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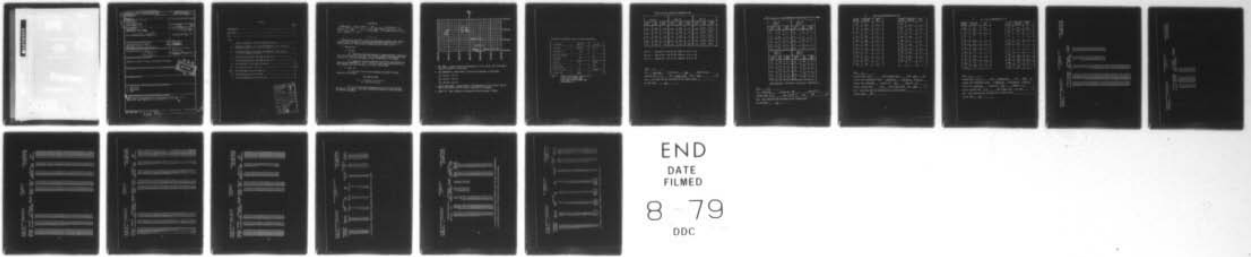
ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
19702 GSRS, MISSILE NUMBER 386, ROUND NUMBER B-5.(U)
MAR 79

UNCLASSIFIED

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<p>1. Ballistics</p> <p>2. Meteorology</p> <p>3. Wind</p>			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)			
<p>Meteorological data gathered for the launching of 19702 GSRS, Missile Number 386, Round Number B-5, are presented in tabular form.</p>			

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CONTENTS

	PAGE
INTRODUCTION -----	1
DISCUSSION -----	1
MAP -----	2
TABLES	
I. SURFACE OBSERVATIONS TAKEN AT 0845 MST AT LC-33 -----	3
II. ANEMOMETER MEASURED WIND SPEED AND DIRECTION, LC-33 FIXED POLE TAKEN AT 0845 MST -----	4
III. ANEMOMETER MEASURED WIND SPEED AND DIRECTION, TOWER LEVELS 1, 2, 3, AND 4 TAKEN AT 0845 MST -----	5
IV. PILOT-BALLOON-MEASURED WIND DATA AT 0830 MST -----	6
V. PILOT-BALLOON-MEASURED WIND DATA AT 0845 MST -----	7
VI. SMR SIGNIFICANT LEVEL DATA AT 0845 MST -----	8-9
VII. SMR UPPER AIR DATA AT 0845 MST -----	10-14
VIII. MRN SIGNIFICANT LEVELS AT 0845 MST -----	15
IX. SMR MANDATORY LEVELS AT 0845 MST -----	16
X. SMR MRN MANDATORY LEVELS AT 0845 MST -----	17

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INTRODUCTION

19702 GSRS, Missile Number(s) 386, Round Number(s) B-5, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0845 MST, 12 March 1979. The scheduled launch time(s) were 0845 and MST.

DISCUSSION

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

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction, wind velocity and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole mounted and tower mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

