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ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
193040 MRS, MISSILE NUMBER 003, ROUND NUMBER V-136/MD-3, 23 AP--ETC(U)
APR 81 D C KELLER
ERADCOM/ASL-DR-1174

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23 April 1981
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9 METEOROLOGICAL DATA REPORT
19340 MRS, Number
Missile No. 893
Round No. V-136/MO-3
23 April 1981
Number

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

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REPORT OF THE COMMISSION ON THE ORGANIZATION OF THE FEDERAL GOVERNMENT

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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 19304D MLRS, Missile No. 003, Round No. V-136/MD-3 presented in tabular form.		

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INTRODUCTION

19304D MLRS _____, Missile Number 003, Round Number V-136/MD-3,
was launched from LC-33, White Sands Missile Range (WSMR), New
Mexico, at 1744 on 23 April 1981. The scheduled launch time
was 1730 MST.

DISCUSSION

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

1. Observations

a. Surface

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

(2) Monitor of wind speed and direction from one anemometer was provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RAPTS T-9 pibal observation at:

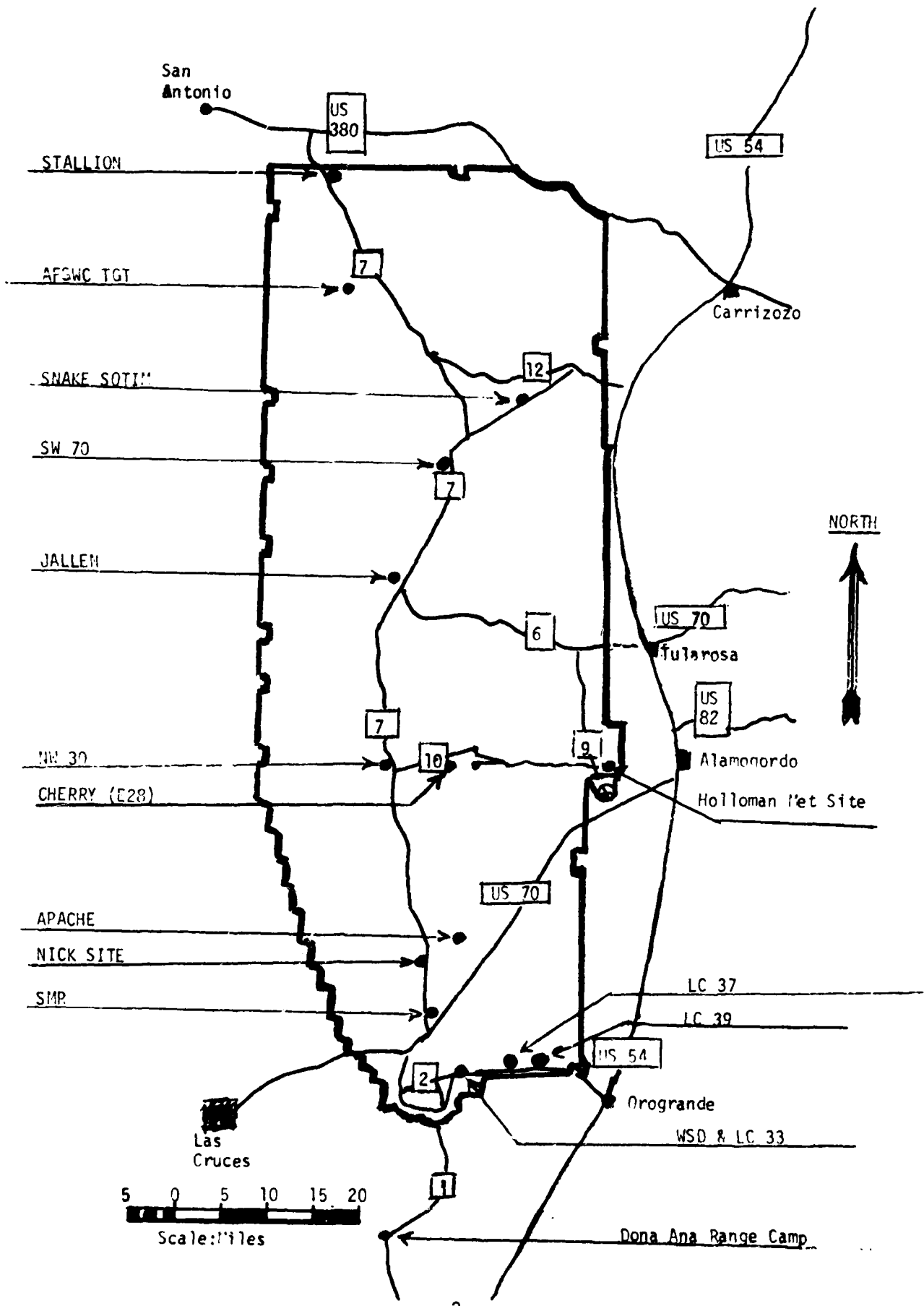
SITE AND ALTITUDE

LC-33	2KM
NICK	2KM

(b) Air structure data (rawinsonde) were collected at the following met sites.

SITE AND TIME

WSD	1330 MST
LC-37	1430 MST
WSD	1530 MST
LC-37	1630 MST
WSD	1730 MST



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	136	11	T-30	136	12	T-30	156	15
T-20	138	12	T-20	144	11	T-20	148	15
T-10	133	13	T-10	135	12	T-10	147	11
T 0.0	132	13	T 0.0	129	10	T 0.0	146	12
T+10	143	11	T+10	146	08	T+10	149	12

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, 52 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	150	14	T-30	149	18
T-20	149	14	T-20	141	17
T-10	144	10	T-10	144	17
T 0.0	121	10	T 0.0	146	16
T+10	129	13	T+10	147	18

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 KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	MISG	MISG	T-30	140	16
T-20	"	"	T-20	141	16
T-10	"	"	T-10	135	16
T 0.0	"	"	T 0.0	149	14
T+10	MISG	MISG	T+10	148	14

