

AD-A070 489 ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
14818C LANCE, MISSILE NUMBER 3398, ROUND NUMBER 328 APT.(U)
APR 79

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METEOROLOGICAL DATA REPORT

14818C Lance
Missile No. 3398
Round No. 328 APT

by

WSMR Meteorological Team

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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UNITED STATES ARMY ELECTRONICS COMMAND

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number) 1. Ballistics 2. Meteorology 3. Wind			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) <i>This report contains</i> Meteorological data gathered for the launching of 14818C Lance, Missile Number 3398, Round Number 328 APT, are presented in tabular form.			

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AB

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INTRODUCTION

14814C Lance , Missile Number 3398 . Round Number 328 APT was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 1043 MST, 10 April 1979 . The scheduled launch time was 1015 MST.

DISCUSSION

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

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (cm/m^3), wind direction, wind velocity and cloud cover were made at the LC-39 Met Site at T-0 minutes.

b. Upper Air

(1) Low level wind data were obtained from RAPTS T-2 pibal observation as follows:

SITE AND ALTITUDE

LC-33 T-10 mins 6100 feet
LC-33 T-0 mins 6000 feet

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 125% of anode in 500-foot increments.

USD 1005 MST
HMI 1005 MST

The data are presented in the following tabulations:

ELEVATION	4064	FEET/MSL
PRESSURE	863.5	MBS
TEMPERATURE	17.2	°C
RELATIVE HUMIDITY	22	%
DEW POINT	-4.8	°C
DENSITY	1032	GM/CM ³
WIND SPEED	15 Gust 35	MPH
WIND DIRECTION	210	DEGREES
CLOUD COVER	7	Cu

TABLE I. SURFACE OBSERVATIONS TAKEN AT LC-39
AT 1042 MST, 10 APRIL 1979
14018C Lance (AD). MISSILE NUMBER 3398
ROUND NUMBER 320 APT

PIBAL DATA FORM

OD Number and Name (AD) 14818C Lance Missile Number 3398 Round 328APT

HEIGHT (Feet)	DIRECTION (Degrees)	SPEED (MPH)	HEIGHT (Feet)	DIRECTION (Degrees)	SPEED (MPH)
SUP	165	20.0	2100	250	50.5
100	135	15.0	2200	250	49.5
200	105	10.0	2300	250	48.5
300	075	05.0	2400	249	47.0
400	045	06.0	2500	249	46.5
500	007	07.5	2600	248	46.0
600	329	14.5	2700	248	45.5
700	291	21.5	2800	247	45.0
800	253	28.5	2900	245	45.0
900	254	33.5	3000	243	44.5
1000	255	38.5	3100	241	44.5
1100	256	43.5	3200	239	44.0
1200	257	48.5	3300	239	43.5
1300	256	50.0	3400	239	43.0
1400	255	51.0	3500	239	42.5
1500	254	52.0	3600	239	41.5
1600	252	53.0	3700	238	42.0
1700	252	53.0	3800	237	42.0
1800	251	52.5	3900	236	42.5
1900	251	52.0	4000	235	42.5
2000	250	51.5	4100	234	44.0

TABLE II. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-33, AT 1005 LOCAL TIME, 10 April 1979.

PIBAL RELEASE POINT WSMN COORDINATES
X = 406,037.24 Y = 182,350.16 Z = 3977.30

APPROXIMATELY: one-half MILES South OF LAUNCHER

OD Number and Name (AD) 14818C Lance

Missile Number 3398

Round 328APT

HEIGHT (Feet)	DIRECTION (Degrees)	SPEED (MPH)	HEIGHT (Feet)	DIRECTION (Degrees)	SPEED (MPH)
4200	232	45.0	6600		
4300	231	46.5	6700		
4400	229	47.5	6800		
4500	229	48.0	6900		
4600	229	48.0	7000		
4700	229	48.0	7100		
4800	229	48.0	7200		
4900	232	45.5	7300		
5000	235	42.5	7400		
5100	238	40.0	7500		
5200	240	37.0	7600		
5300	239	39.5	7700		
5400	238	42.0	7800		
5500	237	44.5	7900		
5600	236	47.0	8000		
5700	235	48.5	8100		
5800	233	50.0	8200		
5900	231	51.5	8300		
6000	229	52.5	8400		
6100	230	83.0	8500		
6200	7K unattainable due		8600		
6300	to high winds		8700		
6400			8800		
6500			8900		

TABLE II (Cont)

NOTE: WIND DIRECTION DATA ARE REFERENCED **TRUE NORTH**
(FIRING AZIMUTH OF TRUE NORTH)

PIDAL DATA FORM

OD Number and Name (AQ) 14818C Lance Missile Number 3398 Pound 328 APT

HEIGHT (Feet)	DIRECTION (Degrees)	SPEED (MPH)	HEIGHT (Feet)	DIRECTION (Degrees)	SPEED (MPH)
SUR	165	20.0	2100	246	34.0
100	199	16.0	2200	245	33.5
200	233	11.5	2300	244	33.0
300	267	07.0	2400	243	32.5
400	301	02.5	2500	242	35.0
500	289	12.0	2600	241	37.5
600	276	21.0	2700	240	40.0
700	263	30.5	2800	239	42.0
800	250	39.5	2900	240	42.5
900	254	39.0	3000	240	42.5
1000	257	38.5	3100	240	43.0
1100	261	38.0	3200	240	43.0
1200	264	37.0	3300	238	43.0
1300	260	37.5	3400	236	43.0
1400	256	38.0	3500	234	43.0
1500	252	38.5	3600	231	42.5
1600	248	38.5	3700	232	44.5
1700	248	37.5	3800	232	46.0
1800	247	36.5	3900	232	47.5
1900	247	35.5	4000	232	49.0
2000	246	34.5	4100	234	51.0

TABLE III. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2
RELEASED FROM LC-33, AT 1043 LOCAL TIME, 10 April 1979

PIDAL RELEASE POINT WSTM COORDINATES
X = 406,037.24 Y = 182,350.16 Z = 3977.30

APPROXIMATELY: one-half MILES South OF LAUNCHER

HEIGHT (Feet)	DIRECTION (Degrees)	SPEED (MPH)	HEIGHT (feet)	DIRECTION (degrees)	SPEED (MPH)
4200	236	52.5	6600		
4300	238	54.5	6700		
4400	239	56.0	6800		
4500	241	54.0	6900		
4600	243	52.0	7000		
4700	245	50.0	7100		
4800	247	48.0	7200		
4900	247	47.5	7300		
5000	247	47.0	7400		
5100	247	46.5	7500		
5200	247	46.0	7600		
5300	247	46.0	7700		
5400	246	45.5	7800		
5500	246	45.0	7900		
5600	245	44.5	8000		
5700	247	45.0	8100		
5800	248	45.5	8200		
5900	249	46.0	8300		
6000	250	46.5	8400		
6100	12K unattainable due		8500		
6200	to high winds		8600		
6300			8700		
6400			8800		
6500			8900		

