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METEOROLOGICAL DATA REPORT
19320BT MLRS

Missile Number V6138, V6139, V6155, V6141, V6167
Round Number V613/AT2-70 THRU V617/AT2-74

by

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

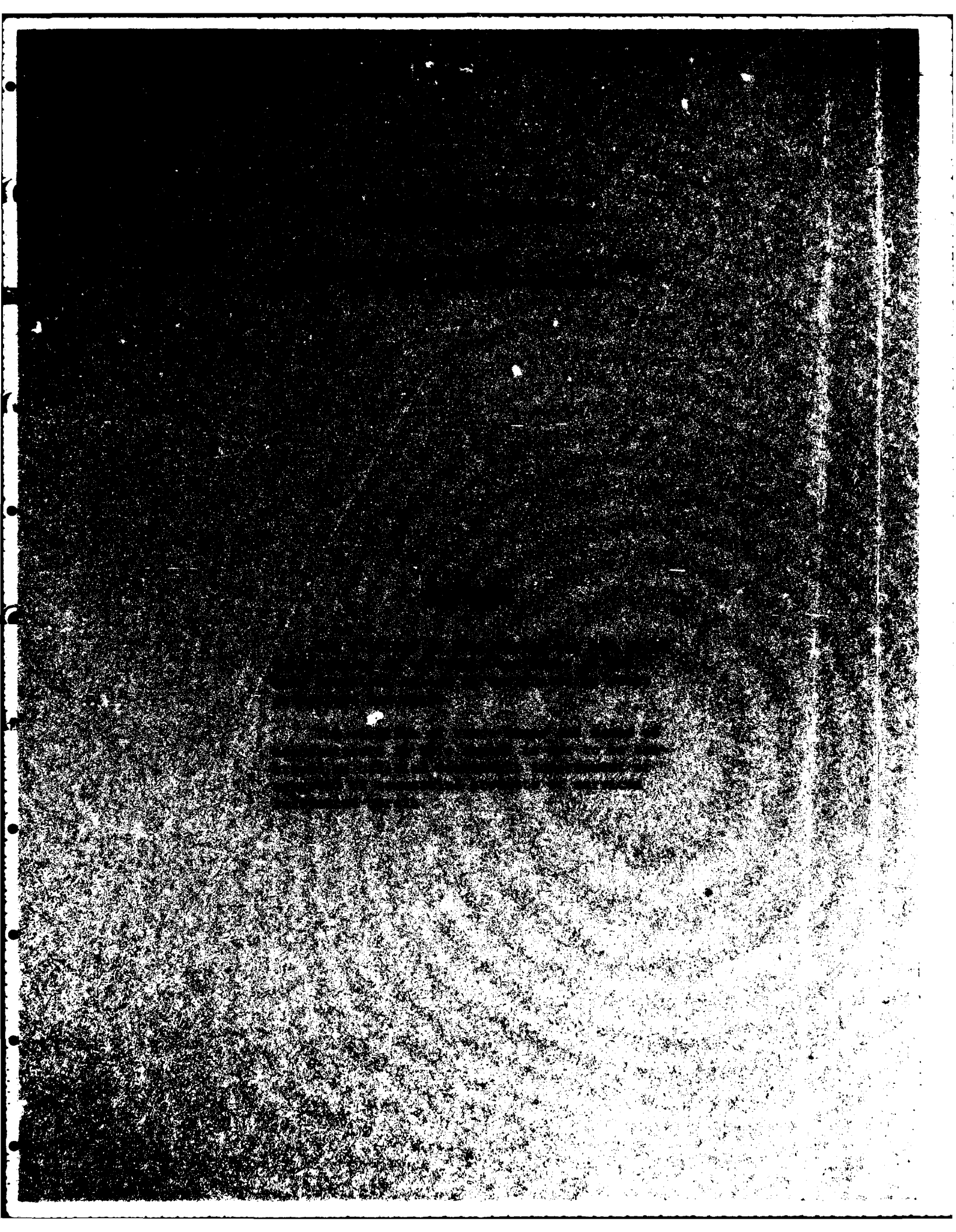
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 19320BT MLRS, Missile Number V6138, V6139, V6155, V6141, V6167, Round Number V613/AT2-70 THRU V617/AT2-74 are presented in tabular form.		

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INTRODUCTION

19320BT MLRS, Missile Numbers V6138, V6139, V6155, V6141, and V6167, Round Numbers V613/AT2-70 THRU V617/AT2-74, were launched from LC-33, White Sands Missile Range (WSMR). New Mexico, at 1505:00, 1505:05, 1505:10, 1543:00, and 1543:06 MDT, 06 Jul 84. The scheduled launch times were 1445 (3T's) and 1530 (3T's) 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 observation 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	2km
Don	2km

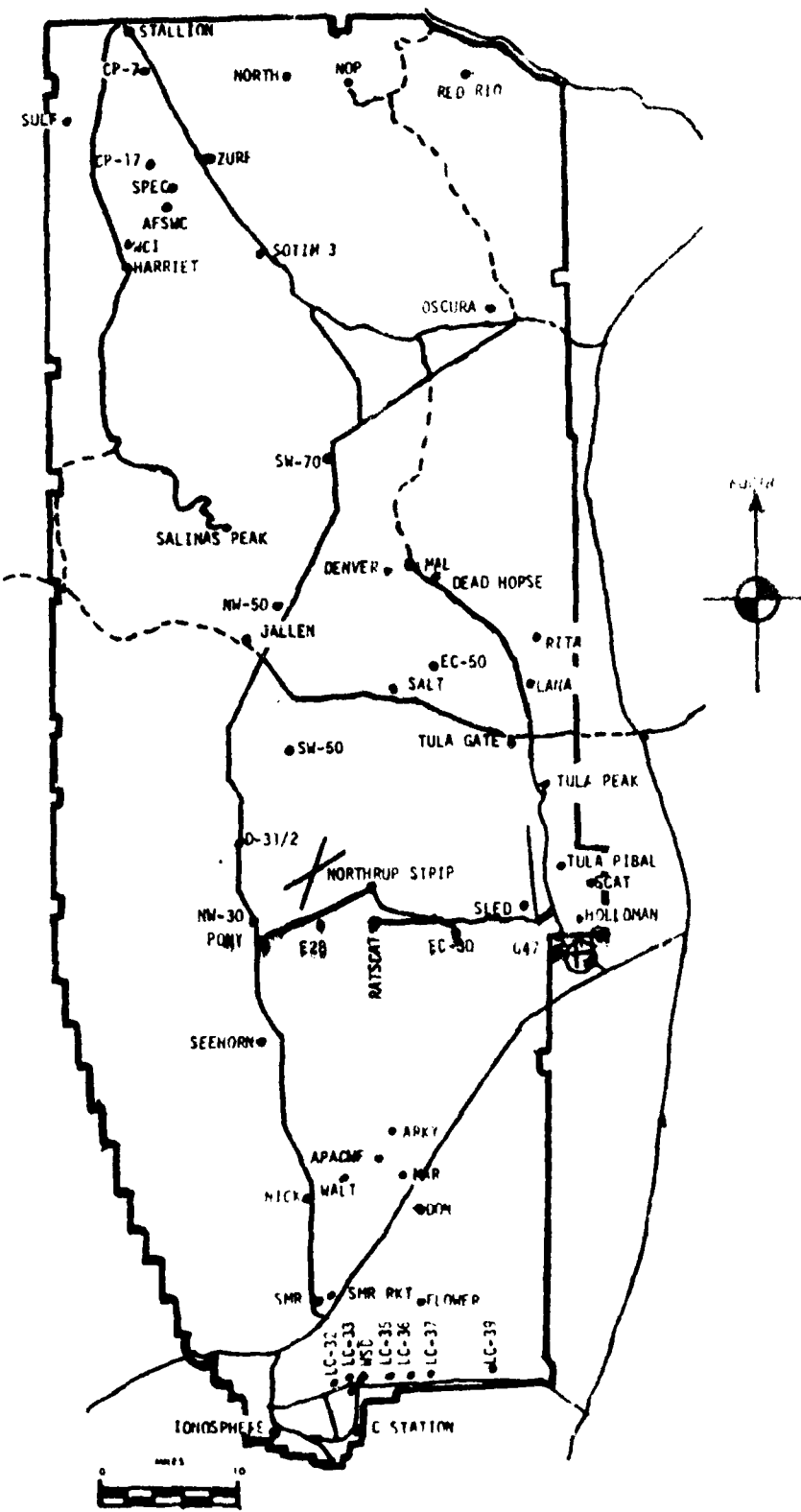
(2) Air structure data (rawinsonde) were collected at the following Met Sites.