TABLE 4

T-TIME PILOT-BALLOON MEASURED WIND DATA
 DATE 23 April 1981

SITE: LC-33
 TIME: 1750 MST
 WSTM COORDINATES:
 X= 486,037.24
 Y= 182,350.16
 H= 3977.30

SITE: NICK
 TIME: 1744 MST
 WSTM COORDINATES:
 X= 470,734.56
 Y= 255,775.64
 H= 4126.57

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	120	12
150	130	09
210	142	12
270	140	15
330	143	15
390	153	17
450	155	18
510	157	18
570	151	21
630	141	20
690	140	18
750	129	13
810	108	07
870	076	04
930	010	16

Data obtained from A
 T-9 Radar Observation

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	182	14
150	189	23
210	189	24
270	188	24
330	187	24
390	185	24
450	181	25
510	176	24
570	167	17
630	119	05
690	017	08
750	008	16
810	005	20
870	008	21
930	023	22

Data obtained from A Single Theodolite
 Observation

TABLE 5

AIMING AND T-TIME COMPUTER MET MESSAGES
23 April 1981

WSD 1330 MST
METCM1325065

232050122881

00213016 29400881
01225021 29250871
02212018 28910846
03177014 28510806
04098013 28060759
05069016 27670714
06092018 27260671
07125021 26800630
08126024 26410591

LC-37 1430 MST
METCM1325064

232150124879

00311011 29510879
01184019 29330869
02195017 28940844
03180012 28530804
04158012 28050757
05096012 27610712
06074018 27230669
07112022 26820629
08133031 26570590

WSD 1530 MST
METCM1325065

232250122880

00258013 29550880
01252017 29310870
02214016 28960845
03162010 28580806
04166012 28090758
05100008 27600713
06063015 27190670
07074026 26840629
08134032 26620591

LC-37 1630 MST
METCM1325064

232350124879

00373010 29290879
01242017 29100868
02241021 28800843
03217014 28450804
04162009 28030757
05038009 27560712
06024019 27220669
07068024 26860628
08128031 26610589

WSD 1730 MST
METCM1325065

240050122881

00249013 29130881
*01237014 29060870
*02232012 28860845
03242015 28460806
04243015 27980758
05083010 27640713
06050020 27370670
07056025 26910630
08106029 26600591

* Wind direction and speed estimated due to GMD not tracking.

STATION ALTITUDE 3989.00 FEET MSL
 23 APR. 81 1330 HRS MST
 ASCENSION NO. 292

SIGNIFICANT LEVEL DATA
 1130020292
 WHITE SANDS
 TABLE 6

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT
880.9	3989.0	20.0	1.4	29.0
850.0	4990.4	15.2	-0.5	34.0
765.6	7860.0	7.4	-0.8	56.0
700.0	10259.1	1.4	-3.5	70.0
650.6	12182.1	-2.9	-8.5	65.0
623.2	13296.8	-6.1	-10.3	72.0
592.6	14585.1	-9.4	-16.7	55.0
578.4	15200.4	-10.4	-21.9	38.0
560.8	15982.4	-10.5	-29.6	19.0
518.2	17964.6	-14.9	-32.8	20.0
509.8	18370.9	-15.3	-33.1	20.0
500.0	18854.0	-14.3	-32.3	20.0
477.2	20014.8	-15.8	-30.8	26.0
453.2	21287.2	-18.8	-27.3	47.0
434.2	22332.3	-21.2	-30.7	42.0
400.0	24303.7	-26.5	-42.6	20.0
336.8	28316.5	-35.7	-48.9	24.0

UPPER AIR DATA
 1130020292
 WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL
 23 APR. 81
 ASCENSION NO. 292

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 7

GEOMETRIC ALTITUDE MSL FEET	PRESURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
3989.0	980.9	20.0	1.4	29.0	1043.8	668.0	120.0	15.9	1.000262
4000.0	880.6	19.9	1.4	29.1	1043.6	667.9	119.9	15.9	1.000262
4600.0	865.0	17.6	.5	31.6	1033.7	665.1	117.0	16.1	1.000259
5000.0	849.7	15.2	-.5	34.1	1024.0	662.4	114.1	16.3	1.000255
5500.0	834.4	13.8	-.3	37.9	1010.1	660.8	111.3	16.5	1.000253
6000.0	819.3	12.5	-.2	41.7	996.5	659.3	108.5	16.7	1.000250
6500.0	804.5	11.1	-.2	45.6	983.2	657.7	102.3	15.7	1.000247
7000.0	790.0	9.7	-.3	49.4	970.0	656.2	89.5	13.5	1.000244
7500.0	775.7	8.4	-.6	53.2	957.1	654.6	73.8	12.3	1.000241
8000.0	761.6	7.0	-.9	56.8	944.2	653.0	57.3	12.1	1.000238
8500.0	747.5	5.8	-1.4	59.7	930.9	651.6	45.3	13.0	1.000234
9000.0	733.7	4.5	-1.9	62.7	917.9	650.1	41.4	14.3	1.000231
9500.0	720.1	3.3	-2.5	65.6	905.0	648.6	38.2	15.7	1.000227
10000.0	706.8	2.0	-3.1	68.5	892.4	647.1	43.9	16.5	1.000223
10500.0	693.6	.9	-4.1	69.4	879.7	645.7	49.4	17.3	1.000219
11000.0	680.5	-.3	-5.4	68.1	866.8	644.3	53.6	18.2	1.000214
11500.0	667.7	-1.4	-6.7	66.8	854.1	642.9	50.1	18.8	1.000209
12000.0	655.1	-2.5	-8.1	65.5	841.6	641.5	58.5	19.4	1.000205
12500.0	642.7	-3.8	-9.0	67.0	829.7	639.9	60.8	19.9	1.000201
13000.0	630.4	-5.2	-9.8	70.1	818.3	638.2	63.3	20.5	1.000198
13500.0	618.3	-6.6	-11.3	69.3	806.8	636.5	65.5	21.1	1.000194
14000.0	606.3	-7.9	-13.7	62.7	795.2	634.9	68.7	22.5	1.000189
14500.0	594.6	-9.2	-16.3	56.1	783.8	633.3	71.7	24.1	1.000184
15000.0	583.0	-10.1	-20.1	43.5	771.4	632.1	73.4	26.7	1.000179
15500.0	571.6	-10.4	-24.4	30.7	757.5	631.6	73.4	31.0	1.000173
16000.0	560.4	-10.5	-29.6	19.0	743.1	631.4	73.4	35.3	1.000168
16500.0	549.3	-11.6	-30.4	19.3	731.6	630.1	73.1	38.3	1.000166
17000.0	538.5	-12.8	-31.2	19.5	720.2	628.7	72.8	41.2	1.000163
17500.0	527.9	-13.9	-32.0	19.8	709.0	627.4	71.8	42.2	1.000160
18000.0	517.5	-14.9	-32.8	20.0	697.9	626.1	70.8	43.2	1.000158
18500.0	507.2	-15.0	-32.9	20.0	684.3	626.0	68.9	43.3	1.000155
19000.0	497.1	-14.5	-32.0	20.8	669.3	626.7	66.9	42.9	1.000151
19500.0	487.1	-15.1	-31.4	23.3	657.6	625.9	64.6	40.4	1.000149
20000.0	477.5	-15.8	-30.8	25.9	646.1	625.1	62.0	37.9	1.000147
20500.0	467.9	-16.9	-29.0	34.0	635.9	623.7	63.8	36.4	1.000145
21000.0	458.5	-18.1	-27.8	42.3	626.0	622.3	65.9	35.0	1.000143
21500.0	449.3	-19.3	-27.9	46.0	616.2	620.9	68.0	34.6	1.000141
22000.0	440.2	-20.4	-29.6	43.6	606.5	619.4	69.8	35.8	1.000138
22500.0	431.2	-21.7	-31.5	40.1	597.0	617.9	71.6	35.0	1.000136
23000.0	422.3	-23.0	-34.3	34.5	587.9	616.3	70.9	38.8	1.000133