TABLE III (Cont)

NOTE: WIND DIRECTION DATA ARE REFERENCED

TRUE NORTH
(FIRING AZIMUTH OF TRUE NORTH)

STATION ALTITUDE 3989.00 FEET MSL
 10 APR 79
 ASCENSION AC. 104

SIGNIFICANT LEVEL DATA
 1000020104
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LOIN DEG

PRESSURE	GEOMETRIC	TEMPERATURE	REL. HUM.
MILLIBARS	ALTITUDE	AIR DEWPOINT	PERCENT
MSL FEET	DEGREES	CENTIGRADE	
664.4	3989.0	16.0	31.0
650.0	4429.2	13.6	34.0
609.8	5783.8	9.3	37.0
735.6	6400.0	6.5	40.0
757.5	7504.1	3.2	41.0
713.3	8946.8	-7.7	45.0
700.0	9638.4	-2.6	47.0
660.8	11150.5	-6.2	51.0
595.8	13777.7	-13.5	59.0
553.3	15645.0	-17.4	38.0
532.3	16487.6	-18.8	36.0
500.0	18056.1	-22.8	39.0
470.3	19535.1	-25.5	38.0
432.0	21520.0	-30.0	45.0
425.8	21901.7	-30.5	41.0
417.3	22372.9	-30.9	34.0
410.3	22737.7	-30.9	28.0
400.0	23300.1	-31.6	24.0
389.3	23939.6	-32.7	21.0
361.3	25704.4	-36.9	24.0
342.3	26927.3	-39.5	24.0
300.0	29978.1	-42.8	
253.8	33122.0	-49.5	
250.0	33507.1	-50.2	
237.6	34330.5	-51.3	
232.3	35432.9	-50.0	
229.6	35607.0	-47.6	
212.3	37337.7	-48.4	
210.0	37524.5	-47.2	
209.0	38057.7	-48.3	
192.8	39179.6	-40.3	
184.3	40455.2	-48.5	
180.3	40933.1	-45.8	
171.8	41537.3	-47.2	
153.6	43337.0	-51.6	
150.0	44202.1	-52.2	
123.6	48103.5	-58.0	
100.0	53305.3	-56.3	
75.3	59266.3	-61.1	
70.0	60700.9	-56.0	

STATION ALTITUDE 3939.00 FEET MSL
 10 APR. 79
 ASCENSION NO. 104

SIGNIFICANT LEVEL DATA
 1000020104
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE MILLIBARS MSL FEET	GEOMETRIC ALTITUDE	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
55.2	65701.4	-62.0	
50.0	67744.4	-57.5	
37.3	73679.9	-56.2	
33.1	76625.6	-50.0	
30.0	78543.0	-51.7	
26.3	81376.1	-50.3	
23.3	84018.8	-45.7	
20.0	87395.8	-44.4	
14.8	94100.4	-39.2	
10.0	103033.7	-37.2	

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

UPPER AIR DATA
100002018
WHITE SPRING

STATION ALTITUDE 3589.00 FEET MSL
10 APR 79
ASCENSION NO. 104

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY G/M ³ WET	SPEED OF SOUND M/S	WIND DIRECTION DEGREES (TR)	WIND SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES	WET POINT DEGREES						
3579.0	804.4	16.6	-9	31.0	1030.6	664.0	250.0	25.1	1.000257
4070.0	364.1	16.5	-6	21.1	1036.4	663.9	249.9	25.0	1.000257
4560.0	340.0	13.7	-1.6	34.1	1026.1	660.0	244.4	24.3	1.000254
5070.0	833.3	11.6	-3.2	35.2	1017.2	650.1	236.6	23.0	1.000249
5560.0	615.2	9.5	-4.7	36.4	1006.5	650.0	236.7	23.5	1.000245
6060.0	603.5	7.7	-5.7	38.0	994.6	650.5	232.7	35.2	1.000241
6560.0	780.6	0.4	-9.2	40.0	991.0	651.4	234.3	37.5	1.000237
7060.0	774.0	4.9	-7.4	40.5	986.2	650.2	233.0	34.9	1.000233
7560.0	759.7	3.4	-8.0	40.9	955.5	643.4	231.1	31.0	1.000229
8060.0	745.5	2.0	-9.5	42.3	942.6	646.7	235.5	25.1	1.000225
8570.0	731.6	.6	-10.3	43.7	929.7	643.0	243.2	33.7	1.000221
9060.0	717.6	-8	-11.2	45.1	917.1	643.0	243.9	44.3	1.000218
9560.0	704.3	-2.2	-12.1	46.8	904.2	641.7	244.2	41.0	1.000214
10070.0	690.8	-3.4	-13.0	47.9	891.1	640.2	244.6	37.4	1.000210
10560.0	677.6	-4.6	-13.6	49.3	876.1	639.8	243.4	34.7	1.000207
11060.0	664.7	-5.3	-14.4	50.9	855.2	637.5	243.0	32.1	1.000203
11560.0	651.8	-7.2	-15.3	52.1	832.7	639.7	240.6	32.4	1.000200
12060.0	639.0	-8.6	-16.3	53.6	810.5	634.0	230.0	33.5	1.000197
12560.0	626.5	-9.9	-17.2	55.1	826.5	632.5	236.2	35.0	1.000193
13060.0	614.2	-11.3	-18.2	56.0	810.7	630.0	235.6	37.0	1.000190
13560.0	592.4	-12.7	-19.2	58.2	805.1	626.9	235.4	38.0	1.000187
14060.0	590.5	-14.0	-20.7	59.5	793.1	627.4	233.6	40.2	1.000183
14560.0	573.7	-15.0	-22.9	59.7	780.5	626.1	236.7	41.1	1.000179
15060.0	567.2	-16.1	-23.2	59.0	766.2	624.0	237.5	41.9	1.000176
15560.0	555.0	-17.2	-27.7	59.3	756.1	623.5	239.0	42.1	1.000172
16060.0	544.7	-18.1	-29.1	57.1	743.0	622.5	240.9	42.0	1.000169
16560.0	533.7	-19.0	-30.2	56.1	731.2	622.2	242.0	42.0	1.000166
17060.0	522.3	-20.2	-31.0	57.0	719.5	617.7	243.0	43.2	1.000163
17560.0	512.2	-21.4	-31.9	37.9	706.5	618.2	246.2	44.6	1.000160
18060.0	501.6	-22.6	-33.7	33.4	697.4	616.5	243.6	47.9	1.000158
18560.0	491.4	-23.9	-33.6	38.7	630.0	613.0	230.9	51.9	1.000155
19060.0	481.3	-24.5	-34.6	28.4	674.1	614.4	230.9	54.9	1.000152
19560.0	471.4	-25.4	-35.5	38.0	664.7	613.3	230.4	57.0	1.000149
20060.0	461.5	-25.5	-33.1	33.1	651.0	611.9	249.2	59.5	1.000147
20560.0	451.9	-27.7	-36.7	41.4	641.1	610.5	247.2	62.5	1.000144
21060.0	442.4	-26.8	-37.4	43.1	630.0	609.0	243.7	65.0	1.000142
21560.0	433.2	-26.0	-36.0	44.9	620.4	607.0	244.4	70.0	1.000140
22060.0	424.0	-26.0	-38.3	39.6	600.0	600.5	244.4	72.5	1.000137
22560.0	415.0	-30.9	-42.1	32.1	590.0	600.4	243.1	75.0	1.000134
23060.0	406.2	-31.3	-44.2	26.4	585.0	605.9	247.0	75.3	1.000131

GEODLTIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

UPPER AIR DATA
 100002104
 WHITE SANDS

STATION ALTITUDE 3339.00 FEET MSL
 10 APR 79
 1005 HRS MST
 ASCENSION NO. 104

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CCUBIC METER	SPEED OF SOUND M/SEC	WIND DIRECTION DEGREES (T.M)	WIND SPEED KNOTS	INDEX OF REFRACTION
43500.0	397.0	-32.0	23.5	574.5	603.0	240.8	76.7	1.000129
43000.0	399.1	-32.7	21.0	560.0	601.1	250.1	80.6	1.000126
42500.0	400.7	-34.0	21.9	554.0	601.5	250.8	84.0	1.000124
42000.0	402.5	-35.2	22.8	545.0	601.0	251.2	88.6	1.000122
41500.0	404.5	-36.4	23.6	536.5	599.5	251.5	90.3	1.000120
41000.0	406.6	-37.5	18.2**	527.2	598.0	251.9	89.2	1.000118
40500.0	408.8	-38.6	8.4**	516.1	596.7	251.0	86.2	1.000116
40000.0	411.2	-39.5		508.9	595.4	251.8	82.2	1.000113
39500.0	413.7	-40.1		499.8	594.7	251.7	75.8	1.000111
39000.0	416.3	-40.7		489.0	594.0	251.5	75.9	1.000109
38500.0	419.1	-41.3		479.3	593.5	252.0	75.9	1.000107
38000.0	422.0	-41.8		469.9	592.5	252.5	77.1	1.000105
37500.0	425.0	-42.4		460.6	591.8	252.7	81.4	1.000103
37000.0	428.3	-43.1		451.7	591.0	252.8	86.6	1.000101
36500.0	431.6	-44.1		443.5	589.8	252.8	92.8	1.000099
36000.0	435.0	-45.1		435.4	588.3	253.0	90.5	1.000097
35500.0	438.5	-46.2		427.5	586.9	254.2	94.4	1.000095
35000.0	442.3	-47.2		419.8	585.8	255.0	74.8	1.000094
34500.0	446.2	-48.2		412.2	584.0	255.7	62.2	1.000092
34000.0	450.1	-49.3		404.5	582.9	254.2	56.6	1.000090
33500.0	454.2	-49.9		398.0	582.1	249.9	60.4	1.000088
33000.0	458.5	-50.3		390.5	581.3	249.0	70.4	1.000086
32500.0	462.9	-50.9		380.2	580.3	243.2	84.0	1.000085
32000.0	467.7	-51.1		371.9	580.3	241.6	88.5	1.000083
31500.0	472.3	-49.3		360.4	580.4	240.2	83.9	1.000080
31000.0	476.8	-47.8		349.8	582.9	239.8	79.0	1.000078
30500.0	481.2	-48.0		342.2	584.0	240.7	70.4	1.000076
30000.0	485.2	-47.8		334.7	584.0	243.4	63.1	1.000075
29500.0	489.3	-47.8		326.5	584.0	240.4	65.2	1.000073
29000.0	493.4	-47.6		318.8	583.1	244.1	67.5	1.000071
28500.0	497.1	-48.1		312.0	584.4	249.2	70.1	1.000070
28000.0	500.7	-48.7		305.9	585.7	243.2	72.8	1.000068
27500.0	504.5	-49.3		299.7	587.3	240.5	75.1	1.000067
27000.0	508.2	-48.9		292.4	588.4	247.3	77.2	1.000065
26500.0	511.9	-48.3		285.0	589.1	244.0	78.9	1.000063
26000.0	515.7	-47.8		276.7	589.0	244.1	79.1	1.000062
25500.0	519.7	-47.0		270.5	589.0	245.2	79.2	1.000060
25000.0	523.7	-47.2		264.0	589.0	249.0	79.2	1.000059
24500.0	527.6	-48.5		256.2	583.9	239.0	79.0	1.000058
24000.0	531.9	-49.5		250.7	582.2	237.7	78.6	1.000057

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

STATION ALTITUDE 3989.00 FEET MSL
 10 APR. 79 1005 HRS MST
 ASCENSION NO. 104

UPPER AIR DATA
 1000020104
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.57033 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 DIR/DEG(TN)	INDEX OF REFRACTION
43500.0	160.2	-51.1		251.0	560.5	237.9	1.000056
44000.0	159.5	-52.0		240.5	579.3	233.1	1.000055
44500.0	152.9	-52.7		241.5	570.5	230.5	1.000054
45000.0	149.3	-53.3		236.0	577.0	233.2	1.000053
45500.0	145.8	-54.1		231.9	575.0	240.1	1.000052
46000.0	142.4	-54.8		227.2	575.0	241.4	1.000051
46500.0	139.0	-55.6		222.6	574.0	243.0	1.000050
47000.0	135.7	-56.3		218.1	573.0	244.0	1.000049
47500.0	132.6	-57.1		213.7	572.0	245.1	1.000048
48000.0	129.4	-57.8		209.4	571.0	246.2	1.000047
48500.0	126.4	-57.9		204.0	571.0	245.4	1.000046
49000.0	123.4	-57.7		199.5	571.0	244.1	1.000044
49500.0	120.5	-57.6		194.0	572.0	242.5	1.000043
50000.0	117.6	-57.4		189.9	572.2	241.7	1.000042
50500.0	114.8	-57.2		185.5	572.5	242.7	1.000041
51000.0	112.1	-57.1		180.7	572.7	243.7	1.000040
51500.0	109.5	-56.9		176.3	572.9	244.7	1.000039
52000.0	106.9	-56.7		172.0	573.1	243.1	1.000038
52500.0	104.3	-56.6		167.6	573.3	247.8	1.000037
53000.0	101.7	-56.4		163.7	573.5	252.8	1.000036
53500.0	99.4	-56.4		159.8	573.0	3.8	1.000036
54000.0	97.1	-56.6		156.3	573.0	3.0	1.000035
54500.0	94.8	-57.2		152.9	572.5	305.7	1.000034
55000.0	92.5	-57.6		149.0	571.9	261.0	1.000033
55500.0	90.3	-58.0		146.2	571.4	247.3	1.000033
56000.0	88.0	-58.4		143.0	570.9	246.2	1.000032
56500.0	86.0	-58.6		139.9	570.5	250.4	1.000031
57000.0	84.0	-59.3		136.0	569.0	252.1	1.000030
57500.0	82.0	-59.7		133.3	568.2	251.0	1.000030
58000.0	80.0	-60.1		130.9	568.7	251.5	1.000029
58500.0	78.1	-60.5		128.0	568.1	252.5	1.000029
59000.0	76.3	-60.9		125.2	567.0	253.5	1.000028
59500.0	74.5	-60.9		121.3	566.4	250.5	1.000027
60000.0	72.7	-60.8		118.0	566.0	250.0	1.000026
60500.0	71.0	-56.5		114.5	572.0	241.3	1.000025
61000.0	69.3	-56.3		111.0	573.7	240.4	1.000025
61500.0	67.5	-56.9		108.9	572.9	240.1	1.000024
62000.0	66.0	-57.0		106.0	572.1	240.4	1.000024
62500.0	64.4	-56.1		104.4	571.5	240.1	1.000023
63000.0	62.9	-58.7		102.2	570.5	244.9	1.000023

