AD-A115 017 ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
19315A MLRS MISSILE NUMBERS V28-003, V15-005 ROUND NUMBERS V244--ETC(U)
APR 82 D C KELLER

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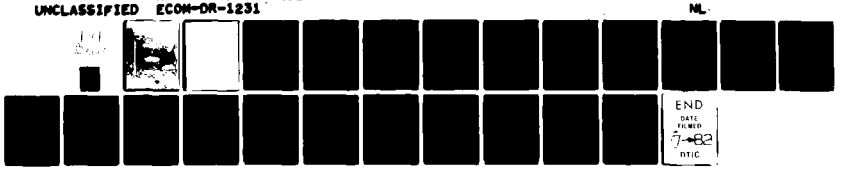

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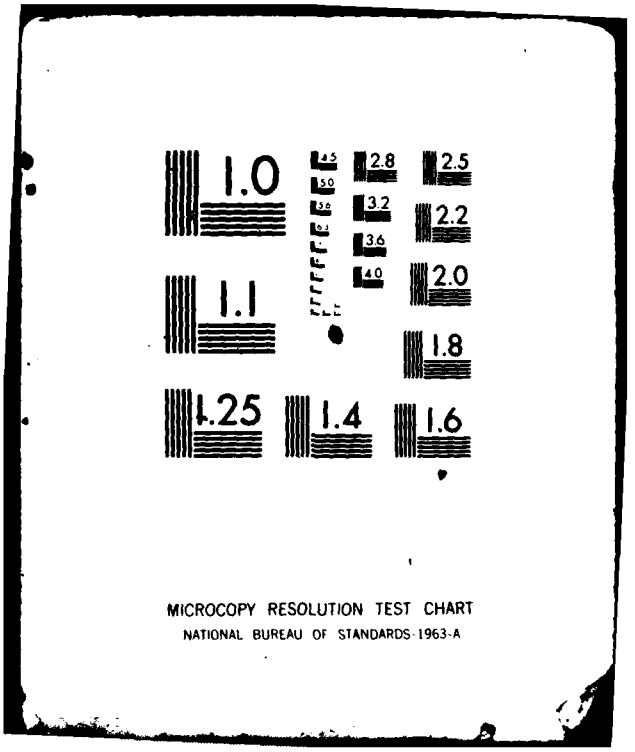
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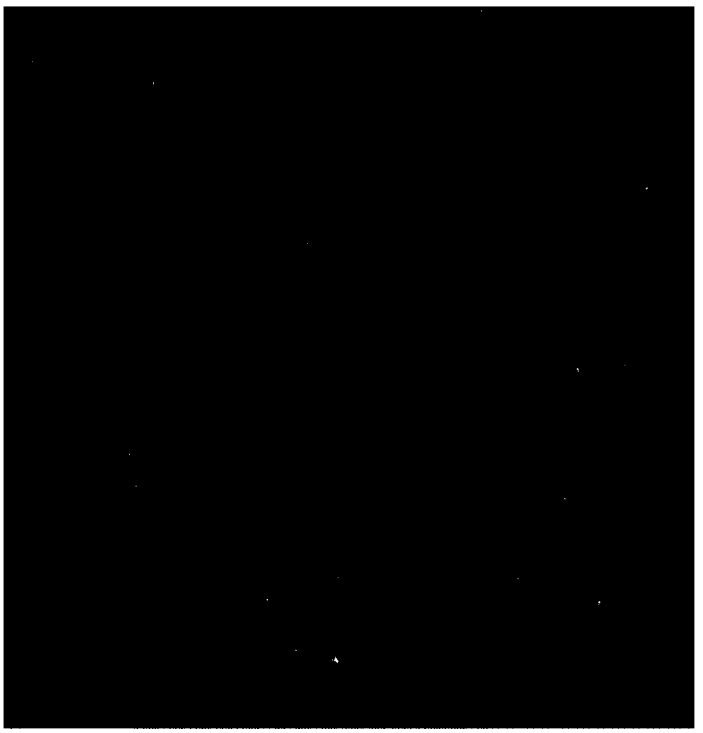
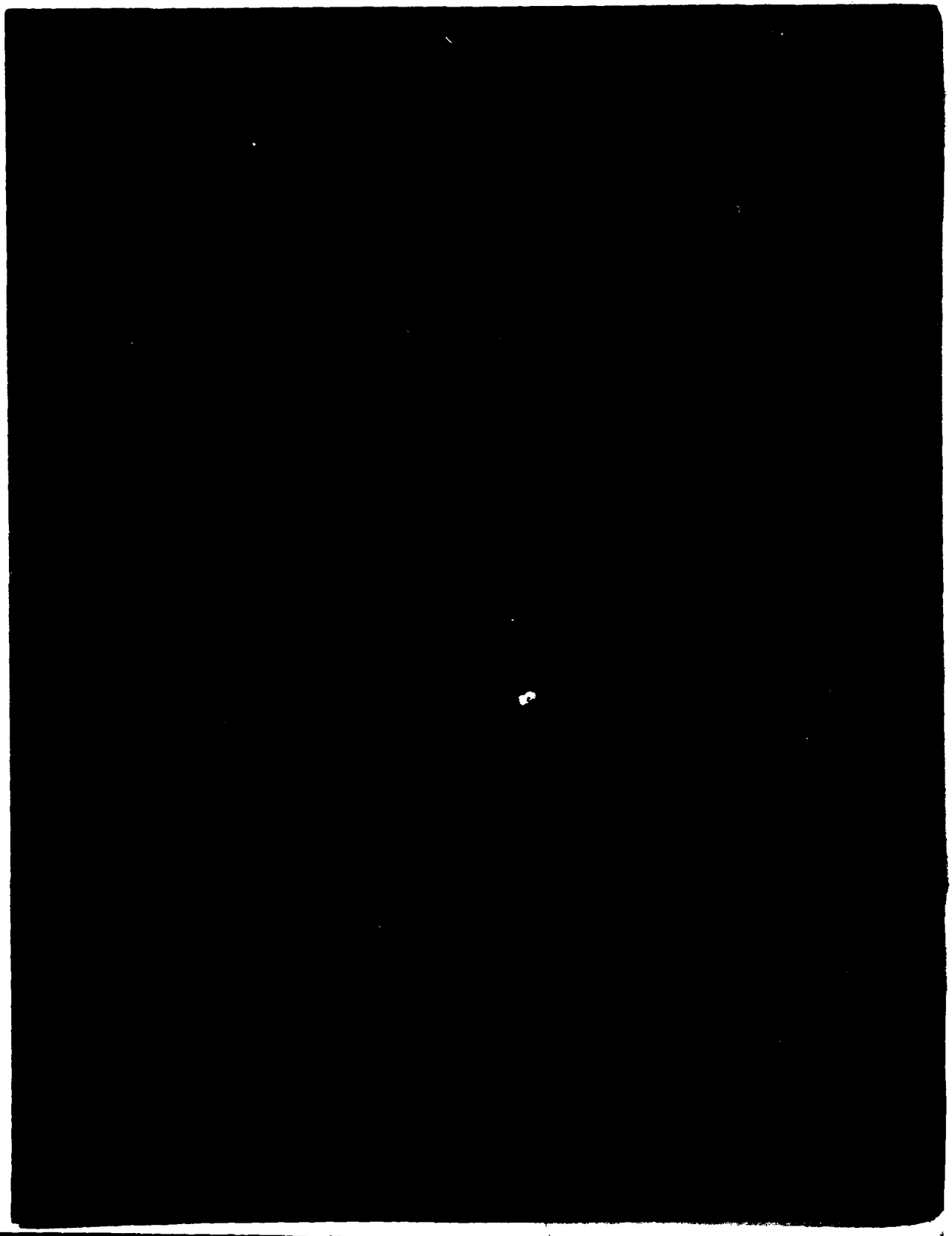
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A





