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14818B LANCE, MISSILE NUMBER 3373, ROUND NUMBER 322 APT (26 OCT--ETC(U)
NOV 78

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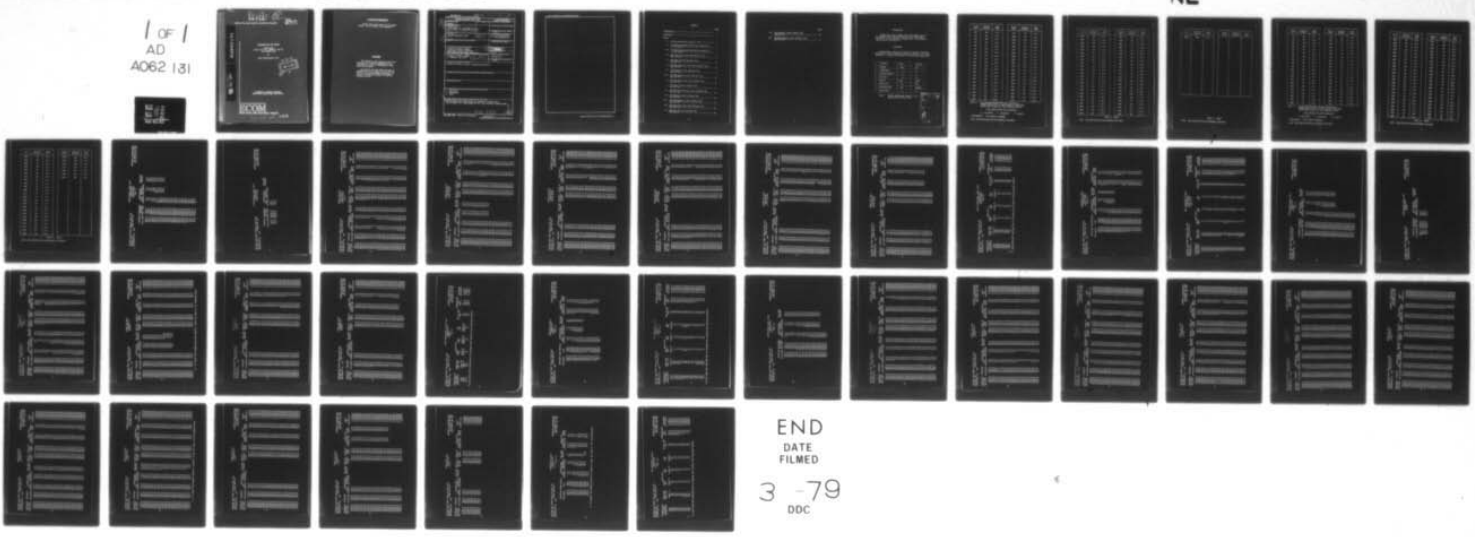

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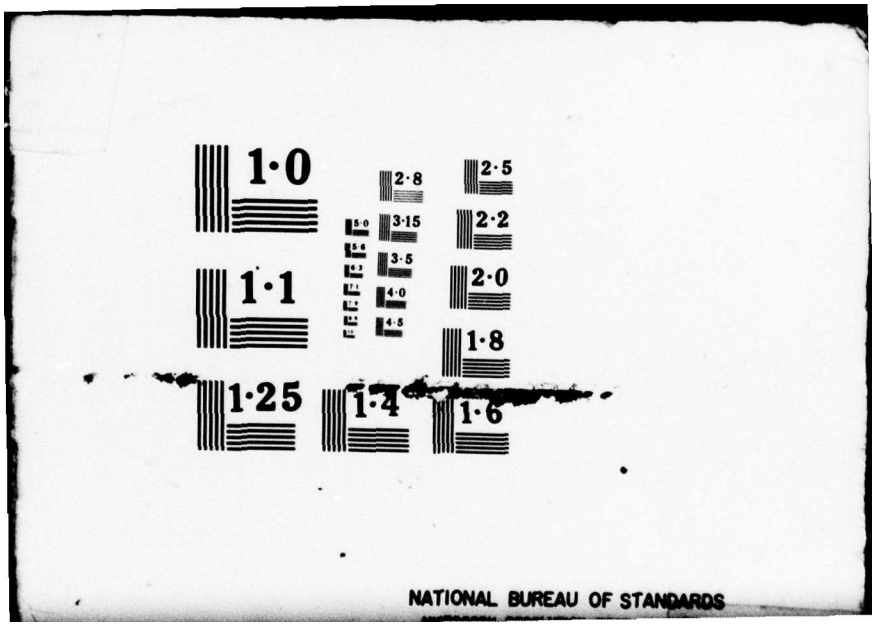
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METEOROLOGICAL DATA REPORT

14818B LANCE
MISSILE NO. 3373, ROUND NO. 322 APT
(26 OCTOBER 1978)

BY

WSMR METEOROLOGICAL TEAM

DDC
RECEIVED
DEC 13 1978
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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM
UNITED STATES ARMY ELECTRONICS COMMAND

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2. METEOROLOGY
3. WIND

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)
METEOROLOGICAL DATA GATHERED FOR THE LAUNCHING OF 14818B LANCE, MISSILE NUMBER 3373, ROUND NUMBER 322 APT, ARE PRESENTED IN TABULAR FORM.

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INTRODUCTION

14818B Lance, Missile Number 3373, Round Number 322 APT, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 1031 HRS MST, 26 October 1978. The scheduled launch time was 1000 HRS MST.

DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	4,064	FEET/MSL
PRESSURE	884.7	MBS
TEMPERATURE	9.2	^{o}C
RELATIVE HUMIDITY	76	%
DEW POINT	5.2	^{o}C
DENSITY	1,087	GM/M^3
WIND SPEED	04	MPH
WIND DIRECTION	360	DEGREES
CLOUD COVER	10	Sc

TABLE I. SURFACE OBSERVATIONS TAKEN AT LC-39, 1030 HRS MST/26 OCTOBER 1978.

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HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	360	04.0
100	360	03.0
200	360	01.5
300	007	02.5
400	014	03.0
500	019	05.0
600	024	07.0
700	014	06.5
800	004	05.5
900	360	05.0
1000	356	04.0
1100	355	05.5
1200	353	07.0
1300	343	05.0
1400	332	02.5
1500	330	03.0
1600	327	03.5
1700	246	05.0
1800	165	06.5
1900	165	07.5
2000	164	08.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2100	158	09.0
2200	152	09.5
2300	145	09.5
2400	137	09.5
2500	132	10.0
2600	127	10.5
2700	128	11.5
2800	128	12.5
2900	127	12.5
3000	125	12.5
3100	128	12.0
3200	130	11.0
3300	131	11.0
3400	131	10.5
3500	129	09.0
3600	127	07.0
3700	131	07.0
3800	134	06.5
3900	124	05.0
4000	113	03.5
4100	107	02.5

TABLE II. PILOT-BALLOON--MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-39, AT 1003 HRS MST/26 OCTOBER 1978
14818B LANCE, MISSILE NO. 3373, ROUND NO. 322 APT

PIBAL RELEASE POINT WSTM COORDINATES:

X = 530,938.82 Y = 186,564.96 Z = 4,063.75

APPROXIMATELY: 1 MILE SOUTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	100	01.5
4300	103	02.0
4400	106	02.0
4500	126	02.5
4600	146	02.5
4700	167	02.5
4800	188	02.0
4900	180	04.0
5000	172	05.5
5100	176	06.0
5200	179	06.0
5300	178	06.0
5400	177	05.5
5500	177	06.0
5600	177	06.5
5700	173	07.0
5800	168	07.0
5900	164	07.0
6000	160	06.5
6100	156	06.5
6200	151	06.5
6300	160	07.5
6400	168	08.0
6500	166	07.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6600	163	06.5
6700	168	07.0
6800	173	07.0
6900	171	06.5
7000	169	05.5
7100	155	04.5
7200	140	03.5
7300	145	04.5
7400	149	05.0
7500	144	05.0
7600	139	04.5
7700	130	05.0
7800	121	05.5
7900	124	05.0
8000	127	04.5
8100	129	04.5
8200	130	04.5
8300	095	03.0
8400	060	01.5
8500	114	02.0
8600	168	02.0
8700	132	01.5
8800	095	01.0
8900	068	01.5

TABLE II. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
9000	040	01.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)

TABLE II. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	360	04.0
100	270	02.0
200	CALM	CALM
300	262	01.5
400	344	02.5
500	347	03.0
600	350	03.5
700	353	06.0
800	356	08.0
900	353	07.0
1000	349	06.0
1100	317	04.5
1200	285	03.0
1300	309	03.5
1400	333	04.0
1500	008	03.0
1600	043	02.0
1700	093	03.5
1800	143	04.5
1900	150	06.0
2000	157	07.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2100	145	07.0
2200	132	07.0
2300	127	08.0
2400	122	08.5
2500	131	10.0
2600	140	11.5
2700	132	11.5
2800	123	11.5
2900	120	11.5
3000	116	11.0
3100	122	11.5
3200	127	11.5
3300	132	12.0
3400	137	12.5
3500	137	11.5
3600	137	10.0
3700	138	08.5
3800	138	07.0
3900	138	06.0
4000	138	05.0
4100	141	05.0

TABLE III. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2
RELEASED FROM LC-39, AT 1030 HRS MST/26 OCTOBER 1978
14818B LANCE, MISSILE NO. 3373, ROUND NO. 322 APT

PIBAL RELEASE POINT WSTM COORDINATES:

X = 530,938.82 Y = 186,564.96 Z = 4,063.75

APPROXIMATELY: 1 MILE SOUTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	143	05.0
4300	149	06.0
4400	155	06.5
4500	159	05.5
4600	162	04.5
4700	182	03.0
4800	201	01.0
4900	191	01.0
5000	180	01.0
5100	164	02.0
5200	148	02.5
5300	166	03.5
5400	183	04.5
5500	184	05.5
5600	184	06.5
5700	181	06.5
5800	177	06.0
5900	179	06.0
6000	180	06.0
6100	178	09.0
6200	176	12.0
6300	176	11.0
6400	176	09.5
6500	175	09.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6600	173	08.0
6700	097	07.5
6800	021	06.5
6900	157	06.0
7000	154	05.0
7100	151	04.0
7200	148	03.0
7300	153	04.0
7400	157	05.0
7500	160	05.5
7600	162	06.0
7700	163	07.0
7800	163	08.0
7900	161	08.0
8000	158	08.0
8100	155	07.5
8200	152	07.0
8300	149	05.5
8400	145	04.0
8500	158	04.0
8600	170	03.5
8700	167	02.5
8800	164	01.5
8900	167	02.0

TABLE III. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
9000	170	02.5
9100	164	02.5
9200	157	02.5
9300	195	02.5
9400	233	02.0
9500	209	04.0
9600	185	05.5
9700	164	04.5
9800	142	03.5
9900	146	04.0
10000	150	04.0
10100	134	03.5
10200	117	02.5
10300	097	02.0
10400	077	01.5
10500	072	02.5
10600	067	03.5
10700	058	04.0
10800	048	04.0
10900	063	03.5
11000	078	03.0
11100	093	03.5
11200	107	04.0
11300	100	05.0
11400	092	06.0
11500	087	07.0
11600	082	07.5
11700	088	07.5
11800	093	07.5
11900	094	07.0
12000	094	06.5

TABLE III. (CONT.)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

STATION ALTITUDE 3989.00 FEET MSL
26 OCT. 78 0830 HRS MST
ASCENSION NO. 708

SIGNIFICANT LEVEL DATA
2990020708
WHITE SANDS
TABLE IV.