STATION ALTITUDE 3489.00 FEET MSL
 10 APR. 79 1005 HRS MST
 ASCENSION NO. 104

UPPER AIR DATA
 1000020104
 WHITE SARUS

GEOGETIC COORDINATES
 32.40043 LAT DEG
 100.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CELSIUS	REL. HUM. PERCENT	VELOCITY GV/CURIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3350.0	81.4	-54.3		100.0	569.7	242.1	29.9	1.000022
3400.0	59.9	-59.9		97.3	569.9	233.0	24.1	1.000022
3450.0	56.5	-60.5		95.6	568.1	233.2	15.8	1.000021
3500.0	57.1	-61.1		93.6	567.2	219.0	7.6	1.000021
3550.0	55.7	-61.8		91.9	566.4	151.5	2.8	1.000020
3600.0	54.4	-61.3		89.9	567.0	75.8	6.5	1.000020
3650.0	53.1	-60.2		86.9	563.5	63.1	12.0	1.000019
3700.0	51.8	-59.1		84.4	569.7	57.6	14.1	1.000019
3750.0	50.6	-58.0		81.9	571.4	53.9	16.2	1.000018
3800.0	49.4	-57.4		79.8	572.2	51.9	17.7	1.000018
3850.0	48.2	-57.3		77.9	573.3	51.1	18.6	1.000017
3900.0	47.1	-57.2		76.0	572.5	50.4	19.5	1.000017
3950.0	45.9	-57.1		74.1	572.0	49.0	15.7	1.000017
4000.0	44.9	-57.0		72.4	572.7	37.0	11.2	1.000016
4050.0	43.3	-56.9		70.0	573.9	15.5	7.1	1.000016
4100.0	42.3	-56.6		68.9	573.0	309.9	6.0	1.000015
4150.0	41.3	-56.7		67.3	573.2	274.2	11.1	1.000015
4200.0	40.5	-56.6		65.6	573.3	263.5	17.2	1.000015
4250.0	39.8	-56.5		64.1	573.4	253.9	23.2	1.000014
4300.0	38.9	-56.4		62.5	573.9	259.1	29.3	1.000014
4350.0	38.0	-56.3		61.0	573.7	254.6	34.6	1.000014
4400.0	37.1	-55.9		59.5	574.2	253.5	39.7	1.000013
4450.0	36.2	-54.7		57.6	575.6	252.6	44.6	1.000012
4500.0	35.4	-53.5		56.1	577.4	251.9	46.4	1.000012
4550.0	34.6	-52.3		54.3	579.0	251.4	40.2	1.000012
4600.0	33.8	-51.0		53.0	580.6	250.8	49.4	1.000012
4650.0	33.0	-50.1		51.5	581.9	250.0	48.7	1.000011
4700.0	32.2	-50.5		50.4	581.4	249.2	46.0	1.000011
4750.0	31.5	-50.9		49.3	580.6	243.2	47.2	1.000011
4800.0	30.3	-51.3		48.3	580.0	247.1	46.4	1.000011
4850.0	30.1	-51.7		47.3	579.6	245.9	45.5	1.000011
4900.0	29.4	-51.5		46.2	580.0	244.6	44.5	1.000010
4950.0	28.7	-51.2		45.0	580.7	243.2	43.3	1.000010
5000.0	28.0	-51.0		44.0	580.7	241.7	42.2	1.000010
5050.0	27.4	-50.7		42.9	581.0	240.6	40.6	1.000010
5100.0	26.8	-50.5		41.3	581.3	239.6	38.5	1.000009
5150.0	26.2	-50.1		40.6	581.7	238.9	36.4	1.000009
5200.0	25.6	-49.2		39.6	583.0	236.6	34.9	1.000009
5250.0	25.0	-48.3		38.7	584.1	235.7	33.5	1.000009
5300.0	24.4	-47.5		37.7	585.2	235.8	32.2	1.000008

STATION ALTITUDE 3983.00 FEET MSL
 10 APR. 79
 ASCENSION NO. 104

UPPER AIR DATA
 1000020104
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY G/M ³ CUBIC METER	SPEED OF SOUND MACHS	WIND DIRECTION DEGREES (TN)	WIND VELOCITY KNOTS	INDEX OF REFRACTION
03500.0	23.9	-46.6		30.7	580.4	239.4	32.1	1.000000A
04000.0	23.3	-45.7		35.7	587.5	240.2	32.4	1.000000A
04500.0	22.8	-45.5		34.9	587.8	240.9	32.7	1.000000A
05000.0	22.3	-45.3		34.1	588.0	242.0	33.4	1.000000A
05500.0	21.0	-45.1		33.3	588.3	243.3	34.4	1.0000007
06000.0	21.3	-44.9		32.5	588.5	244.5	35.5	1.0000007
06500.0	20.3	-44.7		31.8	588.6	245.7	36.6	1.0000007
07000.0	20.4	-44.6		31.0	588.8	247.0	38.8	1.0000007
07500.0	19.9	-44.3		30.3	589.3	248.1	41.1	1.0000007
08000.0	19.5	-43.9		29.9	589.8	249.1	43.2	1.0000007
08500.0	19.0	-43.0		28.9	590.3	250.0	45.7	1.0000006
09000.0	18.8	-43.2		28.2	590.6	250.9	48.4	1.0000006
09500.0	18.2	-42.8		27.5	591.3	251.6	51.0	1.0000006
10000.0	17.6	-42.4		26.9	591.7	252.3	53.6	1.0000006
10500.0	17.4	-42.1		26.3	592.2	252.5	55.1	1.0000006
11000.0	17.0	-41.7		25.8	592.7	252.2	56.3	1.0000006
11500.0	16.7	-41.3		25.0	593.2	252.0	57.6	1.0000006
12000.0	16.3	-40.9		24.4	593.7	251.8	57.0	1.0000005
12500.0	15.9	-40.5		23.9	594.2	251.0	52.3	1.0000005
13000.0	15.6	-40.2		23.0	594.8	250.1	47.5	1.0000005
13500.0	15.2	-39.8		22.7	595.1	249.9	42.8	1.0000005
14000.0	14.6	-39.4		22.2	595.8	247.5	35.1	1.0000005
14500.0	14.3	-39.1		21.7	596.9	245.2	26.3	1.0000005
15000.0	13.9	-39.0		21.2	598.0	240.7	17.6	1.0000005
15500.0	13.5	-38.6		20.8	598.2	239.0	10.1	1.0000005
16000.0	13.1	-38.7		20.3	598.3	228.1	10.0	1.0000005
16500.0	13.4	-38.6		19.8	598.3	226.1	9.9	1.0000004
17000.0	13.1	-38.6		19.4	598.8	227.1	9.9	1.0000004
17500.0	12.8	-38.5		19.0	598.8	227.1	14.0	1.0000004
18000.0	12.3	-38.4		18.3	598.9	228.0	23.3	1.0000004
18500.0	12.2	-38.3		18.1	597.0	243.6	32.8	1.0000004
19000.0	11.7	-38.0		17.7	597.2	243.6	42.3	1.0000004
19500.0	11.2	-37.8		17.3	597.3	243.6	50.4	1.0000004
20000.0	11.0	-37.8		17.0	597.3	243.6	58.3	1.0000004
20500.0	10.7	-37.7		16.2	597.8	246.1	66.1	1.0000004
21000.0	10.5	-37.5		15.7	597.9	246.1		1.0000003
21500.0	10.3	-37.3		15.2	598.2	246.1		1.0000003
22000.0	10.0	-37.2		14.8	598.4	246.1		1.0000003