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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
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4. TITLE (and Subtitle): 19315A MLRS Missile Number V-28-003, V15-005 Round Number V244/AT2-13, V245/AT2-14	5. TYPE OF REPORT & PERIOD COVERED
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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 the launching of the 19315A MLRS, Missile number V-23-003, V15-005, Round Number V244/AT2-13, V245/AT2-14 are presented in tabular form.

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CONTENTS

INTRODUCTION

19315A MLRS, Missile Numbers V28-003 and V15-005, Round Numbers V-244/AT2-13 and V-245/AT2-14, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1505:30 and 1505:35 MST, 20 April 1982. The scheduled launch times were 1500 and 1500:04.5 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 (^{o}C), relative humidity, dew point (^{o}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

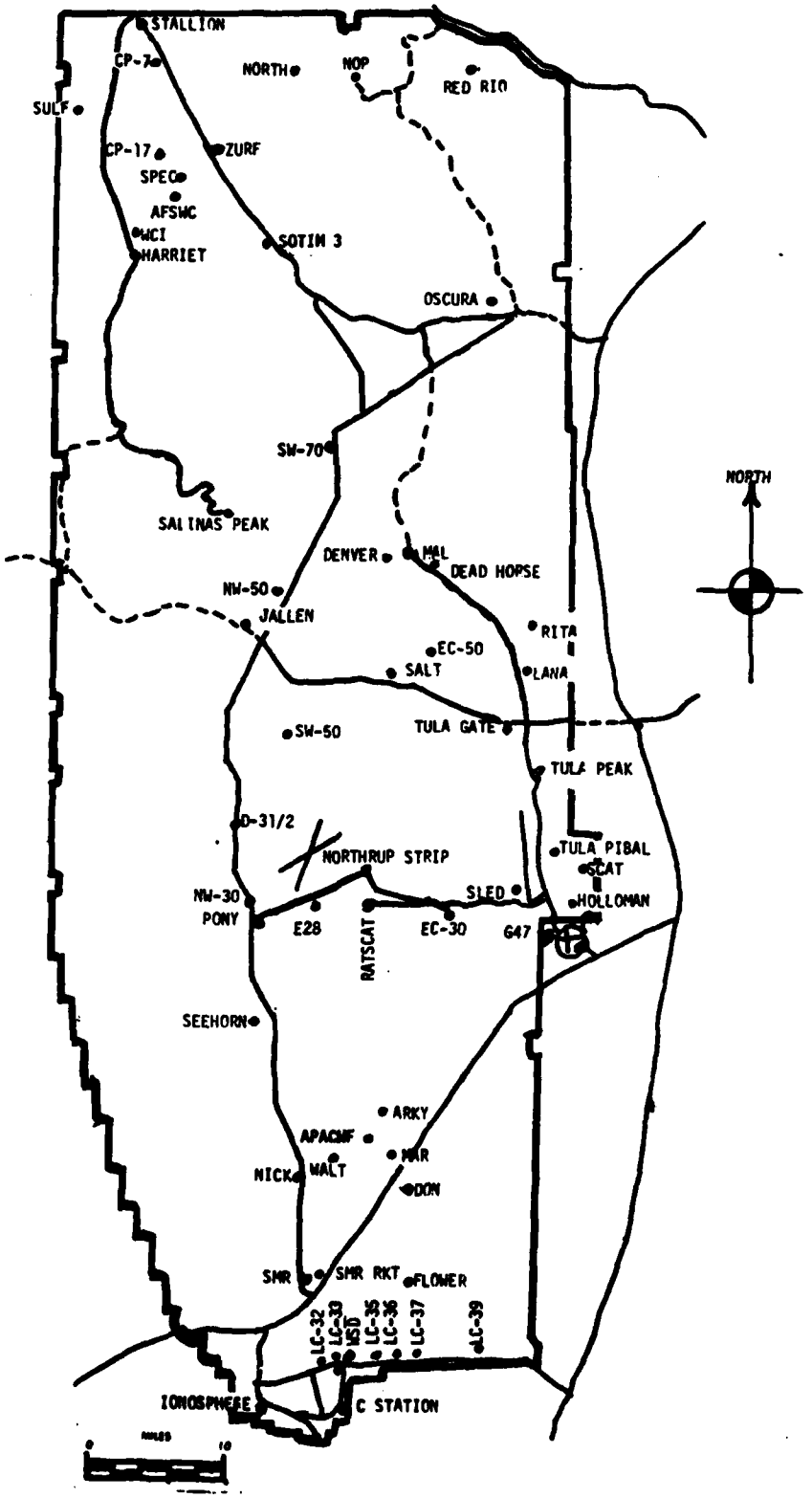
(1) Low level wind data were obtained fro Pilot-Balloon observations at:

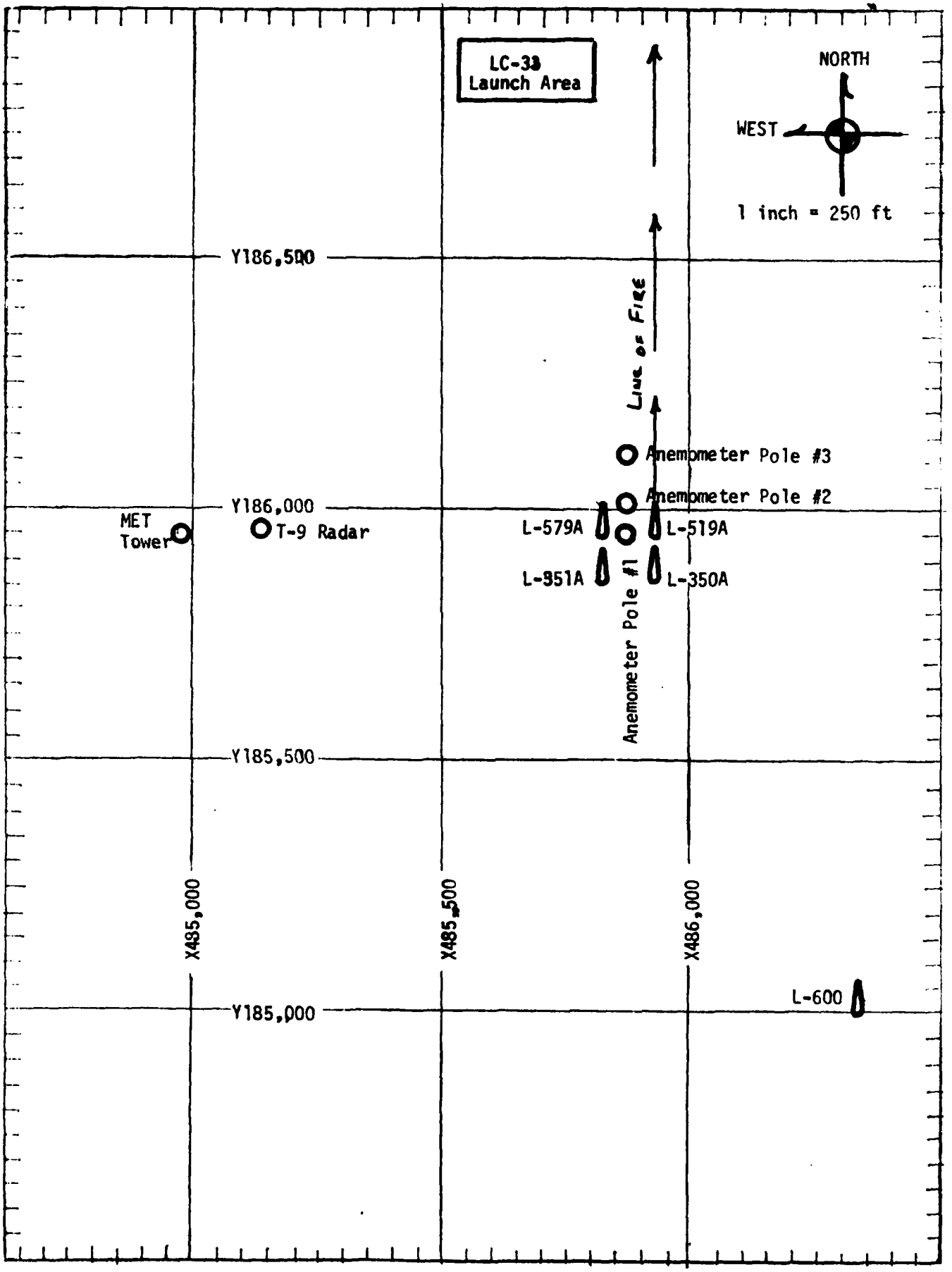
SITE AND ALTITUDE	
WSD	2Km
SMR	2Km

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

SITE AND TIME	
WSD	1200 MST
LC-37	1300 MST
WSD	1415 MST
LC-37	1510 MST

WSMR METEOROLOGICAL SITES




LC-38
Launch Area
NORTH
WEST
1 inch = 250 ft
Y186,500
Line of Fire
Anemometer Pole #3
Anemometer Pole #2
Y186,000
MET
Tower
T-9 Radar
L-579A
L-519A
L-351A
L-350A
Anemometer Pole #1
Y185,500
X485,000
X485,500
X486,000
L-600
Y185,000

PROJECT SURFACE OBSERVATION

TABLE 1

STATION LC-33 E & A

DATE 20 (DAY) APR (MONTH) 82 (YEAR)

X= 484,982.65 Y= 185,959.73 H= 2995.00

TIME M S T	PRESSURE mbs	TEMPERATURE °F	TEMPERATURE °C	DEW POINT °F	DEW POINT °C	RELATIVE HUMIDITY %	DENSITY gm/m³	WIND DIRECTION degs Tn	WIND SPEED kts	WIND CHARACTER kts	VISIBILITY
1506	879.1		19.8		-2.5	22	1041	120	17		20

OBSTRUCTIONS TO VISIBILITY	CLOUDS 1st LAYER AMT	1st LAYER TYPE	1st LAYER HGT	2nd LAYER AMT	2nd LAYER TYPE	2nd LAYER HGT	3rd LAYER AMT	3rd LAYER TYPE	3rd LAYER HGT	REMARKS
	3	AS	15,000	6	C1	25,000				H ALQOS

PSYCHROMETRIC COMPUTATION

TIME:	1506		
DRY BULB TEMP.	19.8		
WET BULB TEMP.	8.8		
WET BULB DEPR.	11.0		
DEW POINT	-2.5		
RELATIVE HUMID.	22		

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	MISG	18	T -30	158	17	T -30	159	17
T-20	MISG	19	T -20	154	18	T-20	144	21
T-10	MISG	19	T -10	150	16	T -10	140	21
T0.0	MISG	18	T 0.0	143	12	T 0.0	147	21
T+10	MISG	18	T +10	152	12	T +10	144	20

