

AD-A071 468 ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
14821 LANCE, MISSILE NUMBER 3390, ROUND NUMBER 321 APT, 2 MAY 1--ETC(U)
APR 79

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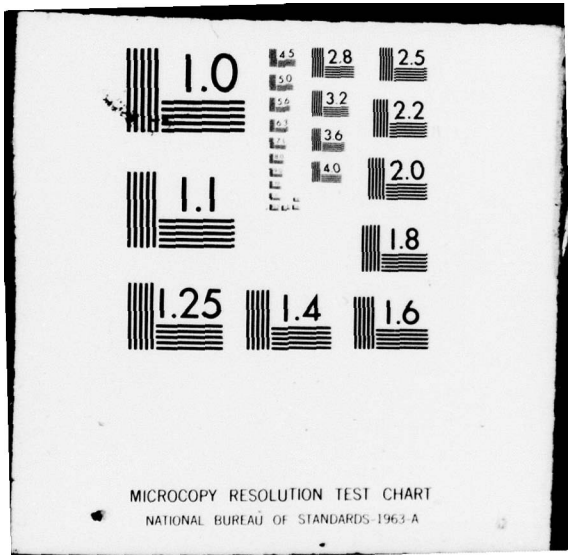
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MAY 1979

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METEOROLOGICAL DATA REPORT

14621 Lance
Missile No. 3390
Round No. 321 APT
2 May 1979

WSR Meteorological Team

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) (6) 14821 Lance, Missile Number 3390, Round Number 321 APT, 2 May 1979.		
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19. KEY WORDS (Continue on reverse side if necessary and identify by block number) 1. Ballistics 2. Meteorology 3. Wind (14) ERADCOM/ASL-DR-1008		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) → Meteorological data gathered for the launching of 14821 Lance (AJ), Missile Number 3390, Round Number 331 APT, are presented in tabular form. ↗		

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INTRODUCTION

14821A Lance, Missile Number 3390, Round Number 331 APT, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 1029 MDT, 2 May 1979. The scheduled launch time was 1015 MDT.

DISCUSSION

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

1. Observations

a. Surface

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

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

b. Upper Air

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

SITE AND ALTITUDE

LC-36 2160 meters (30-meter increments)

LC-36 3720 meters (30-meter increments)

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

SITE AND TIME

WSD 1050 MST

JAL 0915 MST

AFSWC 0905 MST

The data are presented in the following tabulations:

ELEVATION	4063.75	FT/MSL
PRESSURE	869.8	MBS
TEMPERATURE	23.7°	°C
RELATIVE HUMIDITY	26	%
DEW POINT	3	°C
DENSITY	1020	GM/M ³
WIND SPEED	10	MPH
WIND DIRECTION	210	DEGREES
CLOUD COVER	1	Cu
CLOUD COVER	2	C1

TABLE I. SURFACE OBSERVATIONS TAKEN AT 1029 MDT, 2 MAY 1979
AT LC-39, 14821A LANCE, MISSILE NO. 3390, ROUND NO.
331 APT.

PILOT BALLOON MEASURED WIND DATA
(30 meter increments)

TABLE II

RELEASED FROM LC-36 DATE 2 May 1979 TIME 1005 MDT
 RELEASE POINT COORDINATES (WSTM) X= 502,452.98 Y= 190,654.50 H= 4043.49
 MISSILE TYPE 14821A Lance MISSILE NO. 3390 ROUND NO. 331 APT
 MISSILE LAUNCHED FROM LC-39 DATE 2 May 1979 TIME 1029 MDT
 NOTE: WIND DIRECTIONS ARE REFERENCED TO THE FIRING AZIMUTH _____
 OR TRUE NORTH TRUE NORTH

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
SFC	230	16.0
30	224	15.5
60	218	14.5
90	212	14.0
120	206	13.0
150	205	15.0
180	205	16.5
210	204	18.5
240	203	20.0
270	204	19.5
300	205	18.5
330	206	18.0
360	207	17.0

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
390	210	17.0
420	212	16.5
450	214	16.5
480	216	16.0
510	218	17.0
540	220	17.5
570	222	18.0
600	223	18.5
630	225	19.5
660	227	20.0
690	229	21.0
720	231	21.5
750	231	21.0

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
780	231	20.0
810	231	19.0
840	231	18.0
870	234	18.0
900	236	18.0
930	238	18.0
960	240	17.5
990	242	18.5
1020	244	19.0
1050	246	19.5
1080	248	20.0
1110	249	21.0
1140	250	22.0
1170	251	23.0
1200	252	23.5
1230	253	24.0
1260	253	24.0
1290	253	24.5
1320	253	24.5
1350	255	25.5
1380	256	26.0
1410	257	27.0

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
1440	258	27.5
1470	255	29.5
1500	251	31.0
1530	248	32.5
1560	244	34.0
1590	246	36.0
1620	247	37.5
1650	248	39.5
1680	249	41.0
1710	249	42.5
1740	249	44.0
1770	249	45.5
1800	249	47.0
1830	249	48.0
1860	249	49.0
1890	249	50.0
1920	249	50.5
1950	249	51.5
1980	248	52.0
2010	248	52.5
2040	247	53.0
2070	247	53.5

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
2100	246	54.0
2130	246	54.5
2160	245	55.0
2190		
2220		
2250		
2280		
2310		
2340		
2370		
2400		
2430		
2460		
2490		
2520		
2550		
2580		
2610		
2640		
2670		
2700		
2730		

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
2760		
2790		
2820		
2850		
2880		
2910		
2940		
2970		
3000		
3030		
3060		

PILOT BALLOON MEASURED WIND DATA
(30 meter increments)

TABLE IIIRELEASED FROM LC-36 DATE 2 May 1979 TIME 1029 MDTRELEASE POINT COORDINATES (WSTM) X= 502.452.98 Y= 190.654.50 H= 4043.49MISSILE TYPE 14921A Lance MISSILE NO. 3390 ROUND NO. 331 APTMISSILE LAUNCHED FROM LC-39 DATE 2 May 1979 TIME 1029 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO THE FIRING AZIMUTH _____

OR TRUE NORTH TRUE NORTH

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
SFC	230	16.0
30	235	13.5
60	229	11.0
90	224	08.5
120	218	06.0
150	219	09.5
180	219	12.5
210	220	16.0
240	220	19.0
270	222	20.0
300	223	21.0
330	225	22.0
360	226	23.0

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
390	226	23.0
420	225	22.5
450	225	22.5
480	224	22.0
510	223	21.5
540	221	21.0
570	219	20.5
600	217	20.0
630	220	19.5
660	223	18.5
690	226	18.0
720	228	17.0
750	230	17.5

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
780	231	17.5
810	232	17.5
840	233	17.5
870	237	18.0
900	241	18.5
930	245	19.0
960	249	19.0
990	250	19.0
1020	250	19.0
1050	251	19.0
1080	251	19.0
1110	254	19.5
1140	256	20.0
1170	259	20.5
1200	261	21.0
1230	261	21.5
1260	261	20.5
1290	261	20.5
1320	260	20.0
1350	258	21.5
1380	255	22.5
1410	253	23.5

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
1440	250	24.5
1470	250	24.5
1500	250	24.0
1530	250	24.0
1560	249	23.5
1590	251	24.5
1620	253	25.0
1650	255	26.0
1680	256	26.5
1710	256	29.5
1740	256	32.0
1770	256	34.5
1800	255	37.0
1830	254	39.5
1860	253	41.5
1890	252	43.5
1920	250	45.5
1950	249	47.5
1980	247	49.0
2010	246	50.5
2040	244	52.0
2070	244	52.0

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
2100	243	52.0
2130	243	52.0
2160	242	52.0
2190	242	51.0
2220	241	50.0
2250	241	49.0
2280	240	47.5
2310	240	47.5
2340	240	47.0
2370	240	47.0
2400	240	46.5
2430	239	46.0
2460	237	45.5
2490	236	45.0
2520	234	44.0
2550	235	44.0
2580	235	44.0
2610	236	44.0
2640	236	43.5
2670	237	44.0
2700	237	44.0
2730	237	44.5

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
2760	237	44.5
2790	238	46.0
2820	238	47.0
2850	239	48.0
2880	239	49.0
2910	240	50.5
2940	241	51.5
2970	242	53.0
3000	242	54.0
3030	243	53.5
3060	243	53.0
3090	243	52.5
3120	243	51.5
3150	243	52.0
3180	242	52.0
3210	241	52.5
3240	240	52.5
3270	242	53.0
3300	244	53.0
3330	246	53.0
3360	248	53.0
3390	248	54.0

HEIGHT mtrs AGL	DIRECTION DEGREES	SPEED MPH
3420	248	55.0
3450	248	56.0
3480	247	57.0
3510	247	58.5
3540	247	60.0
3570	247	61.5
3600	246	62.5
3630	247	62.5
3660	248	62.5
3690	249	62.5
3720	249	62.0

