

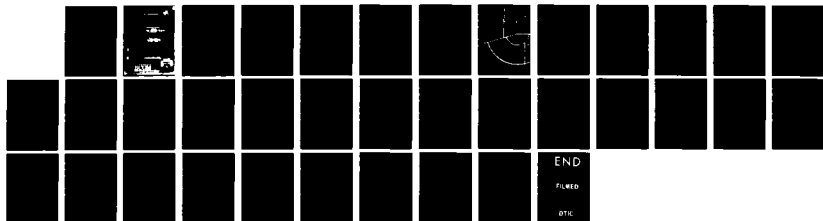
AD-A149 555

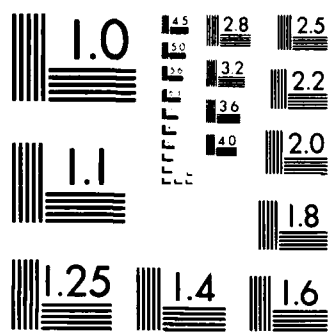
19319A MLRS MISSILE NUMBER 419 490 462 482 410 362
ROUND NUMBER V659/FE-3. (U) ARMY ELECTRONICS RESEARCH
AND DEVELOPMENT COMMAND WSMR NH ATM. D C KELLER
SEP 84 ERADCON/ASL/DR-1358 F/G 4/2

1/1

UNCLASSIFIED

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963 A

AD-A 149 555

AD-A 149 555

DISPOSITION INSTRUCTIONS

Destroy this report when it is no longer needed. Do not return to the originator.

DISCLAIMER

The findings in this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

The citation of trade names and names of manufacturers in this report is not to be construed as official Government indorsement or approval of commercial products or services referenced herein.

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR-1358	2. GOVT ACCESSION NO. A149556	3. REPORT'S CATALOG NUMBER
4. TITLE (and Subtitle) 19319A MLRS Missile Number 419, 490, 462, 482, 410, 362 Round Number V659/FE-31 Thru V664/FE-36	5. TYPE OF REPORT & PERIOD COVERED	
	6. PERFORMING ORG. REPORT NUMBER	
7. AUTHOR(s) White Sands Meteorological Team	8. CONTRACT OR GRANT NUMBER(s) DA Task 1F665702D127-02	
9. PERFORMING ORGANIZATION NAME AND ADDRESS	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cmd Atmopheric Sciences Laboratory White Sands Missile Range, New Mexico 88002	12. REPORT DATE 27 Aug 84	
	13. NUMBER OF PAGES	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research and Development Cmd Adelphi, MD 20783	15. SECURITY CLASS. (of this report) UNCLASSIFIED	
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report)		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) Approved for public release; distribution unlimited.		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for launching of the 19319A MLRS, Missile Number 419, 490, 462, 482, 410, 362, Round Number V659/FE-31 Thru V664/FE-36 are presented in tabular form.		

CONTENTS

	PAGE
INTRODUCTION -----	1
DISCUSSION -----	1
GENERAL AREA MAP -----	2
LAUNCH AREA DIAGRAM -----	3
TABLES:	
1. Surface Observations taken at 1039 MDT at LC-33 -----	4
2. Anemometer-Measured Wind Speed and Directions, Tower Levels 1, 2, 3, and 4, taken at 1038 MDT -----	5
3. Launch Area Pilot-Balloon Measured Wind Data -----	6
4. Aiming and T-Time Computer Met Messages -----	7
5. WSD Significant Level Data at 0845 MDT -----	8
6. WSD Upper Air Data at 0845 MDT -----	9
7. WSD Mandatory Levels at 0845 MDT -----	11
8. SMR Significant Level Data at 0845 MDT -----	12
9. SMR Upper Air Data at 0845 MDT -----	13
10. SMR Mandatory Levels at 0845 MDT -----	15
11. DON Significant Levels Data at 0845 MDT -----	16
12. DON Upper Air Data at 0845 MDT -----	17
13. DON Mandatory Levels at 0845 MDT -----	19
14. WSD Significant Level Data at 1038 MDT -----	20
15. WSD Upper Air Data at 1038 MDT -----	21
16. WSD Mandatory Levels at 1038 MDT -----	23
17. SMR Significant Level Data at 1037 MDT -----	24
18. SMR Upper Air Data at 1037 MDT -----	25
19. SMR Mandatory Levels at 1037 MDT -----	27
20. DON Significant Level Data at 1115 MDT -----	28
21. DON Upper Air Data at 1115 MDT -----	29
22. DON Mandatory Levels at 1115 MDT -----	31

INTRODUCTION

19319A MLRS, Missile Number 419, 490, 462, 482, 410 and 362, Round Numbers V659/FE-31 Thru V664/FE-36, were launched from LC-33, White Sands Missile Range (WSMR). New Mexico, at 1038:14, 1038:19, 1038:23, 1038:28, 1038:32 and 1038:37 MDT, 27 Aug 84. The scheduled launch times were 1030 MDT 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