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
883.9	3989.0	8.9	4.5	74.0
850.0	5050.1	7.0	2.9	75.0
816.6	6128.4	4.0	3.7	98.0
700.0	10209.6	-1.5	-2.3	94.0
653.8	11991.3	-4.0	-4.8	94.0
592.0	14552.0	-7.5	-15.9	51.0
525.2	17561.0	-13.7	-36.1	13.0
500.0	18803.5	-16.4	-37.6	14.0
447.4	21520.6	-22.5	-37.9	23.0
400.0	24166.4	-29.8	-41.4	31.0
369.6	26026.0	-33.6	-49.6	18.0
362.8	26454.9	-33.5		
324.0	29036.9	-39.2		
308.8	30117.5	-40.6		
302.8	30559.9	-38.1		
300.0	30770.4	-38.1		
282.0	32163.5	-41.3		
250.0	34849.5	-42.6		
233.0	36408.7	-44.7		
222.8	37396.1	-44.4		
200.0	39765.7	-47.0		
150.0	45964.8	-52.9		
123.8	49976.4	-60.7		
110.0	52389.8	-62.9		
100.0	54325.4	-63.1		
84.4	57744.5	-66.1		
50.4	68205.0	-60.7		
42.4	71791.1	-56.9		
36.8	74766.7	-55.5		
29.2	79692.8	-51.1		

STATION ALTITUDE 3989.00 FEET MSL
26 OCT. 78 0830 HRS MST
ASCENSION NO. 708

SIGNIFICANT LEVEL DATA
2990020708
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
26.6	81695.2	-52.0		
23.5	84360.5	-50.4		
21.4	86306.3	-49.4		
16.7	91837.8	-43.5		

STATION ALTITUDE 3989.00 FEET MSL
26 OCT. 78 0830 HRS MST
ASCENSION NO. 708

UPPER AIR DATA
2990020708
WHITE SANDS
TABLE V.

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	883.9	8.9	4.5	74.0	1087.8	655.5	30.0	5.8	1.000283
4000.0	883.5	8.9	4.5	74.0	1087.4	655.4	30.1	5.8	1.000282
4500.0	867.4	8.0	3.7	74.5	1071.1	654.3	37.3	3.9	1.000277
5000.0	851.6	7.1	3.0	75.0	1055.0	653.3	56.5	2.2	1.000272
5500.0	835.9	5.7	3.4	84.6	1040.4	651.8	118.1	1.5	1.000270
6000.0	820.5	4.4	3.7	95.3	1026.2	650.2	135.4	3.4	1.000268
6500.0	805.2	3.5	3.2	97.6	1010.3	649.1	128.9	6.5	1.000263
7000.0	790.2	2.8	2.4	97.1	994.0	648.3	126.0	7.7	1.000258
7500.0	775.4	2.2	1.7	96.7	977.9	647.5	123.5	8.2	1.000252
8000.0	760.9	1.5	.9	96.2	962.1	646.7	124.9	7.2	1.000247
8500.0	746.7	.8	.2	95.7	946.5	645.8	128.0	5.8	1.000242
9000.0	732.7	.1	-.5	95.2	931.2	645.0	116.7	5.1	1.000237
9500.0	719.0	-.5	-1.3	94.7	916.1	644.2	102.5	4.7	1.000232
10000.0	705.6	-1.2	-2.0	94.2	901.3	643.3	104.9	4.6	1.000228
10500.0	692.3	-1.9	-2.7	94.0	886.7	642.5	107.6	4.4	1.000223
11000.0	679.1	-2.6	-3.4	94.0	872.2	641.6	115.0	4.8	1.000219
11500.0	666.2	-3.3	-4.1	94.0	857.9	640.8	121.3	5.2	1.000215
12000.0	653.6	-4.0	-4.9	93.9	843.9	639.9	119.6	3.8	1.000210
12500.0	641.0	-4.7	-6.8	85.5	830.0	639.0	114.5	2.3	1.000204
13000.0	628.7	-5.4	-8.7	77.1	816.4	638.1	89.0	.8	1.000199
13500.0	616.6	-6.1	-10.9	68.7	803.0	637.2	6.8	.9	1.000193
14000.0	604.8	-6.7	-13.1	60.3	789.8	636.3	31.3	1.9	1.000188
14500.0	593.2	-7.4	-15.6	51.9	776.8	635.4	40.9	3.0	1.000183
15000.0	581.6	-8.4	-18.1	45.4	764.6	634.2	48.5	4.1	1.000178
15500.0	570.2	-9.4	-20.7	39.1	752.7	632.9	52.0	5.5	1.000174
16000.0	559.1	-10.5	-23.6	32.8	741.0	631.6	53.2	7.3	1.000170
16500.0	548.1	-11.5	-26.9	26.6	729.4	630.3	54.0	9.1	1.000166
17000.0	537.4	-12.5	-30.6	20.3	718.0	629.1	54.5	10.9	1.000163
17500.0	526.9	-13.5	-35.2	14.0	706.8	627.8	55.0	11.9	1.000159
18000.0	516.4	-14.6	-36.6	13.3	695.8	626.5	55.5	12.4	1.000156

UPPER AIR DATA
2990020706
WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL
26 OCT. 78 0830 HRS MST
ASCENSION NO. 708

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 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(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
18500.0	506.1	-15.7	-37.2	13.8	684.8	625.1	58.4	11.8	1.000154
19000.0	496.0	-16.8	-37.5	14.7	674.0	623.8	61.8	11.1	1.000152
19500.0	486.0	-18.0	-37.4	16.3	663.3	622.4	58.8	11.5	1.000149
20000.0	476.1	-19.1	-37.4	18.0	652.7	621.0	55.8	11.7	1.000147
20500.0	466.5	-20.2	-37.5	19.6	642.3	619.6	51.5	10.8	1.000144
21000.0	457.0	-21.3	-37.6	21.3	632.1	618.3	49.1	9.3	1.000142
21500.0	447.8	-22.5	-37.9	22.9	622.1	616.9	54.3	6.2	1.000140
22000.0	438.5	-23.8	-38.4	24.4	612.5	615.2	67.1	4.2	1.000138
22500.0	429.4	-25.2	-39.0	25.9	603.1	613.5	87.4	3.6	1.000136
23000.0	420.4	-26.6	-39.7	27.4	593.8	611.8	111.4	3.7	1.000133
23500.0	411.7	-27.9	-40.4	28.9	584.8	610.1	131.9	4.3	1.000131
24000.0	403.1	-29.3	-41.1	30.4	575.8	608.4	140.3	4.7	1.000129
24500.0	394.6	-30.4	-42.7	28.8	566.4	607.0	143.2	4.5	1.000127
25000.0	386.3	-31.5	-44.8	25.3	556.7	605.7	108.0	3.5	1.000125
25500.0	378.0	-32.5	-47.0	21.7	547.2	604.4	54.0	5.6	1.000122
26000.0	370.0	-33.5	-49.5	18.2	537.9	603.1	40.9	9.9	1.000120
26500.0	362.1	-33.6			526.6	603.0	39.3	14.6	1.000117
27000.0	354.2	-34.7			517.5	601.6	39.3	19.0	1.000115
27500.0	346.6	-35.8			508.7	600.2	45.8	20.5	1.000113
28000.0	339.1	-36.9			500.0	598.8	51.6	22.1	1.000111
28500.0	331.7	-38.0			491.4	597.4	61.4	21.5	1.000109
29000.0	324.5	-39.1			483.1	596.0	70.8	21.4	1.000108
29500.0	317.4	-39.8			473.8	595.1	68.7	20.2	1.000106
30000.0	310.4	-40.4			464.7	594.3	65.3	19.2	1.000104
30500.0	303.6	-38.4			450.6	596.8	51.2	20.6	1.000100
31000.0	297.0	-38.6			441.1	596.6	39.8	23.1	1.000098
31500.0	290.4	-39.8			433.5	595.1	38.8	26.4	1.000097
32000.0	284.1	-40.9			426.1	593.7	38.0	29.7	1.000095
32500.0	277.8	-41.5			417.7	593.0	42.9	30.5	1.000093
33000.0	271.6	-41.7			408.8	592.7	47.6	31.5	1.000091

UPPER AIR DATA

STATION ALTITUDE 3989.00 FEET MSL
26 OCT. 78 0830 HRS MST
ASCENSION NO. 708

2990020708
WHITE SANDS

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
33500.0	265.6	-41.9			400.2	592.4	50.8	29.7	1.000089
34000.0	259.7	-42.2			391.7	592.1	54.2	27.4	1.000087
34500.0	253.9	-42.4			383.4	591.7	54.4	22.9	1.000085
35000.0	248.3	-42.8			375.5	591.3	53.0	17.6	1.000084
35500.0	242.8	-43.5			368.2	590.4	51.3	12.7	1.000082
36000.0	237.3	-44.1			361.1	589.5	49.4	8.3	1.000080
36500.0	232.0	-44.7			353.8	588.9	43.3	4.7	1.000079
37000.0	226.8	-44.5			345.6	589.1	35.7	5.6	1.000077
37500.0	221.7	-44.5			337.9	589.1	30.2	6.5	1.000075
38000.0	216.8	-45.1			331.1	588.4	20.7	8.9	1.000074
38500.0	211.9	-45.6			324.4	587.7	15.1	11.6	1.000072
39000.0	207.1	-46.2			317.8	586.9	10.4	12.8	1.000071
39500.0	202.4	-46.7			311.4	586.2	5.5	13.2	1.000069
40000.0	197.8	-47.2			305.1	585.6	1.6	13.2	1.000068
40500.0	193.3	-47.7			298.7	585.0	358.4	12.8	1.000067
41000.0	188.9	-48.2			292.5	584.3	352.7	11.7	1.000065
41500.0	184.5	-48.7			286.3	583.7	339.3	9.6	1.000064
42000.0	180.3	-49.1			280.4	583.1	322.9	8.4	1.000062
42500.0	176.2	-49.6			274.5	582.5	317.4	7.9	1.000061
43000.0	172.1	-50.1			268.8	581.9	311.3	7.5	1.000060
43500.0	168.2	-50.6			263.2	581.2	314.5	7.4	1.000059
44000.0	164.3	-51.0			257.7	580.6	318.7	7.3	1.000057
44500.0	160.6	-51.5			252.3	580.0	315.1	6.9	1.000056
45000.0	156.9	-52.0			247.1	579.4	306.2	6.4	1.000055
45500.0	153.3	-52.5			241.9	578.7	299.2	6.2	1.000054
46000.0	149.7	-53.0			236.9	578.1	300.9	6.2	1.000053
46500.0	146.2	-53.9			232.3	576.8	302.6	6.3	1.000052
47000.0	142.8	-54.9			227.9	575.5	306.4	6.0	1.000051
47500.0	139.4	-55.9			223.5	574.2	310.7	5.8	1.000050
48000.0	136.1	-56.9			219.2	572.9	314.1	5.7	1.000049