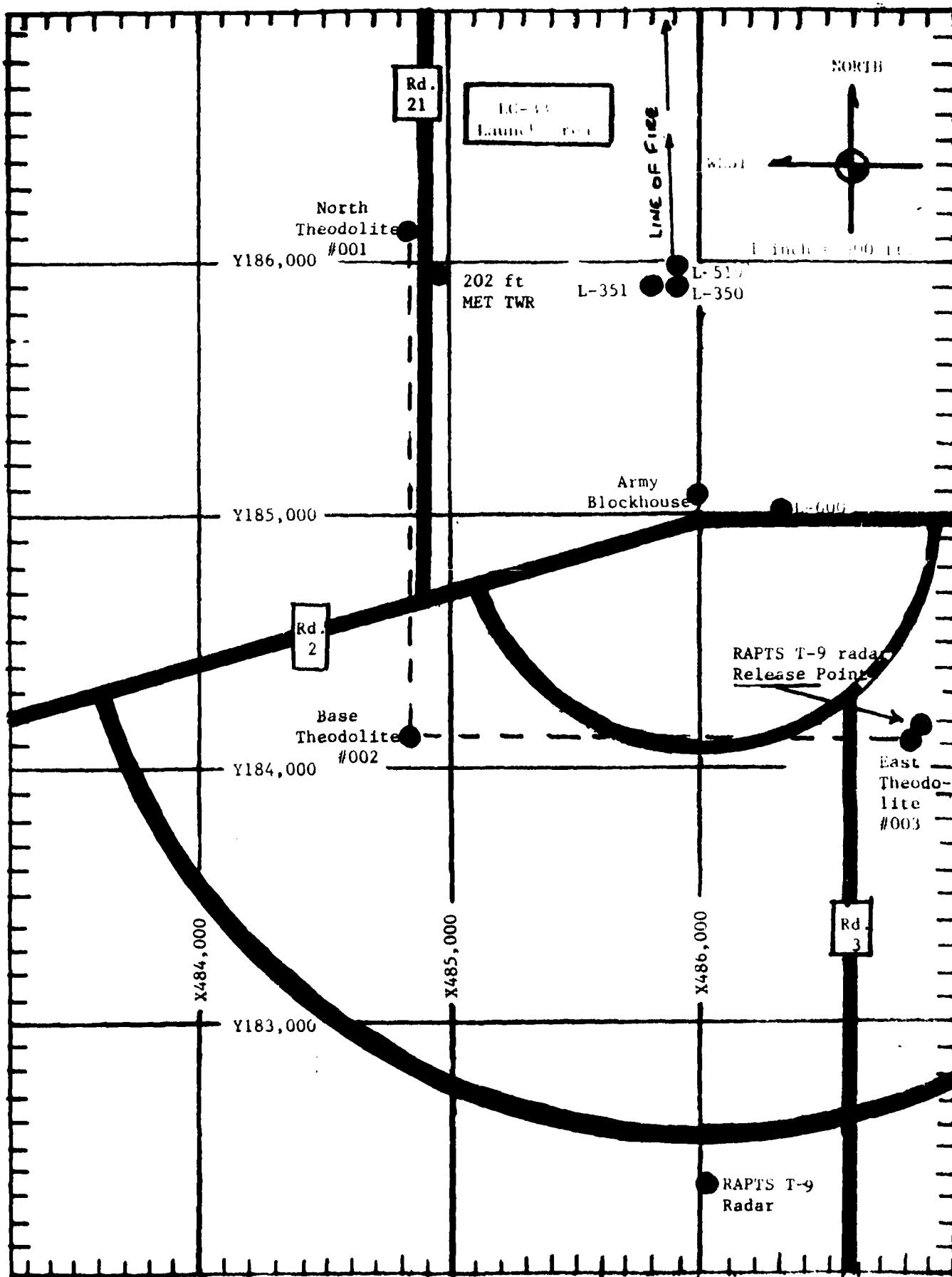
SITE AND TIME		
WSD	1145	MDT
WSD	1315	MDT
SMR	1400	MDT
WSD	1505	MDT
SMR	1545	MDT

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



WSMR METEOROLOGICAL SITES





PROJECT SURFACE OBSERVATION

TABLE 1 STATION LC-33

DATE 06 July 1984 X=484.982.64 Y=185.957.73 H=3995.00
 DAY MONTH YEAR

TIME M D I	PRESSURE mbs	TEMPERATURE CF	TEMPERATURE OC	DEW POINT OF OC	RELATIVE HUMIDITY %	DENSITY gm/cm ³	WIND		VISIBIL- ITY
							DIRECTION degs Tn	SPEED kts	
1505	877.3		34.8	11.5	25		130	05	40
1543	877.0		34.2	10.8	24		150	08	40

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	TYPE	AMT	TYPE	AMT	TYPE	
	7	CU	6000	1	CS	26,000	TCU N
	6	CU	6000	1	CS	26,000	CBNGNE, TCU NW, RWU N

PSYCHROMETRIC COMPUTATION

TIME: MDT	1505	1543
DRY BULB TEMP.	34.8	34.2
WET BULB TEMP.	19.3	18.8
WET BULB DEPR.	15.5	15.4
DEW POINT	11.5	10.8
RELATIVE HUMID.	25	25

PROJECT SURFACE OBSERVATION

TABLE 2		STATION: Don Site							
DATE 06		July	84	X=511,988.37 Y=247,396.36 H=3996.83					
TIME M D I		MONTH	YEAR	HIND					
	PRESSURE mb	TEMPERATURE OF OC	DEW POINT OF OC	RELATIVE HUMIDITY %	DENSITY gm/m ³	DIRECTION degs In	SPEED kts	CHARACTER kts	VISIBIL- ITY
1505	875.5	35.2	14.3	29		120	05		40
1543	875.5	35.7	12.7	26		125	06		40

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	TYPE	AMT	TYPE	AMT	TYPE	
	6	Cu	1	CI	22000		CB NE
	6	Cu	1	CI	22000		TCU ALQDS, CB NE

PSYCHROMETRIC COMPUTATION

TIME: MDT	1505	1543
DRY BULB TEMP.	35.2	35.7
WET BULB TEMP.	20.8	20.1
WET BULB DEPR.	14.4	15.6
DEW POINT	14.3	12.7
RELATIVE HUMID.	29%	26

LC-33 METEOROLOGICAL TOWER
ANEMOMETER MEASURED WIND DATA

TABLE 3

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

DATE 6 July 1984 1505 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	168	06	T-30	186	06
T-20	153	09	T-20	148	10
T-10	141	09	T-10	135	12
T- 0 (1st T)	136	08	T- 0 (1st T)	119	10
T+10	150	08	T+10	147	09
T+20	156	11	T+20	146	15
T+30	144	10	T+30	134	16
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	174	08	T-30	148	08
T-20	152	11	T-20	125	09
T-10	142	14	T-10	128	12
T- 0 (1st T)	153	12	T- 0 (1st T)	118	15
T+10	150	15	T+10	133	17
T+20	150	15	T+20	145	15
T+30	141	17	T+30	122	15
T+40			T+40		
T+50			T+50		
T+60			T+60		

TABLE 4

LC-33 METEOROLOGICAL TOWER
ANEMOMETER MEASURED WIND DATA

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

DATE 06 July 1984 1543 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	125	05	T-30	094	08
T-20	110	03	T-20	092	07
T-10	115	05	T-10	112	05
T- 0 (1st T)	121	06	T- 0 (1st T)	111	05
T+10	133	06	T+10	123	06
T+20	133	05	T+20	119	06
T+30	110	05	T+30	117	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	086	10	T-30	102	11
T-20	114	10	T-20	102	11
T-10	119	07	T-10	099	09
T- 0 (1st T)	115	06	T- 0 (1st T)	093	06
T+10	120	09	T+10	099	11
T+20	115	10	T+20	107	11
T+30	124	08	T+30	122	10
T+40			T+40		
T+50			T+50		
T+60			T+60		