LC-33 2 km

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

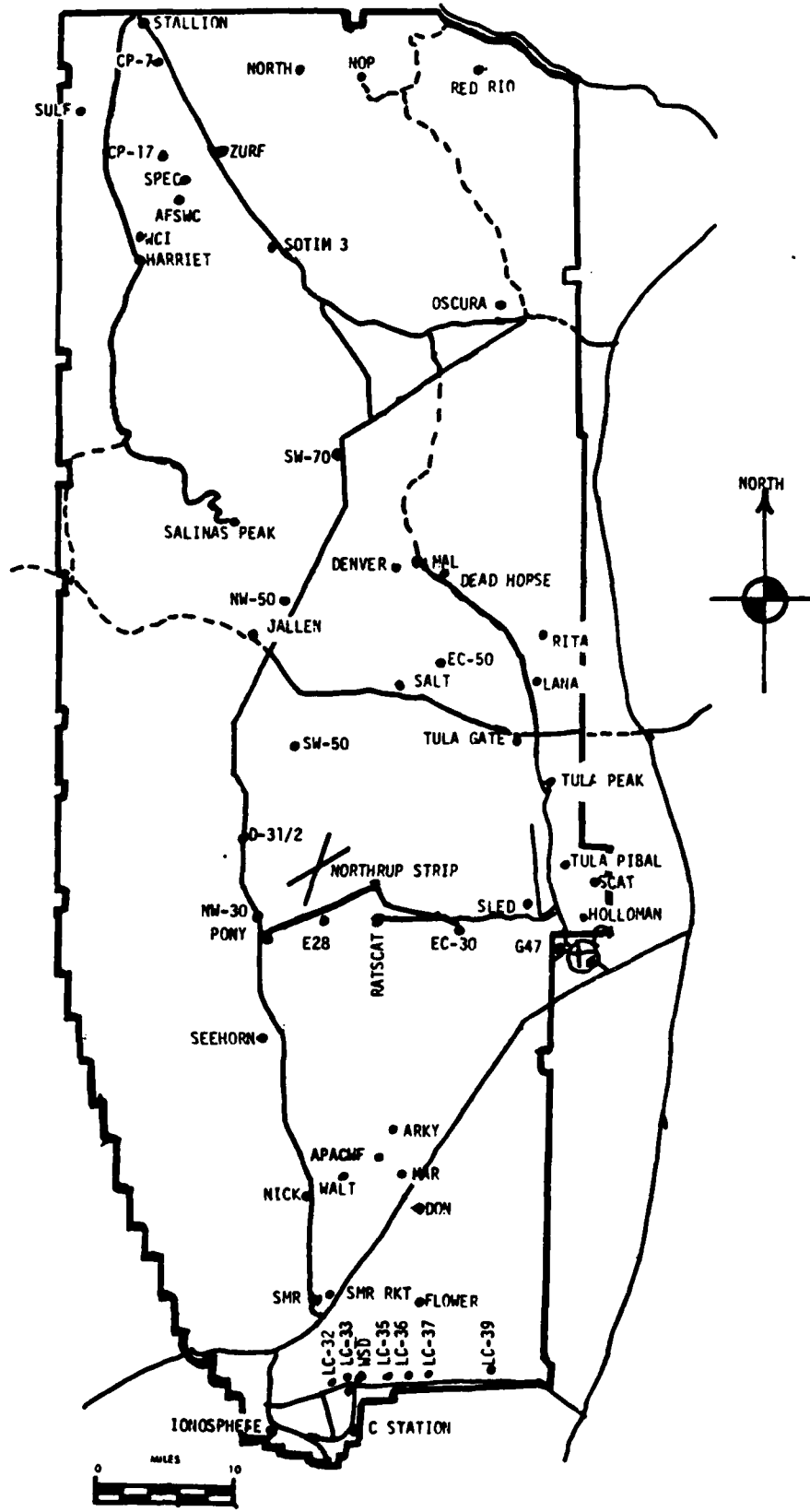
SITE AND TIME

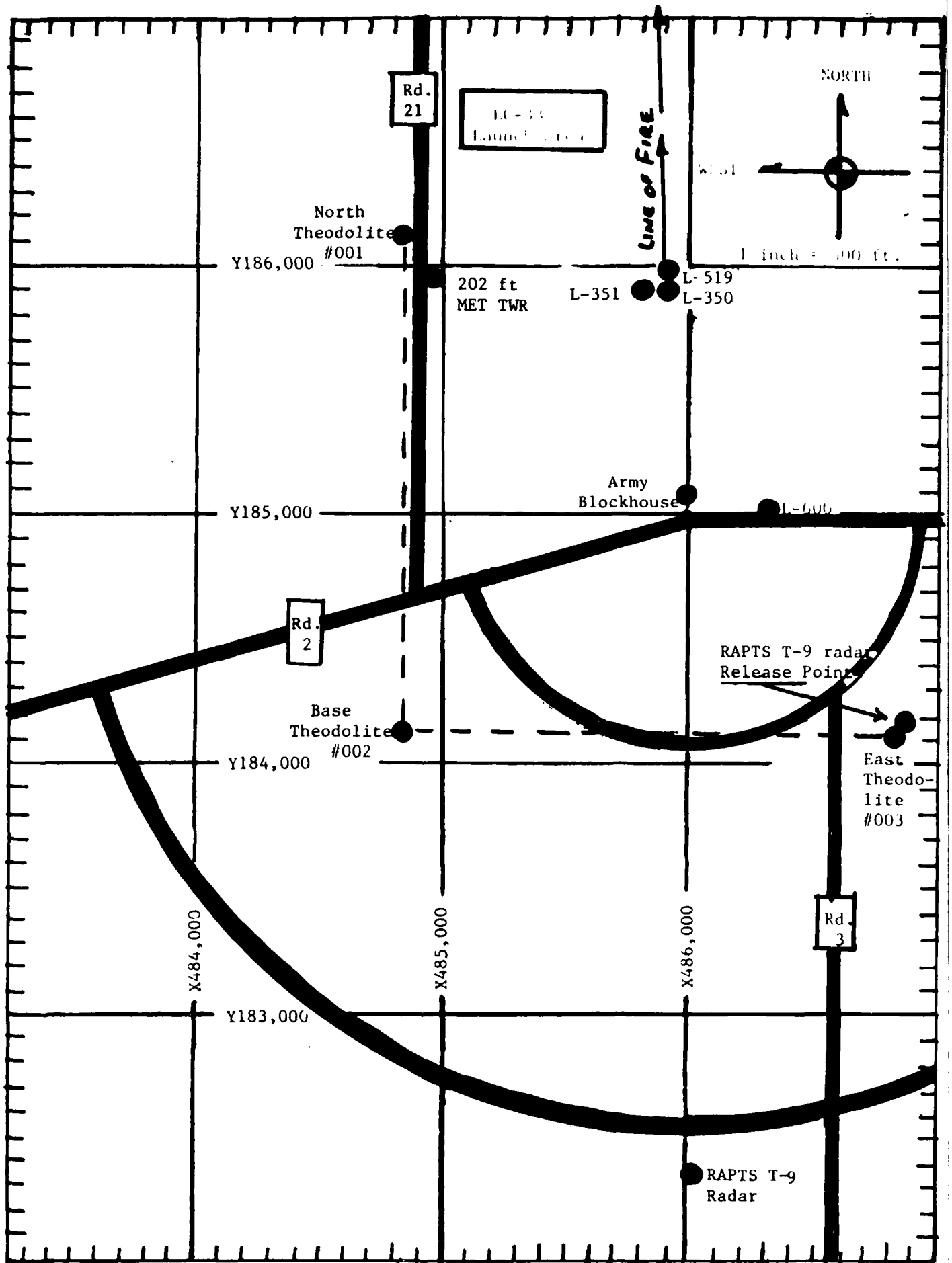
WSD 0845 MDT
SMR 0845 MDT
DON 0845 MDT
WSD 1038 MDT
SMR 1037 MDT
DON 1115 MDT

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	



WSMR METEOROLOGICAL SITES





PERFECT SURFACE OBSERVATION

TABLE 1									
STATION LC-33									
DATE 27 Aug 1984									
X= 484,982.64 Y= 185,957.73 H= 3995.00									
TIME M D I	PRESSURE hpa	TEMPERATURE OF	DEW POINT OF	RELATIVE HUMIDITY %	DENSITY gm/m ³	WIND		VISIBIL- ITY	
						DIRECTION degs	SPEED kts		
1039	883.9	26.8	18.6	61		030	06	40	

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	HGT	AMT	HGT	AMT	HGT	
	0	CU 6500	9	CI 25000			

PSYCHROMETRIC COMPUTATION

TIME:	MDT	1039
DRY BULB TEMP.		26.8
WET BULB TEMP.		20.9
WET BULB DEPR.		5.9
DEW POINT		18.6
RELATIVE HUMID.		61

LC-33 METEOROLOGICAL TOWER
ANEMOMETER MEASURED WIND DATA

WSTM COORDINATES X=484,982.64 Y=185,957.73 H=3983.00 (BASE)

TABLE NO. 2

DATE 27 Aug 1984 1038 M D T
DAY MONTH YEAR TIME

LEVEL #1 12 FT AGL			LEVEL #2 62 FT AGL		
T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)
T-30	352	05	T-30	M	07
T-20	341	05	T-20	M	07
T-10	341	05	T-10	M	07
T- 0 (1st T)	354	03	T- 0 (1st T)	M	09
T+10	017	05	T+10	M	09
T+20	018	05	T+20	M	08
T+30	333	04	T+30	M	07
T+40			T+40		
T+50			T+50		
T+60			T+60		
LEVEL #3 102 FT AGL			LEVEL #4 202 FT AGL		
T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)
T-30	360	07	T-30	349	08
T-20	360	07	T-20	339	09
T-10	360	09	T-10	346	09
T- 0 (1st T)	007	10	T- 0 (1st T)	339	08
T+10	360	10	T+10	341	08
T+20	360	09	T+20	348	09
T+30	006	10	T+30	346	08
T+40			T+40		
T+50			T+50		
T+60			T+60		

TABLE 3

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 27 August 1984

SITE: LC-33
TIME: 1039 MDT
WSTM COORDINATES:
X= 486,037.24
Y= 182,350.16
H= 3,977.30

SITE:
TIME
WSTM COORDINATES:
X=
Y=
H=

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	030	06
150	014	04
210	056	08
270	059	08
330	061	07
390	072	04
500	060	03
650	019	03
800	035	03
950	358	03
1150	009	01
1350	222	04
1550	222	04
1750	235	05
2000	219	04

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE		
150		
210		
270		
330		
390		
500		
650		
800		
950		
1150		
1350		
1550		
1750		
2000		

Data obtained from a RAPTS T-9
radar tracked pilot-balloon observation.

