

AD-A116 927 ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
19316A MLRS MISSILE NUMBERS V15-008, V15-009, V15-007 ROUND NUM--ETC(U)
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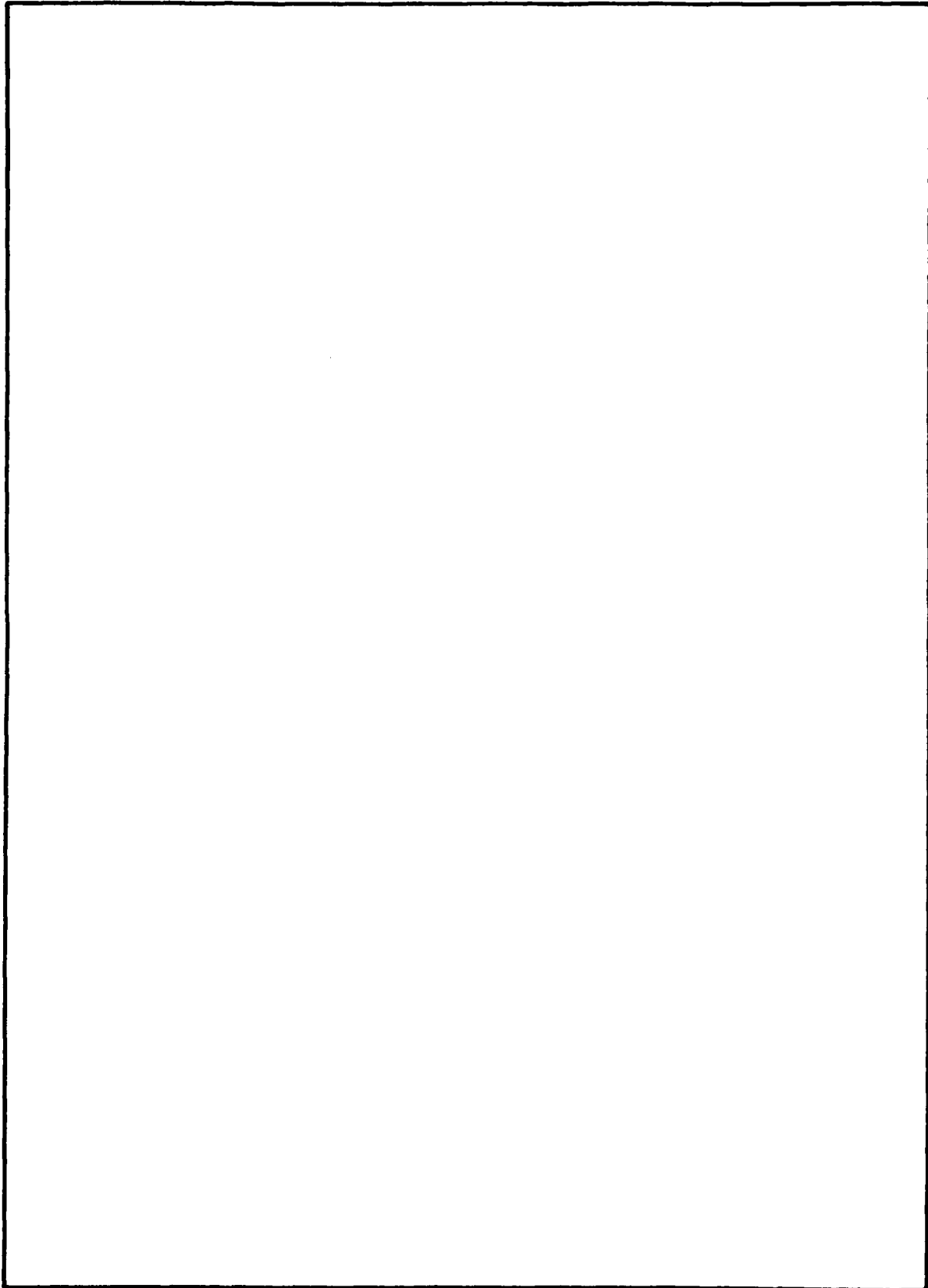
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 19316A MLRS, Missile Numbers V15-008, V15-009, V15-007, Round Numbers V=253/AT2-22, V-254/AT2-23, V-255/AT2-24 are presented in tabular form.		

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INTRODUCTION

19316A MLRS, Missile Numbers V-15-008, V15-009, V15-007, Round Numbers V-253/AT2-22, V-254/AT2-23, V-255/AT2-24, were launched from Brillo, White Sands Missile Range (WSMR), New Mexico, at 1430, 1430:05, and 1430:10 MDT on 04 May 1982. The scheduled launch times were 1430, 1430:04.5, and 1430:09 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 Brillo Met Site at T-0 minutes.

(2) Anemometer data were provided from existing tower-mounted anemometers at Brillo. 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 double theodolite pibal observations at:

SITE AND ALTITUDE

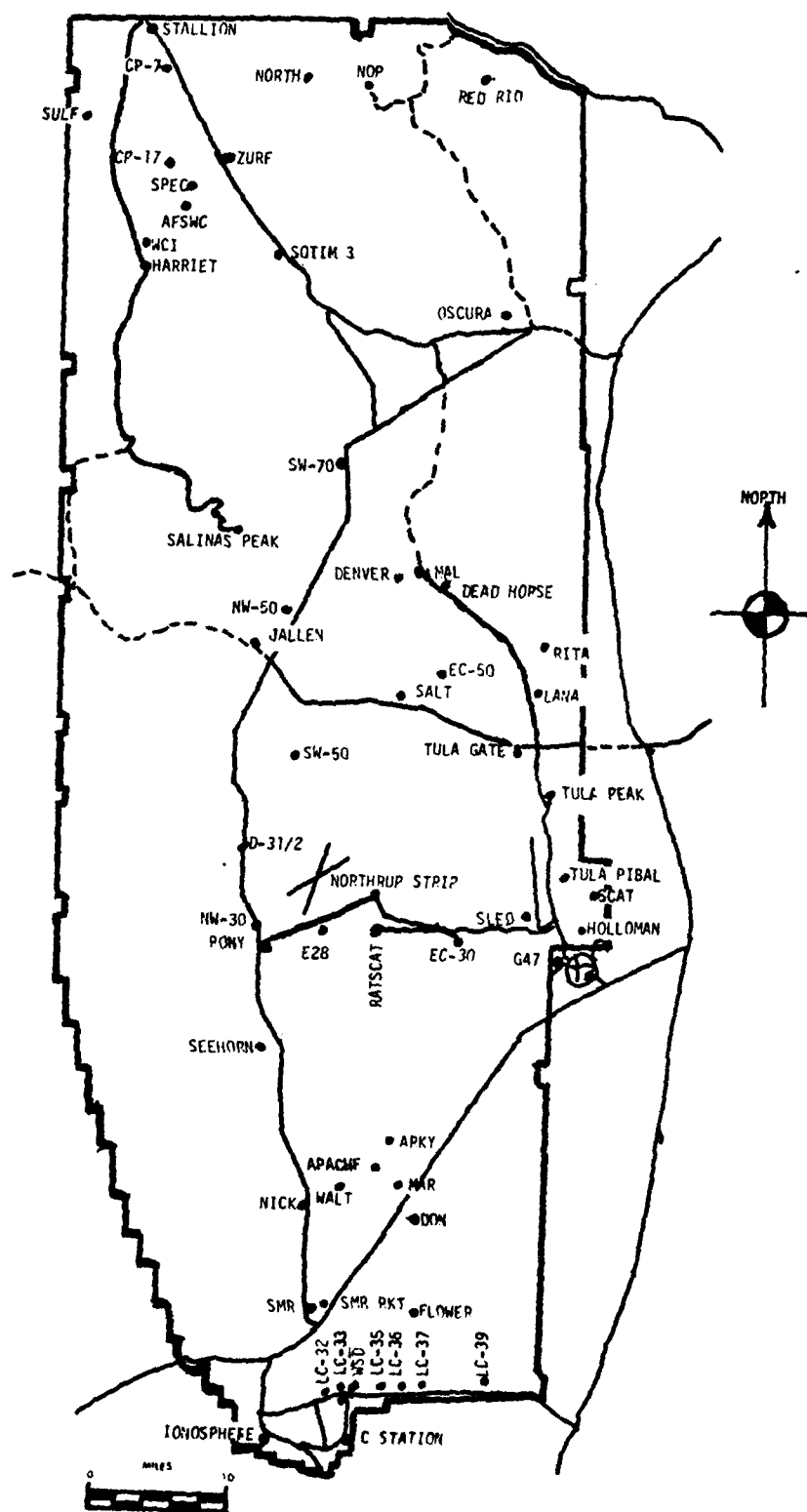
D-3 $\frac{1}{2}$	800 meters
MAL	2000 meters