STATION ALTITUDE 3989.00 FEET MSL
 23 APR. 81
 ASCENSION NO. 292

UPPER AIR DATA
 1130020292
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 7 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
23500.0	413.6	-24.3	-37.2	29.0	579.0	614.6	67.9	41.6	1.000130
24000.0	405.1	-25.7	-40.5	23.4	570.2	612.9	65.2	44.4	1.000128
24500.0	396.6	-26.9	-42.9	20.2	561.2	611.3	62.7	46.7	1.000126
25000.0	388.2	-28.1	-43.7	20.7	551.9	609.9	59.9	47.5	1.000124
25500.0	380.0	-29.2	-44.4	21.2	542.7	608.5	57.2	48.5	1.000122
26000.0	372.0	-30.4	-45.2	21.7	533.7	607.0	54.6	49.5	1.000120
26500.0	364.1	-31.5	-46.0	22.2	524.9	605.6			1.000118
27000.0	356.3	-32.7	-46.8	22.7	516.2	604.1			1.000116
27500.0	348.8	-33.8	-47.6	23.2	507.7	602.7			1.000114
28000.0	341.4	-35.0	-48.4	23.7	499.3	601.3			1.000112

STATION ALTITUDE 3989.00 FEET MSL
 23 APR. 81
 ASCENSION NO. 292

MANDATORY LEVELS
 1130020292
 WHITE SANDS
 TABLE 8

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA		
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	4987.	15.2	-0.5	34.	114.2	16.3	
800.0	6658.	10.7	-0.2	47.	98.7	14.9	
750.0	8408.	6.0	-1.3	59.	46.0	12.8	
700.0	10249.	1.4	-3.5	70.	46.7	16.9	
650.0	12193.	-3.0	-8.6	65.	59.3	19.6	
600.0	14252.	-8.6	-15.1	59.	70.3	23.3	
550.0	16452.	-11.6	-30.4	19.	73.1	38.1	
500.0	18828.	-14.3	-32.3	20.	67.6	43.4	
450.0	21428.	-19.2	-27.8	46.	67.8	34.5	
400.0	24263.	-26.5	-42.6	20.	63.8	46.1	
350.0	27383.	-33.6	-47.5	23.			

STATION ALTITUDE 4051.37 FEET MSL
 23 APR. 51
 ASCENSION NO. 37

SIGNIFICANT LEVEL DATA
 1130180037
 LC-37
 TABLE 9

GEODETIC COORDINATES
 32.40175 LA1 DEG
 106.31232 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE		TEMPERATURE		REL. HUM. PERCENT
	MSL FEET	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	
878.8	4051.4		21.0	5.0	35.0
869.0	4368.7		19.0	2.8	34.0
850.0	4988.8		16.1	1.4	37.0
807.8	6399.6		11.9	.4	45.0
737.6	8867.7		4.5	-1.7	64.0
700.0	10261.5		1.3	-2.5	76.0
678.2	11096.5		-1.2	-4.3	76.0
669.0	11455.2		-1.2	-6.5	67.0
650.0	12208.7		-2.7	-10.9	53.0
618.2	13507.4		-6.5	-12.0	65.0
604.0	14103.5		-7.5	-20.3	35.0
591.3	14647.7		-7.3	-18.5	40.0
576.8	15283.4		-7.5	-26.0	21.0
516.6	18067.2		-14.5	-31.4	22.0
500.0	18879.4		-15.6	-32.4	22.0
467.2	20555.4		-18.0	-33.9	24.0
443.4	21831.2		-21.9	-33.5	34.0
428.0	22687.0		-22.0	-32.4	38.0
400.0	24311.9		-26.0	-37.1	34.0
354.8	27123.1		-33.9	-46.0	28.0
340.6	28063.1		-35.0	-47.0	28.0
320.2	29470.6		-38.6	-49.3	
300.0	30932.2		-42.5		
275.6	32782.8		-47.5		
245.1	35311.6		-54.5		