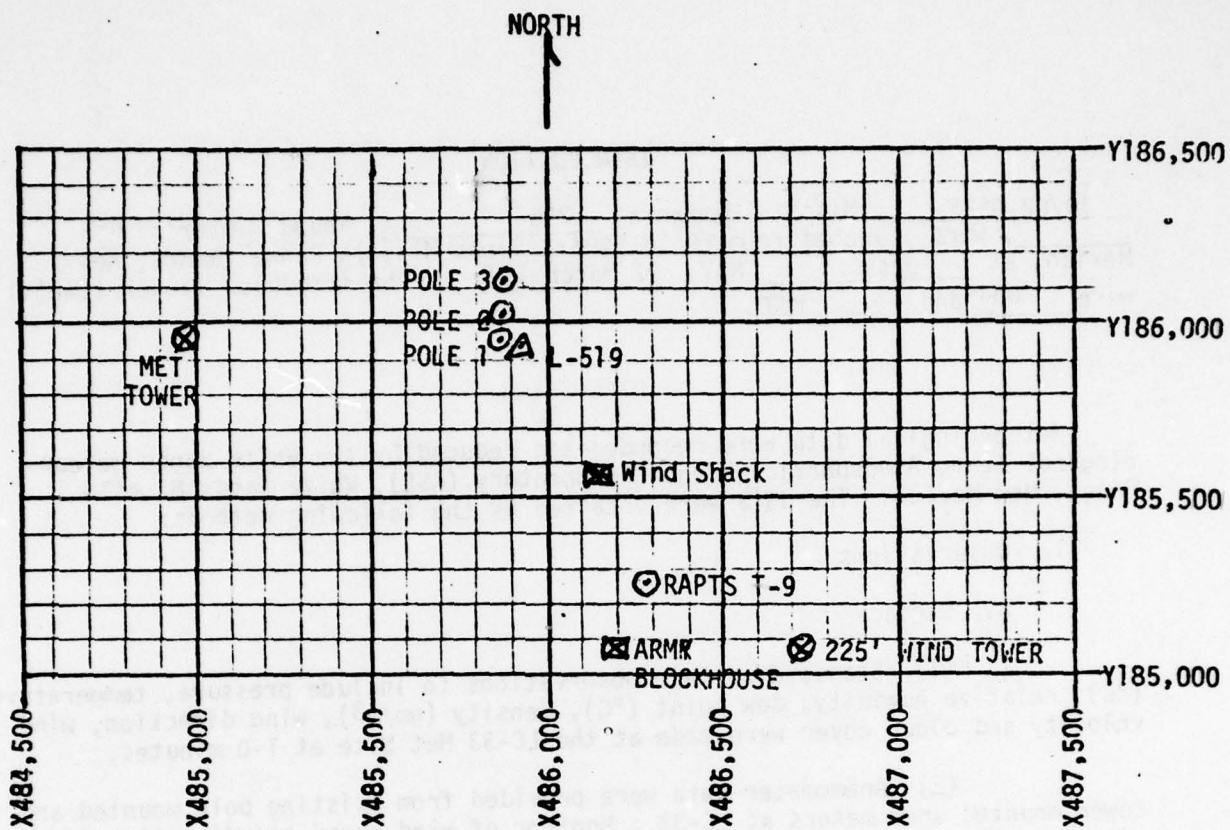
b. Upper Air

(1) Low level wind data were obtained from RPTS T-9 pibal observation as follows:

SITE AND ALTITUDE

LC-33 1 kilometer (50 meter inc)
T-10 mins and T-0 mins

(2) Air structure data (rawinsonde) were collected at the SMR Met Site at T-0 minutes. Data were collected from surface to 125% of apogee in 500-foot increments.



1. MET TOWER - 4 Bendix Model T-120 Anemometers at 12 ft, 62 ft, 102 ft and 202 ft with E/A recorders in Wind Shack.
2. POLE ANEMOMETER - Bendix Model T-120 with E/A recorders in Wind Shack
 - (a) Pole #1 - 38.7 ft
 - (b) Pole #2 - 53.0 ft
 - (c) Pole #3 - 83.6 ft
3. 225 FT WIND TOWER - 5 Bendix Model T-120 Anemometers at 35 ft, 88 ft, 128 ft, 168 ft and 200 ft with 5 X-Y visual indicators in Blockhouse.
4. RAPT T-9 - Radar Automatic Pilot-Balloon Tracking System T-9 Radar

The data are presented in the following tabulations:

ELEVATION	3977.30	FEET/MSL
PRESSURE	884.4	MBS
TEMPERATURE	9.4	°C
RELATIVE HUMIDITY	38	%
DEW POINT	-4.2	°C
DENSITY	1122	GM/M ³
WIND SPEED	10	MPH
WIND DIRECTION	020	DEGREES
CLOUD COVER	Clear	

TABLE I. SURFACE OBSERVATIONS TAKEN AT LC-33
AT 0845 MST/12 MARCH 1979
19702 GSRs, MISSILE NUMBER 386
ROUND NUMBER B-5

LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	360	6.0	-30	004	4.0	-30	013	9.0
-20	003	6.0	-20	360	3.0	-20	015	10.0
-10	012	6.0	-10	009	3.0	-10	021	10.0
0.0	015	7.0	0.0	025	2.0	0.0	019	10.0
+10	014	7.0	+10	Calm	Calm	+10	023	10.0

POLE #1 = X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL

POLE #2 = X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL

POLE #3 = X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL

TABLE II

TYPE 19702 GSRS MISSILE NO. 386 ROUND NO. B-5

LAUNCHED FROM LC-33 DATE 12 March 1979 TIME 0845 LST

NOTE: WIND DIRECTIONS ARE REFERENCED TO THE FIRING AZIMUTH _____

OR TRUE NORTH 360°.

LC33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1 12 ft			LEVEL #2 62 ft		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	025	6.0	-30	002	6.0
-20	006	5.0	-20	008	4.0
-10	021	4.0	-10	003	3.0
0.0	019	4.0	0.0	009	5.0
+10	003	4.0	+10	003	5.0
LEVEL #3 102 ft			LEVEL #4 202 ft		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	005	4.5	-30	004	4.5
-20	028	4.0	-20	005	4.0
-10	008	3.5	-10	017	4.5
0.0	008	0.5	0.0	022	5.5
+10	002	6.0	+10	005	4.5

WTSM COORDINATES: X484,982.64 Y185,957.73 H3983.00(base)

