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19702A 05RS MISSILE NUMBER BR-2, ROUND NUMBER B-36, 4 SEPTEMBER--ETC(U)
SEP 79

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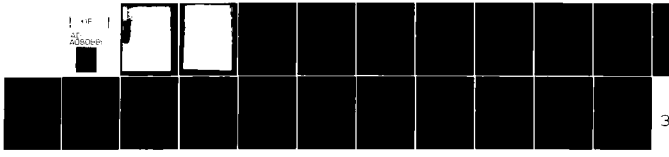

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Meteorological data gathered for the lauching of 19702A GSRS, Missile No. Number BR-2, Round Number B-36, are presented in tabular form.

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CONTENTS

INTRODUCTION

19702A GSRS , Missile Number BR-2 , Round Number B-36 , was launched from LC-33 , White Sands Missile Range (WSMR), New Mexico, at 1100 MDT, 4 September 1979 . The scheduled launch time was 1100 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 (°C), relative humidity, dew point (°C), density (gm/m^3), wind direction and speed, 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.

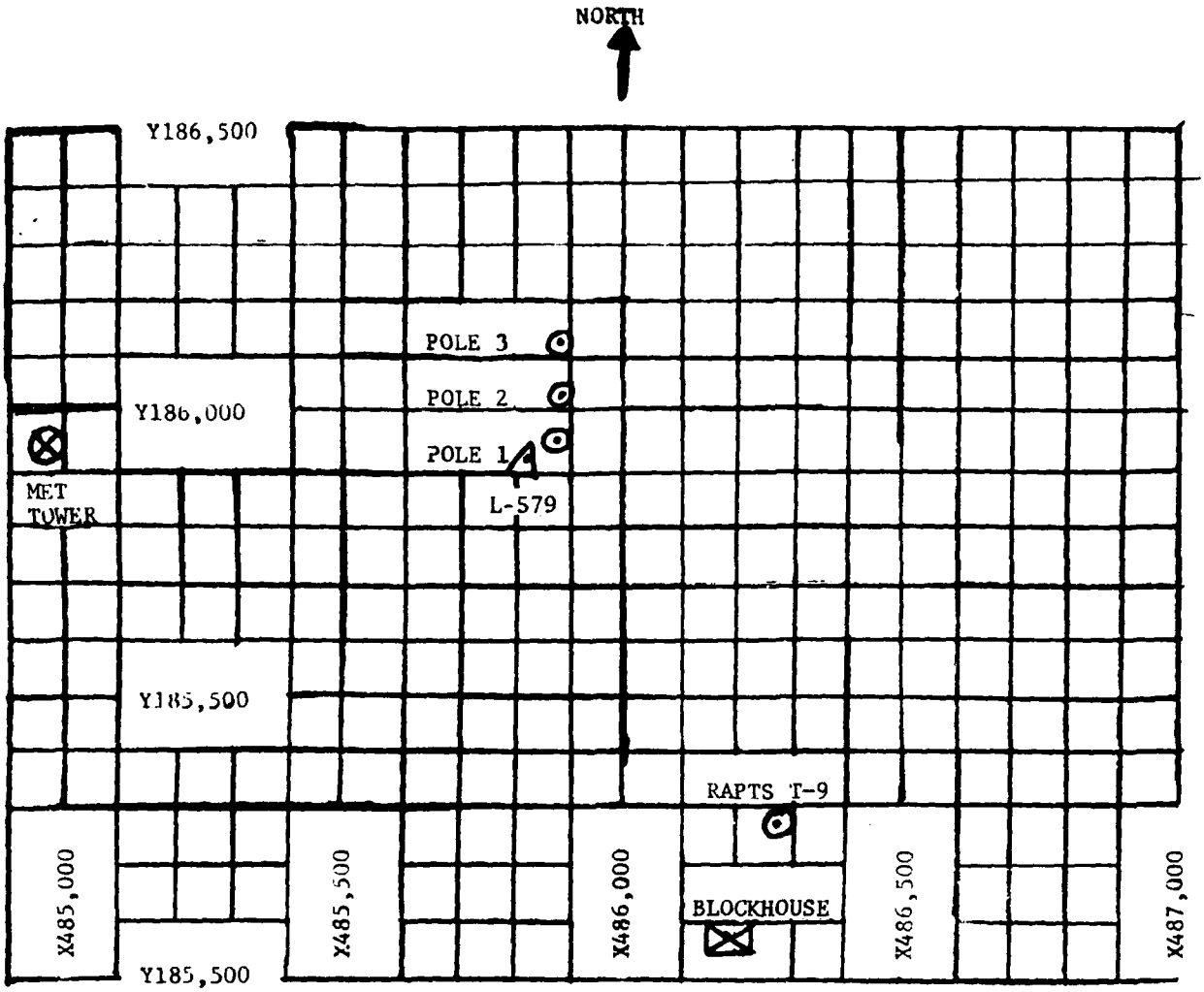
b. Upper Air

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

SITE AND ALTITUDE	
LC-33	2040 Meters
NICK	2160 Meters

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 99,000 feet in 500-feet increments.