TABLE 4

AIMING AND T-TIME COMPUTER MET MESSAGE DATA

27 August 1984

WSD 0845 MDT

METCM1324064

271480122883

00089006	29710883
01025010	29620873
02599005	29760849
03526006	29490810
04419005	29100765
05419005	28720721
06461002	28390679
07285001	28070639
08209005	27710601
09346003	27350565
10325004	27040531
11356007	26750498
12388011	26330453

SMR 0845 MDT

METCM1325064

271480122883

00036009	29840883
01036009	09770873
02580003	09760848
03487006	09590810
04399004	09170765
05442005	08800721
06453003	08450679
07453002	08090640
08228003	07730602
09318004	07380566
10320003	07050531
11374006	06780499
12390010	26330453

DON 0845 MDT

METCM1326063

271480123882

00533004	29640882
01010006	29660872
02582006	29670847
03466004	29540809
04446005	29210763
05451007	28840720
06489004	28470678
07514002	28100638
08159002	27770601
09267005	27460565
10331006	27150531
11352004	26830498
12395010	26390452

WSD 1038 MDT

METCM1324064

271660122884

00053006	30250884
01038006	29990874
02016004	29740849
03575003	29520811
04392006	29220765
05395006	28840721
06377003	28470680
07365003	28090640
08301004	27660602
09458002	27330566
10265002	27000532
11355005	26780499
12365008	26320453

SMR 1037 MDT

METCM1325064

271660122883

00053006	30200883
01075007	30040873
02048004	29840849
03522003	09580811
04423004	09250765
05404007	08860721
06372004	08500680
07347001	08160640
08245004	07740602
09472001	07330566
10271002	06960532
11385004	06790499
12377009	26300453

DON 1115 MDT

METCM1326063

271730123882

00053002	30490882
01053005	30200872
02007006	29850848
03539004	29580810
04412006	29260764
05403007	28870720
06416005	28540679
07366003	38170639
08216003	27760602
09398001	27360566
10365001	27040531
11357004	26850499
12369008	26380453

STATION ALTITUDE 3989.00 FEET MSL
 27 AUG. 84
 ASCENSION NO. 438

SIGNIFICANT LEVEL DATA
 2400020438
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DLG
 106.37033 LON DEG

TABLE 5

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
883.4	3989.0	21.2	87.0
877.3	4186.2	19.1	88.0
863.8	4628.2	22.3	70.0
850.0	5089.8	22.5	64.0
798.9	6854.8	18.8	64.0
778.9	7569.7	17.4	59.0
700.0	10537.6	11.0	59.0
664.5	11960.6	8.6	57.0
655.1	12348.0	8.1	56.0
609.5	14293.2	3.9	59.0
591.7	15083.7	2.2	62.0
580.2	15404.4	1.2	45.0
565.7	16272.6	-4	67.0
523.2	18315.6	-3.7	36.0
514.1	18770.5	-5.0	53.0
500.0	19488.8	-5.8	47.0
482.6	20399.3	-7.5	42.0
474.4	20838.1	-7.7	26.0
459.2	21609.2	-9.1	21.0
428.2	23435.8	-12.8	16.0
419.2	23967.6	-14.1	15.0
405.9	24770.5	-15.6	33.0
400.0	25133.4	-16.7	24.0

UPPER AIR DATA
 2400020438
 WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL
 27 AUG. 84
 ASCENSION NO. 438

0845 MDT

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 6

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
3989.0	883.4	21.2	87.0	1035.7	671.5	50.0	6.0	1.000327
4000.0	883.1	21.1	87.1	1035.8	671.4	49.7	6.0	1.000326
4500.0	867.7	21.4	75.2	1017.8	671.4	28.2	4.2	1.000311
5000.0	852.7	22.5	65.2	996.9	672.5	351.2	3.6	1.000299
5500.0	837.8	21.6	64.0	982.7	671.4	318.0	4.7	1.000291
6000.0	823.3	20.6	64.0	969.4	670.1	301.3	5.6	1.000284
6500.0	808.9	19.5	64.0	956.2	668.8	288.0	4.9	1.000278
7000.0	794.8	18.5	63.0	943.2	667.5	271.9	4.4	1.000270
7500.0	780.8	17.5	59.5	930.4	666.1	254.0	4.2	1.000261
8000.0	766.9	16.5	59.0	917.5	664.8	242.4	4.6	1.000254
8500.0	753.3	15.4	59.0	904.7	663.5	238.0	5.2	1.000249
9000.0	739.8	14.3	59.0	892.1	662.2	238.2	5.3	1.000243
9500.0	726.6	13.2	59.0	879.8	660.8	239.6	5.2	1.000238
10000.0	713.7	12.2	59.0	867.5	659.5	238.6	4.3	1.000232
10500.0	700.9	11.1	59.0	855.5	658.2	241.1	3.2	1.000227
11000.0	688.3	10.2	58.4	842.7	657.1	269.7	1.7	1.000222
11500.0	675.8	9.4	57.6	830.1	656.1	304.9	1.4	1.000217
12000.0	663.5	8.5	56.9	817.6	655.0	308.2	1.4	1.000212
12500.0	651.4	7.8	56.2	805.0	654.1	240.9	.6	1.000206
13000.0	639.4	6.7	57.0	793.4	652.8	169.5	2.0	1.000204
13500.0	627.7	5.6	57.8	781.9	651.5	147.1	2.9	1.000200
14000.0	616.2	4.5	58.5	770.7	650.2	134.8	3.9	1.000196
14500.0	604.8	3.5	59.8	759.5	648.9	130.4	3.9	1.000192
15000.0	593.6	2.4	61.7	748.3	647.6	131.2	3.8	1.000189
15500.0	582.5	1.4	61.7	737.5	646.2	142.5	3.5	1.000181
16000.0	571.6	.3	58.0	726.5	644.9	166.2	3.3	1.000180
16500.0	560.8	-8	63.5	715.5	643.8	194.3	3.8	1.000176
17000.0	550.2	-1.6	56.0	704.3	642.7	197.5	4.0	1.000173
17500.0	539.8	-2.4	48.4	693.3	641.6	197.3	4.1	1.000167
18000.0	529.6	-3.2	40.8	682.4	640.5	187.3	4.1	1.000166
18500.0	519.5	-4.2	42.9	672.0	639.3	184.5	4.3	1.000166
19000.0	509.6	-5.3	51.1	661.6	638.1	192.7	5.0	1.000155
19500.0	499.8	-5.8	46.9	650.4	637.4	199.4	6.3	1.000155
20000.0	490.2	-6.8	44.2	640.2	636.3	203.9	8.7	1.000151
20500.0	480.7	-7.5	38.3	629.8	635.2	204.5	17.6	1.000147
21000.0	471.4	-8.0	25.0	618.9	634.6	204.3	12.3	1.000142
21500.0	462.3	-8.8	22.0	608.9	633.6	211.0	11.7	1.000139
22000.0	453.2	-9.6	20.1	599.2	632.4	218.5	11.0	1.000137
22500.0	444.4	-10.8	18.6	589.9	631.1	223.0	9.9	1.000134
23000.0	435.6	-11.9	17.2	580.7	629.8	232.4	9.7	1.000132

STATION ALTITUDE 3989.00 FEET MSL
 27 AUG. 84
 ASCENSION NO. 438 0845 MDT

UPPER AIR DATA
 2400020438
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 6 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	427.1	-13.0	-33.5	15.9	571.7	628.5	231.8	10.0	1.000129
24000.0	418.7	-14.2	-34.6	15.7	563.0	627.0			1.000127
24500.0	410.3	-15.1	-29.8	26.9	553.7	626.0			1.000126
25000.0	402.2	-16.3	-30.8	27.3	545.2	624.5			1.000124

STATION ALTITUDE 3989.00 FEET MSL
 27 AUG. 84
 ASCENSION NO. 438 11845 MDT

MANDATORY LEVELS
 2400020438
 WHITE SANDS

GEODETTIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

TABLE 7

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5086.	22.5	15.4	64.	344.3	3.7
800.0	6810.	18.9	11.9	64.	278.0	4.5
750.0	8620.	15.1	7.2	59.	237.1	5.4
700.0	10527.	11.0	3.3	59.	242.1	3.1
650.0	12546.	7.6	-5	56.	221.4	.6
600.0	14695.	3.0	-3.9	61.	128.6	4.0
550.0	16990.	-1.6	-9.2	56.	197.5	4.0
500.0	19461.	-5.8	-15.3	47.	199.1	6.2
450.0	22149.	-10.2	-29.0	20.	221.6	10.5
400.0	25091.	-16.7	-32.4	24.		