TABLE III

TYPE 19702 GSRS MISSILE NO. 386 ROUND NO. B-5
 LAUNCHED FROM LC-33 DATE 12 March 79 TIME 0845 MST

NOTE: WIND DIRECTIONS ARE REFERENCED TO THE FIRING AZIMUTH
 OR TRUE NORTH 360°

PILOT BALLON MEASURED WIND DATA

HEIGHT METERS	DIRECTION DEGREES	SPEED MPH
SUR	020	8.0
50	010	9.4
100	007	9.3
150	009	8.0
200	009	5.5
250	005	4.0
300	354	3.4
350	337	3.4
400	313	3.5
450	295	4.1
500	285	4.8

HEIGHT METERS	DIRECTION DEGREES	SPEED MPH
550	279	5.3
600	275	6.2
650	271	7.1
700	268	8.1
750	271	9.7
800	270	9.6
850	274	8.3
900	284	7.0
950	297	7.2
1000	291	7.7

TABLE IV

RELEASED FROM LC-33 DATE 12 March 1979 TIME 0835 LST
 RELEASE POINT COORDINATES (WSTM) X=486,037.24 Y=182,350.16 H=3997.30
 MISSILE TYPE 19702 GSRS MISSILE NO. 386 ROUND NO. B-5
 MISSILE LAUNCHED FROM LC-33 DATE 12 March 1979 TIME 0855 LST
 NOTE: WIND DIRECTIONS ARE REFERENCED TO THE FIRING AZIMUTH _____
 OR TRUE NORTH 360°.

PILOT BALLON MEASURED WIND DATA

HEIGHT METERS	DIRECTION DEGREES	SPEED MPH
SUR	030	10.0
50	004	8.8
100	357	8.1
150	004	7.0
200	010	8.2
250	016	7.8
300	024	6.0
350	029	2.9
400	019	2.2
450	353	2.4
500	329	3.4

HEIGHT METERS	DIRECTION DEGREES	SPEED MPH
550	303	4.9
600	292	5.7
650	284	6.3
700	280	7.0
750	278	7.6
800	284	7.0
850	294	6.6
900	301	7.1
950	295	8.6
1000	290	9.0
1050	284	9.8

TABLE V

RELEASED FROM LC-33 DATE 12 March 1979 TIME 0845 LST

RELEASE POINT COORDINATES (WSTM) X= 486,037.24 Y= 182,350.16 H= 3977.30

MISSILE TYPE 19702 GSRS MISSILE NO. 386 ROUND NO. B-5

MISSILE LAUNCHED FROM LC-33 DATE 12 March 1979 TIME 0845 LST

NOTE: WIND DIRECTIONS ARE REFERENCED TO THE FIRING AZIMUTH

OR TRUE NORTH 360°

GEOEETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

SIGNIFICANT LEVEL DATA
 0710060043
 S M R

STATION ALTITUDE 3997.30 FEET MSL
 12 MAP. 79
 ASCENSION NO. 43 0845 HRS MST

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	
881.8	3997.3	8.1	-4.0	42.0
869.0	4392.4	6.5	-7.1	37.0
850.0	4990.0	8.3	-5.5	37.0
829.0	5668.9	8.4	-4	54.0
790.0	6969.5	5.0	-3.3	55.0
780.4	7297.1	4.6	-10.6	32.0
771.0	7621.3	4.6	-11.5	30.0
752.0	8286.2	2.3	-14.3	28.0
742.8	8612.9	2.6	-14.0	28.0
700.0	10179.1	-9	-21.0	20.0
669.0	11361.5	-3.3	-20.5	25.0
651.2	12062.3	-3.3	-24.2	18.0
633.8	12767.3	-2.5	-23.5	18.0
548.2	16494.7	-10.4	-28.4	21.0
532.2	17242.5	-11.8	-30.7	19.0
516.2	18010.5	-12.2	-31.6	18.0
500.0	18308.6	-14.5	-33.0	19.0
433.4	22313.4	-22.9	-39.6	20.0
419.4	23100.9	-25.7	-40.6	23.0
412.4	23502.2	-25.7	-40.2	24.0
400.0	24228.3	-27.1	-41.1	25.0
352.0	27232.0	-31.7	-44.7	26.0
321.0	29359.9	-35.8	-49.0	24.0
300.0	30898.6	-38.8		
280.0	32452.2	-40.5		
269.0	33350.2	-41.2		
258.2	34267.6	-40.9		
250.0	34990.2	-41.2		
227.6	37075.9	-44.5		
217.8	38045.0	-45.4		
200.0	39902.1	-49.5		
193.8	40581.4	-49.8		
180.6	42092.1	-52.8		
164.2	44106.3	-55.2		
150.0	45995.4	-58.5		
134.4	48243.4	-63.9		
111.2	52018.2	-70.0		
108.0	52593.4	-68.6		
100.0	54110.6	-69.7		
77.6	59038.2	-74.6		

