

AD-A113 886

ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
20491A ASSAULT BREAKER, MISSILE NUMBER 0005, ROUND NUMBER M362,--ETC(U)
SEP 81 D C KELLER
ERADCOM/ASL-DR-1227

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DR 1227
Sep 81

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METEOROLOGICAL DATA REPORT
20491A Assault Breaker
Missile Number 0005
Round Number M3G2
25 September 1981

by

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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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UNITED STATES ARMY ELECTRONICS COMMAND

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 2049A Assault Breaker, Missile Number 0005, Round Number M3G2 presented in tabular form.		

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INTRODUCTION

20491A Assault Breaker, Missile Number 0005, Round Number M3G2, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0900 MDT 25 September 1981. The scheduled launch time was 0900 MDT.

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 LC33 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:

SITE AND ALTITUDE

LC-33	6000 ft	0854 MDT
LC-33	9000 ft	0913 MDT

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

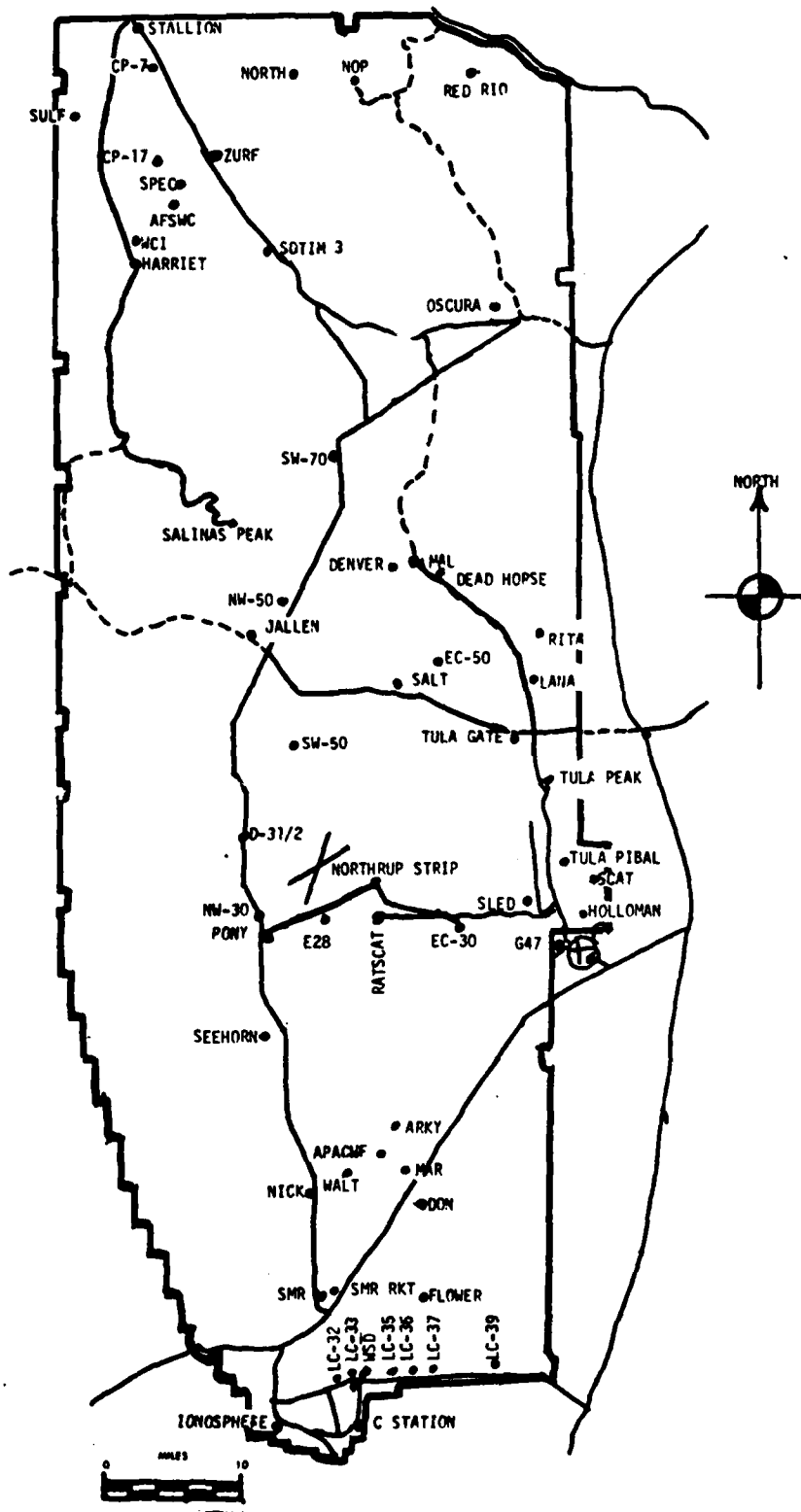
SITE AND TIME

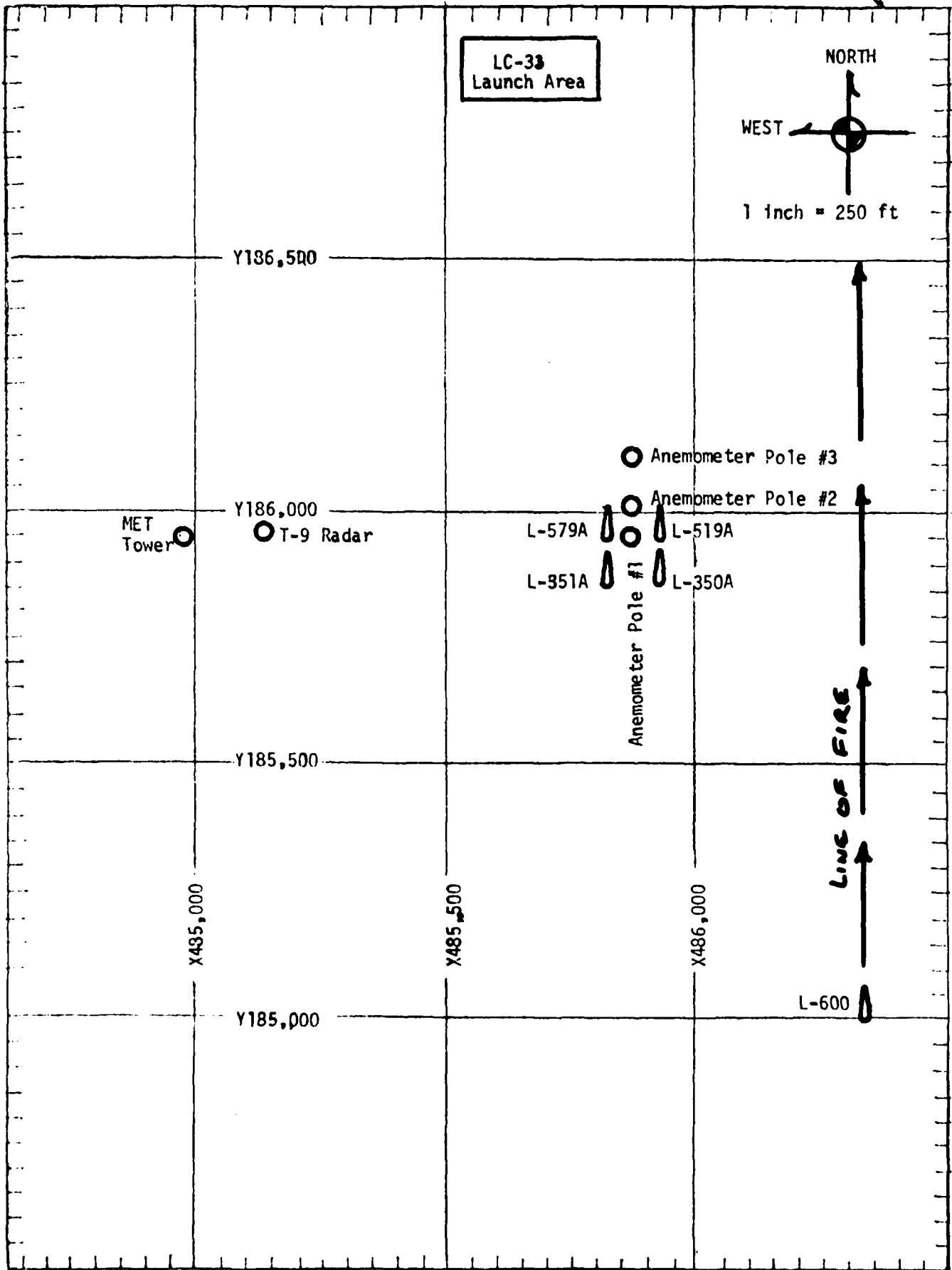
Jallen	0630 MDT
Jallen	0745 MDT
LC-37	0800 MDT
Holloman	0800 MDT
WSD	0900 MDT
Jallen	0900 MDT

Accession For	
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DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A	



WSMR METEOROLOGICAL SITES





PROJECT SURFACE OBSERVATION

TABLE 1 STATION LC-33
 DATE 25 Sep 81 X= 484,982.64 Y= 185,957.73 H= 3983.00
DAY MONTH YEAR

TIME M D I	PRESSURE mbs	TEMPERATURE of °C	DEW POINT of °C	RELATIVE HUMIDITY %	DENSITY gm/m ³	WIND		VISIBIL- ITY
						DIRECTION degs In	SPEED kts	
0900	882.2	22.3	12.8	55	1033	180	08	30

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	HGT	AMT	HGT	AMT	HGT	
HAZE	4	CU 5000					

PSYCHROMETRIC COMPUTATION

TIME:	MDT	0900
DRY BULB TEMP.		22.3
WET BULB TEMP.		16.1
WET BULB DEPR.		6.2
DEW POINT		12.8
RELATIVE HUMID.		55

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 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	142	04	T -30	193	05	T -30	160	MISG
T-20	142	05	T -20	196	04	T -20	153	MISG
T-10	128	04	T -10	201	04	T -10	153	MISG
T0.0	128	03	T 0.0	201	04	T 0.0	153	MISG
T+10	135	04	T +10	189	05	T +10	161	MISG

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	162	04	T-30	170	06
T-20	159	04	T-20	171	05
T-10	165	05	T-10	177	05
T0.0	174	05	T0.0	174	05
T+10	176	06	T+10	171	06

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	165	05	T-30	151	04
T-20	174	05	T-20	154	08
T-10	173	06	T-10	159	09
T0.0	164	06	T0.0	151	08
T+10	168	06	T+10	156	07

PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM LC-33

DATE 25 Sep 81

TIME 0913 MDT

COORDINATES (WSTM)

X = 486,872.00

Y = 184,146.75

Z = 3981.15

HEIGHTS ARE METERS AGL x OR FEET AGL .

HEIGHT AGL	DIRECTION DEGREES	SPLD KNOTS
SFC	180	08
200	MISG	MISG
400	MISG	MISG
600	MISG	MISG
800	MISG	MISG
1000	MISG	MISG
1200	190	11
1400	200	09
1600	220	08
1800	230	06
2000	245	05
2200	275	04
2400	305	03
2600	310	02
2800	285	03
3000	260	03
3200	230	03
3400	230	03
3600	235	03
3800	240	04
4000	250	04
4200	245	05
4400	240	06
4600	235	07
4800	225	07
5000	225	09
5200	225	10
5400	225	11
5600	225	12
5800	225	13

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
6000	225	13
6200	225	14
6400	220	15
6600	220	17
6800	220	19
7000	220	21
7200	225	21
7400	225	21
7600	230	21
7800	230	21
8000	230	21
8200	230	21
8400	230	21
8600	230	21
8800	230	22
9000	230	22

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS

AIMING COMPUTER MET MESSAGE

25 September 1982

JAL 0630 MDT

METCM1332065

251250124879

00640002 28590879

01076005 29130868

02499006 29400843

03415015 29270805

04421017 28920759

05439020 28460715

06440030 28020674

07444029 27620633

08443022 27230595

09422015 26880559

10446019 26700525

11444027 26400492

12438025 25870446

13442029 25130390

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 61
 ASCENSION NO. 153

SIGNIFICANT LEVEL DATA
 2600030153
 JALLEN
 TABLE 7

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
878.5	4051.0	11.7	5.1	64.0
871.6	4270.1	17.2	9.4	60.0
850.0	4977.3	19.5	8.8	50.0
827.6	5733.7	20.2	7.9	45.0
750.0	8496.8	14.4	2.0	45.0
700.0	10393.2	8.7	-1.7	48.0
662.2	11892.9	4.8	-2.7	58.0
573.0	15712.1	-3.8	-15.7	39.0
567.8	15948.6	-4.2	-16.8	31.0
533.4	17562.2	-6.3	-22.2	27.0
522.4	18098.4	-6.0	-22.3	26.0
500.0	19221.8	-8.4	-24.4	26.0
427.2	23174.2	-16.7	-31.2	27.0
400.0	24788.5	-20.5	-34.2	28.0
366.0	26930.7	-25.5	-38.6	28.0
347.6	28159.1	-26.8	-40.1	27.0