UPPER AIR DATA
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GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 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(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
48500.0	132.9	-57.8			215.0	571.7	316.3	5.7	1.000048
49000.0	129.7	-58.8			210.8	570.4	318.4	5.7	1.000047
49500.0	126.7	-59.8			206.8	569.1	318.9	6.6	1.000046
50000.0	123.7	-60.7			202.8	567.8	319.3	7.5	1.000045
50500.0	120.7	-61.2			198.3	567.2	320.6	8.0	1.000044
51000.0	117.7	-61.6			193.9	566.6	322.6	8.4	1.000043
51500.0	114.9	-62.1			189.6	566.0	324.4	8.5	1.000042
52000.0	112.1	-62.5			185.5	565.4	325.5	7.3	1.000041
52500.0	109.4	-62.9			181.3	564.9	327.1	6.1	1.000040
53000.0	106.7	-63.0			176.9	564.8	333.1	4.2	1.000039
53500.0	104.1	-63.0			172.7	564.7	353.4	2.3	1.000038
54000.0	101.6	-63.1			168.5	564.7	43.4	1.3	1.000038
54500.0	99.1	-63.3			164.5	564.4	70.3	.3	1.000037
55000.0	96.7	-63.7			160.8	563.8	199.3	.7	1.000036
55500.0	94.3	-64.1			157.2	563.2	221.8	3.4	1.000035
56000.0	92.0	-64.6			153.7	562.6	225.1	6.7	1.000034
56500.0	89.8	-65.0			150.3	562.1	226.8	8.8	1.000033
57000.0	87.6	-65.4			146.9	561.5	228.9	8.9	1.000033
57500.0	85.4	-65.9			143.6	560.9	231.2	9.0	1.000032
58000.0	83.3	-66.0			140.1	560.8	235.9	8.6	1.000031
58500.0	81.3	-65.7			136.6	561.1	241.0	8.3	1.000030
59000.0	79.3	-65.5			133.1	561.5	243.2	8.4	1.000030
59500.0	77.4	-65.2			129.7	561.8	244.8	8.6	1.000029
60000.0	75.5	-64.9			126.4	562.1	248.0	8.3	1.000028
60500.0	73.7	-64.7			123.1	562.5	252.5	7.9	1.000027
61000.0	71.9	-64.4			120.0	562.8	257.6	7.4	1.000027
61500.0	70.1	-64.2			116.9	563.2	267.2	5.6	1.000026
62000.0	68.4	-63.9			113.9	563.5	285.2	4.0	1.000025
62500.0	66.8	-63.6			111.0	563.9	314.9	3.3	1.000025
63000.0	65.1	-63.4			108.2	564.2	337.3	3.6	1.000024

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GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 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(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
63500.0	63.6	-63.1			105.4	564.6	353.7	4.4	1.000023
64000.0	62.0	-62.9			102.7	564.9	357.2	4.8	1.000023
64500.0	60.5	-62.6			100.1	565.3	348.7	4.4	1.000022
65000.0	59.0	-62.4			97.5	565.6	338.5	4.0	1.000022
65500.0	57.6	-62.1			95.1	566.0	331.0	3.8	1.000021
66000.0	56.2	-61.8			92.6	566.3	327.9	3.7	1.000021
66500.0	54.8	-61.6			90.3	566.7	324.4	3.5	1.000020
67000.0	53.5	-61.3			88.0	567.0	318.8	3.6	1.000020
67500.0	52.2	-61.1			85.7	567.4	311.6	4.3	1.000019
68000.0	50.9	-60.8			83.5	567.7	306.4	5.0	1.000019
68500.0	49.7	-60.4			81.4	568.3	304.3	5.9	1.000018
69000.0	48.5	-59.9			79.2	569.0	306.3	7.4	1.000018
69500.0	47.4	-59.3			77.1	569.7	307.7	8.8	1.000017
70000.0	46.2	-58.8			75.1	570.4	308.9	10.0	1.000017
70500.0	45.1	-58.3			73.2	571.1	311.2	10.0	1.000016
71000.0	44.0	-57.7			71.2	571.8	313.6	9.9	1.000016
71500.0	43.0	-57.2			69.4	572.5	316.5	9.8	1.000015
72000.0	42.0	-56.8			67.6	573.0	324.8	8.3	1.000015
72500.0	41.0	-56.6			65.9	573.3	336.3	7.1	1.000015
73000.0	40.0	-56.3			64.3	573.6	351.2	6.2	1.000014
73500.0	39.1	-56.1			62.7	574.0	7.6	4.4	1.000014
74000.0	38.2	-55.9			61.2	574.3	40.4	3.3	1.000014
74500.0	37.3	-55.6			59.7	574.6	80.1	3.7	1.000013
75000.0	36.4	-55.3			58.2	575.0	103.1	3.5	1.000013
75500.0	35.6	-54.8			56.7	575.6	125.9	3.7	1.000013
76000.0	34.7	-54.4			55.3	576.2	143.2	4.5	1.000012
76500.0	33.9	-54.0			53.9	576.8	153.2	4.7	1.000012
77000.0	33.1	-53.5			52.6	577.4	161.7	5.0	1.000012
77500.0	32.4	-53.1			51.2	578.0	169.2	5.3	1.000011
78000.0	31.6	-52.6			49.9	578.5	176.7	4.7	1.000011

UPPER AIR DATA
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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
78500.0	30.9	-52.2			48.7	579.1	188.8	3.6	1.000011
79000.0	30.2	-51.7			47.5	579.7	209.8	2.8	1.000011
79500.0	29.5	-51.3			46.3	580.3	246.7	2.2	1.000010
80000.0	28.8	-51.2			45.2	580.3	291.7	2.8	1.000010
80500.0	28.1	-51.5			44.2	580.1	313.1	4.4	1.000010
81000.0	27.5	-51.7			43.2	579.8	322.0	5.5	1.000010
81500.0	26.8	-51.9			42.3	579.5	326.7	4.6	1.000009
82000.0	26.2	-51.8			41.3	579.6	333.6	3.8	1.000009
82500.0	25.6	-51.5			40.3	580.0	344.4	3.0	1.000009
83000.0	25.0	-51.2			39.3	580.4	341.6	1.6	1.000009
83500.0	24.5	-50.9			38.3	580.8	300.5	.2	1.000009
84000.0	23.9	-50.6			37.4	581.2	174.8	1.3	1.000008
84500.0	23.3	-50.3			36.5	581.5	181.7	2.7	1.000008
85000.0	22.8	-50.1			35.6	581.9	186.0	4.0	1.000008
85500.0	22.3	-49.8			34.8	582.2	188.1	5.5	1.000008
86000.0	21.8	-49.6			33.9	582.5	191.5	6.3	1.000008
86500.0	21.3	-49.3			33.1	582.9	196.3	6.7	1.000007
87000.0	20.8	-48.7			32.3	583.6	200.5	7.1	1.000007
87500.0	20.3	-48.2			31.5	584.3	204.3	7.5	1.000007
88000.0	19.9	-47.7			30.7	585.0	215.5	8.1	1.000007
88500.0	19.4	-47.1			30.0	585.7	225.1	9.0	1.000007
89000.0	19.0	-46.6			29.2	586.4	232.9	10.0	1.000006
89500.0	18.6	-46.0			28.5	587.1			1.000006
90000.0	18.2	-45.5			27.8	587.8			1.000006
90500.0	17.7	-44.9			27.1	588.5			1.000006
91000.0	17.3	-44.4			26.4	589.2			1.000006
91500.0	17.0	-43.9			25.8	589.9			1.000006

MRN SIGNIFICANT LEVEL DATA

STATION ALTITUDE 3989.00 FEET MSL
26 OCT. 78 0830 HRS MST
ASCENSION NO. 708

2990020708
WHITE SANDS
TABLE VI.

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	WIND DATA DIRECTION DEG (TN)	SPEED MPS	N-S MPS	E-W MPS	DEW PT DEP DEG C	TEMPERATURE AIR DEG C	PRESSURE MILLIBARS
2786.	9999.**	9999.**	-9999.**	-9999.**	99	-43.5	1.670+1
2621.	195.	3.	3.	1.	99	-49.4	2.140+1
2560.	180.	1.	1.	-0.	99	-50.4	2.350+1
2479.	329.	2.	-2.	1.	99	-52.0	2.660+1
2419.	266.	1.	0.	1.	99	-51.1	2.920+1
2270.	92.	2.	0.	-2.	99	-55.5	3.680+1
2180.	321.	5.	-4.	3.	99	-56.9	4.240+1
2071.	305.	3.	-2.	2.	99	-60.7	5.040+1
1754.	233.	5.	3.	4.	99	-66.1	8.440+1
1651.	52.	0.	-0.	-0.	99	-63.1	1.000+2

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

STATION ALTITUDE 3989.00 FEET MSL
26 OCT. 78 0830 HRS MST
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MANDATORY LEVELS
2990020708
WHITE SANDS
TABLE VII.

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	5046.	7.0	2.9	75.	59.9	2.1
800.0	6672.	3.3	2.9	97.	127.8	7.4
750.0	8385.	1.0	.4	96.	127.1	6.1
700.0	10200.	-1.5	-2.3	94.	106.0	4.5
650.0	12130.	-4.2	-5.4	91.	118.6	3.4
600.0	14191.	-7.0	-14.1	57.	35.0	2.4
550.0	16401.	-11.3	-26.3	28.	53.9	8.8
500.0	18777.	-16.4	-37.6	14.	60.6	11.3
450.0	21340.	-22.2	-37.8	23.	52.5	7.0
400.0	24146.	-29.8	-41.4	31.	141.3	4.6
350.0	27232.	-35.3			42.9	19.8
300.0	30710.	-38.1			44.9	21.7
250.0	34774.	-42.6			53.6	19.4
200.0	39670.	-47.0			3.3	13.4
175.0	42555.	-49.7			315.8	7.8
150.0	45841.	-52.9			300.7	6.2
125.0	49635.	-60.3			319.1	7.1
100.0	54157.	-63.1			50.9	.7
80.0	58623.	-65.5			242.5	8.3
70.0	61296.	-64.1			266.6	5.7
60.0	64404.	-62.5			346.7	4.3
50.0	68112.	-60.5			303.7	5.5
40.0	72722.	-56.3			350.7	6.3
30.0	78774.	-51.6			213.7	2.7
25.0	82656.	-51.2			341.7	1.6
20.0	87447.	-47.8			211.5	7.9

STATION ALTITUDE 3989.00 FEET MSL
26 OCT. 78 0830 HRS MST
ASCENSION NO. 708

MRN MANDATORY LEVELS
2990020708
WHITE SANDS
TABLE VIII.