STATION ALTITUDE 3989.00 FEET MSL
 2 MAY 79 1050 HRS MST
 ASCENSION NO. 199

SIGNIFICANT LEVEL DATA
 I220020199
 WHITE SANDS

GEODETTIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
879.1 3989.0	26.5 3.7	23.0
859.8 4626.0	22.0 .5	24.0
850.0 4951.4	20.3 -.3	25.0
839.0 5319.5	19.4 -.1	27.0
700.0 10304.4	5.0 -6.8	42.0
689.0 10728.2	3.8 -13.9	26.0
633.0 12976.2	.4 -21.1	18.0
571.4 15641.5	-6.2 -26.6	18.0
537.6 17202.9	-8.5 -28.5	18.0
500.0 19035.3	-13.2 -32.4	18.0
400.0 24482.2	-26.5 -42.6	20.0
378.0 25819.5	-29.3 -45.0	20.0
351.2 27536.9	-32.5 -47.7	20.0
331.6 28861.0	-35.5 -50.3	20.0
300.0 31126.5	-41.6	
250.0 35114.9	-51.1	
234.0 36521.2	-54.4	
200.0 39823.3	-56.0	
160.8 44340.7	-61.3	
150.0 45762.0	-61.6	
138.2 47451.0	-57.8	
117.6 50798.7	-59.1	
111.0 51986.0	-61.7	
100.0 54123.0	-60.8	
94.4 55308.6	-59.8	
91.8 55898.2	-49.7	
74.0 60440.3	-60.7	
70.0 61582.0	-60.7	
64.0 63433.0	-58.5	
57.0 65820.5	-61.7	
50.0 68528.8	-57.4	
47.8 69470.6	-56.4	
41.3 72525.3	-58.1	
39.9 73249.6	-54.4	
36.4 75200.0	-53.1	
34.2 76539.5	-49.5	
30.0 79384.5	-48.5	
25.0 83386.1	-44.8	
20.0 88318.1	-45.5	
15.9 93432.3	-41.1	

STATION ALTITUDE 3989.00 FEET MSL
 2 MAY 79 1050 HRS MST
 ASCENSION NO. 199

UPPER AIR DATA
 1220020199
 WHITE SANDS

GEODETTIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
3989.0	879.1	26.5	23.0	1018.5	675.5	200.0	9.9	1.000261
4000.0	878.8	26.4	23.0	1018.4	675.4	200.2	9.9	1.000260
4500.0	863.6	22.9	23.8	1013.3	671.3	208.2	10.6	1.000255
5000.0	848.5	20.2	25.3	1005.1	668.1	215.1	11.4	1.000250
5500.0	833.5	18.9	27.5	991.6	660.7	221.0	12.4	1.000248
6000.0	818.5	17.4	27.0	978.5	665.0	226.0	13.5	1.000244
6500.0	803.8	16.0	30.6	955.9	663.3	227.6	14.3	1.000240
7000.0	789.3	14.5	32.1	953.3	661.6	228.6	15.1	1.000237
7500.0	775.1	13.1	33.6	941.0	659.9	229.7	15.9	1.000233
8000.0	761.1	11.7	35.1	928.8	658.2	233.7	16.6	1.000229
8500.0	747.4	10.2	36.6	916.8	656.5	237.3	17.3	1.000226
9000.0	734.0	8.8	38.1	905.0	654.8	241.7	18.6	1.000222
9500.0	720.8	7.3	39.6	893.3	653.1	247.4	20.8	1.000219
10000.0	707.8	5.9	41.1	881.9	651.4	252.1	23.1	1.000215
10500.0	694.9	4.4	34.6	870.7	649.6	248.6	26.7	1.000208
11000.0	682.0	3.4	25.0	858.2	648.2	245.9	30.3	1.000201
11500.0	669.2	2.6	23.3	844.6	647.3	242.5	33.1	1.000197
12000.0	656.7	1.9	21.5	831.1	646.4	238.7	35.4	1.000193
12500.0	644.5	1.1	19.7	818.0	645.4	235.4	37.6	1.000189
13000.0	632.4	.3	18.0	805.0	644.5	233.6	38.4	1.000185
13500.0	620.4	-.9	18.0	793.3	643.0	231.8	39.2	1.000182
14000.0	608.6	-2.1	18.0	781.8	641.5	231.7	40.1	1.000179
14500.0	597.0	-3.4	18.0	770.5	640.1	232.9	41.2	1.000176
15000.0	585.7	-4.6	19.0	759.4	638.6	235.1	44.1	1.000173
15500.0	574.5	-5.8	18.0	748.4	637.1	237.5	48.3	1.000170
16000.0	563.5	-6.7	18.0	736.4	636.0	239.4	51.2	1.000168
16500.0	552.6	-7.5	18.0	724.2	635.1	240.4	52.9	1.000165
17000.0	541.9	-8.2	18.0	712.2	634.3	239.8	52.3	1.000162
17500.0	531.3	-9.3	18.0	701.1	633.0	238.7	51.6	1.000159
18000.0	520.9	-10.5	18.0	690.8	631.4	237.9	51.4	1.000157
18500.0	510.7	-11.8	18.0	680.6	629.9	238.3	52.5	1.000154
19000.0	500.7	-13.1	18.0	670.6	628.3	239.4	54.6	1.000152
19500.0	490.6	-14.3	18.2	660.1	626.8	239.4	57.9	1.000149
20000.0	480.6	-15.6	18.4	649.8	625.3	239.8	59.5	1.000147
20500.0	470.9	-16.8	18.5	639.7	623.9	240.2	60.1	1.000144
21000.0	461.3	-18.0	18.7	629.7	622.4	240.5	61.0	1.000142
21500.0	452.0	-19.2	18.9	619.9	620.9	240.8	62.1	1.000140
22000.0	442.8	-20.4	19.1	610.3	619.4	241.0	64.4	1.000137
22500.0	433.8	-21.7	19.3	600.8	617.9	241.1	66.3	1.000135
23000.0	425.0	-22.9	19.5	591.5	616.4	241.1	67.2	1.000133

STATION ALTITUDE 3989.00 FEET MSL
 2 MAY 79 1050 HRS MST
 ASCENSION NO. 199

UPPER AIR DATA
 1220020199
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	416.4	-24.1	-40.7	19.6	582.4	614.9	241.1	68.1	1.000131
24000.0	408.0	-25.3	-41.7	19.8	573.4	613.3	241.0	68.9	1.000129
24500.0	399.7	-26.5	-42.6	20.0	564.5	611.8	241.2	70.7	1.000127
25000.0	391.3	-27.6	-43.5	20.0	555.1	610.5	241.4	72.9	1.000124
25500.0	383.1	-28.6	-44.4	20.0	545.8	609.2	241.8	75.9	1.000122
26000.0	375.1	-29.6	-45.3	20.0	536.5	608.0	242.1	78.0	1.000120
26500.0	367.1	-30.6	-46.1	20.0	527.2	606.8	242.4	78.8	1.000118
27000.0	359.4	-31.5	-46.9	20.0	518.0	605.6	242.4	77.6	1.000116
27500.0	351.8	-32.4	-47.7	20.0	509.0	604.5	242.4	75.9	1.000114
28000.0	344.2	-33.5	-48.6	20.0	500.4	603.1	242.2	74.0	1.000112
28500.0	336.8	-34.7	-49.6	20.0	492.0	601.6	241.9	72.3	1.000110
29000.0	329.6	-35.9	-51.2	18.8**	483.8	600.1	241.8	71.0	1.000108
29500.0	322.4	-37.2	-54.5	14.4**	476.0	598.4	241.7	71.6	1.000106
30000.0	315.3	-38.6	-58.6	9.9**	468.2	596.7	241.8	74.6	1.000104
30500.0	308.4	-39.9	-64.1	5.5**	460.7	595.0	241.7	79.5	1.000103
31000.0	301.7	-41.3	-76.0	1.1**	453.2	593.2	241.5	86.1	1.000101
31500.0	294.9	-42.5			445.4	591.7	241.0	88.8	1.000099
32000.0	288.3	-43.7			437.6	590.1	240.3	89.8	1.000097
32500.0	281.7	-44.9			430.0	588.6	239.8	87.0	1.000096
33000.0	275.4	-46.1			422.4	587.1	239.5	84.8	1.000094
33500.0	269.2	-47.3			415.1	585.5	239.2	83.4	1.000092
34000.0	263.1	-48.4			407.8	584.0	239.0	81.6	1.000091
34500.0	257.1	-49.6			400.8	582.4	238.8	79.3	1.000089
35000.0	251.3	-50.8			393.2	580.9	238.6	76.0	1.000088
35500.0	245.5	-52.0			386.7	579.3	238.4	79.5	1.000086
36000.0	239.8	-53.2			379.8	577.8	238.2	86.0	1.000085
36500.0	234.2	-54.4			372.9	576.3	238.0	94.7	1.000083
37000.0	228.7	-54.6			364.6	575.9	237.5	92.5	1.000081
37500.0	223.4	-54.9			356.5	575.6	236.8	79.7	1.000079
38000.0	218.1	-55.1			348.5	575.3	236.5	64.3	1.000078
38500.0	213.0	-55.4			340.7	574.9	236.4	54.4	1.000076
39000.0	208.0	-55.6			333.0	574.6	237.1	56.6	1.000074
39500.0	203.1	-55.8			325.6	574.3	237.5	65.5	1.000073
40000.0	198.3	-56.2			318.4	573.8	237.7	76.6	1.000071
40500.0	193.6	-56.8			311.7	573.0	237.8	81.7	1.000069
41000.0	189.0	-57.4			305.1	572.3	237.8	86.7	1.000068
41500.0	184.4	-58.0			298.6	571.5	237.8	86.8	1.000067
42000.0	180.0	-58.6			292.3	570.7	237.7	85.5	1.000065
42500.0	175.7	-59.1			286.1	569.9	237.5	84.0	1.000064
43000.0	171.6	-59.7			280.0	569.1	237.2	82.1	1.000062