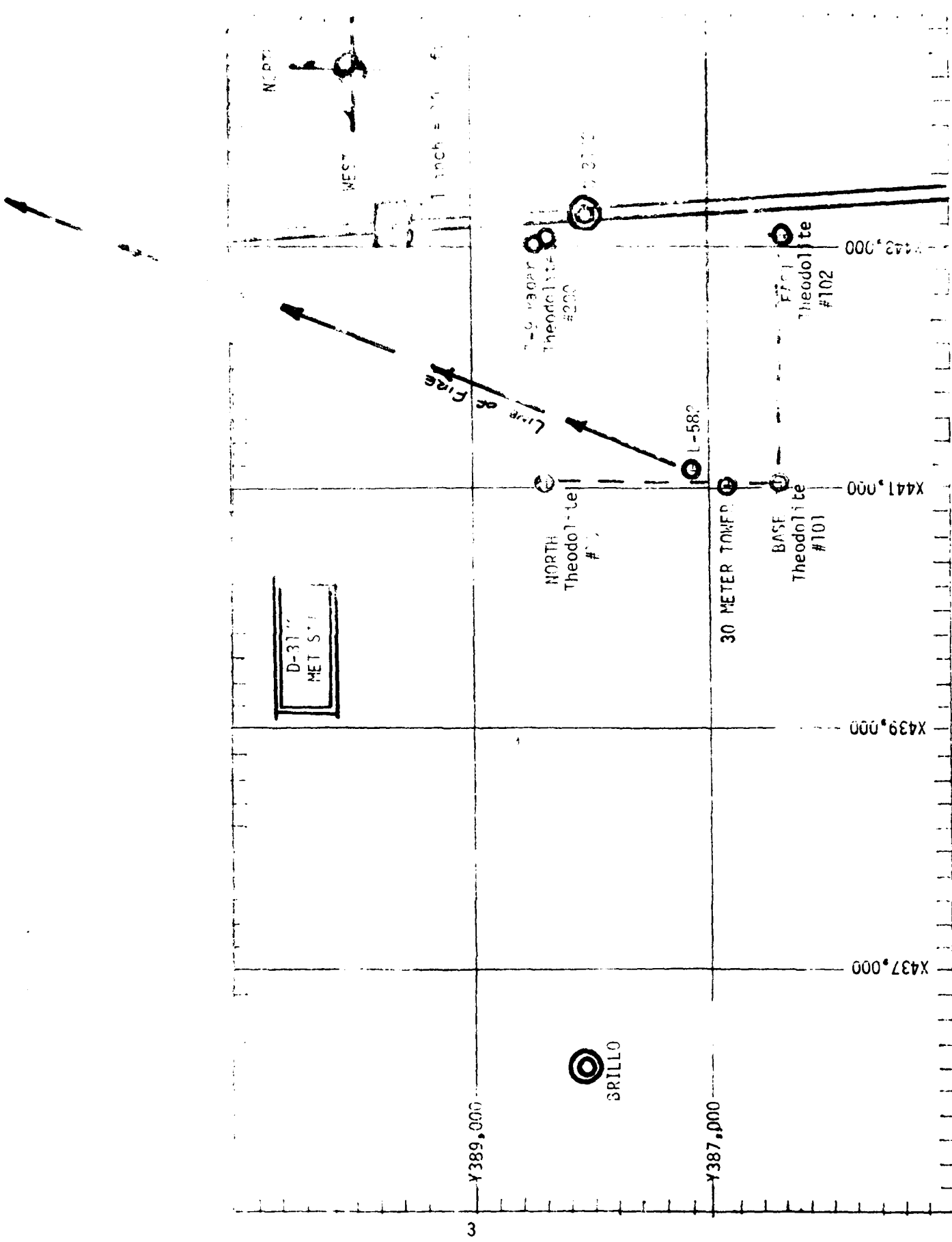
(2) Air structure data (rawinsonde) were collected at the following Met Sites:

SITE AND TIME

E-28	0730 MDT
NW-30	1030 MDT
E-28	1130 MDT
NW-30	1330 MDT
E-28	1430 MDT

WSMR METEOROLOGICAL SITES





PROJECT SURFACE OBSERVATION

STATION: BRILLO									
DATE 04 05 82		Y=441,121.6		Y= 387,107.8		H= 4005.2			
TIME	PRESSURE	TEMPERATURE	DEW POINT	RELATIVE HUMIDITY	WIND SPEED	DIRECTION	WIND CHARACTER	VISIBILITY	
MDT	hPa	°C	°C	%	kts	degs	kts	mi	
1430	875.8	25.7	7.9	32	15	190	G20	50	

INSTRUCTIONS	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
10 VISIBILITY	AMT	TYPE	AMT	TYPE	AMT	TYPE	
	4	SC	8000	5	AS	12,000	1 CL 21,000

PSYCHROMETRIC COMPUTATION

TIME: MDT	1430
DRY BULB TEMP.	25.7
WET BULB TEMP.	14.8
WET BULB DEPR.	10.9
DEW POINT	7.9
RELATIVE HUMID.	32

TABLE 2

I-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 04 MAY 1982

SITE: D-3½
 TIME: 1430 MDT
 WSTM COORDINATES:
 X= 441,053.12
 Y= 386,316.94
 H= 4,008.31

SITE: MAL
 TIME: 1430 MDT
 WSTM COORDINATES:
 X= 509,421.05
 Y= 495,563.18
 H= 4,127.03

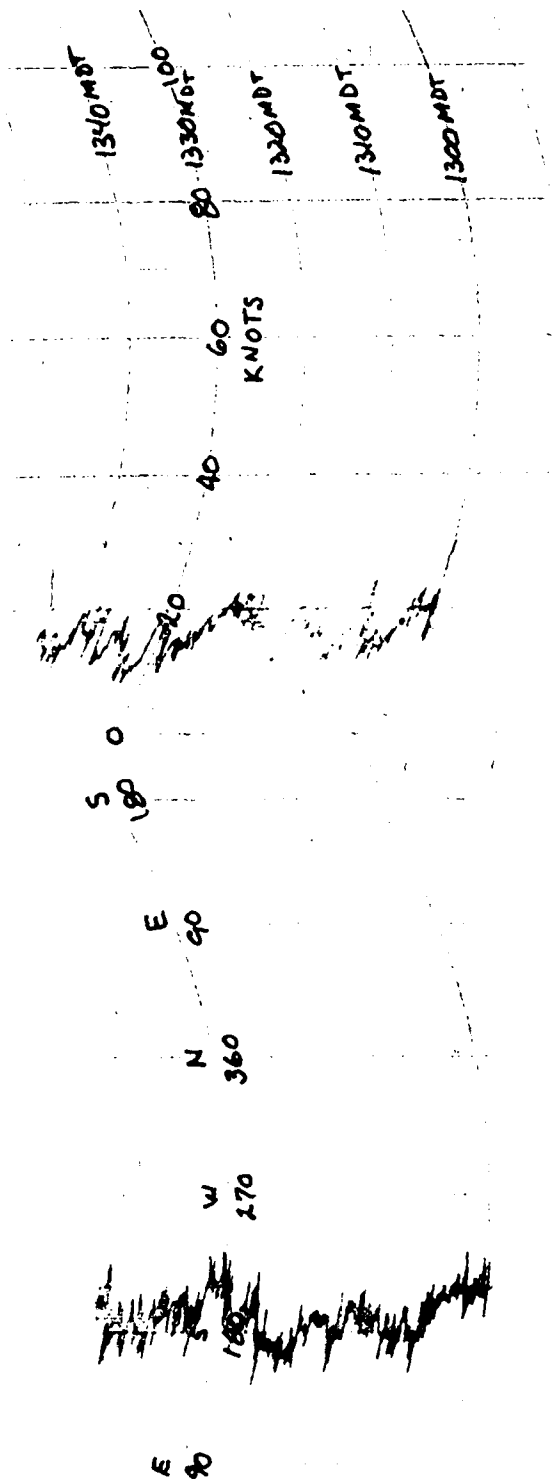
LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	190	15
150	206	15
210	201	11
270	192	10
330	187	11
390	189	11
500	201	07
650	206	09
800	208	10
950		
1150		
1350		
1550		
1750		
2000		

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	170	11
150	157	25
210	162	23
270	168	22
330	172	23
390	174	22
500	174	25
650	174	24
800	186	21
950	189	26
1150	193	25
1350	199	22
1550	203	23
1750	207	20
2000	206	28

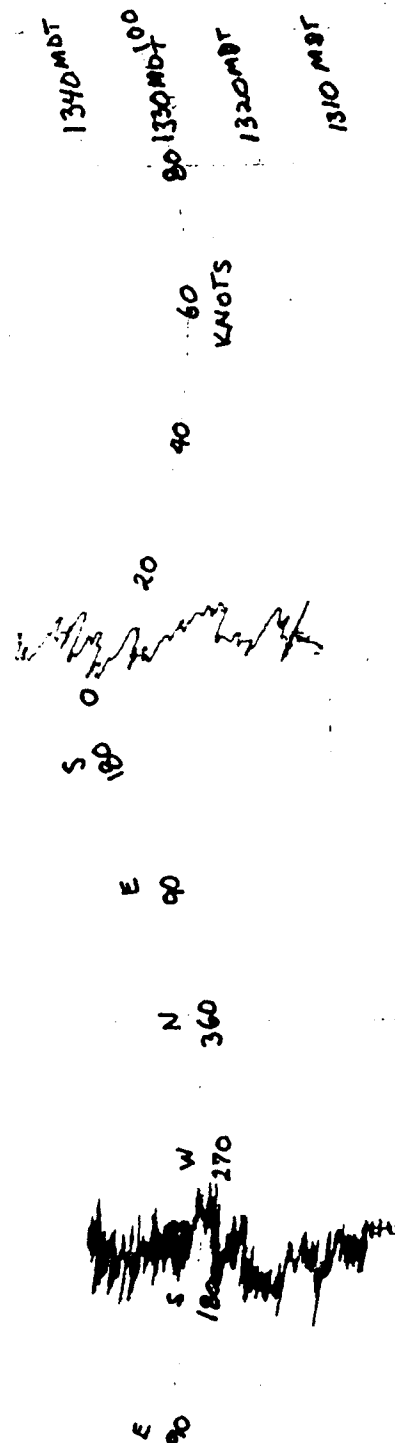
All Data obtained from Double Theodolite Tracked pilot-balloon observations