STATION ALTITUDE 3997.30 FEET MSL
 12 MAR. 79 0845 HRS MST
 ASCENSION NO. 43

SIGNIFICANT LEVEL DATA
 0710060043
 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
74.0 59965.4	-68.0		
70.0 61066.3	-68.6		
60.6 63928.3	-67.3		
58.2 64736.7	-65.4		
50.0 67793.1	-64.9		
42.6 71037.0	-62.9		
30.0 78223.8	-60.1		
27.2 80249.5	-59.4		
20.0 86708.8	-53.4		
17.0 90169.4	-53.7		
14.8 93169.7	-46.2		
12.4 97080.3	-44.5		

STATION ALTITUDE 3997.30 FEET MSL
 12 MAR. 79 0845 HRS MST
 ASCENSION NO. 43

UPPER AIR DATA
 0710060043
 S M R

GEOMETRIC ALTITUDE 3997.30 FEET MSL
 12 MAR. 79 0845 HRS MST
 ASCENSION NO. 43

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 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	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3997.3	881.8	8.1	-4.0	42.0	1090.1	654.0	15.0	1.9	1.000265
4000.0	881.7	8.1	-4.0	42.0	1090.0	654.0			1.000265
4500.0	865.5	6.8	-6.8	37.0	1075.3	652.4			1.000257
5000.0	849.7	8.3	-5.4	37.3	1049.8	654.2			1.000253
5500.0	834.2	8.4	-1.5	49.8	1029.7	654.5			1.000256
6000.0	818.9	7.5	-1.1	54.3	1013.7	653.5			1.000253
6500.0	803.9	6.2	-2.2	54.6	999.9	652.0			1.000248
7000.0	789.1	5.0	-3.8	52.9	986.3	650.4			1.000242
7500.0	774.5	4.6	-11.1	30.7	970.2	649.7			1.000229
8000.0	760.1	3.3	-13.1	28.9	956.8	648.1			1.000224
8500.0	746.0	2.5	-14.1	28.0	941.8	647.1			1.000220
9000.0	732.0	1.7	-15.7	26.0	926.8	646.2			1.000215
9500.0	718.2	.6	-17.6	23.5	913.2	644.8	292.4	12.5	1.000211
10000.0	704.8	-5	-20.1	20.9	899.9	643.5	288.3	12.8	1.000207
10500.0	691.4	-1.6	-20.8	21.4	886.3	642.2	280.6	14.4	1.000203
11000.0	678.3	-2.6	-20.6	23.5	872.7	641.0	273.1	16.9	1.000201
11500.0	665.4	-3.3	-21.1	23.6	858.5	640.2	267.2	19.8	1.000197
12000.0	652.8	-3.3	-23.8	18.6	842.3	640.1	262.3	23.6	1.000192
12500.0	640.3	-2.8	-23.8	18.0	824.7	640.7	259.3	27.3	1.000188
13000.0	628.1	-3.0	-23.8	18.2	809.5	640.5	259.6	29.2	1.000185
13500.0	616.0	-4.1	-24.4	18.6	797.0	639.2	260.4	29.5	1.000182
14000.0	604.1	-5.1	-25.1	19.0	784.8	638.0	262.0	27.3	1.000179
14500.0	592.5	-6.2	-25.7	19.4	772.7	636.7	262.6	26.5	1.000176
15000.0	581.0	-7.2	-26.4	19.8	760.8	635.4	262.7	26.2	1.000173
15500.0	569.8	-8.3	-27.1	20.2	749.2	634.2	262.8	27.6	1.000170
16000.0	558.9	-9.4	-27.8	20.6	737.7	632.9	264.2	28.9	1.000168
16500.0	548.1	-10.4	-28.5	21.0	726.4	631.6	268.5	30.4	1.000165
17000.0	537.3	-11.3	-29.9	19.6	714.7	630.5	272.2	32.7	1.000162
17500.0	526.8	-11.9	-31.0	18.7	702.3	629.7	275.0	36.0	1.000159
18000.0	516.4	-12.2	-31.6	18.0	689.2	629.4	277.6	37.8	1.000156
18500.0	506.2	-13.6	-32.4	18.6	679.2	627.7	277.6	38.9	1.000154
19000.0	496.1	-15.0	-33.3	19.1	669.2	626.1	278.1	39.1	1.000151
19500.0	486.1	-16.2	-34.2	19.2	658.8	624.6	278.4	39.2	1.000149
20000.0	476.3	-17.4	-35.2	19.3	648.5	623.1	275.0	40.5	1.000146
20500.0	466.7	-18.6	-36.1	19.5	638.4	621.7	271.6	42.1	1.000144
21000.0	457.2	-19.8	-37.1	19.6	628.5	620.2	269.0	44.4	1.000141
21500.0	448.0	-21.0	-38.0	19.8	618.7	618.7	265.1	46.3	1.000139
22000.0	439.0	-22.1	-39.0	19.9	609.1	617.3	263.2	47.1	1.000137
22500.0	430.0	-23.6	-39.8	20.7	600.1	615.5	262.9	48.4	1.000135
23000.0	421.2	-25.3	-40.5	22.6	592.0	613.3	264.1	50.4	1.000133