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T -30	135	13	T -30	130	17
T -20	120	19	T -20	131	23
T -10	125	22	T -10	147	21
T 0.0	120	17	T 0.0	144	21
T +10	151	12	T +10	148	16

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T -30	125	21	T -30	098	19
T -20	128	20	T -20	105	20
T -10	130	22	T -10	108	20
T0.0	131	23	T 0.0	101	21
T +10	137	19	T +10	105	22

TABLE 4

[illegible] PILOT-BALLOON [illegible]

DATE 20 APRIL 82

SITE: WSD
TIME: 1530 MST
WSTM COORDINATES:
X= 488,580.00
Y= 185,045.00
H= 3,989.00

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	100	20
150	117	23
210	117	24
270	123	25
330	125	23
390	129	25
500	135	26
650	141	21
800	146	22
950	148	24
1150	137	20
1350	162	15
1550	190	22
1750	211	29
2000	225	32

Data obtained from Nike-Herc Radar Tracked Pilot-Balloon observation.

SITE: SMR
TIME: 1506 MST
WSTM COORDINATES:
X= 472,441.28
Y= 214,137.54
H= 3,999.00

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	175	18
150	122	13
210	129	17
270	134	18
330	138	18
390	136	21
500	130	22
650	143	23
800	156	21
950	167	19
1150	178	14
1350	175	18
1550	178	19
1750	206	19
2000	221	23

Data obtained from RAPTS T-9 Radar Tracked Pilot-Balloon observation.

TABLE 5

AIMING AND T-TIME COMPUTER MET MESSAGES

20 APRIL 1982

WSD 1200 MST		LC-37 1300 MST	
METCM1324064		METCM1324063	
201900122881		202000124880	
00213020	29160881	00222010	29360880
01247016	28860871	01202020	28890870
02236019	28450845	02256017	28530844
03260015	28080805	03232020	28120805
04311016	27720758	04297016	27720757
05422015	27760712	05423018	27720712
06453026	27400670	06439026	27420669

WSD 1415 MST		LC-37 1510 MST	
METCM1324064		METCM1324063	
202130122880		202220124879	
00213016	29260880	00196012	29220879
01249020	29100869	01223020	28970869
02252019	28790844	02216024	28650843
03242015	28380805	03230020	28290804
04275016	27870757	04275020	27830756
05410019	27610712	05384026	27650711
06425029	27410669	06431031	27440669

STATION ALTITUDE 3989.00 FEET MSL
20 APR. 82 1200 HRS MST
ASCENSION NO. 163

SIGNIFICANT LEVEL DATA
1100020163
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 6

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
881.1	3989.0	17.8	-3.6	23.0
864.4	4521.2	13.1	-6.5	25.0
850.0	4982.9	11.2	-6.6	28.0
756.6	8124.8	2.7	-8.3	44.0
746.8	8471.0	2.0	-9.5	42.0
743.0	8606.8	4.3	-8.7	38.0
718.4	9508.3	5.1	-13.3	25.0
700.0	10201.5	3.2	-14.0	27.0
663.0	11639.2	.1	-18.0	24.0
609.0	13853.0	-5.5	-18.2	36.0
583.0	14972.6	-8.1	-26.5	21.0
548.6	16518.3	-10.5	-31.4	16.0
531.8	17304.1	-11.3	-32.7	15.0
500.0	18845.8	-15.9	-35.2	17.0