TABLE 3

ANEMOMETER DATA 60 and 90 FEET LEVELS OF 30 METER TOWER
 X=441,018.71 Y=386,849.19 H=4,004.80 (BASE)



60 FOOT LEVEL



90 FOOT LEVEL

AIMING AND T-TIME COMPUTER MET MESSAGES
04 May 1982

E-28 0730MDT	NW-30 1030MDT	E-28 1130 MDT
METCM1329064	METCM1329065	METCM1329064
041350119883	041650122880	041750119882
00427008 29400883	00267005 29710880	00213005 29790882
01356020 29380872	01187005 29530869	01174005 29570872
02453025 29310847	02291002 29290845	02258005 29390847
03402015 28940808	03000000 28880806	03385009 29120808
04398016 28470762	04413006 28460759	04391013 28690762
05355017 28110717	05412012 28120715	05383018 28230718
06364015 27780675	06378009 27750673	06387025 27780675
07345014 27440634	07402014 27390632	07380025 27440635
08383021 27320596	08407015 27040594	08394026 27060597
09389029 26950560	09416018 26680557	09410039 26760560
10389029 26500525	10421017 26370523	10407037 26430525
11392029 26180492	11368015 26030490	11392030 26090492
12388028 25690446	12378016 25530443	12372028 25630446
13348033 24970390	13358017 24810387	13363046 24880390
14355036 24160340		14355048 24200339
15369049 23290294		15369054 23330294
16393061 22530254		16390073 22630253
17412084 21910218		17405088 21970218
18417109 21420186		18409103 21490186
19419091 21070159		19406084 21320159
20415058 21080135		20410064 21270135
21397045 20900115		21411049 21280115
22431035 21290098		22418029 21540098
23420016 21200083		23480027 21260084
24390009 21010071		24379026 21190072
25324014 21110060		25457003 21350061
26338009 21360051		26238004 21620052

TABLE-4 cont'd

NW-30 1330	E-28 1430 MDT
METCM1329065	METCM1329064
041950122878	042050119880
00267012 29930878	00293014 29750880
01316016 29670868	01289023 29660870
02348012 29440843	02292022 29440845
03350011 29030805	03315022 29060807
04371015 28500759	04357022 28590760
05384017 28010714	05377018 28090716
06377022 27570672	06379021 27670673
07390028 27230631	07409031 27410633
08402035 26940593	08413039 27050595
09405041 26600556	09410045 26650558
10412048 26220521	10406053 26250523
11389052 25950488	11396058 25950490
12359048 25490442	12317057 25500444
13345044 24830386	13345048 24850388
14358050 24060336	14356054 24130339
15369054 23200291	15360066 23280293
16385072 22250250	16375084 22360253
17405096 21660215	17402102 21730217
18413105 21340183	18406126 21360186
19421062 21170156	19416085 21100158
20408060 21450133	
21405045 20970113	
22400041 21100097	
23372027 21120082	
24410015 20970070	
25087008 21160060	
26342015 21360051	

STATION ALTITUDE 5912.75 FEET MSL
4 MAY 62 0730 MDT
ASCENSION NO. 02

SIGNIFICANT LEVEL DATA
12402 2000
1-2P

GEODETIC COORDINATES
32.09927 LAT DEG
106.40591 LONG DEG

TABLE 5

PRESSURE	GEOMETRIC ALTITUDE MSL FEET	AIR TEMPERATURE DEGREES CENTIGRADE	WET-BULB TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT
682.5	3912.7	19.1	9.0	54.0
650.0	4072.1	18.6	9.4	55.0
621.7	5924.9	17.1	9.0	59.0
601.9	6605.9	14.0	7.0	66.0
782.1	7297.2	11.8	0.5	70.0
762.5	7994.1	9.9	6.0	80.0
743.3	8690.9	9.1	5.5	77.0
715.3	9733.2	6.3	4.0	65.0
700.0	10316.4	5.6	2.0	82.0
622.5	13439.0	-8	-1.9	92.0
586.9	14962.3	-3.0	-4.4	90.0
534.0	17384.7	-7.9	-8.0	95.0
500.0	19090.8	-11.1	-11.7	95.0
450.8	21690.9	-16.1	-10.7	95.0
438.4	22360.9	-17.3	-18.8	88.0
400.0	24621.4	-22.2	-25.3	76.0
330.6	29133.9	-33.0	-37.4	64.0
304.6	31910.0	-38.3	-42.7	63.0
200.0	31353.9	-39.4	-44.0	61.0
279.6	32929.0	-43.1		
267.6	33897.0	-45.6		
250.0	35300.8	-48.5		
217.0	38408.2	-54.5		
200.0	40122.5	-56.3		
172.2	43215.5	-61.8		
163.2	44308.8	-62.6		
150.0	46023.5	-62.6		
141.0	47169.1	-61.7		
125.0	49605.6	-63.2		
124.2	49665.7	-62.4		
118.2	50870.8	-63.7		
110.6	52212.4	-64.7		
107.0	52877.1	-65.9		
103.4	53562.3	-66.0		
100.0	54239.6	-61.1		
97.0	54742.2	-57.0		
95.2	55262.9	-56.6		
86.6	57223.2	-61.3		
83.2	58043.9	-61.1		
70.0	61569.4	-63.1		

GEODLTIC COORDINATES
32.0927 LAT DEG
106.40591 LONG DEG

SIGNIFICANT LEVEL DATA
1240250000
F-23

TABLE-5 cont'd

STATION ALTITUDE 3912.75 FEET SL
4 MAY 82 0730 MDT
ASCENSION ID. 02

PRESSURE OF UMIC ALTITUDE MILLIBARS USL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL-HUMID- PERCENT
65.4 62945.3	-64.6	
62.6 63635.0	-61.3	
55.0 66481.5	-62.3	
52.8 67320.9	-59.0	
50.0 68450.1	-59.0	
48.6 69038.7	-59.0	
46.2 70095.0	-56.3	
43.6 71307.4	-57.5	
40.6 72797.1	-57.1	
33.9 73691.0	-57.5	
33.2 77012.9	-55.8	

STATION ALTITUDE 3912.75 FEET MSL
4 MAY 62 0730 MDT
ASCENDING NO. 02

UPPER AIR DATA
1240290002
E-28
TABLE-6

GEODETIC COORDINATES
32.09927 LAT DEG
106.40591 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
3912.7	802.5	19.1	54.0	1040.6	667.7	240.0	8.0	1.000286
4000.0	879.8	19.1	54.1	1043.5	667.7			1.000286
4500.0	884.3	18.8	54.6	1025.9	667.4			1.000281
5000.0	849.2	18.6	55.1	1006.0	667.1			1.000277
5500.0	834.2	17.8	57.2	993.7	666.2			1.000274
6000.0	819.5	16.8	59.8	979.5	665.1			1.000270
6500.0	804.9	14.5	64.9	970.0	662.4			1.000265
7000.0	790.6	12.7	71.1	958.7	660.3			1.000260
7500.0	776.3	11.2	72.9	940.5	658.6	255.4	15.5	1.000257
8000.0	762.3	9.9	80.0	933.7	657.0	222.4	16.1	1.000254
8500.0	748.5	9.3	77.8	916.9	656.3	210.8	16.8	1.000248
9000.0	734.9	8.3	79.4	903.0	655.0	208.9	17.7	1.000243
9500.0	721.5	6.9	83.2	893.5	653.4	201.9	17.0	1.000239
10000.0	708.3	6.0	83.6	880.2	652.2	199.1	18.0	1.000234
10500.0	693.2	5.2	82.6	866.3	651.3	201.7	14.9	1.000229
11000.0	682.3	4.2	84.2	853.0	650.0	203.5	14.7	1.000224
11500.0	669.6	3.2	85.0	841.0	648.8	203.9	14.7	1.000220
12000.0	657.1	2.2	87.4	826.5	647.0	200.0	14.4	1.000216
12500.0	644.9	1.1	89.0	810.2	646.3	197.5	14.7	1.000212
13000.0	632.9	.1	90.6	804.1	645.1	193.9	15.4	1.000207
13500.0	621.1	-9.9	91.9	792.1	643.9	200.9	16.6	1.000203
14000.0	609.3	-1.6	91.3	779.3	643.0	200.0	18.1	1.000199
14500.0	597.8	-2.3	90.6	766.7	642.1	240.1	20.7	1.000195
15000.0	586.5	-3.0	90.0	754.3	641.2	219.1	23.4	1.000191
15500.0	575.3	-4.1	91.1	742.7	639.9	219.2	26.0	1.000187
16000.0	564.2	-5.1	92.1	731.3	638.7	219.1	28.0	1.000183
16500.0	553.4	-6.1	93.2	720.1	637.4	218.2	28.2	1.000180
17000.0	542.8	-7.1	94.2	709.1	636.2	217.0	28.4	1.000176
17500.0	532.4	-8.1	95.0	698.2	634.9	216.0	28.4	1.000173
18000.0	522.0	-9.1	95.0	687.1	633.8	215.4	28.4	1.000169
18500.0	511.9	-10.0	95.0	676.2	632.6	220.2	28.4	1.000166
19000.0	501.9	-10.9	95.0	665.5	631.5	220.7	28.5	1.000162
19500.0	492.0	-11.9	95.0	654.8	630.3	220.9	29.0	1.000159
20000.0	482.3	-12.8	95.0	644.3	629.1	221.5	29.3	1.000156
20500.0	472.6	-13.8	95.0	634.0	627.9	222.3	29.6	1.000152
21000.0	463.4	-14.8	95.0	623.9	626.7	222.0	28.6	1.000149
21500.0	454.2	-15.7	95.0	613.9	625.5	220.9	28.3	1.000146
22000.0	445.2	-16.6	91.9	603.6	624.4	218.0	28.9	1.000143
22500.0	436.3	-17.6	87.4	593.9	623.2	215.2	29.5	1.000140
23000.0	427.4	-18.7	84.7	584.5	621.8	210.5	30.2	1.000137