SITE AND TIME
SMR 1015 MST



1. MET TOWER - 4 Bendix Model T-20 Anemometers at 12 ft, 62 ft, 102 ft, and 202 ft with E/A recorders.

2. POLE ANEMOMETER - Bendix Model T-120 with E/A recorders.

   (a) Pole #1 - 38.7 ft

   (b) Pole #2 - 53.0 ft

   (c) Pole #3 - 83.6 ft

3. RAPTS T-9 Radar Automatic Pilot-Balloon Tracking System T-9 Radar.

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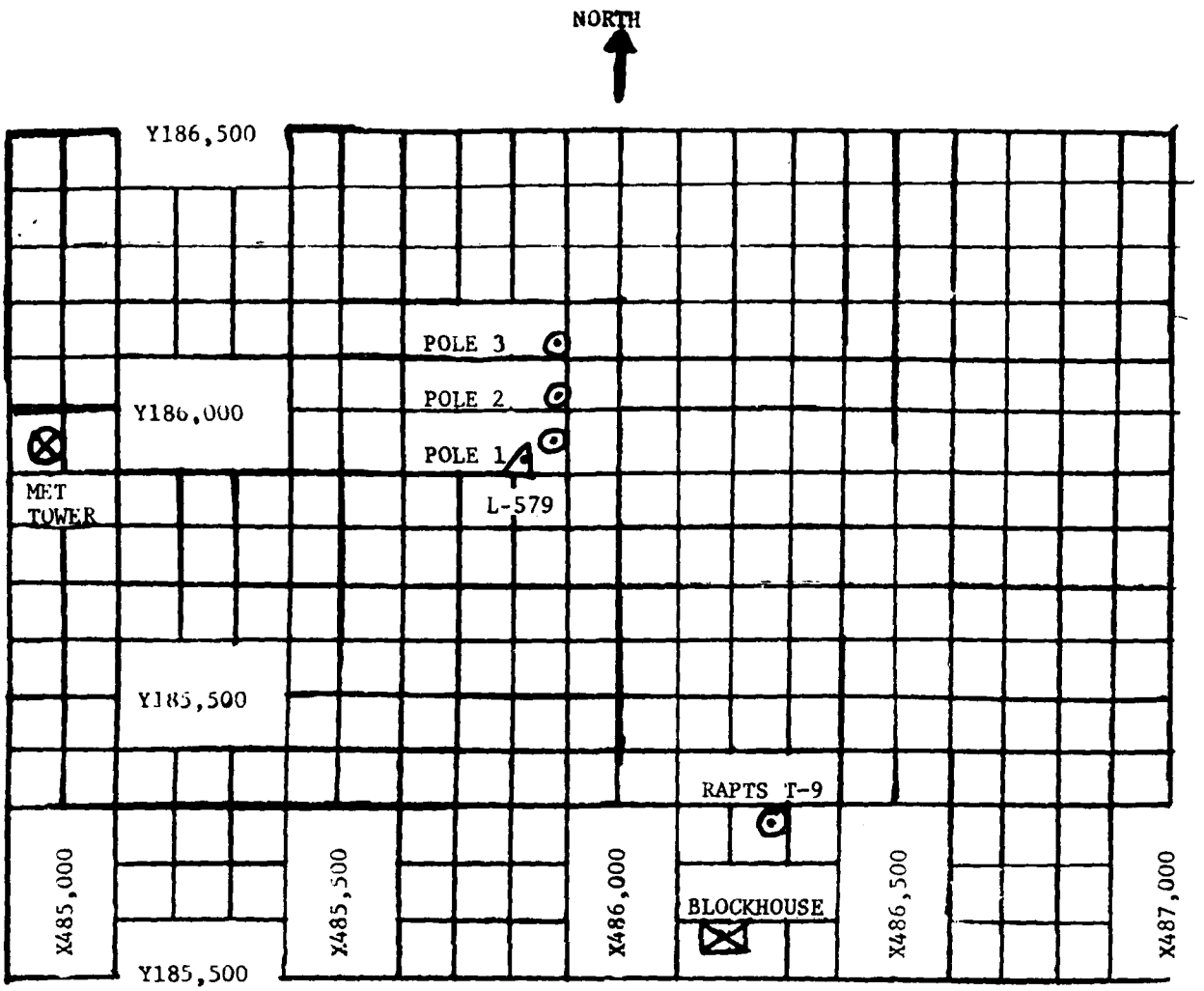

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TABLE 1. Surface Observations taken at 1100 MDT. 4 September 1979, at LC-33, 19702A GSRS, Missile Number BR-2, Round Number B-36.

