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19319A MLRS MISSILE NUMBERS BN-006 BN-003 BN-001 BN-004 1/1
BN-002 BN-005 ROU. (U) ARMY ELECTRONICS RESEARCH AND
DEVELOPMENT COMMAND WSMR NM ATM. D C KELLER JAN 83
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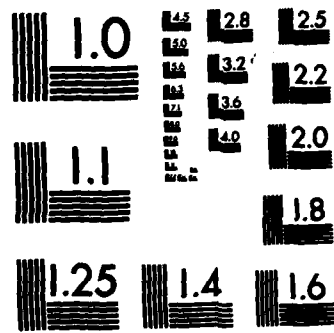
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Jan 83
DR 1283

AD

METEOROLOGICAL DATA REPORT

19319A MLRS

Missile Numbers BN-006, BN-003, BN-001, BN-004, BN-002, BN-005
Round Numbers V-390/DL-7, V-391/DL-08, V-392/DL-9, V-393/DL-10
V-394/DL-11, V-395/DL-12

by

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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UNITED STATES ARMY ELECTRONICS COMMAND

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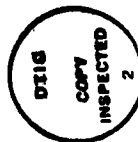
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INTRODUCTION

19319A MLRS, Missile Numbers BN-006, BN-003, BN-001, BN-004, BN-002 and BN-005, Round Numbers V-390/DL-7 Thru V-395/DL-12, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0930:51, 0930:56, 0931:01, 0931:05, 0931:10 and 0931:14 MST, 11 Jan 83. The scheduled launch times were 0830 MST with a 4.5 second separation.