STATION ALTITUDE 3989.00 FEET MSL
20 APR. 82 1200 HRS MST
ASCENSION NO. 163

UPPER AIR DATA
1100020163
WHITE SANDS

TABLE 7

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	881.1	17.8	-3.6	23.0	1052.9	665.2	120.0	20.0	1.000256
4000.0	880.8	17.7	-3.6	23.0	1052.8	665.1	120.1	20.0	1.000255
4500.0	865.1	13.3	-6.3	24.9	1050.3	659.9	124.1	18.8	1.000252
5000.0	849.5	11.2	-6.6	28.1	1039.1	657.4	128.6	17.7	1.000249
5500.0	833.9	9.8	-6.7	30.6	1024.9	655.9	133.0	16.8	1.000246
6000.0	818.6	8.4	-6.8	33.2	1010.9	654.3	139.2	16.0	1.000243
6500.0	803.5	7.1	-7.0	35.7	997.2	652.7	143.9	15.3	1.000240
7000.0	788.8	5.7	-7.4	38.3	983.6	651.1	146.4	14.6	1.000236
7500.0	774.3	4.4	-7.7	40.8	970.3	649.6	153.3	14.8	1.000233
8000.0	760.1	3.0	-8.2	43.4	957.2	648.0	164.3	17.1	1.000230
8500.0	746.0	2.5	-9.4	41.1	941.4	647.3	181.0	16.6	1.000225
9000.0	732.2	4.6	-10.5	32.3	916.9	649.8	204.6	15.4	1.000218
9500.0	718.6	5.1	-13.2	25.1	898.7	650.2	230.5	15.4	1.000211
10000.0	705.3	3.8	-13.8	26.4	886.3	648.6	243.2	17.5	1.000208
10500.0	692.2	2.6	-14.8	26.4	873.6	647.2	248.1	19.7	1.000204
11000.0	679.2	1.5	-16.2	25.3	860.7	645.9	250.6	22.2	1.000200
11500.0	666.5	.4	-17.6	24.3	848.0	644.6	251.2	25.1	1.000197
12000.0	653.9	-.8	-17.9	26.0	835.7	643.2	251.8	28.0	1.000194
12500.0	641.5	-2.1	-17.8	28.7	823.6	641.7	250.1	29.9	1.000191
13000.0	629.3	-3.3	-17.9	31.4	811.8	640.2	248.6	31.8	1.000189
13500.0	617.3	-4.6	-18.0	34.1	800.1	638.7	247.7	32.7	1.000186
14000.0	605.5	-5.8	-19.1	34.0	788.5	637.2	247.1	32.9	1.000183
14500.0	593.8	-7.0	-22.6	27.3	776.8	635.8	246.4	33.4	1.000178
15000.0	582.4	-8.1	-26.6	20.9	765.2	634.3	245.5	34.5	1.000174
15500.0	571.0	-8.9	-28.1	19.3	752.6	633.4	245.0	35.6	1.000171
16000.0	559.9	-9.7	-29.7	17.7	740.1	632.4	248.3	36.9	1.000168
16500.0	549.0	-10.5	-31.3	16.1	727.9	631.5	251.3	38.3	1.000165
17000.0	538.2	-11.0	-32.2	15.4	715.0	630.9			1.000161
17500.0	527.6	-11.9	-33.0	15.3	703.4	629.8			1.000159
18000.0	517.2	-13.4	-33.8	15.9	693.4	628.0			1.000156
18500.0	507.0	-14.9	-34.7	16.6	683.6	626.2			1.000154

STATION ALTITUDE 3989.00 FEET MSL
20 APR. 62 1200 HRS MST
ASCENSION NO. 163

MANDATORY LEVELS
1100020163
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 8

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE			DEGREES(TN)	KNOTS
850.0	4979.	11.2	-6.6	28.	128.4	17.8
800.0	6626.	6.8	-7.1	36.	144.5	15.1
750.0	8350.	2.2	-9.1	43.	175.0	17.0
700.0	10191.	3.2	-14.0	27.	245.2	18.3
650.0	12146.	-1.2	-17.9	27.	251.3	26.6
600.0	14220.	-6.4	-20.7	31.	246.8	32.9
550.0	16433.	-10.4	-31.2	16.	251.0	38.2
500.0	18819.	-15.9	-35.2	17.		

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 82 1300 HRS MST
ASCENSION NO. 31

SIGNIFICANT LEVEL DATA
1100180031
LC-37

TABLE 9

GEODETIC COORDINATES
32.40175 LAT DEG
106.51232 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
880.3	4051.4	20.0	-5.0	18.0
867.2	4470.5	14.0	-9.2	19.0
850.0	5023.0	12.4	-10.5	19.0
783.2	7246.6	5.4	-10.8	30.0
738.4	8818.7	2.3	-9.6	41.0
720.8	9461.7	4.6	-15.2	22.0
700.0	10243.3	3.4	-18.6	18.0
686.2	10772.6	2.3	-18.9	19.0
677.6	11106.8	1.6	-18.3	21.0
660.6	11777.2	-.1	-17.7	25.0
643.8	12453.1	-1.6	-16.9	30.0

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 82 1300 HRS MST
ASCENSION NO. 31

