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ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2  
14818C LANCE, MISSILE NUMBER 3396, ROUND NUMBER 333 APL.(U)  
JUN 79

UNCLASSIFIED

ERADCOM/ASL-DR-1029

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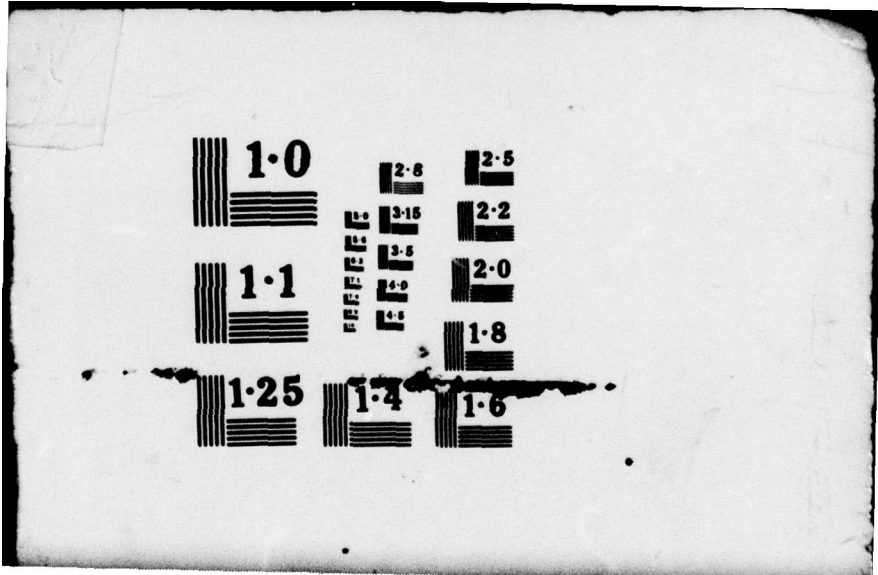
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June 1979

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METEOROLOGICAL DATA REPORT

14818C Lance  
Missile No. 3396  
Round No. 333 APL  
21 June 1979

by

White Sands Meteorological Team

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✓ ATMOSPHERIC SCIENCES LABORATORY  
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
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19. KEY WORDS (Continue on reverse side if necessary and identify by block number)  1. Ballistics 2. Meteorology 3. Wind  79 08 27 046		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  Meteorological data gathered for the launching of 14818C Lance, Missile No. 3396 Round No. 333 APL, are presented in tabular form.		

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## INTRODUCTION

148100 Lance, Missile Number 3396, Round Number 333 APL, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 0910 MDT, 21 June 1979. The scheduled launch time was 0900 MDT.

## 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 ( $\text{gm}/\text{m}^3$ ), wind direction and speed, and cloud cover were made at the LC-39 Met Site at T-0 minutes.

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

#### b. Upper Air

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

#### SITE AND ALTITUDE

LC-39 3060 meters T-10 minutes

LC-39 3660 meters T-10 minutes

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

#### SITE AND TIME

WSD 0750 MST

APA 0750 MST

TABLE 1. SURFACE OBSERVATIONS TAKEN AT 0910 MDT,  
21 JUNE 1979 AT LC-39, 14818C LANCE,  
MISSILE NO. 3396, ROUND NO. 333 APL

ELEVATION	4063.75	FT/MSL
PRESSURE	881.4	MBS
TEMPERATURE	26.6	°C
RELATIVE HUMIDITY	41	%
DEW POINT	12.2	°C
DENSITY	1017	GM/M <sup>3</sup>
WIND SPEED	Calm	MPH
WIND DIRECTION	Calm	DEGREES
CLOUD COVER	Clear	

TABLE 2. PILOT-BALLOON-MEASURED WIND DATA (30-METER INCREMENTS)

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
SFC	Calm	Calm
30	129.1	1.0
60	129.2	2.0
90	129.2	3.0
120	129.2	4.0
150	129.2	5.0
180	129.2	6.0
210	130.9	6.7
240	132.3	7.3
270	134.4	8.0
300	135.3	8.6
330	136.9	9.3
360	137.8	9.6

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
390	138.3	9.6
420	138.9	9.5
450	139.5	9.5
480	140.1	9.5
510	141.3	9.5
540	146.4	9.6
570	151.3	9.8
600	156.1	10.1
630	160.5	10.4
660	164.6	10.8
690	165.3	10.9
720	166.6	10.9
750	167.3	11.0

Release Point Coordinates (WSTM): X486,037.24 Y486,037.24 H3977.30

Released from LC-39 on 21 June 1979 at 0850 MDT .

Type 14818C Lance , Missile No. 3396 , Round No. 333 APL launched from LC-39 on 21 June 1979 at 0910 MDT .

NOTE: Wind directions are referenced to the firing azimuth or true north true north .

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
780	168.1	11.0
810	168.9	11.1
840	169.2	10.8
870	169.2	10.3
900	169.3	9.9
930	169.4	9.5
960	169.5	9.0
990	170.6	8.8
1020	172.3	8.7
1050	174.1	8.5
1080	175.9	8.4
1110	177.8	8.3
1140	177.8	8.2
1170	176.4	8.1
1200	174.9	8.0
1230	173.4	7.9
1260	171.8	7.7
1290	170.4	7.8
1320	169.2	7.9
1350	168.8	8.0
1380	166.8	8.1
1410	165.7	8.2

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
1440	165.9	8.3
1470	166.9	8.4
1500	167.3	8.5
1530	168.8	8.5
1560	169.7	8.6
1590	171.3	8.3
1620	173.3	9.0
1650	175.1	9.2
1680	176.8	9.5
1710	178.5	9.7
1740	179.9	10.1
1770	181.1	10.6
1800	182.3	11.0
1830	183.3	11.5
1860	184.3	11.9
1890	183.7	12.6
1920	183.2	13.3
1950	182.7	13.9
1980	182.2	14.6
2010	181.9	15.3
2040	181.6	15.9
2070	181.4	16.5