ELEVATION	3977.30	FT/MSL
PRESSURE	878.4	MBS
TEMPERATURE	27.2	°C
RELATIVE HUMIDITY	47	%
DEW POINT	14.9	°C
DENSITY	1010	GM/M^3
WIND SPEED	01	KTS
WIND DIRECTION	180	DEGREES
CLOUD COVER	1 cu	

TABLE 2. LC-33 FIXED POLE ANEMOMETER-MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	M	04	-30	069	05	-30	069	03
-20	M	03	-20	067	05	-20	080	04
-10	M	02	-10	064	05	-10	080	03
0.0	M	01	0.0	039	05	0.0	080	02
+10	M	01	+10	044	03	+10	083	01

Type 19702A GSRS, Missile No. BR-2, Round No. B-36 launched from LC-33 on 4 September 1979 at 1100 MDT.

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

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

TABLE 3. LC-33 METEOROLOGICAL TOWER ANEMOMETER-MEASURED WINDS (202 FT. TOWER)

LEVEL #1 12 ft.			LEVEL #2 62 ft.		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	174	03	-30	123	03
-20	174	01	-20	156	07
-10	172	03	-10	168	03
0.0	170	04	0.0	168	02
+10	170	04	+10	168	02
LEVEL #3 102 ft.			LEVEL #4 202 ft.		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	141	02	-30	115	03
-20	110	04	-20	119	03
-10	126	02	-10	132	04
0.0	146	04	0.0	105	03
+10	148	03	+10	115	04

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

Type 19702 A GSRS, Missile No. BR-2, Round No. B-36 launched from LC-33 on 4 September 1979 at 1100 MDT.

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

PILOT BALLOON MEASURED WIND DATA

TABLE 4

RELEASED FROM LC-33 DATE 4 September 1979 TIME 1050 MDT

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

MISSILE TYPE 19702A GSRS MISSILE NO. BR-2 ROUND NO. B-36

MISSILE LAUNCHED FROM LC-33 DATE 4 September 1979 TIME 1100 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC		CALM
60	MISG	MISG
120	197	04
180	155	03
240	144	02
300	117	03
360	140	01
420	127	02
480	168	04
540	166	07
600	181	08
660	175	08
720	184	06
780	194	06
840	217	06
900	227	06
960	275	05
1020	322	03
1080	262	03

HEIGHTS AGL	DIRECTION DEGREES	SPEED KTS
1140	307	04
1200	301	06
1260	289	06
1320	296	04
1380	319	06
1440	317	06
1500	323	07
1560	338	10
1620	347	11
1680	335	13
1740	341	15
1800	346	13
1860	344	13
1920	343	13
1980	345	13
2040	346	14
2100		
2160		
2220		

PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM LC-33 DATE 4 September 1979 TIME 1100 MDT

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

MISSILE TYPE 19702A GSRS MISSILE NO. BR-2 ROUND NO. B-36

MISSILE LAUNCHED FROM LC-33 DATE 4 September 1979 TIME 1100 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC	175	04
60	MISG	MISG
120	186	04
180	136	03
240	119	04
300	100	03
360	136	03
420	154	03
480	202	04
540	160	06
600	176	06
660	165	04
720	157	02
780	217	02
840	295	03
900	310	02
960	292	02
1020	312	02
1080	325	03

HEIGHTS AGL	DIRECTION DEGREES	SPEED KTS
1140	292	05
1200	304	05
1260	299	06
1320	294	05
1380	318	06
1440	323	06
1500	324	08
1560	332	08
1620	343	11
1680	343	12
1740	344	14
1800	346	12
1860	351	14
1920	352	14
1980	351	13
2040	351	13
2100		
2160		
2220		

PILOT BALLOON MEASURED WIND DATA

TABLE 6

RELEASED FROM NICK DATE 4 September 1979 TIME 1050 MDT

RELEASE POINT COORDINATES (WSTM) X=470,734.56 Y 255,775.64 H=4126.57

MISSILE TYPE 19702A GSRS MISSILE NO. BR-2 ROUND NO. B-36

MISSILE LAUNCHED FROM LC-33 DATE 4 September 1979 TIME 1100 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC		CALM
60		CALM
120	MISG	MISG
180	MISG	MISG
240	MISG	MISG
300	MISG	MISG
360	MISG	MISG
420	306	03
480	245	02
540	261	02
600	270	02
660	250	02
720	MISG	MISG
780	153	02
840	183	03
900	185	05
960	190	05
1020	202	05
1080	177	03

HEIGHTS AGL	DIRECTION DEGREES	SPEED KTS
1140	159	03
1200	148	03
1260	148	03
1320	150	04
1380	120	06
1440	123	05
1500	106	07
1560	107	07
1620	104	08
1680	106	09
1740	106	09
1800	107	07
1860	097	07
1920	104	07
1980	125	07
2040	102	06
2100	108	06
2160	105	05
2220		