DISCUSSION

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

1. Observations

a. Surface

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

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

b. Upper Air

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

SITE AND ALTITUDE

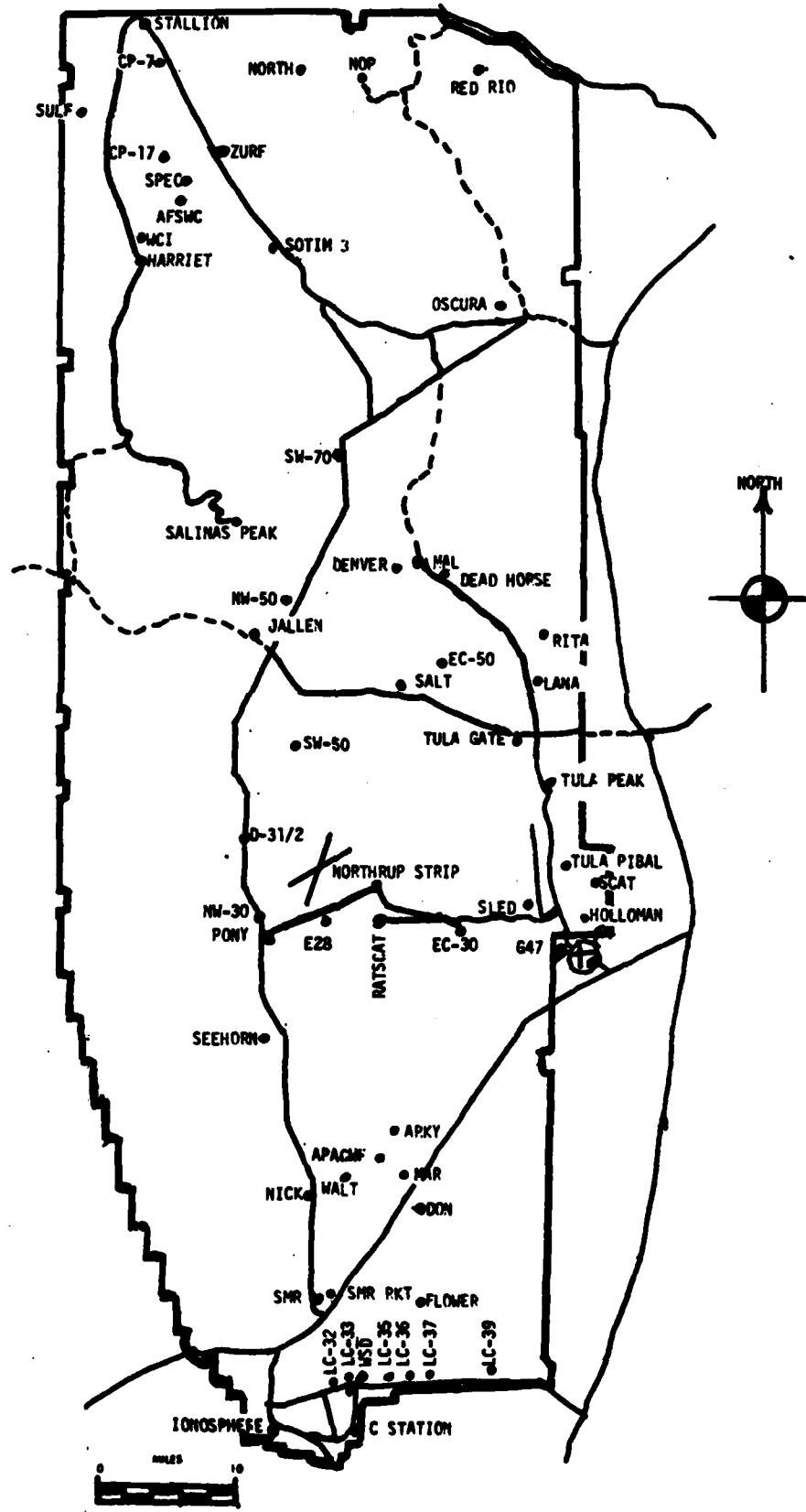
WSD 2km
DON 2km

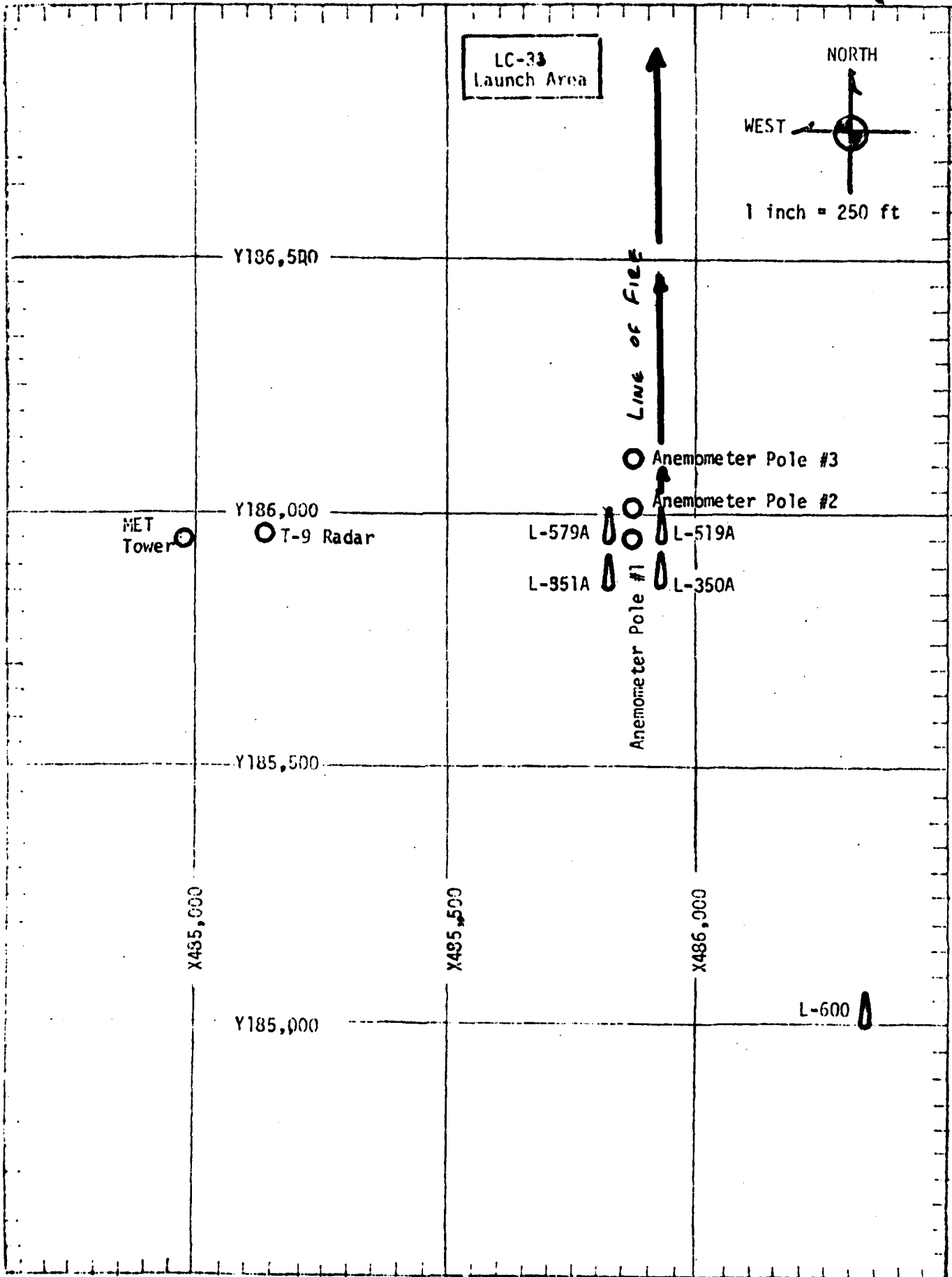
(2) Air structure data (rawinsonde) were collected at the following Met Sites.

SITE AND TIME

LC-37 0700 MST
WSD 0800 MST
LC-37 0930 MST

WSMR METEOROLOGICAL SITES





LC-33
Launch Area

NORTH
WEST
1 inch = 250 ft

Y186,500

Line of Fire

Anemometer Pole #3
Anemometer Pole #2

MET
Tower

Y186,000
T-9 Radar

L-579A L-519A

L-951A L-350A

Y185,500

X485,000

X485,500

X486,000

Y185,000

L-600

PROJECT SURFACE OBSERVATION

STATION LC-33 E & A

X = 484,982.64 Y = 185,957.73 H = 3995.00

TABLE 1

DATE 11 01 83
DAY MONTH YEAR

TIME M S I	PRESSURE mbs	TEMPERATURE		DEW POINT OF	RELATIVE HUMIDITY %	DENSITY gm/m ³	WIND		VISIBIL- ITY
		OF	OC				DIRECTION degs In	SPEED kts	
0930	887.5		19.1		39	1094	063	04	75

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	HGT	AMT	HGT	AMT	HGT	
	0	CI 25,000					

PSYCHROMETRIC COMPUTATION

TIME: MST	0930
DRY BULB TEMP.	9.1
WET BULB TEMP.	3.3
WET BULB DEPR.	5.8
DEW POINT	-4.2
RELATIVE HUMID.	39

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 X485,874.29 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 KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
T-30	016	05	T-30	022	04	T-30	021	07
T-20	016	05	T-20	019	04	T-20	015	08
T-10	014	06	T-10	007	05	T-10	012	08
T0.0	010	05	T0.0	002	05	T0.0	012	08
T+10	001	07	T+10	360	04	T+10	004	08

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 KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
T-30	036	03	T-30	034	05
T-20	040	04	T-20	016	04
T-10	038	04	T-10	022	04
T0.0	063	04	T0.0	004	03
T+10	032	06	T+10	019	06

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
T-30	045	06	T-30	015	04
T-20	032	05	T-20	028	06
T-10	030	05	T-10	016	07
T0.0	043	06	T0.0	030	06
T+10	042	05	T+10	036	07

TABLE 4

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 11 Jan 83

SITE: WSD
 TIME: 0931 MST
 WSTM COORDINATES:
 X= 488,852.29
 Y= 184,982.45
 H= 3,993.75

SITE: DON
 TIME 0932 MST
 WSTM COORDINATES:
 X= 511,988.37
 Y= 247,396.36
 H= 3,996.83

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	355	08
150	005	12
210	010	13
270	012	14
330	010	13
390	005	10
500	356	13
650	012	14
800	035	09
950	117	08
1150	124	05
1350	057	04
1550	299	07
1750	278	09
2000	300	09

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE		CALM
150	014	08
210	012	10
270	007	10
330	002	10
390	360	10
500	359	11
650	011	12
800	043	06
950	124	04
1150	032	03
1350	318	05
1550	290	06
1750	304	08
2000	293	09

Data obtained from NIKE-HERCULES
 Radar Tracked Pilot-Balloon
 observation.

Data obtained from a Single-Theodolite
 Tracked Pilot-Balloon observation.