AX WIND DATA IN/ALTD DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3912.75 FEET MSL
4 MAY 62 0730 MDT
ASCENSION NO. 50

TEMPER AIR DATA
1240250000
1-28

TABLE-6 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	RELATIVITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND METERS PER SECOND	WIND DIRECTION (DEGREES TRUE)	WIND SPEED (KNOTS)	INDEX OF REFRACTION
23500.0	410.8	-19.7	32.0	573.2	620.4	205.2	30.6	1.000134
24000.0	410.3	-20.8	79.3	560.0	619.1	199.4	30.6	1.000132
24500.0	402.0	-21.9	76.7	557.0	617.7	190.2	31.2	1.000129
25000.0	393.7	-23.1	75.0	540.1	616.2	155.6	31.6	1.000120
25500.0	385.4	-24.3	73.7	539.2	614.7	153.0	32.1	1.000124
26000.0	377.4	-25.5	72.3	530.0	613.2	154.6	32.5	1.000122
26500.0	369.5	-26.7	71.0	522.0	611.7	157.3	32.7	1.000119
27000.0	361.8	-27.9	69.7	513.0	610.2	150.9	33.3	1.000117
27500.0	354.2	-29.1	68.3	503.4	608.7	159.6	34.2	1.000115
28000.0	346.8	-30.3	67.0	497.3	607.2	159.2	35.3	1.000113
28500.0	339.6	-31.5	65.7	489.3	605.7	150.3	36.5	1.000111
29000.0	332.5	-32.7	64.4	481.5	604.2	159.1	37.7	1.000109
29500.0	325.4	-34.0	63.8	473.9	602.5	200.0	38.8	1.000107
30000.0	318.3	-35.4	63.5	460.4	600.7	202.1	39.7	1.000105
30500.0	311.5	-36.9	63.3	459.1	599.9	204.4	41.3	1.000103
31000.0	304.7	-38.3	63.0	451.9	597.1	200.9	44.2	1.000102
31500.0	298.0	-39.7	55.3**	444.8	595.2	203.1	47.2	1.000100
32000.0	291.5	-40.9	36.0**	437.2	593.7	208.3	50.2	1.000098
32500.0	285.0	-42.1	16.6**	429.7	592.2	208.0	51.4	1.000096
33000.0	278.7	-43.3		422.4	590.7	207.6	52.9	1.000094
33500.0	272.5	-44.6		415.2	589.0	200.3	55.1	1.000092
34000.0	266.3	-45.8		408.1	587.4	210.3	57.3	1.000091
34500.0	260.3	-46.8		400.6	586.1	213.3	59.6	1.000089
35000.0	254.4	-47.8		393.2	584.9	220.6	62.4	1.000088
35500.0	248.6	-48.7		385.9	583.0	220.9	65.9	1.000086
36000.0	242.9	-49.7		378.7	582.3	229.3	68.7	1.000084
36500.0	237.3	-50.7		371.0	581.0	223.3	71.0	1.000083
37000.0	231.8	-51.7		364.0	579.7	220.3	73.1	1.000081
37500.0	226.4	-52.7		357.0	578.4	230.3	76.8	1.000080
38000.0	221.2	-53.7		351.1	577.1	231.4	80.5	1.000078
38500.0	216.1	-54.6		344.4	575.9	232.1	84.2	1.000077
39000.0	211.0	-55.1		337.1	575.2	233.1	89.0	1.000075
39500.0	206.0	-55.6		330.0	574.6	233.5	94.3	1.000073
40000.0	201.2	-56.2		323.0	573.9	233.3	100.6	1.000072
40500.0	196.4	-57.0		316.3	572.8	233.9	105.1	1.000070
41000.0	191.7	-57.9		310.2	571.6	234.3	108.9	1.000069
41500.0	187.1	-58.7		304.0	570.4	234.0	109.1	1.000068
42000.0	182.6	-59.6		298.0	569.3	234.6	109.0	1.000066
42500.0	178.3	-60.5		292.1	568.1	234.0	107.9	1.000065
43000.0	174.3	-61.4		286.3	566.9	234.3	105.9	1.000064

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

STATION ALTITUDE 391230 F MDT MSL
4 MAY 72
ASCENSION I.D. 62

UPPER AIR DATA
12002:0000Z
E-2F
TABLE-6 cont'd

CELESTIC COORDINATES
32.8927 LAT DEG
106.40591 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION (M) DEGREES (M)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	169.8	-62.0		280.2	560.1	234.5	102.8	1.000062
44000.0	165.7	-62.4		273.9	565.6	235.0	99.0	1.000061
44500.0	161.7	-62.6		267.5	565.3	235.7	95.1	1.000060
45000.0	157.7	-62.6		261.0	565.3	236.1	91.4	1.000058
45500.0	153.9	-62.6		254.7	565.3	236.2	87.0	1.000057
46000.0	150.2	-62.6		248.5	565.3	235.9	81.4	1.000055
46500.0	146.5	-62.2		242.0	565.8	235.5	75.2	1.000054
47000.0	143.0	-61.8		235.7	566.3	235.2	68.9	1.000052
47500.0	139.5	-61.9		230.1	566.2	235.1	63.4	1.000051
48000.0	136.1	-62.2		224.8	565.8	234.8	58.0	1.000050
48500.0	132.8	-62.5		219.7	565.4	235.0	54.5	1.000049
49000.0	129.6	-62.8		214.7	565.0	231.4	52.8	1.000048
49500.0	126.5	-63.1		209.8	564.6	228.9	51.1	1.000047
50000.0	123.4	-62.6		204.1	565.3	228.4	49.4	1.000045
50500.0	120.4	-63.2		199.6	564.5	224.8	47.7	1.000044
51000.0	117.4	-63.8		195.4	563.7	223.0	45.9	1.000044
51500.0	114.6	-64.2		191.0	563.2	223.9	45.0	1.000043
52000.0	111.8	-64.5		186.0	562.7	224.0	44.4	1.000042
52500.0	109.0	-65.2		181.7	561.8	227.0	44.4	1.000041
53000.0	106.3	-65.9		176.8	560.6	229.0	44.2	1.000040
53500.0	103.7	-66.0		174.4	560.7	233.9	43.0	1.000039
54000.0	101.2	-62.8		167.0	563.0	237.9	40.6	1.000037
54500.0	98.7	-59.0		160.6	570.1	241.0	36.7	1.000036
55000.0	96.4	-60.8		155.2	573.0	244.2	32.6	1.000035
55500.0	94.1	-57.2		151.8	572.5	245.7	28.4	1.000034
56000.0	91.9	-58.4		149.0	570.9	244.9	25.3	1.000033
56500.0	89.7	-59.5		146.3	569.4	243.0	22.3	1.000033
57000.0	87.5	-60.8		143.0	567.6	244.2	16.7	1.000032
57500.0	85.4	-61.2		140.4	567.1	244.4	15.3	1.000031
58000.0	83.4	-61.1		137.0	567.3	245.0	11.9	1.000031
58500.0	81.4	-61.4		133.0	567.0	234.0	10.9	1.000030
59000.0	79.4	-61.6		130.8	566.0	222.1	11.0	1.000029
59500.0	77.5	-61.9		127.0	566.2	215.4	10.6	1.000028
60000.0	75.6	-62.2		124.2	565.8	211.4	9.9	1.000028
60500.0	73.8	-62.5		122.0	565.4	214.9	8.1	1.000027
61000.0	72.2	-62.8		119.2	565.1	210.5	7.5	1.000027
61500.0	70.2	-63.1		116.5	564.7	225.9	8.8	1.000026
62000.0	68.5	-63.6		113.9	564.0	222.4	10.2	1.000025
62500.0	66.9	-64.1		111.4	563.3	213.0	12.0	1.000025
63000.0	65.2	-64.4		108.8	562.9	213.4	13.2	1.000024

STATION ALTITUDE 3912.75 FEET MSL
4 MAY 52 0730 MDT
ASCLINATOR NO. 62

W PER AIR DATA
1240250002
E-2B

GEODETIC COORDINATES
32.89927 LAT DEG
106.40591 LONG DEG

TABLE-6 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DIRECTION DEGREES (TD)	WIND SPEED KNOTS	INDEX OF REFRACTION
63500.0	63.6	-62.5		103.3	563.4	192.6	14.3	1.000023
64000.0	62.1	-61.4		102.1	567.0	188.7	15.0	1.000023
64500.0	60.6	-61.6		99.8	568.7	187.2	15.4	1.000022
65000.0	59.1	-61.7		97.4	568.4	189.7	15.1	1.000022
65500.0	57.7	-61.9		95.2	568.2	193.6	14.7	1.000021
66000.0	56.3	-62.1		93.0	568.9	193.9	14.0	1.000021
66500.0	55.0	-62.2		90.8	568.8	193.0	13.3	1.000020
67000.0	53.6	-60.3		87.8	568.4	197.0	12.1	1.000020
67500.0	52.3	-59.0		85.2	570.1	193.0	10.9	1.000019
68000.0	51.1	-59.0		83.1	570.1	188.9	9.2	1.000019
68500.0	49.9	-59.0		81.1	570.1	174.6	7.6	1.000018
69000.0	48.7	-59.0		79.2	570.1	159.5	7.1	1.000018
69500.0	47.5	-57.8		76.9	571.7	142.7	7.1	1.000017
70000.0	46.4	-56.5		74.6	573.4	130.3	6.0	1.000017
70500.0	45.3	-56.7		72.9	573.2	113.7	5.2	1.000016
71000.0	44.2	-57.2		71.4	572.5	77.2	4.4	1.000016
71500.0	43.2	-57.4		69.8	572.2	43.3	5.6	1.000016
72000.0	42.2	-57.3		68.1	572.3	32.9	6.9	1.000015
72500.0	41.2	-57.2		66.4	572.5	28.0	8.3	1.000015
73000.0	40.2	-57.2		64.9	572.5	27.0	7.2	1.000014
73500.0	39.3	-57.4		63.4	572.2	26.6	6.2	1.000014
74000.0	38.3	-57.3		61.9	572.3	37.3	5.8	1.000014
74500.0	37.4	-57.1		60.3	572.6	47.3	5.8	1.000013
75000.0	36.5	-56.8		58.9	573.0	53.9	7.8	1.000013
75500.0	35.7	-56.6		57.4	573.3			1.000013
76000.0	34.8	-56.3		56.0	573.7			1.000012
76500.0	34.0	-56.1		54.6	574.0			1.000012
77000.0	33.2	-55.8		53.2	574.3			1.000012