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	WIND DATA DIRECTION DEG (TN)	SPEED MPS	N-S MPS	E-W MPS	DEW PT DEP DEG C	TEMPERATURE AIR DEG C	PRESSURE MILLIBARS
2665.	211.	4.	3.	2.	99	-47.8	2.000+1
2519.	342.	1.	-1.	0.	99	-51.2	2.500+1
2401.	214.	1.	1.	1.	99	-51.6	3.000+1
2217.	351.	3.	-3.	1.	99	-56.3	4.000+1
2076.	304.	3.	-2.	2.	99	-60.5	5.000+1
1963.	347.	2.	-2.	1.	99	-62.5	6.000+1
1868.	267.	3.	0.	3.	99	-64.1	7.000+1
1787.	242.	4.	2.	4.	99	-65.5	8.000+1
1651.	51.	0.	-0.	-0.	99	-63.1	1.000+2
1513.	319.	4.	-3.	2.	99	-60.3	1.250+2
1397.	301.	3.	-2.	3.	99	-52.9	1.500+2
1297.	316.	4.	-3.	3.	99	-49.7	1.750+2
1209.	3.	7.	-7.	-0.	99	-47.0	2.000+2
1060.	54.	10.	-6.	-8.	99	-42.6	2.500+2
936.	45.	11.	-8.	-8.	99	-38.1	3.000+2
830.	43.	10.	-7.	-7.	99	-35.3	3.500+2
736.	141.	2.	2.	-1.	12	-29.8	4.000+2
651.	53.	4.	-2.	-3.	16	-22.2	4.500+2
572.	61.	6.	-3.	-5.	21	-16.4	5.000+2
500.	54.	5.	-3.	-4.	15	-11.3	5.500+2
433.	35.	1.	-1.	-1.	07	-7.0	6.000+2
370.	119.	2.	1.	-2.	01	-4.2	6.500+2
311.	106.	2.	1.	-2.	01	-1.5	7.000+2
256.	127.	3.	2.	-3.	01	1.0	7.500+2
203.	128.	4.	2.	-3.	00	3.3	8.000+2
154.	60.	1.	-1.	-1.	04	7.0	8.500+2

STATION ALTITUDE 3951.40 FEET MSL
26 OCT. 78 0900 HRS MST
ASCENSION NO. 123

SIGNIFICANT LEVEL DATA
2990050123
APACHE
TABLE IX.

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
886.4	3951.4	9.0	4.8	75.0
881.4	4105.2	8.3	1.2	61.0
861.8	4713.8	6.5	.6	66.0
850.0	5085.0	5.5	-.1	67.0
823.0	5953.1	5.7	1.1	72.0
794.6	6893.1	2.8	.9	87.0
738.6	8825.7	-1.0	-2.6	89.0
719.8	9502.4	-1.2	-2.8	89.0
700.0	10231.9	-2.9	-4.5	89.0
674.8	11166.2	-3.7	-7.1	77.0
640.2	12546.8	-6.5	-10.5	73.0
573.8	15336.1	-11.1	-33.2	14.0
538.8	16917.9	-13.4	-24.1	40.0
535.6	17068.0	-10.0	-21.3	39.0
526.0	17523.2	-14.0	-25.5	37.0
500.0	18780.8	-17.4	-28.0	39.0
480.8	19741.4	-19.7	-34.6	25.0
400.0	24140.0	-30.4	-50.4	12.0
351.4	27125.3	-37.7		
339.2	27927.6	-37.5		
300.0	30688.9	-42.4		
281.0	32140.4	-43.8		
250.0	34717.8	-45.3		
229.0	36639.7	-46.9		
217.9	37726.0	-46.2		
200.0	39589.3	-49.6		
178.6	42018.6	-51.9		
162.2	44072.2	-52.7		
150.0	45728.4	-54.9		
119.0	50500.4	-64.6		

STATION ALTITUDE 3951.40 FEET MSL
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SIGNIFICANT LEVEL DATA
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GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
109.4	52195.3	-64.6		
100.0	54008.5	-64.0		
80.2	58424.6	-68.2		
70.0	61132.9	-66.3		
65.0	62622.3	-64.4		

UPPER AIR DATA
2990050123
APACHE
TABLE X.

STATION ALTITUDE 3951.40 FEET MSL
26 OCT. 78 0900 HRS MST
ASCENSION NO. 123

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 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
3951.4	886.4	9.0	4.8	75.0	1090.4	655.6	330.0	6.0	1.000284
4000.0	884.8	8.8	3.7	70.6	1089.6	655.2	330.6	5.9	1.000281
4500.0	868.6	7.1	.8	64.2	1076.6	653.1	338.2	5.1	1.000271
5000.0	852.7	5.7	.0	66.8	1062.3	651.5	348.5	4.4	1.000267
5500.0	837.0	5.6	.4	69.4	1043.0	651.4	2.2	3.8	1.000263
6000.0	821.6	5.6	1.1	72.7	1023.8	651.4	1.9	3.0	1.000260
6500.0	806.4	4.0	1.0	80.7	1010.4	649.6	346.1	1.9	1.000258
7000.0	791.4	2.6	.7	87.1	996.8	647.9	189.4	.3	1.000254
7500.0	776.6	1.6	-.2	87.6	981.7	646.7	169.9	2.7	1.000249
8000.0	762.0	.6	-1.1	88.1	966.9	645.5	162.9	3.7	1.000244
8500.0	747.8	-.4	-2.0	88.7	952.4	644.3	159.2	4.6	1.000239
9000.0	733.7	-1.1	-2.6	89.0	936.9	643.5	162.4	3.8	1.000235
9500.0	719.9	-1.2	-2.8	89.0	919.7	643.3	167.1	3.1	1.000230
10000.0	706.2	-2.4	-3.9	89.0	906.3	641.9	170.9	3.6	1.000226
10500.0	692.8	-3.1	-5.2	85.6	891.8	640.9	173.7	4.2	1.000220
11000.0	679.6	-3.5	-6.6	79.3	876.4	640.3	171.4	4.2	1.000215
11500.0	666.7	-4.3	-7.9	76.1	862.3	639.3	168.4	4.2	1.000210
12000.0	653.9	-5.4	-9.2	74.6	849.2	638.1	159.6	3.7	1.000205
12500.0	641.4	-6.4	-10.4	73.1	836.2	636.8	147.0	3.3	1.000201
13000.0	628.9	-7.2	-13.0	63.4	822.8	635.7	128.5	3.3	1.000195
13500.0	616.7	-8.1	-16.0	52.8	809.6	634.6	111.6	3.8	1.000190
14000.0	604.7	-8.9	-19.4	42.3	796.5	633.6	97.1	6.0	1.000185
14500.0	592.9	-9.7	-23.4	31.7	783.7	632.5	90.5	8.2	1.000180
15000.0	581.4	-10.5	-28.5	21.1	771.0	631.4	86.5	9.6	1.000175
15500.0	570.1	-11.3	-31.6	16.7	758.3	630.4	83.2	10.8	1.000171
16000.0	558.8	-12.1	-28.0	24.9	745.4	629.6	79.3	11.0	1.000169
16500.0	547.8	-12.8	-25.6	33.1	732.6	628.8	76.4	11.4	1.000167
17000.0	537.0	-11.5	-22.5	39.5	714.6	630.3	75.1	12.1	1.000165
17500.0	526.5	-13.8	-25.3	37.1	706.8	627.6	73.2	12.6	1.000162
18000.0	516.0	-15.3	-26.4	37.8	696.7	625.7	69.6	13.1	1.000159

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GEODETIC COORDINATES
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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
18500.0	505.7	-16.6	-27.4	38.6	686.5	624.1	67.0	13.8	1.000157
19000.0	495.6	-17.9	-29.4	35.8	676.1	622.5	66.2	14.9	1.000154
19500.0	485.6	-19.1	-32.8	28.5	665.7	621.0	66.3	15.6	1.000151
20000.0	475.6	-20.3	-35.5	24.2	655.2	619.5	67.5	15.9	1.000148
20500.0	465.8	-21.5	-37.1	22.8	644.8	618.0	68.7	15.7	1.000145
21000.0	456.1	-22.8	-38.8	21.3	634.5	616.5	70.1	15.2	1.000143
21500.0	446.7	-24.0	-40.6	19.8	624.4	615.0	73.9	14.4	1.000140
22000.0	437.5	-25.2	-42.3	18.3	614.5	613.5	79.2	13.7	1.000138
22500.0	428.4	-26.4	-44.1	16.8	604.8	612.0	80.1	12.9	1.000135
23000.0	419.5	-27.6	-46.0	15.4	595.2	610.5	79.9	12.2	1.000133
23500.0	410.9	-28.8	-47.9	13.9	585.8	608.9	70.1	13.4	1.000131
24000.0	402.3	-30.1	-49.8	12.4	576.6	607.4	60.1	15.7	1.000129
24500.0	393.8	-31.3	-52.2	10.6**	567.2	605.9	55.1	19.8	1.000127
25000.0	385.3	-32.5	-54.9	8.5**	557.8	604.4	52.8	24.8	1.000124
25500.0	377.1	-33.7	-58.0	6.5**	548.6	602.8	51.9	27.6	1.000122
26000.0	369.0	-34.9	-61.8	4.5**	539.6	601.3	51.5	29.1	1.000120
26500.0	361.1	-36.2	-67.0	2.5**	530.8	599.7	53.5	29.2	1.000118
27000.0	353.3	-37.4	-78.4	.5**	522.1	598.2	57.2	28.6	1.000116
27500.0	345.6	-37.6			511.2	597.9	59.4	29.2	1.000114
28000.0	338.1	-37.6			500.1	597.9	60.8	30.3	1.000111
28500.0	330.7	-38.5			491.0	596.7	59.4	29.5	1.000109
29000.0	323.4	-39.4			482.0	595.6	56.9	28.1	1.000107
29500.0	316.3	-40.3			473.2	594.5	54.6	27.9	1.000105
30000.0	309.3	-41.2			464.5	593.4	52.6	28.3	1.000103
30500.0	302.5	-42.1			456.1	592.2	49.7	30.0	1.000102
31000.0	295.8	-42.7			447.2	591.4	46.8	32.9	1.000100
31500.0	289.2	-43.2			438.1	590.8	45.1	34.6	1.000098
32000.0	282.8	-43.7			429.3	590.2	44.5	34.4	1.000096
32500.0	276.5	-44.0			420.3	589.7	45.6	34.4	1.000094
33000.0	270.3	-44.3			411.4	589.3	49.2	35.1	1.000092