STATION ALTITUDE 1097.0 FEET MSL
 27 AUG. 34 0845 MDT
 ACCESSION NO. 149

SIGNIFICANT LEVEL DATA
 7610/0100
 1000

GEOSTATIC COORDINATES
 20°45'24" LAT. N
 166°51'27" LONG. W

TABLE 8

PRESSURE MILLIBARS	GEOSTATIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. P PERCENT
883.2	7907.3	22.5	75.0
821.1	4045.5	21.9	75.0
850.0	5094.5	22.3	75.0
822.7	4028.7	22.0	75.0
771.7	7843.1	17.4	57.0
700.0	10556.9	11.2	55.0
661.1	12122.7	8.3	52.0
629.1	13509.6	5.9	50.0
598.0	14875.4	2.9	50.0
591.7	15117.6	2.6	50.0
580.2	15628.9	1.4	51.0
556.9	16710.5	-0.2	50.0
530.2	17995.6	-2.4	50.0
516.1	18796.7	-4.4	45.0
500.0	19515.7	-5.9	51.0
487.8	20151.7	-6.0	50.0
473.5	20914.8	-7.9	40.0
464.1	21426.9	-8.8	50.0
462.5	21514.9	-8.8	50.0
457.9	21769.4	-9.4	51.0
448.6	22200.0	-10.7	50.0
434.5	23056.0	-12.3	50.0
430.5	23328.5	-13.1	50.0
426.5	23562.6	-13.4	50.0
419.3	23988.5	-14.2	50.0

STATION ALTITUDE 5097.5, FEET MSL
 27 AUG. 54
 ASCENSION NO. 149 0845 MDT

U PER LAT (ETA)
 4610040140
 S P 2

GEOMETRIC COORDINATES
 31.43056 LAT
 104.42370 LONG

TABLE 9

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	SPEED OF WIND KNOTS	DIRECTION, DEGREES (TM)	SPECI REFRACT	INDEX OF REFRACTION
5997.5	863.2	22.5	78.0	1071.0	472.0	0.0	1.000322
4500.0	865.1	22.5	78.0	1711.0	472.0	20.0	1.000322
4500.0	867.8	22.1	72.1	1715.0	472.2	8.0	1.000330
5000.0	852.0	22.3	65.3	907.0	472.2	744.0	1.000329
5500.0	858.0	22.2	41.0	951.7	472.0	103.0	1.000300
5900.0	823.5	22.0	57.2	965.0	471.0	221.0	1.000291
6500.0	809.1	20.8	57.0	952.0	470.1	273.0	1.000274
7000.0	795.0	19.5	57.0	940.4	468.0	243.0	1.000247
7500.0	781.1	18.3	57.0	929.3	467.0	243.0	1.000260
8000.0	767.4	17.1	57.1	916.0	465.5	230.0	1.000254
8500.0	753.7	16.0	57.2	907.1	464.2	220.0	1.000249
9000.0	740.3	15.0	57.4	890.2	463.0	243.0	1.000240
9500.0	727.1	14.0	57.6	877.0	461.7	248.0	1.000233
10000.0	714.1	12.9	57.8	865.4	460.5	249.4	1.000233
10500.0	701.4	11.9	58.0	857.4	459.2	244.4	1.000225
11000.0	688.8	11.0	56.7	841.1	458.0	277.4	1.000222
11500.0	676.3	10.0	54.4	829.0	456.8	258.0	1.000217
12000.0	664.1	9.0	52.5	817.0	455.6	272.0	1.000211
12500.0	652.0	8.0	51.2	805.0	454.0	278.0	1.000206
13000.0	640.0	7.0	50.1	797.4	453.0	261.0	1.000201
13500.0	628.5	5.9	49.0	787.2	451.7	222.0	1.000199
14000.0	616.7	4.8	51.6	770.0	450.4	149.0	1.000194
14500.0	605.3	3.6	54.3	759.8	449.0	120.0	1.000191
15000.0	594.1	2.7	60.7	748.1	448.0	149.0	1.000188
15500.0	583.0	1.7	54.0	737.0	446.6	170.0	1.000187
16000.0	572.1	.6	51.7	726.3	445.3	178.0	1.000179
16500.0	561.4	-.4	52.6	715.4	444.1	180.0	1.000177
17000.0	550.8	-1.4	54.1	704.6	442.9	183.0	1.000170
17500.0	540.3	-2.4	56.1	697.0	441.7	182.0	1.000168
18000.0	530.1	-3.4	57.9	697.7	441.5	182.0	1.000167
18500.0	520.0	-4.6	49.8	677.0	439.6	182.0	1.000161
19000.0	510.1	-4.6	47.3	661.0	438.4	182.0	1.000157
19500.0	500.3	-5.9	52.8	651.0	437.4	203.0	1.000152
20000.0	490.7	-6.4	50.7	640.0	436.7	200.0	1.000153
20500.0	481.2	-7.2	45.4	629.0	435.7	213.0	1.000149
21000.0	471.9	-8.0	38.0	619.0	434.4	213.0	1.000145
21500.0	462.8	-8.8	36.5	609.0	433.0	213.0	1.000142
22000.0	453.8	-10.0	33.2	600.0	432.0	221.0	1.000136
22500.0	444.9	-11.1	44.9	590.0	431.0	221.0	1.000138
23000.0	436.2	-12.1	46.0	581.0	430.0	221.0	1.000135

STATION ALTITUDE 3447.70 FEET MSL
 27 AUG. 54
 ASCENSION NO. 145 0845 MDT

OFFER AND DATA
 2400000160
 5 11 9

COORDINATE COORDINATES
 13.45227 LAT N
 105.62300 LONG W

TABLE 9 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TR)	VELOCITY (KNOTS)	INDEX OF REFRACTION
23500.0	477.6	-13.3	73.5	572.6	678.4			1.000177

STATION ALTITUDE 3997.50 FEET MSL
 27 AUG. 84
 ASCENSION NO. 149

LABORATORY LEVELS
 240040140
 C. O. P.

GEOGRAPHIC COORDINATES
 72.69734 LAT N
 156.42797 LONG W

TABLE 10

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	ATP DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DEGREE(S)	DIRECTION DEGREE(S)	SPEED KNOTS
450.0	5091.	22.3	15.2	64.	739.3		4.1
500.0	6820.	20.0	11.2	57.	266.7		4.7
750.0	8635.	15.2	7.7	57.	234.2		4.0
700.0	10546.	11.3	7.8	53.	243.2		4.0
650.0	12569.	7.3	-1.6	51.	273.3		2.5
600.0	14719.	3.1	-6.9	56.	125.5		3.3
550.0	17016.	-1.5	-9.5	54.	181.5		3.5
500.0	19489.	-5.9	-13.9	53.	211.9		5.7
450.0	22177.	-10.5	-22.0	55.	221.7		0.5