STATION ALTITUDE 4651.00 FEET MSL
 25 SEP. 51 0630 MDT
 ASCENSION NO. 153

UPPER AIR DATA
 26R00JUL55
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

TABLE 8

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	TEMPERATURE WET BULB POINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	"IND DATA DIKECTION LEGRELS(TIN)	SPEED KNOTS	INDEX OF REFRACTION
4051.0	870.5	11.7	5.1	64.0	1070.3	658.8	500.0	1.9	1.000280
4500.0	864.5	17.9	0.2	56.7	1029.3	666.4	270.5	2.4	1.000282
5000.0	849.3	19.5	0.8	49.8	1005.8	668.2	252.7	5.3	1.000274
5500.0	834.5	20.0	0.2	46.5	986.8	668.7	246.1	8.5	1.000268
6000.0	819.8	19.6	7.4	45.0	970.8	668.2	241.4	11.6	1.000262
6500.0	805.3	18.6	6.4	45.0	957.3	666.9	234.2	14.5	1.000256
7000.0	791.1	17.5	5.5	45.0	943.9	665.7	230.4	17.0	1.000251
7500.0	777.1	16.5	4.5	45.0	930.8	664.4	235.0	17.1	1.000246
8000.0	763.4	15.4	3.6	45.0	917.9	663.1	235.6	17.2	1.000240
8500.0	749.9	14.4	2.6	45.0	905.2	661.8	240.8	17.3	1.000236
9000.0	736.4	12.9	1.5	45.8	893.7	660.0	245.6	17.7	1.000231
9500.0	723.1	11.4	.4	46.6	882.4	658.2	246.4	19.2	1.000226
10000.0	710.1	9.9	-0.8	47.4	871.3	656.4	247.0	20.8	1.000221
10500.0	697.2	8.4	-1.7	48.7	860.1	654.7	247.3	23.5	1.000217
11000.0	684.5	7.1	-2.0	52.0	848.3	653.2	247.5	26.1	1.000214
11500.0	671.9	5.8	-2.4	55.4	836.6	651.6	247.5	28.3	1.000211
12000.0	659.5	4.6	-3.1	57.5	825.0	650.1	247.7	29.7	1.000208
12500.0	647.1	3.4	-4.7	55.0	813.1	648.7	248.7	28.7	1.000202
13000.0	635.0	2.3	-6.4	52.5	801.3	647.3	249.9	27.3	1.000197
13500.0	623.1	1.2	-8.1	50.0	789.6	645.9	251.8	25.0	1.000193
14000.0	611.4	.1	-9.8	47.5	778.2	644.5	251.8	23.1	1.000188
14500.0	599.9	-1.1	-11.5	45.0	766.9	643.1	248.2	21.9	1.000184
15000.0	588.7	-2.2	-13.2	42.5	755.8	641.7	244.0	20.3	1.000180
15500.0	577.6	-3.3	-14.9	40.1	744.8	640.3	239.0	18.4	1.000176
16000.0	566.7	-4.3	-18.9	30.9	733.5	639.1	237.7	16.8	1.000171
16500.0	555.8	-4.9	-19.9	29.6	721.2	638.3	241.9	15.2	1.000167
17000.0	545.1	-5.6	-21.0	28.4	709.2	637.5	246.7	15.7	1.000164
17500.0	534.7	-6.2	-22.0	27.2	697.3	636.7	250.4	18.2	1.000161
18000.0	524.4	-6.1	-22.3	26.2	683.5	636.9	251.0	20.8	1.000158
18500.0	514.3	-6.9	-23.1	26.0	672.3	636.0	250.3	23.5	1.000155
19000.0	504.3	-7.9	-24.0	26.0	662.0	634.7	249.7	25.3	1.000152
19500.0	494.5	-9.0	-24.9	26.1	651.7	633.4	249.2	26.8	1.000150
20000.0	484.7	-10.0	-25.7	26.2	641.4	632.1	249.2	26.5	1.000147
20500.0	475.2	-11.1	-26.6	26.3	631.3	630.8	249.2	25.9	1.000144
21000.0	465.8	-12.1	-27.5	26.4	621.4	629.6	248.3	24.9	1.000142
21500.0	456.6	-13.2	-28.3	26.6	611.6	628.3	247.3	24.2	1.000140
22000.0	447.6	-14.2	-29.2	26.7	602.0	627.0	245.0	24.8	1.000137
22500.0	438.8	-15.3	-30.1	26.8	592.6	625.7	245.0	25.6	1.000135
23000.0	430.2	-16.3	-30.9	27.0	583.3	624.4	245.3	26.5	1.000133
23500.0	421.6	-17.5	-31.8	27.2	574.2	623.1	246.4	27.2	1.000130

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 81 0630 MDT
 ASCENSION NO. 153

UPPER AIR DATA
 2600030153
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

TABLE 8 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	WETBULB DEGREES				DIRECTION DEGREES (T)	SPEED KNOTS	
24000.0	413.1	-18.6	-32.7	27.5	565.2	621.6	248.0	27.7	1.000128
24500.0	404.7	-19.8	-33.6	27.0	556.4	620.2	249.2	28.1	1.000126
25000.0	396.5	-21.0	-34.6	26.0	547.6	618.7	250.1	28.2	1.000124
25500.0	388.4	-22.2	-35.6	28.0	538.9	617.3	249.6	28.5	1.000122
26000.0	380.4	-23.3	-36.7	28.0	530.3	615.8	248.1	28.8	1.000120
26500.0	372.6	-24.5	-37.7	28.0	521.9	614.4	248.1	29.1	1.000118
27000.0	364.9	-25.6	-38.7	27.9	513.4	613.1	243.7	29.2	1.000116
27500.0	357.4	-26.1	-39.3	27.5	505.8	612.4			1.000113
28000.0	349.9	-26.6	-39.9	27.1	494.4	611.7			1.000111

MANDATORY LEVELS
 2680030153
 JALLEH

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 81
 ASCENSION NO. 153 0630 MDT

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

TABLE 9

PRESSURE GEOPOTENTIAL MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
			DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	19.5	50.	253.3	5.2
800.0	18.2	45.	232.1	15.6
750.0	14.4	45.	240.7	17.3
700.0	8.7	48.	247.3	22.9
650.0	3.7	56.	248.5	28.9
600.0	-1.1	45.	248.1	21.8
550.0	-5.3	29.	244.5	14.6
500.0	-8.4	26.	249.5	25.9
450.0	-14.0	27.	246.1	24.6
400.0	-20.5	28.	249.7	28.2
350.0	-26.6	27.		

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 61
 ASCENSION NO. 154

SIGNIFICANT LEVEL DATA
 2680030154
 JALLEN

GEODLTIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

TABLE 10

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM. PERCENT
ALTITUDE MILLIBARS	MSL FEET	AIR DEGREES	DEWPOINT CENTIGRADE	
878.8	4051.0	10.6	7.7	62.0
874.2	4196.0	15.1	6.4	56.0
850.0	4902.8	18.8	7.6	48.0
834.6	5330.9	20.1	7.5	44.0
784.2	7255.5	17.4	2.2	56.0
700.0	10392.0	8.4	-9	52.0
629.2	13249.5	.6	-5.0	63.0
605.8	14247.4	-1.0	-10.3	49.0
584.6	15177.5	-3.7	-14.7	42.0
570.6	15807.3	-3.5	-19.8	27.0
527.0	17864.4	-5.7	-23.0	24.0
500.0	19214.2	-8.0	-25.0	24.0
482.6	20116.7	-9.5	-26.7	23.0
400.0	24783.2	-21.0	-35.4	26.0
374.8	26353.3	-24.7	-38.2	27.0
364.8	27000.5	-25.1	-38.9	26.0
344.0	28396.4	-28.0	-41.5	26.0

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 61
 ASCENSION NO. 154 0745 MDT

UPPER AIR DATA
 200030154
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

TABLE 11

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION, DEGREES(T)	SPEED, KNOTS	
4051.0	873.8	10.6	82.0	1074.0	657.7	00	00	1.000289
4500.0	864.8	16.5	52.9	1035.4	664.5	243.9	2.1	1.000276
5000.0	849.5	18.9	47.8	1000.7	667.3	243.9	4.5	1.000271
5500.0	834.6	19.9	43.3	987.7	668.4	243.9	6.9	1.000264
6000.0	819.9	19.2	41.2	973.0	667.5	243.2	9.2	1.000257
6500.0	805.5	18.5	39.1	954.5	666.0	239.6	11.7	1.000251
7000.0	791.3	17.8	37.1	944.2	665.7	237.5	13.6	1.000244
7500.0	777.3	16.7	37.2	931.0	664.4	236.1	14.4	1.000239
8000.0	763.3	15.3	39.8	918.9	662.7	237.5	14.8	1.000236
8500.0	749.6	13.8	42.3	906.9	661.1	240.8	15.0	1.000233
9000.0	736.2	12.4	44.9	895.2	659.4	243.0	16.3	1.000230
9500.0	723.0	11.0	47.4	883.6	657.7	244.7	18.0	1.000226
10000.0	710.0	9.5	50.0	872.2	656.0	243.4	19.2	1.000223
10500.0	697.2	8.1	52.4	860.9	654.4	242.0	20.3	1.000219
11000.0	684.3	6.7	54.3	849.2	652.7	241.4	20.7	1.000215
11500.0	671.6	5.4	56.3	837.7	651.1	241.3	21.5	1.000211
12000.0	659.2	4.0	58.2	826.3	649.5	243.0	23.7	1.000207
12500.0	647.0	2.6	60.1	815.2	647.6	244.0	25.6	1.000204
13000.0	635.1	1.3	62.0	804.2	646.2	244.3	27.2	1.000200
13500.0	623.2	.2	59.5	792.5	644.8	244.5	27.0	1.000195
14000.0	611.5	-6	52.5	780.2	643.8	244.6	25.4	1.000189
14500.0	600.0	-1.7	47.1	768.8	642.3	243.6	23.3	1.000184
15000.0	588.6	-3.2	43.3	758.5	640.5	242.1	21.1	1.000180
15500.0	577.4	-3.6	34.3	745.4	639.9	243.8	20.9	1.000174
16000.0	566.4	-3.7	26.7	731.7	639.7	245.9	20.9	1.000169
16500.0	555.5	-4.2	26.0	719.1	639.1	251.0	21.5	1.000166
17000.0	544.9	-4.8	25.3	706.8	638.5	250.0	22.4	1.000163
17500.0	534.5	-5.3	24.5	694.7	637.8	257.4	23.3	1.000160
18000.0	524.2	-5.9	24.0	683.0	637.1	253.4	24.2	1.000157
18500.0	514.1	-6.8	24.0	671.9	636.0	258.5	25.5	1.000154
19000.0	504.2	-7.6	24.0	661.1	635.0	258.4	26.8	1.000152
19500.0	494.4	-8.5	23.7	650.4	634.0	258.5	27.2	1.000149
20000.0	484.8	-9.3	23.1	639.8	633.0	258.7	27.1	1.000146
20500.0	475.2	-10.4	23.2	629.8	631.6	258.0	27.4	1.000144
21000.0	465.8	-11.7	23.6	620.2	630.1	257.6	28.2	1.000141
21500.0	456.5	-12.9	23.9	610.8	628.6	257.9	29.3	1.000139
22000.0	447.4	-14.1	24.2	601.5	627.1	258.6	30.8	1.000137
22500.0	438.5	-15.4	24.5	592.3	625.6	259.0	30.6	1.000135
23000.0	429.7	-16.6	24.9	583.3	624.1	261.5	29.4	1.000132
23500.0	421.2	-17.8	25.2	574.5	622.6	261.5	28.2	1.000130

UPPER AIR DATA
 2680030154
 JALLEN
 TABLE 11 Cont'd

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 51 0745 MDT
 ASCENSION; NO. 154

GEOMETRIC ALTITUDE 4051.00 FEET MSL
 25 SEP. 51 0745 MDT
 ASCENSION; NO. 154

GEODETIC COORDINATES
 53.16712 LAT DEG
 106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CURIC METER	SOUND SPEED METERS	WIND DIRECTION DEGREES(T,0)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	412.8	-19.1	25.5	565.8	621.1	251.2	27.0	1.000128
24500.0	404.6	-20.3	25.8	557.3	619.6	257.9	27.7	1.000126
25000.0	396.4	-21.5	26.1	548.7	618.1	254.5	28.6	1.000124
25500.0	388.3	-22.7	26.5	539.9	616.6	250.3	29.6	1.000122
26000.0	380.3	-23.9	26.8	531.4	615.2	247.7	30.5	1.000120
26500.0	372.5	-24.8	26.8	522.4	614.0	247.1	30.8	1.000118
27000.0	364.8	-25.1	26.0	512.2	613.6			1.000115
27500.0	357.2	-26.1	26.0	503.7	612.3			1.000113
28000.0	349.8	-27.2	26.0	495.3	611.1			1.000111

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

MANDATORY LEVELS
 2680030154
 JALLEN
 TABLE 12

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 61 0745 MDT
 ASCENSION. NO. 154

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4979.	10.8	7.6	40.	243.9	4.4
800.0	6690.	10.2	3.8	38.	238.6	12.7
750.0	8492.	13.9	1.3	42.	240.7	15.0
700.0	10302.	8.4	-0.9	52.	242.3	20.0
650.0	12374.	3.0	-4.1	60.	243.9	25.3
600.0	14483.	-1.7	-11.5	47.	243.7	23.4
550.0	16740.	-4.5	-21.2	20.	253.6	21.9
500.0	19108.	-8.0	-25.0	24.	258.4	27.3
450.0	21847.	-13.8	-29.9	24.	258.5	30.4
400.0	24743.	-21.0	-35.4	26.	256.1	28.2
350.0	27937.	-27.1	-40.7	26.		