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

UPPER AIR DATA

STATION ALTITUDE 3951.40 FEET MSL
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GEODETIC COORDINATES
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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
33500.0	264.2	-44.6			402.7	589.0	52.8	35.0	1.000090
34000.0	258.3	-44.9			394.2	588.6	56.5	34.7	1.000088
34500.0	252.5	-45.2			385.8	588.2	57.7	34.0	1.000086
35000.0	246.8	-45.5			377.7	587.8	59.0	33.2	1.000084
35500.0	241.2	-46.0			369.9	587.2	58.0	29.8	1.000082
36000.0	235.8	-46.4			362.2	586.7	56.7	26.5	1.000081
36500.0	230.5	-46.8			354.7	586.1	54.3	22.1	1.000079
37000.0	225.3	-46.7			346.5	586.3	50.4	17.7	1.000077
37500.0	220.2	-46.3			338.2	586.7	44.4	16.4	1.000075
38000.0	215.2	-46.7			331.0	586.2	38.0	16.5	1.000074
38500.0	210.3	-47.6			324.8	585.1	34.8	16.5	1.000072
39000.0	205.5	-48.5			318.7	583.9	32.8	16.4	1.000071
39500.0	200.8	-49.4			312.7	582.7	33.0	16.2	1.000070
40000.0	196.2	-50.0			306.3	582.0	34.0	15.8	1.000068
40500.0	191.7	-50.5			299.9	581.4	30.8	14.6	1.000067
41000.0	187.3	-50.9			293.6	580.7	25.4	13.4	1.000065
41500.0	183.0	-51.4			287.4	580.1	15.5	11.6	1.000064
42000.0	178.8	-51.9			281.4	579.5	1.4	10.2	1.000063
42500.0	174.6	-52.1			275.2	579.2	356.5	10.6	1.000061
43000.0	170.6	-52.3			269.0	579.0	355.2	11.5	1.000060
43500.0	166.6	-52.5			263.0	578.7	352.5	10.9	1.000059
44000.0	162.8	-52.7			257.2	578.5	348.5	9.8	1.000057
44500.0	159.0	-53.3			251.8	577.7	341.6	7.8	1.000056
45000.0	155.2	-53.9			246.7	576.8	328.0	5.6	1.000055
45500.0	151.6	-54.6			241.7	575.9	315.7	4.3	1.000054
46000.0	148.0	-55.5			236.9	574.8	315.5	3.6	1.000053
46500.0	144.5	-56.5			232.3	573.5	317.8	3.4	1.000052
47000.0	141.0	-57.5			227.8	572.1	323.4	4.4	1.000051
47500.0	137.6	-58.5			223.4	570.8	330.0	5.3	1.000050
48000.0	134.3	-59.5			219.1	569.4	343.9	6.2	1.000049

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GEODETIC COORDINATES
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106.39352 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
48500.0	131.1	-60.5			214.8	568.1	352.1	7.2	1.000048
49000.0	128.0	-61.6			210.7	566.7	349.5	7.3	1.000047
49500.0	124.9	-62.6			206.6	565.3	346.5	7.4	1.000046
50000.0	121.9	-63.6			202.7	564.0	335.8	6.9	1.000045
50500.0	119.0	-64.6			198.8	562.6	324.2	6.8	1.000044
51000.0	116.1	-64.6			193.9	562.6	322.6	6.5	1.000043
51500.0	113.2	-64.6			189.2	562.6	321.5	6.3	1.000042
52000.0	110.5	-64.6			184.5	562.6	314.8	5.2	1.000041
52500.0	107.8	-64.5			179.9	562.7	303.4	4.2	1.000040
53000.0	105.1	-64.3			175.4	563.0	292.5	2.9	1.000039
53500.0	102.6	-64.2			170.9	563.2	270.0	1.6	1.000038
54000.0	100.0	-64.0			166.6	563.4	239.4	1.0	1.000037
54500.0	97.6	-64.5			162.9	562.8	274.4	.9	1.000036
55000.0	95.2	-64.9			159.2	562.1	298.9	1.1	1.000035
55500.0	92.8	-65.4			155.7	561.5	254.4	3.0	1.000035
56000.0	90.5	-65.9			152.2	560.9	246.0	5.3	1.000034
56500.0	88.3	-66.4			148.8	560.2	246.6	6.3	1.000033
57000.0	86.1	-66.8			145.4	559.6	250.2	6.3	1.000032
57500.0	84.0	-67.3			142.2	558.9	253.6	6.4	1.000032
58000.0	81.9	-67.8			139.0	558.3	255.5	6.9	1.000031
58500.0	79.9	-68.1			135.8	557.8	257.1	7.3	1.000030
59000.0	77.9	-67.8			132.2	558.3	249.2	8.2	1.000029
59500.0	76.0	-67.4			128.7	558.8	239.7	9.6	1.000029
60000.0	74.1	-67.1			125.3	559.2	236.8	10.7	1.000028
60500.0	72.3	-66.7			122.0	559.7	242.7	11.2	1.000027
61000.0	70.5	-66.4			118.7	560.2	248.0	11.8	1.000026
61500.0	68.7	-65.8			115.5	560.9			1.000026
62000.0	67.0	-65.2			112.3	561.8			1.000025
62500.0	65.4	-64.6			109.2	562.7			1.000024

MRN SIGNIFICANT LEVEL DATA

STATION ALTITUDE 3951.40 FEET MSL
26 OCT. 78 0900 HRS MST
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2990050123
APACHE
TABLE XI.

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	WIND DATA DIRECTION DEG (TN)	SPEED MPS	N-S MPS	E-W MPS	DEW PT DEP DEG C	TEMPERATURE AIR DEG C	PRESSURE MILLIBARS
1902.	9999.**	9999.**	-9999.**	-9999.**	99	-64.4	6.500+1
1857.	9999.**	9999.**	-9999.**	-9999.**	99	-66.3	7.000+1
1775.	257.	4.	1.	4.	99	-68.2	8.020+1
1641.	240.	1.	0.	0.	99	-64.0	1.000+2

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

STATION ALTITUDE 3951.40 FEET MSL
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MANDATORY LEVELS
2990050123
APACHE
TABLE XII.

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT		DIRECTION	SPEED
MILLIBARS	FEET	DEGREES	CENTIGRADE	PERCENT	DEGREES(TN)	KNOTS
850.0	5081.	5.5	-.1	67.	350.5	4.3
800.0	6707.	3.4	.9	84.	340.9	1.1
750.0	8415.	-.2	-1.9	89.	159.4	4.5
700.0	10222.	-2.9	-4.5	89.	172.3	3.9
650.0	12143.	-5.7	-9.5	74.	156.1	3.6
600.0	14186.	-9.2	-20.9	38.	93.9	6.9
550.0	16382.	-12.6	-26.0	32.	76.6	11.3
500.0	18755.	-17.4	-28.0	39.	66.6	14.4
450.0	21314.	-23.6	-40.0	20.	72.3	14.7
400.0	24101.	-30.4	-50.4	12.	58.0	16.3
350.0	27167.	-37.7			58.6	28.5
300.0	30629.	-42.4			48.7	31.0
250.0	34644.	-45.3			58.2	33.7
200.0	39495.	-49.6			33.1	16.1
175.0	42347.	-52.1			356.7	10.5
150.0	45607.	-54.9			315.6	4.0
125.0	49364.	-62.5			346.8	7.4
100.0	53843.	-64.0			238.4	1.0
80.0	58283.	-68.2			256.9	7.3
70.0	60925.	-66.3				

MRN MANDATORY LEVELS
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APACHE
TABLE XIII.

STATION ALTITUDE 3951.40 FEET MSL
26 OCT. 78 0900 HRS MST
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GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	WIND DATA DIRECTION DEG (TN)	SPEED MPS	N-S MPS	E-W MPS	DEW PT DEP DEG C	TEMPERATURE AIR DEG C	PRESSURE MILLIBARS
1857.	9999.**	9999.**	-9999.**	-9999.**	99	-66.3	7.000+1
1776.	257.	4.	1.	4.	99	-68.2	8.000+1
1641.	238.	1.	0.	0.	99	-64.0	1.000+2
1505.	347.	4.	-4.	1.	99	-62.5	1.250+2
1390.	316.	2.	-1.	1.	99	-54.9	1.500+2
1291.	357.	5.	-5.	0.	99	-52.1	1.750+2
1204.	33.	8.	-7.	-5.	99	-49.6	2.000+2
1056.	58.	17.	-9.	-15.	99	-45.3	2.500+2
934.	49.	16.	-11.	-12.	99	-42.4	3.000+2
828.	59.	15.	-8.	-13.	99	-37.7	3.500+2
735.	58.	8.	-4.	-7.	20	-30.4	4.000+2
650.	72.	8.	-2.	-7.	16	-23.6	4.500+2
572.	67.	7.	-3.	-7.	11	-17.4	5.000+2
499.	77.	6.	-1.	-6.	13	-12.6	5.500+2
432.	94.	4.	0.	-4.	12	-9.2	6.000+2
370.	156.	2.	2.	-1.	04	-5.7	6.500+2
312.	172.	2.	2.	-0.	02	-2.9	7.000+2
257.	159.	2.	2.	-1.	02	-.2	7.500+2
204.	341.	1.	-1.	0.	02	3.4	8.000+2
155.	350.	2.	-2.	0.	06	5.5	8.500+2

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

STATION ALTITUDE 3997.30 FEET MSL
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SIGNIFICANT LEVEL DATA
2990060139
S M R
TABLE XIV.

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
884.8	3997.3	10.0	6.7	80.0
877.6	4220.8	10.3	5.1	70.0
867.4	4540.1	9.1	6.0	81.0
850.0	5091.2	7.8	4.0	77.0
788.2	7122.4	3.3	3.0	98.0
768.8	7785.8	1.8	1.7	99.0
721.2	9476.5	-.1	-.2	99.0
700.0	10261.2	-1.2	-2.5	91.0
684.4	10852.0	-1.9	-2.6	95.0
657.4	11903.1	-3.1	-6.4	78.0
631.0	12965.8	-5.6	-9.3	75.0
613.6	13686.8	-5.9	-12.0	62.0
602.6	14151.6	-7.4	-12.6	66.0
571.4	15509.6	-8.8	-25.6	24.0
554.8	16258.1	-10.4	-29.5	19.0
530.4	17391.6	-12.8	-21.0	50.0
514.4	18158.3	-14.1	-26.2	35.0
500.0	18864.8	-15.8	-26.0	41.0
453.4	21205.0	-21.3	-42.3	13.0
400.0	24256.8	-29.5	-45.2	20.0
389.4	24884.2	-32.0	-48.7	17.0
342.8	27820.0	-36.4		
324.0	29102.0	-38.4		
300.0	30838.4	-39.9		
250.0	34909.3	-43.4		

STATION ALTITUDE 3997.30 FEET MSL
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UPPER AIR DATA
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TABLE XV.