UPPER AIR DATA
1100180031
LC-37

TABLE 10

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(N)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4051.4	880.3	20.0	-5.0	18.0	1044.2	667.6	125.0	9.9	1.000251
4500.0	860.3	13.9	-9.3	19.0	1049.9	660.5	126.2	11.4	1.000248
5000.0	850.7	12.5	-10.5	19.0	1036.3	658.8	127.3	13.1	1.000244
5500.0	835.2	10.9	-10.3	21.4	1023.0	657.0	128.1	14.7	1.000241
6000.0	820.0	9.3	-10.3	23.8	1009.9	655.2	128.8	16.4	1.000238
6500.0	805.0	7.8	-10.4	26.3	997.1	653.4	130.3	17.6	1.000235
7000.0	790.3	6.2	-10.6	28.8	984.4	651.5	137.0	17.0	1.000233
7500.0	775.8	4.9	-10.5	31.8	970.7	650.1	148.7	16.6	1.000230
8000.0	761.4	3.9	-10.0	35.3	956.0	648.9	164.2	17.3	1.000227
8500.0	747.3	2.9	-9.7	38.8	941.5	647.8	182.2	16.0	1.000224
9000.0	733.4	2.9	-10.8	35.6	924.1	647.8	203.7	15.8	1.000219
9500.0	719.8	4.5	-15.4	21.8	902.1	649.5	226.5	17.0	1.000210
10000.0	706.4	3.8	-17.5	19.2	887.9	648.6	242.1	20.1	1.000205
10500.0	693.3	2.9	-18.8	18.5	874.3	647.5	247.1	23.0	1.000202
11000.0	680.3	1.8	-18.5	20.4	861.2	646.3	247.6	24.6	1.000199
11500.0	667.6	.6	-17.9	23.3	848.8	644.8	246.0	25.3	1.000197
12000.0	655.0	-.6	-17.4	26.6	836.5	643.5			1.000194

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 82 1300 HRS MST
ASCENSION NO. 31

MANDATORY LEVELS
11001B003J
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

TABLE 11

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS
850.0	5019.	12.4	-10.5	19.	127.3	13.1
800.0	6670.	7.2	-10.4	27.	132.6	17.4
750.0	8397.	3.1	-9.8	38.	178.1	16.3
700.0	10233.	3.4	-18.6	18.	244.6	21.5
650.0	12189.	-1.0	-17.1	28.		

STATION ALTITUDE 3989.00 FEET MSL
20 APR. 82 1415 HRS MST
ASCENSION NO. 165

SIGNIFICANT LEVEL DATA
1100020165
WHITE SANDS

TABLE 12

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	TEMPERATURE DEWPOINT	REL.HUM.
MILLIBARS	MSL FEET	DEGREES CENTIGRADE		PERCENT
879.6	3989.0	19.0	-5.8	18.0
863.0	4522.7	16.0	-2.0	29.0
850.0	4944.8	14.6	-2.8	30.0
727.4	9168.5	1.7	-8.7	46.0
718.0	9513.0	1.6	-9.6	43.0
708.4	9870.5	3.2	-11.1	34.0
700.0	10188.3	3.4	-12.1	31.0
635.2	12748.6	-2.7	-15.3	37.0
617.8	13470.0	-4.5	-19.0	31.0
582.4	14993.2	-5.9	-27.6	16.0

STATION ALTITUDE 3989.00 FEET MSL
20 APR. 82 1415 HRS MST
ASCENSION NO. 165

UPPER AIR DATA
1100020165
WHITE SANDS
TABLE 13

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	879.6	19.0	-5.8	18.0	1047.1	666.4	120.0	15.9	1.000251
4000.0	879.3	18.9	-5.7	18.2	1046.9	666.4	120.1	15.9	1.000251
4500.0	863.7	16.1	-2.1	28.5	1037.7	663.4	123.9	15.7	1.000255
5000.0	848.3	14.4	-2.8	30.2	1025.3	661.4	127.8	15.6	1.000251
5500.0	832.8	12.9	-3.3	32.1	1012.0	659.6	131.7	15.5	1.000248
6000.0	817.6	11.4	-3.9	34.0	998.9	657.8	135.7	15.5	1.000244
6500.0	802.6	9.9	-4.5	35.9	986.0	656.0	139.6	15.6	1.000240
7000.0	788.0	8.3	-5.2	37.8	973.3	654.3	143.5	15.8	1.000237
7500.0	773.6	6.8	-5.9	39.7	960.8	652.5	153.0	15.0	1.000233
8000.0	759.4	5.3	-6.7	41.6	948.5	650.6	163.9	14.6	1.000229
8500.0	745.6	3.7	-7.5	43.5	936.4	648.8	175.1	14.7	1.000226
9000.0	731.9	2.2	-8.4	45.4	924.4	647.0	194.0	14.9	1.000222
9500.0	718.4	1.6	-9.6	43.1	909.4	646.3	214.2	16.7	1.000217
10000.0	705.0	3.3	-11.5	32.8	887.2	648.2	229.0	20.1	1.000210
10500.0	691.8	2.7	-12.5	31.7	872.6	647.4	235.4	23.1	1.000206
11000.0	678.8	1.5	-13.1	32.9	860.0	646.0	240.2	26.2	1.000203
11500.0	666.0	.3	-13.7	34.1	847.5	644.6	242.6	28.9	1.000200
12000.0	653.5	-.9	-14.3	35.2	835.3	643.2	242.9	30.9	1.000196
12500.0	641.2	-2.1	-15.0	36.4	823.2	641.7	244.0	32.8	1.000193
13000.0	629.1	-3.3	-16.6	34.9	811.4	640.3	247.2	34.4	1.000189
13500.0	617.1	-4.5	-19.2	30.7	799.6	638.8			1.000185
14000.0	605.2	-5.0	-21.6	25.8	785.7	638.2			1.000181
14500.0	593.6	-5.4	-24.3	20.9	772.1	637.6			1.000176