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

SIGNIFICANT LEVEL DATA
 2680140209
 LC-37

STATION ALTITUDE 4051.37 FEET MSL
 25 SEP. 61
 ASCENSION NO. 209 0800 MDT

TABLE 13

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT
879.4	4051.4	17.8	64.0
876.0	4160.4	18.0	64.0
866.6	4466.1	21.1	61.0
850.0	5016.9	21.1	51.0
825.6	5845.7	21.1	42.0
796.8	6851.8	19.0	41.0
758.2	8244.6	15.2	52.0
712.7	9955.8	10.7	59.0
700.0	10447.6	9.0	75.0
646.0	12615.2	3.5	72.0
601.0	14525.8	-1.8	86.0
574.8	15690.2	-3.0	35.0
532.2	17692.5	-3.8	28.0
500.0	19301.5	-7.6	28.0
435.6	22784.7	-14.6	28.0
400.0	24889.3	-19.6	30.0
369.2	26830.3	-24.2	30.0
348.2	28230.7	-26.1	30.0
314.6	30620.9	-31.7	30.0

STATION ALTITUDE 4051.37 FEET MSL
 25 SEP. 61 0800 MDT
 ASCENSION NO. 209

UPPER AIR DATA
 2680160209
 LC-37
 TABLE 14

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.51232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND MNOTS	WIND DATA DIRECTION, DEGREES(THD)	SPEED KNOTS	INDEX OF REFRACTION
4051.4	879.4	17.8	64.0	1047.0	666.4	105.0	1.9	1.000292
4500.0	863.6	21.1	60.4	1018.0	670.5	107.0	2.9	1.000293
5000.0	850.5	21.1	51.3	1001.2	670.2	198.1	4.2	1.000279
5500.0	835.7	21.1	45.8	984.3	670.0	203.0	5.6	1.000270
6000.0	821.1	20.8	41.8	960.6	669.5	208.6	5.8	1.000261
6500.0	806.8	19.7	41.3	955.3	668.2	217.4	4.5	1.000255
7000.0	792.6	18.6	42.2	942.3	666.9	228.3	4.4	1.000250
7500.0	778.6	17.2	46.1	930.0	665.3	234.4	5.5	1.000248
8000.0	764.8	15.9	50.1	917.8	663.8	235.3	7.3	1.000246
8500.0	751.2	14.5	53.0	905.7	662.2	234.4	9.6	1.000242
9000.0	737.8	13.2	55.1	893.7	660.7	232.9	11.5	1.000238
9500.0	724.5	11.9	57.1	881.8	659.1	231.6	13.2	1.000234
10000.0	711.5	10.5	60.4	870.2	657.5	229.9	14.6	1.000230
10500.0	698.6	8.9	74.9	859.0	655.7	226.4	16.0	1.000232
11000.0	685.8	7.6	74.2	847.4	654.2	230.3	18.4	1.000226
11500.0	673.2	6.3	73.5	835.9	652.6	231.6	20.6	1.000220
12000.0	660.9	5.1	72.9	824.5	651.0	231.9	22.3	1.000215
12500.0	648.8	3.8	72.2	813.3	649.4	231.9	23.6	1.000210
13000.0	636.7	2.4	74.8	802.2	647.8	231.6	23.9	1.000206
13500.0	624.8	1.0	78.5	791.3	646.1	232.5	24.7	1.000202
14000.0	613.1	-0.3	82.1	780.5	644.4	234.6	26.3	1.000199
14500.0	601.6	-1.7	85.8	769.9	642.8	239.2	26.6	1.000195
15000.0	590.2	-2.3	65.2	757.4	641.9	245.7	26.4	1.000186
15500.0	579.0	-2.8	43.3	745.0	641.0	251.0	24.1	1.000177
16000.0	568.0	-3.1	33.9	732.0	640.5	257.1	21.3	1.000172
16500.0	557.2	-3.3	32.2	718.6	640.3	258.7	19.7	1.000168
17000.0	546.6	-3.5	30.4	705.5	640.0	258.2	18.4	1.000165
17500.0	536.2	-3.7	28.7	692.6	639.8	257.5	18.9	1.000161
18000.0	525.9	-4.5	28.0	681.4	638.8	256.8	20.3	1.000158
18500.0	515.8	-5.7	28.0	671.3	637.4	256.9	21.4	1.000155
19000.0	505.9	-6.9	28.0	661.4	635.9	257.1	22.6	1.000153
19500.0	496.1	-8.0	28.0	651.3	634.6	256.8	23.9	1.000150
20000.0	486.4	-9.0	28.0	641.0	633.4	256.5	25.6	1.000147
20500.0	476.8	-10.0	28.0	630.9	632.2	256.3	27.8	1.000145
21000.0	467.5	-11.0	28.0	620.9	630.9	257.0	29.0	1.000142
21500.0	458.3	-12.0	28.0	611.1	629.7	258.3	29.6	1.000140
22000.0	449.3	-13.0	28.0	601.4	628.5	256.2	29.4	1.000137
22500.0	440.5	-14.0	28.0	592.0	627.3	254.2	29.4	1.000135
23000.0	431.8	-15.1	28.2	582.7	625.9	253.9	30.6	1.000133
23500.0	423.2	-16.3	28.7	573.7	624.5	253.0	31.6	1.000131

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LONG DEG

UPPER AIR DATA
 2680180209
 LC-37

STATION ALTITUDE 4651.37 FEET MSL
 25 SEP. 81 0800 MDT
 ASCENSION NO. 209

TABLE 14 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND MNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION, DEGREES(TN)	SPEED KNOTS	
24000.0	414.7	-17.5	29.2	564.8	623.0	251.5	32.4	1.000128
24500.0	406.4	-18.7	29.6	556.1	621.6	250.0	33.1	1.000126
25000.0	398.2	-19.9	30.0	547.4	620.1	248.5	33.8	1.000124
25500.0	390.0	-21.0	30.0	538.8	618.7	248.5	33.9	1.000122
26000.0	382.1	-22.2	30.0	530.3	617.2	249.1	33.7	1.000120
26500.0	374.3	-23.4	30.0	521.9	615.7	248.5	32.8	1.000118
27000.0	366.6	-24.4	30.0	513.3	614.5	247.6	31.8	1.000116
27500.0	359.0	-25.1	30.0	504.1	613.6	248.5	31.6	1.000114
28000.0	351.6	-25.8	30.0	495.0	612.8	249.0	31.3	1.000112
28500.0	344.2	-26.7	30.0	486.5	611.6	249.9	30.7	1.000110
29000.0	337.0	-27.9	30.0	478.6	610.2	250.7	30.8	1.000108
29500.0	329.9	-29.1	30.0	470.8	608.7	251.5	31.5	1.000106
30000.0	323.0	-30.2	30.0	463.2	607.2			1.000104
30500.0	316.2	-31.4	30.0	455.6	605.8			1.000102

STATION ALTITUDE 4051.37 FEET (SL)
 25 SEP. 81
 ASCENSION NO. 209

MANDATORY LEVELS
 2680180209
 LC-37

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LONG DEG

TABLE 15

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5013.	21.1	10.6	51.	198.3	4.2
800.0	6733.	19.2	5.7	41.	223.5	3.9
750.0	8540.	14.4	5.0	53.	234.3	9.8
700.0	10437.	9.0	4.8	75.	220.5	15.9
650.0	12437.	3.9	-6	72.	231.9	23.6
600.0	14552.	-1.8	-4.2	84.	240.0	26.6
550.0	16816.	-3.5	-18.1	31.	258.4	18.8
500.0	19274.	-7.6	-22.9	28.	256.9	23.4
450.0	21937.	-12.9	-27.6	28.	256.4	29.4
400.0	24847.	-19.6	-32.7	30.	248.8	33.7
350.0	28056.	-25.9	-38.3	30.	249.2	31.2

STATION ALTITUDE 4126.59 FEET MSL
 25 SEP. 61
 ASCENSION, NO. 434

SIGNIFICANT LEVEL DATA
 2680010234
 HOLLOMAN

GEODETIC COORDINATES
 32.08865 LAT DEG
 106.09965 LONG DEG

TABLE 16

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	REL. HUM. PERCENT
877.4	4126.6	14.9	7.7	62.0
871.0	4330.9	16.4	7.3	55.0
861.4	4644.2	22.2	10.7	48.0
850.0	5024.0	21.0	9.3	47.0
814.2	6244.7	19.7	6.1	41.0
714.0	9300.4	10.5	-9	45.0
700.0	10441.5	9.1	2.0	61.0
640.7	12495.9	3.3	1.7	89.0
620.9	13659.0	.2	-3.7	75.0
599.0	14604.5	-8	-9.4	52.0
573.8	15727.1	-3.8	-14.2	44.0
532.6	17661.7	-3.9	-18.1	32.0
500.0	19290.2	-7.5	-21.3	32.0
400.0	24871.6	-19.9	-31.7	34.0
382.2	25979.1	-21.7	-33.6	33.0
354.8	27770.9	-25.0	-36.8	32.0
300.0	31708.1	-34.6	-45.4	32.0
272.2	33921.3	-39.8	-49.8	33.0
250.0	35819.2	-44.0		
235.7	37113.2	-46.9		
200.0	40626.2	-56.1		
191.2	41563.1	-58.8		
172.2	43714.7	-61.6		
163.2	44814.3	-60.4		
150.0	46535.2	-63.3		
119.8	51213.7	-67.6		
115.0	51859.1	-67.7		
111.6	52457.5	-65.9		
100.0	54642.4	-68.4		
88.6	57023.8	-70.8		
77.2	59767.0	-63.5		
70.0	61746.7	-64.0		
66.2	62886.5	-59.4		
58.4	65469.0	-61.0		
50.0	68681.0	-57.8		
44.2	71262.3	-55.9		
39.4	73578.5	-56.2		
34.8	76295.7	-54.7		
30.0	79446.3	-53.3		
20.0	88156.4	-49.7		

GEODETIC COORDINATES
32.08865 LAT DEG
106.09965 LON DEG

SIGNIFICANT LEVEL DATA
2689010234
HOLLOMAN
TABLE 16 Cont'd

STATION ALTITUDE 1126.59 FEET MSL
25 SEP. 61 0800 MDT
ASCENSION NO. 234

PRESSURE	GEOMETRIC	TEMPERATURE	REL. HUM.
MILLIBARS	ALTITUDE	AIR	PERCENT
	MSL	DEGREE	
	FEET	CENTIGRADE	
15.0	93293.3	-47.2	
11.0	101245.6	-46.5	