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 06 July 1984

SITE: LC-33
 TIME: 1505 MDT
 WSTM COORDINATES:
 X= 486,037.24
 Y= 182,350.16
 H= 3,977.30

SITE: DON
 TIME 1505 MDT
 WSTM COORDINATES:
 X= 511,988.37
 Y= 247,396.36
 H= 3,996.83

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	130	05
150	145	06
210	160	07
270	178	15
330	172	13
390	181	12
500	165	10
650	173	12
800	148	10
950	172	08
1150	154	10
1350	145	11
1550	100	20
1750	094	13
2000	081	29

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	120	05
150	124	06
210	134	07
270	127	10
330	115	11
390	113	12
500	123	12
650	123	13
800	121	06
950	117	06
1150	084	07
1350	118	11
1550	119	12
1750	131	10
2000	140	13

All data obtained from RAPTS T-9 radar Tracked pilot-balloon observations

TABLE 6

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 06 July 1984

SITE: LC-33

TIME: 1543 MDT

WSTM COORDINATES:

X= 486,037.24

Y= 182,350.16

H= 3,977.30

SITE: DON

TIME 1543 MDT

WSTM COORDINATES:

X= 511,988.37

Y= 247,396.36

H= 3,996.83

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	150	08
150	126	09
210	106	11
270	081	13
330	110	05
390	111	08
500	152	08
650	143	10
800	139	10
950	126	12
1150	136	14
1350	142	12
1550	139	13
1750	097	18
2000	129	12

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	125	06
150	070	07
210	094	13
270	097	18
330	086	20
390	089	20
500	091	16
650	104	10
800	103	10
950	097	10
1150	103	08
1350	094	07
1550	086	09
1750	085	07
2000	098	10

All data obtained from RAPTS T-9 Radar Tracked pilot-balloon observations.

TABLE: 7

AIMING AND T-TIME COMPUTER MET MESSAGE DATA
06 July 1984

WSD 1145 MDT
METCM1324064
061780122879

00267007 30500879
01275008 30380870
02256007 30070845
03224006 29650808
04234003 29150762
05223011 28740718
06212012 28410677
07183009 28020637
08173013 27640599
09142015 27300563
10137013 26890529
11198012 26640496
12209009 26120450

WSD 1315 MDT
METCM1324064
061930122878

00213006 30700878
01155010 30560868
02139004 30190844
03195004 29770807
04213006 29290761
05248007 28810718
06243014 28380676
07176013 28020637
08153010 27650599
09161013 27300563
10183013 27010527
11190017 26690496
12198010 26130450

SMR 1400 MDT
METCM1325064
062000122877

00249012 30950877
01272006 30560867
02242008 30250843
03271010 29840806
04259011 29350761
05267011 28880718
06223013 28400676
07191016 28030636
08165013 27620599
09166013 27240563
10193013 26960528
11208012 26690496

WSD 1505 MDT
METCM1324064
062110122877

00356010 30940877
01331015 30760867
02294009 30430843
03266015 30020806
04235016 29510761
05200014 29020718
06218011 28550677
07210010 28090637
08170016 27670599
09178019 27410563
10202014 27140529
11206010 26750479
12226010 26250451

SMR 1545 MDT
METCM1325064
062180122876

00213017 30870876
01207012 30670867
02227014 30340843
03252015 29970805
04247015 29510761
05268014 29020718
06277014 28510676
07238014 28040637
08271013 27580599
09203009 27200563
10162014 26840528
11220009 26680496
12257009 26160450

STATION ALTITUDE 1907.70 FEET "SL"
 1145 MDT
 ASCENSION NO. 353

SIGNIFICANT LEVEL DATA
 198003167
 WHITE SANDS
 TABLE 8

GEODETIC COORDINATES
 37.43043 LAT DEG
 106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
879.4	3999.0	29.7	14.7	67.0
877.6	4049.1	29.5	14.9	61.0
850.0	6980.4	26.0	12.3	66.0
795.3	5895.0	20.2	10.0	52.0
770.5	7783.3	17.4	10.3	63.0
732.4	9199.9	13.3	9.9	30.0
718.3	9719.0	13.0	2.3	43.0
700.0	10450.5	12.2	1.2	67.0
653.1	13195.9	5.6	-2.0	58.0
624.9	13537.5	5.2	-3.6	53.0
611.2	14131.7	3.7	-3.3	50.0
599.9	14629.5	2.6	-5.2	52.0
586.4	15326.0	.9	-7.1	55.0
572.0	15890.5	.3	-10.2	65.0
556.5	16613.2	-1.2	-11.6	65.0
531.3	17620.9	-5.0	-7.4	33.0
525.1	18075.4	-5.2	-3.9	75.0
517.0	18525.1	-5.6	-22.0	26.0
500.0	19396.9	-5.5	-17.6	61.0
425.7	23454.7	-15.2	-32.0	22.0
410.1	24381.1	-16.3	-32.5	23.0
400.0	24997.2	-17.5	-74.2	56.0

UPPER AIR DATA
 1860020367
 WHITE SANDS

STATION ALTITUDE 3289.00 FEET MSL
 6 JULY 54 1145 MDT
 ASCENSION NO. 353

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 9

GLOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEPT. CENTIGRADE			KNOTS	FT/SEC	DIRECTION DEGREES(TV)	SPEED KNOTS	
39.000	579.4	29.7	14.7	60.5	1036.3	580.4	150.0	150.0	7.0	1.000203
400.0	579.1	29.7	14.7	46.5	1004.3	580.4	149.9	149.9	7.0	1.000203
450.0	564.1	27.9	13.5	42.5	993.3	578.2	147.4	147.4	6.5	1.000248
500.0	549.4	25.9	12.2	44.1	982.8	576.0	144.4	144.4	6.1	1.000282
550.0	534.7	24.6	12.1	46.2	971.7	574.2	141.7	141.7	5.7	1.000277
600.0	520.3	22.9	11.4	48.3	959.3	572.4	137.1	137.1	5.3	1.000272
650.0	505.1	21.6	10.9	50.4	947.7	570.6	132.7	132.7	5.0	1.000267
700.0	492.2	19.8	10.1	53.4	936.3	568.8	127.9	127.9	4.4	1.000263
750.0	478.3	18.3	10.3	55.5	924.5	567.1	123.4	123.4	3.8	1.000262
800.0	464.5	16.8	10.3	55.5	917.7	555.4	126.5	126.5	6.2	1.000263
850.0	451.0	15.3	10.2	71.0	901.2	553.5	127.6	127.6	5.8	1.000258
900.0	437.7	13.9	10.0	77.6	889.5	552.1	127.9	127.9	7.3	1.000255
950.0	424.5	13.1	5.9	51.5	877.4	550.8	127.3	127.3	7.1	1.000279
1000.0	411.5	12.7	1.9	47.2	863.9	549.9	126.7	126.7	11.0	1.000225
1050.0	398.7	12.1	1.2	47.2	850.3	549.1	124.7	124.7	11.9	1.000220
1100.0	386.0	10.9	.7	49.3	839.5	547.7	122.2	122.2	12.2	1.000217
1150.0	373.3	9.7	.1	51.0	826.8	546.3	118.8	118.8	11.9	1.000213
1200.0	361.3	3.5	-0.5	53.2	815.3	544.9	113.6	113.6	10.8	1.000210
1250.0	349.3	7.3	-1.1	55.3	804.7	543.4	108.4	108.4	10.4	1.000205
1300.0	337.5	6.1	-1.6	57.4	792.8	542.1	105.0	105.0	10.3	1.000205
1350.0	325.8	5.0	-3.4	53.5	780.3	541.0	102.4	102.4	11.5	1.000197
1400.0	314.4	4.0	-3.4	56.6	769.7	540.5	100.5	100.5	12.6	1.000193
1450.0	302.8	2.9	-5.5	54.7	758.8	548.1	98.3	98.3	12.7	1.000189
1500.0	291.2	1.7	-6.7	57.8	748.1	545.5	95.8	95.8	12.7	1.000185
1550.0	280.5	.7	-8.0	51.3	734.8	545.4	88.5	88.5	12.9	1.000181
1600.0	269.0	.1	-10.4	45.1	725.0	544.5	81.1	81.1	13.4	1.000175
1650.0	258.9	-1.0	-11.4	45.0	714.1	543.3	75.5	75.5	14.0	1.000172
1700.0	248.3	-2.3	-9.7	52.2	704.1	541.7	70.9	70.9	14.6	1.000172
1750.0	237.9	-4.0	-8.1	72.5	694.5	539.9	74.3	74.3	13.9	1.000172
1800.0	227.5	-5.1	-5.5	77.7	684.2	538.5	78.8	78.8	13.1	1.000169
1850.0	217.5	-5.0	-2.9	26.3	677.2	537.5	87.9	87.9	12.4	1.000155
1900.0	207.6	-6.0	-19.3	34.3	654.5	536.9	97.8	97.8	12.0	1.000153
1950.0	197.5	-5.2	-19.6	40.3	650.4	535.1	106.3	106.3	12.0	1.000153
2000.0	188.0	-7.9	-19.6	35.7	640.3	534.3	117.3	117.3	12.7	1.000150
2050.0	178.5	-9.0	-21.3	33.3	630.3	533.5	121.8	121.8	13.7	1.000145
2100.0	169.1	-10.3	-23.0	33.1	620.5	532.3	124.4	124.4	12.4	1.000143
2150.0	159.9	-11.1	-24.3	31.7	610.9	530.9	122.9	122.9	10.4	1.000141
2200.0	150.9	-12.1	-26.5	28.2	601.5	529.5	119.4	119.4	8.7	1.000145
2250.0	142.1	-13.4	-23.9	26.4	592.1	528.3	110.7	110.7	6.3	1.000145
2300.0	133.4	-14.4	-23.3	24.7	582.9	527.0	99.6	99.6	5.7	1.000143