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
2100	181.2	17.0
2130	181.1	17.6
2160	180.8	18.0
2190	180.3	18.1
2220	179.9	18.1
2250	179.4	18.2
2280	178.9	18.3
2310	178.4	18.2
2340	177.9	18.0
2370	177.3	17.9
2400	176.7	17.7
2430	176.2	17.6
2460	182.8	17.3
2490	190.7	17.3
2520	198.5	17.6
2550	205.8	18.3
2580	211.2	18.8
2610	207.4	17.0
2640	202.8	15.3
2670	197.0	13.8
2700	189.9	12.4
2730	181.1	11.1

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
2760	170.0	10.0
2790	156.7	9.3
2820	142.2	9.2
2850	128.3	9.7
2880	135.0	8.8
2910	150.1	8.0
2940	167.3	7.8
2970	183.7	8.3
3000	195.4	9.3
3030	193.7	9.8
3060	192.1	10.4
3090		
3120		
3150		
3180		
3210		
3240		
3270		
3300		
3330		
3360		
3390		

TABLE 3. PILOT-BALLOON-MEASURED WIND DATA (30-METER INCREMENTS)

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
SFC	Calm	Calm
30	147.7	0.4
60	147.7	0.7
90	147.7	1.1
120	147.7	1.4
150	147.7	1.7
180	147.7	2.2
210	151.6	3.0
240	154.5	3.9
270	156.3	4.9
300	157.4	5.9
330	158.3	6.9
360	157.0	7.7

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
390	153.9	8.5
420	151.2	9.2
450	149.0	10.0
480	147.1	10.8
510	145.7	11.5
540	146.2	11.6
570	146.7	11.8
600	147.2	11.9
630	147.6	12.0
660	148.1	12.1
690	151.8	12.4
720	155.7	12.8
750	159.4	13.3

Release Point Coordinates (WSTM): X486,037.24 Y486,037.24 H3977.30  
 Released from LC-39 on 21 June 1979 at 0910 MDT.

Type 14818C Lance, Missile No. 3396, Round No. 333 APL launched  
 from LC-39 on 21 June 1979 at 0910 MDT.

NOTE: Wind directions are referenced to the firing azimuth \_\_\_\_\_  
 or true north true north.

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
780	162.8	13.8
810	166.0	14.3
840	166.8	14.5
870	166.8	14.6
900	166.8	14.7
930	166.8	14.8
960	166.8	14.9
990	166.3	14.6
1020	165.5	14.0
1050	164.7	13.4
1080	163.7	12.9
1110	162.7	12.3
1140	164.0	12.1
1170	167.2	12.1
1200	170.5	12.5
1230	173.7	12.4
1260	176.8	12.5
1290	179.5	12.6
1320	182.0	12.6
1350	184.5	12.6
1380	187.0	12.6
1410	189.4	12.7

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
1440	189.8	12.4
1470	188.7	11.8
1500	187.5	11.2
1530	186.1	10.7
1560	184.6	10.1
1590	181.1	9.7
1620	176.6	9.5
1650	171.8	9.3
1680	166.9	9.2
1710	161.8	9.1
1740	160.5	9.2
1770	160.3	9.2
1800	160.0	9.3
1830	159.7	9.3
1860	159.5	9.4
1890	162.0	9.4
1920	164.8	9.3
1950	167.5	9.3
1980	170.3	9.3
2010	172.9	9.4
2040	174.4	9.9
2070	175.8	10.4

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
2100	177.1	10.8
2130	178.3	11.3
2160	179.1	11.8
2190	179.5	12.6
2220	179.8	13.3
2250	180.0	14.0
2280	180.3	14.7
2310	180.7	15.3
2340	181.2	15.7
2370	181.7	16.2
2400	182.2	16.6
2430	182.6	17.1
2460	183.3	17.4
2490	184.0	17.7
2520	184.7	18.0
2550	185.3	18.3
2580	186.0	18.6
2610	187.0	18.9
2640	187.9	19.1
2670	188.8	19.3
2700	189.7	19.6
2730	190.3	19.7

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
2760	190.5	19.5
2790	190.7	19.4
2820	190.9	19.3
2850	191.1	19.2
2880	190.8	18.7
2910	190.4	18.2
2940	189.9	17.6
2970	189.5	17.1
3000	189.2	16.5
3030	190.7	15.6
3060	192.4	14.7
3090	194.3	13.8
3120	196.5	12.9
3150	198.5	12.4
3180	200.0	12.2
3210	201.7	12.0
3240	203.3	11.9
3270	205.0	11.7
3300	204.9	11.8
3330	204.5	12.0
3360	204.1	12.1
3390	203.7	12.2

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
3420	203.5	12.3
3450	203.7	12.3
3480	204.0	12.3
3510	204.2	12.3
3540	204.4	12.3
3570	203.9	12.7
3600	203.7	13.2
3630	202.4	13.7
3660	201.7	14.2
3690		
3720		
3750		
3780		
3810		
3840		
3870		
3900		
3930		
3960		
3990		
4020		

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
4050		
4080		
4110		
4140		
4170		
4200		
4230		
4260		
4290		
4320		
4350		
4380		
4410		
4440		
4470		
4500		
4530		
4560		
4590		
4620		
4650		