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

STATION ALTITUDE 3989.00 FEET MSL
 2 MAY 79
 ASCENSION NO. 199 1050 HRS MST

UPPER AIR DATA
 1220020199
 WHITE SANDS

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
43500.0	167.5	-60.3		274.1	568.4	236.9	79.5	1.000061
44000.0	163.5	-60.9		268.3	567.6	236.6	73.9	1.000060
44500.0	159.6	-61.3		262.4	567.0	236.3	68.3	1.000058
45000.0	155.7	-61.4		256.2	566.8	236.7	62.8	1.000057
45500.0	151.9	-61.5		250.1	566.7	237.6	57.4	1.000056
46000.0	148.3	-61.1		243.6	566.4	239.0	60.8	1.000054
46500.0	144.7	-59.9		236.5	568.9	240.3	67.9	1.000053
47000.0	141.3	-58.8		229.6	570.4	241.7	79.8	1.000051
47500.0	137.9	-57.8		223.1	571.7	242.7	93.8	1.000050
48000.0	134.6	-58.0		217.9	571.4	243.9	101.2	1.000049
48500.0	131.4	-58.2		212.9	571.2	245.2	105.8	1.000047
49000.0	128.3	-58.4		208.1	570.9	246.5	99.7	1.000046
49500.0	125.2	-58.6		203.3	570.6	248.2	89.1	1.000045
50000.0	119.3	-59.0		198.6	570.4	249.4	77.2	1.000044
51000.0	116.5	-59.5		194.1	570.1	250.6	64.9	1.000043
52000.0	113.7	-60.6		189.9	569.4	252.2	54.0	1.000042
53000.0	110.9	-61.7		186.3	567.9	254.2	44.1	1.000041
54000.0	108.2	-61.5		182.7	566.5	258.0	34.1	1.000040
55000.0	105.6	-61.3		178.2	566.8	266.9	23.7	1.000039
56000.0	103.1	-61.1		173.7	567.1	288.0	14.7	1.000038
57000.0	100.6	-60.9		169.3	567.4	329.9	10.1	1.000037
58000.0	98.2	-60.5		165.1	567.6	16.5	13.5	1.000036
59000.0	95.8	-60.1		156.7	568.7	31.6	17.9	1.000035
60000.0	93.5	-56.5		150.4	573.4	39.4	22.2	1.000033
61000.0	91.4	-49.9		142.6	582.0	42.8	24.1	1.000032
62000.0	89.2	-51.2		140.0	580.4	44.5	20.4	1.000031
63000.0	87.1	-52.4		137.5	578.9	47.1	17.8	1.000030
64000.0	85.1	-53.6		135.0	577.3	52.6	12.7	1.000029
65000.0	83.1	-54.8		132.6	575.7	59.8	8.9	1.000028
66000.0	81.1	-56.0		130.2	574.1	72.2	6.4	1.000027
67000.0	79.2	-57.2		127.8	572.5	97.6	6.4	1.000026
68000.0	77.4	-58.4		125.5	570.9	149.5	10.1	1.000025
69000.0	75.6	-59.6		123.3	569.3	200.0	15.4	1.000024
70000.0	73.8	-60.7		121.0	567.8	220.5	15.4	1.000023
71000.0	72.0	-60.7		118.1	567.8	232.8	15.4	1.000022
72000.0	70.3	-60.7		115.2	567.8	238.7	15.4	1.000021
73000.0	68.6	-60.2		112.2	568.5	242.2	15.4	1.000020
74000.0	67.0	-59.6		109.2	569.3	245.7	15.4	1.000019
75000.0	65.4	-59.0		106.3	570.1	248.3	15.4	1.000018

UPPER AIR DATA
 1220020199
 WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL
 2 MAY 79 1050 HRS MST
 ASCENSION NO. 199

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
63500.0	63.8	-58.6			103.6	570.7	258.7	10.8	1.000023
64000.0	62.3	-59.3			101.4	569.8	264.8	7.4	1.000023
64500.0	60.8	-59.9			99.3	568.9	269.1	5.8	1.000022
65000.0	59.3	-60.6			97.2	568.0	264.5	6.4	1.000022
65500.0	57.9	-61.3			95.2	567.1	260.8	7.1	1.000021
66000.0	56.5	-61.4			93.0	566.9	250.7	6.6	1.000021
66500.0	55.2	-60.6			90.4	567.9	261.5	6.1	1.000020
67000.0	53.8	-59.8			87.9	569.0	263.9	5.1	1.000019
67500.0	52.6	-59.0			85.5	570.1	267.5	3.8	1.000019
68000.0	51.3	-58.2			83.1	571.1	268.2	2.6	1.000018
68500.0	50.1	-57.4			80.9	572.2	269.8	1.9	1.000018
69000.0	48.9	-56.9			78.8	572.9	300.9	1.2	1.000017
69500.0	47.7	-56.4			76.7	573.5	317.5	1.6	1.000017
70000.0	46.6	-56.7			75.0	573.2	324.6	2.3	1.000016
70500.0	45.5	-57.0			73.3	572.8	327.4	3.5	1.000016
71000.0	44.4	-57.3			71.7	572.4	326.4	5.0	1.000016
71500.0	43.4	-57.5			70.1	572.1	318.0	6.1	1.000015
72000.0	42.4	-57.8			68.5	571.7	305.1	5.9	1.000015
72500.0	41.4	-58.1			67.0	571.3	287.0	5.8	1.000015
73000.0	40.4	-55.7			64.7	574.5	267.7	5.5	1.000014
73500.0	39.4	-54.2			62.7	576.4	254.8	5.7	1.000014
74000.0	38.5	-53.9			61.2	576.9	244.8	6.0	1.000014
74500.0	37.6	-53.6			59.7	577.3	234.9	6.1	1.000013
75000.0	36.7	-53.2			58.2	577.7	225.2	6.4	1.000013
75500.0	35.9	-52.3			56.6	579.0	217.7	6.8	1.000012
76000.0	35.1	-51.0			55.0	580.7	222.6	7.3	1.000012
76500.0	34.3	-49.6			53.4	582.5	226.9	7.8	1.000012
77000.0	33.5	-49.3			52.1	582.8	237.1	8.4	1.000012
77500.0	32.7	-49.2			50.9	583.1	248.5	8.6	1.000011
78000.0	32.0	-49.0			49.7	583.3	254.3	9.1	1.000011
78500.0	31.2	-48.8			48.5	583.5	254.6	9.9	1.000011
79000.0	30.5	-48.6			47.4	583.7	254.2	10.5	1.000011
79500.0	29.8	-48.4			46.3	584.1	249.9	11.1	1.000010
80000.0	29.2	-47.9			45.1	584.7	246.0	11.8	1.000010
80500.0	28.5	-47.5			44.0	585.3	244.1	12.5	1.000010
81000.0	27.9	-47.0			42.9	585.9	243.0	13.0	1.000010
81500.0	27.2	-46.5			41.9	586.4	241.2	13.3	1.000009
82000.0	26.6	-46.1			40.9	587.0	237.5	13.6	1.000009
82500.0	26.0	-45.6			39.9	587.6	233.7	13.5	1.000009
83000.0	25.4	-45.2			38.9	588.2		13.5	1.000009

STATION ALTITUDE 3989.00 FEET MSL
 2 MAY 79 1050 HRS MST
 ASCENSION NO. 199

UPPER AIR DATA
 1220020199
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
83500.0	24.9	-44.8			37.9	588.7	228.1	13.9	1.000008
84000.0	24.3	-44.9			37.1	588.6	222.6	14.5	1.000008
84500.0	23.8	-45.0			36.3	588.5	218.1	15.0	1.000008
85000.0	23.2	-45.1			35.5	588.4	214.7	15.2	1.000008
85500.0	22.7	-45.2			34.7	588.3	211.4	15.5	1.000008
86000.0	22.2	-45.3			33.9	588.2	206.6	14.8	1.000008
86500.0	21.7	-45.4			33.2	588.1	201.2	14.2	1.000007
87000.0	21.2	-45.5			32.5	588.0	195.0	12.4	1.000007
87500.0	20.8	-45.6			31.7	587.9	185.1	9.6	1.000007
88000.0	20.3	-45.7			31.0	587.9	168.4	7.3	1.000007
88500.0	19.8	-45.8			30.3	588.0	144.2	5.4	1.000007
89000.0	19.4	-45.9			29.6	588.6	109.1	5.2	1.000007
89500.0	19.0	-46.0			28.9	589.1	146.0	4.3	1.000006
90000.0	18.5	-46.1			28.2	589.7	198.2	8.6	1.000006
90500.0	18.1	-46.2			27.5	590.2	211.8	15.1	1.000006
91000.0	17.7	-46.3			26.9	590.8	218.5	23.3	1.000006
91500.0	17.3	-46.4			26.2	591.3	221.7	31.6	1.000006
92000.0	17.0	-46.5			25.6	591.9			1.000006
92500.0	16.6	-46.6			25.0	592.4			1.000006
93000.0	16.2	-46.7			24.4	593.0			1.000005

STATION ALTITUDE 3969.00 FEET MSL
 2 MAY 79 1050 HRS MST
 ASCENSION NO. 199

MRN SIGNIFICANT LEVEL DATA
 1220020199
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	DIRECTION DEG (TN)	WIND DATA		E-W MPS	DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
		SPEED MPS	N-S MPS			AIR DEG C		
2834.	9999.**	9999.**	-9999.**	-9999.**	99	-41.1	1.590+1	
2679.	155.	3.	3.	-1.	99	-45.5	2.000+1	
2530.	229.	7.	5.	5.	99	-44.8	2.500+1	
2409.	255.	6.	1.	5.	99	-48.5	3.000+1	
2323.	223.	4.	3.	3.	99	-49.5	3.420+1	
2283.	231.	3.	2.	3.	99	-53.1	3.640+1	
2224.	277.	3.	-0.	3.	99	-54.4	3.990+1	
2202.	305.	3.	-2.	2.	99	-58.1	4.130+1	
2109.	299.	1.	-0.	1.	99	-56.4	4.780+1	
2081.	268.	1.	0.	1.	99	-57.4	5.000+1	
1999.	261.	3.	1.	3.	99	-61.7	5.700+1	
1927.	258.	6.	1.	6.	99	-58.5	6.400+1	
1871.	243.	17.	8.	15.	99	-60.7	7.000+1	
1836.	232.	12.	8.	10.	99	-60.7	7.400+1	
1698.	44.	12.	-9.	-9.	99	-49.7	9.180+1	
1681.	42.	12.	-9.	-8.	99	-59.8	9.440+1	
1645.	23.	8.	-7.	-3.	99	-60.8	1.000+2	