TABLE 5

AIMING AND T-TIME COMPUTER MET MESSAGES

11 Jan 83

LC-37 0700 MST	WSD 0800 MST
METCM1324063	METCM1324064
111400124884	111500122886
00640005 27110884	00000000 27330886
01003022 27760873	01021011 27700875
02013020 27950847	02013017 27950849
03014022 27940806	03019017 28060809
04573013 28130759	04570010 28210761
05543009 27990714	05504007 28030716
06453009 27680672	06490010 27730674
07514014 27300631	07528013 27400633
08543015 26960593	08558015 27050595
09540017 26560556	09539016 26660558
10529018 26200522	10523018 26270524
11522020 25760488	11528020 25870491
12580022 25080442	12561017 25260444

LC-37 0930 MST
 METCM1324063
 111550124885
 00622004 27980885
 01021012 27960874
 02638013 28110848
 03089008 28140808
 04618001 28120761
 05525009 27990716
 06539012 27710673
 07535014 27380633
 08550015 27060595
 09533014 26680558
 10505017 26260523
 11525017 25850490
 12551013 25240443

STATION ALTITUDE 4051.37 FEET MSL
 11 JAN. 63 0700 HRS MST
 ASCENSION NO. 1

SIGNIFICANT LEVELL DATA
 011010001
 LC-37
 TABLE 6

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
883.9	4051.4	-2.3	77.0
878.4	4216.3	4.6	45.0
850.0	5097.7	-6.3	31.0
838.9	5451.1	5.9	32.0
833.5	5624.8	-9.4	31.0
806.7	6502.6	-9.6	28.0
774.9	7585.9	-11.8	20.0
753.9	8328.9	-13.7	19.0
739.2	8862.4	-14.6	17.0
728.1	9271.9	-15.0	16.0
700.0	10331.8	-17.1	18.0
642.2	12627.2	-16.6	17.0
632.5	13027.8	-21.4	16.0
603.3	14264.3	-23.3	16.0
558.3	16265.5	-24.8	15.0
540.6	17087.3	-29.8	15.0
500.0	19055.3	-30.7	15.0
453.9	21438.9	-14.1	15.0
445.4	21897.5	-35.0	17.0
400.0	24460.5	-20.7	18.0
		-22.2	18.0
		-28.2	22.0
		-43.2	

STATION ALTITUDE 4051.37 FEET
 11 JAN. 63 0700 HRS MST
 ASCENSION NO. 1

UPPER AIR DATA
 0110180001
 LC-37
 TABLE 7

GEODETIC COORDINATES
 32-40175 LAT DEG
 106-31232 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4051.4	883.9	-2.3	-5.8	77.0	1134.9	641.7	360.0	5.1	1.000273
4500.0	869.2	5.0	-7.3	40.5	1086.8	650.3	2.2	8.8	1.000259
5000.0	853.1	5.8	-9.4	32.6	1064.2	651.0	3.1	12.9	1.000252
5500.0	837.4	6.1	-9.5	31.7	1043.4	651.4	3.6	17.0	1.000247
6000.0	821.9	5.8	-10.5	29.7	1025.3	651.0	3.9	21.1	1.000242
6500.0	806.8	5.2	-11.8	28.0	1008.5	650.3	3.5	20.1	1.000237
7000.0	791.9	6.4	-12.5	24.3	985.8	651.7	2.9	17.9	1.000231
7500.0	777.4	7.6	-13.5	20.6	963.6	653.1	3.2	15.0	1.000225
8000.0	763.1	7.6	-14.2	19.4	945.9	653.1	3.4	12.9	1.000220
8500.0	749.2	7.9	-14.7	18.4	927.7	653.4	3.2	12.1	1.000216
9000.0	735.5	8.1	-15.7	16.7	910.0	653.7	3.1	11.7	1.000211
9500.0	722.0	6.8	-16.9	16.4	897.8	652.1	3.0	10.6	1.000208
10000.0	708.7	6.2	-16.7	17.4	882.8	651.5	2.9	8.7	1.000205
10500.0	695.6	5.5	-16.9	17.9	868.8	650.6	2.7	7.9	1.000201
11000.0	682.7	4.4	-18.0	17.7	856.1	649.3	2.6	8.3	1.000198
11500.0	670.0	3.3	-19.0	17.5	843.6	648.0	2.6	8.8	1.000195
12000.0	657.5	2.2	-20.1	17.3	831.3	646.7	2.7	9.9	1.000191
12500.0	645.3	1.1	-21.2	17.1	819.2	645.4	2.8	11.2	1.000188
13000.0	633.2	-0.5	-23.1	16.1	808.6	643.5	2.8	12.2	1.000185
13500.0	621.2	-1.3	-23.8	16.0	795.7	642.5	2.9	13.3	1.000182
14000.0	609.4	-2.1	-24.5	16.0	782.8	641.6	2.9	14.1	1.000179
14500.0	597.8	-3.1	-25.4	15.9	770.9	640.3	3.0	14.7	1.000176
15000.0	586.4	-4.4	-26.7	15.6	759.9	638.7	3.0	15.3	1.000173
15500.0	575.1	-5.8	-27.9	15.4	749.0	637.2	3.0	16.1	1.000170
16000.0	564.1	-7.1	-29.2	15.1	738.3	635.6	3.0	16.9	1.000167
16500.0	553.2	-8.1	-30.1	15.0	726.9	634.3	3.0	17.4	1.000165
17000.0	542.5	-8.8	-30.6	15.0	714.6	633.5	3.0	17.7	1.000162
17500.0	531.8	-10.0	-31.6	15.0	703.8	632.1	3.0	18.0	1.000159
18000.0	521.4	-11.3	-32.7	15.0	693.5	630.5	2.9	18.3	1.000157
18500.0	511.1	-12.6	-33.8	15.0	683.3	628.9	2.9	18.7	1.000154
19000.0	501.1	-14.0	-34.9	15.0	673.3	627.3	2.9	19.1	1.000152
19500.0	491.1	-15.3	-35.8	15.4	663.4	625.6	2.9	19.6	1.000149
20000.0	481.2	-16.7	-36.6	15.8	653.0	623.9	2.9	20.3	1.000147
20500.0	471.5	-18.1	-37.5	16.2	643.9	622.2	3.0	21.2	1.000145
21000.0	462.1	-19.5	-38.4	16.6	634.4	620.5	3.1	22.0	1.000143
21500.0	452.8	-20.9	-39.3	17.1	625.2	618.8	3.1	22.9	1.000140
22000.0	443.5	-22.4	-40.1	18.2	616.1	616.9	3.2	22.8	1.000138
22500.0	434.3	-23.6	-40.7	18.9	606.2	615.5	3.2	22.5	1.000136
23000.0	425.3	-24.8	-41.3	19.7	596.5	614.0	3.3	21.4	1.000134
23500.0	416.5	-25.9	-41.9	20.5	586.9	612.6	3.3	21.4	1.000132

STATION ALTITUDE 4051.37 FEET MSL
 11 JAN. 83 0700 HRC MST
 ASCENSION NO. 1

UPPER AIR DATA
 0110180001
 LC-37
 TABLE 7 Cont'd

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA WIND DIRECTION DEGREES (TN)	INDEX OF REFRACTION
24000.0	407.9	-27.1	21.3	577.4	611.1		1.000129

MANDATORY LEVELS
 0110100001
 LC-37
 TABLE 0

STATION ALTITUDE 4051.37 FEET MSL
 11 JAN. 83 0700 HRS MST
 ASCENSION NO. 1

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LONG DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TM)	SPEED KNOTS
850.0	5094.	5.9	-9.9	31.	3.3	13.7
800.0	6721.	5.7	-12.1	26.	3.3	19.1
750.0	8462.	7.8	-14.7	18.	322.8	12.1
700.0	10322.	5.7	-16.6	18.	278.6	7.8
650.0	12295.	1.5	-20.7	17.	281.0	10.6
600.0	14390.	-2.9	-25.2	16.	301.1	14.6
550.0	16626.	-8.3	-30.3	15.	304.0	17.5
500.0	19028.	-14.1	-35.0	15.	294.2	19.2
450.0	21615.	-21.4	-39.6	17.	322.6	22.9
400.0	24826.	-28.2	-43.2	22.		