STATION ALTITUDE 3989.00 FEET MSL  
 21 JUNE 79 0750 HRS MST  
 ASCENSION, MO. 292

SIGNIFICANT LEVEL DATA  
 1720020292  
 WHITE SANDS

GEOLOGIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LONG DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
883.8	3989.0	10.7	38.0
850.0	5112.3	8.0	37.0
814.9	5319.6	6.9	42.0
770.0	7332.6	7.0	43.0
760.4	8255.0	5.0	53.0
700.0	10611.0	.6	38.0
630.2	13491.8	-4.7	43.0
587.1	15389.3	-4.7	63.0
580.4	15594.6	-6.1	51.0
563.6	16475.5	-25.2	11.0
500.0	19610.1	-31.6	10.0
400.0	25230.7	-40.8	12.0
356.2	29431.2	-47.5	13.0
327.3	30057.0	-48.0	12.0
317.4	30781.8	-49.0	13.0
300.0	32098.2		
265.0	34933.8		
250.0	35245.9		
200.0	41097.8		
161.2	43144.3		
150.0	47001.8		
126.6	50414.4		

UPPER AIR DATA  
 172002029c  
 WHITE SANDS

STATION ALTITUDE 3909.00 FEET MSL  
 21 JUNE 79 0750 HRS MST  
 ASCENSION NO. 292

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL - FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) SPEED KNOTS	INDEX OF REFRACTION
3929.0	855.8	26.1	38.0	1023.2	675.8	.0	1.000282
4000.0	863.5	26.1	39.0	1022.9	675.8	.0	1.000282
4500.0	863.3	24.9	37.5	1009.5	674.3	2.3	1.000276
5000.0	853.5	23.8	37.1	996.4	672.9	4.5	1.000269
5500.0	838.5	23.1	38.4	981.1	672.3	6.7	1.000266
6000.0	824.0	22.7	40.7	965.4	671.9	7.4	1.000264
6500.0	809.8	22.1	42.1	950.4	671.2	7.3	1.000261
7000.0	795.6	21.3	42.4	936.4	670.3	6.1	1.000256
7500.0	781.8	20.6	42.7	922.0	669.3	5.1	1.000251
8000.0	768.2	19.9	42.2	908.0	668.5	5.6	1.000246
8500.0	754.7	19.4	38.9	894.0	667.9	6.5	1.000238
9000.0	741.4	18.3	38.7	882.3	666.5	6.1	1.000233
9500.0	728.3	17.2	36.5	870.2	665.2	10.1	1.000228
10000.0	715.4	16.1	38.3	858.3	663.9	12.3	1.000223
10500.0	702.8	15.0	38.0	846.5	662.5	12.9	1.000218
11000.0	690.1	13.7	38.7	835.2	661.0	13.1	1.000214
11500.0	677.7	12.4	39.5	824.1	659.4	12.3	1.000210
12000.0	665.4	11.0	40.4	813.2	657.7	11.5	1.000206
12500.0	653.4	9.7	41.3	802.5	656.1	10.7	1.000202
13000.0	641.6	8.3	42.1	791.9	654.5	10.2	1.000199
13500.0	630.0	7.0	43.1	781.5	652.9	9.8	1.000195
14000.0	618.4	5.6	42.4	770.8	651.3	9.7	1.000193
14500.0	606.8	4.1	43.0	760.4	649.6	9.6	1.000191
15000.0	595.7	2.7	52.9	750.2	647.9	10.1	1.000189
15500.0	584.7	2.1	52.6	737.9	647.2	11.1	1.000185
16000.0	573.8	2.6	35.4	723.5	647.5	11.7	1.000174
16500.0	563.1	2.0	11.0	712.4	646.8	12.1	1.000163
17000.0	552.4	.9	10.8	701.3	645.1	10.7	1.000160
17500.0	542.0	-2	10.7	691.5	643.7	9.4	1.000157
18000.0	531.7	-1.4	10.5	681.2	642.4	6.5	1.000155
18500.0	521.7	-2.5	10.4	671.2	641.1	7.8	1.000152
19000.0	511.8	-3.6	10.2	661.2	639.7	7.5	1.000150
19500.0	502.1	-4.8	10.0	651.5	638.3	7.3	1.000147
20000.0	492.5	-5.9	10.1	641.7	636.9	7.5	1.000145
20500.0	482.9	-7.2	10.3	631.9	635.5	7.9	1.000143
21000.0	473.2	-8.4	10.5	622.3	634.0	8.4	1.000140
21500.0	463.7	-9.6	10.7	612.9	632.5	8.4	1.000138
22000.0	454.7	-10.0	10.9	603.7	631.1	6.1	1.000136
22500.0	445.8	-12.0	11.0	594.5	629.6	6.8	1.000134
23000.0	437.0	-13.2	11.2	585.0	628.2	5.5	1.000132

GEODETIC COORDINATES  
32.40043 LAT DEG  
106.37033 LON DEG

UPPER AIR DATA  
1720020292  
WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL  
21 JUNE 79 0750 HRS MST  
ASCENSION NO. 292