UPPER AIR DATA
 18002163
 WHITE SANDS

STATION ALTITUDE 3000 FEET MSL
 2 JULY 84 1145 MDT
 ASCENSION NO. 363

GEOMETRIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 9 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TV)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	424.9	-75.3	22.0	573.8	525.7	91.1	6.9	1.000170
24000.0	415.4	-75.3	22.6	563.5	525.0			1.000123
24500.0	405.1	-75.0	29.6	553.8	526.2			1.000125

STATION ALTITUDE 12475.0 FEET MSL
 6 JULY 64
 ASCENSION HQ. 250

MANDATORY LEVELS
 15000 FT
 JNITTS BANDS

SECTETIC COORDINATES
 32.60043 LAT DEG
 106.47033 LON DEG

TABLE 10

MILLIBARS	PRESSURE GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
				DIRECTION DEGREES(TW)	SPEED KNOTS
850.0	4277.	25.0	44.	144.5	5.1
800.0	5715.	20.7	51.	131.8	4.7
750.0	8501.	15.2	72.	127.4	5.9
700.0	10447.	12.2	47.	125.2	11.9
650.0	14432.	7.3	55.	109.8	12.4
600.0	14700.	2.5	52.	97.7	12.7
550.0	16449.	-2.2	55.	71.5	16.5
500.0	19753.	-6.5	41.	105.7	12.0
450.0	22770.	-12.2	29.	119.7	8.6
400.0	24955.	-17.5	55.		

STATION ALTITUDE 2985.0 FEET MSL
 5 JULY 54 1315 MDT
 ASCENSION NO. 354

GEODETIC COORDINATES
 32.63063 LAT DEG
 136.77933 LON DEG

TABLE 11

SIGNIFICANT LEVEL DATA		TEMPERATURE		REL. HUM. PERCENT
195327056 WHITE SANDS	195327056	AIR DEGREE'S	DEWPOINT CENTIGRADE	
378.1	5939.0	51.7	16.6	55.0
559.1	4222.7	33.7	13.0	54.0
950.0	4942.7	27.6	11.5	53.0
295.1	5310.2	21.5	12.7	50.0
753.1	4612.7	17.2	9.5	51.0
207.0	17675.6	11.1	3.3	33.0
464.5	11331.2	2.5	9.0	25.0
575.3	11280.7	3.7	3.1	25.0
572.2	11431.2	5.1	-1.3	59.0
465.3	11225.2	3.9	-1.2	49.0
536.7	13111.0	5.0	-2.5	56.0
565.5	13450.9	5.3	-5.7	65.0
583.0	15270.2	1.2	-8.6	47.0
554.7	16682.0	-0.9	-13.7	37.0
337.3	17613.5	-2.8	-15.3	33.0
515.5	18535.7	-6.1	-22.6	22.0
500.0	19280.7	-5.0	-23.2	26.0
651.0	22035.6	-12.1	-23.5	26.0
409.6	24619.5	-15.9	-42.2	25.0
600.0	24932.0	-13.1	-23.9	38.0

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.87035 LWY DEG

WEEK ATR DATA
 180020854
 WHITE SANDS

TABLE 12

STATION ALTITUDE 12627.0 FEET MSL
 0 JULY 34 1315 MDT
 ASCENSION NO. 354

GEOMETRIC ALTITUDE FEET	PRESSURE MILLIBARNS	TEMPERATURE DEGREES CENTIGRADE	REL. HUMID. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
13000.0	371.1	71.7	75.0	0.966	582.5	120.0	6.0	1.000249
13000.0	377.2	71.7	75.0	0.966	582.5	119.9	5.0	1.000249
13000.0	383.0	72.0	75.0	0.966	580.1	112.2	5.8	1.000291
13000.0	388.8	72.0	75.0	0.966	577.3	107.6	6.6	1.000275
13000.0	394.7	72.0	75.0	0.966	575.5	91.8	6.2	1.000274
13000.0	400.5	72.0	75.0	0.966	573.3	91.2	8.0	1.000270
13000.0	406.3	72.0	75.0	0.966	572.1	110.8	6.0	1.000267
13000.0	412.1	72.0	75.0	0.966	570.4	120.4	6.6	1.000256
13000.0	417.9	72.0	75.0	0.966	568.8	125.1	6.8	1.000250
13000.0	423.7	72.0	75.0	0.966	567.1	125.0	5.7	1.000257
13000.0	429.5	72.0	75.0	0.966	565.5	125.1	5.4	1.000256
13000.0	435.3	72.0	75.0	0.966	563.8	130.5	5.6	1.000251
13000.0	441.1	72.0	75.0	0.966	562.1	135.6	5.9	1.000243
13000.0	446.9	72.0	75.0	0.966	560.3	139.1	8.1	1.000245
13000.0	452.7	72.0	75.0	0.966	558.5	141.8	9.4	1.000242
13000.0	458.5	72.0	75.0	0.966	556.8	138.5	11.2	1.000241
13000.0	464.3	72.0	75.0	0.966	555.2	133.5	13.2	1.000213
13000.0	470.1	72.0	75.0	0.966	553.5	124.8	13.9	1.000203
13000.0	475.9	72.0	75.0	0.966	551.5	116.0	16.2	1.000205
13000.0	481.7	72.0	75.0	0.966	549.5	100.8	18.8	1.000201
13000.0	487.5	72.0	75.0	0.966	547.7	91.6	13.2	1.000193
13000.0	493.3	72.0	75.0	0.966	545.5	36.8	12.0	1.000190
13000.0	499.1	72.0	75.0	0.966	543.2	87.0	11.5	1.000185
13000.0	504.9	72.0	75.0	0.966	540.9	39.9	11.4	1.000183
13000.0	510.7	72.0	75.0	0.966	538.7	22.8	12.2	1.000179
13000.0	516.5	72.0	75.0	0.966	536.7	92.0	12.5	1.000175
13000.0	522.3	72.0	75.0	0.966	534.5	90.1	11.7	1.000170
13000.0	528.1	72.0	75.0	0.966	532.3	90.8	12.0	1.000163
13000.0	533.9	72.0	75.0	0.966	530.3	97.5	12.5	1.000161
13000.0	539.7	72.0	75.0	0.966	528.1	102.6	18.6	1.000153
13000.0	545.5	72.0	75.0	0.966	525.5	107.4	16.4	1.000154
13000.0	551.3	72.0	75.0	0.966	523.5	111.0	15.8	1.000152
13000.0	557.1	72.0	75.0	0.966	521.5	110.1	15.5	1.000149
13000.0	562.9	72.0	75.0	0.966	519.5	109.5	15.1	1.000147
13000.0	568.7	72.0	75.0	0.966	517.2	107.8	16.0	1.000144
13000.0	574.5	72.0	75.0	0.966	515.3	105.0	12.8	1.000142
13000.0	580.3	72.0	75.0	0.966	513.0	107.5	11.1	1.000141
13000.0	586.1	72.0	75.0	0.966	510.7	111.1	9.7	1.000137
13000.0	591.9	72.0	75.0	0.966	508.5	112.2	9.4	1.000135
13000.0	597.7	72.0	75.0	0.966	506.5	115.7	9.5	1.000133