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

UPPER AIR DATA
2680010234
HOLLOMAN
TABLE 17

STATION ALTITUDE 4126.59 FEET NSL
25 SEP. 61 0800 MDT
ASCLSION 140. 234

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDX OF REFRACTION
4126.0	877.4	14.9	7.7	1050.3	662.7	350.0	1.9	1.000283
4500.0	865.8	19.5	9.2	1023.3	668.2	234.7	1.5	1.000280
5000.0	850.7	21.1	9.4	1002.0	670.0	208.0	5.2	1.000275
5500.0	835.9	20.5	8.1	985.8	669.2	203.7	9.1	1.000267
6000.0	821.3	20.0	6.7	971.6	668.5	204.8	12.1	1.000260
6500.0	806.8	19.1	5.6	957.7	667.4	220.9	11.2	1.000254
7000.0	792.4	17.8	4.7	944.9	665.9	235.2	11.3	1.000249
7500.0	778.3	16.5	3.7	932.3	664.4	242.7	12.3	1.000244
8000.0	764.4	15.3	2.8	919.9	662.9	244.1	13.2	1.000239
8500.0	750.8	14.0	1.8	907.6	661.3	240.6	13.8	1.000234
9000.0	737.5	12.8	.8	895.6	659.8	236.9	14.8	1.000230
9500.0	724.3	11.5	-.1	883.7	658.3	233.1	15.9	1.000225
10000.0	711.4	10.2	-.3	871.7	656.9	232.2	17.5	1.000222
10500.0	698.5	8.9	2.0	859.3	655.6	232.8	19.3	1.000225
11000.0	685.7	7.5	2.1	847.7	654.0	233.5	20.6	1.000223
11500.0	673.1	6.1	2.1	836.3	652.3	234.3	21.7	1.000221
12000.0	660.7	4.7	1.9	825.1	650.7	235.3	22.3	1.000218
12500.0	648.6	3.3	1.6	814.1	649.0	236.4	22.7	1.000216
13000.0	636.5	2.0	-.6	803.2	647.3	238.2	23.1	1.000208
13500.0	624.6	.6	-.9	792.4	645.6	240.7	23.6	1.000201
14000.0	612.9	-.2	-.5	780.2	644.5	243.9	22.9	1.000194
14500.0	601.4	-.7	-.7	767.4	643.7	247.9	21.5	1.000187
15000.0	590.0	-1.9	-1.1	755.3	642.2	252.3	19.8	1.000182
15500.0	578.8	-3.2	-1.3	743.9	640.6	257.4	18.0	1.000178
16000.0	567.8	-3.8	-1.4	733.5	639.8	258.7	19.5	1.000174
16500.0	557.0	-3.8	-1.5	719.8	639.7	259.7	20.9	1.000170
17000.0	546.3	-3.9	-1.6	705.0	639.7	260.0	22.5	1.000166
17500.0	535.9	-3.9	-1.7	692.6	639.6	260.5	23.6	1.000162
18000.0	525.7	-4.6	-1.6	681.3	638.7	261.3	24.2	1.000159
18500.0	515.6	-5.8	-1.9	671.0	637.3	261.4	25.0	1.000156
19000.0	505.7	-6.9	-2.0	660.9	636.0	261.3	25.8	1.000153
19500.0	495.8	-8.0	-2.1	650.6	634.7	260.9	26.6	1.000151
20000.0	486.0	-9.1	-2.2	640.7	633.3	260.4	27.3	1.000148
20500.0	476.4	-10.2	-2.3	630.7	632.0	260.2	28.1	1.000145
21000.0	467.0	-11.3	-2.4	620.8	630.6	260.0	29.0	1.000143
21500.0	457.7	-12.4	-2.5	611.2	629.3	260.2	29.5	1.000140
22000.0	448.7	-13.5	-2.6	601.6	627.9	260.2	30.0	1.000138
22500.0	439.8	-14.6	-2.7	592.3	626.6	259.9	29.8	1.000136
23000.0	431.1	-15.7	-2.8	583.1	625.2	257.2	29.9	1.000133
23500.0	422.5	-16.9	-2.9	574.1	623.9	254.4	30.2	1.000131

STATION ALTITUDE 4126.59 FEET MSL
 25 SEP. 81 0800 MDT
 ASCENSION NO. 234

UPPER AIR DATA
 268001025,
 HOLLOWMAN
 TABLE 17 Cont'd

GEODLTIC COORDINATES
 32.60465 LAT DEG
 106.09965 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIR. DEGREES (T)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	414.2	-18.0	-30.0	33.7	565.2	622.5	252.0	30.7	1.000129
24500.0	400.0	-19.1	-31.0	33.9	556.4	621.1	249.9	31.4	1.000127
25000.0	397.9	-20.1	-31.9	33.9	547.6	619.8	247.9	31.3	1.000124
25500.0	389.8	-20.9	-32.8	33.4	538.2	618.8	246.0	31.2	1.000122
26000.0	381.9	-21.7	-33.6	33.0	528.9	617.8	245.9	31.8	1.000120
26500.0	374.0	-22.7	-34.5	32.7	520.0	616.7	245.8	32.7	1.000118
27000.0	366.3	-23.6	-35.4	32.4	511.2	615.5	245.2	34.1	1.000116
27500.0	358.8	-24.5	-36.3	32.2	502.6	614.4	244.4	34.1	1.000114
28000.0	351.4	-25.6	-37.3	32.0	494.2	613.1	243.2	32.6	1.000112
28500.0	343.9	-26.8	-38.4	32.0	486.2	611.6	242.5	32.0	1.000110
29000.0	336.7	-28.0	-39.5	32.0	478.3	610.0	242.2	32.2	1.000108
29500.0	329.6	-29.2	-40.6	32.0	470.6	608.5	243.1	33.0	1.000106
30000.0	322.6	-30.4	-41.7	32.0	463.0	607.0	244.5	34.1	1.000104
30500.0	315.8	-31.7	-42.8	32.0	455.5	605.5	245.5	34.3	1.000102
31000.0	309.2	-32.9	-43.9	32.0	448.2	603.9	246.3	34.1	1.000101
31500.0	302.7	-34.1	-45.0	32.0	441.0	602.4	246.0	34.8	1.000099
32000.0	296.2	-35.3	-46.0	32.1	433.7	600.9	245.0	36.1	1.000097
32500.0	289.7	-36.5	-47.0	32.4	426.4	599.4	244.9	34.5	1.000096
33000.0	283.4	-37.6	-48.0	32.6	419.2	597.9	245.3	31.6	1.000094
33500.0	277.3	-38.8	-49.0	32.8	412.2	596.4	245.8	28.7	1.000092
34000.0	271.2	-40.0	-50.3	31.6**	405.2	594.9	246.5	25.9	1.000091
34500.0	265.2	-41.1	-54.0	22.9**	398.1	593.5	246.5	26.4	1.000089
35000.0	259.4	-42.2	-58.8	14.2**	391.2	592.1	246.5	27.1	1.000087
35500.0	253.6	-43.3	-66.7	5.6**	384.4	590.6	250.6	43.9	1.000086
36000.0	248.0	-44.4			377.6	589.2	252.7	64.8	1.000084
36500.0	242.4	-45.5			370.9	587.8	253.8	76.5	1.000083
37000.0	236.9	-46.6			364.4	586.3	254.6	83.9	1.000081
37500.0	231.5	-47.9			358.0	584.7	255.1	82.9	1.000080
38000.0	226.1	-49.2			351.8	583.0	255.2	70.8	1.000078
38500.0	220.9	-50.5			345.7	581.3	255.3	60.8	1.000077
39000.0	215.8	-51.8			339.7	579.6	255.0	59.3	1.000076
39500.0	210.8	-53.2			333.8	577.8	254.8	57.7	1.000074
40000.0	205.9	-54.5			328.1	576.1	253.9	55.7	1.000073
40500.0	201.2	-55.8			322.4	574.4	253.0	53.6	1.000072
41000.0	196.4	-57.2			316.9	572.5	251.6	54.7	1.000071
41500.0	191.8	-58.6			311.4	570.7	250.2	56.6	1.000069
42000.0	187.2	-59.4			305.9	569.0	250.5	58.1	1.000068
42500.0	182.7	-60.7			299.0	567.7	251.0	59.3	1.000067
43000.0	178.3	-60.7			292.5	567.9	253.3	59.8	1.000065
43500.0	174.0	-61.3			286.2	567.0	253.4	59.8	1.000064

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

UPPER AIR DATA
 2600010234
 HOLLOWAY

STATION ALTITUDE 4126.59 FEET MSL
 25 SEP. 61 0800 MDT
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GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LONG DEG

TABLE 17 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION (DEGREES(TN))	SPEED KNOTS	
44000.0	163.8	-61.3		279.2	567.1	256.3	59.7	1.000062
44500.0	163.7	-60.7		271.8	567.8	256.1	59.4	1.000061
45000.0	161.7	-60.7		265.2	567.8	255.7	58.4	1.000059
45500.0	157.8	-61.6		259.8	566.7	255.2	57.1	1.000058
46000.0	154.0	-62.4		254.5	565.6	255.1	56.8	1.000057
46500.0	150.3	-63.2		249.4	564.4	255.3	56.9	1.000056
47000.0	146.6	-63.7		243.8	563.0	255.3	57.3	1.000054
47500.0	143.0	-64.2		238.3	563.2	255.3	57.8	1.000053
48000.0	139.4	-64.6		233.0	562.5	254.4	57.9	1.000052
48500.0	135.7	-65.1		227.7	561.9	253.3	57.9	1.000051
49000.0	132.0	-65.6		222.6	561.3	252.1	56.2	1.000050
49500.0	128.4	-66.0		217.6	560.7	250.9	53.8	1.000048
50000.0	125.2	-66.5		212.7	560.1	250.3	50.8	1.000047
50500.0	123.1	-66.9		208.0	559.4	250.2	47.4	1.000046
51000.0	120.1	-67.4		203.3	558.8	250.0	42.8	1.000045
51500.0	117.1	-67.6		198.5	558.5	249.6	37.1	1.000044
52000.0	114.2	-67.3		193.2	559.0	248.9	29.3	1.000043
52500.0	111.4	-65.9		187.2	560.8	246.9	18.8	1.000042
53000.0	108.6	-66.5		183.1	560.0	242.9	12.3	1.000041
53500.0	105.9	-67.1		179.0	559.2	239.9	11.8	1.000040
54000.0	103.3	-67.7		175.1	556.5	238.2	12.5	1.000039
54500.0	100.7	-68.2		171.2	557.7	240.5	17.0	1.000038
55000.0	98.2	-68.8		167.4	557.0	241.9	21.5	1.000037
55500.0	95.7	-69.3		163.6	556.3	243.2	20.0	1.000036
56000.0	93.3	-69.8		159.9	555.6	244.0	18.5	1.000036
56500.0	91.0	-70.3		156.2	554.9	243.2	18.0	1.000035
57000.0	88.7	-70.8		152.7	554.2	240.7	17.7	1.000034
57500.0	86.5	-69.5		148.0	555.9	235.0	17.3	1.000033
58000.0	84.4	-68.2		143.4	557.7	227.9	17.0	1.000032
58500.0	82.3	-66.9		138.9	559.5	222.3	16.6	1.000031
59000.0	80.2	-65.5		134.6	561.3	224.5	14.7	1.000030
59500.0	78.2	-64.2		130.5	563.1	227.4	12.9	1.000029
60000.0	76.3	-63.6		126.9	563.9	243.7	10.0	1.000028
60500.0	74.5	-63.9		124.0	563.5	271.1	0.4	1.000028
61000.0	72.6	-64.2		121.1	563.2	287.6	9.8	1.000027
61500.0	70.9	-64.5		118.3	562.8	291.0	12.2	1.000026
62000.0	69.1	-63.4		114.9	564.2	290.0	13.9	1.000026
62500.0	67.5	-61.2		110.9	567.2	276.0	12.7	1.000025
63000.0	65.8	-59.5		107.3	569.5	260.0	12.4	1.000024
63500.0	64.3	-59.8		104.9	569.1	228.2	0.4	1.000023

STATION ALTITUDE 126.59 FEET MSL
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UPPER AIR DATA
 260010234
 HOLLOWAY

TABLE 17 Cont'd

GEODETIC COORDINATES
 32.68865 LAT DEG
 106.09965 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
64000.0	62.7	-60.1		102.5	568.7	172.6	9.4	1.000023
64500.0	61.2	-60.4		100.2	568.2	143.2	13.1	1.000022
65000.0	59.7	-60.7		98.0	567.8	118.5	14.9	1.000021
65500.0	58.3	-61.0		95.7	567.5	101.5	18.7	1.000021
66000.0	56.9	-60.5		93.2	568.1	84.5	17.4	1.000021
66500.0	55.6	-60.0		90.6	568.8	64.7	17.0	1.000020
67000.0	54.2	-59.5		88.4	569.5	52.9	15.1	1.000020
67500.0	52.9	-59.0		86.1	570.1	49.2	8.6	1.000019
68000.0	51.7	-58.5		83.9	570.8	24.6	2.4	1.000019
68500.0	50.4	-58.0		81.7	571.5	255.6	4.1	1.000018
69000.0	49.2	-57.6		79.6	572.0	244.6	9.8	1.000018
69500.0	48.1	-57.2		77.6	572.5	245.5	13.4	1.000017
70000.0	46.9	-56.8		75.6	573.0	253.3	13.4	1.000017
70500.0	45.8	-56.5		73.7	573.5	261.0	13.6	1.000016
71000.0	44.8	-56.1		71.6	574.0	278.6	4.0	1.000016
71500.0	43.7	-55.9		70.1	574.2	61.9	8.5	1.000016
72000.0	42.7	-56.0		68.5	574.1	89.6	21.0	1.000015
72500.0	41.7	-56.1		66.9	574.0	71.7	33.4	1.000015
73000.0	40.7	-56.1		65.3	573.9	72.6	45.8	1.000015
73500.0	39.7	-56.2		63.8	573.8	73.0	55.1	1.000014
74000.0	38.8	-56.0		62.3	574.1	73.1	60.4	1.000014
74500.0	37.9	-55.7		60.7	574.4	73.2	65.8	1.000014
75000.0	37.0	-55.4		59.2	574.8	74.1	62.8	1.000013
75500.0	36.1	-55.2		57.6	575.2	75.7	55.6	1.000013
76000.0	35.3	-54.9		56.3	575.6	77.8	48.6	1.000013
76500.0	34.5	-54.6		54.9	575.9	78.6	37.4	1.000012
77000.0	33.7	-54.4		53.0	576.2	79.3	25.5	1.000012
77500.0	32.9	-54.2		52.3	576.5	81.4	13.7	1.000012
78000.0	32.1	-53.9		51.0	576.8	77.7	9.2	1.000011
78500.0	31.4	-53.7		49.8	577.1	67.2	4.9	1.000011
79000.0	30.6	-53.5		48.6	577.4	353.7	1.6	1.000011
79500.0	29.9	-53.3		47.4	577.7	271.8	5.0	1.000011
80000.0	29.2	-53.1		46.3	577.9	263.9	11.6	1.000010
80500.0	28.6	-52.9		45.2	578.2	259.8	17.6	1.000010
81000.0	27.9	-52.7		44.1	578.5	255.3	24.3	1.000010
81500.0	27.3	-52.5		43.0	578.8	252.6	31.1	1.000010
82000.0	26.6	-52.2		42.0	579.0	251.1	37.0	1.000009
82500.0	26.0	-52.0		41.0	579.3	247.7	41.5	1.000009
83000.0	25.4	-51.8		40.0	579.0	244.8	45.4	1.000009
83500.0	24.8	-51.6		39.1	579.0	242.4	49.4	1.000009