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEPT POINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
23500.0	428.5	-14.4	-33.0	11.4	576.8	626.7	113.8	4.2	1.000130
24000.0	420.0	-15.5	-38.0	11.5	568.1	625.2	123.1	3.3	1.000128
24500.0	411.8	-16.8	-39.6	11.7	559.5	623.3	157.9	4.5	1.000126
25000.0	403.7	-18.0	-40.4	11.9	551.2	622.3	173.8	6.2	1.000124
25500.0	395.4	-19.2	-41.0	12.1	543.5	620.9	191.2	7.8	1.000122
26000.0	387.4	-20.2	-42.0	12.2	533.5	619.3	192.5	7.9	1.000120
26500.0	379.5	-21.3	-42.5	12.3	524.8	618.3	211.2	7.4	1.000118
27000.0	371.7	-22.3	-43.5	12.4	515.2	617.0	233.9	8.8	1.000116
27500.0	364.1	-23.4	-44.3	12.5	507.7	615.7	252.5	11.7	1.000114
28000.0	356.6	-24.4	-45.1	12.7	499.4	614.3	257.2	14.9	1.000112
28500.0	349.3	-25.5	-45.8	12.8	491.2	613.2	260.0	17.9	1.000110
29000.0	342.1	-26.5	-46.8	12.9	483.2	611.8	262.8	19.2	1.000108
29500.0	335.1	-27.4	-47.3	12.9	475.0	610.7	265.2	20.5	1.000106
30000.0	328.1	-27.4	-47.9	12.1	465.0	610.7	268.2	22.1	1.000104
30500.0	321.2	-26.7	-48.6	12.6	457.7	609.1	270.1	23.3	1.000102
31000.0	314.4	-30.0	-51.0	10.8**	450.5	607.5	263.7	26.6	1.000101
31500.0	307.8	-31.2	-55.9	5.9**	443.1	606.0	267.4	29.4	1.000099
32000.0	301.3	-32.4	-70.9	1.0**	435.9	604.5	263.0	32.7	1.000097
32500.0	294.8	-33.5			428.5	603.1	260.0	34.6	1.000095
33000.0	288.4	-34.5			421.2	601.7	259.5	35.8	1.000094
33500.0	282.2	-35.7			414.0	600.3	261.5	36.1	1.000092
34000.0	276.1	-36.8			407.0	598.9	263.9	36.5	1.000091
34500.0	270.1	-37.9			400.1	597.3	265.9	38.5	1.000089
35000.0	264.3	-39.0			393.3	596.1	263.0	40.4	1.000088
35500.0	258.5	-40.2			386.8	594.6	270.5	42.0	1.000086
36000.0	252.8	-41.4			380.0	593.0	275.1	42.9	1.000085
36500.0	247.1	-42.7			373.5	591.4	275.9	42.8	1.000083
37000.0	241.5	-44.0			367.1	589.8	277.7	43.4	1.000082
37500.0	236.0	-45.3			360.8	588.1	278.5	44.7	1.000080
38000.0	230.6	-46.6			354.6	586.4	279.7	46.4	1.000079
38500.0	225.3	-47.9			348.5	584.7	280.9	48.2	1.000078
39000.0	220.2	-49.2			342.6	583.0	261.8	49.4	1.000076
39500.0	215.2	-50.5			336.7	581.3	282.2	50.2	1.000075
40000.0	210.3	-51.8			331.0	579.3	281.9	50.3	1.000074
40500.0	205.5	-53.2			325.4	577.3	281.2	50.8	1.000072
41000.0	200.8	-54.5			319.5	576.1	281.4	50.4	1.000071
41500.0	196.1	-55.8			314.2	574.4	281.9	49.8	1.000070
42000.0	191.4	-57.1			308.6	572.7	281.0	49.5	1.000069
42500.0	186.9	-58.3			303.1	571.0	279.8	49.3	1.000068
43000.0	182.5	-59.6			297.7	569.5	277.6	49.9	1.000066

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

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GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

UPPER AIR DATA  
 1720020294  
 WHITE SANDS

STATION ALTITUDE 9959.00 FEET MSL  
 21 JUNE 79 0750 HRS MST  
 ASCENSION NO. 492

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CC	SPEED OF SOUND METERS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
4350.0	176.1	-60.3			221.5	566.3	275.5	50.8	1.000065
4400.0	175.6	-60.8			223.0	567.7	274.0	51.6	1.000063
4450.0	169.9	-61.2			270.7	567.1	272.7	52.4	1.000062
4500.0	163.5	-61.7			272.6	568.5	272.9	51.7	1.000061
4550.0	161.5	-62.1			266.5	565.9	273.7	50.4	1.000059
4600.0	157.3	-62.6			260.7	565.3	274.5	48.7	1.000058
4650.0	153.7	-63.0			254.9	564.7	275.0	46.5	1.000057
4700.0	150.0	-63.5			249.3	564.1	275.5	44.3	1.000056
4750.0	146.3	-63.9			243.6	563.6	273.9	41.7	1.000054
4800.0	142.7	-64.3			238.1	563.0	272.2	39.1	1.000053
4850.0	139.2	-64.7			232.7	562.5	271.8	36.4	1.000052
4900.0	135.8	-65.1			227.4	562.0	271.5	33.7	1.000051
4950.0	132.5	-65.5			222.2	561.4			1.000050
5000.0	129.2	-65.9			217.2	560.9			1.000048

STATION ALTITUDE 9989.00 FEET MSL  
 21 JUNE 79 0750 HRS MST  
 ASCENSION NO. 242

MANDATORY LEVELS  
 1720020292  
 WHITE SANDS

GEODEIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE	REL. HUM.	WIND DATA
MILLIBARS	FEET	AIR DEGREES	PERCENT	DIRECTION SPEED
		CENTIGRADE		DEGREES(TN) KNOTS
850.0	5109.	23.5	37.	152.3 4.9
800.0	6841.	21.6	42.	159.3 6.5
750.0	8670.	19.1	39.	156.7 7.1
700.0	10600.	14.6	30.	171.8 13.0
650.0	12638.	9.3	42.	178.6 10.5
600.0	14793.	5.3	57.	131.2 9.9
550.0	17099.	.7	11.	190.2 10.4
500.0	19592.	-5.0	10.	180.6 7.3
450.0	22265.	-11.4	11.	148.6 7.4
400.0	25178.	-18.6	12.	177.3 6.9
350.0	28411.	-25.4	13.	259.7 17.7
300.0	32033.	-32.6		262.4 33.3
250.0	36166.	-42.0		274.4 42.8
200.0	40987.	-54.7		261.5 50.3
175.0	43746.	-60.6		274.4 51.4
150.0	46873.	-63.5		273.5 44.4