STATION ALTITUDE 4051.37 FEET MSL
 23 APR. 81 1430 HRS MST
 ASCENSION NO. 37

UPPER AIR DATA
 1130180037
 LC-37

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

TABLE 10

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE					SPEED KNOTS	REFRACTION	
4051.4	878.8	21.0	5.0	35.0	1036.9	669.4	175.0	11.1	1.000269	
4500.0	864.9	18.4	2.5	34.6	1030.2	666.2	163.4	10.1	1.000262	
5000.0	849.7	16.1	1.4	37.1	1020.3	663.5	148.6	9.7	1.000258	
5500.0	834.5	14.6	1.1	39.9	1007.3	661.8	133.4	9.9	1.000255	
6000.0	819.5	13.1	.7	42.7	994.4	660.1	119.6	10.7	1.000251	
6500.0	804.8	11.6	.3	45.8	981.7	658.4	108.5	12.1	1.000248	
7000.0	790.1	10.1	.1	49.6	968.9	656.6	100.0	13.7	1.000245	
7500.0	775.7	8.6	-.3	53.5	956.3	654.9	95.4	12.7	1.000242	
8000.0	761.6	7.1	-.7	57.3	943.9	653.1	89.9	11.7	1.000238	
8500.0	747.7	5.6	-1.3	61.2	931.7	651.4	83.7	10.9	1.000235	
9000.0	733.9	4.2	-1.8	65.1	919.3	649.7	71.8	10.7	1.000231	
9500.0	720.3	3.0	-2.0	69.4	906.0	648.3	58.4	11.4	1.000228	
10000.0	706.9	1.9	-2.3	73.7	892.9	647.0	48.1	12.6	1.000225	
10500.0	693.7	.8	-3.0	76.0	879.9	645.6	46.6	14.4	1.000221	
11000.0	680.7	-.4	-4.1	76.0	867.1	644.2	45.3	16.1	1.000216	
11500.0	667.9	-1.3	-6.8	66.2	854.0	643.0	45.7	17.7	1.000209	
12000.0	655.2	-2.3	-9.7	56.9	841.2	641.7	50.9	19.0	1.000203	
12500.0	642.7	-3.6	-11.1	55.7	829.2	640.2	55.3	20.5	1.000198	
13000.0	630.4	-5.0	-11.5	60.3	817.8	638.4	59.8	22.1	1.000196	
13500.0	618.4	-6.5	-12.0	64.9	806.6	636.7	65.3	24.1	1.000193	
14000.0	606.4	-7.3	-18.5	40.2	794.1	635.5	70.0	26.3	1.000184	
14500.0	594.7	-7.4	-19.0	38.6	778.8	635.4	72.8	29.0	1.000181	
15000.0	583.2	-7.4	-22.2	29.5	764.1	635.3	74.1	32.3	1.000176	
15500.0	571.9	-8.0	-26.4	21.1	751.1	634.5	75.2	35.5	1.000171	
16000.0	560.7	-9.3	-27.4	21.3	739.9	632.9	74.3	36.8	1.000168	
16500.0	549.7	-10.6	-28.4	21.4	728.9	631.4	73.2	38.0	1.000166	
17000.0	538.9	-11.8	-29.3	21.6	718.1	629.9	72.4	39.1	1.000163	
17500.0	528.3	-13.1	-30.3	21.8	707.4	628.4	72.4	39.2	1.000160	
18000.0	518.0	-14.3	-31.3	22.0	697.0	626.8	72.5	39.4	1.000158	
18500.0	507.7	-15.1	-31.9	22.0	685.1	625.9	71.8	40.9	1.000155	
19000.0	497.6	-15.8	-32.5	22.1	673.3	625.1	70.7	43.7	1.000152	
19500.0	487.6	-16.5	-32.8	22.7	661.6	624.2	69.5	46.1	1.000150	
20000.0	477.8	-17.2	-33.2	23.3	650.2	623.3	67.7	46.7	1.000147	
20500.0	468.2	-17.9	-33.5	23.9	638.9	622.5	66.0	47.4	1.000144	
21000.0	458.8	-19.4	-33.4	27.5	629.5	620.7	64.8	45.3	1.000142	
21500.0	449.5	-20.9	-33.4	31.4	620.5	618.9	63.6	42.0	1.000140	
22000.0	440.3	-21.9	-33.2	34.8	610.4	617.6	62.3	38.9	1.000138	
22500.0	431.3	-22.0	-32.6	37.1	598.0	617.5	61.3	38.3	1.000136	
23000.0	422.5	-22.8	-33.3	37.2	587.6	616.5	60.2	37.7	1.000133	
23500.0	413.8	-24.0	-34.8	36.0	578.4	615.0	59.4	38.1	1.000131	

STATION ALTITUDE 4051.37 FEET MSL
 23 APR. 61
 ASCENSION NO. 37
 UPPER AIR DATA
 1130180037
 LC-37
 GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

TABLE 10 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA		INDEX OF REFRACTION
								SPEED KNOTS	SPEED KNOTS	
24000.0	405.2	-25.2	-36.2	34.8	569.3	613.5	59.1	40.2	1.000128	
24500.0	396.8	-26.5	-37.7	33.6	560.4	611.9	58.9	42.3	1.000126	
25000.0	386.4	-27.9	-39.3	32.5	551.7	610.1	58.1	43.7	1.000124	
25500.0	380.2	-29.3	-40.9	31.5	543.2	608.4	56.5	44.2	1.000122	
26000.0	372.2	-30.7	-42.4	30.4	534.8	606.6	54.9	44.7	1.000120	
26500.0	364.4	-32.1	-44.0	29.3	526.6	604.8	53.1	44.9	1.000118	
27000.0	356.7	-33.6	-45.6	28.3	518.5	603.1	50.2	44.1	1.000116	
27500.0	349.0	-34.3	-46.4	28.0	509.1	602.1	47.2	43.5	1.000114	
28000.0	341.5	-34.9	-46.9	28.0	499.4	601.3	44.4	42.7	1.000112	
28500.0	334.1	-36.1	-47.7	28.9	491.0	599.8	42.6	41.0	1.000110	
29000.0	326.9	-37.4	-48.5	30.0	483.0	598.2	41.0	39.3	1.000108	
29500.0	319.8	-38.7	-49.5	30.4**	475.1	596.6	40.8	37.1	1.000106	
30000.0	312.7	-40.0	-54.3	19.8**	467.3	594.9	42.7	34.2	1.000104	
30500.0	305.8	-41.3	-61.4	9.2**	459.6	593.1	45.0	31.5	1.000102	
31000.0	299.1	-42.7			452.1	591.4	49.0	30.8	1.000101	
31500.0	292.4	-44.0			444.5	589.7	53.1	30.3	1.000099	
32000.0	285.8	-45.4			437.1	587.9	56.3	30.5	1.000097	
32500.0	279.4	-46.7			429.8	586.2	57.8	31.4	1.000096	
33000.0	273.0	-48.1			422.6	584.4	59.3	32.4	1.000094	
33500.0	266.7	-49.5			415.4	582.6			1.000093	
34000.0	260.6	-50.9			408.4	580.8			1.000091	
34500.0	254.6	-52.3			401.5	579.0			1.000089	
35000.0	248.7	-53.6			394.7	577.2			1.000088	