STATION ALTITUDE 3989.60 FEET MSL
 11 JAN. 63
 ASCENSION NO. 11

SIGNIFICANT LEVEL DATA
 0110020011
 WHITE SANDS
 TABLE 9

GEODETIC COORDINATES
 32.40043 LAT DEG
 100.37033 LONG DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE		TEMPERATURE		REL. HUM. PERCENT
	MSL FEET	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	
886.3	3989.0		-1	-4.9	70.0
880.2	4171.3		1.9	-8.5	46.0
869.7	4491.4		5.6	-8.6	35.0
858.5	4808.1		5.6	-10.2	31.0
850.0	5106.4		6.2	-10.1	30.0
839.3	5447.7		6.2	-10.9	28.0
819.5	6090.6		6.7	-11.9	25.0
809.4	6424.6		6.3	-12.7	24.0
786.1	7214.3		8.8	-12.9	20.0
770.6	7754.4		8.1	-14.1	19.0
740.7	8828.5		9.2	-14.5	17.0
700.0	10355.0		5.3	-17.1	18.0
684.1	10770.5		4.6	-17.6	18.0
670.9	11491.3		4.1	-18.7	17.0
656.3	12077.1		2.4	-20.1	17.0
620.7	13550.1		-0.3	-23.0	16.0
500.0	19098.7		-13.3	-34.3	15.0
469.0	20688.6		-17.4	-36.5	17.0
448.8	21767.6		-20.2	-37.8	19.0
435.3	22510.2		-21.5	-38.4	20.0
400.0	24537.3		-27.4	-42.5	22.0
344.3	28025.3		-36.3	-50.6	21.0
324.2	29369.1		-39.7	-53.1	22.0
300.0	31116.8		-44.7		
293.8	31575.7		-45.9		
275.8	32053.7		-48.4		
270.4	33349.1		-49.8		
255.4	34560.2		-52.8		
250.0	35850.1		-53.6		
232.7	36570.5		-54.7		
210.1	38121.5		-57.2		
200.7	38442.7		-57.2		
205.5	39170.6		-56.5		
200.0	39757.4		-57.0		
182.0	41604.2		-58.0		
172.1	42177.1		-58.0		
151.5	45409.2		-61.9		
150.0	45590.0		-62.1		
130.0	48503.1		-64.4		
118.6	50450.5		-62.9		

STATION ALTITUDE 3989.00 FEET ASL
 11 JAN. 63 0800 HRS MST
 ASCENSION NO. 11

SIGNIFICANT LEVEL DATA
 0110020011
 WHITE SANDS
 TABLE 9 Cont'd

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

PRESSURE GEOMETRIC MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
109.9 52002.3	-61.8	
108.0 52358.0	-62.3	
102.5 53423.0	-62.3	
100.0 53924.1	-64.0	
92.6 55473.1	-65.4	
84.8 57251.7	-62.7	
72.6 60379.4	-67.1	
70.0 61112.0	-63.8	
59.7 64350.4	-61.8	
56.9 65340.3	-58.5	
52.9 66848.5	-60.1	
50.0 68012.8	-59.4	
45.8 69825.0	-60.1	
44.5 70421.7	-58.0	
41.4 71924.2	-58.4	
30.0 78724.0	-51.9	
24.1 83430.4	-50.8	
20.0 87469.6	-48.6	
17.7 90124.4	-49.5	
15.4 93160.2	-47.1	
13.1 96707.1	-47.2	