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

STATION ALTITUDE 9989.00 FEET MSL  
 21 JUNE 79 0750 HRS MST  
 ASCENSION NO. 292

MRN MANDATORY LEVELS  
 1720020292  
 WHITE SANDS

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

GEOCENTRAL ALTITUDE METERS	DIRECTION DEG (TN)	SPEED MPS	WIND DATA		E-W MPS	DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
			N-S MPS	DIR			AIR DEG C	DEW DEG C	
1429.	276.	23.	-2.		25.	99	-63.5		1.500+2
1333.	274.	26.	-2.		20.	99	-60.6		1.750+2
1249.	251.	26.	-5.		25.	99	-54.7		2.000+2
1402.	274.	22.	-2.		22.	99	-42.0		2.500+2
978.	282.	17.	2.		17.	99	-32.6		3.000+2
669.	266.	9.	2.		9.	20	-25.4		3.500+2
758.	177.	4.	4.		-0.	22	-18.6		4.000+2
673.	149.	4.	3.		-2.	25	-11.4		4.500+2
597.	161.	4.	4.		0.	27	-5.0		5.000+2
521.	190.	5.	5.		1.	27	.7		5.500+2
451.	191.	5.	5.		1.	00	3.3		6.000+2
355.	179.	5.	5.		-0.	12	9.3		6.500+2
323.	172.	7.	7.		-1.	14	14.6		7.000+2
254.	157.	4.	3.		-1.	14	19.1		7.500+2
199.	159.	3.	3.		-1.	13	21.6		8.000+2
450.	152.	3.	2.		-1.	10	23.5		8.500+2

STATION ALTITUDE 3951.40 FEET MSL  
 21 APR 79 0750 HRS MST  
 ASCENSION 170. 35

SIGNIFICANT LEVEL DATA  
 1720050033  
 APACHE

GEOCLTIC COORDINATES  
 32.62700 LA1 DEG  
 106.39352 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
285.3	3951.4	6.3	34.0
250.0	3115.0	9.6	44.0
765.8	6083.9	7.2	44.0
700.0	10600.7	2.7	46.0
644.4	12566.4	-3.1	47.0
600.6	14756.4	-5.0	57.0
574.8	15217.5	-13.0	37.0
553.2	15669.0	-22.1	17.0
500.0	19551.3	-27.7	17.0
400.0	25137.3	-37.0	19.0
370.6	26967.7	-40.0	19.0
357.4	27555.6	-42.4	20.0
331.6	29630.7	-43.4	18.0
300.0	31262.2	-48.6	23.0
295.0	32347.8	-49.2	23.0
272.0	34190.1	-40.1	
250.0	36072.0	-43.6	
224.4	38429.9	-50.3	
200.0	40373.5	-56.1	
182.2	42005.2	-60.6	
155.2	44603.5	-63.3	
150.0	46753.9	-64.5	
145.2	47407.3	-65.8	
123.2	50604.7	-67.5	
119.6	51274.8	-66.9	
106.0	53542.2	-70.3	
100.0	54505.2	-69.0	
69.6	56559.5	-71.6	
66.0	57733.9	-71.4	
34.1	56159.1	-67.3	
77.2	59906.3	-66.5	
70.0	61296.5	-59.4	
56.6	66315.9	-56.9	
50.0	63911.7	-56.7	
47.0	70206.6	-56.5	
44.6	71313.1	-54.4	
33.0	77733.2	-51.7	

STATION ALTITUDE 3951.40 FEET MSL  
 21 JUNE 79 0750 HRS MST  
 ADUNSTON NO. 59

UPPER AIR DATA  
 1720000055  
 APACHE

GEODETIC COORDINATES  
 32.62700 LAT DEG  
 106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY G/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3951.4	293.3	23.0	6.3	34.0	1037.1	671.3	350.0	2.9	1.000272
4000.0	283.8	23.0	6.5	34.4	1035.4	671.3			1.000273
4500.0	268.5	22.8	8.0	38.7	1017.6	671.7			1.000273
5000.0	253.4	22.5	9.4	43.0	1000.2	671.7			1.000274
5500.0	238.6	22.1	9.3	44.0	984.0	671.2			1.000270
6000.0	224.0	21.7	8.9	44.0	968.4	670.7			1.000266
6500.0	209.5	21.2	9.5	44.0	953.1	670.2			1.000261
7000.0	195.5	20.8	9.1	44.0	938.0	669.0			1.000256
7500.0	181.7	20.3	7.7	44.0	923.1	669.1			1.000252
8000.0	168.1	19.9	7.3	44.0	908.5	669.0			1.000248
8500.0	154.5	19.8	6.5	44.7	896.1	667.2			1.000243
9000.0	141.2	17.5	5.6	45.5	884.2	665.7			1.000238
9500.0	128.1	16.3	4.7	46.3	872.5	664.2			1.000233
10000.0	115.2	15.0	3.8	47.0	860.5	662.7			1.000229
10500.0	102.5	13.8	2.9	47.8	849.6	661.2	184.6	12.0	1.000224
11000.0	89.9	12.4	1.7	47.8	838.3	659.0	181.5	13.4	1.000219
11500.0	77.4	11.1	.4	47.6	827.2	658.0	182.3	12.9	1.000214
12000.0	65.1	9.8	-.9	47.4	816.3	656.4	184.7	12.0	1.000209
12500.0	53.1	8.5	-2.1	47.2	805.5	654.6	192.0	10.6	1.000204
13000.0	41.2	7.1	-3.2	47.7	794.8	653.1	199.7	10.3	1.000200
13500.0	29.4	5.7	-3.8	50.3	784.2	651.4	200.6	10.4	1.000197
14000.0	17.8	4.2	-4.5	53.0	773.9	649.7	211.7	10.6	1.000194
14500.0	6.9	2.7	-5.2	55.6	763.7	647.9	213.2	10.7	1.000191
15000.0	5.9	1.6	-7.0	52.8	752.9	646.4	227.6	10.3	1.000186
15500.0	5.3	.7	-10.1	44.2	741.6	645.2	234.8	10.0	1.000180
16000.0	5.3	-.1	-13.7	34.9	730.0	644.2	232.3	8.9	1.000173
16500.0	5.2	-.0	-19.2	21.9	716.5	644.1	221.9	8.0	1.000166
17000.0	5.1	-.7	-22.7	17.0	704.9	643.2	203.4	7.7	1.000162
17500.0	5.1	-1.9	-23.7	17.0	694.5	641.6	202.8	7.7	1.000159
18000.0	5.0	-3.1	-24.6	17.0	684.3	640.4	200.8	7.7	1.000157
18500.0	5.0	-4.3	-25.6	17.0	674.3	638.9	198.2	8.0	1.000154
19000.0	5.0	-5.5	-26.0	17.0	664.4	637.5	193.3	8.0	1.000152
19500.0	5.0	-6.7	-26.6	17.0	654.6	636.1	184.7	7.7	1.000149
20000.0	4.9	-7.9	-26.5	17.2	644.6	634.7	175.4	7.3	1.000147
20500.0	4.8	-9.0	-29.3	17.3	634.7	633.3	164.9	6.9	1.000144
21000.0	4.7	-10.2	-30.2	17.5	625.0	631.8	162.8	6.6	1.000142
21500.0	4.6	-11.4	-31.1	17.7	615.4	630.4	161.0	6.4	1.000140
22000.0	4.5	-12.6	-32.0	17.9	606.0	629.0	154.3	6.6	1.000137
22500.0	4.4	-13.8	-32.9	18.1	596.7	627.5	150.0	5.7	1.000135
23000.0	4.3	-14.9	-33.7	18.2	587.6	626.1	154.3	6.5	1.000133