STATION ALTITUDE 4003.69 FEET MSL
 27 AUG. 84
 ASCENSION NO. 18 0845 MDT

SIGNIFICANT LEVEL DATA
 240020001P
 DON

GEODETTIC COORDINATES
 32.57209 LAT DEG
 106.29439 LON DEG

TABLE 11

PRESSURE GEOMETRIC ALTITUDE		TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	
MILLIBARS MSL FEET	ALTITUDE			
881.6	4003.7	20.7	18.1	85.0
874.1	4247.4	20.9	17.5	81.0
850.0	5045.4	21.5	14.6	65.0
808.1	6485.9	20.4	12.9	62.0
700.0	10508.6	12.2	4.2	58.0
/622.4	13709.9	5.5	-3.1	54.0
500.0	19487.5	-5.0	-16.2	41.0
487.5	20140.9	-6.3	-13.8	55.0
472.3	20954.1	-7.7	-20.1	36.0
468.3	21171.8	-7.6	-25.1	23.0
450.1	22183.3	-9.3	-26.5	23.0
433.5	23134.9	-11.8	-21.8	43.0
427.6	23480.1	-12.2	-17.4	65.0
426.2	23562.6	-12.5	-19.2	57.0
411.9	24415.8	-15.6	-17.6	83.0
400.0	25143.3	-16.4	-20.9	68.0
387.2	25946.2	-18.0	-29.7	35.0
379.7	26426.3	-19.4	-23.8	68.0
368.3	27170.2	-20.9	-31.7	37.0
361.4	27629.7	-21.5	-29.3	49.0
353.1	28192.1	-23.0	-26.6	72.0
348.8	28487.5	-23.4	-26.9	73.0

UPPER AIR DATA
 2400200018
 DON

STATION ALTITUDE 4003.69 FEET MSL
 27 AUG. R4
 ASCENSION NO. 18

GEODETIC COORDINATES
 32.57209 LAT DEG
 106.29439 LON DEG

TABLE 12

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TM)	WIND SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT DEGREES						
4003.7	881.6	20.7	18.1	85.0	1035.8	670.8	300.0	4.1	1.000322
4500.0	866.4	21.1	16.7	75.9	1017.3	671.1	298.4	4.2	1.000310
5000.0	851.4	21.5	14.8	65.9	999.1	671.2	296.9	4.2	1.000296
5500.0	836.5	21.2	14.1	64.1	983.0	670.8	295.5	4.3	1.000290
6000.0	822.0	20.8	13.5	63.0	967.3	670.3	288.8	4.2	1.000283
6500.0	807.7	20.4	12.8	62.0	951.9	669.8	286.3	3.7	1.000278
7000.0	793.4	19.4	11.8	61.5	938.7	668.5	255.0	3.9	1.000270
7500.0	779.4	18.3	10.7	61.0	925.6	667.2	252.3	4.3	1.000264
8000.0	765.6	17.3	9.6	60.5	912.8	665.9	251.5	4.8	1.000257
8500.0	752.0	16.3	8.5	60.0	900.1	664.7	251.6	5.4	1.000251
9000.0	738.7	15.3	7.4	59.5	887.5	663.4	252.5	5.8	1.000245
9500.0	725.7	14.3	6.4	59.0	875.2	662.1	253.7	6.3	1.000239
10000.0	712.8	13.2	5.3	58.5	863.0	660.8	256.1	6.2	1.000233
10500.0	700.2	12.2	4.2	58.0	851.0	659.6	259.8	5.8	1.000226
11000.0	687.5	11.2	3.1	57.4	838.8	658.3	266.2	5.0	1.000223
11500.0	675.0	10.1	1.9	56.8	826.8	657.0	277.4	4.0	1.000217
12000.0	662.7	9.1	.8	56.1	815.0	655.7	286.4	3.2	1.000212
12500.0	650.7	8.0	-.3	55.5	803.3	654.4	297.0	2.4	1.000208
13000.0	638.8	7.0	-1.4	54.9	791.8	653.1	288.8	1.7	1.000203
13500.0	627.2	5.9	-2.6	54.3	780.5	651.8	262.4	1.1	1.000198
14000.0	615.6	5.0	-3.7	53.3	768.9	650.6	213.5	.1	1.000194
14500.0	604.0	4.1	-4.8	52.2	757.0	649.5	91.8	1.0	1.000190
15000.0	592.7	3.2	-6.0	51.1	745.4	648.4	112.0	1.7	1.000186
15500.0	581.6	2.2	-7.1	50.0	733.9	647.3	123.0	2.5	1.000181
16000.0	570.7	1.3	-8.2	48.8	722.7	646.1	143.8	3.6	1.000176
16500.0	559.9	.4	-9.4	47.7	711.6	645.0	155.3	4.9	1.000174
17000.0	549.4	-.5	-10.5	46.6	700.6	643.9	168.0	5.6	1.000170
17500.0	539.1	-1.4	-11.6	45.5	689.9	642.8	177.2	6.3	1.000167
18000.0	529.0	-2.3	-12.8	44.3	679.3	641.7	184.3	6.6	1.000163
18500.0	519.1	-3.2	-13.9	43.2	668.8	640.6	189.5	6.5	1.000160
19000.0	509.3	-4.1	-15.1	42.1	658.6	639.4	192.5	5.7	1.000157
19500.0	499.8	-5.0	-16.1	41.3	648.5	638.3	200.4	5.4	1.000154
20000.0	490.2	-6.0	-17.3	40.2	638.2	637.2	212.6	6.0	1.000153
20500.0	480.7	-6.9	-18.4	46.6	628.2	636.1	218.1	6.9	1.000149
21000.0	471.5	-7.7	-21.0	33.3	618.1	635.0	219.5	7.8	1.000144
21500.0	462.3	-8.2	-25.6	23.0	607.4	634.4	220.7	8.4	1.000139
22000.0	453.3	-9.0	-26.3	29.7	597.5	633.4	221.9	8.8	1.000137
22500.0	444.5	-10.1	-24.5	23.0	588.3	632.0	222.2	9.2	1.000136
23000.0	435.8	-11.4	-22.3	40.2	579.6	630.5	222.0	9.8	1.000135
23500.0	427.3	-12.3	-17.8	63.1	569.8	629.7	220.2	10.0	1.000135

UPPER AIR DATA
 2400200018
 00N

STATION ALTITUDE 4003.69 FEET MSL
 27 AUG. 84
 ASCENSION NO. 18 0845 MDT

GEODETIC COORDINATES
 32.57209 LAT DLG
 106.29439 LON DEG

TABLE 12 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	WIND DATA			INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT			SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	SPEED KNOTS	
24000.0	418.8	-14.1	-18.3	70.3	562.4	627.4	218.3	10.1	1.000133
24500.0	410.5	-15.7	-18.2	81.3	554.7	625.5	217.2	10.4	1.000132
25000.0	402.3	-16.2	-20.3	71.0	544.9	624.8	216.6	10.7	1.000126
25500.0	394.3	-17.1	-24.3	53.3	536.0	623.6	217.0	11.1	1.000124
26000.0	386.4	-18.2	-28.7	38.7	527.5	622.3	216.8	11.6	1.000121
26500.0	378.6	-19.5	-24.4	64.9	519.6	620.7	215.3	12.7	1.000121
27000.0	370.9	-20.6	-29.6	44.1	511.2	619.3			1.000117
27500.0	363.3	-21.3	-29.9	45.6	502.4	618.4			1.000115
28000.0	355.9	-22.5	-27.4	64.3	494.3	617.0			1.000114

STATION ALTITUDE 4003.69 FEET MSL
 27 AUG. 84
 ASCENSION NO. 18 0845 MDT

MANDATORY LEVELS
 2400200018
 DON

GEODETTIC COORDINATES
 32.57209 LAT DEG
 106.29439 LON DEG

TABLE 13

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	5042.	21.5	14.6	65.	296.8	4.3	
800.0	6767.	19.8	12.3	62.	256.5	3.8	
750.0	8583.	16.1	8.4	60.	251.6	5.5	
700.0	10498.	12.2	4.2	58.	259.9	5.8	
650.0	12523.	8.0	-0.4	55.	297.9	2.4	
600.0	14675.	3.7	-5.2	52.	101.8	1.3	
550.0	16979.	-0.4	-10.4	47.	167.9	5.6	
500.0	19460.	-5.0	-16.2	41.	199.9	5.4	
450.0	22155.	-9.3	-26.5	23.	222.3	8.9	
400.0	25101.	-16.4	-20.9	68.	216.7	10.8	
350.0	28352.	-23.3	-26.8	73.			