STATION ALTITUDE 3989.00 FEET MSL
 11 JAN. 83 0800 HRS MST
 ASCENSION NO. 11

UPPER AIR DATA
 0110020011
 WHITE SANDS
 TABLE 10

GEODETIC COORDINATES
 32.40083 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INEX OF REFRACTION
							DIRECTION DEGREES(TN)	SPEED KNOTS	
3989.0	886.3	-1	-4.9	70.0	1128.7	644.3	.0	.0	1.000273
4000.0	885.9	.0	-5.1	68.6	1127.8	644.5	5.6	.1	1.000273
4500.0	869.4	5.6	-8.7	34.9	1085.1	650.9	5.6	5.4	1.000257
5000.0	853.4	6.0	-10.1	30.4	1063.7	651.3	5.6	10.7	1.000251
5500.0	837.7	6.2	-11.0	27.8	1043.2	651.6	5.6	15.9	1.000245
6000.0	822.3	6.6	-11.8	25.4	1022.7	652.0	7.8	16.8	1.000240
6500.0	807.1	6.5	-12.7	23.6	1004.3	651.9	11.1	16.0	1.000235
7000.0	792.4	8.1	-12.8	21.1	980.3	653.7	3.8	12.7	1.000229
7500.0	777.9	8.4	-13.5	19.5	961.4	654.1	350.4	9.9	1.000224
8000.0	763.7	8.4	-14.2	18.5	944.1	654.0	325.1	9.5	1.000220
8500.0	749.7	8.9	-14.4	17.6	925.2	654.6	305.9	10.2	1.000216
9000.0	735.0	8.8	-14.8	17.1	908.6	654.4	298.5	10.0	1.000212
9500.0	722.5	7.5	-15.6	17.4	896.0	652.9	290.7	9.7	1.000208
10000.0	709.3	6.2	-16.5	17.8	883.7	651.4	281.3	8.6	1.000205
10500.0	696.2	5.1	-17.2	18.0	870.8	650.2	273.4	8.0	1.000202
11000.0	683.3	4.6	-17.7	17.9	856.4	649.5	272.2	8.0	1.000198
11500.0	670.7	4.1	-18.7	17.0	842.1	648.9	280.0	9.0	1.000194
12000.0	658.2	2.6	-19.9	17.0	830.9	647.2	290.2	10.9	1.000191
12500.0	645.9	1.6	-20.9	16.7	818.3	646.0	295.0	12.2	1.000188
13000.0	633.8	.7	-21.9	16.4	805.7	644.9	298.8	13.3	1.000185
13500.0	621.9	-.2	-22.9	16.0	793.3	643.8	305.5	13.6	1.000182
14000.0	609.9	-1.4	-23.9	15.9	781.3	642.4	310.4	14.0	1.000179
14500.0	598.1	-2.5	-25.0	15.8	769.6	641.0	312.1	14.5	1.000176
15000.0	586.6	-3.7	-26.0	15.7	758.0	639.0	311.6	14.9	1.000173
15500.0	575.3	-4.9	-27.0	15.6	746.7	638.2	308.0	15.3	1.000170
16000.0	564.2	-6.0	-28.0	15.6	735.5	636.8	304.5	16.0	1.000167
16500.0	553.3	-7.2	-29.0	15.5	724.5	635.4	301.3	17.1	1.000164
17000.0	542.6	-8.4	-30.1	15.4	713.7	634.0	298.3	17.8	1.000162
17500.0	532.1	-9.6	-31.1	15.3	703.1	632.6	295.5	18.2	1.000159
18000.0	521.9	-10.7	-32.1	15.2	692.6	631.2	293.4	18.4	1.000157
18500.0	511.8	-11.9	-33.1	15.1	682.3	629.8	292.1	18.4	1.000154
19000.0	501.9	-13.1	-34.1	15.0	672.1	628.4	293.9	18.4	1.000152
19500.0	492.0	-14.3	-34.9	15.5	662.1	626.8	290.8	18.7	1.000149
20000.0	482.2	-15.6	-35.5	16.1	652.1	625.3	302.4	19.8	1.000147
20500.0	472.6	-16.9	-36.2	16.8	642.3	623.7	307.3	20.5	1.000145
21000.0	463.1	-18.2	-36.8	17.6	632.6	622.1	312.0	20.6	1.000142
21500.0	453.7	-19.5	-37.4	18.5	623.0	620.5	315.5	19.3	1.000140
22000.0	444.3	-20.6	-37.9	19.3	613.1	619.2	319.0	17.6	1.000138
22500.0	435.3	-21.5	-38.4	20.0	602.7	618.1	319.5	15.7	1.000136
23000.0	426.3	-22.9	-39.3	20.5	593.7	616.3	318.0	14.7	1.000133

UPPER AIR DATA
 0110020011
 WHITE SANDS
 TABLE 10 Cont'd

STATION ALTITUDE 3989.00 FEET MSL
 11 JAN. 83 0600 HRS MST
 ASCENSION NO. 11

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION (T)	SPEED (KNOTS)	
23500.0	417.7	-24.4	21.0	584.8	614.5	313.3	15.4	1.000131
24000.0	409.1	-25.8	21.5	576.1	612.7	313.3	16.7	1.000129
24500.0	400.6	-27.3	22.0	567.6	610.9	314.5	18.2	1.000127
25000.0	392.1	-28.6	21.9	558.5	609.3	325.2	17.1	1.000125
25500.0	383.8	-29.9	21.7	549.5	607.7	336.6	16.2	1.000123
26000.0	375.6	-31.1	21.6	540.6	606.1	348.6	14.1	1.000121
26500.0	367.6	-32.4	21.4	531.9	604.5	359.5	12.8	1.000119
27000.0	359.8	-33.7	21.3	523.4	602.9	5.9	11.6	1.000117
27500.0	352.2	-35.0	21.2	515.0	601.3	5.9	11.2	1.000115
28000.0	344.7	-36.2	21.0	506.8	599.7	2.2	11.2	1.000113
28500.0	337.2	-37.5	21.3	498.4	598.1	358.8	11.3	1.000111
29000.0	329.8	-38.7	21.7	490.1	596.5	355.3	11.3	1.000109
29500.0	322.6	-40.0	20.6**	482.0	594.9	350.1	10.9	1.000108
30000.0	315.4	-41.5	14.2**	474.3	593.0	344.2	10.7	1.000106
30500.0	308.4	-42.9	7.9**	466.7	591.1	337.1	10.6	1.000104
31000.0	301.6	-44.4	21.3	459.2	589.3	328.8	10.6	1.000102
31500.0	294.8	-45.7	21.7	451.5	587.5	317.7	10.7	1.000101
32000.0	288.1	-46.7	20.6**	443.2	586.3	304.6	11.2	1.000099
32500.0	281.6	-47.6	14.2**	434.9	585.1	287.7	12.4	1.000097
33000.0	275.2	-48.6	7.9**	426.9	583.8	276.0	14.6	1.000095
33500.0	268.9	-50.2	21.3	420.1	581.7	276.7	17.4	1.000094
34000.0	262.7	-51.4	21.7	412.7	580.1	275.9	20.4	1.000092
34500.0	256.6	-52.7	20.6**	405.4	578.5	275.4	23.7	1.000090
35000.0	250.7	-53.5	14.2**	397.0	577.4	272.6	26.2	1.000089
35500.0	244.8	-53.9	7.9**	389.0	576.8	267.0	27.9	1.000087
36000.0	239.1	-54.3	21.3	380.5	576.3	262.6	30.8	1.000085
36500.0	233.5	-54.6	21.7	372.2	575.9	259.4	34.9	1.000083
37000.0	228.0	-55.4	20.6**	364.7	574.9	258.5	38.9	1.000081
37500.0	222.6	-56.2	21.3	357.4	573.8	258.5	43.0	1.000080
38000.0	217.4	-57.0	21.7	350.3	572.8	259.1	43.7	1.000078
38500.0	212.2	-57.2	20.6**	342.3	572.5	259.9	43.5	1.000076
39000.0	207.2	-56.6	14.2**	333.3	573.3	264.1	41.0	1.000074
39500.0	202.3	-56.7	7.9**	325.6	573.1	270.0	38.3	1.000073
40000.0	197.5	-57.1	21.3	318.5	572.0	275.6	35.2	1.000071
40500.0	192.8	-57.4	21.7	311.3	572.2	261.8	32.2	1.000069
41000.0	188.2	-57.7	20.6**	304.3	571.9	264.0	28.3	1.000068
41500.0	183.8	-57.9	21.3	297.5	571.5	264.0	23.7	1.000066
42000.0	179.4	-57.3	21.7	289.5	572.4	290.6	18.7	1.000064
42500.0	175.1	-57.5	20.6**	282.9	572.1	307.0	14.2	1.000063
43000.0	170.9	-58.2	14.2**	277.1	571.1	323.6	13.7	1.000062