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AX WIND DATA INVALID DUE TO MISSING MAX AZIMUTH AND ELEVATION AN L ES.

GEODETIC COORDINATES  
32.62700 LAT DEG  
106.39352 LON DEG

UPPER AIR DATA  
1720050U55  
APACHE

STATION ALTITUDE 9951.40 FEET MSL  
21 JUNE 79 0750 HRS MST  
ASCENSION NO. 35

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(TH)	SPEED KNOTS	INDEX OF REFRACTION
4500.0	427.0	-15.1	19.4	578.7	624.7	162.6	6.4	1.000131
4400.0	416.0	-17.3	18.6	569.6	623.2	161.2	7.2	1.000129
24500.0	410.5	-16.5	18.6	561.2	621.8	154.4	8.6	1.000127
25000.0	402.2	-19.7	19.0	552.7	620.3	202.6	10.2	1.000125
25500.0	394.1	-20.7	19.0	543.7	617.0	213.3	11.2	1.000122
26000.0	385.0	-21.7	19.0	534.6	617.8	224.5	11.7	1.000120
27000.0	376.1	-22.7	19.0	525.6	616.0	243.4	12.6	1.000118
27500.0	370.4	-23.6	19.0	517.1	615.4	253.6	14.1	1.000116
28000.0	363.9	-25.2	19.6	509.5	613.5	266.1	15.5	1.000114
28500.0	355.2	-25.5	19.8	501.6	611.9	268.3	16.6	1.000113
29000.0	347.8	-27.1	19.3	492.2	611.1	267.8	18.5	1.000110
29500.0	340.5	-27.6	18.7	483.4	610.3	265.7	20.9	1.000108
30000.0	333.4	-28.4	18.1	474.6	609.5	265.3	23.0	1.000106
30500.0	326.4	-29.6	18.6	466.8	608.0	263.6	25.0	1.000105
31000.0	319.4	-30.9	19.9	459.4	606.3	263.0	26.8	1.000103
32000.0	312.7	-32.3	20.9	452.2	604.6	264.2	28.4	1.000101
33000.0	305.9	-33.7	22.0	445.1	602.9	263.2	31.1	1.000100
34000.0	299.5	-35.0	23.0	438.0	601.3	262.2	34.3	1.000098
35000.0	293.0	-36.0	21.1**	430.4	600.0	263.7	36.2	1.000096
36000.0	286.6	-37.2	14.9**	423.2	598.4	266.5	37.3	1.000095
37000.0	280.4	-38.4	8.6**	416.1	596.9	267.4	37.6	1.000093
38000.0	274.5	-39.5	2.4**	409.2	595.3	267.5	37.4	1.000091
39000.0	268.2	-40.7		402.0	594.0	267.6	38.9	1.000090
40000.0	262.3	-41.6		394.9	592.8	268.0	40.8	1.000088
41000.0	256.5	-42.5		387.5	591.6	272.2	41.9	1.000086
42000.0	250.5	-43.5		380.4	590.4	273.2	43.1	1.000085
43000.0	245.1	-44.8		374.0	588.7	277.7	43.1	1.000083
44000.0	239.6	-46.2		367.0	588.0	279.3	43.5	1.000082
45000.0	234.2	-47.7		361.8	587.0	261.6	45.0	1.000081
46000.0	228.9	-49.1		355.8	585.2	263.6	46.6	1.000079
47000.0	223.7	-50.5		349.9	561.4	284.9	46.0	1.000078
48000.0	218.5	-51.7		343.0	574.8	285.0	49.0	1.000077
49000.0	213.4	-52.8		337.4	578.2	285.1	49.3	1.000075
50000.0	208.3	-54.0		331.3	570.7	284.5	49.5	1.000074
51000.0	203.3	-55.2		325.4	573.1	284.0	49.6	1.000072
52000.0	198.8	-56.4		319.5	573.6	262.9	49.9	1.000071
53000.0	194.0	-57.6		313.6	572.0	281.5	50.3	1.000070
54000.0	189.4	-58.7		307.7	570.5	260.0	49.9	1.000069
55000.0	184.9	-59.9		302.1	568.9	273.5	49.4	1.000067
56000.0	180.5	-60.9		296.2	567.8	270.8	49.7	1.000066

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

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UPPER AIR DATA  
 1720050055  
 APACHE