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STATION ALTITUDE 3989.00 FEET MSL
 10 APR. 79
 ASCENSION NO. 164

MRN SIGNIFICANT LEVEL DATA
 1000020104
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

GEOPOTENTIAL ALTITUDE METERS	DIRECTION DEG (TR)	WIND DATA		E-W MPS	DL# PT DEP DLG C	TEMPERATURE		PRESSURE MILLIBARS
		SPEED MPS	M-S MPS			AIR DEG C		
3125.	9999.**	9999.**	-9999.**	-9999.**	99	-37.2	1.000+1	
3055.	247.	17.	7.	15.	99	-39.3	1.480+1	
2951.	248.	21.	6.	19.	99	-44.4	2.000+1	
2949.	240.	17.	8.	14.	99	-45.7	2.330+1	
2409.	259.	19.	10.	10.	99	-50.3	2.530+1	
2334.	246.	25.	10.	24.	99	-51.7	3.000+1	
2320.	250.	25.	9.	24.	99	-50.0	3.310+1	
2243.	254.	20.	4.	19.	99	-56.2	3.730+1	
2057.	52.	9.	-5.	-7.	99	-57.5	5.000+1	
1995.	104.	2.	0.	-2.	99	-62.0	5.520+1	
1840.	242.	35.	15.	29.	99	-56.0	7.000+1	
1600.	235.	40.	25.	33.	99	-61.1	7.530+1	
1022.	340.	1.	-1.	0.	99	-56.3	1.900+2	

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

STATION ALTITUDE 3989.00 FEET MSL
 20 APR. 79 1005 HRS MST
 ASCENSION NO. 104

MANDATORY LEVELS
 1000020104
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	TEMPERATURE AIR (DEGREES CENTIGRADE)	REL. HUM. PERCENT	WIND DATA	
				DIRECTION DEGREES(TN)	SPEED KNOTS
650.0	4450.	13.9	34.	244.9	24.4
600.0	6109.	7.4	36.	233.1	30.0
750.0	7939.	2.4	42.	230.7	22.9
700.0	9049.	-2.6	47.	244.3	39.9
650.0	11562.	-7.4	54.	240.3	32.5
600.0	13100.	-13.0	58.	239.7	39.3
550.0	14743.	-17.7	55.	240.0	42.1
500.0	16081.	-22.8	37.	250.0	48.6
450.0	20574.	-27.0	42.	240.9	63.1
400.0	23322.	-31.6	24.	248.3	75.5
350.0	26379.	-35.4	10.8*	252.0	67.5
300.0	29824.	-42.8		232.8	84.9
250.0	33780.	-50.2		247.1	65.1
200.0	38590.	-48.3		249.2	71.0
175.0	41464.	-47.0		242.0	79.3
150.0	44780.	-53.2		239.0	68.1
125.0	48330.	-57.8		243.2	52.5
100.0	52222.	-55.3		315.0	2.1
80.0	57034.	-60.1		231.3	58.5
70.0	59574.	-56.0		242.3	63.7
60.0	63764.	-53.6		236.4	24.6
50.0	67431.	-57.5		52.3	17.1
40.0	72120.	-50.5		259.8	21.7
30.0	78209.	-51.7		245.9	43.5
25.0	82110.	-48.4		238.7	35.7
20.0	86930.	-44.4		247.0	40.4
15.0	93379.	-33.5		246.1	38.6
10.0	102570.	-37.2			

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

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 Lon. DEG

MON MANDATORY LEVELS
 1000020104
 WHITE SANDS

STATION ALTITUDE 3439.00 FEET MSL
 10 APR. 79 1005 HRS MST
 ASCENSION NO. 164

GEOCENTRAL ALTITUDE METERS	DIRECTION DEG (TN)	SPEED MPS	WIND DATA M-S	SW MPS	UW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
						AIR DEG C		
3125.	9999.**	9999.**	-9999.**	-9999.**	99		-37.2	1.000+1
2846.	248.	20.	7.	16.	99		-39.5	1.500+1
2851.	248.	21.	8.	19.	99		-44.4	2.000+1
2503.	239.	17.	5.	15.	99		-48.4	2.500+1
2384.	246.	23.	10.	21.	99		-51.7	3.000+1
2198.	260.	11.	2.	11.	99		-56.5	4.000+1
2057.	53.	9.	-5.	-7.	99		-57.5	5.000+1
1943.	238.	11.	7.	11.	99		-59.9	6.000+1
1848.	242.	33.	15.	29.	99		-56.0	7.000+1
1763.	231.	30.	19.	26.	99		-60.1	8.000+1
1622.	215.	1.	-1.	1.	99		-56.3	1.000+2
1481.	245.	27.	11.	25.	99		-57.8	1.250+2
1308.	239.	23.	12.	30.	99		-53.2	1.500+2
1264.	242.	11.	19.	36.	99		-47.0	1.750+2
1176.	249.	37.	13.	34.	99		-48.3	2.000+2
1030.	247.	34.	13.	31.	99		-50.2	2.500+2
909.	253.	44.	13.	42.	99		-42.8	3.000+2
804.	252.	43.	14.	43.	20		-38.4	3.500+2
711.	248.	39.	14.	36.	14		-31.8	4.000+2
627.	247.	32.	13.	30.	09		-27.9	4.500+2
551.	250.	23.	9.	23.	10		-22.8	5.000+2
480.	240.	22.	11.	19.	11		-17.7	5.500+2
414.	235.	20.	11.	17.	06		-13.0	6.000+2
352.	240.	17.	8.	15.	06		-7.4	6.500+2
294.	244.	21.	9.	19.	10		-2.6	7.000+2
239.	231.	12.	7.	5.	12		2.4	7.500+2
186.	233.	19.	11.	15.	15		7.4	8.000+2
136.	245.	13.	8.	11.	16		13.9	8.500+2