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 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(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3997.3	884.8	10.0	6.7	80.0	1084.0	656.9	190.0	.4	1.000288
4000.0	884.7	10.0	6.7	79.9	1083.9	656.9	189.3	.4	1.000288
4100.0	881.5	10.1	6.0	75.4	1079.6	657.0	172.4	.6	1.000285
4200.0	878.3	10.3	5.2	70.9	1075.4	657.1	163.8	.8	1.000281
4300.0	875.1	10.0	5.3	72.7	1072.4	656.8	158.7	1.0	1.000281
4400.0	871.9	9.6	5.6	76.2	1069.8	656.4	155.4	1.2	1.000282
4500.0	868.7	9.3	5.9	79.6	1067.2	656.0	153.2	1.4	1.000282
4600.0	865.5	9.0	5.8	80.6	1064.5	655.7	151.5	1.6	1.000281
4700.0	862.3	8.7	5.4	79.8	1061.5	655.4	150.3	1.8	1.000279
4800.0	859.2	8.5	5.1	79.1	1058.6	655.1	149.3	2.0	1.000278
4900.0	856.0	8.3	4.7	78.4	1055.7	654.8	148.5	2.2	1.000276
5000.0	852.9	8.0	4.4	77.7	1052.8	654.5	147.8	2.5	1.000275
5100.0	849.7	7.8	4.0	77.1	1049.9	654.2	147.2	2.7	1.000273
5200.0	846.6	7.6	4.0	78.1	1046.8	653.9	146.8	2.9	1.000272
5300.0	843.4	7.3	4.0	79.2	1043.7	653.6	146.4	3.1	1.000272
5400.0	840.3	7.1	3.9	80.2	1040.7	653.4	146.0	3.3	1.000271
5500.0	837.2	6.9	3.9	81.2	1037.6	653.1	145.7	3.6	1.000270
5600.0	834.1	6.7	3.9	82.3	1034.6	652.9	145.4	3.8	1.000270
5700.0	831.0	6.5	3.8	83.3	1031.6	652.6	145.2	4.0	1.000269
5800.0	827.9	6.2	3.8	84.3	1028.6	652.4	145.0	4.2	1.000268
5900.0	824.8	6.0	3.7	85.4	1025.5	652.1	144.8	4.4	1.000267
6000.0	821.8	5.8	3.7	86.4	1022.6	651.8	144.6	4.6	1.000267
6100.0	818.7	5.6	3.6	87.4	1019.6	651.6	144.4	4.9	1.000266
6200.0	815.7	5.3	3.6	88.5	1016.6	651.3	144.3	5.1	1.000265
6300.0	812.7	5.1	3.5	89.5	1013.6	651.1	144.1	5.3	1.000264
6400.0	809.6	4.9	3.5	90.5	1010.7	650.8	143.2	5.4	1.000264
6500.0	806.6	4.7	3.4	91.6	1007.7	650.5	142.2	5.5	1.000263
6600.0	803.7	4.5	3.4	92.6	1004.8	650.3	141.1	5.6	1.000262
6700.0	800.7	4.2	3.3	93.6	1001.9	650.0	140.1	5.7	1.000261
6800.0	797.7	4.0	3.2	94.7	999.0	649.8	139.1	5.7	1.000261

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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
6900.0	794.7	3.8	3.2	95.7	996.1	649.5	138.2	5.8	1.000260
7000.0	791.8	3.6	3.1	96.7	993.2	649.2	137.2	5.9	1.000259
7100.0	788.9	3.3	3.0	97.8	990.3	649.0	136.3	6.0	1.000258
7200.0	785.9	3.1	2.9	98.1	987.4	648.7	135.5	6.1	1.000257
7300.0	783.0	2.9	2.7	98.3	984.5	648.4	134.6	6.2	1.000256
7400.0	780.0	2.7	2.4	98.4	981.7	648.2	133.8	6.3	1.000255
7500.0	777.1	2.4	2.2	98.6	978.8	647.9	133.0	6.4	1.000254
7600.0	774.2	2.2	2.0	98.7	976.0	647.6	132.2	6.5	1.000253
7700.0	771.3	2.0	1.8	98.9	973.2	647.3	133.1	6.3	1.000252
7800.0	768.4	1.8	1.6	99.0	970.3	647.1	134.2	6.2	1.000251
7900.0	765.5	1.7	1.5	99.0	967.1	646.9	135.3	6.0	1.000250
8000.0	762.6	1.6	1.4	99.0	963.8	646.8	136.6	5.8	1.000249
8100.0	759.7	1.4	1.3	99.0	960.6	646.7	137.9	5.7	1.000248
8200.0	756.9	1.3	1.2	99.0	957.4	646.5	139.2	5.5	1.000247
8300.0	754.0	1.2	1.1	99.0	954.2	646.4	140.7	5.4	1.000246
8400.0	751.2	1.1	1.0	99.0	951.0	646.2	142.2	5.2	1.000245
8500.0	748.3	1.0	.9	99.0	947.8	646.1	143.8	5.1	1.000244
8600.0	745.5	.9	.7	99.0	944.6	646.0	145.5	5.0	1.000243
8700.0	742.7	.8	.6	99.0	941.4	645.8	147.3	4.8	1.000242
8800.0	739.9	.7	.5	99.0	938.3	645.7	149.2	4.7	1.000241
8900.0	737.1	.5	.4	99.0	935.1	645.6	151.2	4.6	1.000240
9000.0	734.3	.4	.3	99.0	932.0	645.4	152.6	4.4	1.000239
9100.0	731.5	.3	.2	99.0	928.9	645.3	152.4	4.3	1.000238
9200.0	728.8	.2	.1	99.0	925.8	645.1	152.3	4.1	1.000237
9300.0	726.0	.1	-.0	99.0	922.7	645.0	152.1	3.9	1.000237
9400.0	723.3	-.0	-.2	99.0	919.6	644.9	151.9	3.8	1.000236
9500.0	720.6	-.1	-.3	98.8	916.5	644.7	151.7	3.6	1.000235
9600.0	717.8	-.3	-.6	97.7	913.6	644.5	151.4	3.4	1.000233
9700.0	715.1	-.4	-.9	96.7	910.6	644.4	151.2	3.3	1.000232
9800.0	712.4	-.6	-1.2	95.7	907.7	644.2	150.9	3.1	1.000231

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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
9900.0	709.7	-.7	-1.4	94.7	904.7	644.0	150.6	2.9	1.000230
10000.0	707.0	-.8	-1.7	93.7	901.8	643.8	150.2	2.8	1.000228
10100.0	704.3	-1.0	-2.0	92.6	898.9	643.6	149.8	2.6	1.000227
10200.0	701.6	-1.1	-2.3	91.6	896.0	643.4	149.4	2.4	1.000226
10300.0	699.0	-1.2	-2.5	91.3	893.1	643.3	145.5	2.3	1.000225
10400.0	696.3	-1.4	-2.5	91.9	890.0	643.1	138.4	2.4	1.000224
10500.0	693.7	-1.5	-2.5	92.6	887.0	643.0	131.7	2.4	1.000224
10600.0	691.0	-1.6	-2.5	93.3	884.0	642.9	125.3	2.5	1.000223
10700.0	688.4	-1.7	-2.6	94.0	881.0	642.7	119.5	2.7	1.000222
10800.0	685.8	-1.8	-2.6	94.6	878.1	642.6	114.3	2.8	1.000222
10900.0	683.1	-2.0	-2.8	94.2	875.1	642.4	109.7	3.0	1.000221
11000.0	680.5	-2.1	-3.1	92.6	872.2	642.3	105.5	3.2	1.000219
11100.0	677.9	-2.2	-3.5	91.0	869.3	642.1	101.9	3.4	1.000218
11200.0	675.3	-2.3	-3.8	89.4	866.4	642.0	98.7	3.6	1.000217
11300.0	672.8	-2.4	-4.2	87.8	863.5	641.8	95.8	3.8	1.000216
11400.0	670.2	-2.5	-4.5	86.1	860.6	641.7	96.2	3.9	1.000214
11500.0	667.6	-2.6	-4.9	84.5	857.7	641.5	98.0	4.0	1.000213
11600.0	665.1	-2.8	-5.2	82.9	854.8	641.4	99.7	4.0	1.000212
11700.0	662.5	-2.9	-5.6	81.3	852.0	641.2	101.4	4.1	1.000211
11800.0	660.0	-3.0	-6.0	79.7	849.1	641.1	103.0	4.2	1.000209
11900.0	657.5	-3.1	-6.4	78.1	846.3	640.9	104.6	4.2	1.000208
12000.0	654.9	-3.3	-6.6	77.7	843.8	640.6	106.1	4.3	1.000207
12100.0	652.4	-3.6	-6.9	77.4	841.3	640.3	107.6	4.4	1.000206
12200.0	649.9	-3.8	-7.2	77.2	838.8	640.0	109.0	4.4	1.000205
12300.0	647.4	-4.0	-7.5	76.9	836.4	639.7	110.4	4.5	1.000205
12400.0	644.9	-4.3	-7.7	76.6	833.9	639.5	111.8	4.6	1.000204
12500.0	642.4	-4.5	-8.0	76.3	831.4	639.2	113.1	4.7	1.000203
12600.0	640.0	-4.7	-8.3	76.0	829.0	638.9	114.3	4.7	1.000202
12700.0	637.5	-5.0	-8.6	75.8	826.6	638.6	114.4	4.8	1.000201
12800.0	635.0	-5.2	-8.9	75.5	824.1	638.3	113.5	4.9	1.000200

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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
12900.0	632.6	-5.4	-9.1	75.2	821.7	638.0	112.7	4.9	1.000199
13000.0	630.2	-5.6	-9.4	74.4	819.1	637.8	111.9	5.0	1.000198
13100.0	627.7	-5.7	-9.8	72.6	816.1	637.7	111.0	5.0	1.000197
13200.0	625.3	-5.7	-10.1	70.8	813.1	637.7	110.3	5.1	1.000196
13300.0	622.9	-5.7	-10.5	69.0	810.1	637.6	109.5	5.2	1.000195
13400.0	620.5	-5.8	-10.9	67.2	807.1	637.5	108.7	5.2	1.000194
13500.0	618.1	-5.8	-11.3	65.4	804.1	637.5	108.0	5.3	1.000193
13600.0	615.7	-5.9	-11.6	63.6	801.2	637.4	107.3	5.3	1.000192
13700.0	613.3	-5.9	-12.0	62.1	798.4	637.3	106.6	5.4	1.000191
13800.0	610.9	-6.3	-12.1	63.0	796.2	636.9	105.9	5.5	1.000190
13900.0	608.5	-6.6	-12.3	63.8	794.1	636.5	105.2	5.5	1.000190
14000.0	606.2	-6.9	-12.4	64.7	792.0	636.1	103.3	5.6	1.000189
14100.0	603.8	-7.2	-12.6	65.6	789.9	635.7	100.9	5.8	1.000188
14200.0	601.5	-7.4	-13.0	64.5	787.5	635.5	98.6	5.9	1.000188
14300.0	599.1	-7.6	-13.7	61.4	784.8	635.3	96.4	6.0	1.000186
14400.0	596.8	-7.7	-14.4	58.3	782.1	635.2	94.3	6.2	1.000185
14500.0	594.4	-7.8	-15.1	55.2	779.4	635.0	92.3	6.4	1.000184
14600.0	592.1	-7.9	-15.9	52.1	776.7	634.9	90.4	6.5	1.000182
14700.0	589.8	-8.0	-16.8	49.0	774.0	634.7	88.6	6.7	1.000181
14800.0	587.5	-8.1	-17.6	45.9	771.3	634.6	86.9	6.9	1.000180
14900.0	585.2	-8.2	-18.5	42.9	768.7	634.5	85.3	7.1	1.000179
15000.0	582.9	-8.3	-19.5	39.8	766.0	634.3	83.7	7.3	1.000178
15100.0	580.6	-8.4	-20.5	36.7	763.4	634.2	82.3	7.5	1.000176
15200.0	578.4	-8.5	-21.6	33.6	760.7	634.0	81.0	7.8	1.000175
15300.0	576.1	-8.6	-22.8	30.5	758.1	633.9	80.0	8.2	1.000174
15400.0	573.9	-8.7	-24.1	27.4	755.5	633.7	79.0	8.6	1.000173
15500.0	571.6	-8.8	-25.5	24.3	752.9	633.6	78.1	8.9	1.000172
15600.0	569.4	-9.0	-26.1	23.4	750.5	633.3	77.3	9.3	1.000171
15700.0	567.1	-9.2	-26.6	22.7	748.2	633.1	76.5	9.7	1.000170
15800.0	564.9	-9.4	-27.1	22.1	745.9	632.8	75.8	10.1	1.000170