STATION ALTITUDE 9951.40 FEET MSL  
 21 JUNE 79 0750 HRS MST  
 ASCENSION NO. 35

GEODETIC COORDINATES  
 32.62700 LAT DEG  
 106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	REL HUM. PERCENT	DENSITY GW/CUBIC METER	SPEED SOUND KNOTS	WIND DIRECTION DEGREES (T)	WIND SPEED KNOTS	INJEX OF REFRACTION
4350.0	173.1	-61.5		289.9	566.7	275.2	50.2	1.000065
4400.0	171.8	-62.2		283.8	565.8	274.8	51.8	1.000063
4450.0	167.7	-62.9		277.8	564.9	274.7	53.5	1.000062
4500.0	163.8	-63.4		271.7	564.2	275.3	50.9	1.000061
4550.0	159.6	-63.7		265.5	563.8	276.1	47.2	1.000059
4600.0	155.7	-64.0		259.4	563.4	275.9	43.6	1.000058
4650.0	151.9	-64.3		253.4	562.9	275.0	39.9	1.000056
4700.0	148.2	-65.0		246.0	562.1	273.8	39.2	1.000055
4750.0	144.5	-65.2		242.9	560.9	272.4	40.1	1.000054
4800.0	140.9	-66.1		237.2	560.0	270.0	38.3	1.000053
4850.0	137.5	-66.4		231.8	559.2	268.0	34.4	1.000052
4900.0	134.1	-66.6		226.1	559.9	268.8	29.7	1.000050
4950.0	130.7	-66.9		220.6	559.5	275.4	24.2	1.000049
5000.0	127.5	-67.1		215.6	559.2	269.3	21.4	1.000049
5050.0	124.3	-67.4		210.5	558.8	279.0	21.9	1.000047
5100.0	121.3	-67.2		205.1	559.1	275.7	20.1	1.000046
5150.0	118.2	-67.2		200.0	559.0	261.5	13.0	1.000045
5200.0	115.3	-68.0		195.8	558.0	230.0	7.9	1.000044
5250.0	112.4	-68.7		191.6	557.0	199.2	4.8	1.000043
5300.0	109.6	-69.5		187.5	556.0	149.0	4.7	1.000042
5350.0	106.0	-70.2		183.5	555.0	190.8	4.5	1.000041
5400.0	104.2	-69.3		173.5	555.5	220.9	6.4	1.000040
5450.0	101.6	-69.3		173.5	555.2	202.9	5.4	1.000039
5500.0	99.0	-69.2		169.2	559.3	174.3	5.0	1.000038
5550.0	96.5	-69.8		165.4	555.5	169.1	5.5	1.000037
5600.0	94.1	-70.4		161.7	554.7	171.0	6.1	1.000036
5650.0	91.7	-71.0		158.1	553.8	176.2	6.5	1.000035
5700.0	89.4	-71.6		154.5	553.1	183.3	7.0	1.000034
5750.0	87.1	-71.5		150.5	553.3	181.1	7.1	1.000034
5800.0	85.0	-67.2		145.1	556.4	158.6	7.3	1.000032
5850.0	82.8	-67.2		140.1	559.1	139.7	8.4	1.000031
5900.0	80.8	-66.9		136.5	559.5	111.9	12.9	1.000030
5950.0	78.9	-66.7		132.9	559.8	99.6	16.7	1.000030
6000.0	77.3	-66.2		129.3	560.3	95.3	20.7	1.000029
6050.0	75.9	-64.4		125.1	562.9	92.2	20.8	1.000028
6100.0	73.2	-62.6		121.0	563.3	90.1	19.3	1.000027
6150.0	71.4	-60.8		117.1	567.7	89.7	15.0	1.000026
6200.0	69.7	-59.3		113.5	569.7	99.9	10.9	1.000025
6250.0	68.0	-57.1		110.5	570.0	109.6	12.3	1.000025
6300.0	66.4	-53.8		107.9	570.4	124.0	14.8	1.000024

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GEODETIC COORDINATES  
 32.62700 LAT DEG  
 106.39352 LON DEG

UPPER AIR DATA  
 172000005J  
 APACHE

STATION ALTITUDE 3951.40 FEET MSL  
 21 JUNE 79 0750 HRS MST  
 ASCENSION NO. 55

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION, DEGREES(TM)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
6350.0	64.5	-53.5		105.2	570.8	130.5	15.9	1.000023
6400.0	63.3	-58.2		102.5	571.2	134.1	16.0	1.000023
6450.0	61.9	-57.9		100.0	571.5	133.6	15.5	1.000022
6500.0	60.3	-57.6		97.5	571.9	115.8	13.5	1.000022
6550.0	58.9	-57.4		95.0	572.5	94.5	13.1	1.000021
6600.0	57.5	-57.1		92.7	572.7	87.9	14.1	1.000021
6650.0	56.1	-56.9		90.4	572.9	85.4	15.3	1.000020
6700.0	54.8	-56.3		88.2	573.0	85.5	15.8	1.000020
6750.0	53.5	-56.6		86.1	573.0	89.0	15.1	1.000019
6800.0	52.2	-56.8		84.1	573.1	93.1	14.5	1.000019
6850.0	51.0	-56.7		82.1	573.1	101.1	15.6	1.000018
6900.0	49.8	-56.7		80.1	573.2	103.1	17.6	1.000018
6950.0	48.6	-56.6		78.2	573.3	110.9	18.9	1.000017
7000.0	47.5	-56.5		76.3	573.4	103.5	19.0	1.000017
7050.0	46.4	-55.9		74.3	574.2	100.1	19.2	1.000017
7100.0	45.3	-55.0		72.3	575.4	99.6	19.0	1.000016
7150.0	44.2	-54.3		70.4	576.5	92.4	19.1	1.000016
7200.0	43.2	-54.1		68.7	576.8	83.4	19.6	1.000015
7250.0	42.2	-53.9		67.0	576.9	83.5	20.3	1.000015
7300.0	41.2	-53.7		65.4	577.1	80.7	21.1	1.000015
7350.0	40.3	-53.5		63.9	577.4	80.1	21.8	1.000014
7400.0	39.3	-53.3		62.3	577.7	80.7	22.4	1.000014
7450.0	38.4	-53.1		60.8	578.0	81.2	23.0	1.000014
7500.0	37.5	-52.8		59.3	578.2	84.4	24.2	1.000013
7550.0	36.6	-52.6		57.9	578.5	88.1	25.6	1.000013
7600.0	35.8	-52.4		56.5	578.6	91.4	27.1	1.000013
7650.0	35.0	-52.2		55.1	579.1			1.000012
7700.0	34.2	-52.0		53.9	579.3			1.000012
7750.0	33.4	-51.3		52.5	579.6			1.000012