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

STATION ALTITUDE 4051.37 FEET MSL
 23 APR. 81 1430 HRS MST
 ASCENSION NO. 37

MANDATORY LEVELS
 1130180037
 LC-37

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

TABLE 11

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT DEGREE	PERCENT	DIRECTION DEGREE(SITN)	SPEED KNOTS
850.0	4945.	16.1	1.4	37.	149.0	9.7
800.0	6661.	11.1	.2	47.	105.4	12.6
750.0	8412.	5.9	-1.2	61.	84.8	11.0
700.0	10251.	1.3	-2.5	76.	47.3	13.5
650.0	12196.	-2.7	-10.9	53.	52.7	19.6
600.0	14257.	-7.4	-19.7	37.	72.1	27.5
550.0	16473.	-10.5	-28.3	21.	73.3	38.0
500.0	18853.	-15.6	-32.4	22.	71.0	43.0
450.0	21440.	-20.8	-33.4	31.	63.7	42.3
400.0	24272.	-26.0	-37.1	34.	59.0	41.5
350.0	27387.	-34.3	-46.3	28.	47.7	43.6
300.0	30871.	-42.5				
250.0	34817.	-53.3				

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

UPPER AIR DATA
 1130020293
 WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL
 23 APR. 81 1530 HRS MST
 ASCENSION NO. 293

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 13

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
3989.0	880.0	21.5	33.0	1036.6	669.9	145.0	13.0	1.000268
4000.0	879.7	21.4	33.2	1036.5	669.9	144.8	13.0	1.000268
4500.0	864.2	17.8	41.9	1031.0	665.7	137.5	12.1	1.000268
5000.0	848.9	15.9	45.2	1019.4	663.5	129.1	11.4	1.000264
5500.0	833.6	14.4	47.9	1006.1	661.9	119.9	11.1	1.000260
6000.0	818.5	13.0	50.6	993.0	660.2	110.3	11.0	1.000256
6500.0	803.8	11.5	53.3	980.2	658.5	101.3	11.1	1.000252
7000.0	789.2	10.1	56.0	967.5	656.7	97.3	10.3	1.000248
7500.0	775.0	8.6	58.7	955.0	655.0	92.6	9.6	1.000244
8000.0	761.0	7.2	61.4	942.8	653.3	86.9	9.9	1.000240
8500.0	747.1	5.7	65.3	930.5	651.5	81.7	10.5	1.000237
9000.0	733.2	4.2	71.3	918.3	649.8	73.5	9.4	1.000234
9500.0	719.6	2.7	77.2	906.2	648.0	63.1	8.7	1.000230
10000.0	706.3	1.1	83.2	894.4	646.1	52.1	9.3	1.000227
10500.0	693.1	-0.2	87.7	881.9	644.6	42.6	10.1	1.000223
11000.0	680.0	-1.3	91.0	869.9	643.2	37.7	13.1	1.000220
11500.0	667.2	-2.4	93.7	856.1	641.9	34.6	16.1	1.000216
12000.0	654.4	-3.4	91.0	843.0	640.7	36.5	19.1	1.000210
12500.0	642.0	-4.4	88.2	830.2	639.4	40.0	22.3	1.000205
13000.0	629.7	-5.4	85.4	817.5	638.2	44.3	25.0	1.000201
13500.0	617.6	-6.1	75.2	804.4	637.2	54.3	26.7	1.000195
14000.0	605.7	-6.6	56.8	790.7	636.4	62.9	29.1	1.000187
14500.0	594.1	-7.1	41.8	777.0	635.8	71.2	31.4	1.000181
15000.0	582.6	-7.3	37.2	762.9	635.4	78.3	34.3	1.000177
15500.0	571.3	-8.3	36.4	750.7	634.3	79.8	35.4	1.000174
16000.0	560.1	-9.4	36.9	739.4	632.9	81.1	36.3	1.000171
16500.0	549.2	-10.6	37.4	728.2	631.5	80.8	36.8	1.000168
17000.0	538.5	-11.8	37.9	717.2	630.1	79.4	36.9	1.000165
17500.0	527.9	-12.6	37.5	705.4	629.0	77.8	37.3	1.000162
18000.0	517.4	-13.4	37.0	693.6	628.0	74.9	39.8	1.000159
18500.0	507.2	-14.2	36.4	682.0	627.1	72.3	42.4	1.000156
19000.0	497.1	-15.1	36.0	670.8	625.9	70.3	44.7	1.000153
19500.0	487.1	-16.3	36.2	660.3	624.5	68.8	46.5	1.000151
20000.0	477.2	-17.4	36.3	649.9	623.1	67.4	48.4	1.000148
20500.0	467.6	-18.6	36.5	639.7	621.7	65.5	48.1	1.000145
21000.0	458.2	-19.8	36.6	629.6	620.3	62.9	45.7	1.000143
21500.0	448.9	-20.9	36.8	619.8	618.8	60.0	43.5	1.000141
22000.0	439.9	-22.1	36.9	610.1	617.4	57.9	41.5	1.000138
22500.0	430.9	-23.1	39.8	600.1	616.2	56.8	39.7	1.000136
23000.0	422.0	-23.9	45.9	589.8	615.1	55.6	37.9	1.000134