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

STATION ALTITUDE 4126.59 FEET MSL
 10 APR. 79
 ASCENSION NO. 173

SIGNIFICANT LEVEL DATA
 1000010173
 HOLLOWMAN

GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
858.8	13.8	32.0
850.0	11.8	39.0
817.0	8.0	43.0
777.6	4.6	48.0
700.0	-3.5	72.0
602.0	-12.9	83.0
557.4	-16.2	93.0
541.2	-18.9	77.0
519.4	-21.0	80.0
500.0	-23.7	56.0
472.8	-26.6	50.0
442.8	-29.4	42.0
400.0	-34.8	40.0
366.4	-38.3	30.0
300.0	-44.7	
250.0	-47.8	
237.8	-48.2	
231.3	-45.4	
217.4	-46.9	
200.0	-48.2	
184.8	-50.8	
176.2	-49.9	
166.6	-49.9	
150.0	-54.8	
121.6	-59.7	
113.7	-56.3	
104.8	-56.8	
100.0	-54.5	
88.1	-52.0	
70.0	-61.2	
60.0	-65.0	
56.5	-57.1	
51.8	-58.2	
50.0	-56.3	
37.8	-57.0	
33.4	-53.1	

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 32.88865 LAT DEG
 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4126.6	858.8	13.8	-2.6	32.0	1040.3	660.7	240.0	20.0	1.000255
4500.0	847.2	11.5	-1.9	39.3	1034.4	658.0	241.0	23.8	1.000255
5000.0	831.8	9.7	-2.8	41.2	1022.1	656.0	242.0	28.9	1.000251
5500.0	816.7	8.0	-3.8	43.0	1009.9	653.9	242.7	33.9	1.000247
6000.0	801.7	6.7	-4.4	44.9	995.9	652.4	241.6	35.5	1.000243
6500.0	787.0	5.4	-5.0	46.8	982.1	650.9	238.9	33.8	1.000239
7000.0	772.4	4.1	-5.5	49.5	968.6	649.3	236.3	32.4	1.000236
7500.0	757.9	2.6	-5.8	53.9	955.5	647.6	235.1	32.0	1.000233
8000.0	743.7	1.2	-6.1	58.2	942.6	645.9	234.0	31.6	1.000229
8500.0	729.7	-.3	-6.6	62.5	929.8	644.1	234.4	31.3	1.000226
9000.0	716.0	-1.8	-7.1	66.8	917.3	642.4	235.4	31.1	1.000223
9500.0	702.6	-3.2	-7.7	71.2	905.0	640.7	235.9	30.5	1.000219
10000.0	689.0	-4.5	-8.5	73.2	891.9	639.1	234.5	29.2	1.000216
10500.0	675.7	-5.7	-9.5	74.6	878.6	637.6	233.4	28.7	1.000212
11000.0	662.6	-6.9	-10.4	76.0	865.6	636.2	233.1	29.7	1.000208
11500.0	649.7	-8.1	-11.4	77.4	852.8	634.7	233.1	29.5	1.000204
12000.0	637.1	-9.4	-12.3	78.9	840.2	633.2	233.3	28.5	1.000200
12500.0	624.8	-10.6	-13.3	80.3	827.8	631.7	233.0	26.0	1.000196
13000.0	612.7	-11.8	-14.3	81.7	815.6	630.2	232.9	24.3	1.000193
13500.0	600.8	-13.0	-15.2	83.4	803.5	628.7	233.8	25.8	1.000189
14000.0	588.8	-13.8	-15.5	87.6	790.1	627.7	236.4	29.6	1.000186
14500.0	577.1	-14.7	-15.7	91.8	777.0	626.7	239.3	35.2	1.000183
15000.0	565.7	-15.6	-16.1	95.9	764.1	625.6	242.9	36.1	1.000180
15500.0	554.4	-16.7	-17.3	95.0	752.3	624.2	245.5	35.4	1.000177
16000.0	543.3	-18.6	-21.2	79.8	742.8	621.9	246.9	34.1	1.000172
16500.0	532.3	-19.8	-22.6	78.2	731.2	620.4	244.3	36.9	1.000169
17000.0	521.5	-20.8	-23.4	79.7	719.4	619.1	242.5	38.5	1.000166
17500.0	510.8	-22.2	-26.2	69.5	708.7	617.3	241.1	39.5	1.000162
18000.0	500.3	-23.7	-29.8	56.4	698.3	615.5	241.3	39.6	1.000159
18500.0	490.0	-24.7	-31.4	53.8	686.9	614.1	241.8	40.2	1.000156
19000.0	479.8	-25.8	-32.8	51.6	675.7	612.8	242.4	41.4	1.000153
19500.0	469.9	-26.9	-34.3	49.2	664.4	611.5	243.7	43.8	1.000150
20000.0	460.0	-27.8	-35.6	46.7	652.9	610.3	245.3	47.3	1.000147
20500.0	450.4	-28.7	-37.0	44.1	641.7	609.2	246.4	50.2	1.000145
21000.0	440.9	-29.6	-38.4	41.9	630.6	608.0	247.2	52.9	1.000142
21500.0	431.5	-30.8	-39.5	41.5	620.1	606.6	247.4	55.2	1.000139
22000.0	422.3	-31.9	-40.7	41.1	609.8	605.1	247.1	57.0	1.000137
22500.0	413.4	-33.1	-41.8	40.6	599.7	603.7	246.6	59.2	1.000135
23000.0	404.6	-34.2	-43.0	40.2	589.7	602.2	245.7	62.6	1.000132
23500.0	395.9	-35.2	-44.2	38.8	579.5	601.0	245.0	66.1	1.000130