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

STATION ALTITUDE 3989.00 FEET MSL
 2 MAY 79 1050 HRS MST
 ASCENSION NO. 199

MANDATORY LEVELS
 1220020199
 WHITE SANDS

GEODETTIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4948.	20.3	-0.3	25.	214.4	11.3
800.0	6649.	15.6	-1.5	31.	227.9	14.6
750.0	8428.	10.5	-3.8	36.	236.8	17.2
700.0	10294.	5.0	-6.8	42.	249.9	25.2
650.0	12263.	1.5	-18.7	21.	236.8	36.7
600.0	14361.	-3.1	-24.0	18.	232.6	40.9
550.0	16599.	-7.6	-27.8	18.	240.3	52.8
500.0	19009.	-13.2	-32.4	18.	238.9	54.8
450.0	21609.	-19.5	-37.2	19.	240.8	62.7
400.0	24441.	-26.5	-42.6	20.	241.2	70.5
350.0	27566.	-32.7	-47.9	20.	242.4	75.5
300.0	31065.	-41.6			241.5	87.6
250.0	35038.	-51.1			238.5	75.4
200.0	39728.	-56.0			237.6	72.4
175.0	42493.	-59.2			237.5	83.6
150.0	45639.	-61.6			238.2	57.1
125.0	49393.	-58.6			248.2	88.9
100.0	53956.	-60.8			21.9	14.8
80.0	58629.	-56.7			122.8	7.1
70.0	61370.	-60.7			242.5	33.0
60.0	64535.	-60.3			266.8	6.1
50.0	68270.	-57.4			268.2	1.9
40.0	72904.	-54.7			280.7	5.5
30.0	79044.	-48.5			254.7	11.0
25.0	83012.	-44.8			229.9	13.7
20.0	87902.	-45.5			156.9	6.1

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

STATION ALTITUDE 3989.00 FEET MSL
 2 MAY 79 1050 HRS MST
 ASCENSION NO. 199

MRN MANDATORY LEVELS
 1220020199
 WHITE SANDS

GEODETIC COORDINATES
 32.49043 LAT DEG
 106.37033 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	DIRECTION DEG (TN)	SPEED MPS	WIND DATA		E-W MPS	DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
			N-S MPS	MPS			AIR DEG C		
2679.	157.	3.	3.	3.	-1.	99	-45.5	2.000+1	
2530.	230.	7.	5.	5.	5.	99	-44.8	2.500+1	
2409.	255.	6.	1.	1.	5.	99	-48.5	3.000+1	
2222.	281.	3.	-1.	3.	3.	99	-54.7	4.000+1	
2081.	268.	1.	0.	1.	1.	99	-57.4	5.000+1	
1967.	267.	3.	0.	3.	3.	99	-60.3	6.000+1	
1871.	243.	17.	8.	17.	15.	99	-60.7	7.000+1	
1787.	123.	4.	2.	4.	-3.	99	-56.7	8.000+1	
1645.	22.	8.	-7.	8.	-3.	99	-60.8	1.000+2	
1506.	248.	46.	17.	46.	42.	99	-58.6	1.250+2	
1391.	238.	29.	15.	29.	25.	99	-61.6	1.500+2	
1295.	237.	43.	23.	43.	36.	99	-59.2	1.750+2	
1211.	238.	37.	20.	37.	31.	99	-56.0	2.000+2	
1068.	239.	39.	20.	39.	33.	99	-51.1	2.500+2	
947.	241.	45.	22.	45.	40.	99	-41.6	3.000+2	
840.	242.	39.	18.	39.	34.	15	-32.7	3.500+2	
745.	241.	36.	17.	36.	32.	16	-26.5	4.000+2	
659.	241.	32.	16.	32.	28.	16	-19.5	4.500+2	
579.	239.	28.	15.	28.	24.	19	-13.2	5.000+2	
506.	240.	27.	13.	27.	24.	20	-7.6	5.500+2	
438.	233.	21.	13.	21.	17.	21	-3.1	6.000+2	
374.	237.	19.	10.	19.	16.	20	1.5	6.500+2	
314.	250.	13.	4.	13.	12.	12	5.0	7.000+2	
257.	237.	9.	5.	9.	7.	14	10.5	7.500+2	
203.	228.	7.	5.	7.	6.	17	15.6	8.000+2	
151.	214.	6.	5.	6.	3.	21	20.3	8.500+2	

STATION ALTITUDE 4051.00 FEET MSL
 2 MAY 79 0915 HRS MST
 ASCENSION NO. 49

SIGNIFICANT LEVEL DATA
 1220030049
 JALLEN

GEODETTIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT
870.0	4051.0	22.0	9.2	44.0
860.2	4372.4	19.1	4.5	38.0
850.0	4708.2	18.0	1.9	34.0
821.6	5638.5	15.3	1.4	39.0
744.0	8384.1	7.8	-7	55.0
706.6	9772.6	3.8	-2.0	66.0
700.0	10022.8	2.8	-5.1	56.0
661.4	11525.5	.4	-11.0	42.0
658.7	11633.0	-1.5	-5.5	74.0
652.4	11884.9	-1.0	-22.9	17.0
617.6	13320.5	-1.4	-27.1	12.0
542.2	16681.9	-8.8	-33.0	12.0
500.0	18723.3	-14.4	-36.7	13.0
400.0	24142.4	-27.8	-45.7	16.0
365.4	26201.3	-32.5	-49.7	16.0
331.8	28484.1	-35.7		
300.0	30761.5	-41.7		
250.0	34740.7	-52.0		
228.4	36601.1	-53.7		
218.8	37505.7	-55.9		
200.0	39439.1	-58.2		
195.6	39899.7	-59.0		
191.2	40371.7	-57.4		
162.2	43768.8	-61.0		
150.0	45369.8	-61.2		
136.2	47335.8	-63.2		
132.6	47880.7	-61.9		
119.2	50043.2	-64.1		
109.8	51713.7	-61.2		
103.8	52880.0	-55.5		
100.0	53673.1	-50.7		
84.0	57302.8	-57.7		
70.0	61129.1	-61.3		
64.3	62868.5	-61.5		
60.8	64026.0	-57.2		
53.4	66711.6	-61.3		
50.0	68004.7	-59.9		
45.2	70158.3	-57.7		
38.0	73773.0	-58.2		
30.0	78794.7	-49.4		

STATION ALTITUDE 4051.00 FEET MSL
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SIGNIFICANT LEVEL DATA
1220030045
JALLEN

GEODETTIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR TEMPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
25.5 82320.9	-49.0	
21.8 85757.7	-44.9	
20.0 87660.0	-46.0	
13.9 95686.4	-45.4	

STATION ALTITUDE 4051.00 FEET MSL
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UPPER AIR DATA
 1220030049
 JALLEN

GEODETTIC COORDINATES
 33.16712 LAT DEG
 106.49511 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 DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
4051.0	870.0	22.0	9.2	44.0	1021.7	671.0	195.0	17.1	1.000278
4500.0	856.3	18.7	3.5	36.5	1018.6	666.7	202.4	18.0	1.000262
5000.0	841.2	17.2	1.8	35.5	1006.2	664.8	209.7	19.3	1.000256
5500.0	826.3	15.8	1.5	38.2	993.2	663.2	217.2	20.0	1.000252
6000.0	811.4	14.4	1.3	41.0	980.1	661.0	226.3	19.5	1.000249
6500.0	796.8	13.0	1.0	43.9	967.1	660.0	227.8	20.2	1.000246
7000.0	782.4	11.6	.7	46.9	954.3	658.4	228.2	20.6	1.000243
7500.0	768.3	10.2	.2	49.8	941.6	656.8	228.1	21.1	1.000239
8000.0	754.5	8.9	-.3	52.7	929.2	655.2	227.7	21.7	1.000236
8500.0	740.8	7.5	-.7	55.9	916.9	653.6	229.1	23.1	1.000232
9000.0	727.2	6.0	-1.2	59.9	904.7	651.9	230.7	24.6	1.000229
9500.0	713.8	4.6	-1.7	63.8	892.7	650.2	232.5	23.9	1.000225
10000.0	700.6	2.9	-4.8	56.9	882.1	648.0	234.4	23.0	1.000218
10500.0	687.5	2.0	-6.9	51.6	868.6	646.9	235.5	24.0	1.000212
11000.0	674.7	1.2	-8.8	46.9	855.0	645.9	235.7	26.7	1.000206
11500.0	662.0	.4	-10.9	42.2	841.7	644.9	235.8	30.8	1.000201
12000.0	649.5	-1.0	-23.2	16.6	831.1	642.8	235.7	39.8	1.000190
12500.0	637.3	-1.2	-24.5	14.9	815.8	642.5	238.2	42.3	1.000186
13000.0	625.2	-1.3	-26.0	13.1	800.9	642.5	240.4	42.8	1.000182
13500.0	613.3	-1.8	-27.4	12.0	787.1	641.9	242.5	42.5	1.000179
14000.0	601.6	-2.9	-28.2	12.0	775.1	640.6	245.0	42.9	1.000176
14500.0	590.0	-4.0	-29.1	12.0	763.4	639.2	247.5	44.7	1.000173
15000.0	578.7	-5.1	-30.0	12.0	751.8	637.9	249.8	47.6	1.000170
15500.0	567.6	-6.2	-30.9	12.0	740.5	636.6	246.7	49.9	1.000167
16000.0	556.7	-7.3	-31.8	12.0	729.3	635.3	243.3	52.3	1.000165
16500.0	546.0	-8.4	-32.6	12.0	718.3	634.0	242.2	53.4	1.000162
17000.0	535.4	-9.7	-33.5	12.2	707.7	632.4	241.8	54.0	1.000160
17500.0	524.9	-11.0	-34.4	12.4	697.5	630.8	244.0	52.8	1.000157
18000.0	514.6	-12.4	-35.3	12.6	687.4	629.1	246.1	51.7	1.000155
18500.0	504.5	-13.8	-36.3	12.9	677.4	627.5	246.3	51.7	1.000152
19000.0	494.3	-15.1	-37.1	13.2	667.2	625.9	246.4	51.8	1.000150
19500.0	484.3	-16.3	-37.9	13.4	656.7	624.9	246.4	53.5	1.000148
20000.0	474.4	-17.6	-38.7	13.7	646.5	622.9	246.4	55.7	1.000145
20500.0	464.7	-18.8	-39.5	14.0	636.4	621.4	246.5	56.0	1.000143
21000.0	455.3	-20.0	-40.4	14.3	626.5	619.9	246.4	60.5	1.000141
21500.0	446.0	-21.3	-41.2	14.5	616.7	618.3	246.4	63.1	1.000138
22000.0	436.9	-22.5	-42.0	14.8	607.1	616.8	246.5	66.1	1.000136
22500.0	428.0	-23.7	-42.9	15.1	597.7	615.3	246.5	69.1	1.000134
23000.0	419.3	-25.0	-43.8	15.4	580.5	613.8	246.5	71.3	1.000132
23500.0	410.7	-26.2	-44.6	15.5	579.4	612.2	246.4	73.3	1.000130