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

UPPER AIR DATA
 153002093
 WIND SPEEDS
 TABLE 13 CONT'D

STATION ALTITUDE 3989.00 FEET
 23 APR. 81 1530 HRS
 ASCENSION NO. 425

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
23500.0	413.3	-24.3	-33.4	42.2	578.4	614.7	56.2	37.8	1.000131
24000.0	404.8	-25.6	-35.3	39.5	569.4	613.1	58.4	39.2	1.000129
24500.0	396.3	-26.9	-36.9	37.8	560.6	611.4	60.5	40.6	1.000126
25000.0	388.0	-28.3	-38.3	37.5	551.9	609.7			1.000124
25500.0	379.8	-29.7	-39.6	37.1	543.4	607.9			1.000122
26000.0	371.6	-31.1	-41.0	36.7	535.0	606.1			1.000120
26500.0	363.9	-32.5	-42.4	36.3	526.7	604.4			1.000118

MANDATORY LEVELS
 1130020293
 WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL
 23 APR. 81 1530 HRS MST
 ASCENSION NO. 293

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 14

PRESSURE GEOPOTENTIAL		TEMPERATURE		ALL HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4961.	16.0	4.1	45.	129.8	11.5
800.0	6637.	11.2	2.2	54.	100.2	10.9
750.0	8390.	6.0	-2	64.	82.8	10.4
700.0	10228.	.4	-1.7	86.	47.5	9.6
650.0	12166.	-3.7	-5.1	90.	37.8	20.2
600.0	14229.	-6.9	-16.1	48.	67.0	30.1
550.0	16445.	-10.5	-22.2	37.	80.9	36.8
500.0	18831.	-14.8	-26.5	36.	70.8	44.1
450.0	21418.	-20.8	-31.7	37.	60.4	43.7
400.0	24244.	-26.3	-36.3	38.	59.6	39.9

STATION ALTITUDE 4051.37 FEET MSL
 23 APR. 81 1630 HRS MST
 ASCENSION NO. 38

SIGNIFICANT LEVEL DATA
 1130140036
 LC-37

GEODLTIC COORDINATES
 32.40175 LAT DEG
 106.51232 LON DEG

TABLE 15

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	
				TEMPERATURE DEWPOINT DEGREES CENTIGRADE
878.6	4051.4	19.1	4.1	57.0
870.8	4302.1	17.2	5.2	45.0
850.0	4976.7	14.5	3.9	49.0
800.2	6641.0	10.3	2.2	57.0
740.4	8745.9	4.9	-5	68.0
712.0	9789.9	1.9	-1.3	79.0
700.0	10239.6	.1	-2.1	85.0
674.0	11235.2	-1.4	-2.4	93.0
656.0	11944.1	-2.1	-5.9	75.0
637.8	12677.0	-4.2	-7.4	78.0
624.7	13213.9	-5.6	-9.3	75.0
610.8	13794.1	-6.0	-11.7	64.0
593.0	14553.9	-7.2	-21.0	52.0
584.4	14928.5	-6.8	-23.0	26.0
576.0	15299.5	-7.5	-23.6	26.0
567.4	15683.7	-8.7	-24.7	20.0
532.8	17274.3	-12.8	-28.2	26.0
500.0	18862.1	-14.8	-29.6	27.0
436.6	22195.4	-21.3	-32.9	34.0
400.0	24299.3	-26.4	-38.1	32.0
363.8	26529.6	-32.1	-43.5	31.0
317.0	29677.5	-40.0	-50.5	
300.0	30909.2	-42.8		
261.2	33934.7	-50.5		
250.0	34871.7	-52.5		

UPPER AIR DATA
 1130180036
 LC-37
 TABLE 16

STATION ALTITUDE 4051.37 FEET MSL
 23 APR. 81
 ASCENSION NO. 38

GEODETIC COORDINATES
 32.40175 LAT UEG
 106.31232 LON UEG

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(TM)	SPEED KNOTS	
4051.4	878.6	19.1	37.0	1043.6	667.2	210.0	9.9	1.000269
4500.0	864.2	16.4	46.2	1036.3	664.2	181.1	9.0	1.000270
5000.0	849.3	14.4	49.1	1025.1	661.9	151.5	10.8	1.000265
5500.0	834.0	13.2	51.5	1011.1	660.4	133.6	14.5	1.000261
6000.0	819.0	11.9	53.9	997.4	658.9	125.4	15.8	1.000257
6500.0	804.3	10.7	56.3	983.9	657.4	119.8	14.3	1.000253
7000.0	789.7	9.4	58.9	970.4	655.9	114.2	12.8	1.000249
7500.0	775.2	8.1	61.5	957.1	654.4	109.1	11.2	1.000245
8000.0	761.1	6.8	64.1	944.0	652.9	102.4	9.6	1.000241
8500.0	747.1	5.5	66.7	931.1	651.3	81.4	6.8	1.000237
9000.0	733.4	4.2	70.7	918.5	649.7	43.1	5.8	1.000233
9500.0	719.8	2.7	75.9	906.2	648.0	13.7	7.6	1.000230
10000.0	706.4	1.1	81.8	894.8	646.0	359.4	10.5	1.000227
10500.0	693.1	-0.3	87.1	882.4	644.4	1.2	13.3	1.000223
11000.0	680.1	-1.0	91.1	869.1	643.6	8.5	16.1	1.000220
11500.0	667.2	-1.7	86.3	853.9	642.8	16.4	18.6	1.000214
12000.0	654.6	-2.3	75.2	839.9	641.9	25.4	20.9	1.000207
12500.0	642.1	-3.7	77.3	828.4	640.2	32.7	23.3	1.000203
13000.0	629.9	-5.0	76.2	816.9	638.5	40.4	23.6	1.000199
13500.0	617.8	-5.8	69.6	803.7	637.5	47.9	24.3	1.000194
14000.0	605.9	-6.3	55.3	790.1	636.8	58.4	26.0	1.000187
14500.0	594.2	-7.1	34.3	777.5	635.7	68.5	28.8	1.000180
15000.0	582.8	-6.9	26.0	762.1	635.8	72.1	31.2	1.000175
15500.0	571.5	-8.1	26.0	750.8	634.4	74.0	33.4	1.000172
16000.0	560.3	-9.5	26.0	740.1	632.7	71.0	34.9	1.000169
16500.0	549.4	-10.8	26.0	729.2	631.2	67.1	36.5	1.000166
17000.0	538.6	-12.1	26.0	718.4	629.6	65.2	37.9	1.000164
17500.0	526.0	-13.1	26.1	707.0	628.4	63.7	39.3	1.000161
18000.0	517.5	-13.7	26.5	694.7	627.6	63.4	40.6	1.000158
18500.0	507.3	-14.3	26.8	682.6	626.9	63.5	41.8	1.000155
19000.0	497.2	-15.1	27.3	670.9	626.0	63.2	43.0	1.000152
19500.0	487.2	-16.0	28.3	659.9	624.8	62.8	40.6	1.000150
20000.0	477.4	-17.0	29.4	649.1	623.6	62.2	47.6	1.000147
20500.0	467.8	-18.0	30.4	638.4	622.4	61.3	45.9	1.000145
21000.0	458.4	-19.0	31.5	628.0	621.2	60.3	44.1	1.000142
21500.0	449.1	-19.9	32.5	617.7	620.0	59.2	41.3	1.000140
22000.0	440.1	-20.9	33.6	607.6	618.8	57.9	38.6	1.000138
22500.0	431.1	-22.0	33.7	597.9	617.4	57.4	37.6	1.000135
23000.0	422.2	-23.3	33.2	588.4	615.9	57.6	38.0	1.000133
23500.0	413.5	-24.5	32.8	579.1	614.4	57.8	38.3	1.000131