UPPER AIR DATA
 1P50020756
 4MTF 5A925

STATION ALTITUDE. 5250 FT MSL
 1 JULY 54
 ACCESSION NO. 294

GEOMETRIC COORDINATES
 32.60043 LAT DEG
 106.87033 LON DEG

TABLE 12 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	WET BULB POINT DEGREES	REL. HUM. PERCENT	DENSITY 5M/CUBIC METER	SPEED 5000 FT KNOTS	WIND DIRECTION DEGREES(TV)	WIND SPEED KNOTS	INDEX OF REFRACTION
2250.0	624.5	-15.1	-10.8	24.6	1577.1	525.0	111.2	7.9	1.000170
2400.0	615.3	-16.1	-11.5	24.3	554.0	524.3			1.000128
2650.0	606.1	-17.1	-11.9	26.3	554.0	523.5			1.000125

STATION ALTITUDE 32,200 FEET MSL
 5 JULY 62 1315 MDT
 ASCENSION NO. 154

MANDATORY LEVELS
 3500000000
 WHITE SANDS

SECTETIC COORDINATES
 32.60068 LAT DEG
 136.37035 LON DEG

TABLE 13

MILLIBARS	PRESSURE GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT PERCENT	REL.HUMID. PERCENT	WIND DATA	
					DIRECTION DEGREES(TN)	SPEED KNOTS
950.0	4239.6	27.4	11.4	83.	136.8	6.7
900.0	5525.6	22.0	11.0	49.	117.3	6.1
850.0	6811.6	15.9	9.4	52.	125.3	5.6
800.0	8097.6	11.1	8.3	87.	161.5	9.3
750.0	9383.6	7.5	-1.9	51.	115.1	16.2
700.0	10669.6	2.8	-7.6	55.	87.6	11.6
650.0	11955.6	-1.5	-14.6	35.	70.7	11.9
600.0	13241.6	-5.0	-23.2	24.	117.5	15.5
550.0	14527.6	-12.2	-28.6	24.	111.4	9.7
500.0	15813.6	-18.1	-28.0	15.		

STATION ALTITUDE 3997.75 FEET MSL
 5 JULY 54
 ASCENSION NO. 109

SIGNIFICANT LEVEL DATA
 1500Z JUL 12 59
 S W F

GEODETIC COORDINATES
 12.48034 LAT DEG
 106.42307 LON DEG

TABLE 14

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE WIND PERCENT	REL. HUM. PERCENT
877.1	3997.3	34.1	14.1	70.0
873.7	4112.0	30.0	9.5	70.0
866.1	4367.9	29.5	9.0	29.0
850.0	4916.2	28.5	10.2	72.0
776.6	7515.2	20.3	8.9	42.0
738.3	8942.2	16.4	7.9	57.0
700.0	10423.4	11.9	8.0	77.0
679.8	11227.5	9.1	8.0	93.0
662.9	11914.2	8.2	5.8	85.0
554.6	12256.8	3.2	-2.4	47.0
652.0	12364.9	7.9	.6	60.0
646.0	12615.5	7.0	-3.2	45.0
593.3	14895.3	1.9	-8.5	46.0
558.9	16470.0	-1.6	-12.5	43.0
521.6	18269.2	-4.4	-21.0	26.0
514.4	18289.6	-3.9	-23.0	21.0
500.0	19363.6	-6.0	-25.3	20.0
485.4	20125.4	-6.8	-27.7	17.0
461.8	21396.2	-10.4	-30.7	17.0

STATION ALTITUDE 3957.70 FEET MSL
 6 JULY 54 1400 MDT
 ASCENSION NO. 129

UPPER AIR DATA
 180000C129
 S W R

GEODLTIC COORDINATES
 22.48C34 LAT DEC
 106.42307 LON DEC

TABLE 15

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA		INDEX OF REFRACTION
							TEMPERATURE DEWPOINT CENTIGRADE	SPEED KNOTS	
3957.7	877.1	74.1	30.0	987.6	685.3	140.0	140.0	1.000285	
4000.0	877.0	74.0	30.0	987.0	685.1	140.0	140.0	1.000284	
4500.0	842.2	29.3	29.7	987.9	679.3	130.2	130.2	1.000270	
5000.0	847.5	20.2	32.5	974.2	678.2	138.3	138.3	1.000269	
5500.0	832.9	20.7	35.6	962.4	676.5	138.2	138.2	1.000267	
6000.0	818.5	25.1	38.7	950.8	674.7	144.4	144.4	1.000264	
6500.0	804.5	25.5	41.7	939.4	672.9	151.7	151.7	1.000261	
7000.0	790.6	21.9	44.6	928.2	671.1	157.3	157.3	1.000258	
7500.0	777.0	20.3	47.9	917.1	669.3	153.5	153.5	1.000255	
8000.0	763.4	19.0	51.1	905.3	667.7	151.8	151.8	1.000252	
8500.0	750.0	17.6	54.2	893.6	666.1	152.7	152.7	1.000248	
9000.0	736.8	16.2	57.2	882.1	664.5	150.2	150.2	1.000245	
9500.0	723.6	14.7	64.5	870.8	662.8	144.5	144.5	1.000243	
10000.0	710.7	13.2	71.3	859.7	661.1	135.7	135.7	1.000242	
10500.0	698.0	11.6	78.5	848.9	659.4	129.9	129.9	1.000239	
11000.0	685.5	9.9	86.5	838.6	657.4	128.5	128.5	1.000238	
11500.0	673.0	8.7	89.8	827.0	656.0	127.9	127.9	1.000233	
12000.0	660.8	8.2	75.5	814.4	655.0	126.6	126.6	1.000221	
12500.0	648.8	7.4	53.5	802.0	653.6	117.7	117.7	1.000205	
13000.0	636.5	6.1	47.7	792.2	651.9	104.9	104.9	1.000198	
13500.0	625.0	5.0	47.2	780.8	650.6	97.3	97.3	1.000194	
14000.0	613.5	3.9	46.8	769.6	649.2	95.3	95.3	1.000190	
14500.0	602.1	2.8	46.3	758.5	647.8	93.9	93.9	1.000186	
15000.0	590.9	1.7	45.8	747.6	646.5	93.5	93.5	1.000182	
15500.0	579.6	.6	44.8	736.6	645.1	94.1	94.1	1.000179	
16000.0	569.0	.0	43.9	725.9	643.8	95.1	95.1	1.000175	
16500.0	558.3	-1.6	42.7	715.2	642.4	97.1	97.1	1.000171	
17000.0	547.6	-2.4	38.0	703.8	641.4	101.4	101.4	1.000167	
17500.0	537.2	-3.2	33.3	692.5	640.4	105.2	105.2	1.000163	
18000.0	527.0	-4.0	28.5	681.4	639.5	108.4	108.4	1.000159	
18500.0	517.0	-4.1	22.8	668.8	639.2	111.4	111.4	1.000154	
19000.0	507.1	-5.0	20.5	658.2	638.2	114.2	114.2	1.000151	
19500.0	497.4	-6.1	19.5	648.5	636.8	117.5	117.5	1.000148	
20000.0	487.3	-6.7	17.5	637.3	636.1	117.8	117.8	1.000145	
20500.0	478.3	-7.9	17.0	627.8	634.7			1.000143	
21000.0	469.0	-9.3	17.0	619.0	633.0			1.000141	