STATION ALTITUDE 4126.59 FEET MSL
 25 SLP. 01
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UPPER AIR DATA
 2680010234
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GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LONG DEG

TABLE 17 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIR. DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
8400.0	24.3	-51.4		30.1	580.1	240.2	44.5	1.000008
84500.0	23.7	-51.2		37.2	580.4	236.9	33.8	1.000008
85000.0	23.2	-51.0		36.3	580.6	230.5	23.4	1.000008
85500.0	22.6	-50.8		35.5	580.9	216.4	14.1	1.000008
86000.0	22.1	-50.6		34.6	581.2	196.3	9.0	1.000008
86500.0	21.6	-50.4		33.8	581.5	150.8	6.8	1.000008
87000.0	21.1	-50.2		33.0	581.7	109.3	9.7	1.000007
87500.0	20.6	-50.0		32.2	582.0	109.8	8.1	1.000007
88000.0	20.1	-49.8		31.4	582.3	143.3	4.1	1.000007
88500.0	19.7	-49.5		30.7	582.6	214.5	4.7	1.000007
89000.0	19.2	-49.3		29.9	582.9	238.0	7.1	1.000007
89500.0	18.8	-49.0		29.2	583.2	249.3	2.2	1.000006
90000.0	18.4	-48.8		28.5	583.5	41.4	2.9	1.000006
90500.0	18.0	-48.6		27.9	583.8	48.8	7.9	1.000006
91000.0	17.6	-48.3		27.2	584.2	56.7	13.5	1.000006
91500.0	17.2	-48.1		26.6	584.5	61.7	19.7	1.000006
92000.0	16.8	-47.8		25.9	584.8	64.4	25.9	1.000006
92500.0	16.4	-47.6		25.3	585.1	65.6	30.8	1.000006
93000.0	16.0	-47.3		24.7	585.4	64.7	29.1	1.000005
93500.0	15.7	-47.2		24.1	585.6	63.7	27.4	1.000005
94000.0	15.3	-47.1		23.6	585.7	62.5	25.8	1.000005
94500.0	15.0	-47.1		23.0	585.7	61.5	23.0	1.000005
95000.0	14.6	-47.0		22.5	585.8	60.5	17.9	1.000005
95500.0	14.3	-47.0		22.0	585.9	58.9	12.8	1.000005
96000.0	14.0	-47.0		21.5	585.9	55.2	7.8	1.000005
96500.0	13.7	-46.9		21.0	586.0	44.4	3.5	1.000005
97000.0	13.3	-46.9		20.5	586.0	52.4	3.9	1.000005
97500.0	13.0	-46.8		20.1	586.1	59.0	4.3	1.000004
98000.0	12.8	-46.8		19.6	586.1	64.3	4.8	1.000004
98500.0	12.5	-46.7		19.2	586.2	68.6	5.3	1.000004
99000.0	12.2	-46.7		18.7	586.3			1.000004
99500.0	11.9	-46.7		18.3	586.3			1.000004
100000.0	11.6	-46.6		17.9	586.4			1.000004
100500.0	11.4	-46.6		17.5	586.4			1.000004
101000.0	11.1	-46.5		17.1	586.5			1.000004

STATION ALTITUDE 4126.59 FEET MSL
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HAZARDARY LEVELS
 2680010234
 HOLLOWAY

GEODETTIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

TABLE 18

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA		
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	5020.	21.0	9.3	47.	207.7	5.4	
800.0	6736.	18.5	5.2	42.	229.3	11.0	
750.0	8538.	13.9	1.7	44.	240.4	13.9	
700.0	10432.	9.1	2.0	61.	232.7	19.1	
650.0	12429.	3.5	1.7	88.	236.3	22.7	
600.0	14544.	-8	-9.1	53.	248.4	21.4	
550.0	16806.	-3.9	-16.3	37.	259.9	22.0	
500.0	19264.	-7.5	-21.3	32.	261.1	26.3	
450.0	21926.	-13.4	-26.2	33.	260.3	30.0	
400.0	24831.	-19.9	-31.7	34.	248.4	31.4	
350.0	28046.	-25.8	-37.5	32.	243.0	32.3	
300.0	31646.	-34.6	-45.4	32.	245.0	35.3	
250.0	35741.	-44.0			252.0	56.5	
200.0	40529.	-56.1			252.8	53.2	
175.0	43275.	-61.2			254.8	59.8	
150.0	46410.	-63.3			255.3	56.9	
125.0	50058.	-66.7			250.2	49.6	
100.0	54475.	-68.4			240.9	18.1	
80.0	58854.	-65.4			224.0	14.7	
70.0	61536.	-64.6			292.1	13.3	
60.0	64683.	-60.7			123.6	14.3	
50.0	68424.	-57.8			250.1	5.7	
40.0	73070.	-56.2			72.9	53.3	
30.0	79109.	-53.3			275.3	4.8	
25.0	82975.	-51.7			243.3	47.8	
20.0	87745.	-49.7			159.5	3.7	
15.0	93964.	-47.1			61.6	24.1	

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

STATION ALTITUDE 3989.00 FEET MSL
 25 SEP. 61
 ASCENSION NO. 017

SIGNIFICANT LEVEL DATA
 260000017
 WHITE SANDS
 TABLE 19

GEODETTIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
881.2	3989.0	20.5	61.0
858.4	4733.7	20.6	46.0
850.0	5013.4	21.6	40.0
839.4	5370.9	21.8	35.0
763.8	8031.2	15.5	45.0
700.0	10438.3	9.4	66.0
611.4	14064.0	-1.1	91.0
585.8	15184.7	-2.1	34.0
577.4	15561.5	-2.9	33.0
560.6	16332.1	-1.9	24.0
543.8	17126.7	-2.5	22.0
500.0	19300.1	-6.7	21.0
441.6	22447.5	-13.8	24.0
400.0	24892.0	-19.9	25.0
384.0	25883.4	-22.6	25.0
362.4	27276.9	-24.4	24.0
300.0	31716.8	-34.6	25.0
284.6	32922.8	-37.2	25.0
250.0	35928.2	-44.4	
200.0	40631.2	-55.8	
182.2	42573.8	-58.7	
163.8	44774.0	-59.5	
150.0	46573.7	-63.3	
123.2	50504.3	-69.1	
109.0	52913.9	-70.6	
102.2	54182.0	-68.3	
100.0	54612.5	-68.6	
92.6	56130.7	-69.1	
86.4	57491.1	-71.1	
84.0	58042.3	-70.4	
82.3	58447.1	-66.4	
70.0	61692.9	-65.2	
67.5	62425.8	-64.4	
65.1	63165.5	-59.4	
58.0	65541.2	-61.6	
50.0	68598.2	-59.0	
30.0	79314.5	-54.0	
20.0	88005.2	-50.0	
16.8	91794.4	-48.1	
12.0	99120.6	-49.4	

STATION ALTITUDE 3989.00 FEET MSL
 25 SEP. 61 0900 MDT
 ASCENSION NO. 017

UPPER AIR DATA
 2600020617
 WHITE SANDS
 TABLE 20

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (IN)	SPEED KNOTS	
3989.00	881.2	20.5	61.0	1038.0	609.7	180.0	8.0	1.000296
4000.00	880.9	20.5	60.8	1038.4	609.7	180.2	7.9	1.000296
4500.00	865.5	20.6	50.7	1021.0	669.5	188.2	7.1	1.000282
5000.00	850.4	21.6	40.3	1000.6	670.3	198.2	6.4	1.000268
5500.00	835.6	21.5	35.5	983.8	670.1	210.1	5.9	1.000259
6000.00	820.9	20.3	37.4	970.5	668.7	223.4	5.4	1.000255
6500.00	805.4	19.1	39.2	957.3	667.4	248.6	3.2	1.000252
7000.00	792.3	17.9	41.1	944.3	666.0	270.8	2.9	1.000248
7500.00	773.3	16.8	43.0	931.5	664.6	253.3	3.9	1.000245
8000.00	764.6	15.6	44.9	919.0	663.3	242.0	5.7	1.000241
8500.00	750.9	14.3	49.1	906.4	661.9	235.8	7.8	1.000239
9000.00	737.5	13.0	53.5	893.9	660.4	231.0	10.0	1.000236
9500.00	724.2	11.8	57.8	881.8	659.0	227.6	12.3	1.000234
10000.00	711.2	10.5	62.2	869.8	657.5	228.4	14.7	1.000231
10500.00	698.4	9.2	66.4	858.0	656.0	229.5	17.2	1.000228
11000.00	685.5	7.8	69.9	846.6	654.3	230.7	19.7	1.000224
11500.00	672.8	6.3	73.3	835.3	652.6	231.7	22.4	1.000220
12000.00	660.4	4.9	76.8	824.3	650.8	231.0	24.7	1.000212
12500.00	648.2	3.4	80.2	813.4	649.1	230.0	25.4	1.000216
13000.00	636.2	2.0	83.7	802.7	647.3	228.2	24.2	1.000208
13500.00	624.4	.5	87.1	792.1	645.6	226.7	24.0	1.000204
14000.00	612.9	-.9	90.6	781.7	643.8	226.6	25.4	1.000201
14500.00	601.3	-1.5	68.8	769.3	642.9	227.8	25.4	1.000191
15000.00	589.9	-1.9	43.4	756.6	642.1	230.9	23.5	1.000180
15500.00	578.8	-2.8	33.2	744.9	640.9	237.8	20.3	1.000174
16000.00	567.8	-2.3	27.9	729.7	641.4	248.9	17.4	1.000170
16500.00	557.0	-2.0	23.6	715.1	641.7	260.0	16.9	1.000166
17000.00	546.4	-2.4	22.3	702.5	641.3	266.3	20.8	1.000162
17500.00	536.0	-3.2	21.8	691.3	640.3	267.2	22.6	1.000159
18000.00	525.8	-4.2	21.6	680.5	639.1	267.5	23.9	1.000157
18500.00	515.7	-5.2	21.4	669.9	638.0	267.2	24.6	1.000154
19000.00	505.8	-6.1	21.1	659.5	636.8	267.7	25.8	1.000151
19500.00	496.1	-7.2	21.2	649.3	635.6	268.4	27.2	1.000149
20000.00	486.4	-8.3	21.7	639.3	634.2	268.5	28.5	1.000146
20500.00	476.9	-9.4	22.1	629.6	632.8	268.3	29.7	1.000144
21000.00	467.6	-10.5	22.6	619.9	631.5	262.2	29.7	1.000141
21500.00	458.4	-11.7	23.1	610.4	630.1	260.2	29.6	1.000139
22000.00	449.5	-12.8	23.6	601.1	628.6	258.9	29.5	1.000137
22500.00	440.7	-13.9	24.0	592.0	627.4	257.5	29.5	1.000135
23000.00	431.8	-15.2	24.2	582.9	625.8	255.5	30.0	1.000132

