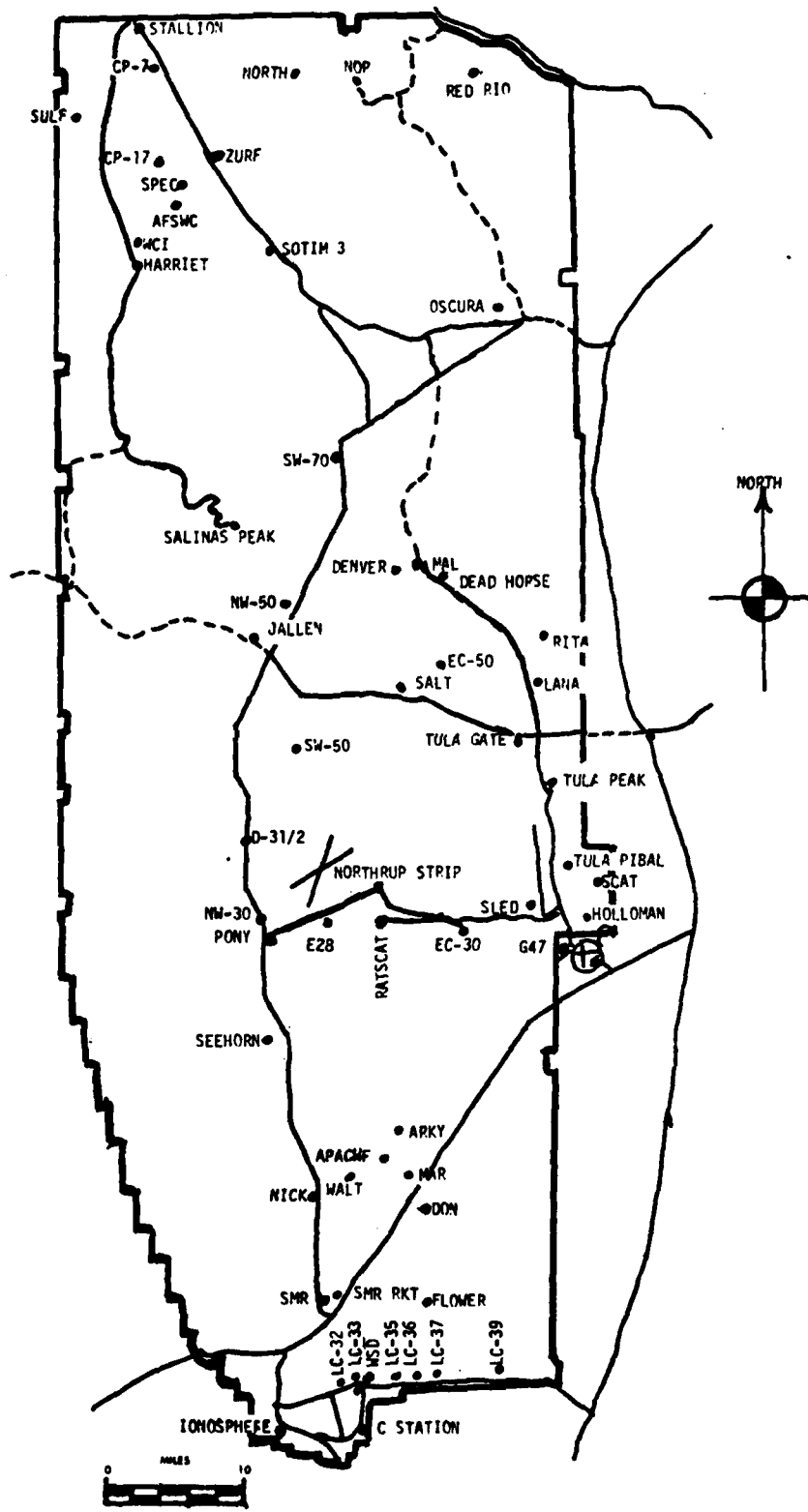
Holloman	0630 MST
Jallen	0745 MST
LC-37	0800 MST
Jallen	0910 MST
WSD	0911 MST

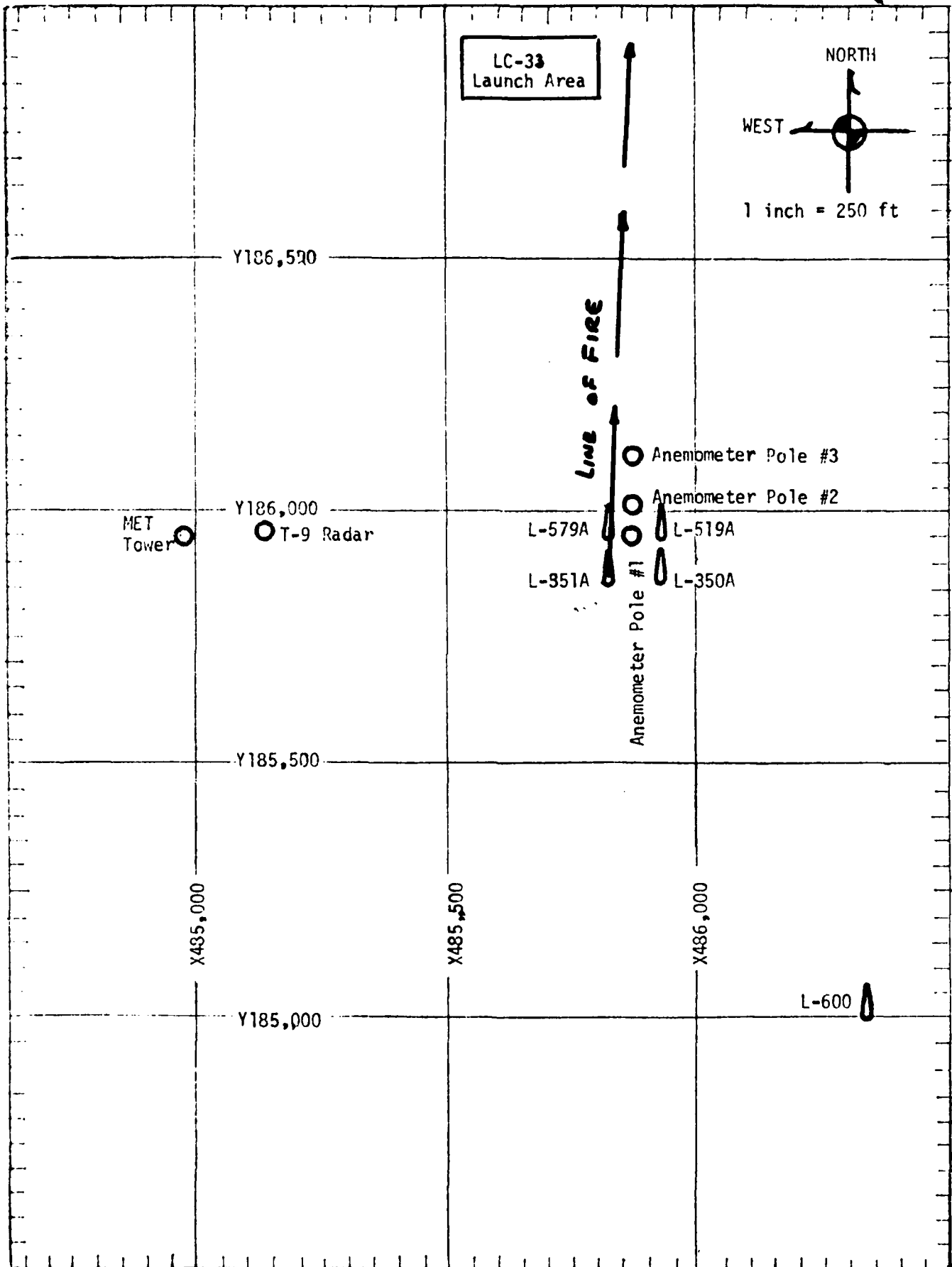


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By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A	

WSMR METEOROLOGICAL SITES





PROJECT SURFACE OBSERVATION

TABLE 1 STATION LC-33
 DATE 20 Feb 1982 X = 484,982.64 Y = 185,957.73 H = 3983.00
 DAY MONTH YEAR

TIME M S J	PRESSURE mbs	TEMPERATURE OF °C	DEW POINT OF °C	RELATIVE HUMIDITY %	DENSITY gm/m ³	WIND		VISIBIL- ITY
						DIRECTION degs In	SPEED kts	
0911	884.4	12.2	2.2	50	1075	310	06	50

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS	
	1st LAYER		2nd LAYER		3rd LAYER			
	AMT	TYPE	AMT	TYPE	AMT	TYPE		
	C	L	E	A	R			

PSYCHROMETRIC COMPUTATION

TIME:	0911
DRY BULB TEMP.	12.2
WET BULB TEMP.	7.1
WET BULB DEPR.	5.1
DEW POINT	2.2
RELATIVE HUMID.	50

TABLE 2 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 X485,477.29 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
T-30	320	04	T-30	321	04	T-30	332	08
T-20	317	04	T-20	335	04	T-20	333	07
T-10	315	04	T-10	332	04	T-10	324	07
T0.0	305	05	T0.0	322	05	T0.0	325	07
T+10	300	04	T+10	320	05	T+10	328	06

TABLE 3 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
T-30	329	05	T-30	318	06
T-20	306	06	T-20	321	06
T-10	308	06	T-10	335	05
T0.0	310	06	T0.0	327	06
T+10	318	07	T+10	336	05

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
T-30	316	05	T-30	324	06
T-20	314	06	T-20	318	07
T-10	315	05	T-10	331	05
T0.0	328	05	T0.0	332	07
T+10	339	05	T+10	330	06

PROJECT SURFACE OBSERVATION

TABLE 6 STATION: Jallen

DATE 20 Feb 1982 X= 450,362.08 Y= 464,129.26 H= 4053.51

TIME M S I	PRESSURE mbs	TEMPERATURE OF OC	DEW POINT OF OC	RELATIVE HUMIDITY %	DENSITY gm/m ³	WIND		VISIBIL- ITY
						DIRECTION degs	SPED kts	
0830	881.9	11.9	-2.5	36	1074		CALM	50+
0910	882.4	14.2	-0.4	36	1065	060	07	50+
0940	882.5	14.3	0.0	37	1064	060	08	50+

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

PSYCHROMETRIC COMPUTATION

TIME:	0830	0910	0940
DRY BULB TEMP.	11.9	14.2	14.3
WET BULB TEMP.	5.2	7.0	7.2
WET BULB DEPR.	6.7	7.2	7.1
DEW POINT	-2.5	-0.4	0.0
RELATIVE HUMID.	36	36	37

PILOT BALLOON MEASURED WIND DATA

TABLE 8

RELEASED FROM Jallen DATE 20 Feb 82 TIME 0911 MST
 COORDINATES (WSTM) X= 450,362.08 Y= 464,129.26 H= 4053.51

HEIGHTS ARE METERS AGL X OR FEET AGL _____

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
SFC	060	07
60	349	06
120	314	1
180	324	10
240	308	13
300	314	10
360	324	08
420	337	08
480	350	08

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS

STATION ALTITUDE 4126.59 FEET MSI.
 20 FEB. 62 0630 HRS MST
 ASCENSION NO. 53

SIGNIFICANT LEVEL DATA
 0510010053
 HOLLUMAI

GEODETIC COORDINATES
 32.00000 LAT UEG
 106.00000 LON LEG

TABLE 9

GEOMETRIC ALTITUDE	TEMPERATURE	REL. HUM.
MILLIBARS MSL FEET	AIR DEWPOINT	PERCENT
	DEGREES CENTIGRADE	
878.4	2.2	80.0
874.6	8.1	74.0
868.8	10.2	67.0
858.3	10.0	40.0
850.0	10.9	40.0
846.0	11.4	39.0
754.1	6.4	49.0
737.0	6.8	25.0
700.0	4.2	26.0
632.8	-2.9	42.0
590.4	-6.4	37.0
533.0	-13.0	59.0
500.0	-16.4	33.0
439.5	-23.6	22.0
430.0	-23.8	19.0
400.0	-28.3	19.0
335.6	-38.7	51.0
300.0	-44.8	
283.7	-46.3	
260.1	-50.3	
250.0	-50.5	
227.5	-50.6	
220.0	-48.9	
200.0	-53.0	
184.5	-55.5	
180.4	-55.0	
160.3	-57.6	
150.0	-56.9	
142.2	-56.2	
124.7	-59.2	
110.9	-62.3	
103.9	-63.2	
100.0	-63.2	
85.5	-67.0	
70.0	-66.9	
59.9	-64.3	
54.0	-65.1	
50.0	-61.7	
44.8	-62.5	
37.8	-58.3	

STATION ALTITUDE 4126.59 FEET MSL
 20 FEB. 62
 ASCENSION NO. 53
 0630 HRS MST

SIGNIFICANT LEVEL DATA
 0510010053
 HOLLONAH

GEODLTIC COORDINATES
 52.60005 LAT DEG
 106.09305 LONG DEG

TABLE 9 Cont'd

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
30.0 78500.9	-57.6		
25.0 82316.4	-56.7		
21.6 85424.9	-50.8		
20.0 87086.0	-50.2		
15.6 92433.6	-52.2		
13.3 95880.6	-48.6		
11.8 98491.0	-48.1		