PILOT BALLOON MEASURED WIND DATA

TABLE 7

RELEASED FROM NICK DATE 4 September 1979 TIME 1100 MDT

RELEASE POINT COORDINATES (WSTM) X=470,734.56 Y=255,775.64 H=4126.58

MISSILE TYPE 19702A GSRS MISSILE NO. BR-2 ROUND NO. B-36

MISSILE LAUNCHED FROM LC-33 DATE 4 September 1979 TIME 1100 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC		CALM
60	318	02
120	312	01
180	324	02
240		CALM
300	348	02
360	299	02
420	321	01
480	270	01
540	225	01
600		CALM
660	167	01
720	128	01
780	171	02
840	190	06
900	191	05
960	195	05
1020	197	04
1080	165	03

HEIGHTS AGL	DIRECTION DEGREES	SPEED KTS
1140	172	03
1200	159	04
1260	151	04
1320	146	05
1380	134	06
1440	119	06
1500	115	06
1560	118	07
1620	105	09
1680	099	09
1740	097	07
1800	093	07
1860	092	06
1920	093	06
1980	110	04
2040	103	05
2100	079	05
2160	090	05
2220		

STATION ALTITUDE 3997.30 FEET MSL
4 SEP 79 1015 HRS MST
ASCENSION NO. 290

SIGNIFICANT LEVEL DATA
24700U290
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 8

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
878.0	3997.3	26.0	17.0	60.0
873.2	4156.2	25.7	14.0	51.0
850.0	4951.4	22.3	13.0	58.0
824.4	5803.9	20.5	13.0	62.0
785.8	7107.1	20.6	8.3	45.0
700.0	10413.3	13.8	4.1	52.0
639.4	12896.6	7.5	-.7	56.0
571.0	15919.2	-.5	-6.3	65.0
562.0	16308.8	-1.1	-9.7	52.0
511.3	18728.0	-7.7	-13.1	35.0
500.0	19359.3	-8.5	-19.3	41.0
486.9	19933.5	-7.1	-28.6	16.0
468.4	21030.0	-8.0	-30.0	15.0
460.8	21448.9	-6.9	-29.1	15.0
400.0	25032.9	-13.9	-34.2	16.0
330.6	29692.4	-25.2	-42.3	18.0
300.0	31984.1	-31.8	-47.1	20.0
282.6	33347.5	-35.7	-50.1	21.0
255.0	35701.8	-38.9		
250.0	36148.2	-40.1		
200.0	41046.1	-51.3		
165.8	44982.2	-60.2		
150.0	47023.8	-63.9		
135.2	49102.3	-68.1		
125.0	50653.9	-68.7		
116.2	51753.7	-70.6		
111.6	52843.2	-70.6		
105.6	53953.9	-72.8		
100.0	55009.8	-72.5		
96.8	55640.6	-72.5		
88.2	57474.5	-66.0		
80.2	59376.1	-66.6		
70.0	62113.0	-63.6		
50.0	69007.3	-57.3		
30.0	79813.4	-53.3		
20.0	88618.5	-45.0		
12.3	99065.1	-43.0		