STATION ALTITUDE 3912.75 FEET MSL
4 MAY 62 0730 MDT
ASCENSION ISD. 02

MAINTENANCE LEVELS
1240290002
P-28

TABLE-7

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEW POINT DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT	WIND DATA	
					DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4969.	18.6	9.4	55.	9999.0	9999.0XX
800.0	6067.	13.8	7.6	66.	9999.0	9999.0XX
750.0	8439.	9.4	5.6	78.	210.1	10.7
700.0	10307.	5.6	2.6	82.	200.7	15.3
650.0	12285.	1.6	-2.2	88.	190.3	14.3
600.0	14389.	-2.2	-3.5	91.	212.7	20.1
550.0	16644.	-6.4	-7.5	93.	210.0	20.3
500.0	19071.	-11.1	-11.7	93.	220.3	20.6
450.0	21702.	-16.2	-16.6	93.	219.9	20.6
400.0	24531.	-22.2	-25.3	70.	195.0	31.3
350.0	27755.	-29.8	-33.6	68.	199.0	34.8
300.0	31293.	-39.4	-44.0	61.	200.6	40.3
250.0	35305.	-48.5			220.1	65.1
200.0	40027.	-56.3			235.6	101.9
175.0	42778.	-61.2			234.3	100.7
150.0	45901.	-62.6			235.9	81.3
125.0	49594.	-62.8			227.0	50.4
100.0	54074.	-61.1			239.3	30.9
80.0	58055.	-61.6			220.1	10.9
70.0	61360.	-63.1			220.3	8.9
60.0	64474.	-61.6			187.3	15.4
50.0	68195.	-59.0			177.1	0.0
40.0	72820.	-57.2			2/0.1	7.1

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

STATION ALTITUDE 4010.40 FEET MSL
4 MAY 62 1030 MDT
ASCENSION, I.O.

SIGNIFICANT LEVEL DATA
12402.000,

TABLE-8

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LONG DEG

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	TEMPERATURE DEWPOINT	HUMIDITY PERCENT
MILLIBARS	MSL FEET	DEGREES	CENTIGRADE	
679.5	4010.4	25.3	8.2	38.0
676.6	4300.4	20.6	7.6	43.0
647.7	5054.6	18.7	7.5	49.0
783.5	7250.0	11.9	6.0	67.0
697.5	10416.7	5.6	1.2	73.0
635.0	15001.3	-2	-3.2	80.0
617.7	15645.0	-1.0	-5.2	73.0
574.4	15538.3	-5.3	-10.0	80.0
566.0	15918.3	-6.1	-14.6	51.0
552.5	17490.9	-8.6	-17.3	50.0
521.7	18002.6	-9.9	-14.0	72.0
515.6	18393.3	-10.5	-21.4	40.0
502.3	18761.2	-11.2	-21.5	42.0
503.1	18921.2	-11.8	-18.8	56.0
498.0	19177.7	-12.2	-20.0	52.0
491.4	19513.6	-12.8	-21.7	47.0
480.5	20074.5	-14.2	-18.3	71.0
464.8	20901.5	-15.8	-20.2	69.0
450.0	21702.3	-17.2	-24.5	53.0
437.0	22423.5	-18.8	-22.4	73.0
412.3	25841.9	-21.9	-24.5	79.0
398.5	24664.0	-23.6	-27.2	72.0
378.3	25904.5	-26.5	-30.8	67.0
357.4	27251.1	-29.6	-35.9	55.0
330.4	29075.4	-34.8	-42.1	47.0

STATION ALTITUDE 4010.0 FEET MSL
4 MAY 62 1030 MDT
ASCENSION, RO. 9

U. PER AIR DATA
1240220005
IN 30

GEOLYTIC COORDINATES
32.00497 LAT DEG
100.49714 LONG DEG

TABLE- 9

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND METERS PER SECOND	WIND DIRECTION DEGREES (IN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4010.4	879.5	23.3	8.2	38.0	1026.7	372.5	130.0	5.1	1.000276
4500.0	864.5	20.1	7.6	44.3	1022.5	368.7	130.4	4.2	1.000274
5000.0	849.3	18.8	7.5	47.6	1003.7	367.2	130.9	3.4	1.000271
5500.0	834.3	17.3	7.3	51.9	993.9	365.5	131.9	2.6	1.000268
6000.0	819.4	15.8	7.1	56.2	983.4	363.7	133.7	1.7	1.000265
6500.0	804.9	14.2	6.7	60.5	971.2	361.9	130.1	.9	1.000262
7000.0	790.6	12.7	6.2	64.8	959.2	360.1	217.5	1.7	1.000258
7500.0	776.3	11.4	5.6	67.5	946.2	358.0	232.1	3.1	1.000253
8000.0	762.2	10.4	4.9	68.4	932.4	357.4	235.0	6.1	1.000249
8500.0	748.4	9.4	4.1	69.4	918.0	356.2	239.1	9.0	1.000244
9000.0	734.7	8.4	3.3	70.3	903.4	355.0	229.7	11.1	1.000239
9500.0	721.4	7.4	2.6	71.3	892.2	353.8	229.0	11.6	1.000234
10000.0	708.3	6.4	1.8	72.2	879.2	352.6	229.0	11.6	1.000230
10500.0	695.3	5.4	1.0	73.2	866.4	351.4	228.5	10.9	1.000225
11000.0	682.4	4.3	.2	74.6	853.9	350.0	228.0	10.6	1.000221
11500.0	669.7	3.2	-.7	75.9	841.5	348.7	227.0	10.6	1.000216
12000.0	657.2	2.0	-1.5	77.3	829.4	347.3	226.0	11.0	1.000212
12500.0	645.0	.9	-2.4	78.6	817.4	345.9	225.5	11.6	1.000208
13000.0	633.0	-.2	-3.2	80.0	805.0	344.6	224.1	12.4	1.000204
13500.0	621.1	-.8	-4.8	74.6	792.5	343.7	223.0	13.1	1.000198
14000.0	609.3	-1.8	-6.2	71.7	780.4	342.5	223.0	14.1	1.000194
14500.0	597.8	-2.9	-7.7	69.8	769.0	341.1	223.0	15.7	1.000189
15000.0	586.4	-4.1	-9.1	68.0	757.7	339.7	223.0	17.1	1.000185
15500.0	575.2	-5.2	-10.5	66.1	746.0	338.5	223.0	17.9	1.000181
16000.0	564.2	-6.2	-14.7	50.9	735.4	336.9	221.1	18.7	1.000174
16500.0	553.3	-7.1	-15.6	50.6	723.0	335.8	222.4	18.0	1.000171
17000.0	542.6	-8.0	-16.4	50.3	711.9	334.6	223.5	16.6	1.000168
17500.0	532.1	-8.8	-17.2	50.4	700.5	333.7	221.2	15.6	1.000165
18000.0	521.8	-9.9	-14.0	71.9	689.4	332.6	223.0	15.2	1.000165
18500.0	511.6	-10.7	-21.5	40.6	676.5	331.4	218.0	15.3	1.000157
19000.0	501.5	-11.9	-19.1	54.8	666.1	330.0	215.0	15.7	1.000156
19500.0	491.7	-12.8	-21.6	47.2	657.3	328.9	216.4	15.6	1.000152
20000.0	481.9	-14.0	-18.6	67.8	647.2	327.5	220.5	14.7	1.000152
20500.0	472.4	-15.0	-19.2	70.0	636.6	326.2	222.5	14.3	1.000149
21000.0	463.0	-16.0	-26.7	67.0	626.5	325.1	222.1	14.1	1.000146
21500.0	453.7	-16.8	-23.3	57.0	616.2	323.9	217.5	13.9	1.000143
22000.0	444.6	-17.9	-23.5	61.3	606.2	322.7	210.0	13.8	1.000140
22500.0	435.6	-19.0	-22.5	73.3	596.5	321.4	206.5	15.0	1.000139
23000.0	426.8	-20.1	-23.3	75.4	587.0	320.0	203.5	16.3	1.000136
23500.0	418.1	-21.2	-24.0	77.6	577.6	318.7	203.1	17.1	1.000134