STATION ALTITUDE 4126.59 FEET MSL
 20 FEB. 62
 ASCENSION NO. 53

UPPER AIR DATA
 0510010053
 HOLLOWAY
 TABLE 10

GEODETIC COORDINATES
 32.00005 LAT DEG
 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND VELOCITY (10) KNOTS	WIND DIRECTION	INDEX OF REFRACTION
4126.0	878.4	2.2	80.0	1108.6	647.3	300.0		1.000276
4500.0	860.4	10.2	60.8	1061.9	656.8	337.7		1.000272
5000.0	850.7	10.8	40.0	1041.2	657.3	350.3		1.000256
5500.0	835.2	10.8	40.1	1022.1	657.3	355.6		1.000252
6000.0	820.0	10.6	41.7	1000.3	656.4	355.1		1.000248
6500.0	805.1	9.2	43.3	990.8	655.4	355.7		1.000245
7000.0	790.4	8.4	44.9	975.5	654.5	356.2		1.000241
7500.0	776.0	7.6	46.5	960.5	653.6	356.6		1.000237
8000.0	761.9	6.8	48.1	945.7	652.7	7.4		1.000234
8500.0	747.9	6.5	40.4	929.7	652.2	14.4		1.000228
9000.0	734.2	6.6	25.1	913.1	652.0	21.2		1.000215
9500.0	720.6	5.7	25.4	899.3	650.9	24.0		1.000212
10000.0	707.4	4.7	25.8	885.7	649.8	20.2		1.000208
10500.0	694.2	3.6	30.3	872.8	648.5	22.6		1.000205
11000.0	681.2	2.3	33.3	860.5	646.9	19.0		1.000203
11500.0	668.4	.9	33.3	848.4	645.4	16.1		1.000200
12000.0	655.8	-.4	36.3	836.6	643.8	14.0		1.000197
12500.0	643.5	-1.7	39.3	824.9	642.2	16.6		1.000195
13000.0	631.4	-3.0	41.8	813.3	640.7	19.2		1.000192
13500.0	619.3	-4.0	40.4	800.7	639.5	19.6		1.000188
14000.0	607.5	-5.0	39.1	788.3	638.3	20.2		1.000184
14500.0	595.9	-5.9	37.7	776.1	637.1	21.0		1.000181
15000.0	584.3	-7.1	39.2	764.3	635.8	25.5		1.000178
15500.0	572.9	-8.3	43.5	753.0	634.3	26.5		1.000175
16000.0	561.8	-9.6	47.7	741.9	632.7	45.2		1.000173
16500.0	550.8	-10.9	51.9	730.9	631.2	51.0		1.000170
17000.0	540.1	-12.1	56.2	720.2	629.7	49.4		1.000168
17500.0	529.5	-13.4	56.3	709.4	628.2	44.4		1.000165
18000.0	519.0	-14.4	48.1	698.3	626.9	40.5		1.000161
18500.0	508.6	-15.5	40.0	687.3	625.5	37.5		1.000157
19000.0	498.5	-16.6	32.7	676.5	624.2	39.3		1.000154
19500.0	488.4	-17.7	31.0	665.8	622.8	42.1		1.000151
20000.0	478.5	-18.9	29.2	655.3	621.3	48.5		1.000148
20500.0	468.8	-20.0	27.5	644.9	619.9	54.3		1.000146
21000.0	459.3	-21.1	25.8	634.7	618.5	59.7		1.000143
21500.0	449.9	-22.3	24.0	624.7	617.1	61.4		1.000141
22000.0	440.8	-23.4	22.3	614.9	615.7	62.2		1.000138
22500.0	431.8	-23.8	19.6	603.0	615.3	62.6		1.000135
23000.0	422.8	-24.8	19.0	593.1	613.9	62.9		1.000133
23500.0	414.0	-26.2	19.0	583.9	612.3	61.9		1.000131

STATION ALTITUDE 4126.59 FEET MSL
 20 FEB. 62 0630 HRS MST
 ASCENSION NO. 53

UPPER AIR DATA
 0510010053
 HOLLOWAN

GEODETIC COORDINATES
 32.00005 LAT DEG
 106.07905 LON DEG

TABLE 10 Con't

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION ULGKLLS(TIN)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	405.4	-27.5	19.0	574.8	610.7	00.6	36.8	1.000129
24500.0	390.5	-28.8	19.5	565.7	609.1	09.3	42.1	1.000127
25000.0	388.4	-30.0	21.0	556.5	607.5	00.5	46.6	1.000125
25500.0	380.1	-31.3	22.5	547.5	605.9	07.0	49.6	1.000123
26000.0	372.0	-32.6	24.0	538.0	604.2	00.2	52.2	1.000121
26500.0	364.0	-33.9	25.4	529.9	602.6	00.5	54.2	1.000119
27000.0	350.2	-35.2	26.9	521.4	601.0	00.5	55.2	1.000117
27500.0	340.6	-36.5	28.4	513.0	599.4	06.9	55.1	1.000115
28000.0	341.1	-37.7	29.9	504.7	597.8	07.0	55.1	1.000113
28500.0	333.7	-39.0	29.5**	490.5	590.1	00.9	55.1	1.000111
29000.0	320.3	-40.2	23.3**	480.0	594.0	00.1	55.7	1.000109
29500.0	319.1	-41.4	17.1**	479.8	593.0	00.0	56.0	1.000107
30000.0	312.0	-42.7	10.9**	471.6	591.5	04.5	54.3	1.000105
30500.0	305.1	-43.9	4.7**	463.6	589.9	00.6	52.5	1.000103
31000.0	298.3	-44.9		455.4	588.5	04.4	50.5	1.000101
31500.0	291.6	-45.6		440.4	587.7	09.0	49.2	1.000099
32000.0	285.0	-46.2		437.5	586.9	01.1	48.5	1.000097
32500.0	278.6	-47.1		429.4	585.7	00.1	48.4	1.000096
33000.0	272.2	-48.2		421.6	584.5	00.4	48.4	1.000094
33500.0	266.0	-49.3		413.9	582.9	00.0	48.8	1.000092
34000.0	259.9	-50.3		406.4	581.0	00.0	49.8	1.000091
34500.0	254.0	-50.4		397.2	581.4	00.4	46.8	1.000088
35000.0	248.1	-50.5		388.2	581.5	00.7	42.6	1.000086
35500.0	242.4	-50.5		379.3	581.5	00.6	32.5	1.000084
36000.0	236.8	-50.6		370.7	581.2	01.2	22.5	1.000083
36500.0	231.4	-50.6		362.2	581.2	04.6	15.1	1.000081
37000.0	226.1	-50.3		353.4	581.6	02.0	9.4	1.000079
37500.0	220.9	-49.1		343.4	583.1	00.4	8.2	1.000076
38000.0	215.8	-49.7		330.5	585.5	00.5	9.9	1.000075
38500.0	210.8	-50.7		330.2	581.0	00.0	11.8	1.000074
39000.0	205.0	-51.7		324.1	579.7	00.0	13.3	1.000072
39500.0	201.2	-52.7		318.0	578.4	00.5	14.0	1.000071
40000.0	190.5	-53.5		311.8	577.3	00.2	14.3	1.000069
40500.0	191.9	-54.3		305.5	576.4	00.1	12.9	1.000068
41000.0	187.4	-55.0		299.3	575.4	00.6	11.8	1.000067
41500.0	183.1	-55.3		292.0	575.0	00.5	12.0	1.000065
42000.0	178.7	-55.2		285.7	575.1	00.5	12.6	1.000064
42500.0	174.5	-55.7		279.0	574.4	00.2	12.8	1.000062
43000.0	170.4	-56.3		273.7	573.7	00.1	12.3	1.000061
43500.0	160.4	-56.8		267.9	573.1	00.5	11.7	1.000060

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

STATION ALTITUDE 4126.59 FEET MSL
 20 FEB. 82 0630 HRS MST
 ASCENSION NO. 53

UPPER AIR DATA
 051001U053
 HOLLOWAY
 TABLE 10 Cont'd

GEOULTIC COORDINATES
 32.88885 LAT DEG
 106.89985 LON 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 (IN)	SPEED KNOTS	INDEX OF REFRACTION
44000.0	162.5	-57.3		262.2	572.4	233.4	10.9	1.000058
44500.0	158.6	-57.5		258.2	572.1	233.0	10.0	1.000057
45000.0	154.9	-57.2		249.9	572.4	272.4	6.1	1.000056
45500.0	151.2	-57.0		243.6	572.8	253.9	7.1	1.000054
46000.0	147.6	-56.7		237.6	573.2	241.2	9.7	1.000053
46500.0	144.1	-56.4		231.6	573.6	233.7	12.6	1.000052
47000.0	140.7	-56.4		226.2	573.5	243.7	16.0	1.000050
47500.0	137.4	-57.0		221.4	572.8	232.7	19.2	1.000049
48000.0	134.1	-57.5		216.7	572.0	201.1	20.3	1.000048
48500.0	130.9	-58.1		212.1	571.3	208.1	22.3	1.000047
49000.0	127.8	-58.6		207.6	570.6	272.4	26.3	1.000046
49500.0	124.8	-59.2		203.2	569.9	270.1	29.8	1.000045
50000.0	121.8	-59.8		198.9	569.1	262.9	30.0	1.000044
50500.0	118.9	-60.5		194.7	568.1	209.5	30.6	1.000043
51000.0	116.0	-61.1		190.6	567.3	233.5	26.2	1.000042
51500.0	113.2	-61.8		186.5	566.4	303.6	22.3	1.000041
52000.0	110.5	-62.4		182.6	565.6	302.5	19.7	1.000040
52500.0	107.8	-62.7		178.4	565.2	278.2	17.5	1.000040
53000.0	105.2	-63.0		174.4	564.7	291.3	15.2	1.000039
53500.0	102.6	-63.2		170.3	564.5	201.3	13.1	1.000038
54000.0	100.1	-63.2		166.1	564.5	203.5	11.6	1.000037
54500.0	97.7	-63.8		162.5	563.7	244.0	11.3	1.000036
55000.0	95.3	-64.4		158.9	562.9	234.7	11.8	1.000035
55500.0	92.9	-65.0		155.5	562.1	237.5	12.0	1.000035
56000.0	90.6	-65.6		152.1	561.3	242.3	12.0	1.000034
56500.0	88.4	-66.2		148.8	560.5	234.0	11.6	1.000033
57000.0	86.2	-66.8		145.6	559.6	203.3	11.7	1.000032
57500.0	84.1	-67.0		142.1	559.4	200.7	12.6	1.000032
58000.0	82.0	-67.0		138.6	559.4	207.9	13.6	1.000031
58500.0	80.0	-67.0		135.2	559.4	209.8	13.9	1.000030
59000.0	78.0	-67.0		131.8	559.4	271.6	14.3	1.000029
59500.0	76.1	-66.9		128.5	559.4	273.5	14.8	1.000029
60000.0	74.2	-66.9		125.3	559.5	273.2	15.4	1.000028
60500.0	72.4	-66.9		122.2	559.5	200.2	16.0	1.000027
61000.0	70.6	-66.9		119.2	559.5	240.9	16.7	1.000027
61500.0	68.8	-66.6		116.1	559.9	300.5	18.0	1.000026
62000.0	67.1	-66.2		113.0	560.4	309.1	18.3	1.000025
62500.0	65.5	-65.8		110.0	561.0	317.2	19.0	1.000024
63000.0	63.9	-65.4		107.1	561.6	320.0	16.5	1.000024
63500.0	62.3	-65.0		104.2	562.1	324.1	12.0	1.000023

NEODLIL COORDINATES
 32.88885 LAT DEG
 106.09905 LON DEG

UNPLP AIR DATA
 0510010053
 HOLLONAH

STATION ALTITUDE 4126.59 FEET MSL
 20 FEB. 82 0630 HRS MST
 ASCLSION NO. 53

TABLE 10 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CM ³ METER	SPILL OF SOUND KNOTS	WIND DIRECTION DEGREES (IN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
6400.0	60.8	-64.5	101.5	562.7	3.3	3.3	8.9	1.000023
6450.0	59.3	-64.4	98.9	562.9	4.0	4.0	5.6	1.000022
6500.0	57.8	-64.6	96.6	562.8	34.4	34.4	5.7	1.000022
6550.0	56.4	-64.8	94.3	562.4	70.2	70.2	4.9	1.000021
6600.0	55.0	-65.0	92.1	562.1	89.8	89.8	4.7	1.000021
6650.0	53.7	-64.8	89.8	562.3	110.0	110.0	4.5	1.000020
6700.0	52.4	-63.8	87.1	563.7	132.3	132.3	4.8	1.000019
6750.0	51.1	-62.7	84.6	563.2	147.4	147.4	5.8	1.000019
6800.0	49.9	-61.7	82.1	563.5	155.1	155.1	7.2	1.000018
6850.0	48.7	-61.9	80.2	563.2	160.5	160.5	8.6	1.000018
6900.0	47.5	-62.1	78.4	563.0	169.1	169.1	8.5	1.000017
6950.0	46.3	-62.3	76.5	563.8	177.7	177.7	8.6	1.000017
7000.0	45.2	-62.4	74.7	563.5	187.5	187.5	6.9	1.000017
7050.0	44.1	-62.1	72.8	563.9	200.2	200.2	4.9	1.000016
7100.0	43.1	-61.5	70.9	563.7	228.0	228.0	4.1	1.000016
7150.0	42.0	-60.9	69.0	567.5	238.9	238.9	4.2	1.000015
7200.0	41.0	-60.3	67.1	568.3	249.1	249.1	4.5	1.000015
7250.0	40.0	-59.7	65.3	569.1	240.5	240.5	3.9	1.000014
7300.0	39.1	-59.1	63.6	569.9	233.3	233.3	3.7	1.000014
7350.0	38.1	-58.5	61.9	570.7	226.2	226.2	3.7	1.000013
7400.0	37.2	-58.3	60.4	571.1	218.6	218.6	3.7	1.000013
7450.0	36.3	-58.2	58.9	571.2	193.5	193.5	3.8	1.000012
7500.0	35.5	-58.1	57.5	571.3	182.3	182.3	4.1	1.000012
7550.0	34.6	-58.0	56.1	571.4	176.7	176.7	4.3	1.000012
7600.0	33.8	-58.0	54.8	571.5	178.4	178.4	4.4	1.000012
7650.0	33.0	-57.9	53.4	571.6	179.9	179.9	4.5	1.000011
7700.0	32.2	-57.8	52.2	571.7	178.6	178.6	4.1	1.000011
7750.0	31.5	-57.7	50.9	571.8	152.2	152.2	3.4	1.000011
7800.0	30.7	-57.7	49.7	571.9	147.2	147.2	2.7	1.000011
7850.0	30.0	-57.6	48.5	572.0	141.2	141.2	2.7	1.000010
7900.0	29.3	-57.5	47.3	572.1	102.5	102.5	3.3	1.000010
7950.0	28.6	-57.4	46.2	572.3	100.7	100.7	3.4	1.000010
8000.0	27.9	-57.2	45.1	572.4	111.4	111.4	3.5	1.000009
8050.0	27.3	-57.1	44.0	572.6	114.4	114.4	3.5	1.000009
8100.0	26.6	-57.0	42.9	572.7	107.6	107.6	3.7	1.000009
8150.0	26.0	-56.9	41.9	572.9	102.0	102.0	4.0	1.000009
8200.0	25.4	-56.8	40.9	573.1	90.1	90.1	4.3	1.000008
8250.0	24.8	-56.4	39.8	573.6	80.5	80.5	4.3	1.000008
8300.0	24.2	-55.4	38.7	574.9				
8350.0	23.6	-54.5	37.7	576.1				