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

UPPER AIR DATA
 0710060043
 S M R

STATION ALTITUDE 3997.30 FEET MSL
 12 MAR. 79 0845 HRS MST
 ASCENSION NO. 43

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 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	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	412.4	-25.7	-40.2	24.0	580.5	612.9	265.8	53.6	1.000130
24000.0	403.9	-26.7	-40.8	24.7	570.7	611.7	267.6	57.6	1.000128
24500.0	395.4	-27.5	-41.4	25.1	560.7	610.6	268.5	61.7	1.000126
25000.0	387.1	-28.3	-42.0	25.3	550.6	609.7	269.1	66.0	1.000124
25500.0	378.9	-29.0	-42.6	25.4	540.7	608.7	268.9	70.8	1.000121
26000.0	370.9	-29.8	-43.2	25.6	531.0	607.8	268.6	75.8	1.000119
26500.0	363.1	-30.6	-43.8	25.8	521.4	606.8	267.5	81.1	1.000117
27000.0	355.5	-31.3	-44.4	25.9	512.1	605.8	266.3	86.4	1.000115
27500.0	347.9	-32.2	-45.3	25.7	503.0	604.7	265.4	90.8	1.000113
28000.0	340.5	-33.2	-46.3	25.3	494.2	603.5	264.7	95.1	1.000111
28500.0	333.2	-34.1	-47.3	24.8	485.6	602.3	264.2	95.4	1.000109
29000.0	326.0	-35.1	-48.3	24.3	477.1	601.1	263.8	95.1	1.000107
29500.0	319.0	-36.1	-50.1	21.8**	468.8	599.9	263.2	95.4	1.000105
30000.0	312.1	-37.0	-54.6	14.0**	460.5	598.6	262.6	95.8	1.000103
30500.0	305.3	-38.0	-61.7	6.2**	452.3	597.4	261.7	93.8	1.000101
31000.0	298.7	-38.9			444.2	596.2	260.9	102.0	1.000099
31500.0	292.1	-39.5			435.4	595.5	259.9	101.6	1.000097
32000.0	285.7	-40.0			426.9	594.9	258.9	105.1	1.000095
32500.0	279.4	-40.5			418.4	594.2	258.7	106.9	1.000093
33000.0	273.2	-40.9			409.9	593.7	258.5	108.8	1.000091
33500.0	267.2	-41.2			401.2	593.4	258.8	111.3	1.000089
34000.0	261.3	-41.0			392.1	593.6	259.0	113.9	1.000087
34500.0	255.5	-41.0			383.4	593.6	258.8	113.3	1.000085
35000.0	249.9	-41.2			375.3	593.3	258.5	112.1	1.000084
35500.0	244.3	-42.0			368.2	592.3	257.9	107.6	1.000082
36000.0	238.9	-42.8			361.3	591.3	257.2	101.9	1.000080
36500.0	233.6	-43.6			354.5	590.3	255.9	95.9	1.000079
37000.0	228.4	-44.4			347.8	589.2	254.2	92.4	1.000077
37500.0	223.3	-44.9			340.7	588.6	252.5	91.3	1.000076
38000.0	218.2	-45.4			333.8	588.0	250.9	92.8	1.000074
38500.0	213.3	-46.4			327.7	588.6	249.9	94.1	1.000073
39000.0	208.5	-47.5			321.8	588.2	249.7	94.9	1.000072
39500.0	203.7	-48.6			316.1	583.8	250.0	96.0	1.000070
40000.0	199.1	-49.5			310.2	584.6	251.4	97.7	1.000069
40500.0	194.5	-49.8			303.4	582.1	252.8	99.6	1.000068
41000.0	190.0	-50.5			297.5	581.1	253.9	102.3	1.000066
41500.0	185.7	-51.5			292.0	579.8	255.1	105.0	1.000065
42000.0	181.4	-52.6			286.5	578.5	255.2	103.1	1.000064
42500.0	177.2	-53.3			280.7	577.7	255.0	98.8	1.000063
43000.0	173.0	-53.9			274.9	576.9	254.7	94.0	1.000061