STATION ALTITUDE 4610.00 FEET MSL
4 MAY 52 1030 MDT
ASCENSION NO. 9

01 PER AIR DATA
1240220000

TABLE-9 cont'd

GLOBULAR COORDINATES
32.00497 LAT DEG
100.49714 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	"IND DATA "DIRECTION DEGREES (IN)	"IND DATA "SPEED KNOTS	INDEX OF REFRACTION.
24000.0	409.6	-22.2	77.7	560.3	617.3	202.9	17.9	1.000131
24500.0	401.2	-23.3	73.4	559.0	616.0	202.1	16.6	1.000129
25000.0	392.9	-24.4	70.6	549.9	614.6	201.2	15.8	1.000126
25500.0	384.8	-25.5	68.6	541.1	613.2	202.0	17.3	1.000124
26000.0	376.8	-26.7	66.2	532.5	611.7	204.0	19.1	1.000121
26500.0	368.9	-28.0	61.7	524.0	610.1	204.5	20.5	1.000119
27000.0	361.2	-29.2	57.2	515.6	608.6	204.7	21.9	1.000117
27500.0	353.6	-30.5	53.9	507.5	607.0			1.000115
28000.0	346.1	-31.9	51.7	499.5	605.2			1.000113
28500.0	338.7	-33.2	49.5	491.7	603.5			1.000111
29000.0	331.5	-34.6	47.3	484.0	601.8			1.000109

STATION ALTITUDE 4010-40 FEET MSL
4 MAY 62 1030 MDT
ASCENSION IS. 9

SEA SURFACE LEVELS
12402000,
114 30

TABLE-10

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE WATER DEGREES PERCENT	"JND DATA	
				WIND VELOCITY (TN)	SPEED KNOTS
850.0	4975.	14.9	7.5	150.9	5.4
800.0	6069.	13.7	6.6	160.4	1.1
750.0	8441.	9.5	4.2	234.7	6.7
700.0	10311.	5.8	1.3	220.7	11.2
650.0	12288.	1.4	-2.0	225.0	11.4
600.0	14390.	-2.7	-7.4	224.7	13.3
550.0	16034.	-7.4	-15.6	232.7	17.6
500.0	19051.	-12.0	-19.5	215.5	15.8
450.0	21670.	-17.2	-24.5	214.6	13.8
400.0	24535.	-23.4	-26.9	202.0	10.7
350.0	27691.	-31.1	-37.5		

GEODETIC COORDINATES
32-00497 LAT DEG
106-49714 LONG DEG

STATION ALTITUDE 5912.75 FEET
 4 MAY 52 1130 MDT
 ASCENDING 100. 03

SIGNIFICANT LEVEL DATA
 12400, 9000
 L-23

GEODETIC COORDINATES
 32.89927 LAT DEG
 106.40591 LON DEG

TABLE-11

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	TEMPERATURE DEW-POINT	RELATIVE HUMIDITY
INCHES	FEET	DEGREES	DEGREES	PERCENT
682.1	5912.7	23.0	9.2	40.0
679.0	4013.4	21.6	8.5	43.0
669.0	4345.4	20.7	8.7	40.0
650.0	4303.4	19.4	8.4	49.0
608.5	6378.2	15.5	6.2	54.0
700.0	10324.6	6.1	1.0	73.0
647.2	12419.4	.8	-2.4	79.0
638.2	12709.0	.8	-1.5	86.0
620.5	13532.0	.6	-3.0	84.0
577.5	15005.0	-5.5	-9.0	75.0
555.5	16416.4	-6.1	-10.7	70.0
500.0	19088.0	-12.1	-14.0	80.0
456.6	21343.1	-15.0	-10.0	92.0
449.0	2175.4	-16.2	-17.6	89.0
441.0	22106.0	-17.8	-18.0	92.0
431.5	22754.6	-18.9	-19.7	93.0
400.0	24597.4	-23.5	-26.0	70.0
391.2	25132.0	-24.6	-27.4	77.0
358.2	27228.5	-28.3	-33.8	59.0
337.1	28651.7	-31.8	-36.5	52.0
316.6	29958.9	-34.2	-40.0	55.0
300.0	31351.8	-38.8	-44.4	55.0
289.4	32140.0	-41.6		
281.2	32780.5	-42.6		
277.7	33058.3	-43.7		
275.4	33242.4	-43.6		
269.7	33705.2	-43.8		
264.0	34176.4	-45.2		
250.0	35309.8	-47.0		
247.3	35606.3	-47.6		
227.1	37442.1	-52.1		
200.0	40128.3	-56.1		
182.8	41998.3	-59.3		
156.6	45104.4	-59.5		
150.0	46075.7	-61.1		
141.5	47269.7	-61.3		
138.0	47784.1	-59.7		
133.1	48527.4	-60.9		
125.7	49704.6	-59.3		
112.6	51907.8	-61.5		

STATION ALTITUDE 3912.75 FEET MSL
 4 MAY 62
 ASCENSION NO. 03

SIG. J. ICADT LEVEL OF 10
 1200230000
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STATION ALTITUDE 3912.75 FEET MSL
 4 MAY 62
 ASCENSION NO. 03

STATION ALTITUDE 3912.75 FEET MSL
 4 MAY 62
 ASCENSION NO. 03

TABLE-11 cont'd

PRESSURE OF METRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEW POINT DEGREES CENTIGRADE	REL. HUMID. PERCENT
103.4 53727.6	-57.7	
100.0 54424.5	-57.2	
95.0 55363.7	-57.2	
83.7 56113.0	-61.2	
71.0 61464.8	-61.3	
70.0 61775.6	-61.1	
66.7 62765.0	-61.5	
58.9 65326.9	-58.9	
50.0 68742.9	-56.4	
48.7 69296.5	-55.0	
43.4 71482.0	-55.5	
41.3 72777.0	-52.0	
38.9 74051.9	-53.6	
36.5 75407.0	-53.0	

STATION ALTITUDE 3912.70 FEET MSL
4 MAY 82 1130 MDT
ASCENSION NO. 03

U, PER AIR DATA
1240230000
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GEODETIC COORDINATES
32.0927 LAT DEG
106.40591 LONG DEG

TABLE-12

GEOMETRIC ALTITUDE MSL FEET	PRESSURE	AIR TEMPERATURE DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND M/SEC	REFRACTION, DEGREES (IN) MILES	INDEX OF REFRACTION
3912.7	882.1	25.6	40.0	1030.4	672.8	120.0	1.000280
4000.0	879.4	21.9	42.6	1033.4	670.6	122.4	1.000279
4500.0	864.1	20.4	46.7	1020.3	669.1	130.2	1.000277
5000.0	849.3	19.3	49.1	1000.3	667.9	135.6	1.000273
5500.0	834.6	17.9	50.9	993.4	666.2	145.0	1.000268
6000.0	819.3	16.5	52.7	980.7	664.6	157.0	1.000263
6500.0	804.7	15.2	54.6	967.9	663.0	169.5	1.000259
7000.0	790.2	14.0	57.0	954.4	661.6	184.9	1.000255
7500.0	775.9	12.8	59.4	941.1	660.2	203.6	1.000251
8000.0	761.9	11.6	61.8	926.1	658.6	219.6	1.000246
8500.0	748.1	10.4	64.2	913.2	657.4	230.1	1.000242
9000.0	734.6	9.3	66.6	902.6	656.0	243.3	1.000238
9500.0	721.4	8.1	69.0	890.1	654.6	254.5	1.000234
10000.0	708.3	6.9	71.4	877.9	653.2	268.2	1.000230
10500.0	695.4	5.7	73.5	865.7	651.7	277.0	1.000226
11000.0	682.5	4.4	74.9	853.7	650.2	288.7	1.000221
11500.0	669.9	3.1	76.4	841.9	648.6	298.0	1.000217
12000.0	657.4	1.9	77.8	830.2	647.1	307.2	1.000212
12500.0	645.2	.8	80.5	818.0	645.6	315.1	1.000209
13000.0	633.1	.4	85.4	805.7	643.8	323.3	1.000206
13500.0	621.3	.5	84.1	791.5	642.2	331.3	1.000202
14000.0	609.5	-1.8	81.8	780.2	642.6	338.8	1.000196
14500.0	597.9	-3.0	79.3	769.2	641.1	346.1	1.000192
15000.0	586.5	-4.3	76.9	758.3	639.5	353.5	1.000187
15500.0	575.4	-5.4	74.5	747.0	638.1	360.7	1.000183
16000.0	564.3	-6.8	72.1	735.9	637.0	367.9	1.000179
16500.0	553.5	-8.3	70.5	725.2	637.0	375.1	1.000175
17000.0	542.7	-9.4	73.5	710.2	635.6	382.3	1.000172
17500.0	532.2	-10.5	76.5	699.4	634.3	389.5	1.000169
18000.0	521.8	-11.9	79.5	688.7	632.9	396.7	1.000166
18500.0	511.7	-13.2	82.5	678.3	631.6	403.9	1.000163
19000.0	501.7	-14.5	85.5	668.0	630.2	411.1	1.000160
19500.0	491.8	-15.8	87.1	657.0	629.1	418.3	1.000158
20000.0	482.1	-17.1	89.4	646.1	628.1	425.5	1.000155
20500.0	472.6	-18.4	89.7	635.3	627.1	432.7	1.000152
21000.0	463.2	-19.7	91.1	624.6	626.1	439.9	1.000149
21500.0	454.0	-21.0	90.9	614.1	625.2	447.1	1.000146
22000.0	444.9	-22.3	90.6	604.5	623.6	454.3	1.000143
22500.0	436.0	-23.6	92.6	595.5	622.1	461.5	1.000140
23000.0	427.2	-24.9	91.0	586.0	620.8	468.7	1.000138