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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
15900.0	562.7	-9.6	-27.6	21.4	743.5	632.5	75.2	10.5	1.000169
16000.0	560.5	-9.8	-28.1	20.7	741.2	632.3	74.6	10.9	1.000168
16100.0	558.3	-10.1	-28.7	20.1	738.9	632.0	74.1	11.3	1.000168
16200.0	556.1	-10.3	-29.2	19.4	736.6	631.8	73.6	11.7	1.000167
16300.0	553.9	-10.5	-29.0	20.1	734.3	631.5	73.1	12.1	1.000167
16400.0	551.7	-10.7	-27.8	22.9	732.0	631.3	72.7	12.3	1.000166
16500.0	549.5	-10.9	-26.8	25.6	729.6	631.0	72.4	12.5	1.000166
16600.0	547.3	-11.1	-25.8	28.3	727.3	630.8	72.1	12.7	1.000166
16700.0	545.2	-11.3	-25.0	31.1	725.0	630.5	71.8	12.9	1.000166
16800.0	543.0	-11.5	-24.3	33.8	722.7	630.3	71.5	13.1	1.000166
16900.0	540.8	-11.8	-23.6	36.6	720.4	630.1	71.2	13.3	1.000165
17000.0	538.7	-12.0	-23.0	39.3	718.1	629.8	70.9	13.5	1.000165
17100.0	536.6	-12.2	-22.4	42.0	715.8	629.6	70.6	13.7	1.000165
17200.0	534.4	-12.4	-21.9	44.8	713.5	629.3	70.3	13.9	1.000165
17300.0	532.3	-12.6	-21.4	47.5	711.2	629.1	70.1	14.1	1.000165
17400.0	530.2	-12.8	-21.1	49.8	708.9	628.8	69.8	14.3	1.000164
17500.0	528.1	-13.0	-21.7	47.9	706.6	628.6	69.6	14.5	1.000163
17600.0	526.0	-13.2	-22.3	45.9	704.3	628.4	68.9	14.6	1.000163
17700.0	523.9	-13.3	-22.9	44.0	701.9	628.2	67.9	14.7	1.000162
17800.0	521.8	-13.5	-23.6	42.0	699.6	628.0	66.9	14.8	1.000161
17900.0	519.7	-13.7	-24.3	40.1	697.3	627.8	65.9	14.9	1.000160
18000.0	517.7	-13.8	-25.0	38.1	695.0	627.5	64.9	14.9	1.000159
18100.0	515.6	-14.0	-25.7	36.1	692.7	627.3	63.9	15.0	1.000159
18200.0	513.5	-14.2	-26.2	35.4	690.5	627.1	62.9	15.1	1.000158
18300.0	511.5	-14.4	-26.1	36.2	688.4	626.8	62.0	15.2	1.000157
18400.0	509.4	-14.7	-26.1	37.1	686.2	626.5	61.0	15.3	1.000157
18500.0	507.4	-14.9	-26.0	37.9	684.1	626.2	60.1	15.4	1.000157
18600.0	505.3	-15.2	-26.0	38.8	682.0	625.9	59.2	15.6	1.000156
18700.0	503.3	-15.4	-26.0	39.6	679.9	625.6	58.3	15.7	1.000156
18800.0	501.3	-15.6	-26.0	40.5	677.8	625.3	57.4	15.8	1.000155

UPPER AIR DATA

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GEODETIC COORDINATES
32.48034 LAT DEG
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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
18900.0	499.3	-15.9	-26.2	40.6	675.7	625.0	56.5	15.9	1.000155
19000.0	497.3	-16.1	-26.7	39.4	673.6	624.8	55.9	15.9	1.000154
19100.0	495.2	-16.3	-27.2	38.3	671.4	624.5	55.4	15.9	1.000153
19200.0	493.2	-16.6	-27.8	37.1	669.3	624.2	54.9	15.8	1.000153
19300.0	491.2	-16.8	-28.3	35.9	667.2	623.9	54.4	15.8	1.000152
19400.0	489.2	-17.0	-28.9	34.8	665.1	623.6	53.9	15.8	1.000151
19500.0	487.2	-17.3	-29.4	33.6	663.0	623.3	53.4	15.8	1.000151
19600.0	485.2	-17.5	-30.0	32.4	660.9	623.0	52.9	15.7	1.000150
19700.0	483.3	-17.7	-30.6	31.3	658.8	622.8	52.4	15.7	1.000150
19800.0	481.3	-17.9	-31.2	30.1	656.8	622.5	51.8	15.7	1.000149
19900.0	479.3	-18.2	-31.8	28.9	654.7	622.2	51.3	15.7	1.000148
20000.0	477.4	-18.4	-32.4	27.8	652.6	621.9	50.8	15.6	1.000148
20100.0	475.4	-18.6	-33.1	26.6	650.6	621.6	50.3	15.6	1.000147
20200.0	473.5	-18.9	-33.7	25.4	648.5	621.3	50.3	15.3	1.000146
20300.0	471.6	-19.1	-34.4	24.3	646.5	621.0	50.7	14.8	1.000146
20400.0	469.7	-19.3	-35.1	23.1	644.4	620.8	51.2	14.3	1.000145
20500.0	467.8	-19.5	-35.8	21.9	642.4	620.5	51.7	13.8	1.000145
20600.0	465.9	-19.8	-36.5	20.8	640.4	620.2	52.2	13.2	1.000144
20700.0	464.0	-20.0	-37.3	19.6	638.4	619.9	52.8	12.7	1.000144
20800.0	462.1	-20.2	-38.1	18.4	636.3	619.6	53.4	12.2	1.000143
20900.0	460.2	-20.5	-38.9	17.3	634.3	619.3	54.1	11.7	1.000143
21000.0	458.3	-20.7	-39.8	16.1	632.3	619.0	54.9	11.2	1.000142
21100.0	456.5	-20.9	-40.7	14.9	630.4	618.8	55.7	10.7	1.000141
21200.0	454.6	-21.2	-41.6	13.8	628.4	618.5	56.6	10.2	1.000141
21300.0	452.7	-21.4	-42.3	13.1	626.4	618.2	57.6	9.7	1.000140
21400.0	450.8	-21.7	-42.4	13.3	624.5	617.8	58.7	9.2	1.000140
21500.0	449.0	-21.9	-42.4	13.5	622.5	617.5	59.5	8.8	1.000140
21600.0	447.1	-22.2	-42.5	13.8	620.6	617.2	60.3	8.5	1.000139
21700.0	445.2	-22.5	-42.6	14.0	618.7	616.8	61.2	8.2	1.000139
21800.0	443.4	-22.8	-42.6	14.3	616.8	616.5	62.2	7.9	1.000138

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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
21900.0	441.5	-23.0	-42.7	14.5	614.9	616.1	63.2	7.5	1.000138
22000.0	439.7	-23.3	-42.8	14.7	613.0	615.8	64.4	7.2	1.000137
22100.0	437.8	-23.6	-42.9	15.0	611.1	615.5	65.6	6.9	1.000137
22200.0	436.0	-23.9	-42.9	15.2	609.2	615.1	67.0	6.6	1.000137
22300.0	434.2	-24.1	-43.0	15.4	607.3	614.8	68.4	6.3	1.000136
22400.0	432.4	-24.4	-43.1	15.7	605.4	614.5	70.1	6.0	1.000136
22500.0	430.5	-24.7	-43.2	15.9	603.6	614.1	71.9	5.7	1.000135
22600.0	428.7	-25.0	-43.3	16.1	601.7	613.8	73.9	5.4	1.000135
22700.0	427.0	-25.2	-43.4	16.4	599.9	613.4	76.2	5.1	1.000134
22800.0	425.2	-25.5	-43.5	16.6	598.0	613.1	74.5	5.1	1.000134
22900.0	423.4	-25.8	-43.6	16.8	596.2	612.8	72.4	5.1	1.000134
23000.0	421.6	-26.1	-43.7	17.1	594.4	612.4	70.2	5.2	1.000133
23100.0	419.9	-26.3	-43.8	17.3	592.5	612.1	68.1	5.2	1.000133
23200.0	418.1	-26.6	-43.9	17.5	590.7	611.7	66.0	5.3	1.000132
23300.0	416.4	-26.9	-44.0	17.8	588.9	611.4	64.0	5.4	1.000132
23400.0	414.6	-27.2	-44.1	18.0	587.1	611.1	62.0	5.4	1.000132
23500.0	412.9	-27.4	-44.3	18.2	585.3	610.7	60.1	5.5	1.000131
23600.0	411.2	-27.7	-44.4	18.5	583.5	610.4	58.2	5.6	1.000131
23700.0	409.4	-28.0	-44.5	18.7	581.7	610.0	56.4	5.7	1.000130
23800.0	407.7	-28.2	-44.6	18.9	579.9	609.7	54.7	5.8	1.000130
23900.0	406.0	-28.5	-44.7	19.2	578.1	609.4	53.0	5.9	1.000129
24000.0	404.3	-28.8	-44.9	19.4	576.4	609.0	51.3	6.0	1.000129
24100.0	402.6	-29.1	-45.0	19.6	574.6	608.7	49.8	6.1	1.000129
24200.0	401.0	-29.3	-45.1	19.9	572.8	608.3	49.0	6.5	1.000128
24300.0	399.3	-29.7	-45.4	19.8	571.2	607.9	49.4	7.4	1.000128
24400.0	397.6	-30.1	-46.0	19.3	569.7	607.4	49.8	8.3	1.000128
24500.0	395.9	-30.5	-46.5	18.8	568.2	606.9	50.1	9.2	1.000127
24600.0	394.2	-30.9	-47.1	18.4	566.7	606.4	50.3	10.1	1.000127
24700.0	392.5	-31.3	-47.7	17.9	565.2	605.9	50.5	11.0	1.000126
24800.0	390.8	-31.7	-48.3	17.4	563.7	605.4	50.7	11.8	1.000126