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

STATION ALTITUDE 3997.30 FEET MSL
 12 MAR. 79 0845 HRS MST
 ASCENSION NO. 43

UPPER AIR DATA
 0710060043
 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 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)	WIND SPEED KNOTS	INDEX OF REFRACTION
43500.0	169.0	-54.5			269.2	576.1	254.3	88.1	1.000060
44000.0	165.0	-55.1			263.6	575.3	253.9	82.5	1.000059
44500.0	161.1	-55.9			258.4	574.2	254.2	82.5	1.000058
45000.0	157.3	-56.8			253.3	573.1	254.6	82.6	1.000056
45500.0	153.6	-57.6			248.3	571.9	254.9	83.2	1.000055
46000.0	150.0	-58.5			243.4	570.8	255.2	83.8	1.000054
46500.0	146.3	-59.7			238.9	569.2	255.4	78.9	1.000053
47000.0	142.8	-60.9			234.4	567.6	255.7	71.3	1.000052
47500.0	139.4	-62.1			230.1	565.9	256.1	62.9	1.000051
48000.0	136.0	-63.3			225.8	564.3	256.7	53.5	1.000050
48500.0	132.7	-64.3			221.3	563.0	257.4	46.5	1.000049
49000.0	129.4	-65.1			216.7	561.9	257.4	45.5	1.000048
49500.0	126.2	-65.9			212.1	560.8	257.2	44.7	1.000047
50000.0	123.1	-66.7			207.7	559.7	254.7	46.8	1.000046
50500.0	120.0	-67.5			203.3	558.6	252.3	49.0	1.000045
51000.0	117.0	-68.4			199.1	557.5	250.5	50.8	1.000044
51500.0	114.1	-69.2			194.9	556.4	248.8	52.5	1.000043
52000.0	111.3	-70.0			190.8	555.3	248.9	54.3	1.000042
52500.0	108.5	-68.8			185.0	556.9	250.6	55.9	1.000041
53000.0	105.8	-68.9			180.4	556.8	252.5	57.5	1.000040
53500.0	103.1	-69.3			176.2	556.3	256.1	58.1	1.000039
54000.0	100.6	-69.6			172.1	555.8	259.7	58.9	1.000038
54500.0	98.0	-70.1			168.2	555.2	263.1	56.9	1.000037
55000.0	95.5	-70.6			164.3	554.5	266.7	53.7	1.000037
55500.0	93.1	-71.1			160.5	553.8	270.0	49.9	1.000036
56000.0	90.7	-71.6			156.8	553.1	272.6	45.1	1.000035
56500.0	88.4	-72.1			153.2	552.4	275.6	40.5	1.000034
57000.0	86.2	-72.6			149.7	551.7	275.8	39.0	1.000033
57500.0	84.0	-73.1			146.2	551.1	276.0	37.5	1.000033
58000.0	81.9	-73.6			142.9	550.4	275.7	36.0	1.000032
58500.0	79.8	-74.1			139.6	549.7	275.0	34.7	1.000031
59000.0	77.8	-74.6			136.4	549.0	274.3	33.2	1.000030
59500.0	75.8	-71.3			130.8	553.5	274.5	30.2	1.000029
60000.0	73.9	-68.0			125.5	558.0	274.7	27.2	1.000028
60500.0	72.0	-68.3			122.5	557.6	273.6	24.6	1.000027
61000.0	70.2	-68.6			119.6	557.2	271.4	22.2	1.000027
61500.0	68.5	-68.4			116.5	557.4	267.6	20.6	1.000026
62000.0	66.8	-68.2			113.5	557.8	260.9	21.1	1.000025
62500.0	65.1	-67.9			110.6	558.1	254.7	21.9	1.000025
63000.0	63.5	-67.7			107.7	558.4	253.4	23.4	1.000024

STATION ALTITUDE 3997.30 FEET MSL
 12 MAR. 79 0845 HRS MST
 ASCENSION NO. 43

UPPER AIR DATA
 0710060043
 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 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		INDEX OF REFRACTION
							DIRECTION (TN) DEGREES	SPEED KNOTS	
6350.0	61.9	-67.5			104.9	558.7	253.0		1.000023
6400.0	60.4	-67.1			102.1	559.2	254.5		1.000023
6450.0	58.9	-66.0			99.0	560.8	258.3		1.000022
6500.0	57.4	-65.4			96.3	561.6	262.1		1.000021
6550.0	56.0	-65.3			93.9	561.7	264.3		1.000021
6600.0	54.7	-65.2			91.6	561.8	266.5		1.000020
6650.0	53.3	-65.1			89.3	561.9	268.0		1.000020
6700.0	52.0	-65.0			87.1	562.0	268.5		1.000019
6750.0	50.7	-64.9			84.9	562.1	269.2		1.000019
6800.0	49.5	-64.8			82.7	562.4	273.5		1.000018
6850.0	48.3	-64.5			80.6	562.8	280.6		1.000018
6900.0	47.1	-64.2			78.5	563.2	293.4		1.000017
6950.0	46.0	-63.8			76.5	563.6	313.8		1.000017
7000.0	44.8	-63.5			74.5	564.0	338.5		1.000017
7050.0	43.7	-63.2			72.6	564.4	338.8		1.000016
7100.0	42.7	-62.9			70.7	564.9	335.2		1.000015
7150.0	41.6	-62.7			68.9	565.1	327.8		1.000015
7200.0	40.6	-62.5			67.2	565.4	311.4		1.000015
7250.0	39.7	-62.3			65.5	565.7	298.1		1.000015
7300.0	38.7	-62.1			63.9	565.9	289.1		1.000014
7350.0	37.8	-61.9			62.3	566.2	282.4		1.000014
7400.0	36.9	-61.7			60.7	566.4	276.9		1.000014
7450.0	36.0	-61.6			59.2	566.7	275.7		1.000013
7500.0	35.1	-61.4			57.8	567.0	275.5		1.000013
7550.0	34.3	-61.2			56.3	567.2	275.2		1.000013
7600.0	33.4	-61.0			54.9	567.5	278.4		1.000012
7650.0	32.6	-60.8			53.5	567.7	284.4		1.000012
7700.0	31.8	-60.6			52.2	568.0	295.7		1.000012
7750.0	31.1	-60.4			50.9	568.3	301.9		1.000011
7800.0	30.3	-60.2			49.6	568.5	310.3		1.000011
7850.0	29.6	-60.0			48.4	568.8	312.6		1.000011
7900.0	28.9	-59.8			47.2	569.0	290.8		1.000011
7950.0	28.2	-59.7			46.0	569.2	285.9		1.000010
8000.0	27.5	-59.5			44.9	569.5	278.2		1.000010
8050.0	26.9	-59.2			43.8	569.9	272.2		1.000010
8100.0	26.2	-58.7			42.6	570.5	267.9		1.000009
8150.0	25.6	-58.2			41.5	571.1	265.9		1.000009
8200.0	25.0	-57.8			40.5	571.7	260.2		1.000009
8250.0	24.4	-57.3			39.4	572.4	260.4		1.000009
8300.0	23.9	-56.8			38.4	573.0	260.0		1.000009