STATION ALTITUDE 391.75 FEET MSL
4 MAY 62 1130 MDT
ASCENSION IS. 03

UPPER AIR DATA
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TABLE-12 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	RELATUM. PERCENT	DENSITY GM/CUBIC METER	WIND SPEED KNOTS	WIND DIRECTION (10)	WIND SPEED KNOTS	INDEX OF REFRACTION
23500.0	410.5	-20.7	86.9	570.9	619.3	200.7	40.5	1.000135
24000.0	410.3	-21.9	82.9	567.9	617.0	205.0	41.0	1.000132
24500.0	401.0	-23.1	78.8	559.0	610.3	205.0	44.3	1.000129
25000.0	393.4	-24.3	77.2	550.3	614.0	204.5	47.0	1.000127
25500.0	385.2	-25.2	73.8	541.0	613.0	203.7	47.1	1.000124
26000.0	377.2	-26.1	69.5	531.7	612.4	202.0	47.0	1.000122
26500.0	369.3	-27.0	65.3	522.5	611.3	201.3	45.6	1.000119
27000.0	361.7	-27.9	61.0	513.5	610.2	199.9	44.7	1.000117
27500.0	354.1	-29.0	57.7	505.0	606.9	199.7	46.7	1.000115
28000.0	346.6	-30.2	55.2	496.0	607.3	199.0	48.6	1.000112
28500.0	339.3	-31.4	52.7	486.6	603.0	200.0	50.5	1.000110
29000.0	332.1	-32.4	52.8	480.5	604.5	200.4	52.1	1.000108
29500.0	325.0	-33.4	53.9	472.0	603.3	201.1	51.6	1.000106
30000.0	318.0	-34.3	55.0	463.0	602.1	201.0	51.1	1.000105
30500.0	311.1	-35.0	55.0	457.0	600.0	203.5	50.1	1.000103
31000.0	304.4	-37.7	55.0	450.3	597.0	205.4	49.1	1.000101
31500.0	297.8	-39.4	43.6**	443.7	595.7	207.0	50.9	1.000099
32000.0	291.2	-41.1	9.5**	437.2	593.4	203.0	52.9	1.000097
32500.0	284.6	-42.2		429.5	592.1	210.0	57.4	1.000096
33000.0	278.4	-43.5		422.5	590.4	211.1	62.3	1.000094
33500.0	272.2	-43.7		415.5	590.1	213.5	66.4	1.000092
34000.0	266.1	-44.7		408.8	588.9	215.5	70.5	1.000090
34500.0	260.1	-45.7		398.4	587.0	216.0	72.0	1.000089
35000.0	254.3	-46.4		390.7	585.6	220.5	73.0	1.000087
35500.0	248.5	-47.3		383.4	585.4	222.2	73.6	1.000085
36000.0	242.8	-48.6		376.7	583.8	223.7	74.2	1.000084
36500.0	237.3	-49.8		370.0	582.2	224.7	76.5	1.000082
37000.0	231.8	-51.0		363.5	580.0	225.4	79.2	1.000081
37500.0	226.5	-52.2		357.1	579.1	226.4	82.4	1.000080
38000.0	221.2	-52.9		349.9	577.1	227.5	85.8	1.000078
38500.0	216.0	-53.7		342.9	576.2	228.2	105.9	1.000076
39000.0	211.0	-54.4		336.0	575.2	229.1	130.5	1.000075
39500.0	206.0	-55.2		329.5	573.2	229.1	136.1	1.000073
40000.0	201.2	-55.9		322.7	574.2	229.4	135.7	1.000072
40500.0	196.5	-56.7		316.2	573.1	229.0	135.4	1.000070
41000.0	191.8	-57.6		310.0	572.0	229.0	135.0	1.000069
41500.0	187.2	-58.4		303.0	570.8	229.1	134.7	1.000068
42000.0	182.8	-59.3		297.0	569.7	229.5	134.4	1.000066
42500.0	178.4	-59.3		290.7	569.7	229.0	110.9	1.000065
43000.0	174.1	-59.4		283.0	569.0	229.7	83.7	1.000063

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

STATION ALTITUDE 3912.75 FEET MSL
4 MAY 62 1130 MDT
ASCENSION NO. 63

UPPER AIR DATA
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TABLE-12 cont'd

GEODETIC COORDINATES
32.89927 LAT DEG
106.40591 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND METERS PER SECOND	WIND DATA DIRECTION (IN) SPEED (KNOTS)	INDEX OF REFRACTION
43500.0	170.0	-59.4		277.0	309.0	234.1	1.000062
44000.0	165.9	-59.4		270.4	309.5	234.1	1.000060
44500.0	161.9	-59.5		264.0	309.5	230.7	1.000059
45000.0	158.1	-59.5		257.7	309.5	229.2	1.000057
45500.0	154.3	-60.1		252.2	300.7	220.0	1.000056
46000.0	150.6	-61.0		247.2	307.5	220.0	1.000055
46500.0	146.9	-61.2		241.5	307.2	220.0	1.000054
47000.0	143.4	-61.3		235.7	307.1	229.5	1.000052
47500.0	139.9	-60.6		229.3	300.0	229.0	1.000051
48000.0	136.6	-60.0		223.2	300.7	230.2	1.000050
48500.0	133.3	-60.9		218.7	307.6	230.2	1.000049
49000.0	130.1	-60.3		212.9	308.4	230.1	1.000047
49500.0	127.0	-59.6		207.1	309.3	229.0	1.000046
50000.0	123.9	-59.6		202.1	309.4	229.0	1.000045
50500.0	120.9	-60.0		197.0	308.8	229.5	1.000044
51000.0	118.0	-60.4		193.3	308.2	230.3	1.000043
51500.0	115.2	-60.9		189.0	307.6	231.3	1.000042
52000.0	112.4	-61.2		184.0	307.1	232.7	1.000041
52500.0	109.7	-60.2		179.5	300.5	234.1	1.000040
53000.0	107.1	-59.2		174.4	309.9	235.2	1.000039
53500.0	104.5	-58.2		169.4	311.2	230.1	1.000038
54000.0	102.1	-57.5		164.9	312.1	230.0	1.000037
54500.0	99.6	-57.2		160.7	312.5	230.0	1.000036
55000.0	97.3	-57.2		156.9	312.5	230.0	1.000035
55500.0	95.0	-57.4		153.3	312.2	231.3	1.000034
56000.0	92.7	-56.1		150.2	311.3	227.0	1.000033
56500.0	90.5	-54.9		147.1	310.3	223.3	1.000033
57000.0	88.3	-59.6		144.1	309.3	219.3	1.000032
57500.0	86.2	-60.3		141.1	300.4	213.4	1.000031
58000.0	84.2	-61.0		138.2	307.4	213.4	1.000031
58500.0	82.1	-61.2		135.0	307.2	212.3	1.000030
59000.0	80.2	-61.2		131.0	307.1	211.9	1.000029
59500.0	78.2	-61.2		128.0	307.1	211.9	1.000029
60000.0	76.3	-61.3		125.5	307.1	212.4	1.000028
60500.0	74.5	-61.3		122.5	307.1	213.1	1.000027
61000.0	72.7	-61.3		119.5	307.1	214.3	1.000027
61500.0	70.9	-61.3		116.7	307.0	210.1	1.000026
62000.0	69.2	-61.2		113.6	307.2	213.3	1.000025
62500.0	67.6	-61.4		111.2	300.9	213.3	1.000025
63000.0	65.9	-61.3		108.4	307.1	220.0	1.000024

GEODETIC COORDINATES
32.89927 LAT DEG
106.40591 LONG DEG

WIND DATA
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TABLE-12 cont'd

STATION ALTITUDE 5912.75 FEET MSL
4 MAY 62 1130 MDT
ASCENSION NO. 03

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DEFSITY GM/CM ³	SPEED OF SOUND M/SEC	WIND DATA DIRECTION DEGREES (TD)	SPEED KNOTS	INDEX OF REFRACTION
63500.0	64.4	-60.8		105.0	567.8	227.0	9.5	1.0000625
64000.0	62.6	-60.2		102.0	568.4	200.5	7.0	1.0000225
64500.0	61.3	-59.7		100.1	569.1	222.1	4.9	1.000022
65000.0	59.8	-59.2		97.5	569.8	232.2	3.2	1.000022
65500.0	58.4	-58.8		94.9	570.4	229.5	1.8	1.000021
66000.0	57.0	-58.4		92.5	570.9	212.5	1.2	1.000021
66500.0	55.7	-58.0		90.2	571.4	170.0	.9	1.000020
67000.0	54.4	-57.7		87.9	571.9	152.0	2.2	1.000020
67500.0	53.1	-57.3		85.7	572.4	147.0	3.7	1.000019
68000.0	51.8	-56.9		83.5	572.8	147.4	5.5	1.000019
68500.0	50.6	-56.6		81.4	573.5	148.0	7.4	1.000018
69000.0	49.4	-56.0		79.2	574.0	149.0	8.9	1.000018
69500.0	48.2	-55.6		77.2	574.8	145.0	9.5	1.000017
70000.0	47.1	-55.6		75.4	574.7	145.5	10.1	1.000017
70500.0	46.0	-55.5		73.0	574.7	144.5	9.8	1.000016
71000.0	44.9	-55.5		71.9	574.7	141.5	9.5	1.000016
71500.0	43.9	-55.5		70.2	574.8	137.5	9.6	1.000016
72000.0	42.8	-54.5		68.2	575.5	135.9	9.8	1.000015
72500.0	41.8	-53.2		66.5	577.7	131.2	10.1	1.000015
73000.0	40.9	-52.8		64.0	578.5	131.5	10.7	1.000014
73500.0	39.9	-53.3		61.5	577.7	131.9	11.4	1.000014
74000.0	39.0	-53.8		61.9	577.0			1.000014
74500.0	38.1	-53.5		60.4	577.5			1.000015
75000.0	37.2	-53.2		58.9	577.7			1.000015