STATION ALTITUDE 1997.75 FEET MSL
 6 JULY 84 1400 MDT
 ASCENSION NO. 127

MANDATORY LEVELS
 1800000120
 S V F

GEODETIC COORDINATES
 12.48024 LAT DEG
 106.42317 LON DEG

TABLE 16

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
920.0	4913.	28.5	10.2	32.	128.4	5.7
800.0	6684.	27.0	9.7	43.	152.9	10.3
750.0	8493.	17.6	8.3	54.	152.7	17.1
700.0	10413.	11.9	8.0	77.	130.8	9.0
650.0	12435.	7.6	-0.6	56.	118.9	15.3
600.0	14580.	2.0	-7.8	40.	92.9	12.0
550.0	16568.	-2.3	-14.3	39.	100.4	15.5
500.0	19736.	-7.0	-25.3	20.	116.4	14.2

STATION ALTITUDE 3202.0 FEET MSL
 6 JULY 56 1505 MDT
 ASCENSION NO. 355

SIGNIFICANT LEVEL DATA
 1P0002355
 WHITE SANDS

SECTETIC COORDINATES
 32.60769 LAT D-6
 106.37033 LON 068

TABLE 17

PRESSURE GEOMETRIC MILLIBARS MSL FEET	ALTITUDE FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
275.5	3999.0	34.8	8.5	20.0
366.1	4111.6	32.6	9.6	23.0
350.0	4895.3	30.5	7.7	26.0
763.1	8010.1	23.9	4.0	33.0
700.0	10433.0	13.0	2.5	65.0
549.0	12510.0	3.1	1.0	91.0
512.6	14075.5	3.8	-2	75.0
596.4	14871.5	2.1	-1.3	79.0
577.6	15660.2	.1	-5.3	57.0
568.5	15065.7	.9	-11.2	60.0
500.2	16418.7	.5	-18.1	23.0
551.2	16850.0	.5	-13.2	23.0
525.2	18036.2	-2.3	-20.1	26.0
500.0	19409.3	-5.7	-22.5	25.0
638.3	22763.0	-12.3	-29.5	22.0
608.5	24521.3	-15.8	-33.6	27.0
600.0	25342.7	-15.7	-27.8	60.0

UPPER AIR DATA
 1°00'00" S
 WHITE SANDS

STATION ALTITUDE 2243 FT
 6 JULY 54
 ASCENSION NO. 555

GEOMETRIC COORDINATES
 32.63363 LAT DEG
 136.37033 LON DEG

TABLE 18

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
3950.0	375.5	34.6	20.0	986.5	585.3	200.0	9.9	1.000244
4000.0	375.2	34.7	20.1	986.5	585.2	199.7	9.9	1.000244
4500.0	361.5	32.1	23.2	978.5	582.5	186.9	10.0	1.000255
5000.0	345.9	29.2	24.3	968.2	580.1	174.9	10.5	1.000259
5500.0	332.4	25.5	25.7	955.5	578.3	164.4	11.5	1.000259
6000.0	318.1	21.1	27.2	944.9	575.5	155.9	12.8	1.000252
6500.0	304.1	15.5	26.5	933.5	574.8	149.9	14.3	1.000248
7000.0	292.3	9.0	30.1	922.6	573.0	143.5	15.1	1.000246
7500.0	282.5	2.5	31.5	911.6	571.2	138.5	15.7	1.000240
8000.0	273.4	-2.9	33.0	900.5	569.4	133.9	15.6	1.000237
8500.0	264.9	-7.5	35.5	889.1	567.8	128.5	15.2	1.000236
9000.0	257.7	-12.0	38.3	877.7	566.1	122.9	16.7	1.000231
9500.0	251.7	-15.5	41.0	866.5	564.5	118.4	16.2	1.000228
10000.0	246.7	-18.2	43.7	855.5	562.8	117.3	15.5	1.000225
10500.0	242.5	-20.5	46.5	844.7	561.1	117.1	12.8	1.000222
11000.0	239.0	-22.3	50.1	833.5	559.5	115.7	11.9	1.000219
11500.0	236.3	-23.9	53.7	822.5	557.9	115.7	11.1	1.000216
12000.0	234.2	-25.5	57.3	811.5	556.5	121.4	10.5	1.000213
12500.0	232.6	-27.1	56.9	801.3	556.5	119.5	10.5	1.000210
13000.0	231.3	-28.6	55.4	790.2	553.0	115.7	12.6	1.000207
13500.0	230.6	-29.8	49.9	779.5	551.4	109.9	11.8	1.000206
14000.0	230.1	-30.9	44.3	759.3	549.3	103.9	13.2	1.000201
14500.0	229.7	-31.9	46.5	757.9	548.6	97.5	15.1	1.000198
15000.0	229.5	-32.8	46.2	747.1	547.0	94.5	15.9	1.000193
15500.0	229.5	-33.5	45.0	736.9	545.3	95.9	19.4	1.000185
16000.0	229.6	-34.1	43.0	723.2	545.3	97.8	12.2	1.000175
16500.0	229.6	-34.6	43.0	717.5	544.9	101.7	13.5	1.000165
17000.0	229.6	-35.0	42.1	698.2	544.4	104.9	16.8	1.000145
17500.0	229.6	-35.3	42.5	688.9	543.0	109.5	15.2	1.000160
18000.0	229.6	-35.6	43.5	677.9	541.7	113.1	16.5	1.000157
18500.0	229.6	-35.8	44.3	668.1	540.2	115.9	15.9	1.000155
19000.0	229.6	-36.0	44.7	658.5	538.5	117.3	15.4	1.000152
19500.0	229.6	-36.1	44.9	649.9	537.1	117.2	12.9	1.000150
20000.0	229.6	-36.2	44.5	638.7	535.9	118.3	12.1	1.000147
20500.0	229.6	-36.3	44.0	628.5	534.8	122.0	11.2	1.000144
21000.0	229.6	-36.3	43.6	618.7	533.5	126.3	10.6	1.000142
21500.0	229.6	-36.3	43.1	609.0	532.4	131.7	9.8	1.000139
22000.0	229.6	-36.3	42.7	599.5	531.2	132.2	9.0	1.000137
22500.0	229.6	-36.3	42.2	591.3	530.0	131.1	8.1	1.000134
23000.0	229.6	-36.3	42.7	580.5	528.8	129.9	7.3	1.000132

UPPER AIR DATA
 1950 20555
 WHITE SANDS

STATION ALTITUDE 3223.75 FEET MSL
 5 JULY 56 1505 MDT
 ASCENSION NO. 553

GEOMETRIC COORDINATES
 32.40765 LAT DEG
 105.37555 LON DEG

TABLE 18 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ AFTER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (T)	SPEED KNOTS	
23500.0	525.6	-15.8	24.1	571.3	527.5	129.5	5.6	1.000110
24000.0	617.1	-16.8	25.5	557.1	525.6			1.000123
24500.0	408.9	-15.8	26.9	553.1	525.2			1.000125
25000.0	400.7	-15.8	38.9	543.3	526.2			1.000125

MANDATORY LEVELS >
 16032355
 WHITE SANDS

STATION ALTITUDE 1505.0 FEET MSL
 2 JULY 84 1505 MDT
 ASCENSION NO. 355

GEODETIC COORDINATES
 32.63043 LAT DEG
 136.37033 LON DEG

TABLE 19

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	AIR TEMPERATURE DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS
953.0	6897.	33.5	7.7	26.	177.3	13.6
971.0	5554.	25.1	5.9	29.	147.1	14.3
757.0	8493.	19.5	3.9	35.	128.7	15.2
733.0	10423.	13.9	2.5	65.	117.2	12.9
650.0	12453.	3.2	1.1	61.	119.7	10.5
607.0	14634.	2.5	-1.0	77.	96.4	15.5
550.0	16201.	.6	-19.3	23.	104.2	17.1
507.0	19382.	-5.7	-22.5	25.	117.2	13.0
450.0	22065.	-11.0	-28.2	23.	132.0	8.8
407.0	25000.	-16.7	-27.1	60.		