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 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	387.3	-36.1	-45.6	36.3	569.1	599.9	244.8	70.1	1.000127
24500.0	378.9	-37.0	-47.0	33.8	558.8	598.7	244.7	74.1	1.000125
25000.0	370.7	-37.8	-48.5	31.3	546.7	597.6	245.6	77.7	1.000123
25500.0	362.5	-38.6	-50.1	28.4**	538.5	596.6	246.6	81.2	1.000120
26000.0	354.5	-39.4	-51.8	25.1**	528.2	595.7	247.9	84.8	1.000118
26500.0	346.7	-40.1	-53.6	21.7**	518.1	594.8	249.3	88.5	1.000116
27000.0	339.0	-40.8	-55.6	18.3**	508.2	593.9	250.4	91.5	1.000113
27500.0	331.5	-41.5	-57.8	15.0**	498.5	592.9	251.3	93.6	1.000111
28000.0	324.1	-42.2	-60.4	11.6**	489.0	592.0	252.0	95.7	1.000109
28500.0	317.0	-42.9	-63.5	8.3**	479.6	591.1	252.2	97.6	1.000107
29000.0	309.9	-43.7	-67.8	4.9**	470.5	590.2	252.3	99.8	1.000105
29500.0	303.1	-44.4	-76.1	1.5**	461.5	589.3	252.3	103.0	1.000103
30000.0	296.3	-44.9			452.2	588.6	252.3	105.1	1.000101
30500.0	289.6	-45.3			442.8	588.1	252.3	105.4	1.000099
31000.0	283.1	-45.7			433.5	587.6	251.8	105.4	1.000097
31500.0	276.7	-46.1			424.5	587.1	250.6	104.8	1.000095
32000.0	270.4	-46.5			415.6	586.6	249.0	104.7	1.000093
32500.0	264.3	-46.9			406.9	586.0	246.7	105.3	1.000091
33000.0	258.3	-47.2			398.4	585.5	244.7	105.6	1.000089
33500.0	252.5	-47.6			390.0	585.0	242.9	105.3	1.000087
34000.0	246.8	-47.9			381.7	584.7	241.6	104.4	1.000085
34500.0	241.2	-48.1			373.3	584.4	241.7	102.1	1.000083
35000.0	235.7	-48.3			363.5	585.5	242.2	99.6	1.000081
35500.0	230.3	-48.5			352.5	587.8	244.6	96.8	1.000079
36000.0	225.1	-46.1			345.4	587.1	247.1	93.9	1.000077
36500.0	220.1	-46.6			336.4	586.4	249.9	89.5	1.000075
37000.0	215.1	-47.1			331.4	585.8	252.7	85.0	1.000074
37500.0	210.2	-47.4			324.4	585.3	253.7	78.3	1.000072
38000.0	205.4	-47.8			317.5	584.8	254.9	71.6	1.000071
38500.0	200.8	-48.1			310.8	584.4	254.9	65.6	1.000069
39000.0	196.2	-48.8			304.7	583.5	254.4	59.9	1.000068
39500.0	191.7	-49.6			298.7	582.5	253.6	54.8	1.000067
40000.0	187.3	-50.4			292.9	581.5	252.3	51.7	1.000065
40500.0	183.0	-50.6			286.5	581.2	250.8	48.6	1.000064
41000.0	178.8	-50.2			279.3	581.7	248.4	47.2	1.000062
41500.0	174.7	-49.9			272.6	582.1	245.4	47.2	1.000061
42000.0	170.7	-49.9			266.3	582.1	242.5	47.3	1.000059
42500.0	166.8	-49.9			260.2	582.1	239.8	49.9	1.000058
43000.0	162.9	-50.9			255.4	580.7	237.5	53.2	1.000057
43500.0	159.1	-52.0			250.7	579.3	236.5	56.4	1.000056

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

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 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
44000.0	155.4	-53.1	-53.1	246.1	577.9	236.9	236.9	59.4	1.000055
44500.0	151.8	-54.2	-54.2	241.6	576.4	237.5	237.5	62.4	1.000054
45000.0	148.3	-55.1	-55.1	236.9	575.3	238.9	238.9	64.9	1.000053
45500.0	144.8	-55.6	-55.6	231.8	574.6	240.3	240.3	67.4	1.000052
46000.0	141.3	-56.2	-56.2	226.9	573.8	240.9	240.9	67.2	1.000051
46500.0	138.0	-56.7	-56.7	222.1	573.1	241.3	241.3	66.3	1.000049
47000.0	134.7	-57.3	-57.3	217.4	572.4	241.7	241.7	65.2	1.000048
47500.0	131.5	-57.9	-57.9	212.8	571.6	241.5	241.5	62.7	1.000047
48000.0	128.4	-58.4	-58.4	208.3	570.9	241.2	241.2	60.2	1.000046
48500.0	125.4	-59.0	-59.0	203.9	570.1	241.4	241.4	60.0	1.000045
49000.0	122.4	-59.5	-59.5	199.6	569.4	242.0	242.0	62.5	1.000044
49500.0	119.5	-58.8	-58.8	194.2	570.4	242.6	242.6	65.0	1.000043
50000.0	116.6	-57.6	-57.6	188.5	572.0	244.0	244.0	68.9	1.000042
50500.0	113.9	-56.4	-56.4	183.0	573.6	245.2	245.2	72.8	1.000041
51000.0	111.2	-56.4	-56.4	178.7	573.5	246.2	246.2	74.8	1.000040
51500.0	108.6	-56.6	-56.6	174.6	573.3	247.1	247.1	75.3	1.000039
52000.0	106.0	-56.7	-56.7	170.6	573.1	247.8	247.8	75.4	1.000038
52500.0	103.5	-56.2	-56.2	166.2	573.8	247.5	247.5	71.7	1.000037
53000.0	101.1	-55.0	-55.0	161.4	575.4	247.1	247.1	68.0	1.000036
53500.0	98.7	-54.2	-54.2	157.1	576.4	246.4	246.4	62.1	1.000035
54000.0	96.4	-53.8	-53.8	153.1	577.0	245.3	245.3	55.3	1.000034
54500.0	94.2	-53.3	-53.3	149.2	577.6	244.1	244.1	48.5	1.000033
55000.0	92.0	-52.8	-52.8	145.4	578.2	243.9	243.9	41.6	1.000032
55500.0	89.8	-52.4	-52.4	141.8	578.8	243.4	243.4	34.7	1.000032
56000.0	87.7	-52.2	-52.2	138.3	579.1	243.2	243.2	28.7	1.000031
56500.0	85.7	-53.1	-53.1	135.6	577.0	243.4	243.4	24.4	1.000030
57000.0	83.7	-54.1	-54.1	133.0	576.6	243.8	243.8	20.2	1.000030
57500.0	81.7	-55.0	-55.0	130.4	575.4	244.2	244.2	17.5	1.000029
58000.0	79.7	-56.0	-56.0	127.9	574.1	244.4	244.4	16.2	1.000028
58500.0	77.9	-56.9	-56.9	125.5	572.8	244.7	244.7	15.0	1.000028
59000.0	76.0	-57.9	-57.9	123.0	571.6	243.9	243.9	13.5	1.000027
59500.0	74.2	-58.9	-58.9	120.7	570.3	242.4	242.4	11.8	1.000027
60000.0	72.5	-59.8	-59.8	118.4	569.0	240.4	240.4	10.2	1.000026
60500.0	70.8	-60.8	-60.8	116.1	567.8	232.8	232.8	9.3	1.000026
61000.0	69.1	-61.5	-61.5	113.7	566.7	222.8	222.8	8.7	1.000025
61500.0	67.4	-62.1	-62.1	111.3	565.9	211.9	211.9	8.5	1.000025
62000.0	65.8	-62.7	-62.7	108.9	565.1	209.4	209.4	10.3	1.000024
62500.0	64.2	-63.3	-63.3	106.5	564.3	207.7	207.7	12.1	1.000024
63000.0	62.6	-64.0	-64.0	104.2	563.5	207.9	207.9	13.9	1.000023
63500.0	61.1	-64.6	-64.6	102.0	562.7	214.9	214.9	15.9	1.000023