STATION ALTITUDE 4126.59 FEET MSL
 20 FEB. 62 0630 IRS MST
 ASCENSION NO. 53

UPPER AIR DATA
 0510010053
 HOLLoman

GEODETIC COORDINATES
 32.88365 LAT ULLG
 106.09965 LONG ULLG

TABLE 10 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION (IN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
84000.0	23.1	-53.5			30.6	571.4	90.1	4.7	1.000008
84500.0	22.6	-52.6			35.6	578.0	65.0	5.2	1.000008
85000.0	22.0	-51.6			34.7	579.9	79.0	5.2	1.000008
85500.0	21.5	-50.8			33.7	581.0	88.0	4.7	1.000000
86000.0	21.0	-50.6			32.9	581.2	90.3	4.3	1.000007
86500.0	20.6	-50.4			32.1	581.4	90.3	4.3	1.000007
87000.0	20.1	-50.2			31.4	581.7	91.0	4.5	1.000007
87500.0	19.6	-50.4			30.7	581.5	97.4	4.7	1.000007
88000.0	19.2	-50.5			30.0	581.3	99.9	4.7	1.000007
88500.0	18.7	-50.7			29.3	581.0	99.1	4.4	1.000007
89000.0	18.3	-50.9			28.7	580.8	99.1	4.3	1.000006
89500.0	17.9	-51.1			28.0	580.5	98.4	4.4	1.000006
90000.0	17.5	-51.3			27.4	580.3	95.2	4.6	1.000006
90500.0	17.1	-51.5			26.8	580.0	92.3	4.8	1.000006
91000.0	16.7	-51.7			26.2	579.8	99.7	5.0	1.000006
91500.0	16.3	-51.9			25.6	579.5	93.6	4.8	1.000006
92000.0	15.9	-52.0			25.1	579.3	92.6	4.4	1.000006
92500.0	15.6	-52.1			24.5	579.2	93.5	4.2	1.000005
93000.0	15.2	-51.6			23.9	579.9	98.6	4.1	1.000005
93500.0	14.8	-51.1			23.3	580.5	100.6	4.8	1.000005
94000.0	14.5	-50.6			22.7	581.2	149.0	6.5	1.000005
94500.0	14.2	-50.0			22.1	581.9	100.0	8.7	1.000005
95000.0	13.9	-49.5			21.6	582.6	107.2	9.3	1.000005
95500.0	13.5	-49.0			21.0	583.3	174.3	9.3	1.000005
96000.0	13.2	-48.6			20.5	583.8	101.3	9.4	1.000005
96500.0	12.9	-48.5			20.0	583.9			1.000004
97000.0	12.6	-48.4			19.6	584.1			1.000004
97500.0	12.3	-48.3			19.1	584.2			1.000004
98000.0	12.1	-48.2			18.7	584.3			1.000004

STATION ALTITUDE 4126.59 FEET MSL
 20 FEB. 62 0630 HRS MST
 ASCENSION NO. 53

MANDATORY LEVELS
 0510010053
 HOLLOWAN

GEODLTIC COORDINATES
 32.00005 LAT DEG
 106.09905 LON DEG

TABLE 11

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
				DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5019.	10.9	40.	350.0	13.4
800.0	6674.	9.0	44.	350.0	24.0
750.0	8419.	6.5	43.	13.4	11.3
700.0	10271.	4.2	26.	24.0	10.1
650.0	12230.	-1.0	30.	13.4	11.2
600.0	14306.	-5.6	30.	20.7	9.6
550.0	16524.	-11.0	52.	52.0	10.5
500.0	18901.	-16.4	33.	30.9	10.7
450.0	21472.	-22.3	24.	01.4	24.2
400.0	24281.	-28.3	19.	59.0	40.1
350.0	27373.	-36.2	28.	50.9	50.1
300.0	30818.	-44.8		57.7	51.0
250.0	34764.	-50.5		75.0	45.0
200.0	39537.	-53.0		348.9	14.1
175.0	42340.	-55.7		293.5	12.9
150.0	45544.	-56.9		249.4	7.8
125.0	49325.	-59.1		275.0	29.8
100.0	53858.	-63.2		205.0	11.0
80.0	58308.	-67.0		209.7	13.9
70.0	60954.	-66.9		293.0	17.0
60.0	64028.	-64.3		344.0	7.2
50.0	67690.	-61.7		154.0	7.0
40.0	72227.	-59.7		240.0	4.2
30.0	78171.	-57.6		175.0	3.5
25.0	81955.	-56.7		110.7	3.6
20.0	86684.	-50.2		41.2	4.5
15.0	92818.	-51.3		114.9	4.2

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

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 82 0745 HRS MST
 ASCENSION NO. 7

SIGNIFICANT LEVEL DATA
 0510030007
 JALLEN

GEODLTIC COORDINATES
 33.10712 LAT DEG
 106.49511 LONG DEG

TABLE 12

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE WET-BULB DEGREES CENTIGRADE	HULL HUM. PERCENT
881.6	4051.0	10.3	-1.7	43.0
871.3	4369.2	10.1	-2.2	42.0
864.8	4573.8	9.2	-3.0	42.0
850.0	5044.4	6.5	-4.9	44.0
793.2	6917.8	6.2	-7.0	38.0
760.5	8052.0	4.1	-10.3	34.0
733.9	9006.9	1.1	-13.7	32.0
700.0	10263.5	-2.4	-14.7	38.0
643.6	12469.1	-4.1	-17.9	33.0
621.0	13398.8	-5.1	-18.5	34.0
604.3	14104.1	-7.7	-17.0	44.0
580.0	15159.2	-10.5	-20.7	25.0
547.8	16612.4	-15.7	-31.2	25.0
500.0	18499.9	-20.1	-34.6	26.0
462.1	20838.6	-24.4	-38.7	25.0
418.5	23234.7	-27.4	-40.9	20.0
400.0	24312.1	-29.2	-41.8	28.0
388.2	25018.7	-31.0	-30.9	50.0
374.0	25891.6	-34.4	-42.5	43.0
349.3	27475.6			

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 82
 ASCENSION NO. 7

UPPER AIR DATA
 0510030007
 JALLEN

0510030007
 JALLEN

TABLE 13

GEOMETRIC ALTITUDE
 MSL FEET

PRESSURE
 MILLIBARS

AIR TEMPERATURE
 DEGREES CENTIGRADE

REL. HUM.
 PERCENT

DENSITY
 GM/CM³
 MLTR

SPEED OF
 SOUND
 KIOTS

WIND
 DIRECTION
 (DEGREES TRUE)

WIND
 SPEED
 KIOTS

INCL
 OF
 REFRACTION

4051.0	881.6	5.2	-1.5	62.0	1160.8	650.7	0	1.000272
4500.0	867.1	10.2	-2.0	42.4	1063.8	650.5	0	1.000202
5000.0	851.4	9.3	-2.9	42.0	1047.0	655.4	1.2	1.000257
5500.0	835.8	8.5	-3.5	42.5	1031.4	654.0	1.9	1.000252
6000.0	820.5	7.8	-4.0	43.0	1015.2	653.7	2.4	1.000248
6500.0	805.5	7.1	-4.4	43.6	999.2	652.9	1.9	1.000244
7000.0	790.8	6.5	-5.0	43.6	983.2	652.1	1.9	1.000239
7500.0	776.2	6.3	-5.9	40.9	965.7	651.9	1.9	1.000234
8000.0	762.0	6.2	-6.9	38.3	948.5	651.7	4.1	1.000229
8500.0	747.9	5.2	-8.6	36.1	934.5	650.5	7.0	1.000224
9000.0	734.1	4.1	-10.3	34.0	921.0	649.2	9.2	1.000219
9500.0	720.4	2.9	-11.7	33.2	907.9	647.7	11.0	1.000214
10000.0	707.0	1.7	-13.0	32.4	894.9	646.5	11.9	1.000211
10500.0	693.7	.7	-13.8	32.6	881.4	645.1	10.8	1.000207
11000.0	680.6	-.1	-14.0	34.0	867.5	644.2	9.4	1.000204
11500.0	667.8	-.9	-14.2	35.4	853.4	643.2	6.9	1.000200
12000.0	655.2	-1.7	-14.5	36.7	839.8	642.5	4.8	1.000197
12500.0	642.8	-2.5	-14.8	37.8	826.4	641.5	3.5	1.000194
13000.0	630.6	-3.4	-16.5	35.1	813.5	640.2	3.2	1.000190
13500.0	618.6	-4.2	-18.0	33.1	800.6	639.1	3.9	1.000186
14000.0	606.7	-5.0	-18.4	33.9	787.4	638.5	5.0	1.000183
14500.0	595.1	-6.1	-18.1	37.8	775.5	637.0	5.9	1.000181
15000.0	583.6	-7.3	-17.8	42.5	764.0	635.5	6.5	1.000178
15500.0	572.3	-8.4	-19.6	39.5	752.5	634.2	7.8	1.000175
16000.0	561.1	-9.3	-22.6	33.0	740.5	633.0	9.8	1.000170
16500.0	550.2	-10.3	-25.9	26.5	728.8	631.8	12.3	1.000166
17000.0	539.4	-11.4	-27.4	25.0	717.5	630.4	14.8	1.000163
17500.0	528.7	-12.5	-28.4	25.0	706.4	629.1	16.7	1.000161
18000.0	518.3	-13.7	-29.4	25.0	695.5	627.7	17.7	1.000158
18500.0	508.0	-14.8	-30.4	25.0	684.8	626.5	17.7	1.000155
19000.0	498.0	-15.9	-31.3	25.1	674.2	624.9	17.6	1.000153
19500.0	487.9	-17.1	-32.2	25.3	663.6	623.5	17.4	1.000150
20000.0	478.1	-18.2	-33.1	25.6	653.1	622.1	18.0	1.000148
20500.0	468.5	-19.3	-34.0	25.8	642.8	620.7	18.8	1.000145
21000.0	459.0	-20.4	-34.9	25.9	632.5	619.4	21.7	1.000143
21500.0	449.6	-21.3	-35.7	25.7	621.8	618.5	25.2	1.000140
22000.0	440.4	-22.2	-36.6	25.5	611.2	617.2	30.1	1.000138
22500.0	431.4	-23.1	-37.4	25.3	600.9	616.1	34.6	1.000135
23000.0	422.6	-24.0	-38.3	25.1	590.7	615.0	38.7	1.000133
23500.0	413.9	-25.1	-39.3	25.2	581.2	613.0	41.2	1.000131

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 62 0745 HR5 MST
 ASCENSION NO. 7

UPPER AIR DATA
 0510030007
 JALLEN
 TABLE 13 Cont'd

GEOMETRIC ALTITUDE 4051.00 FEET MSL
 20 FEB. 62 0745 HR5 MST
 ASCENSION NO. 7

GEODETIC COORDINATES
 33.16712 LAT DEG
 108.99511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	WIND DIRECTION (DEGREES TRUE)	WIND SPEED KNOTS	WIND DIRECTION (DEGREES TRUE)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	405.3	-26.5	-40.3	25.7	572.4	04.2	43.2	04.2	43.2	1.000129
24500.0	396.8	-27.9	-41.2	26.5	563.5	02.3	44.2	02.3	44.2	1.000127
25000.0	388.5	-29.2	-41.8	27.9	554.0	39.0	45.5	39.0	45.5	1.000124
25500.0	380.3	-30.2	-38.6	43.4	545.2	30.0	47.2	30.0	47.2	1.000123
26000.0	372.3	-31.2	-37.2	55.1	535.9	33.3	48.7	33.3	48.7	1.000121
26500.0	364.3	-32.3	-39.0	51.0	526.8					1.000119
27000.0	356.5	-33.4	-40.8	46.9	517.9					1.000116

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 82
 ASCENSION NO. 7

MANDATORY LEVELS
 0510030007
 JALLET
 TABLE 14

GEOLITIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
		DEGREES	DEGREE		(TN)	KNOTS
650.0	5041.	9.2	-3.0	42.	10.4	1.3
800.0	6683.	6.8	-4.6	44.	81.4	2.1
750.0	8419.	5.4	-8.3	36.	349.6	6.5
700.0	10254.	1.1	-13.7	32.	352.6	11.4
650.0	12198.	-2.0	-14.6	37.	347.5	4.2
600.0	14272.	-5.6	-18.3	36.	4.1	5.7
550.0	16491.	-10.3	-25.9	28.	45.7	12.3
500.0	18875.	-15.7	-31.2	25.	52.4	17.7
450.0	21453.	-21.3	-35.7	26.	57.1	25.0
400.0	24273.	-27.4	-40.9	26.	63.1	43.6
350.0	27382.	-34.3	-42.4	43.		