STATION ALTITUDE 3989.00 FEET MSL
20 APR. 82 1415 HRS MST
ASCENSION NO. 165

MANDATORY LEVELS
110002016S
WHITE SANDS

TABLE 14

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE			DEGREES(TN)	KNOTS
850.0	4941.	14.6	-2.8	30.	127.3	15.6
800.0	6607.	9.6	-4.7	36.	140.5	15.7
750.0	8347.	4.2	-7.3	43.	171.8	14.6
700.0	10178.	3.4	-12.1	31.	231.7	21.2
650.0	12134.	-1.3	-14.5	36.	243.0	31.4
600.0	14209.	-5.2	-22.8	24.		

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 82 1510 HRS MST
ASCENSION NO. 52

SIGNIFICANT LEVEL DATA
1100180032
LC-37

TABLE 15

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
878.8	4051.4	18.0	-3.4	23.0
861.5	4605.9	14.4	-2.9	30.0
850.0	4977.6	13.2	-3.5	31.0
801.4	6590.7	9.0	-6.0	34.0
738.0	8807.3	2.8	-9.1	41.0
717.2	9566.2	1.7	-8.9	45.0
707.0	9947.3	4.0	-9.7	36.0
703.0	10098.9	4.1	-10.3	34.0
700.0	10213.1	3.8	-10.2	35.0
637.6	12678.4	-2.2	-14.6	38.0

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 82 1510 HRS MST
ASCENSION NO. 32

UPPER AIR DATA
1100180032
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

TABLE 16

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4051.4	878.8	18.0	-3.4	23.0	1049.4	665.4	110.0	12.0	1.000255
4500.0	864.8	15.1	-2.9	28.7	1042.9	662.1	117.3	17.0	1.000255
5000.0	849.3	13.1	-3.6	31.0	1031.3	659.9	121.6	22.6	1.000251
5500.0	833.9	11.8	-4.3	32.0	1017.3	658.3	124.1	27.1	1.000247
6000.0	818.9	10.5	-5.1	32.9	1003.6	656.8	125.3	23.9	1.000243
6500.0	804.1	9.2	-5.9	33.8	990.1	655.3	127.4	20.6	1.000239
7000.0	789.3	7.9	-6.5	35.3	976.7	653.6	133.0	17.2	1.000236
7500.0	774.8	6.5	-7.2	36.9	963.6	652.0	143.0	15.4	1.000232
8000.0	760.5	5.1	-7.9	38.5	950.7	650.3	156.5	17.1	1.000228
8500.0	746.5	3.7	-8.6	40.0	937.9	648.7	171.4	19.0	1.000225
9000.0	732.7	2.5	-9.1	42.0	924.4	647.3	190.3	21.9	1.000221
9500.0	719.0	1.8	-8.9	44.7	909.5	646.5	206.0	24.2	1.000218
10000.0	705.6	4.0	-9.9	35.3	885.4	649.1	221.6	25.8	1.000211
10500.0	692.4	3.1	-10.7	35.3	871.9	648.0	231.4	27.7	1.000208
11000.0	679.4	1.9	-11.6	36.0	859.4	646.5	238.0	29.6	1.000204
11500.0	666.7	.7	-12.5	36.6	847.1	645.1	239.4	30.1	1.000201
12000.0	654.2	-.5	-13.4	37.2	835.0	643.6			1.000197
12500.0	641.9	-1.8	-14.2	37.8	823.0	642.2			1.000194

STATION ALTITUDE 4051.37 FEET MSL
20 APR. 82 1510 HRS MST
ASCENSION NO. 32

MANDATORY LEVELS
11001800Z
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

TABLE 17

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS
850.0	4974.	13.2	-3.5	31.	121.5	22.3
800.0	6633.	8.9	-6.1	34.	128.7	19.7
750.0	8370.	4.0	-8.5	40.	165.9	18.7
700.0	10203.	3.8	-10.2	35.	227.2	26.8
650.0	12161.	-1.0	-13.7	37.		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