UPPER AIR DATA
2470060290
S M R

STATION ALTITUDE 3997.30 FEET MSL
4 SEP. 79 1015 HRS MST
ASCENSION NO. 290

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 9

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	878.0	20.0	17.6	80.0	1013.8	670.8	.0	.0	1.000311
4000.0	877.9	20.0	17.6	79.8	1013.5	670.7	310.5	.0	1.000311
4500.0	832.8	24.2	14.3	54.1	1003.6	674.2	310.5	.9	1.000294
5000.0	848.0	22.2	13.6	58.3	993.4	671.8	310.5	1.9	1.000289
5500.0	833.2	21.1	13.2	60.6	979.8	670.8	310.5	2.8	1.000285
6000.0	818.7	20.5	12.4	59.6	964.8	669.8	309.0	3.2	1.000278
6500.0	804.5	20.6	10.7	53.3	948.4	669.7	249.0	3.7	1.000268
7000.0	790.4	20.6	8.9	47.1	932.3	669.5	233.5	4.6	1.000258
7500.0	776.5	19.9	7.9	45.7	916.3	668.3	232.5	4.3	1.000252
8000.0	762.8	18.9	7.2	46.8	900.5	667.4	291.5	4.0	1.000247
8500.0	749.4	17.8	6.6	47.9	884.8	666.2	327.1	7.6	1.000243
9000.0	736.1	16.8	6.0	49.0	880.3	664.9	341.0	9.9	1.000238
9500.0	723.1	15.7	5.3	50.0	865.0	663.7	349.5	12.1	1.000234
10000.0	710.4	14.7	4.7	51.1	855.9	662.4	352.0	12.1	1.000230
10500.0	697.8	13.6	4.0	52.1	844.1	661.1	354.5	11.7	1.000226
11000.0	685.2	12.3	3.0	52.9	832.7	659.8	356.1	9.9	1.000221
11500.0	672.8	11.0	2.0	53.8	821.4	658.1	357.5	8.1	1.000216
12000.0	660.7	9.8	1.1	54.6	810.4	656.5	359.0	6.2	1.000212
12500.0	648.7	8.5	.1	55.4	799.5	655.0	352.5	4.2	1.000208
13000.0	636.9	7.2	-.9	56.3	788.7	653.4	340.0	2.3	1.000203
13500.0	625.1	5.9	-1.8	57.8	777.9	651.8	333.7	1.6	1.000199
14000.0	613.5	4.0	-2.7	59.3	767.2	650.2	347.9	1.7	1.000196
14500.0	602.2	3.3	-3.6	60.8	756.7	648.6	13.7	2.7	1.000192
15000.0	591.0	1.9	-4.5	62.3	746.3	647.0	24.9	4.4	1.000188
15500.0	580.0	.6	-5.4	63.8	736.1	645.4	24.5	6.4	1.000185
16000.0	569.2	-.6	-6.9	62.3	725.9	643.9	23.9	8.5	1.000180
16500.0	558.5	-1.6	-9.9	53.0	715.1	642.0	9.0	10.1	1.000174
17000.0	547.8	-2.9	-10.5	55.6	704.9	641.0	333.7	11.9	1.000171
17500.0	537.3	-4.3	-11.2	58.2	694.9	639.4	345.5	12.8	1.000168
18000.0	527.1	-5.6	-11.9	60.9	685.1	637.8	333.5	13.9	1.000166
18500.0	517.0	-6.9	-12.7	63.5	675.4	636.2	333.7	14.6	1.000163
19000.0	507.1	-8.0	-15.2	56.1	665.8	634.8	333.5	14.3	1.000158
19500.0	497.3	-5.2	-20.9	34.9	656.1	634.3	349.9	13.2	1.000152
20000.0	487.6	-7.2	-28.7	15.9	646.4	633.5	.7	13.4	1.000145
20500.0	478.2	-7.6	-29.3	15.5	637.0	632.0	12.7	14.5	1.000143
21000.0	468.9	-8.0	-30.0	15.0	627.6	630.5	10.7	15.3	1.000140
21500.0	459.9	-7.0	-29.2	15.0	618.7	629.7	9.9	16.1	1.000137
22000.0	450.9	-6.6	-29.9	15.2	609.1	628.5	9.5	15.5	1.000135
22500.0	442.1	-9.0	-30.6	15.3	598.7	626.4	359.6	15.0	1.000132
23000.0	433.4	-9.9	-31.3	15.4	579.4	625.2	359.5	15.2	1.000130

STATION ALTITUDE 3997.30 FEET MSL
4 SEP 79 1015 HRS MST
ASCENSION NO. 290

UPPER AIR DATA
247006029G
S M R

GEODETIC COORDINATES
32.46034 LAT DEG
106.42307 LON DEG

TABLE 9 (Cont)