STATION ALTITUDE 4051.37 FEET MSL
 20 FEB. 62 0800 HRS (LST)
 ASCENSION NO. 7

SIGNIFICANT LEVEL DATA
 05JDI00007
 LC-37

TABLE 15

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
882.9	4051.4	3.5	.0	78.0
877.1	4228.5	7.4	-0.1	59.0
875.1	4290.2	7.5	-0.7	50.0
862.2	4693.6	9.5	-0.9	48.0
850.0	5081.7	9.1	-1.0	49.0
832.0	5664.3	9.1	-2.2	45.0
783.2	7300.0	6.1	-8.9	33.0
754.6	8299.3	4.8	-2.3	60.0
703.0	10185.9	1.1	-4.7	65.0
700.0	10298.9	.9	-6.6	57.0
688.4	10740.7	1.3	-15.6	27.0
679.4	11087.9	.0	-11.7	41.0
652.6	12144.2	-1.6	-13.0	35.0
617.4	13584.7	-5.6	-13.2	55.0
600.2	14311.5	-6.9	-20.1	34.0
583.4	15038.3	-8.0	-23.2	20.0
574.6	15426.0	-8.8	-24.8	26.0
566.6	15782.5	-9.7	-18.9	47.0
549.8	16544.4	-11.3	-19.6	59.0
500.0	18918.7	-16.0	-35.3	17.0
463.4	20785.6	-20.5	-40.3	15.0
440.4	22016.3	-24.0	-43.2	15.0
400.0	24307.1	-28.2	-46.7	15.0
375.4	25794.0	-32.0	-49.8	15.0
316.6	29678.1	-41.3		
300.0	30878.7	-42.6		
264.6	33627.1	-49.8		
250.0	34847.7	-50.6		
231.4	36505.5	-51.2		
221.0	37491.4	-50.7		
200.0	39621.3	-53.5		
192.2	40404.0	-53.8		
170.2	43948.6	-52.0		
150.0	45729.3	-54.8		
126.8	49228.2	-60.3		
100.0	54055.3	-65.2		
91.6	55811.6	-66.9		
85.8	57125.0	-64.0		
80.2	58887.2	-64.8		
70.0	61221.2	-65.8		

STATION ALTITUDE 4051.7 FEET MSL
 20 FEB. 82 0800 HRS MST
 ASCENSION NO. 7

SIGNIFICANT LEVEL DATA
 0510100007
 LC-37

GEOMETRICAL COORDINATES
 32.90175 LAT DEG
 106.31232 LON DEG

TABLE 15 Cont'd

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	REL. HUM. PERCENT
MILLIBARS	MSL FEET	DEGREES CENTIGRADE	
50.0	66021.3	-62.7	
42.8	71221.6	-58.3	
35.6	75053.2	-50.3	
30.0	78624.7	-57.1	
20.0	87187.1	-53.4	
15.8	92244.8	-50.4	
14.6	93951.6	-50.4	

STATION ALTITUDE 4051.37 FEET MSL
 20 FEB. 82 0800 HRS MST
 ASCENSION NO. 7

UPPER AIR DATA
 051010007
 LC-37
 TABLE 16

GEODETIC COORDINATES
 32.40175 LAT DLG
 106.31232 LON DLG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INCL. OF WIND DIRECTION	SPEED KNOTS	INCL. OF REFRACTION
						DIR. GRS. (TH)	INCL. OF REFRACTION			
4051.4	882.9	3.5	78.0	1108.9	646.0	180.0	1.000277	1.0	1.000277	
4500.0	866.4	8.5	51.8	1071.2	654.7	358.0	1.000266	3.4	1.000266	
5000.0	852.6	9.2	40.3	1049.3	655.4	353.3	1.000261	8.3	1.000261	
5500.0	837.0	9.1	46.1	1030.6	655.3	356.3	1.000255	13.3	1.000255	
6000.0	821.7	8.5	42.5	1014.2	654.5	357.6	1.000249	15.9	1.000249	
6500.0	806.7	7.6	38.9	999.2	653.3	356.7	1.000242	17.8	1.000242	
7000.0	791.9	6.7	35.2	984.4	652.2	353.7	1.000236	18.5	1.000236	
7500.0	777.4	5.8	32.4	969.0	651.3	350.9	1.000230	19.3	1.000230	
8000.0	763.1	5.2	31.9	952.9	650.7	348.1	1.000235	17.9	1.000235	
8500.0	748.9	4.4	60.5	937.6	649.9	345.1	1.000234	16.5	1.000234	
9000.0	735.0	3.4	61.9	923.5	648.7	348.6	1.000230	14.2	1.000230	
9500.0	721.3	2.4	63.2	909.6	647.5	354.1	1.000226	11.9	1.000226	
10000.0	707.9	1.5	64.5	895.9	646.3	7.3	1.000222	10.0	1.000222	
10500.0	694.7	1.1	43.3	881.1	645.6	24.9	1.000211	9.2	1.000211	
11000.0	681.7	.3	37.5	867.2	644.7	37.4	1.000205	10.9	1.000205	
11500.0	668.8	-.6	38.7	853.8	643.5	44.1	1.000202	12.9	1.000202	
12000.0	656.2	-1.4	35.8	840.2	642.6	43.0	1.000197	14.6	1.000197	
12500.0	643.7	-2.6	39.9	827.9	641.2	47.0	1.000195	15.6	1.000195	
13000.0	631.5	-4.0	46.9	816.2	639.6	51.3	1.000193	15.4	1.000193	
13500.0	619.4	-5.4	53.8	804.7	637.9	53.6	1.000191	14.9	1.000191	
14000.0	607.5	-6.3	43.0	792.4	636.7	52.6	1.000185	13.9	1.000185	
14500.0	595.8	-7.2	32.4	779.8	635.6	49.2	1.000180	13.6	1.000180	
15000.0	584.3	-7.9	28.3	767.0	634.6	44.6	1.000176	13.7	1.000176	
15500.0	572.9	-9.0	30.4	755.1	633.4	47.3	1.000173	15.0	1.000173	
16000.0	561.8	-10.2	47.9	743.4	632.1	50.0	1.000173	16.4	1.000173	
16500.0	550.8	-11.2	49.8	731.8	630.8	51.6	1.000170	18.2	1.000170	
17000.0	539.9	-12.2	43.7	720.2	629.6	53.2	1.000166	20.0	1.000166	
17500.0	529.2	-13.2	36.7	708.7	628.3	57.9	1.000162	20.8	1.000162	
18000.0	518.7	-14.2	29.8	697.5	627.1	62.3	1.000159	21.7	1.000159	
18500.0	508.4	-15.2	22.0	686.4	625.8	67.2	1.000155	21.6	1.000155	
19000.0	498.3	-16.2	16.9	675.5	624.6	72.2	1.000152	21.5	1.000152	
19500.0	488.3	-17.4	16.4	665.0	623.1	73.2	1.000150	20.9	1.000150	
20000.0	478.5	-18.6	15.8	654.7	621.6	73.3	1.000147	20.2	1.000147	
20500.0	468.8	-19.8	15.3	644.6	620.1	73.6	1.000145	21.3	1.000145	
21000.0	459.3	-21.1	15.0	634.6	618.5	73.1	1.000142	22.1	1.000142	
21500.0	449.9	-22.5	15.0	625.3	616.8	69.6	1.000138	22.2	1.000138	
22000.0	440.7	-24.0	15.0	616.0	615.0	66.1	1.000136	23.9	1.000136	
22500.0	431.5	-24.9	15.0	605.5	613.9	61.3	1.000133	26.3	1.000133	
23000.0	422.6	-25.8	15.0	595.1	612.7	57.3	1.000131	30.6	1.000131	
23500.0	413.8	-26.7	15.0	584.9	611.6	55.7				

STATION ALTITUDE 4051-37 FEET MSL
 20 FEB. 62
 ASCENSION NO. 7

UPPER AIR DATA
 0510120007
 LC-37
 TABLE 16 Cont'd

WIND DIRECTION, COORDINATES
 32-40175 LAT UEG
 106-31252 LONG LEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INCLX OF REFRACTION
						DIRECTION (DEGREES(T))	SPEED KNOTS	
24000.0	405.2	-27.6	15.0	574.9	610.5	50.1	36.9	1.000129
24500.0	390.7	-28.7	15.0	565.3	609.1	50.6	42.2	1.000126
25000.0	388.3	-30.0	15.0	556.3	607.5	50.1	45.7	1.000124
25500.0	380.1	-31.2	15.0	547.4	605.9	59.2	48.4	1.000122
26000.0	372.0	-32.5	14.2**	538.5	604.4	60.7	49.9	1.000120
26500.0	364.0	-33.7	12.3**	529.5	602.9	59.9	52.7	1.000118
27000.0	356.1	-34.9	10.3**	520.6	601.4	57.9	56.5	1.000116
27500.0	348.3	-36.1	8.4**	511.9	599.8	56.6	58.3	1.000114
28000.0	340.8	-37.3	6.5**	503.3	598.3	59.6	59.6	1.000112
28500.0	333.4	-38.5	4.5**	494.9	596.8	59.7	58.5	1.000110
29000.0	326.2	-39.7	2.6**	486.7	595.3	59.4	57.0	1.000108
29500.0	319.1	-40.9	.7**	478.6	593.7	55.8	55.9	1.000107
30000.0	312.1	-41.6		469.6	592.0	51.6	55.2	1.000105
30500.0	305.1	-42.2		460.3	592.1	50.1	57.3	1.000103
31000.0	298.3	-42.9		451.4	591.1	48.7	59.5	1.000101
31500.0	291.6	-44.2		443.8	589.4	49.6	61.3	1.000099
32000.0	285.0	-45.5		436.2	587.8	50.5	62.7	1.000097
32500.0	278.6	-46.8		428.8	586.1	51.7	59.1	1.000096
33000.0	272.3	-48.2		421.6	584.4	53.2	55.4	1.000094
33500.0	266.1	-49.5		414.5	582.7	54.5	47.5	1.000092
34000.0	260.1	-50.0		406.1	581.9	50.4	39.6	1.000090
34500.0	254.1	-50.4		397.3	581.5	57.0	32.0	1.000088
35000.0	248.2	-50.7		388.7	581.1	57.9	24.5	1.000087
35500.0	242.5	-50.8		380.0	580.9	40.7	20.6	1.000085
36000.0	236.9	-51.0		371.6	580.6	50.7	18.2	1.000083
36500.0	231.5	-51.2		363.3	580.4	19.7	18.1	1.000081
37000.0	226.1	-50.9		354.5	580.7	9.6	18.8	1.000079
37500.0	220.9	-50.7		346.0	581.0	8.5	17.3	1.000077
38000.0	215.8	-51.4		339.0	580.2	6.6	15.6	1.000075
38500.0	210.8	-52.0		332.1	579.5	6.0	14.5	1.000074
39000.0	205.9	-52.7		325.4	578.5	4.6	13.2	1.000072
39500.0	201.1	-53.3		316.8	577.6	3.0	11.5	1.000071
40000.0	196.5	-53.6		311.6	577.2	351.4	10.0	1.000069
40500.0	191.9	-53.8		304.7	577.0	352.9	9.1	1.000068
41000.0	187.4	-53.4		297.1	577.5	312.5	9.2	1.000066
41500.0	183.1	-53.1		289.8	577.9	291.9	9.1	1.000065
42000.0	178.8	-52.7		282.6	578.4	274.0	10.6	1.000063
42500.0	174.6	-52.4		275.6	578.8	261.2	11.9	1.000061
43000.0	170.6	-52.0		268.8	579.3	251.0	12.8	1.000060
43500.0	166.6	-52.5		262.0	579.7	244.1	13.8	1.000059

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

UPPER AIR DATA
 051010000/
 LC-37
 TABLE 16 Cont'd

STATION ALTITUDE 4051.37 FEET MSL
 20 FEB. 42 0800 HRS MST
 ASCENSION NO. 7

GEODESIC COORDINATES
 32.40175 LAT DEG
 106.31232 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION (MAGNETIC)	WIND VELOCITY (KNOTS)	INDEX OF REFRACTION
44000.0	162.7	-53.0		257.5	570.0	243.2	14.3	1.000057
44500.0	150.9	-53.5		252.1	571.4	242.5	14.8	1.000056
45000.0	155.2	-54.0		246.8	570.7	245.0	16.6	1.000055
45500.0	151.6	-54.6		241.7	570.0	247.7	18.7	1.000054
46000.0	149.1	-55.2		236.7	575.1	250.0	20.9	1.000053
46500.0	144.6	-56.0		231.9	574.1	254.0	23.2	1.000052
47000.0	141.1	-56.8		227.2	573.0	257.0	25.6	1.000051
47500.0	137.8	-57.6		222.6	572.0	258.5	26.8	1.000050
48000.0	134.5	-58.4		218.2	570.9	258.0	27.8	1.000049
48500.0	131.3	-59.2		213.0	569.9	262.6	27.4	1.000048
49000.0	128.2	-59.9		209.5	568.9	271.4	25.9	1.000047
49500.0	125.1	-60.6		205.0	568.0	260.8	25.0	1.000046
50000.0	122.1	-61.1		200.5	567.3	269.6	24.3	1.000045
50500.0	119.1	-61.6		196.1	566.6	298.0	24.1	1.000044
51000.0	116.2	-62.1		191.8	566.0	293.9	22.0	1.000043
51500.0	113.4	-62.6		187.6	565.3	290.3	19.7	1.000042
52000.0	110.6	-63.1		183.5	564.6	288.2	17.2	1.000041
52500.0	108.0	-63.6		179.5	563.9	282.2	14.4	1.000040
53000.0	105.3	-64.1		175.5	563.2	277.7	12.2	1.000039
53500.0	102.8	-64.6		171.7	562.6	277.7	11.8	1.000038
54000.0	100.3	-65.1		167.9	561.9	277.7	11.5	1.000037
54500.0	97.8	-65.6		164.2	561.2	278.8	12.1	1.000037
55000.0	95.4	-66.1		160.5	560.6	280.2	13.2	1.000036
55500.0	93.0	-66.6		156.9	559.9	281.0	14.2	1.000035
56000.0	90.7	-66.5		153.0	560.1	278.1	14.1	1.000034
56500.0	88.5	-65.4		148.4	561.5	275.2	14.0	1.000033
57000.0	86.3	-64.3		144.0	563.0	278.2	13.7	1.000032
57500.0	84.2	-64.2		140.4	563.1	279.4	13.4	1.000031
58000.0	82.2	-64.5		137.2	562.7	281.2	13.1	1.000031
58500.0	80.1	-64.8		134.0	562.3	278.4	13.0	1.000030
59000.0	78.2	-65.0		130.8	562.1	275.5	13.0	1.000029
59500.0	76.3	-65.2		127.7	561.8	277.0	11.8	1.000028
60000.0	74.4	-65.4		124.7	561.6	279.0	10.5	1.000028
60500.0	72.6	-65.5		121.7	561.3	280.0	9.1	1.000027
61000.0	70.8	-65.7		118.9	561.1	297.9	7.8	1.000026
61500.0	69.0	-65.7		115.9	561.2	313.0	6.9	1.000026
62000.0	67.4	-65.4		113.0	561.3	324.7	6.4	1.000025
62500.0	65.7	-65.2		110.1	561.6	337.7	6.2	1.000025
63000.0	64.1	-65.0		107.3	562.1	.1	5.2	1.000024
63500.0	62.5	-64.8		104.5	562.4	34.9	5.0	1.000023