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STATION ALTITUDE 9931.40 FEET MSL  
 21 JUNE 79 0750 HRS MST  
 ASCENSION NO. 55

MRN SIGNIFICANT LLVEL DATA  
 1720050055  
 APACHE

GEODETIC COORDINATES  
 32.62700 LAT DEG  
 106.39552 LON DEG

GEOPOTENTIAL ALTITUDE DECIMETERS	DIRECTION DEG (TR)	SPEED MPS	WIND DATA N-S MPS	E-W MPS	DEW PT DEP DEG C	TEMPERATURE AIR DEG C	PRESSURE MILLIBARS
2059.	9999.**	9999.**	-9999.**	-9999.**	99	-51.7	3.300+1
2105.	95.	10.	1.	-10.	99	-54.4	4.460+1
2132.	107.	10.	3.	-8.	99	-56.5	4.700+1
2093.	107.	9.	3.	-8.	99	-56.7	5.000+1
2013.	80.	8.	-0.	-8.	99	-56.9	5.660+1
1890.	89.	6.	-0.	-6.	99	-59.4	7.000+1
1820.	96.	11.	1.	-11.	99	-66.5	7.720+1
1735.	150.	4.	3.	-2.	99	-67.3	8.410+1
1755.	169.	4.	4.	-1.	99	-71.4	8.600+1
1731.	183.	4.	4.	0.	99	-71.6	8.960+1
1665.	186.	3.	3.	0.	99	-69.0	1.000+2

\*\* WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3951.40 FEET MSL  
 21 JUNE 79 0759 HRS MST  
 ASCENSION, MD. 33

MANDATORY LEVELS  
 1720050655  
 APACHE

GEODETIC COORDINATES  
 32.62700 LAT DEG  
 106.39352 LON DEG

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5111.	22.5	44.	9999.0	9999.0XX
800.0	6839.	20.9	44.	9999.0	9999.0XX
750.0	8665.	18.3	45.	9999.0	9999.0XX
700.0	10520.	15.0	49.	105.0	12.3
650.0	12620.	8.1	47.	194.1	10.5
600.0	14765.	2.0	57.	224.4	10.5
550.0	17050.	-9.	17.	204.4	7.7
500.0	19524.	-6.8	17.	163.9	7.7
450.0	22130.	-13.0	18.	151.5	6.7
400.0	25026.	-20.0	19.	204.5	10.6
350.0	28301.	-26.9	19.	268.5	17.7
300.0	31898.	-34.9	23.	282.5	34.0
250.0	35923.	-43.6		276.4	43.1
200.0	40774.	-50.1		263.5	49.8
175.0	43520.	-61.7		274.9	50.4
150.0	46927.	-64.5		274.5	36.7
125.0	50251.	-67.3		279.5	21.8
100.0	54636.	-69.0		167.4	5.0
80.0	58999.	-66.8		106.8	14.7
70.0	61624.	-59.4		89.2	11.8
60.0	64664.	-57.6		113.2	13.3
50.0	68552.	-56.7		106.9	17.1
40.0	73329.	-53.4		60.2	21.9

XX ALSO DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3951.40 FEET MSL  
 21 JUNE 79 0750 HRS MST  
 ASCENSION NO. 99

MRN MANDATORY LEVELS  
 1720950655  
 APACHE

GEODETIC COORDINATES  
 32.62700 LAT DEG  
 106.39352 LON DEG

GEOPOTENTIAL ALTITUDE METERS	DIRECTION DEG (TR)	SPEED MPS	WIND DATA		DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
			N-S MPS	E-W MPS		AIR DEG C		
2830	80	11	-2	-11	99	-53.4	4.000+1	
2095	107	9	3	-6	99	-56.7	5.000+1	
1977	113	7	2	-6	99	-57.6	6.000+1	
1900	59	9	-0	-8	99	-59.4	7.000+1	
1795	107	8	2	-7	99	-66.8	0.000+1	
1695	187	3	3	0	99	-69.0	1.000+2	
1592	279	11	-2	11	99	-67.3	1.250+2	
1434	275	20	-2	20	99	-64.5	1.500+2	
1325	275	26	-2	26	99	-61.7	1.750+2	
1213	283	26	-6	25	99	-56.1	2.000+2	
1037	270	22	-2	22	99	-43.6	2.500+2	
972	282	17	2	17	14	-34.9	3.000+2	
880	262	9	0	9	16	-26.9	3.500+2	
769	404	5	5	2	18	-20.0	4.000+2	
670	152	3	3	-2	19	-13.0	4.500+2	
535	184	4	4	0	21	-6.8	5.000+2	
540	204	4	4	0	22	-9	5.500+2	
430	222	5	4	4	06	2.0	6.000+2	
385	194	5	5	1	11	8.1	6.500+2	
320	104	6	6	0	11	13.5	7.000+2	
204	9999.**	9999.**	-9999.**	-9999.**	12	18.3	7.500+2	
400	9999.**	9999.**	-9999.**	-9999.**	13	20.9	8.000+2	
150	9999.**	9999.**	-9999.**	-9999.**	15	22.5	8.500+2	

\*\* WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

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