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

UPPER AIR DATA
 0110020011
 WHITE SANDS
 TABLE 10 Cont'd

STATION ALTITUDE 3989.00 FFF FT MSL
 11 JAN. 63
 0800 HRS MST
 ASCENSION NO. 11

GEOMETRIC 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 DEG (TRUE)	WIND SPEED KNOTS	INDEX OF REFRACTION
43500.0	166.8	-59.0		271.4	570.1	333.2	15.6	1.000000
44000.0	162.4	-59.7		265.8	569.2	331.8	17.1	1.000059
44500.0	158.9	-60.4		260.3	568.2	321.3	18.4	1.000054
45000.0	155.1	-61.2		255.0	567.2	313.0	20.2	1.000057
45500.0	151.4	-61.9		249.7	566.2	308.5	21.3	1.000056
46000.0	147.7	-62.3		244.1	565.6	304.5	22.6	1.000054
46500.0	144.1	-62.7		238.6	565.1	304.3	23.8	1.000053
47000.0	140.6	-63.1		233.3	564.6	304.8	25.1	1.000052
47500.0	137.2	-63.5		228.0	564.0	305.8	27.0	1.000051
48000.0	133.9	-63.9		222.9	563.5	306.8	29.2	1.000050
48500.0	130.6	-64.3		217.9	563.0	310.0	30.1	1.000049
49000.0	127.4	-64.1		212.3	563.3	315.0	30.2	1.000047
49500.0	124.3	-63.7		206.7	563.4	317.9	29.7	1.000046
50000.0	121.3	-63.3		201.3	563.9	318.9	28.3	1.000045
50500.0	118.3	-62.9		196.0	564.9	319.5	26.0	1.000044
51000.0	115.4	-62.5		190.9	565.4	319.2	22.1	1.000043
51500.0	112.6	-62.2		186.0	565.9	319.1	18.3	1.000041
52000.0	109.9	-61.8		181.2	566.4	321.3	15.0	1.000040
52500.0	107.2	-62.3		177.2	565.7	324.2	11.8	1.000039
53000.0	104.7	-62.3		172.9	565.7	314.8	11.3	1.000039
53500.0	102.1	-62.6		168.9	565.3	304.9	11.1	1.000038
54000.0	99.6	-64.1		166.0	563.3	307.6	13.6	1.000037
54500.0	97.2	-64.5		162.3	562.7	311.4	16.7	1.000036
55000.0	94.8	-65.0		158.6	562.1	320.2	19.7	1.000035
55500.0	92.5	-65.4		155.0	561.6	331.6	23.4	1.000035
56000.0	90.2	-64.6		150.7	562.0	340.1	27.0	1.000034
56500.0	88.0	-63.8		146.5	563.6	349.2	27.6	1.000033
57000.0	85.9	-63.1		142.4	564.0	357.7	28.8	1.000032
57500.0	83.8	-63.0		138.9	564.7	359.3	27.6	1.000031
58000.0	81.7	-63.8		135.9	563.7	.2	25.9	1.000030
58500.0	79.7	-64.5		133.0	562.8	354.4	23.6	1.000030
59000.0	77.7	-65.2		130.2	561.8	343.8	21.5	1.000029
59500.0	75.8	-65.9		127.5	560.9	337.5	20.3	1.000028
60000.0	74.0	-66.6		124.8	559.9	337.3	19.3	1.000028
60500.0	72.2	-66.6		121.7	560.0	340.8	17.8	1.000027
61000.0	70.4	-64.3		117.4	563.0	350.9	15.3	1.000026
61500.0	68.7	-63.6		114.2	564.0	15.1	14.5	1.000025
62000.0	67.0	-63.3		111.2	564.4	16.3	14.5	1.000025
62500.0	65.4	-62.9		108.4	564.8	17.3	14.5	1.000024
63000.0	63.4	-62.6		105.6	565.2	9.6	14.0	1.000024

UPPER AIR DATA
 0110020011
 WHITE SANDS
 TABLE 10 Cont'd

STATION ALTITUDE 3989.00 FEET MSL
 11 JAN. 63
 ASCENSION NO. 11

GEODETIC COORDINATES
 32.40093 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 (TH)	WIND SPEED MPH	INDEX OF REFRACTION
63500.0	62.2	-62.3		102.9	565.7	.1	13.8	1.000023
64000.0	60.7	-62.0		100.2	566.1	357.9	10.4	1.000022
64500.0	59.3	-61.3		97.5	567.0	.0	5.6	1.000022
65000.0	57.8	-59.6		94.4	569.3	14.4	2.0	1.000021
65500.0	56.5	-58.7		91.7	570.5	119.2	1.2	1.000020
66000.0	55.1	-59.2		89.7	569.8	148.0	2.5	1.000020
66500.0	53.8	-59.7		87.6	569.1	147.3	1.3	1.000020
67000.0	52.5	-60.0		85.8	568.8	133.3	.1	1.000019
67500.0	51.3	-59.7		83.7	569.2	200.7	.4	1.000019
68000.0	50.0	-59.4		81.5	569.6	207.6	.7	1.000018
68500.0	48.8	-59.6		79.7	569.3	206.3	.9	1.000018
69000.0	47.7	-59.8		77.8	569.1	202.5	.9	1.000017
69500.0	46.5	-60.0		76.0	568.8	150.3	.7	1.000017
70000.0	45.4	-59.5		74.0	569.5	83.6	2.2	1.000016
70500.0	44.3	-58.0		71.8	571.4	75.5	4.1	1.000016
71000.0	43.3	-58.2		70.1	571.2	80.5	5.3	1.000016
71500.0	42.3	-58.3		68.5	571.1	83.7	6.6	1.000015
72000.0	41.3	-58.3		66.9	571.0	82.3	6.7	1.000015
72500.0	40.3	-57.8		65.2	571.6	78.9	6.4	1.000015
73000.0	39.3	-57.4		63.5	572.3	74.8	6.1	1.000014
73500.0	38.4	-56.9		61.9	572.9	68.7	6.4	1.000014
74000.0	37.5	-56.4		60.3	573.5	63.2	6.8	1.000013
74500.0	36.6	-55.9		58.8	574.2	59.2	7.3	1.000013
75000.0	35.8	-55.5		57.3	574.8	57.2	7.8	1.000013
75500.0	34.9	-55.0		55.8	575.4	55.5	8.4	1.000012
76000.0	34.1	-54.5		54.4	576.1	54.6	8.5	1.000012
76500.0	33.3	-54.0		53.0	576.7	54.0	8.5	1.000012
77000.0	32.6	-53.5		51.8	577.3	53.5	8.5	1.000011
77500.0	31.8	-53.1		50.3	577.9	53.1	8.2	1.000011
78000.0	31.0	-52.6		49.0	578.6	52.7	7.8	1.000011
78500.0	30.3	-52.1		47.8	579.2	51.5	7.7	1.000011
79000.0	29.6	-51.8		46.6	579.6	48.1	8.2	1.000010
79500.0	28.9	-51.7		45.5	579.7	45.2	8.8	1.000010
80000.0	28.3	-51.6		44.5	579.9	41.7	9.3	1.000010
80500.0	27.6	-51.5		43.4	580.0	37.8	9.6	1.000010
81000.0	27.0	-51.4		42.4	580.2	33.7	10.0	1.000009
81500.0	26.4	-51.3		41.4	580.3	34.1	10.1	1.000009
82000.0	25.8	-51.1		40.4	580.5	38.9	10.0	1.000009
82500.0	25.2	-51.0		39.5	580.6	43.8	10.0	1.000009
83000.0	24.6	-50.7		38.5	580.8	51.1	9.2	1.000009