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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
24900.0	389.1	-32.0	-48.8	16.9**	562.2	605.0	50.8	12.7	1.000126
25000.0	387.4	-32.2	-49.2	16.3**	560.1	604.8	51.0	13.6	1.000125
25100.0	385.8	-32.3	-49.7	15.8**	558.0	604.6	51.1	14.5	1.000125
25200.0	384.1	-32.5	-50.1	15.2**	555.9	604.4	51.2	15.4	1.000124
25300.0	382.4	-32.6	-50.6	14.6**	553.9	604.2	51.2	16.3	1.000124
25400.0	380.8	-32.8	-51.0	14.0**	551.8	604.0	51.3	17.2	1.000123
25500.0	379.1	-32.9	-51.5	13.4**	549.8	603.8	51.7	18.1	1.000123
25600.0	377.5	-33.1	-52.0	12.9**	547.7	603.6	52.5	18.9	1.000122
25700.0	375.8	-33.2	-52.5	12.3**	545.7	603.5	53.2	19.7	1.000122
25800.0	374.2	-33.4	-53.0	11.7**	543.7	603.3	53.9	20.5	1.000121
25900.0	372.6	-33.5	-53.6	11.1**	541.7	603.1	54.5	21.4	1.000121
26000.0	371.0	-33.7	-54.1	10.5**	539.6	602.9	55.0	22.2	1.000120
26100.0	369.4	-33.8	-54.7	10.0**	537.6	602.7	55.5	23.0	1.000120
26200.0	367.8	-34.0	-55.3	9.4**	535.7	602.5	56.0	23.9	1.000120
26300.0	366.2	-34.1	-56.0	8.8**	533.7	602.3	56.5	24.7	1.000119
26400.0	364.6	-34.3	-56.6	8.2**	531.7	602.1	56.9	25.6	1.000119
26500.0	363.0	-34.4	-57.3	7.6**	529.7	601.9	57.3	26.4	1.000118
26600.0	361.4	-34.6	-58.1	7.1**	527.8	601.7	57.7	27.2	1.000118
26700.0	359.9	-34.7	-58.9	6.5**	525.8	601.6	57.5	27.2	1.000117
26800.0	358.3	-34.9	-59.7	5.9**	523.9	601.4	57.3	27.2	1.000117
26900.0	356.8	-35.0	-60.6	5.3**	521.9	601.2	57.1	27.1	1.000116
27000.0	355.2	-35.2	-61.6	4.7**	520.0	601.0	56.9	27.0	1.000116
27100.0	353.7	-35.3	-62.7	4.2**	518.1	600.8	56.7	27.0	1.000115
27200.0	352.2	-35.5	-63.9	3.6**	516.1	600.6	56.5	26.9	1.000115
27300.0	350.6	-35.6	-65.3	3.0**	514.2	600.4	56.3	26.9	1.000115
27400.0	349.1	-35.8	-66.9	2.4**	512.3	600.2	56.1	26.8	1.000114
27500.0	347.6	-35.9	-68.9	1.9**	510.4	600.0	55.9	26.7	1.000114
27600.0	346.1	-36.1	-71.6	1.3**	508.5	599.9	55.7	26.7	1.000113
27700.0	344.6	-36.2	-75.6	.7**	506.7	599.7	55.6	26.6	1.000113
27800.0	343.1	-36.4	-86.4	.1**	504.8	599.5	55.4	26.6	1.000112

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

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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
27900.0	341.6	-36.5			502.9	599.3	55.1	26.5	1.000112
28000.0	340.1	-36.7			501.0	599.1	54.9	26.3	1.000112
28100.0	338.6	-36.8			499.2	598.9	54.6	26.1	1.000111
28200.0	337.1	-37.0			497.3	598.7	54.3	25.9	1.000111
28300.0	335.6	-37.1			495.4	598.5	54.1	25.7	1.000110
28400.0	334.2	-37.3			493.6	598.3	53.8	25.5	1.000110
28500.0	332.7	-37.5			491.7	598.1	53.5	25.3	1.000110
28600.0	331.2	-37.6			489.9	597.9	53.2	25.1	1.000109
28700.0	329.8	-37.8			488.1	597.7	52.9	24.9	1.000109
28800.0	328.3	-37.9			486.3	597.5	52.6	24.7	1.000108
28900.0	326.9	-38.1			484.5	597.3	52.3	24.5	1.000108
29000.0	325.5	-38.2			482.6	597.1	52.0	24.3	1.000107
29100.0	324.0	-38.4			480.8	596.9	51.7	24.0	1.000107
29200.0	322.6	-38.5			478.9	596.8	51.4	23.8	1.000107
29300.0	321.2	-38.6			477.0	596.7	50.8	24.0	1.000106
29400.0	319.7	-38.7			475.0	596.6	50.0	24.4	1.000106
29500.0	318.3	-38.7			473.1	596.5	49.3	24.7	1.000105
29600.0	316.9	-38.8			471.2	596.3	48.6	25.1	1.000105
29700.0	315.5	-38.9			469.3	596.2	47.9	25.5	1.000105
29800.0	314.1	-39.0			467.4	596.1	47.3	25.9	1.000104
29900.0	312.7	-39.1			465.5	596.0	46.6	26.2	1.000104
30000.0	311.4	-39.2			463.6	595.9	46.0	26.6	1.000103
30100.0	310.0	-39.3			461.7	595.8	45.4	27.0	1.000103
30200.0	308.6	-39.3			459.8	595.7	44.8	27.4	1.000102
30300.0	307.2	-39.4			458.0	595.6	44.3	27.8	1.000102
30400.0	305.9	-39.5			456.1	595.5	43.7	28.2	1.000102
30500.0	304.5	-39.6			454.3	595.4	43.2	28.6	1.000101
30600.0	303.2	-39.7			452.4	595.2	42.6	29.0	1.000101
30700.0	301.8	-39.8			450.6	595.1	42.5	29.5	1.000100
30800.0	300.5	-39.9			448.8	595.0	42.3	30.0	1.000100

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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
30900.0	299.2	-40.0			446.9	594.9	42.2	30.5	1.000100
31000.0	297.8	-40.0			445.1	594.8	42.0	31.0	1.000099
31100.0	296.5	-40.1			443.3	594.7	41.9	31.5	1.000099
31200.0	295.2	-40.2			441.4	594.6	41.8	32.0	1.000098
31300.0	293.9	-40.3			439.6	594.5	41.6	32.5	1.000098
31400.0	292.5	-40.4			437.8	594.4	41.5	33.0	1.000098
31500.0	291.2	-40.5			436.0	594.3	41.4	33.5	1.000097
31600.0	289.9	-40.6			434.3	594.1	41.3	34.0	1.000097
31700.0	288.6	-40.6			432.5	594.0	41.2	34.5	1.000096
31800.0	287.4	-40.7			430.7	593.9	41.1	35.0	1.000096
31900.0	286.1	-40.8			428.9	593.8	41.3	35.4	1.000096
32000.0	284.8	-40.9			427.2	593.7	42.3	35.5	1.000095
32100.0	283.5	-41.0			425.4	593.6	43.2	35.7	1.000095
32200.0	282.3	-41.1			423.7	593.5	44.2	35.8	1.000094
32300.0	281.0	-41.2			421.9	593.4	45.1	36.0	1.000094
32400.0	279.7	-41.2			420.2	593.3	46.1	36.1	1.000094
32500.0	278.5	-41.3			418.5	593.2	47.0	36.3	1.000093
32600.0	277.2	-41.4			416.8	593.0	47.9	36.5	1.000093
32700.0	276.0	-41.5			415.1	592.9	48.8	36.7	1.000092
32800.0	274.8	-41.6			413.4	592.8	49.7	36.9	1.000092
32900.0	273.5	-41.7			411.7	592.7	50.6	37.1	1.000092
33000.0	272.3	-41.8			410.0	592.6	51.5	37.3	1.000091
33100.0	271.1	-41.8			408.3	592.5			1.000091
33200.0	269.9	-41.9			406.6	592.4			1.000091
33300.0	268.7	-42.0			405.0	592.3			1.000090
33400.0	267.5	-42.1			403.3	592.2			1.000090
33500.0	266.3	-42.2			401.6	592.1			1.000089
33600.0	265.1	-42.3			400.0	591.9			1.000089
33700.0	263.9	-42.4			398.4	591.8			1.000089
33800.0	262.7	-42.4			396.7	591.7			1.000088

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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
33900.0	261.6	-42.5			395.1	591.6			1.000088
34000.0	260.4	-42.6			393.5	591.5			1.000088
34100.0	259.2	-42.7			391.9	591.4			1.000087
34200.0	258.1	-42.8			390.3	591.3			1.000087
34300.0	256.9	-42.9			388.7	591.2			1.000087
34400.0	255.8	-43.0			387.1	591.1			1.000086
34500.0	254.6	-43.0			385.5	591.0			1.000086
34600.0	253.5	-43.1			383.9	590.8			1.000086
34700.0	252.4	-43.2			382.3	590.7			1.000085
34800.0	251.2	-43.3			380.8	590.6			1.000085
34900.0	250.1	-43.4			379.2	590.5			1.000084

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TABLE XVI.

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES	CENTIGRADE		DEGREES(TN)	KNOTS
850.0	5087.	7.8	4.0	77.	147.3	2.7
800.0	6720.	4.2	3.3	94.	139.9	5.7
750.0	8435.	1.1	.9	99.	142.8	5.2
700.0	10251.	-1.2	-2.5	91.	148.6	2.3
650.0	12185.	-3.8	-7.2	77.	108.9	4.4
600.0	14246.	-7.5	-13.4	63.	97.3	6.0
550.0	16457.	-10.9	-27.0	25.	72.5	12.5
500.0	18838.	-15.8	-26.0	41.	56.9	15.9
450.0	21415.	-21.8	-42.4	13.	59.0	9.0
400.0	24217.	-29.5	-45.2	20.	49.2	6.9
350.0	27296.	-35.7	-65.9	3.**	56.3	26.8
300.0	30778.	-39.9			42.3	30.1
250.0	34834.	-43.4				

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

STATION ALTITUDE 3997.30 FEET MSL
26 OCT. 78 0900 HRS MST
ASCENSION NO. 139

MRN MANDATORY LEVELS
2990060139
S M R
TABLE XVII.

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	WIND DATA DIRECTION DEG (TN)	SPEED MPS	N-S MPS	E-W MPS	DEW PT DEP DEG C	TEMPERATURE AIR DEG C	PRESSURE MILLIBARS
1062.	9999.**	9999.**	-9999.**	-9999.**	99	-43.4	2.500+2
938.	42.	15.	-11.	-10.	99	-39.9	3.000+2
832.	56.	14.	-8.	-11.	30	-35.7	3.500+2
738.	49.	4.	-2.	-3.	16	-29.5	4.000+2
653.	59.	5.	-2.	-4.	21	-21.8	4.500+2
574.	57.	8.	-4.	-7.	10	-15.8	5.000+2
502.	72.	6.	-2.	-6.	16	-10.9	5.500+2
434.	97.	3.	0.	-3.	06	-7.5	6.000+2
371.	109.	2.	1.	-2.	03	-3.8	6.500+2
312.	149.	1.	1.	-1.	01	-1.2	7.000+2
257.	143.	3.	2.	-2.	00	1.1	7.500+2
205.	140.	3.	2.	-2.	01	4.2	8.000+2
155.	147.	1.	1.	-1.	04	7.8	8.500+2

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