STATION ALTITUDE 4051.37 FEET MSL
 20 FEB. 42 0807 HRS MST
 ASCENSION NO. 7

UPPLR AIR DATA
 0510180007
 LC-37

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

TABLE 16 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	"IND DATA" WIND DIRECTION KNOTS (TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	61.0	-64.5		101.9	562.7	39.0	5.0	1.000023
64500.0	59.5	-64.3		99.3	563.0	73.3	5.4	1.000022
65000.0	58.1	-64.1		96.7	563.3	98.2	5.3	1.000022
65500.0	56.6	-63.8		94.3	563.6	118.4	3.1	1.000021
66000.0	55.3	-63.6		91.9	563.9	187.2	3.3	1.000020
66500.0	53.9	-63.4		89.5	564.2	208.7	5.5	1.000020
67000.0	52.6	-63.2		87.2	564.5	207.7	7.0	1.000019
67500.0	51.3	-62.9		85.0	564.8	207.0	8.6	1.000019
68000.0	50.1	-62.7		82.9	565.1	206.3	7.8	1.000018
68500.0	48.9	-62.0		80.6	565.0	205.1	5.8	1.000018
69000.0	47.7	-61.4		78.4	567.0	202.0	3.9	1.000017
69500.0	46.5	-60.7		76.3	567.9	190.5	2.7	1.000017
70000.0	45.4	-60.0		74.2	568.8	162.4	1.8	1.000017
70500.0	44.3	-59.3		72.2	569.7	120.9	1.8	1.000016
71000.0	43.3	-58.6		70.2	570.6	107.5	2.5	1.000016
71500.0	42.2	-58.3		66.5	571.0	100.3	3.3	1.000015
72000.0	41.2	-58.3		66.8	571.0	97.2	4.1	1.000015
72500.0	40.2	-58.3		65.3	571.0	97.5	5.0	1.000015
73000.0	39.3	-58.3		63.7	571.0	97.0	5.9	1.000014
73500.0	38.4	-58.3		62.2	571.0	98.3	6.6	1.000014
74000.0	37.4	-58.3		60.7	571.0	101.7	6.1	1.000014
74500.0	36.6	-58.3		59.3	571.0	105.9	5.5	1.000013
75000.0	35.7	-58.3		57.9	571.0	110.9	5.0	1.000013
75500.0	34.8	-58.1		56.5	571.2	129.7	3.7	1.000013
76000.0	34.0	-58.0		55.1	571.5	164.1	3.0	1.000012
76500.0	33.2	-57.8		53.7	571.7	198.5	3.7	1.000012
77000.0	32.4	-57.6		52.4	571.9	204.9	3.0	1.000012
77500.0	31.7	-57.5		51.1	572.1	203.7	1.6	1.000011
78000.0	30.9	-57.3		49.9	572.3	165.3	.2	1.000011
78500.0	30.2	-57.1		48.7	572.6	39.3	.2	1.000011
79000.0	29.5	-56.9		47.5	572.8	215.3	.4	1.000011
79500.0	28.8	-56.7		46.3	573.1	215.3	.9	1.000010
80000.0	28.1	-56.5		45.2	573.4	213.3	1.3	1.000010
80500.0	27.5	-56.3		44.1	573.7	93.5	.8	1.000010
81000.0	26.8	-56.1		43.0	574.0	65.8	2.5	1.000010
81500.0	26.2	-55.9		42.0	574.3	61.1	4.3	1.000009
82000.0	25.6	-55.6		41.0	574.6	57.1	6.8	1.000009
82500.0	25.0	-55.4		40.0	574.8	34.5	9.5	1.000009
83000.0	24.4	-55.2		39.0	575.1	53.1	12.3	1.000009
83500.0	23.8	-55.0		38.0	575.4	52.5	14.4	1.000008

UPPER AIR DATA
 0510160007
 LC-37
 TABLE 16 Cont'd

STATION ALTITUDE 4051.37 FEET MSL
 20 FEB. 62 0800 HRS MST
 ASCENSION NO. 7

CLOUDY, COORDINATES
 32.40175 LAT DEG
 106.31232 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	"J" CORRECTION (IN)	"I" DATA SPEED KNOTS	INDEX OF REFRACTION
84000.0	23.3	-54.8			37.1	575.7	53.0	13.4	1.000008
84500.0	22.7	-54.6			36.2	570.0	53.6	12.4	1.000008
85000.0	22.2	-54.3			35.3	570.3	54.3	11.4	1.000008
85500.0	21.7	-54.1			34.5	570.0	55.0	9.9	1.000008
86000.0	21.2	-53.9			33.6	570.8	58.6	8.3	1.000007
86500.0	20.7	-53.7			32.8	577.1	62.0	6.7	1.000007
87000.0	20.2	-53.5			32.0	577.4	68.6	5.3	1.000007
87500.0	19.7	-53.2			31.2	577.8	78.4	4.3	1.000007
88000.0	19.3	-52.9			30.5	578.1	93.3	3.4	1.000007
88500.0	18.8	-52.6			29.7	578.5	115.2	2.9	1.000007
89000.0	18.4	-52.3			29.0	578.9	93.4	2.9	1.000006
89500.0	18.0	-52.0			28.3	579.3	72.7	3.3	1.000006
90000.0	17.5	-51.7			27.6	579.7	57.9	4.0	1.000006
90500.0	17.1	-51.4			26.9	580.1	70.5	4.8	1.000006
91000.0	16.7	-51.1			26.3	580.5	90.1	5.9	1.000006
91500.0	16.4	-50.8			25.6	580.9	98.9	7.3	1.000006
92000.0	16.0	-50.5			25.0	581.2			1.000006
92500.0	15.6	-50.4			24.4	581.4			1.000005
93000.0	15.3	-50.4			23.9	581.4			1.000005
93500.0	14.9	-50.4			23.3	581.4			1.000005

STATION ALTITUDE 4051.37 FEET .SL
 20 FEB. 62 0800 HRS MS1
 ASCENSION NO. 7

MANDATORY LEVELS
 0510180007
 LC-37
 TABLE 17

GEOD. COORDINATES
 32.50175 LAT DEG
 100.31232 LONG DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL. HUMID. PERCENT	WIND DATA		
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS	VELOCITY KNOTS
850.0	5078.	9.1	-1.0	49.	350.3	9.1	9.1
800.0	6722.	7.2	-6.5	37.	355.3	10.1	10.1
750.0	8456.	4.5	-2.5	60.	343.1	10.7	10.7
700.0	10289.	.9	-6.6	57.	17.6	9.2	9.2
650.0	12235.	-1.9	-14.8	36.	45.4	13.4	13.4
600.0	14303.	-6.9	-20.1	34.	50.9	13.5	13.5
550.0	16514.	-11.3	-19.6	50.	51.9	13.3	13.3
500.0	18892.	-16.0	-35.3	17.	71.3	21.5	21.5
450.0	21464.	-22.5	-41.9	15.	69.7	22.1	22.1
400.0	24267.	-28.2	-46.7	15.	56.3	40.7	40.7
350.0	27360.	-35.8	-57.3	9.***	58.3	50.0	50.0
300.0	30818.	-42.6			49.0	56.9	56.9
250.0	34772.	-50.6			57.5	27.0	27.0
200.0	39527.	-53.5			357.6	11.2	11.2
175.0	42348.	-52.4			262.7	11.8	11.8
150.0	45607.	-54.8			248.6	19.6	19.6
125.0	49380.	-60.6			280.8	25.0	25.0
100.0	53889.	-65.2			277.8	11.5	11.5
80.0	58345.	-64.8			276.3	13.0	13.0
70.0	61012.	-65.8			303.4	7.0	7.0
60.0	64094.	-64.4			67.4	5.3	5.3
50.0	67766.	-62.7			206.3	7.8	7.8
40.0	72341.	-58.3			97.6	5.2	5.2
30.0	78290.	-57.1			35.3	.1	.1
25.0	82090.	-55.4			54.0	3.0	3.0
20.0	86781.	-53.4			71.1	5.0	5.0
15.0	92905.	-50.4					

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

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 62 0910 MRS MSJ
 ASCENSION NO. 8

SIGNIFICANT LEVEL DATA
 0510030000
 JALLEN
 TABLE 18

GEODLTIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT PERCENT
382.5	4051.0	14.2	-2.7
372.8	4355.8	11.8	-4.3
856.0	5081.4	10.8	-4.8
815.5	6209.3	7.9	-7.4
786.8	7179.5	7.9	-10.4
740.8	8900.4	4.4	-12.9
700.0	10308.6	2.1	-16.8
668.6	11522.4	.7	-16.1
613.5	13769.4	-4.6	-21.6
599.1	14382.6	-5.8	-17.8
565.3	15868.5	-9.4	-24.1
500.0	18951.5	-15.5	-32.8
461.4	20929.7	-19.7	-35.4
444.0	21864.4	-21.9	-36.2
400.0	24359.6	-28.2	-42.4
385.6	25210.3	-29.7	-38.4
373.9	25944.1	-30.7	-41.6
320.3	29495.8	-39.4	-49.5
307.0	30961.9	-42.5	
277.1	32717.2	-45.3	
256.4	34404.0	-50.5	
250.0	34945.9	-51.3	
237.4	36049.2	-52.7	
211.2	38499.9	-59.2	
200.0	39630.1	-57.2	
186.7	41077.6	-53.2	
177.5	42149.2	-53.7	
166.5	43254.3	-52.6	
150.0	45716.3	-55.2	
121.3	50119.0	-61.8	
118.4	50613.6	-61.4	
108.7	52347.8	-64.9	
100.0	54025.0	-65.3	
85.1	57277.2	-63.9	
70.0	61200.9	-66.9	
63.7	63081.7	-67.0	
50.0	67959.4	-62.9	
40.5	72303.7	-57.4	
30.0	76572.2	-57.5	
24.6	82714.7	-57.9	

STATION ALTITUDE 4051.00 FEET .SL
 20 FEB. 82 0910 HRS EST
 ASCENSION NO. 8

SIGNIFICANT LEVEL DATA
 0510030000
 JALLEN

GEODETIC COORDINATES
 33.10712 LAT UEG
 100.49311 LON UEG

TABLE 18 Cont'd

PRESSURE GEOMETRICAL MILLIBARS	ALTITUDE METERS	TEMPERATURE AIR DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT
20.0	87099.0	-51.4	
15.8	92187.1	-49.7	
14.4	94190.5	-51.4	
13.2	96084.1	-46.3	
10.7	100703.8	-46.6	

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 62 0910 HRS MST
 ASCENSION NO. 8