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
43500.0	425.0	-10.9	-32.0	15.6	564.3	601.0	334.6	15.3	1.000128
44000.0	416.6	-11.9	-32.7	15.7	555.4	629.8	356.9	15.2	1.000126
44500.0	408.5	-12.9	-33.4	15.9	546.5	626.0	359.6	15.1	1.000124
45000.0	400.5	-13.8	-34.1	16.0	537.9	627.4	.7	14.5	1.000122
45500.0	392.4	-15.0	-35.0	16.2	529.5	626.0	2.0	14.0	1.000120
46000.0	384.5	-16.2	-35.9	16.4	521.2	624.5	356.2	14.3	1.000118
46500.0	376.7	-17.5	-36.8	16.6	513.1	623.0	350.7	14.7	1.000116
47000.0	369.1	-18.7	-37.6	16.8	505.1	621.5	347.4	14.7	1.000114
47500.0	361.6	-19.9	-38.5	17.1	497.3	620.1	344.1	14.7	1.000112
48000.0	354.3	-21.1	-39.4	17.3	489.6	618.6	343.7	14.0	1.000110
48500.0	347.1	-22.3	-40.3	17.5	482.0	617.1	343.4	13.4	1.000108
49000.0	340.1	-23.5	-41.2	17.7	474.5	615.6	341.9	13.1	1.000107
49500.0	333.2	-24.7	-42.1	17.9	467.2	614.1	339.9	13.0	1.000105
50000.0	326.3	-26.1	-43.1	18.3	460.0	612.4	339.6	13.3	1.000103
50500.0	319.5	-27.5	-44.1	18.7	453.0	610.6	340.6	13.9	1.000102
51000.0	312.8	-29.0	-45.1	19.1	446.2	608.8	340.2	15.6	1.000100
51500.0	306.2	-30.4	-46.1	19.6	439.4	607.0	339.1	18.1	1.000098
52000.0	299.8	-31.8	-47.2	20.0	432.8	605.2	336.9	20.4	1.000097
52500.0	293.4	-33.3	-48.2	20.4	426.0	603.4	333.5	22.3	1.000095
53000.0	287.1	-34.7	-49.3	20.7	419.4	601.6	329.6	23.9	1.000094
53500.0	280.9	-35.9	-50.8	19.6**	412.5	600.1	324.6	24.9	1.000092
54000.0	274.8	-36.6	-53.6	15.2**	404.7	599.2	321.7	25.3	1.000090
54500.0	268.8	-37.3	-56.9	10.7**	397.0	598.3	320.5	24.6	1.000089
55000.0	263.0	-37.9	-61.6	6.3**	389.5	597.5	320.4	23.0	1.000087
55500.0	257.3	-38.6	-71.0	1.8**	382.2	596.6	322.5	20.1	1.000085
56000.0	251.6	-39.7			375.5	595.2	324.3	18.3	1.000084
56500.0	246.0	-40.9			369.0	595.7	324.6	18.6	1.000082
57000.0	240.5	-42.0			362.5	594.2	324.9	19.1	1.000081
57500.0	235.1	-43.2			356.1	593.8	325.1	20.2	1.000079
58000.0	229.8	-44.3			349.8	593.3	325.5	21.0	1.000078
58500.0	224.6	-45.5			343.7	592.8	326.4	21.3	1.000077
59000.0	219.5	-46.6			337.6	592.3	326.7	21.7	1.000075
59500.0	214.6	-47.8			331.7	591.9	327.0	22.3	1.000074
60000.0	209.3	-48.9			325.9	591.4	327.2	23.0	1.000073
60500.0	205.0	-50.1			320.2	591.9	324.0	23.5	1.000071
61000.0	200.4	-51.2			314.6	590.4	322.8	24.1	1.000070
61500.0	195.7	-52.3			308.8	578.9	323.2	24.2	1.000069
62000.0	191.1	-53.5			303.0	577.4	323.9	24.1	1.000067
62500.0	186.6	-54.6			297.4	575.9	325.1	23.6	1.000066
63000.0	182.2	-55.7			292.0	574.5	326.2	22.8	1.000065

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

STATION ALTITUDE 3997.30 FEET MSL
4 SEP. 79 1015 HRS MST
ASCENSION NO. 290

UPPER AIR DATA
24700[illegible]290
S M R

TABLE 9 (Cont)

GEODETIC COORDINATES
32.46034 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
43500.0	177.9	-56.8			285.6	575.0	328.0	21.7	1.000064
44000.0	173.7	-58.0			281.3	571.5	329.2	20.3	1.000063
44500.0	169.7	-59.1			276.1	570.0	330.7	18.6	1.000061
45000.0	165.7	-60.2			271.0	568.5	332.6	16.6	1.000060
45500.0	161.6	-61.1			265.8	567.3	334.6	14.7	1.000059
46000.0	157.7	-62.0			260.5	566.0	337.2	12.9	1.000058
46500.0	153.9	-63.0			255.1	564.6	340.5	11.1	1.000057
47000.0	150.2	-63.9			250.0	563.6	339.5	10.7	1.000056
47500.0	146.5	-64.9			245.0	562.2	338.4	10.3	1.000055
48000.0	142.9	-65.9			240.1	560.9	338.0	10.1	1.000053
48500.0	139.3	-66.9			235.3	559.5	338.1	9.9	1.000052
49000.0	135.9	-67.9			230.6	558.1	338.1	8.7	1.000051
49500.0	132.5	-68.3			225.3	557.7	338.1	6.2	1.000050
50000.0	129.2	-68.4			219.9	557.4	338.0	3.7	1.000049
50500.0	126.0	-68.6			214.6	557.1	307.6	1.8	1.000048
51000.0	122.8	-69.3			209.9	556.2	229.2	2.0	1.000047
51500.0	119.7	-70.2			205.5	555.0	208.5	3.6	1.000046
52000.0	116.7	-70.6			200.7	554.4	203.5	4.4	1.000045
52500.0	113.8	-70.6			195.7	554.4	201.2	5.1	1.000044
53000.0	110.9	-70.9			191.0	554.0	210.5	5.4	1.000043
53500.0	108.1	-71.9			187.1	552.7	230.5	6.1	1.000042
54000.0	105.3	-72.8			183.2	551.4	240.1	6.1	1.000041
54500.0	102.7	-72.6			178.4	551.6	249.1	6.1	1.000040
55000.0	100.1	-72.5			173.7	551.8	257.3	4.7	1.000039
55500.0	97.5	-72.5			169.3	551.8	268.0	1.8	1.000038
56000.0	95.1	-71.2			164.0	553.0	30.5	2.1	1.000037
56500.0	92.7	-69.5			158.5	556.0	87.0	4.4	1.000035
57000.0	90.3	-67.7			153.2	558.4	102.5	7.9	1.000034
57500.0	88.1	-66.0			148.1	560.7	112.7	11.9	1.000033
58000.0	85.9	-66.2			144.6	560.5	124.4	16.9	1.000032
58500.0	83.8	-66.3			141.1	560.3	130.5	22.3	1.000031
59000.0	81.7	-66.5			137.8	560.1	131.5	21.5	1.000031
59500.0	79.7	-66.5			134.5	560.1	132.6	20.5	1.000030
60000.0	77.8	-65.9			130.7	560.8	131.9	18.3	1.000029
60500.0	75.8	-65.4			127.2	561.6	131.1	15.5	1.000028
61000.0	74.0	-64.8			123.7	562.3	130.0	13.4	1.000028
61500.0	72.2	-64.3			120.4	563.0	132.1	13.1	1.000027
62000.0	70.4	-63.7			117.1	563.8	133.5	12.8	1.000026
62500.0	68.7	-63.2			114.0	564.4	133.4	12.5	1.000025
63000.0	67.0	-62.6			111.0	565.0	132.5	12.1	1.000025