STATION ALTITUDE 3989.00 FEET MSL
 27 AUG. 84 1038 MDT
 ASCENSION NO. 439

SIGNIFICANT LEVEL DATA
 2400020439
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 14

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT
883.6	3989.0	26.8	17.3	56.0
878.3	4163.4	24.7	15.9	58.0
850.0	5104.5	21.8	15.6	68.0
779.8	7554.2	18.8	8.2	50.0
720.7	9760.1	13.8	4.7	54.0
700.0	10566.1	12.3	1.3	47.0
644.6	12819.8	7.5	-3.1	47.0
587.2	15317.4	1.1	-7.4	53.0
581.0	15598.3	.9	-8.3	50.0
563.6	16400.2	-.5	-10.7	46.0
529.0	18055.9	-4.1	-10.7	60.0
510.6	18973.7	-4.8	-14.4	47.0
503.1	19356.4	-5.4	-9.6	72.0
500.0	19516.0	-6.0	-11.3	66.0
495.8	19733.5	-5.9	-17.3	40.0
479.6	20587.7	-7.2	-17.1	45.0
460.5	21626.7	-8.8	-28.2	19.0
455.8	21887.5	-10.0	-31.0	16.0
440.0	22779.5	-11.8	-25.5	31.0
432.2	23229.6	-12.7	-16.8	71.0
424.7	23668.5	-13.8	-22.9	46.0
400.0	25160.2	-16.2	-28.7	33.0

STATION ALTITUDE 3989.00 FEET MSL
 27 AUG. 84
 ASCENSION NO. 439 1038 MDT

UPPER AIR DATA
 2400020439
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DLG
 106.37033 LON DEG

TABLE 15

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
3989.0	883.6	26.8	56.0	1017.5	677.6	30.0	6.0	1.000310
4000.0	883.3	26.7	56.1	1017.7	677.4	29.9	6.0	1.000310
4500.0	868.1	23.7	61.6	1010.8	673.8	21.5	4.9	1.000303
5000.0	853.1	22.1	66.9	998.5	672.1	8.8	4.0	1.000300
5500.0	838.3	21.3	65.1	984.3	671.0	349.9	3.3	1.000292
6000.0	823.6	20.7	61.4	969.7	670.1	331.1	3.7	1.000282
6500.0	809.3	20.1	57.7	955.3	669.3	316.6	2.5	1.000273
7000.0	795.2	19.5	54.1	941.1	668.4	274.4	2.1	1.000264
7500.0	781.3	18.9	50.4	927.1	667.5	231.2	3.2	1.000255
8000.0	767.5	17.8	50.8	914.3	666.2	224.2	4.8	1.000250
8500.0	753.9	16.7	51.7	901.8	664.8	221.7	6.3	1.000245
9000.0	740.5	15.5	52.6	889.4	663.5	222.4	6.3	1.000240
9500.0	727.4	14.4	51.5	877.3	662.1	222.8	6.2	1.000236
10000.0	714.5	13.4	51.9	865.1	660.8	222.1	5.8	1.000230
10500.0	701.7	12.4	47.6	852.8	659.6	220.4	5.1	1.000222
11000.0	689.0	11.4	47.0	840.6	658.3	216.6	4.0	1.000217
11500.0	676.5	10.3	47.0	828.6	657.0	209.1	3.5	1.000212
12000.0	664.2	9.2	47.0	816.8	655.7	199.7	3.4	1.000208
12500.0	652.2	8.2	47.0	805.2	654.4	191.8	3.3	1.000204
13000.0	640.3	7.0	47.4	793.8	653.0	184.9	3.2	1.000200
13500.0	628.4	5.8	48.6	782.8	651.5	183.1	2.9	1.000196
14000.0	616.8	4.5	49.8	772.0	650.0	181.9	2.6	1.000193
14500.0	605.4	3.2	51.0	761.3	648.4	183.4	2.3	1.000189
15000.0	594.2	1.9	52.2	750.8	646.9	189.0	2.0	1.000186
15500.0	583.2	1.0	51.0	739.5	645.7	203.8	1.5	1.000182
16000.0	572.2	.2	48.0	727.8	644.7	227.5	1.3	1.000177
16500.0	561.5	-7	46.8	716.6	643.6	253.8	1.4	1.000174
17000.0	550.8	-1.8	51.1	705.8	642.3	228.4	.9	1.000171
17500.0	540.4	-2.9	55.3	695.2	641.1	163.0	1.0	1.000169
18000.0	530.1	-4.0	59.5	684.8	639.8	155.9	1.4	1.000167
18500.0	520.0	-4.4	53.7	673.0	639.2	157.6	1.7	1.000162
19000.0	510.1	-4.8	48.7	661.3	638.6	187.9	2.8	1.000158
19500.0	500.3	-5.9	66.6	651.0	637.5	197.6	4.2	1.000159
20000.0	490.7	-6.3	41.6	639.8	636.8	197.9	5.9	1.000151
20500.0	481.2	-7.1	44.5	629.3	635.9	200.1	7.1	1.000149
21000.0	471.9	-7.8	34.7	619.1	634.9	203.7	8.1	1.000144
21500.0	462.8	-8.6	22.2	609.1	633.8	204.7	8.9	1.000140
22000.0	453.8	-10.2	17.9	601.0	631.8	205.0	9.7	1.000137
22500.0	444.9	-11.2	26.5	591.4	630.7	205.6	9.7	1.000135
23000.0	436.2	-12.2	50.6	581.8	629.6	208.4	7.6	1.000136

UPPER AIR DATA
 240020439
 WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL
 27 AUG. 84
 ASCENSION NO. 439

1038 MDT

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 15 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	427.6	-13.4	-20.3	55.6	572.8	628.2	217.7	7.2	1.000134
24000.0	419.1	-14.3	-24.1	43.1	563.6	627.0			1.000130
24500.0	410.7	-15.1	-26.0	38.8	554.2	626.0			1.000126
25000.0	402.6	-15.9	-28.0	34.4	545.0	625.0			1.000125

STATION ALTITUDE 3989.00 FEET MSL
 27 AUG. 84
 ASCENSION NO. 439

MANDATORY LEVELS
 2400020439
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 16

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	5101.	21.8	15.6	68.	5.5	3.8	
800.0	6825.	19.7	10.5	55.	294.9	2.2	
750.0	8642.	16.3	6.5	52.	221.9	6.3	
700.0	10556.	12.3	1.3	47.	220.1	5.0	
650.0	12580.	8.0	-2.6	47.	190.4	3.3	
600.0	14727.	2.6	-6.4	52.	184.1	2.2	
550.0	17019.	-1.9	-10.6	51.	224.5	.8	
500.0	19488.	-6.0	-11.3	66.	197.7	4.2	
450.0	22177.	-10.7	-28.4	21.	205.2	9.4	
400.0	25117.	-16.2	-28.7	33.			

STATION ALTITUDE 3997.3 FEET MSL
 27 AUG. 34
 ASCENSION NO. 150
 1037 MDT

SIGNIFICANT LEVEL DATA

240000150
 1000

COGNATIC COORDINATES
 35.2427° LAT N
 119.4237° LONG W

TABLE 17

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRAD	WET-BULB DEGREES CENTIGRAD	
683.3	3997.3	26.3	19.2	61.0
870.0	4436.4	24.1	16.4	62.0
850.0	5105.5	23.0	15.6	63.0
759.6	2300.7	17.5	8.1	64.0
700.0	19576.3	12.2	3.4	65.0
628.8	13504.3	6.7	-4.4	65.0
584.4	15443.3	1.2	-4.8	64.0
567.4	16242.9	-3.3	-8.7	63.0
559.0	16635.1	-1.1	-7.0	64.0
548.4	17136.8	-2.1	-11.4	66.0
523.6	18343.6	-3.7	-9.7	73.0
521.9	18428.2	-3.7	-13.1	63.0
514.7	18788.8	-4.5	-11.7	67.0
500.0	19538.4	-5.4	-19.8	71.0
466.6	21311.9	-8.9	-18.4	66.0
460.2	21663.5	-9.3	-24.8	77.0
443.4	22605.2	-11.7	-27.3	76.0
435.5	23057.5	-12.9	-16.5	74.0
430.2	23344.9	-12.9	-22.3	65.0
408.2	24675.4	-15.7	-25.1	44.0