STATION ALTITUDE 4051.37 FEET ASL
 23 APR. 61
 ASCENSION NO. 38

UPPER AIR DATA
 130100038
 1541Z

GEODETIC COORDINATES
 32.40175 LAT DEG
 100.31232 LONG DEG

TABLE 16 CONT

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 DEGREES(TN)	SPEED KNOTS	
24000.0	405.0	-25.7	32.3	570.0	612.4	58.2	40.0	1.000128
24500.0	396.6	-26.4	31.9	561.0	611.4	58.7	42.0	1.000126
25000.0	388.3	-28.2	31.7	552.0	609.8	53.9	44.0	1.000124
25500.0	380.1	-29.5	31.5	543.3	608.2	57.6	46.0	1.000122
26000.0	372.1	-30.7	31.2	534.7	606.6	56.4	48.1	1.000120
26500.0	364.3	-32.0	31.0	526.2	605.0	55.5	49.9	1.000118
27000.0	356.4	-33.3	31.0	517.5	603.4	54.9	51.4	1.000116
27500.0	348.7	-34.5	31.0	509.0	601.8	54.4	52.8	1.000114
28000.0	341.1	-35.8	31.0	500.6	600.2	53.4	51.9	1.000112
28500.0	333.8	-37.0	31.0	492.4	598.6	52.4	51.0	1.000110
29000.0	326.5	-38.3	31.0	484.3	597.0	51.3	49.9	1.000108
29500.0	319.5	-39.6	31.0	476.4	595.4	49.7	46.6	1.000107
30000.0	312.5	-40.7	22.9**	468.3	593.9	47.9	43.3	1.000105
30500.0	305.5	-41.9	10.3**	460.2	592.5	46.3	40.1	1.000103
31000.0	298.8	-43.0		452.3	591.0	47.5	37.1	1.000101
31500.0	292.0	-44.3		444.5	589.3	49.0	34.2	1.000099
32000.0	285.4	-45.6		436.9	587.7	50.7	32.9	1.000097
32500.0	278.9	-46.8		429.4	586.1	52.5	32.3	1.000096
33000.0	272.6	-48.1		422.0	584.4			1.000094
33500.0	266.4	-49.4		414.8	582.8			1.000092
34000.0	260.4	-50.6		407.7	581.1			1.000091
34500.0	254.4	-51.7		400.2	579.7			1.000089

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

STATION ALTITUDE 4051.37 FEET MSL
 23 APR. 81
 ASCENSION NO. 38

MANDATORY LEVELS
 1130180038
 LC-37

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

TABLE 17

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4973.	14.5	3.9	49.	152.8	10.6
800.0	6642.	10.3	2.2	57.	118.0	13.9
750.0	8392.	5.8	-0	66.	87.2	7.3
700.0	10230.	.1	-2.1	85.	355.9	11.9
650.0	12171.	-2.8	-6.4	76.	28.2	21.8
600.0	14236.	-6.7	-16.7	45.	63.6	27.3
550.0	16453.	-10.7	-26.4	26.	67.4	36.4
500.0	18836.	-14.8	-29.6	27.	63.4	43.1
450.0	21427.	-19.9	-32.1	32.	59.3	41.6
400.0	24259.	-26.4	-38.1	32.	58.5	41.1
350.0	27375.	-34.3	-45.4	31.	54.5	52.6
300.0	30848.	-42.8			47.3	
250.0	34796.	-52.5				

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

STATION ALTITUDE 5989.00 FEET AMSL
 23 APR. 61 1730 HRS
 ASCENSION NO. 238

NEIGEBOUNT LEVEL DATA

115028294
 PLYM. SARDS

GEODETIC COORDINATES
 32.40003 LAT DEG
 105.37033 LON DEG

TABLE 18

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
340.5	3989.0	17.7	5.6	45.0
350.0	4074.4	15.0	3.8	47.0
377.4	7776.4	6.6	.7	66.0
710.8	9492.0	2.5	-0.9	78.0
790.0	10236.0	1.8	-2.0	76.0
868.2	10916.7	1.2	-4.4	66.0
927.6	13394.5	-5.4	-8.8	77.0
900.6	14232.6	-7.3	-11.3	75.0
592.2	14593.6	-6.9	-10.5	46.0
532.6	17287.5	-12.4	-25.0	34.0
500.0	18067.3	-14.8	-27.1	34.0
400.0	24306.3	-25.7	-30.9	34.0
345.0	27768.7	-35.0	-45.2	34.0