UPPER AIR DATA
 0510030000
 JALLEN

GEODETIC COORDINATES
 33.10712 LAT DEG
 106.49511 LONG DEG

TABLE 19

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA		INDEX OF REFRACTION
						DIR (DEG)	SPEED KNOTS	
4051.0	882.5	14.2	31.0	1067.6	661.1	000	7.0	1.000261
4500.0	860.2	11.6	32.2	1060.2	658.0	49.6	6.8	1.000257
5000.0	852.5	10.9	32.9	1043.5	657.2	37.0	6.8	1.000253
5500.0	837.0	9.7	33.0	1029.0	655.0	20.2	7.1	1.000248
6000.0	821.8	8.4	33.0	1015.0	654.5	10.1	7.7	1.000244
6500.0	806.8	7.9	30.9	998.5	653.0	10.9	10.9	1.000238
7000.0	792.0	7.9	27.3	980.4	652.0	10.0	14.6	1.000232
7500.0	777.5	7.2	26.2	964.8	652.7	10.0	16.3	1.000228
8000.0	763.2	6.1	26.5	950.8	651.5	3.5	17.9	1.000224
8500.0	749.1	5.0	26.5	936.9	650.2	2.7	18.1	1.000220
9000.0	735.3	4.1	26.5	922.9	649.0	3.5	17.6	1.000216
9500.0	721.6	3.3	25.1	908.3	648.1	9.2	15.3	1.000212
10000.0	708.2	2.6	23.8	893.9	647.2	13.1	11.9	1.000208
10500.0	695.0	1.9	23.6	879.5	646.4	15.0	7.5	1.000204
11000.0	681.9	1.3	25.3	864.8	645.7	20.0	5.3	1.000201
11500.0	669.2	.7	26.9	850.3	645.0	45.5	4.3	1.000198
12000.0	658.5	-.4	26.6	837.8	643.7	41.6	4.6	1.000195
12500.0	644.0	-1.6	26.1	825.6	642.2	37.0	5.3	1.000191
13000.0	631.8	-2.8	25.7	813.5	640.8	32.4	6.3	1.000188
13500.0	619.9	-4.0	25.2	801.6	639.4	30.4	7.5	1.000185
14000.0	608.0	-5.1	29.9	789.5	638.1	29.6	9.0	1.000182
14500.0	596.4	-6.1	37.3	777.2	636.9	28.7	10.1	1.000181
15000.0	584.8	-7.3	34.3	765.7	635.5	27.9	11.0	1.000177
15500.0	573.5	-8.5	31.2	754.4	634.0	30.0	12.1	1.000175
16000.0	562.3	-9.7	28.7	743.1	632.0	34.4	13.4	1.000170
16500.0	551.3	-10.6	27.4	731.2	631.3	38.9	14.7	1.000167
17000.0	540.4	-11.6	26.1	719.6	630.1	43.0	16.0	1.000164
17500.0	529.7	-12.6	24.8	708.1	628.9	42.3	16.1	1.000161
18000.0	519.3	-13.6	23.5	696.8	627.7	42.3	16.1	1.000158
18500.0	509.1	-14.6	22.2	685.7	626.5	45.5	15.7	1.000155
19000.0	499.0	-15.6	21.0	674.8	625.3	48.2	15.4	1.000152
19500.0	489.0	-16.7	21.0	664.0	624.0	49.5	15.3	1.000150
20000.0	479.2	-17.7	21.0	653.3	622.7	48.9	16.5	1.000147
20500.0	469.5	-18.8	21.0	642.9	621.4	40.3	19.4	1.000145
21000.0	460.1	-19.9	21.0	632.6	620.1	47.4	23.5	1.000142
21500.0	450.7	-21.0	21.0	622.7	618.0	51.1	29.0	1.000140
22000.0	441.5	-22.2	21.2	612.9	617.2	54.1	33.1	1.000138
22500.0	432.4	-23.5	21.8	603.2	615.0	57.7	33.3	1.000136
23000.0	423.4	-24.8	22.4	593.7	614.0	61.1	33.2	1.000133
23500.0	414.6	-26.0	23.0	584.4	612.5	64.0	32.1	1.000131

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 82 0910 HRS MST
 ASCENSION NO. 8

UMPIRE AIR DATA
 0510000000
 JALLEN
 TABLE 19 Cont'd

GEODETIC COORDINATES
 33.10712 LAT DEG
 106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	TEMPERATURE POINT DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GN/CUBIC METER	SPEED SOUND KNOTS	WIND DIRECTION (T)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	400.1	-27.3	-41.8	23.6	575.3	610.9	04.5	34.1	1.000129
24500.0	397.6	-28.4	-41.5	27.0	566.0	609.5	02.7	38.5	1.000127
25000.0	389.3	-29.3	-39.2	37.5	550.1	608.4	58.4	41.6	1.000125
25500.0	381.1	-30.1	-39.6	38.4	540.1	607.4	54.2	44.9	1.000123
26000.0	373.0	-30.8	-41.8	33.0	530.2	606.5	49.5	46.9	1.000120
26500.0	365.0	-32.1	-42.9	33.0	527.3	604.9	45.8	46.5	1.000118
27000.0	357.1	-33.3	-44.0	33.0	518.6	603.4	43.7	48.2	1.000116
27500.0	349.4	-34.5	-45.1	33.0	510.0	601.9	42.7	48.0	1.000114
28000.0	341.9	-35.7	-46.2	33.0	501.6	600.5	43.5	47.8	1.000112
28500.0	334.5	-37.0	-47.3	33.0	493.3	598.7	44.9	46.9	1.000110
29000.0	327.3	-38.2	-48.4	33.0	483.2	597.2	47.0	45.5	1.000109
29500.0	320.2	-39.4	-49.5	32.9**	477.2	595.6	51.2	43.9	1.000107
30000.0	313.2	-40.5	-53.9	21.7**	468.8	594.3	55.5	42.3	1.000105
30500.0	306.3	-41.5	-60.6	10.4**	460.6	592.9	55.5	41.9	1.000103
31000.0	299.5	-42.6			452.4	591.6	54.8	41.7	1.000101
31500.0	292.8	-43.4			443.9	590.0	47.3	41.5	1.000099
32000.0	286.2	-44.2			435.4	589.5	40.1	42.2	1.000097
32500.0	279.8	-45.0			427.2	588.5	34.8	44.5	1.000095
33000.0	273.5	-46.2			419.8	588.9	30.8	47.1	1.000094
33500.0	267.3	-47.7			413.0	584.9	30.1	49.4	1.000092
34000.0	261.2	-49.3			406.4	582.9	29.0	51.2	1.000091
34500.0	255.3	-50.6			399.6	581.1	29.5	51.4	1.000089
35000.0	249.4	-51.4			391.7	580.2	29.2	51.0	1.000087
35500.0	243.6	-52.0			383.7	579.5	31.1	48.9	1.000085
36000.0	237.9	-52.6			375.9	578.5	33.4	43.0	1.000084
36500.0	232.3	-53.9			369.2	576.9	37.6	39.7	1.000082
37000.0	226.9	-55.2			362.7	575.1	42.1	36.7	1.000081
37500.0	221.5	-56.5			356.3	573.4	42.9	34.4	1.000079
38000.0	216.3	-57.9			350.0	571.8	43.0	31.7	1.000078
38500.0	211.2	-59.2			343.9	569.8	37.0	27.3	1.000077
39000.0	206.2	-60.3			334.3	571.0	29.9	23.3	1.000074
39500.0	201.3	-61.4			325.0	572.2	25.4	20.2	1.000072
40000.0	196.5	-62.2			315.5	573.8	18.2	16.4	1.000070
40500.0	191.9	-64.8			306.2	575.7	2.0	11.5	1.000068
41000.0	187.4	-63.4			297.1	577.5	26.2	9.1	1.000066
41500.0	183.0	-63.4			290.1	577.5	267.5	12.2	1.000065
42000.0	178.8	-63.6			283.7	577.2	275.5	15.6	1.000063
42500.0	174.6	-63.4			276.7	577.0	270.4	15.7	1.000062
43000.0	170.5	-62.9			269.7	576.2	261.0	15.1	1.000060
43500.0	166.6	-62.9			263.4	576.2	291.9	14.1	1.000059

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

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 62 0910 HRS MST
 ASCENSION NO. 8

UPPER AIR DATA
 051003000
 JALLEN
 TABLE 19 Cont'd

GEOMETRIC COORDINATES
 33.10712 LAT UG
 106.49311 LON UG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DEW POINT DEGREES CELSIUS	WIND DIRECTION REL. TO WIND SPEED	WIND DATA SPEED KNOTS	TURB. COEFFICIENT
4400.0	162.7	-53.4	257.9	577.5	297.9	14.0	1.000057
4450.0	158.9	-53.9	252.4	570.8	296.6	14.6	1.000056
4500.0	155.2	-54.4	247.1	570.1	295.9	15.2	1.000055
4550.0	151.5	-55.0	242.0	575.4	295.6	15.8	1.000054
4600.0	148.0	-55.6	237.0	574.6	295.0	16.4	1.000053
4650.0	144.4	-56.4	232.1	573.6	290.7	16.7	1.000052
4700.0	141.0	-57.1	227.4	572.6	297.8	17.0	1.000051
4750.0	137.6	-57.9	222.7	571.6	299.0	16.9	1.000050
4800.0	134.4	-58.6	218.2	570.6	300.5	16.8	1.000049
4850.0	131.2	-59.4	213.7	569.6	302.6	15.8	1.000048
4900.0	128.0	-60.1	209.4	568.6	305.4	14.7	1.000047
4950.0	125.0	-60.9	205.1	567.6	306.5	14.3	1.000046
5000.0	122.0	-61.6	200.9	566.6	305.9	14.3	1.000045
5050.0	119.1	-61.5	196.0	566.0	304.9	14.7	1.000044
5100.0	116.2	-62.2	191.8	565.9	303.2	15.9	1.000043
5150.0	113.3	-63.2	188.0	564.5	301.5	16.7	1.000042
5200.0	110.6	-64.2	184.4	563.1	298.6	16.4	1.000041
5250.0	107.9	-64.9	180.5	562.1	295.9	16.0	1.000040
5300.0	105.2	-65.1	176.2	562.0	295.0	14.8	1.000039
5350.0	102.6	-65.2	171.9	561.8	295.0	13.6	1.000038
5400.0	100.1	-65.3	167.8	561.7	288.2	12.9	1.000037
5450.0	97.7	-65.1	163.5	561.9	287.7	12.3	1.000036
5500.0	95.3	-64.9	159.4	562.2	286.9	12.1	1.000035
5550.0	92.9	-64.7	155.3	562.5	285.9	12.3	1.000035
5600.0	90.7	-64.4	151.3	562.8	284.1	12.4	1.000034
5650.0	88.4	-64.2	147.5	563.1	280.2	12.3	1.000033
5700.0	86.3	-64.0	143.7	563.4	276.8	12.2	1.000032
5750.0	84.2	-64.1	140.2	563.3	280.6	11.2	1.000031
5800.0	82.1	-64.5	137.0	562.3	285.5	10.3	1.000031
5850.0	80.1	-64.8	133.9	562.3	285.7	8.8	1.000030
5900.0	78.1	-65.2	130.9	561.8	285.0	7.2	1.000029
5950.0	76.2	-65.6	127.9	561.5	275.5	6.2	1.000028
6000.0	74.3	-66.0	125.0	560.7	259.1	5.9	1.000028
6050.0	72.5	-66.4	122.1	560.2	269.1	6.1	1.000027
6100.0	70.7	-66.7	119.3	559.7	246.2	6.5	1.000027
6150.0	69.0	-66.9	116.5	559.5	243.2	7.2	1.000026
6200.0	67.3	-66.9	113.6	559.4	240.1	8.3	1.000025
6250.0	65.6	-67.0	110.8	559.4	238.9	8.9	1.000025
6300.0	64.0	-67.0	108.1	559.4	242.5	7.9	1.000024
6350.0	62.4	-68.6	105.3	559.8	247.7	6.8	1.000023

UNPLD AIR DATA
 0510030000
 JALLEN

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 82 0910 HRS MST
 ASCENSION NO. 8

TABLE 19 Cont'd

GEODETIC COORDINATES
 33.10712 LAT DEG
 106.43511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEGREE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SOUND SPEED METERS	WIND DIRECTION (DEGREES TRUE)	WIND SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.9	-56.2	102.5	560.4	203.4	5.3	1.000023		
64500.0	59.4	-65.8	99.7	561.0	207.4	4.5	1.000022		
65000.0	57.9	-65.4	97.1	561.5	297.3	4.4	1.000022		
65500.0	56.5	-65.0	94.5	562.1	296.9	4.2	1.000021		
66000.0	55.1	-64.5	92.0	562.7	294.8	4.1	1.000020		
66500.0	53.8	-64.1	89.6	563.2	203.1	4.3	1.000020		
67000.0	52.4	-63.7	87.2	563.8	272.8	4.6	1.000019		
67500.0	51.2	-63.3	84.9	564.4	268.9	4.5	1.000019		
68000.0	49.9	-62.8	82.7	565.0	267.5	4.1	1.000018		
68500.0	48.7	-62.2	80.4	565.8	203.2	3.6	1.000018		
69000.0	47.5	-61.6	78.3	566.7	254.1	3.0	1.000017		
69500.0	46.4	-60.9	76.2	567.5	203.0	2.5	1.000017		
70000.0	45.3	-60.3	74.1	568.3	215.4	2.2	1.000016		
70500.0	44.2	-59.7	72.1	569.2	100.0	2.3	1.000016		
71000.0	43.1	-59.1	70.2	570.0	103.3	2.9	1.000016		
71500.0	42.1	-58.4	68.3	570.9	140.4	4.3	1.000015		
72000.0	41.1	-57.8	66.5	571.7	137.5	6.5	1.000015		
72500.0	40.1	-57.4	64.8	572.2	133.1	8.7	1.000014		
73000.0	39.2	-57.4	63.3	572.2	129.7	9.6	1.000014		
73500.0	38.2	-57.4	61.8	572.2	120.6	10.5	1.000014		
74000.0	37.3	-57.4	60.3	572.2	124.2	11.3	1.000013		
74500.0	36.5	-57.4	58.9	572.2	122.3	6.5	1.000013		
75000.0	35.6	-57.4	57.5	572.2	108.5	1.5	1.000013		
75500.0	34.8	-57.5	56.1	572.2	314.5	3.4	1.000013		
76000.0	33.9	-57.5	54.8	572.2	310.0	4.5	1.000012		
76500.0	33.1	-57.5	53.5	572.1	308.5	5.6	1.000012		
77000.0	32.3	-57.5	52.2	572.1	303.9	6.1	1.000012		
77500.0	31.6	-57.5	51.0	572.1	343.0	3.4	1.000011		
78000.0	30.8	-57.5	49.8	572.1	49.0	4.0	1.000011		
78500.0	30.1	-57.5	48.6	572.1	72.5	6.8	1.000011		
79000.0	29.4	-57.5	47.5	572.0	78.4	8.0	1.000011		
79500.0	28.7	-57.6	46.4	572.0	02.7	9.2	1.000010		
80000.0	28.0	-57.6	45.3	571.9	00.2	10.1	1.000010		
80500.0	27.4	-57.7	44.2	571.9	89.4	9.8	1.000010		
81000.0	26.7	-57.7	43.2	571.8	93.9	9.6	1.000010		
81500.0	26.1	-57.8	42.2	571.7	90.8	9.1	1.000009		
82000.0	25.5	-57.8	41.2	571.7	100.0	8.3	1.000009		
82500.0	24.9	-57.9	40.2	571.6	113.9	7.6	1.000009		
83000.0	24.3	-57.5	39.2	572.1	100.4	7.1	1.000009		
83500.0	23.7	-56.7	38.2	573.1	138.0	6.4	1.000008		