STATION ALTITUDE 3997.70 FEET MSL
 27 AUG. 34
 ASCENSION NO. 150

UPPER AIR DATA
 ZADCC/0150
 5 M 3

1037 MDT

GEOMETRIC COORDINATES
 33.65074 LAT DEG
 176.42707 LONG DEG

TABLE 18

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPPOINT CENTIGRADE	REL.HUMID. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND METERS	WIND DATA		INDEX OF REFRACTION
							DIRECTION DEGREES	VELOCITY KNOTS	
3997.3	683.3	6.3	15.2	61.0	1.019.4	677.2	5.0		1.000345
4000.0	681.2	7.3	18.2	61.0	1.018.3	677.2	6.0		1.000345
4500.0	668.1	24.0	16.3	62.1	1.000.5	674.3	4.8		1.000305
5000.0	653.1	23.2	15.7	62.8	995.0	673.3	7.1		1.000309
5500.0	638.3	22.3	14.7	61.9	970.0	672.2	7.4		1.000301
6000.0	623.7	21.5	13.5	60.5	947.0	671.1	1.9		1.000307
6500.0	609.3	20.6	12.3	59.1	923.3	670.0	7.2		1.000372
7000.0	595.2	19.7	11.2	57.7	900.8	668.5	7.3		1.000346
7500.0	581.3	18.9	10.0	56.3	876.8	667.7	6.3		1.000341
8000.0	567.7	18.0	8.8	54.8	852.4	666.5	4.6		1.000254
8500.0	554.2	17.0	7.7	54.1	828.4	665.4	5.0		1.000248
9000.0	540.8	15.9	6.7	54.3	804.4	664.0	5.5		1.000242
9500.0	527.6	14.7	5.6	54.5	780.7	662.5	7.3		1.000177
10000.0	514.6	13.5	4.6	54.7	757.7	661.1	5.6		1.000332
10500.0	501.9	12.4	3.6	55.0	734.7	659.7	5.1		1.000277
11000.0	489.2	11.4	2.3	53.6	711.7	658.5	4.4		1.000271
11500.0	476.7	10.5	1.0	51.8	688.7	657.3	7.7		1.000217
12000.0	464.4	9.5	-3	50.1	665.0	656.1	7.1		1.000217
12500.0	452.4	8.6	-1.7	48.4	641.4	654.9	7.4		1.000205
13000.0	440.5	7.6	-3.0	46.7	617.4	653.8	1.2		1.000200
13500.0	428.9	6.7	-4.4	45.0	593.9	652.6	1.9		1.000195
14000.0	417.3	5.3	-4.3	43.8	570.1	651.0	7.7		1.000193
14500.0	405.8	3.9	-4.4	42.7	546.7	649.3	3.3		1.000191
15000.0	394.6	2.5	-4.6	39.5	523.4	647.7	7.6		1.000192
15500.0	383.6	1.1	-5.0	63.5	500.2	646.1	14.5		1.000184
16000.0	372.6	.2	-7.5	56.4	477.2	644.8	17.9		1.000180
16500.0	361.9	-.8	-7.6	60.2	454.4	643.6	15.9		1.000177
17000.0	351.3	-1.8	-10.3	52.4	431.4	642.3	15.2		1.000172
17500.0	340.8	-2.6	-10.9	52.5	408.4	641.4	17.4		1.000173
18000.0	330.5	-3.2	-10.1	58.7	385.4	640.7	16.2		1.000177
18500.0	320.5	-3.9	-12.8	49.8	362.7	639.8	16.1		1.000172
19000.0	310.5	-4.8	-13.6	49.7	340.4	638.7	19.5		1.000159
19500.0	300.7	-5.4	-19.3	32.3	317.7	637.8	21.4		1.000152
20000.0	291.1	-6.3	-19.2	34.9	295.4	636.7	19.7		1.000150
20500.0	281.6	-7.3	-18.8	30.1	273.4	635.6	17.2		1.000145
21000.0	272.3	-8.3	-18.5	43.4	251.4	634.4	19.7		1.000144
21500.0	263.2	-9.1	-21.4	35.8	229.4	633.3	19.0		1.000142
22000.0	254.1	-10.2	-25.7	26.6	207.7	632.0	17.5		1.000138
22500.0	245.2	-11.4	-27.0	20.1	186.7	630.6	17.2		1.000134
23000.0	236.5	-12.7	-17.4	67.9	165.7	629.2	17.4		1.000130

STATION ALTITUDE 3007.73 FEET MSL
 27 AUG. 64 1037 MDT
 ASCENSION NO. 130

UNOFFICIAL DATA
 140100Z
 0000

TABLE 18 Cont'd

GEOMETRIC COORDINATES
 22.4374 LAT DEG
 106.427 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPUTNT CENTIGRADE	REL.HUM. PERCENT	DENSITY GF/CM ³	SPEED OF WIND KNOTS	DIRECTION	SFC ZFC	REFRACTION
23500.0	427.9	-13.2	-22.6	44.9	572.0	478.4		1.000177	
24000.0	419.4	-14.3	-23.7	44.5	567.0	477.1		1.000171	
24500.0	411.1	-15.3	-24.7	44.1	555.0	475.3		1.000158	

STATION ALTITUDE 3597.30 FEET MSL
 27 AUG. 54 1037 MDT
 ASCENSION NO. 150

"ALTIITUDE LEVELS"
 2400040150
 0.00 0

GEOSTATIC COORDINATES
 30.48716 LAT N
 166.42717 LONG W

TABLE 19

PRESSURE GEOPOTENTIAL		TEMPERATURE	REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEVIANT	PERCENT	DIRECTION	SPEED
		DEGREES		(DEGREES)	(KNOTS)
850.0	5162.	27.0	75.	21.7	3.3
800.0	6331.	20.0	54.	29.7	3.3
750.0	7650.	14.7	54.	25.6	5.1
700.0	10564.	12.2	55.	21.0	5.0
650.0	12597.	9.4	49.	27.1	3.2
600.0	14745.	3.2	47.	15.1	3.6
550.0	17039.	-1.9	50.	27.1	4
500.0	19511.	-5.4	41.	11.4	3.9
450.0	22198.	-10.7	26.	22.2	9.7

STATION ALTITUDE 4000.0 FEET MSL
 19 AUG. 84
 ASCENSION NO. 19

STANDARD TIME DATA
 240000Z
 80°

GEODESIC COORDINATES
 20.57273 LAT N
 155.92273 LONG W

TABLE 20

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	WIND DIRECTION	
882.0	4000.7	28.5	19.7	55.0
875.8	4309.4	26.3	14.7	55.0
850.0	5073.7	23.4	14.1	55.0
830.1	5752.1	21.4	13.0	55.0
793.6	7032.1	20.3	9.5	55.0
726.2	9527.7	14.9	4.7	55.0
700.0	10566.3	12.5	2.1	55.0
670.6	11726.9	10.5	.2	55.0
643.0	12823.8	8.2	-3.6	45.0
616.2	14023.7	5.2	-5.6	42.0
604.7	14529.6	4.7	-2.5	55.0
596.1	14912.6	3.0	-4.7	57.0
555.7	16748.9	-1.2	-9.8	52.0
544.7	17202.5	-2.3	-9.4	55.0
522.3	18386.8	-4.0	-9.4	56.0
519.7	18516.5	-4.0	-11.0	55.0
513.1	19848.2	-4.2	-15.7	45.0
505.1	19255.7	-4.5	-12.4	54.0
500.0	19519.5	-4.9	-15.2	44.0
487.5	20172.6	-5.7	-19.0	34.0
474.1	20888.7	-7.8	-16.9	49.0
466.3	21333.0	-8.2	-19.7	39.0
447.3	22656.6	-10.7	-25.2	35.0
437.9	22915.2	-11.4	-16.5	56.0
420.7	23917.9	-13.2	-21.6	48.0
411.8	24452.3	-14.8	-26.5	36.0
404.6	24890.8	-15.8	-29.7	35.0
400.0	25174.2	-16.4	-27.6	33.0
390.3	25781.0	-17.4	-23.1	41.0
382.5	26278.3	-17.2	-23.9	41.0
377.3	26614.4	-19.0	-22.5	36.0
369.1	27152.1	-19.8	-29.4	45.0
363.7	27511.4	-20.9	-22.6	34.0
350.3	28421.0	-22.9	-15.6	35.0