STATION ALTITUDE 3997.30 FEET MSL
 12 MAR. 79 0845 HRS MST
 ASCENSION NO. 43

UPPER AIR DATA
 0710060043
 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 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(TN)	SPEED KNOTS	
83500.0	23.3	-56.4		37.4	573.6	271.1	17.0	1.000008	
84000.0	22.8	-55.9		36.5	574.2	273.7	18.6	1.000008	
84500.0	22.2	-55.5		35.6	574.8	276.2	19.5	1.000008	
85000.0	21.7	-55.0		34.6	575.4	279.2	19.4	1.000008	
85500.0	21.2	-54.5		33.8	576.0	282.1	19.3	1.000008	
86000.0	20.7	-54.1		32.9	576.6	284.6	18.1	1.000007	
86500.0	20.2	-53.6		32.1	577.3	285.9	15.5	1.000007	
87000.0	19.7	-53.4		31.3	577.5	290.0	13.0	1.000007	
87500.0	19.3	-53.5		30.6	577.4	293.6	10.5	1.000007	
88000.0	18.8	-53.5		29.9	577.4	297.6	7.9	1.000007	
88500.0	18.4	-53.6		29.2	577.3	305.2	5.5	1.000006	
89000.0	18.0	-53.6		28.5	577.2	314.1	3.8	1.000006	
89500.0	17.5	-53.6		27.8	577.2	314.3	3.1	1.000006	
90000.0	17.1	-53.7		27.2	577.1	314.6	2.3	1.000006	
90500.0	16.7	-52.9		26.5	578.2	307.9	1.8	1.000006	
91000.0	16.4	-51.6		25.7	579.8	284.1	1.7	1.000006	
91500.0	16.0	-50.4		25.0	581.5	261.6	1.9	1.000005	
92000.0	15.6	-49.1		24.3	583.1	247.0	2.7	1.000005	
92500.0	15.3	-47.9		23.6	584.7	244.3	5.1	1.000005	
93000.0	14.9	-46.6		22.9	586.3	243.3	7.5	1.000005	
93500.0	14.6	-46.1		22.4	587.1	243.4	10.1	1.000005	
94000.0	14.3	-45.8		21.8	587.4	246.5	14.2	1.000005	
94500.0	13.9	-45.6		21.3	587.6	248.2	18.3	1.000005	
95000.0	13.6	-45.4		20.8	587.9	249.3	22.4	1.000005	
95500.0	13.3	-45.2		20.4	588.2			1.000005	
96000.0	13.0	-45.0		19.9	588.5			1.000004	
96500.0	12.7	-44.8		19.4	588.8			1.000004	
97000.0	12.4	-44.5		19.0	589.0			1.000004	