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 62 0910 HRS MST
 ASCENSION NO. 8

UPPER AIR DATA
 0510030003
 JALLEN

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 62 0910 HRS MST
 ASCENSION NO. 8

UPPER AIR DATA
 0510030003
 JALLEN

TABLE 19 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION (TRUE)	WIND SPEED KNOTS	INDEX OF REFRACTION
84000.0	23.2	-56.0		37.1	574.1	152.7	6.1	1.000008
84500.0	22.6	-55.3		36.1	573.1	157.6	6.1	1.000008
85000.0	22.1	-54.5		35.2	572.0	162.1	4.9	1.000008
85500.0	21.6	-53.8		34.2	571.0	156.7	3.9	1.000008
86000.0	21.1	-53.0		33.3	570.0	147.2	2.8	1.000007
86500.0	20.6	-52.3		32.5	570.0	129.7	2.7	1.000007
87000.0	20.1	-51.5		31.6	570.0	112.0	2.9	1.000007
87500.0	19.6	-51.3		30.8	580.5	98.9	3.3	1.000007
88000.0	19.2	-51.1		30.1	580.5	103.0	4.1	1.000007
88500.0	18.7	-50.9		29.4	580.7	122.8	5.3	1.000007
89000.0	18.3	-50.8		28.7	581.0	130.9	6.7	1.000006
89500.0	17.9	-50.6		28.0	581.2	139.1	9.1	1.000006
90000.0	17.5	-50.4		27.3	581.4	145.7	12.9	1.000006
90500.0	17.1	-50.3		26.7	581.6	149.3	16.7	1.000006
91000.0	16.7	-50.1		26.1	581.6	149.0	19.4	1.000006
91500.0	16.3	-49.9		25.5	582.1	150.7	16.9	1.000006
92000.0	15.9	-49.8		24.9	582.3	144.0	15.3	1.000006
92500.0	15.6	-50.0		24.3	582.0	100.9	14.7	1.000005
93000.0	15.2	-50.4		23.8	581.5	134.5	11.6	1.000005
93500.0	14.9	-50.8		23.3	580.9	170.4	12.2	1.000005
94000.0	14.5	-51.2		22.8	580.3	194.7	16.4	1.000005
94500.0	14.2	-50.6		22.2	581.2	204.5	21.8	1.000005
95000.0	13.9	-49.2		21.6	583.0	207.0	27.1	1.000005
95500.0	13.6	-47.9		21.0	584.7	212.1	32.6	1.000005
96000.0	13.3	-46.5		20.4	586.5	215.0	32.7	1.000005
96500.0	13.0	-46.3		19.9	586.7	221.1	24.3	1.000004
97000.0	12.7	-46.4		19.4	586.7	233.1	16.5	1.000004
97500.0	12.4	-46.4		19.0	586.0			1.000004
98000.0	12.1	-46.4		18.6	586.0			1.000004
98500.0	11.8	-46.5		18.2	586.0			1.000004
99000.0	11.6	-46.5		17.8	586.5			1.000004
99500.0	11.3	-46.5		17.4	586.5			1.000004
100000.0	11.0	-46.6		17.0	586.4			1.000004
100500.0	10.8	-46.6		16.6	586.4			1.000004

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 62
 ASCENSION NO. 8

MANDATORY LEVELS
 0510030000
 JALLEN

GEOLIT. COORDINATES
 33-10-712 LAT DEG
 106-49-511 LONG DEG

TABLE 20

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUMIDITY PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT		DIRECTION DEGREES(TI)	SPEED KNOTS
850.0	5078.	10.8	-4.8	33.	35.7	0.8
800.0	6724.	7.9	-8.9	29.	17.5	14.6
750.0	8463.	5.1	-12.4	27.	2.7	10.1
700.0	10299.	2.1	-16.8	25.	14.1	9.2
650.0	12252.	-1.0	-17.9	20.	39.8	4.8
600.0	14328.	-5.7	-18.0	37.	29.0	7.8
550.0	16544.	-10.8	-26.0	27.	39.4	14.0
500.0	18926.	-15.5	-32.8	21.	48.0	13.5
450.0	21507.	-21.1	-37.6	21.	51.3	29.3
400.0	24321.	-28.2	-42.4	24.	63.2	37.0
350.0	27428.	-34.4	-45.0	33.	42.7	40.0
300.0	30903.	-42.5			59.3	41.8
250.0	34872.	-51.3			29.0	51.5
200.0	39538.	-57.2			24.2	19.5
175.0	42345.	-53.4			276.2	15.7
150.0	45597.	-55.2			295.5	10.1
125.0	49366.	-60.9			300.3	14.3
100.0	53862.	-65.3			288.2	14.9
80.0	58335.	-64.8			285.7	0.8
70.0	60995.	-66.9			245.3	0.7
60.0	64053.	-66.0			274.3	4.8
50.0	67709.	-62.9			267.7	4.1
40.0	72280.	-57.4			132.9	0.8
30.0	78243.	-57.5			73.0	0.9
25.0	82018.	-57.9			112.0	7.8
20.0	86699.	-51.4			110.9	2.9
15.0	92855.	-50.7			154.3	11.3

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

STATION ALTITUDE 3989.00 FEET MSL
 20 FEB. 62 0911 HRS MST
 ASCENSION NO. 65

SIGNIFICANT LEVEL DATA
 0510020000
 WHITE SANDS

GEOGRAPHIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

TABLE 21

PRESSURE, MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
884.4	3989.0	12.2	2.1
873.6	4326.5	11.1	-1.0
856.0	5075.8	10.1	-1.0
825.8	5864.0	9.7	-5.4
797.8	6802.6	8.7	-8.6
725.0	9359.4	4.3	-0.6
700.0	10317.2	2.7	-12.7
681.4	11031.9	1.8	-14.3
638.2	12753.9	-2.4	-17.2
613.0	13799.9	-5.1	-13.6
604.8	14147.3	-5.9	-13.9
588.2	14863.2	-6.6	-19.8
547.6	16687.2	-10.4	-22.9
531.8	17425.7	-12.4	-20.9
500.0	18964.8	-15.9	-29.8
400.0	24374.3	-27.3	-42.4
357.8	26981.5	-33.8	-45.3
331.8	28707.5	-37.9	-49.5
307.2	30438.2	-42.4	
300.0	30766.4	-42.0	
289.4	31767.2	-42.6	
250.0	34901.7	-51.1	
223.0	37330.0	-55.3	
218.6	37806.9	-53.9	
216.6	38002.4	-51.5	
200.0	39703.8	-52.0	
194.6	40285.5	-53.3	
190.0	40794.8	-51.8	
150.6	44509.7	-53.1	
150.0	45023.1	-50.7	
121.6	50190.2	-60.8	
111.2	52023.2	-61.1	
100.0	54183.8	-64.0	
80.2	56470.6	-67.2	
70.0	61323.3	-65.5	
55.6	65949.6	-65.5	
50.0	68100.2	-62.1	
42.0	71694.8	-58.2	
33.2	76505.2	-50.5	
30.0	78705.8	-55.8	

GEOLITIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

SIGNIFICANT LEVEL DATA
 0510020005
 WHITE SANDS

TABLE 21 Cont'd

STATION ALTITUDE 3909.00 FEET ASL
 20 FEB. 82 0911 HRS MST
 ASCENSION NO. 65

PRESSURE MILLIBARS MSL FEET	GEOMETRIC ALTITUDE	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
26.6	61238.8	-55.8	
21.8	85461.6	-52.6	
20.0	87301.7	-53.2	
17.0	90775.1	-52.3	
15.1	93330.1	-49.5	

STATION ALTITUDE 3989.00 FEET MSL
 20 FEB. 82 0911 HRS MST
 ASCENSION NO. 65

UPPER AIR DATA
 0510020000
 WILDT. SMD03

GEOMETRIC ALTITUDE
 MSL FEET

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

TABLE 22

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMID. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION.
3989.0	884.4	12.2	50.0	1070.4	659.1	00.0	8.0	1.000273
4000.0	884.0	12.2	49.7	1070.2	659.0	29.0	8.0	1.000273
4500.0	808.1	10.9	42.2	1062.2	657.3	10.0	10.5	1.000262
5000.0	852.4	10.2	45.5	1045.3	650.0	9.1	13.3	1.000260
5500.0	836.9	9.9	39.5	1027.8	650.1	4.1	16.3	1.000252
6000.0	821.7	9.6	33.1	1010.7	653.0	.7	19.3	1.000244
6500.0	806.7	9.0	29.9	994.4	654.9	33.7	20.7	1.000238
7000.0	792.0	8.4	29.3	978.0	654.1	39.3	21.5	1.000233
7500.0	777.4	7.5	32.6	963.4	653.2	35.9	19.6	1.000231
8000.0	763.1	6.6	36.0	946.5	652.2	35.4	17.5	1.000228
8500.0	749.1	5.8	39.3	933.9	651.2	35.0	16.1	1.000220
9000.0	735.3	4.9	42.6	919.5	650.3	32.0	14.7	1.000213
9500.0	721.8	4.1	42.9	905.4	649.2	.0	13.5	1.000219
10000.0	708.4	3.2	35.6	891.6	648.1	10.4	12.4	1.000212
10500.0	695.2	2.5	30.5	877.6	647.2	22.3	11.1	1.000207
11000.0	682.2	1.8	29.1	863.3	646.4	30.3	10.5	1.000202
11500.0	669.4	.7	29.5	850.7	645.0	47.1	11.5	1.000199
12000.0	656.8	-0.6	30.1	838.5	643.5	54.4	12.9	1.000196
12500.0	644.4	-1.8	30.7	826.4	642.1	52.0	14.4	1.000193
13000.0	632.2	-3.0	35.7	814.5	640.0	31.1	15.6	1.000190
13500.0	620.1	-4.3	45.3	802.6	639.1	46.9	15.2	1.000189
14000.0	608.3	-5.6	47.5	790.9	637.7	42.5	15.0	1.000180
14500.0	596.6	-6.2	39.6	777.9	636.0	37.7	15.5	1.000161
15000.0	585.1	-6.9	34.1	764.8	635.0	33.7	16.3	1.000177
15500.0	573.7	-7.9	34.3	753.0	634.7	34.0	18.2	1.000174
16000.0	562.6	-9.0	34.6	741.3	633.4	35.5	20.0	1.000171
16500.0	551.6	-10.0	34.9	729.8	632.2	38.4	20.6	1.000168
17000.0	540.9	-11.2	40.9	718.9	630.7	41.1	21.2	1.000160
17500.0	530.2	-12.6	48.0	706.3	629.1	43.7	21.0	1.000164
18000.0	519.7	-13.7	41.5	697.4	627.7	32.0	20.4	1.000160
18500.0	509.4	-14.8	35.0	688.7	626.3	39.0	20.0	1.000157
19000.0	499.3	-16.0	29.0	676.0	624.9	37.0	19.8	1.000153
19500.0	489.1	-17.0	28.3	665.0	623.6	74.7	19.9	1.000151
20000.0	479.1	-18.1	27.7	654.1	622.3	70.0	20.4	1.000148
20500.0	469.3	-19.1	27.0	643.5	621.0	77.3	20.9	1.000145
21000.0	459.7	-20.2	26.4	633.0	619.7	73.0	21.1	1.000143
21500.0	450.4	-21.2	25.7	622.6	618.4	69.4	21.3	1.000140
22000.0	441.2	-22.3	25.1	612.5	617.1	64.9	23.9	1.000138
22500.0	432.2	-23.4	24.4	602.8	615.8	61.2	27.4	1.000136
23000.0	423.3	-24.4	23.8	592.8	614.5	59.0	31.9	1.000133

STATION ALTITUDE 3989.00 FEET MSL
 20 FEB. 62 0911 HR, MST
 ASCENSION NO. 65

UPPER AIR DATA
 051002006J
 WHITE SANDS

VELOCITY CORRECTED
 32.40045 LAT ULC
 106.37033 LONG ULC

TABLE 22 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	TEMPERATURE DEWPOINT	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEG REL TO HD	WIND SPEED KNOTS	INCL OF REFRACTION
23500.0	414.7	-25.5	-40.4	23.1	585.1	615.2	00.0	37.4	1.000151
24000.0	409.2	-26.5	-41.5	22.5	573.7	611.9	00.5	42.3	1.000129
24500.0	397.9	-27.6	-42.5	22.4	564.4	610.5	01.7	45.2	1.000127
25000.0	389.4	-28.9	-43.0	23.9	555.3	608.9	02.9	48.2	1.000125
25500.0	381.2	-30.1	-43.5	25.5	546.5	607.4	02.0	50.2	1.000123
26000.0	373.1	-31.4	-44.1	27.0	537.5	605.8	00.7	52.0	1.000120
26500.0	365.2	-32.6	-44.7	28.5	528.9	604.3	59.5	53.5	1.000119
27000.0	357.5	-33.8	-45.3	30.0	520.4	602.7	57.9	54.5	1.000117
27500.0	349.8	-35.0	-46.6	29.4	511.7	601.2	57.1	55.4	1.000115
28000.0	342.2	-36.2	-47.8	28.8	503.1	599.7	56.1	55.4	1.000113
28500.0	334.8	-37.4	-49.0	28.2	494.7	598.2	59.1	55.4	1.000111
29000.0	327.5	-38.7	-51.0	23.3**	486.5	596.6	59.0	54.3	1.000109
29500.0	320.3	-40.0	-56.4	15.2**	478.5	594.9	58.9	53.2	1.000107
30000.0	313.3	-41.3	-63.3	7.1**	470.6	593.3	57.0	53.1	1.000105
30500.0	306.3	-42.4			462.4	591.8	56.2	53.3	1.000103
31000.0	299.5	-42.0			451.5	592.3	54.6	53.2	1.000101
31500.0	292.9	-42.4			442.2	591.8	52.9	53.0	1.000098
32000.0	286.3	-43.2			433.8	590.7	51.0	52.6	1.000097
32500.0	279.8	-44.5			426.5	589.0	48.7	51.5	1.000095
33000.0	273.5	-45.9			419.2	587.3	46.3	50.4	1.000093
33500.0	267.3	-47.2			412.2	585.6	43.7	49.3	1.000092
34000.0	261.3	-48.5			405.2	583.9	41.0	48.2	1.000090
34500.0	255.3	-49.9			398.0	582.1	38.2	47.3	1.000087
35000.0	249.5	-51.2			391.0	580.4	35.1	43.4	1.000086
35500.0	243.7	-52.1			384.0	579.3	31.4	39.6	1.000084
36000.0	238.1	-52.9			376.6	578.1	27.4	35.7	1.000082
36500.0	232.5	-53.8			369.3	576.9	22.6	31.8	1.000081
37000.0	227.1	-54.7			362.2	575.6	19.0	28.3	1.000079
37500.0	221.8	-54.8			353.9	575.7	19.2	25.0	1.000077
38000.0	216.6	-51.5			340.5	570.0	13.5	21.6	1.000076
38500.0	211.6	-51.8			333.1	579.6	18.3	18.2	1.000074
39000.0	206.7	-52.1			325.6	574.2	16.1	14.7	1.000073
39500.0	201.9	-52.5			318.7	573.7	8.9	11.1	1.000071
40000.0	197.2	-53.0			312.0	576.1	40.4	6.5	1.000069
40500.0	192.6	-52.7			304.4	576.5	30.9	0.4	1.000068
41000.0	188.2	-51.9			296.3	571.5	24.0	9.0	1.000066
41500.0	183.8	-52.0			289.0	579.5	26.2	10.8	1.000065
42000.0	179.6	-52.2			283.1	579.1	26.0	11.9	1.000063
42500.0	175.4	-52.4			276.8	576.8	27.0	12.7	1.000062
43000.0	171.3	-52.6			270.6	575.0	27.0	14.0	1.000060