STATION ALTITUDE 3989.00 FEET MS,
 11 JAN. 83 0800 HRS MST
 ASCENSION NO. 11

UPPER AIR DATA
 0110020011
 WHITE SANDS
 TABLE 10 Cont'd

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TII)	WIND DATA	SPEED KNOTS	INDEX OF REFRACTION
83500.0	24.0	-50.8		37.6	581.0	63.4		7.9	1.000008
84000.0	23.5	-50.5		36.7	581.3	79.5		7.1	1.000008
84500.0	22.9	-50.2		35.8	581.7	91.0		7.3	1.000008
85000.0	22.4	-49.9		35.0	582.0	94.2		8.2	1.000008
85500.0	21.9	-49.7		34.1	582.4	96.8		9.0	1.000008
86000.0	21.4	-49.4		33.3	582.7	96.1		10.0	1.000007
86500.0	20.9	-49.1		32.5	583.1	91.9		11.1	1.000007
87000.0	20.4	-48.8		31.7	583.5	88.5		12.3	1.000007
87500.0	20.0	-48.6		31.0	583.8	86.4		13.0	1.000007
88000.0	19.5	-48.8		30.3	583.5	85.3		13.1	1.000007
88500.0	19.1	-48.9		29.6	583.3	84.3		13.2	1.000007
89000.0	18.6	-49.1		29.0	583.1	82.8		13.5	1.000006
89500.0	18.2	-49.3		28.3	582.9	80.8		14.4	1.000006
90000.0	17.8	-49.5		27.7	582.7	79.0		15.3	1.000006
90500.0	17.4	-49.2		27.1	583.0	77.1		15.6	1.000006
91000.0	17.0	-48.8		26.4	583.5	74.8		14.9	1.000006
91500.0	16.6	-48.4		25.8	584.0	72.2		14.3	1.000006
92000.0	16.2	-48.0		25.1	584.5	69.1		13.4	1.000006
92500.0	15.9	-47.6		24.5	585.1	64.8		11.7	1.000005
93000.0	15.5	-47.2		23.9	585.6	59.2		10.2	1.000005
93500.0	15.2	-47.1		23.4	585.7	51.7		8.8	1.000005
94000.0	14.8	-47.1		22.8	585.7	41.5		7.6	1.000005
94500.0	14.5	-47.1		22.3	585.7				1.000005
95000.0	14.2	-47.2		21.8	585.7				1.000005
95500.0	13.8	-47.2		21.3	585.6				1.000005
96000.0	13.5	-47.2		20.9	585.6				1.000005
96500.0	13.2	-47.2		20.4	585.6				1.000005

STATION ALTITUDE 3989.00 FEET .SL
 11 JAN. 83
 ASCENSION NO. 11

MANDATORY LEVELS
 0110020011
 WHITE SANDS
 TABLE 11

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	AIR TEMPERATURE DEGREES CENTIGRADE	DEWPOINT TEMPERATURE CENTIGRADE	REL. HUM. PERCENT	WIND DATA DIRECTION (DEGREES/10N)	SPEED KNOTS
850.0	5103.	6.2	-10.1	30.	5.6	11.8
800.0	6734.	7.3	-12.8	22.	8.1	14.4
750.0	8492.	6.9	-14.4	18.	306.1	10.3
700.0	10345.	5.3	-17.1	18.	273.8	8.0
650.0	12320.	1.9	-20.6	17.	293.0	11.8
600.0	14421.	-2.3	-24.8	16.	311.9	14.4
550.0	16665.	-7.6	-29.3	15.	300.3	17.5
500.0	19072.	-13.3	-34.3	15.	294.3	18.4
450.0	21669.	-20.0	-37.7	19.	316.8	18.6
400.0	24476.	-27.4	-42.5	22.	315.0	18.2
350.0	27599.	-35.3	-49.7	21.	4.9	11.2
300.0	31055.	-44.7			320.5	10.6
250.0	34979.	-53.6			272.1	26.3
200.0	39642.	-57.0			272.0	37.1
175.0	42410.	-57.5			306.8	14.3
150.0	45569.	-62.1			307.1	21.7
125.0	49244.	-63.8			317.7	30.1
100.0	53758.	-64.0			306.6	13.0
80.0	58240.	-64.4			356.3	24.1
70.0	60903.	-63.8			360.0	15.1
60.0	64019.	-61.9			358.5	8.3
50.0	67758.	-59.4			207.7	.7
40.0	72352.	-57.7			78.2	6.3
30.0	78309.	-51.9			50.2	7.9
25.0	82273.	-51.0			44.8	10.0
20.0	87061.	-48.6			80.5	13.0
15.0	93271.	-47.1			48.1	8.3

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

GEODETIC COORDINATES
 32.40175 LAT LEG
 106.31232 LON DEG

SIGNIFICANT LEVEL DATA
 011018002
 LC-37

TABLE 12

STATION ALTITUDE 4051.37 FEET MSL
 11 JAN. 63
 ASCENSION NO. 2
 0930 HRS MST

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
885.2	4051.4	6.1	39.0
868.8	4554.1	5.8	33.0
855.3	4975.9	7.2	29.0
850.0	5144.2	8.5	26.0
824.7	5961.4	6.8	24.0
807.7	6525.1	9.0	20.0
787.1	7225.7	7.8	19.0
768.8	7863.0	8.5	18.0
741.4	8644.6	6.9	16.0
714.8	9430.1	6.9	15.0
700.0	10393.2	5.7	15.0
634.6	13003.5	.6	16.0
583.8	15186.8	-3.6	15.0
559.4	16289.9	-6.3	14.0
500.0	19136.8	-13.5	15.0
428.4	22933.6	-22.9	17.0
400.0	24574.8	-26.9	17.0