STATION ALTITUDE 3997.30 FEET MSL
4 SEP. 79 1015 HRS MST
ASCENSION NO. 290

UPPER AIR DATA
24700C0290
S M R

GEODETIC COORDINATES
32.460034 LAT DEG
106.42307 LON DEG

TABLE 9 (Cont)

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
03500.0	65.4	-62.3			1061	569.6	121.2	11.7	1.000024
04000.0	63.9	-61.9			1053	568.3	121.7	12.6	1.000023
04500.0	62.3	-61.4			1042	568.9	119.2	13.9	1.000023
05000.0	60.8	-61.0			999	567.5	107.6	15.2	1.000022
05500.0	59.4	-60.5			973	568.1	107.5	15.7	1.000022
06000.0	58.0	-60.1			947	568.7	107.5	16.3	1.000021
06500.0	56.6	-59.6			923	569.3	108.8	15.9	1.000021
07000.0	55.2	-59.2			899	569.9	108.1	14.8	1.000020
07500.0	53.9	-58.7			875	570.5	105.2	13.8	1.000019
08000.0	52.6	-58.2			852	571.1	97.5	12.5	1.000019
08500.0	51.3	-57.8			830	571.7	87.1	11.4	1.000018
09000.0	50.1	-57.3			809	572.3	78.4	11.1	1.000018
09500.0	48.9	-57.1			789	572.6	78.4	12.0	1.000018
10000.0	47.8	-56.9			770	572.8	78.5	12.8	1.000017
10500.0	46.7	-56.8			751	573.1	79.8	13.9	1.000017
11000.0	45.6	-56.6			733	573.3	84.2	15.8	1.000016
11500.0	44.5	-56.4			715	573.6	87.6	17.7	1.000016
12000.0	43.4	-56.2			698	573.8	89.6	19.1	1.000016
12500.0	42.4	-56.0			681	574.1	90.0	19.3	1.000015
13000.0	41.4	-55.8			664	574.3	90.4	19.6	1.000015
13500.0	40.5	-55.6			648	574.6	91.2	19.9	1.000014
14000.0	39.5	-55.5			632	574.8	92.5	20.4	1.000014
14500.0	38.6	-55.3			617	575.0	93.7	20.9	1.000014
15000.0	37.7	-55.1			602	575.3	95.1	21.5	1.000013
15500.0	36.8	-54.9			587	575.5	96.5	22.0	1.000013
16000.0	35.9	-54.7			573	575.8	97.9	22.5	1.000013
16500.0	35.1	-54.5			559	576.0	98.0	22.9	1.000012
17000.0	34.3	-54.3			546	576.3	96.6	23.0	1.000012
17500.0	33.5	-54.2			533	576.5	94.1	23.1	1.000012
18000.0	32.7	-54.0			520	576.8	91.6	23.2	1.000012
18500.0	31.9	-53.8			507	577.0	88.0	23.3	1.000011
19000.0	31.2	-53.6			495	577.2	84.5	23.4	1.000011
19500.0	30.4	-53.4			483	577.5	83.0	23.6	1.000011
20000.0	29.7	-53.1			471	577.9	85.1	24.4	1.000010
20500.0	29.1	-52.7			459	578.3	87.2	25.0	1.000010
21000.0	28.4	-52.2			448	579.1	89.2	25.7	1.000010
21500.0	27.8	-51.7			437	579.7	91.3	26.3	1.000010
22000.0	27.1	-51.2			426	580.3	93.3	27.4	1.000009
22500.0	26.5	-50.8			415	581.0	94.9	28.2	1.000009
23000.0	25.9	-50.3			405	581.6	94.6	29.1	1.000009