UPPER AIR DATA
2680020617
WHITE SANDS
TABLE 20 Cont'd

STATION ALTITUDE 3989.00 FEET MSL
25 SEP. 61 0900 MDT
ASCENSION NO. 017

GEODETTIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		EL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE				DIRECTION DEGREES (TN)	SPEED KNOTS	
23500.0	423.2	-16.4	-32.0	24.4	574.0	624.3	253.3	30.6	1.000130
24000.0	414.7	-17.7	-33.0	24.6	565.3	622.8	250.5	31.4	1.000128
24500.0	406.4	-18.9	-34.0	24.8	556.7	621.3	249.1	32.2	1.000126
25000.0	398.2	-20.2	-35.0	25.0	548.3	619.7	249.0	33.2	1.000124
25500.0	390.1	-21.6	-36.2	25.0	540.0	618.0	249.2	33.9	1.000122
26000.0	382.1	-22.8	-37.3	24.9	531.5	616.5	249.7	34.4	1.000120
26500.0	374.3	-23.4	-38.0	24.6	522.0	615.7	249.1	35.1	1.000118
27000.0	366.6	-24.0	-38.7	24.2	512.6	614.9	248.2	35.8	1.000115
27500.0	359.0	-24.9	-39.5	24.1	503.7	613.9	248.4	39.5	1.000113
28000.0	351.4	-26.1	-40.5	24.2	495.4	612.4	248.7	43.8	1.000111
28500.0	344.0	-27.2	-41.4	24.3	487.2	611.0	247.0	44.3	1.000110
29000.0	336.8	-28.4	-42.4	24.4	479.2	609.6	245.8	44.3	1.000108
29500.0	329.7	-29.5	-43.3	24.5	471.3	608.1	245.9	41.9	1.000106
30000.0	322.7	-30.7	-44.3	24.6	463.6	606.7	247.0	40.0	1.000104
30500.0	315.9	-31.8	-45.3	24.7	456.0	605.3	249.9	39.0	1.000102
31000.0	309.3	-33.0	-46.2	24.8	448.5	603.8	252.1	38.9	1.000101
31500.0	302.8	-34.1	-47.2	25.0	441.2	602.4	253.2	39.6	1.000099
32000.0	296.3	-35.2	-48.1	25.0	433.8	601.0	255.3	36.2	1.000097
32500.0	289.9	-36.3	-49.1	25.0	426.3	599.6	259.3	29.8	1.000095
33000.0	283.6	-37.4	-50.3	24.3**	419.1	598.2	261.8	28.1	1.000094
33500.0	277.4	-38.6	-53.0	20.0**	412.0	596.6	262.6	29.1	1.000092
34000.0	271.2	-39.9	-56.0	15.7**	405.0	595.0	256.1	55.1	1.000090
34500.0	265.3	-41.1	-59.6	11.4**	398.2	593.4	253.0	94.7	1.000089
35000.0	259.4	-42.3	-64.1	7.1**	391.5	591.9	252.5	112.3	1.000087
35500.0	253.7	-43.6	-71.5	2.8**	385.0	590.3	252.6	119.9	1.000086
36000.0	248.0	-44.8			378.4	588.7	253.4	108.4	1.000085
36500.0	242.3	-46.0			371.6	587.2	254.9	87.5	1.000084
37000.0	236.8	-47.2			365.0	585.6	255.6	82.7	1.000081
37500.0	231.3	-48.4			358.5	584.1	255.6	84.2	1.000080
38000.0	225.8	-49.6			352.1	582.5	256.4	80.2	1.000078
38500.0	220.6	-50.7			345.9	581.0	257.2	73.6	1.000077
39000.0	215.7	-51.9			339.7	579.4	258.4	65.0	1.000076
39500.0	210.8	-53.1			333.7	577.9	260.3	55.1	1.000074
40000.0	205.8	-54.3			327.6	576.3	262.4	47.9	1.000073
40500.0	201.2	-55.5			322.1	574.8	264.3	43.2	1.000072
41000.0	196.5	-56.4			315.7	573.6	265.3	40.3	1.000070
41500.0	191.8	-57.1			309.3	572.6	264.6	39.2	1.000069
42000.0	187.3	-57.8			303.0	571.6	262.7	41.7	1.000067
42500.0	182.8	-58.6			296.9	570.7	259.0	47.6	1.000066
43000.0	178.5	-58.9			290.1	570.3	258.0	53.6	1.000065

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

STATION ALTITUDE 3989.00 FEET MSL
 25 SEP. 61 0900 MDT
 ASCENDING NO. 617

UPPER AIR DATA
 268020617
 WHITE SANDS
 TABLE 20 Cont'd

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION (DEGREES TRUE)	WIND SPEED KNOTS	INDEX OF REFRACTION
43500.0	174.2	-59.0		283.4	570.1	257.2	59.6	1.000063
44000.0	170.1	-59.2		276.4	569.6	256.8	64.1	1.000062
44500.0	166.0	-59.4		270.5	569.6	257.3	62.7	1.000060
45000.0	162.0	-60.0		264.7	568.8	257.7	61.4	1.000059
45500.0	158.1	-61.0		259.6	567.4	257.6	58.5	1.000058
46000.0	154.3	-62.1		254.6	566.0	257.5	55.7	1.000057
46500.0	150.5	-63.1		249.7	564.6	256.7	54.4	1.000056
47000.0	146.8	-63.9		244.5	563.5	255.9	53.1	1.000054
47500.0	143.2	-64.7		239.3	562.5	255.2	52.8	1.000053
48000.0	139.7	-65.4		234.2	561.5	254.4	52.5	1.000052
48500.0	136.2	-66.1		229.2	560.5	253.1	50.8	1.000051
49000.0	132.9	-66.9		224.4	559.5	251.5	48.8	1.000050
49500.0	129.6	-67.6		219.6	558.5	249.2	47.0	1.000049
50000.0	126.4	-68.4		215.0	557.5	246.3	45.4	1.000048
50500.0	123.3	-69.1		210.4	556.5	244.1	44.3	1.000047
51000.0	120.2	-69.4		205.4	556.1	243.2	43.9	1.000046
51500.0	117.1	-69.7		200.6	555.7	243.0	43.0	1.000045
52000.0	114.2	-70.0		195.8	555.2	244.9	40.6	1.000044
52500.0	111.3	-70.3		191.2	554.8	247.0	38.2	1.000043
53000.0	108.5	-70.4		186.5	554.7	248.7	35.3	1.000042
53500.0	105.8	-69.5		181.0	555.9	250.8	32.3	1.000040
54000.0	103.1	-68.6		175.7	557.1	250.2	28.2	1.000039
54500.0	100.6	-68.5		171.2	557.3	249.1	24.0	1.000038
55000.0	98.1	-68.7		167.1	557.0	248.5	18.0	1.000037
55500.0	95.6	-68.9		163.1	556.8	248.0	11.2	1.000036
56000.0	93.2	-69.1		159.1	556.6	223.2	6.2	1.000035
56500.0	90.9	-69.6		155.6	555.8	190.5	4.2	1.000035
57000.0	88.6	-70.4		152.2	554.8	151.6	4.5	1.000034
57500.0	86.4	-71.1		148.9	553.8	167.8	5.5	1.000033
58000.0	84.2	-70.5		144.7	554.7	178.5	6.8	1.000032
58500.0	82.1	-66.4		138.3	560.2	195.0	6.4	1.000031
59000.0	80.1	-66.2		134.8	560.4	216.6	6.2	1.000030
59500.0	78.1	-66.0		131.3	560.7	238.9	8.1	1.000029
60000.0	76.2	-65.8		128.0	560.9	248.9	12.1	1.000029
60500.0	74.3	-65.6		124.7	561.2	251.8	16.0	1.000028
61000.0	72.5	-65.5		121.5	561.4	255.0	14.7	1.000027
61500.0	70.7	-65.3		118.4	561.7	258.9	13.3	1.000026
62000.0	68.9	-64.9		115.3	562.2	255.6	9.8	1.000026
62500.0	67.3	-63.9		112.0	563.5	234.1	5.1	1.000025
63000.0	65.6	-60.5		107.5	568.1	171.5	4.0	1.000024

STATION ALTITUDE 3989.00 FEET MSL
 25 SEP. 61 0900 MDT
 ASCENSION NO. 017

UPPER AIR DATA
 2680020017
 WHITE SWINDS

GEODETIC COORDINATES
 52.40043 LAT DEG
 106.37033 LGN DEG

TABLE 20

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SOUND KNOTS	WIND DATA DIRECTION, DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
63500.0	64.1	-59.7	104.5	569.2	168.5	7.4	1.000023	
64000.0	62.5	-60.2	102.3	568.5	167.5	10.9	1.000023	
64500.0	61.0	-60.6	100.0	567.9	166.0	11.8	1.000022	
65000.0	59.5	-61.1	97.8	567.3	163.6	11.1	1.000022	
65500.0	58.1	-61.6	95.7	566.7	160.4	10.6	1.000021	
66000.0	56.7	-61.2	93.2	567.2	154.6	11.3	1.000021	
66500.0	55.4	-60.8	90.8	567.7	149.6	12.2	1.000020	
67000.0	54.0	-60.4	88.5	568.3	140.3	9.1	1.000020	
67500.0	52.7	-59.9	86.2	568.9	112.6	5.2	1.000019	
68000.0	51.5	-59.5	83.9	569.4	52.6	4.2	1.000019	
68500.0	50.2	-59.1	81.6	570.0	5.9	6.1	1.000018	
69000.0	49.1	-58.8	79.7	570.4	348.1	9.9	1.000018	
69500.0	47.9	-58.6	77.8	570.7	350.8	8.9	1.000017	
70000.0	46.8	-58.3	75.8	571.0	357.7	7.2	1.000017	
70500.0	45.7	-58.1	74.0	571.3	10.4	5.7	1.000016	
71000.0	44.6	-57.9	72.2	571.6	46.3	6.1	1.000016	
71500.0	43.5	-57.6	70.4	571.9	70.5	8.2	1.000016	
72000.0	42.5	-57.4	68.7	572.2	82.1	10.7	1.000015	
72500.0	41.5	-57.2	67.0	572.5	86.5	12.3	1.000015	
73000.0	40.5	-56.9	65.3	572.8	89.9	13.9	1.000015	
73500.0	39.6	-56.7	63.7	573.1	95.4	15.0	1.000014	
74000.0	38.6	-56.5	62.1	573.4	103.2	15.7	1.000014	
74500.0	37.7	-56.2	60.6	573.8	110.3	16.7	1.000014	
75000.0	36.9	-56.0	59.1	574.1	114.4	16.1	1.000013	
75500.0	36.0	-55.8	57.7	574.4	117.7	14.6	1.000013	
76000.0	35.1	-55.5	56.2	574.7	121.6	13.2	1.000013	
76500.0	34.3	-55.3	54.9	575.0	109.5	11.0	1.000012	
77000.0	33.5	-55.1	53.5	575.3	88.0	9.7	1.000012	
77500.0	32.7	-54.8	52.2	575.6	64.5	10.1	1.000012	
78000.0	31.9	-54.6	50.9	575.9	59.6	9.5	1.000011	
78500.0	31.2	-54.4	49.7	576.2	52.8	8.9	1.000011	
79000.0	30.5	-54.1	48.4	576.5	46.7	8.5	1.000011	
79500.0	29.7	-53.9	47.3	576.8	45.5	9.5	1.000011	
80000.0	29.1	-53.7	46.1	577.1	44.5	10.4	1.000010	
80500.0	28.4	-53.5	45.0	577.4	44.8	11.6	1.000010	
81000.0	27.7	-53.2	43.9	577.7	43.1	13.7	1.000010	
81500.0	27.1	-53.0	42.9	578.0	52.3	15.9	1.000010	
82000.0	26.5	-52.8	41.8	578.3	54.2	17.2	1.000009	
82500.0	25.9	-52.5	40.8	578.6	55.0	15.8	1.000009	
83000.0	25.3	-52.3	39.8	578.9	55.8	14.4	1.000009	