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UPPER AIR DATA
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GEODETIC COORDINATES
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 106.49511 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	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
2400.0	402.4	-27.4	-45.5	15.9	570.4	610.7	246.3	75.3	1.000128
2450.0	393.9	-28.6	-46.4	16.0	561.1	609.3	246.3	77.7	1.000126
2500.0	385.6	-29.7	-47.3	16.0	551.8	607.9	246.4	80.6	1.000123
2550.0	377.5	-30.8	-48.3	16.0	542.6	606.5	246.9	85.0	1.000121
2600.0	369.5	-31.9	-49.2	16.0	533.6	605.1	247.6	87.6	1.000119
2650.0	361.6	-32.8	-50.9	14.3**	524.2	603.9	248.5	88.5	1.000117
2700.0	353.9	-33.6	-54.0	10.7**	514.5	603.0	249.7	87.1	1.000115
2750.0	346.3	-34.3	-57.8	7.1**	505.0	602.1	250.7	85.3	1.000113
2800.0	338.8	-35.0	-63.8	3.5**	495.7	601.2	251.0	83.6	1.000110
2850.0	331.6	-35.7			486.5	600.3	250.2	84.4	1.000108
2900.0	324.3	-37.1			478.5	598.8	249.4	85.2	1.000107
2950.0	317.2	-38.4			470.7	596.9	248.7	85.5	1.000105
3000.0	310.3	-39.7			463.0	595.2	248.0	84.7	1.000103
3050.0	303.5	-41.0			455.4	593.6	247.3	82.4	1.000101
3100.0	296.7	-42.3			447.8	591.9	246.8	80.3	1.000100
3150.0	290.0	-43.6			440.2	590.2	246.5	78.8	1.000098
3200.0	283.4	-44.9			432.6	588.6	246.3	77.2	1.000096
3250.0	277.0	-46.2			425.2	586.9	246.4	75.6	1.000095
3300.0	270.8	-47.5			418.0	585.2	246.5	74.1	1.000093
3350.0	264.6	-48.8			410.9	583.5	246.0	75.8	1.000092
3400.0	258.6	-50.1			403.9	581.9	245.4	77.6	1.000090
3450.0	252.8	-51.4			397.1	580.2	244.2	81.5	1.000088
3500.0	247.0	-52.2			389.4	579.0	243.1	85.3	1.000087
3550.0	241.2	-52.7			381.1	578.5	242.4	88.1	1.000085
3600.0	235.6	-53.1			373.0	577.9	241.8	90.7	1.000083
3650.0	230.1	-53.6			365.1	577.3	241.8	91.7	1.000081
3700.0	224.8	-54.5			358.1	576.0	241.9	92.3	1.000080
3750.0	219.5	-55.7			351.7	574.4	242.1	87.8	1.000078
3800.0	214.3	-56.4			344.5	573.5	242.3	83.2	1.000077
3850.0	209.2	-57.0			337.3	572.7	242.3	78.3	1.000075
3900.0	204.3	-57.7			330.2	571.9	241.9	74.8	1.000074
3950.0	199.4	-58.3			323.3	571.0	240.7	73.9	1.000072
4000.0	194.7	-58.7			316.2	570.6	238.6	70.2	1.000070
4050.0	190.0	-57.5			307.0	572.1	235.4	64.4	1.000068
4100.0	185.5	-58.1			300.4	571.3	232.4	59.1	1.000067
4150.0	181.0	-58.6			293.9	570.6	230.1	54.4	1.000065
4200.0	176.7	-59.1			287.6	569.9	228.3	50.6	1.000064
4250.0	172.5	-59.7			281.4	569.2	230.4	50.6	1.000063
4300.0	168.4	-60.2			275.4	568.5	232.4	50.7	1.000061
4350.0	164.3	-60.7			269.3	567.8	234.1	48.6	1.000060

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

STATION ALTITUDE 4051.00 FEET MSL
 2 MAY 79 0915 HRS MST
 ASCENSION NO. 49

UPPER AIR DATA
 1220030049
 JALLEN

GEODETIC COORDINATES
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 106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT DEGREES CENTIGRADE				DIRECTION DEGREES (TN)	SPEED KNOTS	
44000.0	160.4	-61.0		263.4	567.4	233.9	45.4	1.000059	
44500.0	156.5	-61.1		257.1	567.3	237.9	42.2	1.000057	
45000.0	152.7	-61.2		251.0	567.2	243.0	37.7	1.000056	
45500.0	149.0	-61.3		245.1	567.0	243.2	33.3	1.000055	
46000.0	145.4	-61.8		239.8	566.3	246.9	33.1	1.000053	
46500.0	141.9	-62.3		234.5	565.6	250.3	36.1	1.000052	
47000.0	138.5	-62.9		229.4	564.9	252.6	40.1	1.000051	
47500.0	135.1	-62.8		223.8	565.0	252.9	47.1	1.000050	
48000.0	131.8	-62.0		217.5	566.1	253.1	54.2	1.000048	
48500.0	128.6	-62.5		212.7	565.4	252.8	59.3	1.000047	
49000.0	125.5	-63.0		208.1	564.7	252.4	63.7	1.000046	
49500.0	122.4	-63.5		203.5	564.0	252.1	68.1	1.000045	
50000.0	119.5	-64.1		199.0	563.3	252.1	69.7	1.000044	
50500.0	116.6	-63.3		193.5	564.3	252.2	71.3	1.000043	
51000.0	113.7	-62.4		188.0	565.5	253.3	67.3	1.000042	
51500.0	111.0	-61.6		182.7	566.7	253.4	60.5	1.000041	
52000.0	108.3	-59.8		178.8	569.0	257.2	52.7	1.000039	
52500.0	105.7	-57.4		170.7	572.3	258.8	44.2	1.000038	
53000.0	103.2	-54.8		164.7	575.7	258.4	39.2	1.000037	
53500.0	100.8	-51.7		158.6	579.7	254.8	38.7	1.000035	
54000.0	98.5	-51.3		154.6	580.2	251.1	38.3	1.000034	
54500.0	96.2	-52.3		151.7	579.0	247.8	38.2	1.000034	
55000.0	93.9	-53.2		148.8	577.8	244.8	38.4	1.000033	
55500.0	91.7	-54.2		145.9	576.5	241.8	38.7	1.000032	
56000.0	89.6	-55.1		143.1	575.3	240.2	34.5	1.000032	
56500.0	87.5	-56.1		140.4	574.0	238.6	29.0	1.000031	
57000.0	85.5	-57.0		137.7	572.7	236.2	23.5	1.000031	
57500.0	83.4	-57.8		135.0	571.7	228.0	13.4	1.000030	
58000.0	81.4	-58.3		132.1	571.0	185.5	5.0	1.000029	
58500.0	79.5	-58.8		129.2	570.4	103.3	7.1	1.000029	
59000.0	77.6	-59.3		126.4	569.8	87.4	10.9	1.000028	
59500.0	75.7	-59.7		123.6	569.1	80.0	15.1	1.000028	
60000.0	73.9	-60.2		121.0	568.5	72.4	13.5	1.000027	
60500.0	72.2	-60.7		118.3	567.8	59.4	10.5	1.000026	
61000.0	70.4	-61.2		115.8	567.2	38.1	8.4	1.000026	
61500.0	68.7	-61.3		113.1	567.0	14.5	7.7	1.000025	
62000.0	67.1	-61.4		110.4	566.9	351.3	8.4	1.000025	
62500.0	65.5	-61.5		107.7	566.8	336.0	9.5	1.000024	
63000.0	63.9	-61.0		104.9	567.4	329.8	8.2	1.000023	
63500.0	62.4	-59.2		101.5	568.2	321.4	7.0	1.000023	