STATION ALTITUDE 3989.00 FEET MSL
 23 APR. 81
 ASCENSION NO. 294

UPPER AIR DATA
 1130020294
 WHITE SANDS
 TABLE 19

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION DEGREES(TN)	SPEED KNOTS	
3989.0	880.5	17.7	5.6	45.0	1050.5	665.7	140.0	13.0	1.000275
4000.0	880.2	17.7	5.6	45.0	1050.2	665.7	140.0	13.0	1.000275
4500.0	864.5	16.3	4.7	46.0	1036.6	664.0	138.1	13.4	1.000270
5000.0	849.2	14.9	3.8	47.2	1023.3	662.4	136.3	13.8	1.000265
5500.0	833.9	13.4	3.4	50.6	1010.1	660.7	134.6	14.2	1.000261
6000.0	818.8	11.9	2.9	54.0	997.1	658.9	133.0	14.6	1.000257
6500.0	804.0	10.4	2.4	57.3	984.3	657.2	131.5	15.1	1.000253
7000.0	789.4	8.9	1.8	60.7	971.7	655.4	130.3	15.4	1.000250
7500.0	775.2	7.4	1.1	64.1	959.4	653.6	131.0	14.6	1.000246
8000.0	761.0	6.1	.5	67.6	946.5	652.0	131.7	13.9	1.000242
8500.0	747.0	4.9	.1	71.1	933.0	650.6	125.3	11.3	1.000238
9000.0	733.2	3.7	-.4	74.6	919.8	649.2	115.0	8.8	1.000234
9500.0	719.6	2.5	-.9	78.0	906.7	647.8	85.0	7.8	1.000230
10000.0	706.2	2.0	-1.6	76.6	891.4	647.2	52.3	10.6	1.000226
10500.0	693.0	1.6	-2.9	72.1	876.4	646.6	36.7	14.6	1.000220
11000.0	680.0	1.0	-4.6	66.4	862.1	645.8	28.8	17.7	1.000214
11500.0	667.1	-.4	-5.5	68.7	850.2	644.1	23.9	20.6	1.000210
12000.0	654.5	-1.8	-6.4	71.0	838.5	642.4	23.4	22.0	1.000206
12500.0	642.1	-3.2	-7.3	73.3	826.9	640.8	25.1	23.3	1.000203
13000.0	630.0	-4.6	-8.2	75.6	815.5	639.1	32.9	24.6	1.000199
13500.0	617.9	-5.8	-9.3	76.1	803.8	637.6	41.0	25.8	1.000195
14000.0	606.1	-6.8	-10.7	74.0	791.4	636.3	49.9	27.0	1.000191
14500.0	594.4	-7.0	-14.9	53.0	777.0	635.9	58.0	28.8	1.000183
15000.0	582.8	-7.7	-17.8	44.2	764.2	635.0	64.4	30.9	1.000178
15500.0	571.4	-8.8	-19.3	42.0	752.3	633.7	69.9	33.2	1.000175
16000.0	560.3	-9.8	-20.9	39.7	740.5	632.5	73.4	35.7	1.000171
16500.0	549.4	-10.8	-22.4	37.5	729.0	631.2	71.6	37.7	1.000168
17000.0	538.7	-11.8	-24.0	35.3	717.6	630.0	70.0	39.8	1.000165
17500.0	528.1	-12.7	-25.3	34.0	706.0	628.9	68.1	41.4	1.000162
18000.0	517.6	-13.5	-25.9	34.0	694.1	627.9	65.8	42.4	1.000159
18500.0	507.4	-14.2	-26.6	34.0	682.4	627.0	63.6	43.5	1.000156
19000.0	497.3	-15.1	-27.3	34.0	670.9	626.0	62.7	44.3	1.000153
19500.0	487.2	-16.1	-28.2	34.0	659.9	624.8	63.6	44.6	1.000150
20000.0	477.3	-17.1	-29.1	34.0	649.0	623.6	64.5	45.0	1.000148
20500.0	467.6	-18.1	-30.0	34.0	638.4	622.3	64.1	45.1	1.000145
21000.0	458.1	-19.1	-30.9	34.0	627.9	621.1	62.4	44.7	1.000143
21500.0	448.8	-20.1	-31.8	34.0	617.6	619.9	60.6	44.4	1.000140
22000.0	439.7	-21.1	-32.7	34.0	607.5	618.6	58.8	44.3	1.000138
22500.0	430.8	-22.1	-33.6	34.0	597.5	617.4	57.2	44.4	1.000135
23000.0	422.0	-23.1	-34.5	34.0	587.7	616.1	55.5	44.6	1.000133

STATION ALTITUDE 5989.00 FEET MSL
 23 APR. 61
 ASCENSION NO. 294

UPPER AIR DATA
 1200Z0294
 WHITE BANDS

GEODESIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 19 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES (TN)	SPEED KNOTS	
23500.0	413.5	-24.1	-35.4	34.0	578.1	614.9	55.3	45.4	1.000131
24000.0	405.1	-25.1	-36.3	34.0	568.7	613.7	56.2	46.8	1.000128
24500.0	396.7	-26.2	-37.3	34.0	559.5	612.3	57.1	48.2	1.000126
25000.0	388.3	-27.6	-38.5	34.0	550.7	610.6			1.000124
25500.0	380.1	-28.9	-39.7	34.0	542.1	608.9			1.000122
26000.0	372.1	-30.2	-41.0	34.0	533.5	607.2			1.000120
26500.0	364.2	-31.6	-42.2	34.0	525.2	605.5			1.000118
27000.0	356.5	-32.9	-43.4	34.0	517.0	603.8			1.000116
27500.0	349.0	-34.3	-44.6	34.0	508.9	602.1			1.000114

STATION ALTITUDE 3989.00 FEET MSL
 23 APR. 81 1730 HRS MST
 ASCENSION NO. 294

MANDATORY LEVELS
 1130020294
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 20

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4971.	15.0	3.8	47.	136.4	13.8
800.0	6641.	10.0	2.2	58.	131.1	15.2
750.0	8387.	5.1	.2	70.	127.0	11.8
700.0	10224.	1.8	-2.0	76.	43.4	12.6
650.0	12175.	-2.3	-6.7	72.	23.3	22.5
600.0	14241.	-7.3	-11.6	71.	54.1	27.8
550.0	16456.	-10.7	-22.3	38.	71.7	37.6
500.0	18841.	-14.8	-27.1	34.	62.4	44.2
450.0	21432.	-19.9	-31.7	34.	60.8	44.4
400.0	24266.	-25.7	-36.9	34.	56.8	47.7
350.0	27388.	-34.1	-44.4	34.		