STATION ALTITUDE 3489.00 FEET MSL
 25 SEP. 61 0900 MDT
 ASCENSION NO. 617

UPPER AIR DATA
 2600020,17
 WHITE SAWS
 TABLE 20 Cont'd

COORDINATES
 32.40043 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	DIRECTION (T) DEGREES	WIND SPEED (T) KNOTS	INDEX OF REFRACTION
83500.0	24.7	-52.1		34.9	579.3	58.4	13.2	1.000009
84000.0	24.1	-51.8		34.0	579.6	64.5	12.5	1.000008
84500.0	23.6	-51.6		37.0	579.9	71.2	12.0	1.000008
85000.0	23.0	-51.4		36.1	580.2	78.4	11.7	1.000008
85500.0	22.5	-51.2		35.3	580.5	80.4	12.9	1.000008
86000.0	22.0	-50.9		34.4	580.8	81.9	14.1	1.000008
86500.0	21.5	-50.7		33.6	581.1	83.1	15.4	1.000007
87000.0	21.0	-50.5		32.8	581.4	83.6	16.2	1.000007
87500.0	20.5	-50.2		32.0	581.7	82.6	15.7	1.000007
88000.0	20.0	-50.0		31.2	582.0	81.5	15.2	1.000007
88500.0	19.5	-49.8		30.5	582.3	80.3	14.7	1.000007
89000.0	19.1	-49.5		29.6	582.6	81.2	14.4	1.000007
89500.0	18.7	-49.3		29.0	582.9	83.4	14.4	1.000006
90000.0	18.2	-49.0		28.4	583.3	85.6	14.4	1.000006
90500.0	17.8	-48.7		27.7	583.6	87.8	14.3	1.000006
91000.0	17.4	-48.5		27.0	583.9	87.1	16.1	1.000006
91500.0	17.0	-48.2		26.4	584.2	86.3	18.1	1.000006
92000.0	16.6	-48.1		25.8	584.4	85.7	20.1	1.000006
92500.0	16.3	-48.2		25.2	584.3	85.5	21.6	1.000006
93000.0	15.9	-48.3		24.6	584.2	86.6	20.7	1.000005
93500.0	15.5	-48.4		24.1	584.0	87.8	19.9	1.000005
94000.0	15.2	-48.5		23.5	583.9	89.2	19.0	1.000005
94500.0	14.8	-48.6		23.0	583.8	89.3	18.5	1.000005
95000.0	14.5	-48.7		22.5	583.7	88.0	18.4	1.000005
95500.0	14.2	-48.8		22.0	583.6	86.6	18.3	1.000005
96000.0	13.8	-48.8		21.5	583.5	85.1	18.2	1.000005
96500.0	13.5	-48.9		21.0	583.3			1.000005
97000.0	13.2	-49.0		20.6	583.2			1.000005
97500.0	12.9	-49.1		20.1	583.1			1.000004
98000.0	12.6	-49.2		19.7	583.0			1.000004
98500.0	12.3	-49.3		19.2	582.9			1.000004
99000.0	12.1	-49.4		18.8	582.8			1.000004

STATION ALTITUDE 3989.00 FEET MSL
 25 SLP. H1 0900 MDT
 ASCENSION NO. 017

MANDATORY LEVELS
 2690020017
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

TABLE 21

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
		DEGREES	CENTIGRADE		DEGREES(TN)	KNOTS
850.0	5010.	21.6	7.4	40.	198.4	0.4
800.0	6728.	18.6	4.8	40.	271.5	2.7
750.0	8531.	14.2	3.8	49.	235.4	8.0
700.0	10428.	9.4	3.4	68.	229.4	16.8
650.0	12428.	3.7	.5	80.	230.2	24.6
600.0	14541.	-1.5	-7.1	60.	228.1	25.2
550.0	16809.	-2.3	-20.7	23.	266.0	20.1
500.0	19273.	-6.7	-25.3	21.	268.1	20.6
450.0	21941.	-12.7	-29.2	24.	259.0	29.5
400.0	24850.	-19.9	-34.8	25.	249.0	33.0
350.0	28037.	-26.3	-40.7	24.	248.4	43.8
300.0	31653.	-34.6	-47.1	23.	253.6	39.8
250.0	35749.	-44.4			252.9	116.3
200.0	40532.	-55.8			264.8	42.2
175.0	43296.	-59.0			257.4	58.2
150.0	46447.	-63.3			256.7	54.2
125.0	50076.	-68.7			245.1	44.8
100.0	54443.	-68.6			248.9	23.2
80.0	58818.	-66.2			216.1	6.1
70.0	61480.	-65.2			260.3	12.9
60.0	64613.	-61.0			164.5	11.3
50.0	68339.	-59.0			2.5	6.6
40.0	72975.	-56.8			91.1	14.5
30.0	78975.	-54.0			46.0	9.0
25.0	82830.	-52.2			56.2	14.0
20.0	87592.	-50.0			81.6	15.2
15.0	93795.	-48.5			89.8	18.6

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

STATION / ALTITUDE 4051.00 FEET MSL
 25 SEP. 51 0900 MDT
 ASCENSION NO. 155

SIGNIFICANT LEVEL DATA
 26000.0155
 JALLEN

GEODETTIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

TABLE 22

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM.
ALTITUDE	AIR	DEWPOINT		PERCENT
MILLIBARS MSL FEET	DEGREES	CENTIGRADE		
879.5	4051.0	17.8	11.6	68.0
872.0	4291.9	17.6	9.2	58.0
850.0	5011.6	18.5	11.8	65.0
832.8	5589.6	19.6	10.0	54.0
765.4	7962.2	15.6	5.5	51.0
700.0	10425.6	9.0	1.7	60.0
671.6	11547.5	5.6	-4	65.0
646.4	12570.9	2.5	-4.7	59.0
632.9	13130.8	1.0	-4.6	66.0
618.0	13760.0	.2	-6.7	51.0
587.7	15077.9	-2.8	-13.6	43.0
580.0	15421.8	-2.6	-14.9	36.0
549.4	16831.2	-4.2	-17.3	35.0
538.0	17375.2	-3.9	-17.1	35.0
500.0	19262.8	-7.8	-20.5	35.0
481.2	20240.1	-9.5	-22.4	34.0
400.0	24842.4	-20.2	-31.1	37.0
379.4	26124.7	-23.0	-33.9	36.0
358.4	27489.0	-26.3	-30.8	36.0
348.2	28173.6	-28.2	-38.3	37.0
300.0	31639.2	-35.7	-45.3	36.0
274.8	33630.9	-39.9	-49.2	36.0
250.0	35739.0	-44.3		
200.0	40552.4	-54.9		
184.0	42294.0	-58.6		
150.0	46488.6	-62.4		
140.6	47803.3	-63.2		
125.2	50140.8	-65.9		
121.6	50726.3	-64.9		
112.6	52263.8	-67.5		
107.6	53165.8	-67.8		
106.2	53426.6	-66.3		
100.0	54629.7	-66.1		
85.6	57703.9	-71.1		
81.8	58596.1	-68.7		
70.0	61723.3	-62.4		
66.4	62802.6	-61.2		
65.4	63115.1	-59.3		
58.8	65314.2	-59.6		
55.4	66544.8	-59.6		

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 51
 ASCENSION NO. 155

268003015J
 JALLEN
 TABLE 22 Cont'd

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

GEOMETRIC ALTITUDE	TEMPERATURE	REL. HUM.
MILLIBARS MSL FEET	AIR DEWPOINT DEGREES CENTIGRADE	PERCENT
50.6 60421.5	-58.7	
50.0 68668.7	-59.3	
46.3 70263.2	-58.4	
39.1 73805.7	-54.9	
35.4 75008.0	-54.6	
30.0 79415.7	-54.1	
25.2 83150.9	-50.0	
20.0 88153.3	-49.7	
14.2 95595.8	-48.5	

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 61 0900 MDT
 ASCENSION: P.O. 155

UPPER AIR DATA
 2680050155
 JALLEN
 TABLE 23

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4051.0	879.5	17.8	68.0	1046.8	660.5		.0	1.000295
4500.0	865.6	17.9	60.0	1030.6	660.4	250.1	1.6	1.000285
5000.0	850.4	18.5	64.9	1009.5	667.4	250.1	3.4	1.000287
5500.0	835.4	19.4	55.7	989.1	668.3	256.1	5.2	1.000276
6000.0	820.7	19.9	53.5	973.7	667.6	253.6	7.2	1.000269
6500.0	806.3	18.1	52.8	959.3	666.5	249.1	9.9	1.000263
7000.0	792.0	17.2	52.2	945.6	665.5	246.8	11.8	1.000257
7500.0	778.1	16.4	51.6	931.8	664.4	243.4	13.3	1.000251
8000.0	764.4	15.5	51.1	918.4	663.4	243.0	15.0	1.000246
8500.0	750.6	14.2	53.0	904.2	661.8	240.9	16.7	1.000241
9000.0	737.1	12.8	54.8	894.2	660.2	237.4	18.3	1.000237
9500.0	723.9	11.5	56.6	882.4	658.6	234.6	19.8	1.000233
10000.0	710.9	10.1	58.4	870.8	657.0	233.5	20.9	1.000228
10500.0	698.1	8.8	60.3	859.4	655.3	233.2	22.0	1.000224
11000.0	685.3	7.3	62.6	848.4	653.5	235.4	22.9	1.000220
11500.0	672.8	5.7	64.8	837.6	651.7	237.9	24.2	1.000216
12000.0	660.3	4.2	62.3	826.9	649.8	241.0	26.3	1.000210
12500.0	648.1	2.7	59.4	816.3	647.9	243.5	27.2	1.000204
13000.0	636.0	1.4	64.4	805.1	646.3	245.5	27.0	1.000201
13500.0	624.1	.5	57.2	792.7	645.2	247.1	25.0	1.000195
14000.0	612.4	-3	49.5	780.6	644.0	248.6	22.5	1.000189
14500.0	600.8	-1.5	46.5	769.2	642.6	247.5	21.1	1.000184
15000.0	589.4	-2.6	43.5	758.0	641.2	247.3	20.0	1.000180
15500.0	578.3	-2.7	37.8	743.9	641.1	249.9	19.7	1.000176
16000.0	567.2	-3.3	36.8	731.3	640.4	254.5	20.3	1.000172
16500.0	556.4	-3.8	35.7	718.9	639.7	260.1	21.9	1.000169
17000.0	545.8	-4.1	35.0	706.0	639.4	263.8	23.1	1.000166
17500.0	535.4	-4.2	35.0	692.6	639.3	260.5	24.2	1.000163
18000.0	525.1	-5.2	35.0	682.0	638.1	267.4	24.3	1.000160
18500.0	515.0	-6.2	35.0	671.5	636.8	268.1	24.4	1.000157
19000.0	505.1	-7.3	35.0	661.2	635.5	267.3	24.0	1.000154
19500.0	495.4	-8.2	34.8	650.8	634.4	265.9	23.6	1.000151
20000.0	485.8	-9.1	34.2	640.3	633.3	264.2	23.7	1.000148
20500.0	476.2	-10.1	34.2	630.2	632.1	262.4	24.1	1.000146
21000.0	466.7	-11.3	34.5	620.4	630.7	260.8	24.7	1.000143
21500.0	457.5	-12.4	34.8	610.8	629.3	259.5	25.6	1.000141
22000.0	448.4	-13.6	35.1	601.4	627.8	259.3	26.8	1.000138
22500.0	439.5	-14.8	35.5	592.1	626.4	259.8	28.3	1.000136
23000.0	430.7	-15.9	35.8	583.0	625.0	260.4	29.5	1.000133
23500.0	422.2	-17.1	36.1	574.0	623.8	261.0	30.6	1.000131

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 61
 ASCENSION NO. 155

UPPLR AIR DATA
 2680030155
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

TABLE 23 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CELSIUS	REL. HUM. PERCENT	DENSITY GM/CURIC METER	SPEED SOUND KNOTS	WIND DIR. (DEGREES (TN))	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	413.8	-18.2	36.5	565.2	622.1	260.5	30.9	1.000129
24500.0	405.5	-19.4	36.8	556.5	620.7	258.9	30.5	1.000127
25000.0	397.4	-20.5	36.9	547.8	619.3	257.1	31.3	1.000125
25500.0	389.3	-21.6	36.5	539.0	618.0	255.3	32.9	1.000122
26000.0	381.4	-22.7	36.1	530.3	616.6	254.5	33.9	1.000120
26500.0	373.5	-23.9	36.0	521.9	615.1	253.9	34.8	1.000118
27000.0	365.8	-25.1	36.0	513.6	613.6	253.7	34.9	1.000116
27500.0	358.2	-26.3	36.0	505.5	612.1	253.8	34.6	1.000114
28000.0	350.8	-27.7	36.7	497.7	610.4	252.6	34.7	1.000112
28500.0	343.3	-28.9	36.9	489.6	608.9	250.3	35.1	1.000110
29000.0	336.0	-30.0	36.8	481.3	607.6	248.0	36.0	1.000108
29500.0	328.9	-31.1	36.6	473.2	606.2	245.7	37.3	1.000106
30000.0	321.9	-32.2	36.5	465.2	604.8	245.4	40.6	1.000105
30500.0	315.1	-33.2	36.3	457.4	603.5	245.5	44.4	1.000103
31000.0	308.4	-34.3	36.2	449.7	602.1	244.6	46.0	1.000101
31500.0	301.8	-35.4	36.0	442.2	600.7	243.0	47.2	1.000099
32000.0	295.3	-36.5	36.0	434.5	599.4	243.4	47.4	1.000097
32500.0	288.8	-37.5	36.0	427.0	598.1	243.3	47.5	1.000096
33000.0	282.5	-38.6	36.0	419.6	596.7	243.3	50.0	1.000094
33500.0	276.4	-39.6	36.0	412.3	595.4	243.3	52.8	1.000092
34000.0	270.3	-40.7	29.7**	405.0	594.0	243.0	54.3	1.000091
34500.0	264.3	-41.7	21.2**	397.0	592.7	243.5	55.3	1.000089
35000.0	258.4	-42.8	12.6**	390.7	591.3	243.5	56.7	1.000087
35500.0	252.7	-43.8	4.1**	383.0	590.0	243.6	58.2	1.000086
36000.0	247.0	-44.9		375.4	588.6	243.7	59.9	1.000084
36500.0	241.3	-46.0		370.1	587.2	243.7	61.8	1.000082
37000.0	235.8	-47.1		363.4	585.8	243.7	63.0	1.000081
37500.0	230.4	-48.2		356.4	584.4	243.7	64.1	1.000079
38000.0	225.1	-49.3		349.3	583.0	243.7	65.4	1.000078
38500.0	220.0	-50.4		342.0	581.6	243.7	66.7	1.000077
39000.0	214.9	-51.5		334.6	580.2	243.7	68.0	1.000075
39500.0	210.0	-52.6		327.0	578.8	243.7	69.3	1.000074
40000.0	205.2	-53.7		319.3	577.4	243.7	70.6	1.000073
40500.0	200.5	-54.8		311.4	576.0	243.7	71.9	1.000071
41000.0	195.8	-55.9		303.4	574.6	243.7	73.2	1.000070
41500.0	191.1	-56.9		295.3	573.2	243.7	74.5	1.000069
42000.0	186.6	-58.0		287.0	571.8	243.7	75.8	1.000067
42500.0	182.2	-58.8		278.6	570.4	243.7	77.1	1.000066
43000.0	177.8	-59.2		270.0	569.0	243.7	78.4	1.000064
43500.0	173.5	-59.7		261.3	567.6	243.7	79.7	1.000063