STATION ALTITUDE 3997.30 FEET MSL
4 SEP. 79 1015 HRS MST
ASCENSION NO. 290

UPPER AIR DATA
24700[illegible]290
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 9 (Cont)

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
83500.0	25.3	-49.8			39.5	582.2	94.4	30.0	1.000009
84000.0	24.7	-49.4			38.5	582.6	94.1	30.9	1.000009
84500.0	24.2	-48.9			37.6	583.4	95.1	32.4	1.000008
85000.0	23.6	-48.4			36.6	584.0	96.1	34.0	1.000008
85500.0	23.1	-47.9			35.7	584.6	97.1	35.6	1.000008
86000.0	22.6	-47.5			34.8	585.3	97.9	36.5	1.000008
86500.0	22.0	-47.0			34.0	585.9	98.4	36.4	1.000008
87000.0	21.5	-46.5			33.1	586.5	99.0	36.4	1.000007
87500.0	21.1	-46.1			32.3	587.1	99.3	36.1	1.000007
88000.0	20.6	-45.6			31.5	587.7	98.4	34.7	1.000007
88500.0	20.1	-45.1			30.7	588.3	97.5	33.2	1.000007
89000.0	19.7	-44.9			30.0	588.5	96.5	31.7	1.000007
89500.0	19.2	-44.8			29.3	588.7	96.1	30.5	1.000007
90000.0	18.8	-44.7			28.7	588.8	95.9	29.4	1.000006
90500.0	18.4	-44.6			28.0	588.9	95.7	28.2	1.000006
91000.0	18.0	-44.5			27.4	589.0	96.1	27.2	1.000006
91500.0	17.6	-44.4			26.8	589.2	97.0	26.2	1.000006
92000.0	17.2	-44.4			26.2	589.3	99.2	25.2	1.000006
92500.0	16.8	-44.3			25.6	589.4	101.0	24.3	1.000006
93000.0	16.4	-44.2			25.0	589.5	99.9	24.1	1.000006
93500.0	16.1	-44.1			24.4	589.6	98.7	24.0	1.000005
94000.0	15.7	-44.0			23.9	589.6	97.6	24.0	1.000005
94500.0	15.3	-43.9			23.3	589.9	97.0	24.8	1.000005
95000.0	15.0	-43.8			22.8	590.0	96.5	26.3	1.000005
95500.0	14.7	-43.7			22.3	590.1	99.2	27.8	1.000005
96000.0	14.3	-43.6			21.8	590.3			1.000005
96500.0	14.0	-43.5			21.3	590.4			1.000005
97000.0	13.7	-43.4			20.8	590.5			1.000005
97500.0	13.4	-43.3			20.3	590.6			1.000005
98000.0	13.1	-43.2			19.9	590.6			1.000004
98500.0	12.8	-43.1			19.4	590.9			1.000004
99000.0	12.5	-43.0			19.0	591.0			1.000004

STATION ALTITUDE 3997.30 FEET MSL
4 SEP. 79 1015 HRS MST
ASCENSION NO. 290

MANDATORY LEVELS
24700&0290
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 10

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT		DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE		PERCENT	DEGREES(TN)	KNOTS
850.0	4928.	22.3	13.6	56.	316.5	1.7
800.0	6653.	20.6	10.2	51.	258.7	4.3
750.0	8476.	17.9	6.7	48.	326.4	7.5
700.0	10403.	13.6	4.1	52.	354.0	12.0
650.0	12436.	8.6	.2	55.	353.1	4.4
600.0	14589.	3.0	-3.6	61.	16.9	3.0
550.0	16880.	-2.7	-10.4	55.	1.0	11.6
500.0	19332.	-8.5	-19.3	41.	342.8	15.4
450.0	22022.	-8.1	-29.9	15.	3.0	15.5
400.0	24991.	-13.9	-34.2	16.	.8	14.5
350.0	28267.	-21.6	-40.0	17.	343.5	15.6
300.0	31919.	-31.8	-47.1	20.	337.1	20.3
250.0	36066.	-40.1			324.4	18.3
200.0	40945.	-51.3			322.8	24.2
175.0	43752.	-57.6			328.8	20.7
150.0	46695.	-63.9			339.5	10.7
125.0	50506.	-66.7			288.4	1.5
100.0	54838.	-72.5			256.9	4.8
80.0	59228.	-66.5			131.8	20.7
70.0	61698.	-63.6			133.7	12.8
60.0	65024.	-60.7			107.7	15.4
50.0	68776.	-57.3			76.4	11.1
40.0	73423.	-55.6			91.7	20.1
30.0	79470.	-53.3			84.2	24.1
25.0	83355.	-49.6			94.3	30.3
20.0	88196.	-45.0			97.4	35.0
15.0	94522.	-43.8			98.4	26.1