STATION ALTITUDE 3997.30 FEET MSL
 12 MAR. 79 0845 HRS MST
 ASCENSION NO. 43

MRN SIGNIFICANT LEVEL DATA
 0710060043
 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 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		
2944.	9999.**	9999.**	9999.**	-9999.**	-9999.**	99	-44.5	1.240+1	
2826.	243.	4.	2.	4.	4.	99	-46.2	1.480+1	
2735.	315.	1.	-1.	1.	1.	99	-53.7	1.700+1	
2631.	288.	7.	-2.	7.	7.	99	-53.4	2.000+1	
2435.	275.	4.	-0.	4.	4.	99	-59.4	2.720+1	
2374.	315.	2.	-1.	1.	1.	99	-60.1	3.000+1	
2157.	335.	5.	-4.	2.	2.	99	-62.9	4.260+1	
2059.	271.	9.	-0.	9.	9.	99	-64.9	5.000+1	
1966.	260.	14.	2.	13.	13.	99	-65.4	5.820+1	
1942.	254.	13.	4.	13.	13.	99	-67.3	5.060+1	
1855.	271.	11.	-0.	11.	11.	99	-63.6	7.000+1	
1822.	275.	14.	-1.	14.	14.	99	-63.0	7.400+1	
1794.	274.	17.	-1.	17.	17.	99	-74.6	7.760+1	
1644.	261.	30.	5.	30.	30.	99	-63.7	1.000+2	

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

STATION ALTITUDE 3997.30 FEET MSL
 12 MAR. 79 0845 HRS MST
 ASCENSION NO. 43

MANDATORY LEVELS
 0710060043
 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE	REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEWPOINT DEGREES CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4986.	8.3	37.	9999.0	9999.0XX
800.0	6626.	5.9	55.	9999.0	9999.0XX
750.0	8349.	2.4	28.	9999.0	9999.0XX
700.0	10169.	-9	20.	285.4	13.3
650.0	12097.	-3.2	18.	261.5	24.4
600.0	14171.	-25.3	19.	262.5	26.7
550.0	16391.	-10.2	21.	267.7	30.1
500.0	18782.	-14.5	19.	277.9	39.1
450.0	21371.	-20.7	20.	265.5	46.2
400.0	24186.	-27.1	25.	268.2	59.3
350.0	27315.	-32.0	26.	265.6	89.6
300.0	30838.	-38.8		261.1	101.3
250.0	34914.	-41.2		258.5	112.1
200.0	39806.	-49.5		251.1	97.3
175.0	42652.	-53.6		254.8	96.7
150.0	45872.	-58.5		255.1	83.8
125.0	49558.	-66.2		256.3	45.4
100.0	53944.	-69.7		260.3	59.1
80.0	58261.	-74.0		275.1	34.9
70.0	60858.	-68.6		271.2	22.1
60.0	63899.	-66.8		255.2	26.0
50.0	67540.	-64.9		271.1	18.5
40.0	72035.	-62.4		303.4	11.6
30.0	77893.	-60.1		314.1	3.8
25.0	81642.	-57.8		266.2	11.8
20.0	86307.	-53.4		287.8	14.7
15.0	92417.	-46.9		243.6	6.7

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

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

STATION ALTITUDE 3997.30 FEET MSL
 12 MAR. 79 0845 HRS MST
 ASCENSION NO. 43

MRN MANDATORY LEVELS
 071006043
 S M R

GEODEIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	DIRECTION DEG (TN)	WIND DATA SPEED MPS	N-S MPS	E-W MPS	DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
						AIR DEG C		
2817.	244.	3.	2.	3.	99	-46.9		1.500+1
2631.	288.	8.	-2.	7.	99	-53.4		2.000+1
2488.	266.	6.	0.	6.	99	-57.8		2.500+1
2374.	314.	2.	-1.	1.	99	-60.1		3.000+1
2196.	303.	6.	-3.	5.	99	-62.4		4.000+1
2059.	271.	10.	-0.	10.	99	-64.9		5.000+1
1948.	255.	13.	3.	13.	99	-66.8		6.000+1
1855.	271.	11.	-0.	11.	99	-68.6		7.000+1
1776.	275.	18.	-2.	18.	99	-74.0		8.000+1
1644.	260.	30.	3.	30.	99	-69.7		1.000+2
1511.	256.	33.	6.	23.	99	-66.2		1.250+2
1398.	255.	43.	11.	42.	99	-56.5		1.500+2
1300.	255.	50.	13.	48.	99	-53.6		1.750+2
1213.	251.	50.	16.	47.	99	-49.5		2.000+2
1064.	259.	58.	11.	57.	99	-41.2		2.500+2
940.	261.	52.	8.	51.	99	-38.8		3.000+2
833.	266.	46.	4.	46.	13	-32.0		3.500+2
737.	268.	31.	1.	31.	14	-27.1		4.000+2
651.	266.	24.	2.	24.	17	-20.7		4.500+2
572.	278.	20.	-3.	20.	18	-14.5		5.000+2
500.	268.	15.	1.	15.	18	-10.2		5.500+2
432.	262.	14.	2.	14.	20	-5.5		6.000+2
369.	261.	13.	2.	12.	21	-3.2		6.500+2
310.	285.	7.	-2.	7.	20	-7.9		7.000+2
254.	9999.**	9999.**	-9999.**	-9999.**	17	2.4		7.500+2
202.	9999.**	9999.**	-9999.**	-9999.**	08	5.9		8.000+2
152.	9999.**	9999.**	-9999.**	-9999.**	14	6.3		8.500+2

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