STATION ALTITUDE 5947.75 FEET MSL
 10 JULY 54 1545 MDT
 ACCESSION NO. 17

SIGNIFICANT LEVEL DATA
 UNRECORDED
 S W R

GEODETIC COORDINATES
 32.60034 LAT DEG
 136.42307 LONG DEG

TABLE 20

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MEL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
875.6	1927.3	14.1	9.4	22.0
872.7	4135.3	13.1	5.4	19.0
850.1	4677.9	22.4	5.5	22.0
748.2	7035.5	23.7	3.5	27.0
712.1	7956.5	15.5	2.0	60.0
570.0	12430.7	13.5	1.2	53.0
556.3	11549.9	9.5	-1.1	51.0
545.4	14756.1	.2	.3	25.0
570.6	15947.7	-2.3	-1.1	25.0
555.0	15555.2	-2.3	-5.4	32.0
546.1	17179.3	-5.3	-15.1	64.0
540.2	17355.1	-5.1	-17.5	43.0
536.2	17555.3	-5.5	-21.5	27.0
522.4	17878.0	-6.0	-20.6	26.0
502.0	19353.5	-5.0	-21.2	27.0
455.3	21175.5	-10.3	-25.7	27.0
433.5	22978.0	-13.6	-32.0	14.0
411.3	24233.3	-15.2	-29.3	29.0
400.7	24932.3	-17.6	-27.7	30.0

STATION ALTITUDE 1545 MDT
 5 JULY 54
 ESCORTION NO. 17

UPPER AIR DATA
 1500000000
 54

SYNOPTIC COORDINATES
 32.45036 LAT N05
 106.42707 LON E05

TABLE 21

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	TEMPERATURE DEGREES FAHRENHEIT	REL. HUM. PERCENT	DENSITY GRAMS PER CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
3500.0	579.7	74.1	9.4	27.0	959.4	584.5	120.0	17.1	1.00264
3400.0	574.3	74.1	7.3	21.9	954.5	584.5	120.0	17.1	1.00267
4500.0	561.6	71.4	4.1	20.4	951.6	581.3	126.0	15.3	1.00267
5000.0	547.8	69.3	5.8	20.2	947.5	578.9	128.5	15.2	1.00264
5500.0	533.9	66.0	5.2	21.1	950.2	577.4	137.4	14.4	1.00261
6000.0	519.2	62.5	4.7	24.5	947.1	575.9	137.1	14.3	1.00267
6500.0	504.6	58.7	4.3	25.7	935.2	574.3	139.0	14.7	1.00264
7000.0	489.9	54.7	3.7	26.8	927.8	572.2	141.0	15.0	1.00260
7500.0	475.2	50.7	3.5	26.9	914.4	571.2	140.3	15.1	1.00277
8000.0	460.5	46.7	3.4	27.1	907.0	569.5	140.5	15.1	1.00283
8500.0	445.8	42.7	3.4	27.4	895.1	567.9	141.2	15.0	1.00272
9000.0	431.1	38.7	3.3	27.7	877.2	565.3	144.0	14.0	1.00269
9500.0	416.4	34.7	3.4	27.9	854.1	564.5	148.7	14.9	1.00265
10000.0	401.7	30.7	3.2	28.3	837.2	562.9	152.0	14.9	1.00263
10500.0	387.0	26.7	3.1	27.4	840.1	560.5	152.1	14.6	1.00269
11000.0	372.3	22.7	2.7	26.6	823.2	557.3	152.3	16.3	1.00265
11500.0	357.6	18.7	2.2	28.9	817.0	555.7	152.4	14.5	1.00263
12000.0	342.9	14.7	2.1	27.0	802.1	554.0	148.3	13.6	1.00263
12500.0	328.2	10.7	2.5	28.3	791.3	552.4	143.4	12.5	1.00269
13000.0	313.5	6.7	2.8	28.3	780.2	550.7	138.2	11.8	1.00265
13500.0	298.8	2.7	2.9	26.2	770.4	549.0	141.1	11.8	1.00264
14000.0	284.1	-1.3	2.8	26.3	756.2	547.3	143.6	11.8	1.00264
14500.0	269.4	-5.3	2.1	27.1	745.4	545.9	147.5	11.8	1.00261
15000.0	254.7	-9.3	2.1	27.1	737.6	544.2	135.7	10.5	1.00260
15500.0	240.0	-13.3	2.6	27.1	725.9	543.2	137.3	11.0	1.00262
16000.0	225.3	-17.3	2.6	26.5	714.3	542.1	127.0	12.0	1.00261
16500.0	210.6	-21.3	2.7	27.3	700.2	540.3	127.0	12.0	1.00261
17000.0	195.9	-25.3	2.7	28.0	689.5	537.4	126.0	13.4	1.00262
17500.0	181.2	-29.3	2.6	28.1	680.2	534.1	126.0	14.0	1.00261
18000.0	166.5	-33.3	2.6	26.4	650.2	529.1	130.3	11.0	1.00262
18500.0	151.8	-37.3	2.6	26.5	639.5	527.5	121.3	10.4	1.00263
19000.0	137.1	-41.3	2.6	27.0	628.2	525.2	134.9	9.0	1.00267
19500.0	122.4	-45.3	2.7	27.0	620.5	523.2	132.3	9.0	1.00267
20000.0	107.7	-49.3	2.7	27.0	604.2	520.7	132.0	10.2	1.00265
20500.0	93.0	-53.3	2.7	27.0	592.2	518.7	132.0	10.2	1.00265
21000.0	78.3	-57.3	2.7	26.5	580.3	517.5	130.3	10.5	1.00262
21500.0	63.6	-61.3	2.6	26.5	568.2	516.2	126.0	10.5	1.00261
22000.0	48.9	-65.3	2.6	26.5	556.2	514.9	126.0	10.5	1.00261
22500.0	34.2	-69.3	2.6	26.5	544.2	513.6	126.0	10.5	1.00261
23000.0	19.5	-73.3	2.6	26.5	532.2	512.3	126.0	10.5	1.00261
23500.0	4.8	-77.3	2.6	26.5	520.2	511.0	126.0	10.5	1.00261
24000.0	-10.9	-81.3	2.6	26.5	508.2	509.7	126.0	10.5	1.00261
24500.0	-26.6	-85.3	2.6	26.5	496.2	508.4	126.0	10.5	1.00261
25000.0	-42.3	-89.3	2.6	26.5	484.2	507.1	126.0	10.5	1.00261
25500.0	-58.0	-93.3	2.6	26.5	472.2	505.8	126.0	10.5	1.00261
26000.0	-73.7	-97.3	2.6	26.5	460.2	504.5	126.0	10.5	1.00261
26500.0	-89.4	-101.3	2.6	26.5	448.2	503.2	126.0	10.5	1.00261
27000.0	-105.1	-105.3	2.6	26.5	436.2	501.9	126.0	10.5	1.00261
27500.0	-120.8	-109.3	2.6	26.5	424.2	500.6	126.0	10.5	1.00261
28000.0	-136.5	-113.3	2.6	26.5	412.2	499.3	126.0	10.5	1.00261
28500.0	-152.2	-117.3	2.6	26.5	400.2	498.0	126.0	10.5	1.00261
29000.0	-167.9	-121.3	2.6	26.5	388.2	496.7	126.0	10.5	1.00261
29500.0	-183.6	-125.3	2.6	26.5	376.2	495.4	126.0	10.5	1.00261
30000.0	-199.3	-129.3	2.6	26.5	364.2	494.1	126.0	10.5	1.00261
30500.0	-215.0	-133.3	2.6	26.5	352.2	492.8	126.0	10.5	1.00261
31000.0	-230.7	-137.3	2.6	26.5	340.2	491.5	126.0	10.5	1.00261
31500.0	-246.4	-141.3	2.6	26.5	328.2	490.2	126.0	10.5	1.00261
32000.0	-262.1	-145.3	2.6	26.5	316.2	488.9	126.0	10.5	1.00261
32500.0	-277.8	-149.3	2.6	26.5	304.2	487.6	126.0	10.5	1.00261
33000.0	-293.5	-153.3	2.6	26.5	292.2	486.3	126.0	10.5	1.00261
33500.0	-309.2	-157.3	2.6	26.5	280.2	485.0	126.0	10.5	1.00261
34000.0	-324.9	-161.3	2.6	26.5	268.2	483.7	126.0	10.5	1.00261
34500.0	-340.6	-165.3	2.6	26.5	256.2	482.4	126.0	10.5	1.00261
35000.0	-356.3	-169.3	2.6	26.5	244.2	481.1	126.0	10.5	1.00261
35500.0	-372.0	-173.3	2.6	26.5	232.2	479.8	126.0	10.5	1.00261
36000.0	-387.7	-177.3	2.6	26.5	220.2	478.5	126.0	10.5	1.00261
36500.0	-403.4	-181.3	2.6	26.5	208.2	477.2	126.0	10.5	1.00261
37000.0	-419.1	-185.3	2.6	26.5	196.2	475.9	126.0	10.5	1.00261
37500.0	-434.8	-189.3	2.6	26.5	184.2	474.6	126.0	10.5	1.00261
38000.0	-450.5	-193.3	2.6	26.5	172.2	473.3	126.0	10.5	1.00261
38500.0	-466.2	-197.3	2.6	26.5	160.2	472.0	126.0	10.5	1.00261
39000.0	-481.9	-201.3	2.6	26.5	148.2	470.7	126.0	10.5	1.00261
39500.0	-497.6	-205.3	2.6	26.5	136.2	469.4	126.0	10.5	1.00261
40000.0	-513.3	-209.3	2.6	26.5	124.2	468.1	126.0	10.5	1.00261
40500.0	-529.0	-213.3	2.6	26.5	112.2	466.8	126.0	10.5	1.00261
41000.0	-544.7	-217.3	2.6	26.5	100.2	465.5	126.0	10.5	1.00261
41500.0	-560.4	-221.3	2.6	26.5	88.2	464.2	126.0	10.5	1.00261
42000.0	-576.1	-225.3	2.6	26.5	76.2	462.9	126.0	10.5	1.00261
42500.0	-591.8	-229.3	2.6	26.5	64.2	461.6	126.0	10.5	1.00261
43000.0	-607.5	-233.3	2.6	26.5	52.2	460.3	126.0	10.5	1.00261
43500.0	-623.2	-237.3	2.6	26.5	40.2	459.0	126.0	10.5	1.00261
44000.0	-638.9	-241.3	2.6	26.5	28.2	457.7	126.0	10.5	1.00261
44500.0	-654.6	-245.3	2.6	26.5	16.2	456.4	126.0	10.5	1.00261
45000.0	-670.3	-249.3	2.6	26.5	4.2	455.1	126.0	10.5	1.00261
45500.0	-686.0	-253.3	2.6	26.5	2.2	453.8	126.0	10.5	1.00261
46000.0	-701.7	-257.3	2.6	26.5	0.2	452.5	126.0	10.5	1.00261
46500.0	-717.4	-261.3	2.6	26.5	0.2	451.2	126.0	10.5	1.00261
47000.0	-733.1	-265.3	2.6	26.5	0.2	450.0	126.0	10.5	1.00261
47500.0	-748.8	-269.3	2.6	26.5	0.2	448.7	126.0	10.5	1.00261
48000.0	-764.5	-273.3	2.6	26.5	0.2	447.5	126.0	10.5	1.00261
48500.0	-780.2	-277.3	2.6	26.5	0.2	446.2	126.0	10.5	1.00261
49000.0	-795.9	-281.3	2.6	26.5	0.2	445.0	126.0	10.5	1.00261
49500.0	-811.6	-285.3	2.6	26.5	0.2	443.7	126.0	10.5	1.00261
50000.0	-827.3	-289.3	2.6	26.5	0.2	442.5	126.0	10.5	1.00261
50500.0	-843.0	-293.3	2.6	26.5	0.2	441.2	126.0	10.5	1.00261
51000.0	-858.7	-297.3	2.6	26.5	0.2	440.0	126.0	10.5	1.00261
51500.0	-874.4	-301.3	2.6	26.5	0.2	438.7	126.0	10.5	1.00261
52000.0	-890.1	-305.3	2.6	26.5	0.2	437.5	126.0	10.5	1.00261
52500.0	-905.8	-309.3	2.6	26.5	0.2	436.2	126.0	10.5	1.00261
53000.0	-921.5	-313.3	2.6	26.5	0.2	435.0	126.0	10.5	1.00261
53500.0	-937.2	-317.3	2.6	26.5	0.2	433.7	126.0	10.5	1.00261
54000.0	-952.9	-321.3	2.6	26.5	0.2	432.5	126.0	10.5	1.00261
54500.0	-968.6	-325.3	2.6	26.5	0.2	431.2	126.0	10.5	1.00261
55000.0	-984.3	-329.3	2.6	26.5	0.2	430.0	126.0	10.5	1.00261
55500.0	-1000.0	-333.3	2.6	26.5	0.2	428.7	126.0	10.5	1.00261
56000.0	-1015.7	-337.3	2.6	26.5	0.2	427.5	126.0	10.5	1.00261
56500.0	-1031.4	-341.3	2.6	26.5	0.2	426.2	126.0	10.5	1.00261
57000.0	-1047.1	-345.3	2.6	26.5	0.2	425.0	126.0	10.5	1.00261
57500.0	-1062.8	-349.3	2.6	26.5	0.2	423.7	126.0	10.5	1.00261
58000.0	-1078.5	-353.3	2.6	26.5	0.2	422.5	126.0	10.5	1.00261
58500.0	-1094.2	-357.3	2.6	26.5	0.2	421.2	126.0	10.5	1.00261
59000.0	-1109.9	-361.3	2.6	26.5	0.2	420.0	126.0	10.5	1.00261
59500.0	-1125.6	-365.3	2.6	26.5	0.2	418.7	126.0	10.5	1.00261
60000.0	-1141.3	-369.3	2.6	26.5	0.2	417.5	126.0	10.5	1.00261
60500.0	-1157.0	-373.3	2.6	26.5	0.2	416.2	1		