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UPPER AIR DATA
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GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 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	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.9	-57.3			98.2	572.4	309.6	5.8	1.000022
64500.0	59.4	-57.9			96.2	571.5	292.0	4.9	1.000021
65000.0	58.0	-58.7			94.2	570.5	269.5	4.6	1.000021
65500.0	56.6	-59.5			92.3	569.5	255.9	4.8	1.000021
66000.0	55.3	-60.2			90.4	568.5	253.0	4.9	1.000020
66500.0	53.9	-61.0			88.6	567.5	254.1	5.0	1.000020
67000.0	52.7	-61.0			86.5	567.4	255.2	4.7	1.000019
67500.0	51.4	-60.5			84.2	568.1	259.1	4.1	1.00001
68000.0	50.2	-60.0			82.0	568.8	264.3	3.5	1.000018
68500.0	49.0	-59.4			79.8	569.5	267.4	3.2	1.000018
69000.0	47.8	-58.9			77.7	570.2	267.6	3.1	1.000017
69500.0	46.7	-58.4			75.7	570.9	267.9	3.0	1.000017
70000.0	45.5	-57.9			73.7	571.6	268.6	3.1	1.000016
70500.0	44.5	-57.7			71.9	571.8	269.4	3.5	1.000016
71000.0	43.4	-57.8			70.2	571.7	270.1	3.8	1.000016
71500.0	42.4	-57.9			68.6	571.6	271.5	4.2	1.000015
72000.0	41.4	-58.0			67.0	571.5	273.1	4.5	1.000015
72500.0	40.4	-58.0			65.4	571.4	274.5	4.9	1.000015
73000.0	39.4	-58.1			63.9	571.3	274.1	5.2	1.000014
73500.0	38.5	-58.2			62.4	571.2	273.2	5.5	1.000014
74000.0	37.6	-57.8			60.8	571.7	272.4	5.9	1.000014
74500.0	36.7	-56.9			59.2	572.9	269.3	6.2	1.000013
75000.0	35.9	-56.0			57.6	574.0	265.6	6.4	1.000013
75500.0	35.0	-55.2			56.0	575.2	262.3	6.8	1.000012
76000.0	34.2	-54.3			54.5	576.3	258.3	7.3	1.000012
76500.0	33.4	-53.4			53.0	577.5	254.5	7.9	1.000012
77000.0	32.6	-52.5			51.6	578.6	251.3	8.5	1.000011
77500.0	31.9	-51.7			50.2	579.8	249.1	9.4	1.000011
78000.0	31.1	-50.8			48.8	580.9	247.7	10.5	1.000011
78500.0	30.4	-49.9			47.5	582.1	246.5	11.5	1.000011
79000.0	29.7	-49.4			46.3	582.8	245.8	12.7	1.000010
79500.0	29.0	-49.3			45.2	582.8	245.5	14.0	1.000010
80000.0	28.4	-49.3			44.2	582.9	245.2	15.3	1.000010
80500.0	27.7	-49.2			43.1	583.0	245.1	16.5	1.000010
81000.0	27.1	-49.1			42.1	583.1	245.3	17.6	1.000009
81500.0	26.5	-49.1			41.2	583.1	245.4	18.7	1.000009
82000.0	25.9	-49.0			40.2	583.2	245.6	19.6	1.000009
82500.0	25.3	-48.8			39.3	583.5	245.9	19.2	1.000009
83000.0	24.7	-48.2			38.3	584.3	246.2	18.8	1.000009
83500.0	24.2	-47.6			37.3	585.1	246.4	18.3	1.000008

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UPPER AIR DATA
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GEODETIC COORDINATES
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 106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TM)	SPEED KNOTS	
64000.0	23.6	-47.0			36.4	585.9	245.4	17.1	1.000008
64500.0	23.1	-46.4			35.5	586.6	245.1	15.4	1.000008
65000.0	22.6	-45.8			34.6	587.4	245.8	13.7	1.000008
65500.0	22.1	-45.2			33.7	588.2	245.3	12.1	1.000007
66000.0	21.6	-45.0			32.9	588.4	244.4	10.8	1.000007
66500.0	21.1	-45.3			32.2	588.0	243.4	9.5	1.000007
67000.0	20.6	-45.6			31.6	587.8	242.0	8.2	1.000007
67500.0	20.1	-45.9			30.9	587.3	241.4	7.5	1.000007
68000.0	19.7	-46.0			30.2	587.2	241.2	7.0	1.000007
68500.0	19.3	-45.9			29.5	587.2	241.0	6.5	1.000007
69000.0	18.8	-45.9			28.9	587.3	240.0	7.1	1.000006
69500.0	18.4	-45.9			28.2	587.3	238.2	11.3	1.000006
90000.0	18.0	-45.8			27.6	587.4	237.4	15.5	1.000006
90500.0	17.6	-45.8			26.9	587.4	235.9	19.8	1.000006
91000.0	17.2	-45.8			26.3	587.5	235.6	21.4	1.000006
91500.0	16.8	-45.7			25.7	587.5	234.0	22.2	1.000006
92000.0	16.4	-45.7			25.2	587.6	232.5	23.0	1.000006
92500.0	16.1	-45.6			24.6	587.7			1.000005
93000.0	15.7	-45.6			24.0	587.7			1.000005
93500.0	15.3	-45.6			23.5	587.7			1.000005
94000.0	15.0	-45.5			23.0	587.8			1.000005
94500.0	14.7	-45.5			22.4	587.8			1.000005
95000.0	14.3	-45.5			21.9	587.9			1.000005
95500.0	14.0	-45.4			21.4	587.9			1.000005

STATION ALTITUDE 4051.00 FEET MSL
 2 MAY 79 0915 HRS MST
 ASCENSION NO. 49

MRN SIGNIFICANT LEVEL DATA
 1220030049
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	DIRECTION DEG (TN)	WIND DATA		E-W MPS	DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
		SPEED MPS	N-S MPS			AIR DEG C		
2902.	9999.**	9999.**	-9999.**	-9999.**	99	-45.4	1.390+1	
2660.	241.	4.	2.	3.	99	-46.0	2.000+1	
2602.	245.	6.	2.	5.	99	-44.9	2.180+1	
2496.	246.	10.	4.	9.	99	-49.0	2.550+1	
2392.	246.	6.	3.	6.	99	-49.4	3.000+1	
2240.	273.	3.	-0.	3.	99	-58.2	3.800+1	
2130.	269.	2.	0.	2.	99	-57.7	4.520+1	
2067.	265.	2.	0.	2.	99	-59.9	5.000+1	
2026.	254.	3.	1.	2.	99	-61.3	5.340+1	
1945.	309.	3.	-2.	2.	99	-57.2	6.080+1	
1910.	332.	4.	-4.	2.	99	-61.5	6.430+1	
1657.	32.	4.	-4.	-2.	99	-61.3	7.000+1	
1743.	231.	8.	5.	6.	99	-57.7	8.400+1	
1631.	254.	20.	6.	19.	99	-50.7	1.000+2	

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

STATION ALTITUDE 4051.00 FEET MSL
 2 MAY 79 0915 HRS MST
 ASCENSION NO. 49

MANDATORY LEVELS
 1220030049
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4705.	16.0	1.9	34.	205.5	16.5
800.0	6393.	13.3	1.1	43.	227.5	20.0
750.0	8159.	8.4	-.4	54.	228.0	22.1
700.0	10014.	2.8	-5.1	55.	234.5	23.0
650.0	11969.	-1.0	-23.2	17.	235.7	39.4
600.0	14059.	-3.0	-28.4	12.	245.3	43.0
550.0	16298.	-8.0	-32.3	12.	242.0	53.0
500.0	18698.	-14.4	-36.7	13.	246.3	51.8
450.0	21287.	-20.7	-40.6	14.	246.4	62.1
400.0	24104.	-27.8	-45.7	16.	246.3	76.0
350.0	27210.	-33.9	-55.6	9.**	250.3	80.2
300.0	30703.	-41.7			247.0	61.2
250.0	34668.	-52.0			243.7	83.3
200.0	39348.	-58.2			240.9	74.0
175.0	42104.	-59.3			229.1	50.6
150.0	45252.	-61.2			242.2	34.6
125.0	48945.	-63.1			252.4	64.3
100.0	53512.	-50.7			253.7	38.5
80.0	58189.	-58.7			111.7	6.1
70.0	60924.	-61.3			33.5	8.1
60.0	64077.	-57.6			300.7	5.3
50.0	67814.	50.9			264.7	3.5
40.0	72421.	-58.1			274.8	5.0
30.0	78464.	-49.4			246.0	12.1
25.0	82389.	-48.5			246.0	19.0
20.0	87255.	-46.0			241.3	7.3
15.0	93541.	-45.5				

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

STATION ALTITUDE 4051.00 FEET MSL
 2 MAY 79 0915 HRS MST
 ASCENSION NO. 49

MRN MANDATORY LEVELS
 1220030049
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

GEOPOTENTIAL ALTITUDE METERS	DIRECTION DEG (TN)	SPEED MPS	WIND DATA		E-W MPS	DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
			N-S MPS	-9999.**			AIR DEG C		
2851.	9999.**	9999.**	-9999.**	-9999.**	-9999.**	99	-45.5	1.500+1	
2660.	241.	4.	2.	3.	3.	99	-46.0	2.000+1	
2511.	246.	10.	4.	9.	9.	99	-48.5	2.500+1	
2392.	246.	6.	3.	6.	6.	99	-49.4	3.000+1	
2207.	275.	3.	-0.	3.	3.	99	-58.1	4.000+1	
2067.	265.	2.	0.	2.	2.	99	-59.9	5.000+1	
1953.	301.	3.	-1.	2.	2.	99	-57.6	6.000+1	
1857.	34.	4.	-3.	-2.	-2.	99	-61.3	7.000+1	
1774.	112.	3.	1.	-3.	-3.	99	-58.7	8.000+1	
1631.	254.	20.	6.	19.	19.	99	-50.7	1.000+2	
1492.	252.	33.	10.	32.	32.	99	-63.1	1.250+2	
1379.	242.	18.	8.	16.	16.	99	-61.2	1.500+2	
1283.	229.	26.	17.	20.	20.	99	-59.3	1.750+2	
1199.	241.	38.	19.	33.	33.	99	-58.2	2.000+2	
1057.	244.	43.	19.	38.	38.	99	-41.7	3.000+2	
936.	247.	42.	16.	38.	38.	99	-52.0	2.500+2	
829.	250.	44.	15.	42.	42.	22	-33.9	3.500+2	
735.	246.	39.	16.	36.	36.	18	-27.8	4.000+2	
649.	246.	32.	13.	29.	29.	20	-20.7	4.500+2	
570.	246.	27.	11.	24.	24.	22	-14.4	5.000+2	
497.	243.	27.	13.	24.	24.	24	-8.0	5.500+2	
429.	245.	22.	9.	20.	20.	25	-3.0	6.000+2	
365.	236.	20.	11.	17.	17.	22	-1.0	6.500+2	
305.	235.	12.	7.	10.	10.	08	2.8	7.000+2	
249.	228.	11.	8.	8.	8.	09	8.4	7.500+2	
195.	227.	10.	7.	8.	8.	12	13.3	8.000+2	
143.	206.	10.	9.	4.	4.	16	18.0	8.500+2	