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

STATION ALTITUDE 3989.0 FEET / SL
 20 FEB. 62 0911 HRS. EST
 ASCENSION NO. 65

UPPER AIR DATA
 0510020005
 00117 34005

GEOMETRIC ALTITUDE 3989.0 FEET / SL
 20 FEB. 62 0911 HRS. EST
 ASCENSION NO. 65

GEOMETRIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABUL 22 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT	WIND SPEED KNOTS	WIND DIRECTION (MAGNETIC)	WIND VELOCITY (MILES PER HOUR)	WIND VELOCITY (KNOTS)	INDEX OF REFRACTION
43500.0	167.3	-52.7		264.5	570.4	253.0	16.2	1.000059
44000.0	163.5	-52.9		250.0	570.1	252.0	16.3	1.000058
44500.0	159.7	-53.1		252.0	577.9	252.0	20.7	1.000056
45000.0	155.9	-53.7		247.0	577.1	252.0	23.2	1.000055
45500.0	152.3	-54.3		242.4	570.3	253.0	25.1	1.000054
46000.0	148.7	-54.9		237.4	575.5	250.0	25.3	1.000053
46500.0	145.2	-55.6		232.0	574.0	259.1	25.5	1.000052
47000.0	141.8	-56.3		227.0	573.6	259.9	26.7	1.000051
47500.0	138.4	-57.0		223.1	572.7	260.4	28.1	1.000050
48000.0	135.1	-57.7		218.5	571.6	262.0	28.3	1.000049
48500.0	131.9	-58.4		214.0	570.9	267.0	27.3	1.000048
49000.0	128.6	-59.1		209.6	569.9	271.0	26.4	1.000047
49500.0	125.7	-59.8		205.3	569.0	260.9	23.9	1.000046
50000.0	122.7	-60.5		201.1	568.1	271.7	22.1	1.000045
50500.0	119.8	-60.9		196.5	567.6	275.9	20.7	1.000044
51000.0	116.9	-60.9		191.9	567.5	275.4	19.2	1.000043
51500.0	114.1	-61.0		187.3	567.4	274.0	17.8	1.000042
52000.0	111.3	-61.1		182.9	567.3	273.5	16.7	1.000041
52500.0	108.6	-61.7		179.0	566.4	271.9	15.6	1.000040
53000.0	106.0	-62.4		175.2	565.5	269.5	14.6	1.000039
53500.0	103.4	-63.1		171.5	564.6	260.0	13.5	1.000038
54000.0	100.9	-63.8		167.9	563.7	263.4	12.5	1.000037
54500.0	98.4	-64.4		164.3	562.8	260.0	11.5	1.000037
55000.0	96.0	-65.1		160.8	561.9	273.0	10.8	1.000036
55500.0	93.6	-65.8		157.4	560.9	260.0	10.9	1.000035
56000.0	91.3	-66.5		154.0	560.0	263.1	10.9	1.000034
56500.0	89.1	-67.2		150.7	559.1	263.0	10.8	1.000034
57000.0	86.9	-67.0		146.9	559.3	264.2	10.7	1.000033
57500.0	84.7	-66.8		143.1	559.0	261.5	10.3	1.000032
58000.0	82.7	-66.7		139.5	559.0	278.5	9.8	1.000031
58500.0	80.6	-66.5		135.9	560.0	277.0	9.3	1.000030
59000.0	78.6	-66.3		132.4	560.3	276.4	8.6	1.000029
59500.0	76.7	-66.1		129.0	560.5	270.9	8.0	1.000029
60000.0	74.8	-66.0		125.8	560.0	279.0	7.3	1.000028
60500.0	72.9	-65.8		122.5	561.0	270.5	6.6	1.000027
61000.0	71.1	-65.6		119.4	561.2	273.1	6.1	1.000027
61500.0	69.4	-65.5		116.4	561.4	267.5	5.8	1.000026
62000.0	67.7	-65.5		113.5	561.4	263.5	5.6	1.000025
62500.0	66.0	-65.5		110.6	561.4	261.5	5.2	1.000025
63000.0	64.4	-65.5		108.0	561.4	271.9	4.0	1.000024

UPPER AIR DATA
 0510020063
 WHITE SANDS

STATION ALTITUDE 3989.00 FEET SL
 20 FEB. 62 0911 HRS MST
 ASCENSION, MO. 65

CLOUDS, COORDINATES
 32.40043 LAT LLG
 106.37033 LONG DEG

TABLE 22 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE		REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND M/SEC	WIND DATA		INDEX OF REFRACTION.
		AIR	DEWPOINT				DIRECTION DEGREES(TN)	SPEED KNOTS	
63500.0	62.8	-65.5		76.5	105.4	561.4	286.0	3.0	1.000023
64000.0	61.3	-65.5			102.8	561.4	282.9	1.1	1.000023
64500.0	59.8	-65.5			100.3	561.4	148.7	1.3	1.000022
65000.0	58.3	-65.5			97.8	561.4	134.4	2.8	1.000022
65500.0	56.9	-65.5			95.4	561.4	127.4	4.4	1.000021
66000.0	55.5	-65.4			93.0	561.5	202.1	4.0	1.000021
66500.0	54.1	-64.6			90.4	562.5	248.9	6.5	1.000020
67000.0	52.8	-63.8			87.9	563.6	282.0	8.7	1.000020
67500.0	51.5	-63.0			85.4	564.7	273.8	9.5	1.000019
68000.0	50.2	-62.3			83.0	565.8	283.8	9.9	1.000018
68500.0	49.0	-61.7			80.8	566.5	298.3	8.3	1.000018
69000.0	47.9	-61.1			78.6	567.3	317.6	7.5	1.000018
69500.0	46.7	-60.6			76.6	568.0	358.2	7.9	1.000017
70000.0	45.6	-60.0			74.5	568.7	349.2	8.9	1.000017
70500.0	44.5	-59.5			72.6	569.4	400	8.6	1.000016
71000.0	43.4	-59.0			70.6	570.2	423	6.7	1.000016
71500.0	42.4	-58.4			68.8	570.9	413	8.4	1.000015
72000.0	41.4	-58.2			67.1	571.1	109.5	8.2	1.000015
72500.0	40.4	-58.2			65.5	571.1	138.2	9.4	1.000015
73000.0	39.4	-58.3			64.0	571.1	148.5	10.1	1.000014
73500.0	38.5	-58.3			62.4	571.0	148.0	7.9	1.000014
74000.0	37.6	-58.3			61.0	571.0	149.2	5.6	1.000014
74500.0	36.7	-58.4			59.5	570.9	147.3	4.4	1.000013
75000.0	35.8	-58.4			58.1	570.9	143.2	3.4	1.000013
75500.0	35.0	-58.4			56.7	570.9	142.4	2.5	1.000013
76000.0	34.1	-58.5			55.4	570.8	177.1	2.0	1.000012
76500.0	33.3	-58.5			54.1	570.8	211.4	2.5	1.000012
77000.0	32.5	-58.0			52.7	571.5	219.3	1.8	1.000012
77500.0	31.8	-57.3			51.3	572.3	136.4	.1	1.000011
78000.0	31.0	-56.7			49.9	573.2	48.3	1.0	1.000011
78500.0	30.3	-56.1			48.6	574.0	67.2	4.0	1.000011
79000.0	29.6	-55.8			47.4	574.3	72.8	6.3	1.000011
79500.0	28.9	-55.8			46.3	574.3	77.7	8.0	1.000010
80000.0	28.2	-55.8			45.2	574.3	85.4	8.7	1.000010
80500.0	27.5	-55.8			44.2	574.3	92.0	9.4	1.000010
81000.0	26.9	-55.8			43.1	574.3	97.1	6.9	1.000010
81500.0	26.3	-55.6			42.1	574.0	102.9	7.9	1.000009
82000.0	25.7	-55.2			41.0	573.1	110.3	7.0	1.000009
82500.0	25.1	-54.8			40.0	573.0	112.3	6.7	1.000009
83000.0	24.5	-54.5			39.0	570.1	114.0	6.5	1.000009

STATION ALTITUDE 3989.00 FEET MSL
 20 FEB. 62 0911 HRS MST
 ASCENSION NO. 65

UPPER AIR DATA
 0510020065
 WHITE SANDS

BUJETI, COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 22 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SIFU OF SOUND M/SEC	WIND DIRECTION DEGREES (IN)	SPEED KNOTS	INDEX OF REFRACTION
83500.0	23.9	-54.1	38.0	576.6	110.0	0.1	1.0000008	
84000.0	23.4	-53.7	37.1	577.1	119.1	5.7	1.0000008	
84500.0	22.8	-53.3	36.1	577.6	121.9	5.2	1.0000008	
85000.0	22.3	-52.9	35.2	578.1	124.9	4.4	1.0000008	
85500.0	21.8	-52.6	34.4	578.5	129.3	3.5	1.0000008	
86000.0	21.3	-52.8	33.6	578.3	130.0	2.7	1.0000007	
86500.0	20.8	-52.9	32.8	578.1	133.1	3.0	1.0000007	
87000.0	20.3	-53.1	32.1	577.9	129.0	3.4	1.0000007	
87500.0	19.8	-53.1	31.4	577.8	128.1	3.5	1.0000007	
88000.0	19.4	-53.0	30.6	578.0	129.9	2.4	1.0000007	
88500.0	18.9	-52.9	29.9	578.2	135.3	1.2	1.0000007	
89000.0	18.5	-52.8	29.2	578.4	138.2	1.2	1.0000006	
89500.0	18.0	-52.6	28.5	578.5	134.2	2.1	1.0000006	
90000.0	17.6	-52.5	27.8	578.7	132.7	3.0	1.0000006	
90500.0	17.2	-52.4	27.2	578.9	139.1	5.7	1.0000006	
91000.0	16.8	-52.1	26.5	579.3	142.0	8.8	1.0000006	
91500.0	16.4	-51.5	25.8	580.0	143.4	11.9	1.0000006	
92000.0	16.1	-51.0	25.2	580.7			1.0000006	
92500.0	15.7	-50.4	24.5	581.4			1.0000005	
93000.0	15.3	-49.9	23.9	582.1			1.0000005	

STATION ALTITUDE 3989.00 FEET ASL
 20 FEB. 82 0911 HRS MST
 ASCENSION NO. 65

MANDATORY LEVELS
 0510020065
 WHITE SANDS

GEODTL. COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 23

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5072.	10.1	-1.0	40.	0.2	13.7
800.0	6722.	8.8	-8.5	28.	359.0	21.1
750.0	8465.	5.8	-7.0	39.	351.0	16.2
700.0	10307.	2.7	-12.7	31.	17.5	11.5
650.0	12262.	-1.2	-16.4	30.	53.5	13.7
600.0	14376.	-6.1	-16.9	42.	39.1	13.3
550.0	16555.	-10.2	-22.7	35.	38.7	20.7
500.0	18938.	-15.9	-29.8	29.	66.3	19.8
450.0	21516.	-21.3	-35.7	20.	69.1	21.4
400.0	24334.	-27.3	-42.4	22.	61.4	44.4
350.0	27439.	-35.0	-46.5	29.	57.0	53.4
300.0	30905.	-42.0			54.7	53.2
250.0	34886.	-51.1			35.5	43.8
200.0	39609.	-52.6			358.8	9.9
175.0	42442.	-52.4			250.8	12.8
150.0	45700.	-54.7			255.0	23.2
125.0	49481.	-60.0			282.9	23.5
100.0	54016.	-64.0			282.4	12.2
80.0	58454.	-66.4			270.9	9.1
70.0	61113.	-65.5			269.5	5.9
60.0	64189.	-65.5			163.1	0.9
50.0	67645.	-62.1			285.4	9.6
40.0	72421.	-58.3			143.4	10.2
30.0	78371.	-55.8			69.7	4.8
25.0	82142.	-54.8			112.4	0.7
20.0	86894.	-53.2			120.4	0.7

LMED
-88