GEODETIC COORDINATES
 32.45034 LAT DEG
 134.42357 LONG DEG

OBSERVATION NO. 1545 MDT
 1545 MDT
 1545 MDT

TABLE 21 Cont'd

TEMPERATURE ATMOSPHERIC	PRESSURE MILLIBARS	WIND DIRECTION DEGREES	WIND SPEED KNOTS	WIND DEVIATION DEGREES	WIND SPEED KNOTS	WIND DEVIATION DEGREES	WIND SPEED KNOTS	WIND DEVIATION DEGREES	INDEX OF REFRACTION
15.0	1013.0	150	15.0	150	15.0	150	15.0	150	1.000170
15.0	1013.0	150	15.0	150	15.0	150	15.0	150	1.000173
15.0	1013.0	150	15.0	150	15.0	150	15.0	150	1.000175

STATION ALTITUDE 15445 MDT
 3 JULY 64
 ASCENSION NO. 11

REPOSITORY LEVELS
 15000(113)
 54 R

STATION ALTITUDE 15445 MDT
 3 JULY 64
 ASCENSION NO. 11

SYNTHETIC COORDINATES
 32.63036 LAT DEG
 106.42377 LON DEG

TABLE 22

PRES QP (GEOPOTENTIAL)	TEMPERATURE	REL. H ₂ O	WIND DATA	
			DIRECTION	SPEED
MILLIBARS	AIR DEGREE	PERCENT	DEGREES (TD)	(KNOTS)
750.0	22.5	5.4	127.5	15.6
700.0	26.0	4.1	130.0	14.0
650.0	19.7	3.1	141.7	15.0
600.0	13.5	1.2	152.1	14.8
550.0	7.3	0.6	147.0	12.5
500.0	1.5	0.0	141.5	11.6
450.0	-4.2	-0.8	99.3	12.0
400.0	-9.0	-2.0	114.3	9.9
350.0	-11.2	-2.6	147.1	7.7
300.0	-17.6	-27.0		

END

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