STATION ALTITUDE 4051.37 FEET MSL
 11 JAN. 63 0930 HRS MST
 ASCENSION NO. 2

UPPER AIR DATA
 0110180002
 LC-37

GEODEIC COORDINATES
 32.40175 LAT DEG
 106.31232 LONG DEG

TABLE 13

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION DEGREES(TN)	SPEED KNOTS	
4051.4	885.2	6.1	-6.8	39.0	1102.6	651.5	350.0	4.1	1.000263
4500.0	870.6	5.8	-8.9	33.6	1085.6	651.1	2.5	5.0	1.000257
5000.0	854.5	7.4	-9.6	28.6	1059.8	652.9	11.7	6.2	1.000250
5500.0	838.9	7.8	-10.9	25.1	1039.1	653.3	17.7	7.5	1.000244
6000.0	823.5	7.0	-12.3	23.7	1023.1	652.4	21.9	8.9	1.000239
6500.0	808.5	8.9	-12.7	20.2	997.5	654.6	34.8	5.7	1.000233
7000.0	793.7	8.2	-13.8	19.3	981.8	653.8	72.1	3.3	1.000229
7500.0	779.2	8.1	-14.4	18.6	964.2	653.7	77.5	2.0	1.000224
8000.0	764.9	8.3	-14.8	17.7	946.0	653.9	87.1	.6	1.000220
8500.0	750.9	7.5	-16.2	16.7	931.4	652.9	306.8	1.9	1.000216
9000.0	737.1	6.9	-17.3	15.8	916.2	652.2	303.0	4.5	1.000212
9500.0	723.6	6.9	-17.6	15.3	899.4	652.2	301.9	7.0	1.000208
10000.0	710.3	6.5	-18.2	15.0	884.0	651.8	301.6	9.3	1.000204
10500.0	697.2	5.5	-19.0	15.0	871.0	650.5	302.3	10.5	1.000201
11000.0	684.2	4.5	-19.7	15.2	857.8	649.4	303.0	11.6	1.000197
11500.0	671.5	3.5	-20.3	15.4	844.9	648.2	300.7	12.9	1.000194
12000.0	659.0	2.6	-21.0	15.6	832.1	647.1	298.8	14.1	1.000191
12500.0	646.7	1.6	-21.6	15.8	819.5	645.9	299.5	14.5	1.000188
13000.0	634.7	.6	-22.3	16.0	807.2	644.3	301.0	14.8	1.000185
13500.0	622.7	-.4	-23.2	15.8	794.7	643.6	303.4	14.9	1.000182
14000.0	610.9	-1.3	-24.2	15.5	782.5	642.5	306.7	14.9	1.000179
14500.0	599.3	-2.3	-25.1	15.3	770.4	641.3	308.5	14.8	1.000176
15000.0	588.0	-3.2	-26.1	15.1	758.5	640.2	309.3	14.6	1.000173
15500.0	576.8	-4.4	-27.2	14.7	747.2	638.8	307.5	14.1	1.000170
16000.0	565.7	-5.6	-28.6	14.3	736.3	637.4	303.3	13.6	1.000167
16500.0	554.8	-6.8	-29.7	14.1	725.4	635.9	296.9	13.7	1.000164
17000.0	544.0	-8.1	-30.6	14.2	714.7	634.4	289.7	14.5	1.000162
17500.0	533.3	-9.4	-31.5	14.4	704.1	632.8	286.0	15.4	1.000159
18000.0	522.9	-10.6	-32.4	14.6	693.7	631.3	284.3	16.4	1.000157
18500.0	512.7	-11.9	-33.3	14.8	683.5	629.8	286.7	16.9	1.000154
19000.0	502.7	-13.2	-34.3	15.0	673.4	628.2	291.3	17.3	1.000152
19500.0	492.7	-14.4	-35.1	15.2	663.1	626.7	296.9	17.2	1.000149
20000.0	482.7	-15.6	-36.0	15.5	652.9	625.2	301.1	17.1	1.000147
20500.0	473.0	-16.9	-36.8	15.7	642.9	623.7	305.4	16.0	1.000145
21000.0	463.5	-18.1	-37.7	16.0	633.0	622.2	309.0	14.2	1.000142
21500.0	454.1	-19.4	-38.6	16.2	623.2	620.7	311.6	13.1	1.000140
22000.0	445.0	-20.6	-39.4	16.5	613.7	619.2	310.6	12.4	1.000138
22500.0	436.0	-21.8	-40.3	16.8	604.3	617.7	309.0	12.0	1.000136
23000.0	427.2	-23.1	-41.2	17.0	595.0	616.1	309.2	12.1	1.000134
23500.0	418.4	-24.3	-42.2	17.0	585.6	614.0			1.000131

UPPER AIR DATA
 0110180002
 LC-37
 TABLE 13 Cont'd

STATION ALTITUDE 4051.37 FE. T MSL
 11 JAN. 83 0930 HRS MST
 ASCENSION NO. 2

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEW POINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION (DEGREES TN)	SPEED KNOTS	
24000.0	409.7	-25.5	-3.3	17.0	576.3	613.1			1.000129
24500.0	401.3	-26.7	-4.3	17.0	567.2	611.6			1.000127

STATION ALTITUDE 4051.37 FT T MSL
 11 JAN. 63 0930 HRS MST
 ASCENSION NO. 2

MANDATORY LEVELS
 011018000Z
 LC-37
 TABLE 14

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
				DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5140.	8.5	26.	13.6	6.6
800.0	6780.	0.6	20.	50.7	4.1
750.0	8526.	7.4	17.	306.3	2.1
700.0	10383.	5.7	15.	302.2	10.2
650.0	12356.	1.8	16.	299.1	14.5
600.0	14457.	-2.2	15.	308.5	14.8
550.0	16703.	-7.4	14.	293.7	14.0
500.0	19110.	-13.5	15.	292.4	17.4
450.0	21707.	-19.9	16.	311.2	12.7
400.0	24534.	-26.9	17.		

STATION ALTITUDE 4051.37 FEET MSL
 11 JAN. 63 0930 HRS MST
 ASCENSION NO. 2

MANDATORY LEVELS
 0110180002
 LC-37
 TABLE 14

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
				DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5140.	8.5	26.	13.6	6.6
800.0	6780.	8.6	20.	50.7	4.1
750.0	8526.	7.4	17.	306.3	2.1
700.0	10383.	5.7	15.	302.2	10.2
650.0	12356.	1.8	16.	299.1	14.5
600.0	14457.	-2.2	15.	308.5	14.0
550.0	16703.	-7.4	14.	293.7	17.4
500.0	19110.	-13.5	15.	292.4	12.7
450.0	21707.	-19.9	16.	311.2	
400.0	24534.	-26.9	17.		