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 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
64000.0	59.6	-64.1		99.3	563.3	220.3	18.1	1.000022
64500.0	58.2	-60.9		95.5	567.6	225.5	20.2	1.000021
65000.0	56.8	-57.7		91.8	571.8	232.3	22.1	1.000020
65500.0	55.4	-57.3		89.5	572.3	238.0	24.1	1.000020
66000.0	54.1	-57.6		87.5	571.9	243.0	26.1	1.000019
66500.0	52.8	-58.0		85.5	571.5	248.2	27.2	1.000019
67000.0	51.6	-58.0		83.6	571.5	252.9	28.6	1.000019
67500.0	50.3	-56.7		81.0	573.2	257.2	29.1	1.000018
68000.0	49.2	-56.3		79.0	573.6	261.8	27.4	1.000018
68500.0	48.0	-56.4		77.1	573.6	266.9	25.8	1.000017
69000.0	46.9	-56.5		75.3	573.5	272.1	23.9	1.000017
69500.0	45.8	-56.5		73.6	573.4	276.8	20.6	1.000016
70000.0	44.7	-56.6		71.9	573.3	283.3	17.5	1.000016
70500.0	43.6	-56.6		70.2	573.2	289.3	15.1	1.000016
71000.0	42.6	-56.7		68.6	573.2	288.0	13.7	1.000015
71500.0	41.6	-56.8		67.0	573.1	286.5	12.3	1.000015
72000.0	40.6	-56.8		65.4	573.0	282.5	11.5	1.000015
72500.0	39.7	-56.9		63.9	572.9	273.5	12.3	1.000014
73000.0	38.7	-56.9		62.4	572.8	265.8	13.4	1.000014
73500.0	37.8	-57.0		60.9	572.8			1.000014
74000.0	36.9	-56.3		59.3	573.7			1.000013
74500.0	36.1	-55.5		57.7	574.7			1.000013
75000.0	35.2	-54.8		56.2	575.7			1.000013
75500.0	34.4	-54.0		54.7	576.7			1.000012
76000.0	33.6	-53.3		53.2	577.7			1.000012

STATION ALTITUDE 4126.59 FEET MSL
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MRN SIGNIFICANT LEVEL DATA
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GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	DIRECTION DEG (TN)	WIND DATA			DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
		SPEED MPS	N-S MPS	E-W MPS		AIR DEG C		
2311.	9999.**	9999.**	-9999.**	-9999.**	99		-53.1	3.340+1
2232.	9999.**	9999.**	-9999.**	-9999.**	99		-57.0	3.780+1
2054.	258.	15.	3.	14.	99		-56.3	5.000+1
2032.	252.	15.	4.	14.	99		-58.2	5.180+1
1977.	233.	12.	7.	9.	99		-57.1	5.650+1
1940.	219.	9.	7.	6.	99		-65.0	6.000+1
1845.	228.	5.	3.	3.	99		-61.2	7.000+1
1699.	243.	15.	7.	14.	99		-52.0	8.810+1
1617.	247.	34.	13.	31.	99		-54.5	1.000+2

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

STATION ALTITUDE 4126.59 FEET MSL
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MANDATORY LEVELS
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 HOLLOMAN

GEODETTIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4408.	11.8	-1.7	39.	240.8	22.9
800.0	6055.	6.6	-4.5	45.	241.3	35.3
750.0	7779.	1.8	-6.0	56.	234.5	31.8
700.0	9586.	-3.5	-7.8	72.	235.6	30.3
650.0	11495.	-8.1	-11.4	77.	233.1	29.5
600.0	13517.	-13.0	-15.2	84.	233.9	25.8
550.0	15078.	-17.4	-18.8	89.	246.2	34.7
500.0	17993.	-23.7	-30.0	56.	241.3	39.6
450.0	20493.	-28.7	-37.1	44.	246.4	50.3
400.0	23226.	-34.8	-43.6	40.	245.3	64.4
350.0	26252.	-39.8	-52.8	23.**	248.7	86.9
300.0	29673.	-44.7			252.3	104.3
250.0	33648.	-47.8			242.2	105.1
200.0	38494.	-48.2			254.8	64.9
175.0	41360.	-49.9			245.8	47.2
150.0	44642.	-54.8			238.2	63.6
125.0	48431.	-59.1			241.4	60.2
100.0	53063.	-54.5			246.9	66.3
80.0	57772.	-55.9			244.4	16.4
70.0	60526.	-61.2			228.9	9.0
60.0	63637.	-65.0			218.7	17.3
50.0	67395.	-56.3			256.2	28.7
40.0	72039.	-56.9			277.1	11.9

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

STATION ALTITUDE 4126.59 FEET MSL
 10 APR. 79 1005 HRS MST
 ASCENSION NO. 173

MRN MANDATORY LEVELS
 1000010173
 HOLLOMAN

GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	DIRECTION DEG (TN)	SPEED MPS	WIND DATA		DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
			N-S MPS	E-W MPS		AIR DEG C		
2196.	277.	6.	-1.	6.	99	-56.9	4.000+1	
2054.	258.	15.	3.	15.	99	-56.3	5.000+1	
1940.	219.	9.	7.	9.	99	-65.0	6.000+1	
1845.	229.	5.	3.	5.	99	-61.2	7.000+1	
1761.	244.	8.	4.	8.	99	-55.9	8.000+1	
1617.	247.	34.	13.	31.	99	-54.5	1.000+2	
1476.	241.	31.	15.	27.	99	-59.1	1.250+2	
1361.	238.	33.	17.	28.	99	-54.8	1.500+2	
1261.	246.	24.	10.	22.	99	-49.9	1.750+2	
1173.	255.	33.	9.	32.	99	-48.2	2.000+2	
1026.	242.	54.	25.	48.	99	-47.8	2.500+2	
904.	252.	54.	16.	51.	99	-44.7	3.000+2	
800.	249.	45.	16.	42.	13	-39.8	3.500+2	
708.	245.	33.	14.	30.	09	-34.8	4.000+2	
625.	246.	26.	10.	24.	08	-28.7	4.500+2	
548.	241.	20.	10.	18.	06	-23.7	5.000+2	
478.	246.	18.	7.	16.	01	-17.4	5.500+2	
412.	234.	13.	8.	11.	02	-13.0	6.000+2	
350.	233.	15.	9.	12.	03	-8.1	6.500+2	
292.	236.	16.	9.	13.	04	-3.5	7.000+2	
237.	234.	16.	9.	13.	08	1.8	7.500+2	
185.	241.	18.	9.	16.	11	6.6	8.000+2	
134.	241.	12.	6.	10.	13	11.8	8.500+2	