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 81
 ASCENSION NO. 155 0900 MDT

UPPER AIR DATA
 2680030155
 JALLEN

TABLE 23 Cont'd

GEODLTIC 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		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
44000.0	169.3	-60.1		270.9	568.6	251.4	60.9	1.000062
44500.0	165.3	-60.6		270.8	568.0	251.4	61.1	1.000060
45000.0	161.3	-61.1		264.9	567.4	251.3	61.1	1.000059
45500.0	157.4	-61.5		259.1	566.8	250.9	60.1	1.000058
46000.0	153.6	-62.0		253.4	566.2	250.5	59.1	1.000056
46500.0	149.9	-62.4		247.4	565.6	250.3	57.7	1.000055
47000.0	146.3	-62.7		242.1	565.1	250.3	56.1	1.000054
47500.0	142.7	-63.0		236.6	564.7	250.3	54.4	1.000053
48000.0	139.2	-63.4		231.3	564.2	250.3	54.0	1.000052
48500.0	135.8	-64.0		226.2	563.4	250.3	53.8	1.000050
49000.0	132.5	-64.6		221.3	562.6	250.2	53.4	1.000049
49500.0	129.2	-65.2		216.5	561.8	249.6	52.5	1.000048
50000.0	126.1	-65.7		211.8	561.1	248.9	51.5	1.000047
51000.0	123.0	-65.3		206.1	561.7	248.2	49.7	1.000046
51500.0	119.9	-65.4		201.1	561.0	247.3	47.3	1.000045
52000.0	117.0	-66.2		196.9	560.4	246.6	45.2	1.000044
52500.0	114.1	-67.1		192.9	559.3	247.2	45.2	1.000043
53000.0	111.3	-67.6		188.0	558.6	247.9	45.3	1.000042
53500.0	108.5	-67.7		184.0	558.3	249.0	43.8	1.000041
54000.0	105.8	-66.3		178.2	560.3	250.5	40.8	1.000040
54500.0	103.2	-66.2		173.7	560.4	252.3	37.7	1.000039
55000.0	100.7	-66.1		169.4	560.5	253.0	30.6	1.000038
55500.0	98.1	-66.7		165.6	559.8	254.0	23.0	1.000037
56000.0	95.7	-67.5		162.1	558.7	255.4	16.0	1.000036
56500.0	93.3	-68.3		158.7	557.5	254.4	12.5	1.000035
57000.0	91.0	-69.1		155.3	556.4	252.6	9.0	1.000035
57500.0	88.7	-70.0		152.1	555.3	247.4	7.1	1.000034
58000.0	86.5	-70.8		148.9	554.2	240.3	8.9	1.000033
58500.0	84.3	-70.3		144.8	554.9	235.7	10.8	1.000032
59000.0	82.2	-69.0		140.2	556.7	235.5	12.6	1.000031
59500.0	80.2	-67.9		136.1	558.2	237.3	14.3	1.000030
60000.0	78.2	-66.9		132.1	559.5	238.8	16.0	1.000029
60500.0	76.3	-65.9		128.2	560.9	243.5	16.4	1.000029
61000.0	74.4	-64.9		124.4	562.2	247.9	16.9	1.000028
61500.0	72.6	-63.9		120.8	563.6	250.0	14.1	1.000027
62000.0	70.8	-62.8		117.3	565.0	250.0	7.8	1.000026
62500.0	69.1	-62.1		114.0	566.0	250.0	1.4	1.000025
63000.0	67.4	-61.5		110.9	566.7	70.0	1.1	1.000025
63500.0	65.8	-60.0		107.5	568.0	70.0	2.3	1.000024
64000.0	64.2	-59.4		104.6	569.6	70.0	3.6	1.000023

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

UPPER AIR DATA
268003015
JALLEN

TABLE 23 Cont'd

STATION ALTITUDE 4051.00 FEET MSL
25 SEP. 81 0900 MDT
ASCENSION NO. 155

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION (DEGREES(TN))	WIND SPEED KNOTS	INDEX OF REFRACTION
64000.0	62.7	-59.4		102.1	569.5	145.1	2.0	1.000023
64500.0	61.2	-59.5		99.7	569.5	190.9	5.2	1.000022
65000.0	59.7	-59.6		97.4	569.4	206.9	9.3	1.000022
65500.0	58.3	-59.6		95.1	569.3	203.9	9.7	1.000021
66000.0	56.9	-59.6		92.8	569.3	200.7	10.0	1.000021
66500.0	55.5	-59.6		90.6	569.3	198.6	10.0	1.000020
67000.0	54.2	-59.4		88.3	569.0	202.9	8.4	1.000020
67500.0	52.9	-59.1		86.1	569.9	209.3	6.7	1.000019
68000.0	51.6	-58.9		84.0	570.2	212.0	5.0	1.000019
68500.0	50.4	-58.9		82.0	570.3	193.4	3.0	1.000018
69000.0	49.2	-59.1		80.1	570.0	140.1	2.0	1.000018
69500.0	48.0	-58.8		78.1	570.3	91.2	2.7	1.000017
70000.0	46.9	-58.5		76.1	570.7	68.0	4.0	1.000017
70500.0	45.8	-58.2		74.2	571.2	57.0	5.6	1.000017
71000.0	44.7	-57.7		72.3	571.9	53.8	6.0	1.000016
71500.0	43.6	-57.2		70.4	572.5	52.7	5.6	1.000016
72000.0	42.6	-56.7		68.6	573.2	51.4	5.2	1.000015
72500.0	41.6	-56.2		66.8	573.8	53.1	4.7	1.000015
73000.0	40.6	-55.7		65.1	574.5	58.2	4.0	1.000014
73500.0	39.7	-55.2		63.4	575.1	65.1	3.4	1.000014
74000.0	38.7	-54.9		61.8	575.6	84.6	4.0	1.000014
74500.0	37.8	-54.8		60.4	575.7	100.4	6.0	1.000013
75000.0	37.0	-54.7		58.9	575.8	107.9	8.2	1.000013
75500.0	36.1	-54.7		57.5	575.9	111.1	9.7	1.000013
76000.0	35.2	-54.6		56.2	575.9	112.3	9.9	1.000013
76500.0	34.4	-54.5		54.9	576.0	113.4	10.0	1.000012
77000.0	33.6	-54.4		53.6	576.1	113.0	9.8	1.000012
77500.0	32.8	-54.4		52.3	576.2	107.2	8.2	1.000012
78000.0	32.1	-54.3		51.1	576.3	98.0	6.8	1.000011
78500.0	31.3	-54.2		49.8	576.4	86.4	5.6	1.000011
79000.0	30.6	-54.2		48.7	576.5	81.7	6.4	1.000011
79500.0	29.9	-54.0		47.5	576.7	78.0	7.2	1.000011
80000.0	29.2	-53.5		46.3	577.4	75.1	8.1	1.000010
80500.0	28.5	-52.9		45.1	578.2	72.8	9.1	1.000010
81000.0	27.9	-52.4		44.0	578.9	71.1	10.2	1.000010
81500.0	27.2	-51.8		42.8	579.6	69.6	11.3	1.000010
82000.0	26.6	-51.3		41.7	580.3	66.8	11.9	1.000009
82500.0	26.0	-50.7		40.7	581.0	62.3	12.0	1.000009
83000.0	25.4	-50.2		39.6	581.7	57.8	12.2	1.000009
83500.0	24.8	-50.0		38.7	582.0	54.2	12.2	1.000009

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 61
 ASCENSION NO. 155

UPPER AIR DATA
 268003015,
 JALLEN

GEODETIC COORDINATES
 53.16712 LAT DEG
 106.49511 LONG DEG

TABLE 23 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		INDEX OF REFRACTION
						DIRECTION DEGREES(T,0)	SPEED KNOTS	
84000.0	24.2	-49.9		37.6	582.0	52.9	11.2	1.000008
84500.0	23.7	-49.9		36.9	582.1	51.3	10.2	1.000008
85000.0	23.1	-49.9		36.1	582.1	49.5	9.3	1.000008
85500.0	22.6	-49.9		35.3	582.1	53.0	8.8	1.000008
86000.0	22.1	-49.8		34.5	582.2	58.4	8.5	1.000008
86500.0	21.6	-49.8		33.7	582.2	64.2	8.2	1.000007
87000.0	21.1	-49.8		32.9	582.3	69.7	8.0	1.000007
87500.0	20.6	-49.7		32.1	582.3	72.6	7.9	1.000007
88000.0	20.1	-49.7		31.4	582.3	76.0	7.8	1.000007
88500.0	19.7	-49.6		30.7	582.4	79.4	7.7	1.000007
89000.0	19.2	-49.6		30.0	582.5	80.4	7.9	1.000007
89500.0	18.8	-49.5		29.3	582.6	79.7	8.4	1.000007
90000.0	18.4	-49.4		28.6	582.7	79.1	8.9	1.000006
90500.0	18.0	-49.3		27.9	582.8	78.5	9.5	1.000006
91000.0	17.5	-49.2		27.3	582.9	75.3	10.6	1.000006
91500.0	17.1	-49.2		26.7	583.1	72.6	11.8	1.000006
92000.0	16.8	-49.1		26.0	583.2	70.4	13.0	1.000006
92500.0	16.4	-49.0		25.4	583.3			1.000006
93000.0	16.0	-48.9		24.9	583.4			1.000006
93500.0	15.6	-48.8		24.3	583.5			1.000005
94000.0	15.3	-48.8		23.7	583.6			1.000005
94500.0	14.9	-48.7		23.2	583.7			1.000005
95000.0	14.6	-48.6		22.6	583.8			1.000005
95500.0	14.3	-48.5		22.1	583.9			1.000005

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 61
 ASCENSION, NO. 155

MANDATORY LEVELS
 2680030135
 JALLEN

COORD. TIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

TABLE 24

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5000.	18.5	11.8	65.	250.1	3.4
800.0	6718.	17.7	7.9	53.	247.8	11.0
750.0	8521.	14.1	4.7	53.	240.7	16.8
700.0	10416.	9.0	1.7	60.	232.9	21.9
650.0	12410.	3.0	-4.1	60.	243.1	27.3
600.0	14520.	-1.6	-11.0	40.	247.4	21.0
550.0	16742.	-4.2	-17.3	35.	262.4	22.6
500.0	19237.	-7.8	-20.5	35.	266.0	23.8
450.0	21899.	-13.4	-25.5	35.	259.2	26.6
400.0	24802.	-20.2	-31.1	37.	257.7	30.8
350.0	28002.	-27.9	-38.0	37.	252.4	34.7
300.0	31578.	-35.7	-45.3	30.	243.5	47.4
250.0	35662.	-44.3			248.0	58.9
200.0	40456.	-54.9			250.3	70.0
175.0	43222.	-59.5			251.1	61.9
150.0	46365.	-62.4			250.3	57.8
125.0	50031.	-65.8			248.7	51.2
100.0	54463.	-66.1			253.2	29.0
80.0	58845.	-67.8			237.3	14.3
70.0	61515.	-62.4			250.0	5.3
60.0	64667.	-59.5			205.3	8.2
50.0	68414.	-59.3			183.3	2.5
40.0	73037.	-55.4			62.0	3.7
30.0	79080.	-54.1			78.8	7.0
25.0	82955.	-50.0			55.4	12.3
20.0	87744.	-49.7			76.0	7.7
15.0	93935.	-48.7				

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

DATE
ILME