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

STATION ALTITUDE 4700.63 FEET MSL
 2 MAY 79 0905 HRS MST
 ASCENSION NO. 17

SIGNIFICANT LEVEL DATA
 1220170017
 AFSWC

GEODETTIC COORDINATES
 33.64686 LAT DEG
 106.58581 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
849.3	4700.6	20.2	5.8	39.0
839.2	5037.6	17.0	2.6	38.0
743.8	8177.9	7.7	-3	57.0
700.0	9987.4	2.4	-9	79.0
655.8	11707.6	-2.0	-7.5	67.0
646.8	12068.1	-3.0	-13.8	43.0
629.2	12767.1	-2.3	-22.7	19.0
603.0	13894.1	-3.5	-24.3	18.0
520.2	17660.1	-13.4	-31.5	20.0
500.0	18648.0	-15.0	-33.9	18.0
421.8	22793.0	-25.4	-40.8	22.0
400.0	24055.3	-27.2	-43.2	20.0
360.2	26515.4	-32.0	-46.9	21.0
341.0	27779.5	-35.5	-49.5	22.0
300.0	30670.0	-42.7		
250.0	34642.9	-51.7		
237.8	35708.4	-53.0		
227.6	36640.4	-52.6		
200.0	39370.1	-56.0		
177.0	41912.8	-59.0		
160.0	44008.5	-57.3		
150.0	45351.0	-58.1		
129.2	48435.9	-60.2		
112.0	51354.6	-61.1		
100.0	53673.3	-59.7		
90.2	55835.8	-52.7		
84.2	57298.3	-54.0		
70.0	61135.8	-62.5		
59.0	64445.4	-58.3		
50.0	68066.0	-59.5		
40.3	72566.6	-57.5		

STATION ALTITUDE 4700.63 FEET MSL
 2 MAY 79 0905 HRS MST
 ASCENSION NO. 17
 UPPER AIR DATA
 1220170017
 AFSWC
 GEODETIC COORDINATES
 33.64686 LAT DEG
 106.58581 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4700.6	849.3	20.2	5.8	39.0	1004.4	666.9	240.0	9.9	1.000265
5000.0	840.3	17.4	3.0	38.1	1004.3	665.1			1.000258
5500.0	825.2	15.6	2.4	40.8	992.2	663.1			1.000254
6000.0	810.4	14.1	2.0	43.8	979.4	661.4			1.000251
6500.0	795.8	12.7	1.6	46.8	966.8	659.7			1.000247
7000.0	781.5	11.2	1.1	49.9	954.4	658.0			1.000244
7500.0	767.5	9.7	.6	52.9	942.2	656.2			1.000240
8000.0	753.6	8.2	-.2	55.9	930.2	654.5			1.000236
8500.0	739.9	6.8	-.2	60.9	918.0	652.8	229.1	15.3	1.000234
9000.0	726.2	5.3	-.3	67.0	905.8	651.1	227.6	15.1	1.000231
9500.0	712.6	3.8	-.5	73.1	893.7	649.4	224.2	16.7	1.000228
10000.0	699.7	2.4	-.9	78.9	881.9	647.7	220.8	19.0	1.000225
10500.0	686.5	1.1	-2.8	75.4	869.7	646.0	217.7	19.7	1.000219
11000.0	673.6	-.2	-4.6	71.9	857.6	644.4	219.3	23.2	1.000213
11500.0	661.0	-1.5	-6.5	68.4	845.7	642.8	225.1	31.8	1.000208
12000.0	648.5	-2.8	-12.4	47.5	834.5	641.0	229.3	39.8	1.000198
13000.0	636.2	-2.6	-18.3	28.6	818.4	641.1	232.6	47.5	1.000190
14000.0	624.1	-2.5	-23.0	18.6	802.9	641.1	234.3	49.8	1.000184
15000.0	612.2	-3.1	-23.8	18.4	789.2	640.4	233.6	47.7	1.000180
16000.0	600.5	-3.8	-24.5	18.1	776.2	639.6	236.9	43.6	1.000177
17000.0	588.8	-5.1	-25.5	18.3	764.9	638.0	238.5	37.7	1.000174
18000.0	577.4	-6.4	-26.4	18.5	753.7	636.4	240.7	38.3	1.000172
19000.0	566.2	-7.7	-27.3	18.9	742.8	634.8	242.0	43.2	1.000169
20000.0	555.2	-9.0	-28.3	19.1	732.0	633.3	243.8	48.6	1.000166
21000.0	544.4	-10.4	-29.3	19.4	721.4	631.7	244.1	54.9	1.000164
22000.0	533.8	-11.7	-30.2	19.6	711.0	630.1	244.4	61.2	1.000161
23000.0	523.5	-13.0	-31.2	19.9	700.7	628.5	244.1	60.1	1.000159
24000.0	513.2	-14.0	-32.3	19.3	689.5	627.3	243.8	59.0	1.000156
25000.0	503.0	-14.8	-33.6	18.3	677.9	626.3	243.5	58.7	1.000153
26000.0	492.8	-15.9	-34.5	18.3	667.2	624.9	243.2	59.2	1.000150
27000.0	482.8	-17.1	-35.3	18.8	656.8	623.4	243.1	60.4	1.000148
28000.0	473.0	-18.4	-36.1	19.3	646.7	621.9	243.4	62.9	1.000146
29000.0	463.4	-19.6	-36.9	19.8	636.7	620.3	243.0	65.9	1.000143
30000.0	454.0	-20.9	-37.7	20.3	626.9	618.8	243.3	70.1	1.000141
31000.0	444.8	-22.2	-38.6	20.8	617.2	617.3	243.1	74.2	1.000139
32000.0	435.7	-23.4	-39.4	21.2	607.7	615.7	243.2	77.7	1.000137
33000.0	426.9	-24.7	-40.3	21.7	598.4	614.2	243.4	81.2	1.000134
34000.0	418.1	-25.7	-41.2	21.7	588.0	612.9	243.7	84.6	1.000132
35000.0	409.4	-26.4	-42.1	20.9	578.0	612.0	244.0	87.3	1.000130
36000.0	400.9	-27.1	-43.1	20.1	567.6	611.1	244.1	89.3	1.000127

AX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 4700.63 FEET MSL
 2 MAY 79 0905 HRS MST
 ASCENSION NO. 17

UPPER AIR DATA
 1220170017
 AFSWC

GEODETTIC COORDINATES
 33.64686 LAT DEG
 106.58581 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
24500.0	392.5	-28.1	-43.9	20.2	557.6	609.9	244.4	90.5	1.000125
25000.0	384.2	-29.0	-44.6	20.4	548.3	608.7	244.6	91.5	1.000123
25500.0	376.1	-30.0	-45.4	20.6	538.9	607.5	245.6	91.3	1.000121
26000.0	368.2	-31.0	-46.1	20.8	529.6	606.3	246.5	91.1	1.000119
26500.0	360.4	-32.0	-46.9	21.0	520.6	605.0	247.6	93.4	1.000117
27000.0	352.7	-33.3	-47.9	21.4	512.3	603.3	248.6	95.6	1.000115
27500.0	345.2	-34.7	-48.9	21.8	504.3	601.6	248.9	97.0	1.000113
28000.0	337.7	-36.0	-50.7	20.3**	496.1	599.9	249.1	98.4	1.000111
28500.0	330.3	-37.3	-53.5	16.5**	487.8	598.3	249.0	97.8	1.000109
29000.0	323.0	-38.5	-56.6	12.7**	479.7	596.7	248.5	96.0	1.000107
29500.0	316.0	-39.8	-60.4	8.9**	471.7	595.1	248.0	94.4	1.000105
30000.0	309.0	-41.0	-65.5	5.1**	463.8	593.5	247.1	93.8	1.000103
30500.0	302.3	-42.3	-75.7	1.3**	456.1	591.9	246.1	93.3	1.000102
31000.0	295.5	-43.4			448.1	590.4	245.3	94.9	1.000100
31500.0	288.8	-44.6			440.1	589.0	244.6	96.9	1.000098
32000.0	282.2	-45.7			432.3	587.5	244.1	99.1	1.000096
32500.0	275.8	-46.8			424.6	586.1	243.7	101.4	1.000095
33000.0	269.6	-48.0			417.1	584.6	243.5	102.6	1.000093
33500.0	263.5	-49.1			409.7	583.1	243.5	103.1	1.000091
34000.0	257.5	-50.2			402.4	581.6	243.6	103.1	1.000090
34500.0	251.6	-51.4			395.3	580.2	243.8	102.8	1.000088
35000.0	245.8	-52.1			387.5	579.2	244.0	101.7	1.000086
35500.0	240.1	-52.7			379.6	578.4	244.2	100.1	1.000085
36000.0	234.6	-52.9			371.0	578.2	244.1	97.1	1.000083
36500.0	229.1	-52.7			362.0	578.5	244.0	93.7	1.000081
37000.0	223.8	-53.0			354.1	578.0	243.7	91.7	1.000079
37500.0	218.5	-53.7			346.6	577.2	243.3	90.1	1.000077
38000.0	213.4	-54.3			339.7	576.3	242.9	89.4	1.000076
38500.0	208.4	-54.9			332.7	575.5	242.6	89.1	1.000074
39000.0	203.5	-55.5			325.8	574.7	242.2	88.0	1.000073
39500.0	198.6	-56.2			319.1	573.9	241.7	86.0	1.000071
40000.0	194.0	-56.7			312.4	573.1	241.1	84.0	1.000070
40500.0	189.4	-57.3			305.6	572.3	240.1	82.4	1.000068
41000.0	184.9	-57.9			299.3	571.5	239.0	80.8	1.000067
41500.0	180.5	-58.5			293.0	570.8	238.2	80.1	1.000065
42000.0	176.3	-58.9			286.6	570.2	237.7	80.2	1.000064
42500.0	172.1	-58.5			279.3	570.7	237.3	80.2	1.000062
43000.0	168.0	-58.1			272.1	571.3	237.6	79.0	1.000061
43500.0	164.0	-57.7			265.1	571.8	237.9	77.8	1.000059
44000.0	160.1	-57.3			258.3	572.4	238.5	74.5	1.000058