STATION ALTITUDE 4002.69 FEET MSL
 19 AUG. 84
 ASCENSION NO. 19 1115 MDT

WINDY AIR DATA
 24(0200)10
 00"

GEOMETRIC COORDINATES
 32.973.0 LAT E
 116.224.0 LONG W

TABLE 21

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REF. HUMID. PERCENT	DENSITY GRAMS PER CUBIC METER	SPEED OF SOUND METER	WIND DIRECTION (DEGREES TRUE)	SPEED KNOTS	WIND SPEED KNOTS	REFLECTION COEFF
		AIR DEGREES CENTIGRADE	DENPOINT CENTIGRADE							
4003.7	882.0	13.5	19.7	59.0	1088.7	670.0	30.0	7.0	1.000171	
4500.0	867.1	25.6	14.6	50.7	1007.0	675.9	17.0	7.7	1.000204	
5000.0	852.2	23.7	14.2	55.3	992.9	671.6	157.0	7.7	1.000201	
5500.0	837.4	22.1	13.6	59.1	950.9	671.9	747.0	6.1	1.000207	
6000.0	822.9	21.2	12.8	52.9	947.3	671.7	729.6	6.3	1.000198	
6500.0	808.6	20.8	11.3	54.6	952.4	671.0	704.7	7.7	1.000211	
7000.0	794.5	20.3	9.7	50.3	977.7	669.3	775.0	7.7	1.000214	
7500.0	780.5	19.3	8.6	50.0	924.7	668.0	246.4	6.5	1.000216	
8000.0	766.7	18.2	7.6	50.0	912.0	667.7	236.1	5.9	1.000210	
8500.0	753.2	17.1	6.6	50.0	900.7	665.4	231.7	7.1	1.000214	
9000.0	740.0	16.0	5.6	50.0	887.7	664.1	229.7	7.7	1.000219	
9500.0	726.9	15.0	4.6	50.0	975.1	662.7	228.0	7.7	1.000214	
10000.0	713.9	13.8	3.4	49.5	863.2	661.3	232.7	6.3	1.000227	
10500.0	701.2	12.6	2.2	49.0	851.8	660.8	274.7	5.5	1.000221	
11000.0	688.6	11.8	1.4	48.6	839.5	658.9	233.5	5.1	1.000214	
11500.0	676.1	11.1	.6	48.2	925.6	658.0	227.7	5.0	1.000214	
12000.0	663.9	10.2	-.7	46.8	913.5	656.8	219.0	5.1	1.000205	
12500.0	651.9	9.0	-2.3	44.6	803.3	655.4	213.7	6.3	1.000203	
13000.0	640.0	7.9	-3.9	42.9	791.7	654.0	205.3	7.4	1.000197	
13500.0	628.3	6.6	-5.3	42.5	780.5	652.4	184.0	2.3	1.000164	
14000.0	616.7	5.3	-6.6	42.0	769.0	650.8	158.0	2.5	1.000190	
14500.0	605.4	4.7	-3.0	57.1	756.6	650.4	130.2	2.5	1.000183	
15000.0	594.1	2.8	-4.9	56.8	748.0	648.0	127.0	2.5	1.000185	
15500.0	583.0	1.7	-6.3	55.4	737.2	646.5	124.4	2.2	1.000193	
16000.0	572.1	.5	-7.7	54.1	726.5	645.2	170.1	.9	1.000179	
16500.0	561.4	-.6	-9.0	52.7	716.0	643.8	246.0	1.2	1.000175	
17000.0	550.8	-1.7	-9.6	54.6	705.4	642.5	265.5	1.4	1.000172	
17500.0	540.4	-2.6	-9.4	59.5	694.4	641.4	250.0	1.2	1.000170	
18000.0	530.1	-3.4	-9.4	63.2	683.1	640.5	203.4	1.4	1.000168	
18500.0	520.0	-4.0	-10.8	59.0	671.9	639.9	155.0	2.3	1.000174	
19000.0	510.1	-4.3	-14.4	45.2	660.0	639.2	195.4	2.7	1.000159	
19500.0	500.4	-4.9	-15.0	44.7	648.9	638.4	201.1	3.0	1.000155	
20000.0	490.8	-5.5	-17.9	76.6	637.0	637.7	207.0	4.8	1.000150	
20500.0	481.3	-6.7	-17.9	40.4	625.5	636.3	201.0	6.4	1.000148	
21000.0	472.0	-7.9	-17.6	45.6	614.0	634.9	200.7	6.4	1.000140	
21500.0	462.9	-8.5	-20.4	37.6	602.9	634.0	200.0	6.4	1.000142	
22000.0	453.9	-9.5	-22.4	33.9	592.0	632.9	202.1	2.5	1.000139	
22500.0	445.0	-10.4	-24.5	30.2	580.4	631.7	206.7	2.1	1.000136	
23000.0	436.3	-11.6	-16.9	64.5	568.7	630.5	214.5	2.6	1.000117	
23500.0	427.7	-12.4	-19.5	55.5	570.0	629.4	225.4	2.0	1.000114	

STATION ALTITUDE 4000.0 FEET ASL
 19 APR 54
 OBSERVATION NO. 1 1115 MDT

UNDESIRED DATA
 41000000
 100

ASTRONOMICAL COORDINATES
 172000000
 1 1 00000000

TABLE 21 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE °F	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY SOURCE METER	INDEX OF REFRACTION MAGN.	INDEX OF REFRACTION MAGN.
24100.0	419.3	-13.4	-22.5	46.2	542.0	426.1	1.000171
24500.0	411.0	-14.9	-26.8	35.3	554.1	426.2	1.000157
25000.0	402.0	-16.0	-28.6	32.7	565.5	426.9	1.000125
25500.0	394.3	-16.9	-24.9	49.9	576.7	423.4	1.000174
26000.0	386.3	-17.8	-23.4	61.0	587.7	422.2	1.000157
26500.0	379.1	-18.7	-22.0	39.9	598.7	421.4	1.000142
27000.0	371.4	-19.6	-30.1	36.3	610.0	421.3	1.000117
27500.0	363.9	-20.9	-31.9	36.2	622.2	421.6	1.000114
28000.0	356.4	-22.0	-33.9	37.5	634.5	422.5	1.000111

STATION ALTITUDE 407.5 FEET ASL
 19 AUG. 34
 ASCENSION NO. 19 1115 MDT

TEMPERATURE VALUES
 3400000010
 00

GEOMETRIC COORDINATES
 1 4.37429 LO. 001

TABLE 22

PRESSURE EQUIPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DIR.	
MILLIBARS	FEET	AIR DEGREE CENTIGRAD	WET-BULB DEGREE CENTIGRAD	PERCENT	DIRECTION DEGREE (TR)	SPEED FEET	WIND DIR.
650.0	5170.	23.4	14.1	50.	754.7	7.0	
500.0	6790.	20.5	10.7	52.	759.5	7.7	
750.0	8410.	14.0	4.4	70.	774.5	7.1	
700.0	10536.	12.5	2.1	75.	736.9	5.5	
650.0	12564.	9.0	-2.4	74.	712.8	4.0	
600.0	14721.	7.0	-3.8	57.	747.7	3.0	
550.0	17017.	-1.0	-9.7	55.	704.4	1.7	
500.0	19491.	-6.7	-15.7	44.	711.1	3.7	
450.0	22185.	-9.0	-22.7	72.	713.9	9.4	
400.0	25132.	-16.4	-27.0	77.			

END

FILMED

2-85

DTIC