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

STATION ALTITUDE 4700.63 FEET MSL
 2 MAY 79 0905 HRS MST
 ASCENSION NO. 17

UPPER AIR DATA
 1220170017
 AFSWC

GEODETIC COORDINATES
 33.64686 LAT DEG
 106.58581 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
44500.0	156.3	-57.6		252.5	572.0	239.4	68.9	1.000056
45000.0	152.6	-57.9		246.9	571.6	240.5	63.3	1.000055
45500.0	148.9	-58.2		241.4	571.2	242.5	57.5	1.000054
46000.0	145.4	-58.5		236.0	570.7	245.2	51.8	1.000053
46500.0	141.9	-58.9		230.7	570.3	248.5	46.2	1.000051
47000.0	138.5	-59.2		225.5	569.8	250.9	44.5	1.000050
47500.0	135.2	-59.6		220.5	569.4	253.4	42.9	1.000049
48000.0	132.0	-59.9		215.6	568.9	256.1	41.5	1.000048
48500.0	128.8	-60.3		210.8	568.4	257.0	41.7	1.000047
49000.0	125.7	-60.8		206.1	567.8	257.9	41.9	1.000046
49500.0	122.6	-61.3		201.6	567.1	258.3	42.2	1.000045
50000.0	119.7	-61.8		197.2	566.4	257.7	42.8	1.000044
50500.0	116.8	-62.3		192.9	565.8	257.1	43.4	1.000043
51000.0	114.0	-62.7		188.7	565.1	256.3	44.7	1.000042
51500.0	111.2	-62.9		184.2	564.9	255.5	46.3	1.000041
52000.0	108.5	-62.2		179.2	565.9	254.6	47.9	1.000040
52500.0	105.9	-61.4		174.2	566.9	255.0	47.8	1.000039
53000.0	103.3	-60.7		169.5	567.9	255.4	47.6	1.000038
53500.0	100.9	-60.0		164.8	568.8	255.9	44.9	1.000037
54000.0	98.5	-58.6		159.9	570.6	256.7	33.4	1.000036
54500.0	96.1	-57.0		155.0	572.7	257.9	31.9	1.000035
55000.0	93.9	-55.4		150.2	574.9	259.1	24.2	1.000033
55500.0	91.7	-53.8		145.6	577.0	261.4	16.1	1.000032
56000.0	89.5	-52.8		141.5	578.2	267.1	8.5	1.000032
56500.0	87.4	-53.3		138.5	577.7	264.3	7.2	1.000031
57000.0	85.4	-53.7		135.6	577.1	260.2	6.0	1.000030
57500.0	83.4	-54.4		132.8	576.1	254.0	5.4	1.000030
58000.0	81.4	-55.6		130.3	574.7	247.3	6.0	1.000029
58500.0	79.5	-56.7		127.9	573.2	241.9	6.6	1.000028
59000.0	77.6	-57.8		125.5	571.7	239.3	4.9	1.000028
59500.0	75.7	-58.9		123.1	570.3	235.0	1.8	1.000027
60000.0	73.9	-60.0		120.8	568.8	72.1	1.3	1.000027
60500.0	72.2	-61.1		118.6	567.3	26.5	2.9	1.000026
61000.0	70.5	-62.2		116.4	565.8	11.1	5.0	1.000026
61500.0	68.8	-62.0		113.5	566.0	3.3	7.0	1.000025
62000.0	67.1	-61.4		110.4	566.9	346.6	7.8	1.000025
62500.0	65.5	-60.8		107.5	567.7	333.6	9.1	1.000024
63000.0	63.9	-60.1		104.6	568.6	324.3	10.6	1.000023
63500.0	62.4	-59.5		101.7	569.4	311.6	9.5	1.000023
64000.0	60.9	-58.7		99.0	570.3	296.6	9.0	1.000022

STATION ALTITUDE 4700.63 FEET MSL
 2 MAY 79 0905 HRS MST
 ASCENSION NO. 17

UPPER AIR DATA
 1220170017
 AFSWC

GEODETIC COORDINATES
 33.64686 LAT DEG
 106.58581 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT DEGREES				DIRECTION DEGREES(TN)	SPEED KNOTS	
64500.0	59.4	-58.3			96.4	571.0	281.0	9.1	1.000021
65000.0	58.0	-58.5			94.2	570.8	265.5	9.4	1.000021
65500.0	56.6	-58.6			92.0	570.6	251.4	10.1	1.000020
66000.0	55.3	-58.8			89.9	570.4	239.8	11.4	1.000020
66500.0	54.0	-59.0			87.8	570.1	230.8	11.0	1.000020
67000.0	52.7	-59.1			85.8	569.9	237.6	9.5	1.000019
67500.0	51.4	-59.3			83.8	569.7	238.8	8.0	1.000019
68000.0	50.2	-59.5			81.9	569.5	244.0	6.3	1.000018
68500.0	49.0	-59.3			79.8	569.7	262.1	4.7	1.000018
69000.0	47.8	-59.1			77.9	570.0	292.6	3.9	1.000017
69500.0	46.7	-58.9			75.9	570.3			1.000017
70000.0	45.6	-58.6			74.1	570.6			1.000016
70500.0	44.5	-58.4			72.2	570.9			1.000016
71000.0	43.5	-58.2			70.4	571.2			1.000016
71500.0	42.4	-58.0			68.7	571.5			1.000015
72000.0	41.4	-57.8			67.0	571.8			1.000015
72500.0	40.4	-57.5			65.3	572.1			1.000015

STATION ALTITUDE 4700.63 FEET MSL
 2 MAY 79 0905 HRS MŞT
 ASCENSION NO. 17

MANDATORY LEVELS
 1220170017
 AFSWC

GEODETIC COORDINATES
 33.64686 LAT DEG
 106.58581 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
800.0	6364.	13.1	1.7	46.	9999.0	9999.0XX
750.0	8128.	7.8	-0.2	57.	230.1	15.5
700.0	9979.	2.4	-0.9	79.	220.9	18.9
650.0	11928.	-2.6	-11.2	52.	228.8	30.8
600.0	14009.	-3.6	-24.6	18.	237.0	43.3
550.0	16237.	-9.7	-28.8	19.	244.0	51.8
500.0	18624.	-15.0	-33.9	18.	243.4	58.9
450.0	21206.	-21.4	-38.1	20.	243.2	72.0
400.0	24018.	-27.2	-43.2	20.	244.2	89.4
350.0	27135.	-33.8	-48.3	22.	248.7	90.1
300.0	30613.	-42.7			245.9	93.6
250.0	34572.	-51.7			243.8	102.7
200.0	39281.	-56.0			241.9	80.6
175.0	42046.	-58.8			237.6	80.2
150.0	45235.	-58.1			241.8	59.5
125.0	48980.	-60.9			258.0	41.9
100.0	53515.	-59.7			256.1	42.9
80.0	58191.	-56.4			243.4	6.4
70.0	60933.	-62.5			9.3	5.4
60.0	64084.	-58.5			287.8	9.0
50.0	67838.	-59.5			245.6	6.1

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

STATION ALTITUDE 4700.63 FEET MSL
 2 MAY 79 0905 HRS MST
 ASCENSION NO. 17

MRN MANDATORY LEVELS
 1220170017
 AFSWC

GEODETIC COORDINATES
 33.64686 LAT DEG
 106.58581 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	DIRECTION DEG (TN)	WIND DATA		E-W MPS	DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
		SPEED MPS	N-S MPS			AIR DEG C		
2068.	246.	3.	1.	3.	99	-59.5	5.000+1	
1953.	288.	5.	-1.	4.	99	-58.5	6.000+1	
1857.	9.	3.	-3.	-0.	99	-62.5	7.000+1	
1774.	243.	3.	1.	1.	99	-56.4	8.000+1	
1631.	256.	22.	5.	21.	99	-59.7	1.000+2	
1493.	258.	22.	4.	21.	99	-60.9	1.250+2	
1379.	242.	31.	14.	27.	99	-58.1	1.500+2	
1282.	238.	41.	22.	35.	99	-58.8	1.750+2	
1197.	242.	45.	21.	39.	99	-56.0	2.000+2	
1054.	244.	53.	23.	47.	99	-51.7	2.500+2	
933.	246.	48.	20.	44.	99	-42.7	3.000+2	
827.	249.	49.	18.	46.	14	-33.8	3.500+2	
732.	244.	46.	20.	41.	16	-27.2	4.000+2	
646.	243.	37.	17.	33.	17	-21.4	4.500+2	
568.	243.	30.	14.	27.	19	-15.0	5.000+2	
495.	244.	27.	12.	24.	19	-9.7	5.500+2	
427.	237.	22.	12.	19.	21	-3.8	6.000+2	
364.	229.	20.	13.	15.	09	-2.6	6.500+2	
304.	221.	10.	7.	8.	03	2.4	7.000+2	
248.	230.	8.	5.	8.	08	7.8	7.500+2	
194.	9999.**	9999.**	-9999.**	-9999.**	11	13.1	8.000+2	

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