STATION ALTITUDE 3912.75 FEET ASL
 4 MAY 62 1130 MDT
 ASCENSION NO. 03

MAJORITY LEVELS
 1240290000
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GEODETIC COORDINATES
 32.09927 LAT DEG
 100.40591 LON DEG

TABLE-13

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMIDITY PERCENT	WIND DATA	
				DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4962.	19.4	49.	154.0	4.5
800.0	6661.	14.8	50.	221.0	9.7
750.0	8441.	10.6	64.	210.0	14.7
700.0	10315.	6.1	75.	217.1	20.4
650.0	12292.	1.1	79.	210.0	25.0
600.0	14396.	-2.8	80.	220.1	26.6
550.0	16642.	-6.6	71.	231.2	39.0
500.0	19062.	-12.1	60.	221.0	51.2
450.0	21086.	-16.1	89.	207.7	30.5
400.0	24557.	-23.3	70.	204.9	44.0
350.0	27724.	-29.6	50.	199.0	47.7
300.0	31271.	-38.8	50.	200.0	50.2
250.0	35294.	-47.0	50.	221.0	73.5
200.0	40035.	-56.1		225.4	135.7
175.0	42791.	-59.4		230.0	64.6
150.0	45953.	-61.1		220.1	70.9
125.0	49679.	-59.4		229.7	60.0
100.0	54258.	-57.2		230.0	50.5
80.0	58846.	-61.2		211.9	24.9
70.0	61565.	-61.1		217.1	20.9
60.0	64713.	-59.3		232.2	3.5
50.0	68486.	-56.4		140.9	0.2
40.0	73168.	-53.2		151.0	11.3

STATION ALTITUDE 4010.40 FEET MSL
4 MAY 22 1330 MDT
ASCENSION NO. 10

SIGNAL LIGHT LEVEL DATA
1240220010
10W 30
TABLE-14

GEODETIC COORDINATES
32.00497 LAT DEG
106.49714 LONG DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEW POINT CENTIGRADE	
678.1	4010.4	24.6	9.3	38.0
677.2	4039.8	22.8	7.0	36.0
650.0	4936.8	20.5	6.1	39.0
749.3	8445.5	9.4	2.3	61.0
700.0	10285.8	4.2	2.2	67.0
685.3	10852.9	2.0	1.7	94.0
661.4	11794.4	.3	-1.3	89.0
609.8	13924.7	-3.2	-6.5	78.0
572.0	15582.3	-6.0	-14.2	52.0
541.6	16980.1	-9.3	-19.0	45.0
500.0	18936.1	-13.7	-17.0	70.0
493.2	19338.9	-13.5	-16.2	80.0
424.6	23027.1	-20.5	-23.2	79.0
400.0	24484.5	-23.3	-27.7	67.0
354.2	27376.0	-29.8	-36.1	54.0
300.0	31195.7	-39.5	-45.6	52.0
284.6	32375.3	-42.6		
278.6	32847.6	-44.1		
250.0	35202.0	-51.5		
228.0	37153.6	-55.6		
200.0	39888.5	-58.1		
190.3	40915.6	-60.1		
169.8	43260.8	-59.9		
167.5	43542.0	-59.2		
154.4	45211.3	-62.5		
150.0	45798.9	-62.9		
146.3	46306.6	-62.4		
144.2	46602.6	-59.8		
138.8	47394.6	-56.8		
128.8	48948.8	-59.1		
113.4	51550.1	-64.3		
102.2	53644.7	-65.1		
100.0	54083.0	-64.3		
96.4	54830.5	-60.1		
84.2	57614.5	-60.5		
70.8	59484.5	-65.3		
72.2	60727.0	-64.9		
70.0	61354.1	-62.3		
60.8	64232.6	-61.6		
55.8	65990.6	-61.2		

GEODETIC COORDINATES
32.80497 LAT DEG
106.49714 LON DEG

SIGHTING LEVEL DATA
12402.0010
NW 30

TABLE-14 cont'd

STATION ALTITUDE 4010.00 FEET ASL
4 MAY 62 1330 MDT
ASCENSION NO. 10

PRESSURE	GEOMETRIC ALTITUDE MILLIBARS ASL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT
50.0	68253.1	-59.0	
39.0	73428.8	-56.9	

STATION ALTITUDE 4010.00 FEET MSL
4 MAY 62 1330 MDT
ASCENSION NO. 10

ON-PER AIR DATA
1240220010
100 30

GEOLITIC COORDINATES
J2.00497 LAT DEG
106.49714 LONG DEG

TABLE-15

GEOLITIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL-HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4010.4	878.1	24.6	9.3	1022.2	673.9	150.0	12.0	1.000278
4500.0	863.1	21.6	6.5	1013.7	670.3	159.3	11.7	1.000269
5000.0	840.1	20.3	6.1	1002.0	663.8	169.2	11.7	1.000265
5500.0	833.0	18.7	5.7	990.1	667.0	170.0	12.0	1.000262
6000.0	818.1	17.1	5.3	977.0	663.1	167.6	12.7	1.000258
6500.0	803.6	15.6	4.8	963.7	663.3	193.5	13.6	1.000254
7000.0	789.3	14.0	4.3	953.0	661.4	201.5	14.4	1.000251
7500.0	775.2	12.4	3.6	942.1	659.0	204.5	14.3	1.000247
8000.0	761.4	10.8	2.9	930.6	657.7	207.5	14.3	1.000243
8500.0	747.8	9.2	2.3	919.1	655.9	210.5	14.3	1.000239
9000.0	734.1	7.8	2.5	908.7	654.3	212.5	14.0	1.000237
9500.0	720.6	6.4	2.5	894.5	652.0	214.5	13.6	1.000235
10000.0	707.4	5.0	2.4	882.0	651.0			1.000232
10500.0	694.4	3.6	2.1	870.7	649.3			1.000229
11000.0	681.5	2.2	1.3	858.9	647.7			1.000225
11500.0	668.8	1.0	-3	846.9	646.2			1.000219
12000.0	656.2	-0	-1.8	834.5	644.0			1.000213
12500.0	643.8	-9	-3.0	821.4	643.0			1.000208
13000.0	631.7	-17	-4.2	808.4	642.7			1.000203
13500.0	619.6	-25	-5.4	795.7	641.7			1.000198
14000.0	608.0	-33	-6.8	783.2	640.7			1.000194
14500.0	596.4	-42	-9.0	770.9	639.6			1.000188
15000.0	585.0	-50	-11.3	758.8	638.5			1.000183
15500.0	573.8	-59	-13.8	746.0	637.4			1.000176
16000.0	562.7	-70	-15.6	733.0	636.0			1.000174
16500.0	551.9	-82	-17.3	724.7	634.5			1.000170
17000.0	541.2	-93	-19.0	714.0	633.1	229.5	44.7	1.000166
17500.0	530.6	-104	-18.1	702.0	631.8	230.4	49.1	1.000165
18000.0	520.1	-115	-17.6	691.8	630.5	230.4	53.0	1.000163
18500.0	509.9	-126	-17.2	681.0	629.2	228.4	55.4	1.000161
19000.0	499.9	-137	-17.0	670.4	627.9	225.5	55.7	1.000158
19500.0	490.0	-138	-16.5	657.3	627.8	219.0	52.9	1.000156
20000.0	480.2	-148	-17.4	646.0	626.0	214.2	48.8	1.000153
20500.0	470.6	-157	-18.4	636.0	625.4	207.0	44.2	1.000150
21000.0	461.1	-167	-19.3	625.0	624.3	204.0	41.6	1.000147
21500.0	451.9	-176	-20.3	613.4	623.1	202.2	39.4	1.000144
22000.0	442.8	-186	-21.2	603.3	621.9	201.0	39.0	1.000141
22500.0	434.0	-195	-22.2	593.5	620.7	199.0	39.2	1.000139
23000.0	425.3	-204	-23.1	583.8	619.0	198.0	40.6	1.000136
23500.0	416.6	-214	-24.0	576.1	618.4	197.0	41.9	1.000133

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

STATION ALTITUDE 4010.00 FEET MSL
4 MAY 52 1330 MDT
ASCENSION, MO. IC

UNPLD AIR DATA
124020010
PW 30

GEOMETRIC ALTITUDE 4010.00 FEET MSL
4 MAY 52 1330 MDT
ASCENSION, MO. IC

GEOMETRIC COORDINATES
32.00497 LAT DEG
106.49714 LONG DEG

TABLE-15 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ MLTER	SPEED OF SOUND M/SEC	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	400.1	-22.4	71.0	560.5	617.1	197.0	42.9	1.000131
24500.0	399.7	-23.3	66.9	557.1	613.9	190.0	43.2	1.000123
25000.0	391.4	-24.5	64.7	540.0	614.5	194.0	43.5	1.000125
25500.0	385.3	-25.0	62.4	539.1	613.1	194.0	44.0	1.000125
26000.0	375.3	-26.7	60.2	530.3	611.7	194.0	44.7	1.000121
26500.0	367.5	-27.8	57.9	521.7	610.3	190.0	45.7	1.000118
27000.0	359.8	-29.0	55.7	513.2	605.9	190.4	46.4	1.000116
27500.0	352.3	-30.1	53.9	504.6	607.4	193.9	47.1	1.000114
28000.0	344.7	-31.4	53.7	490.0	605.0	200.0	47.7	1.000112
28500.0	337.3	-32.7	53.4	480.5	604.2	201.2	48.3	1.000110
29000.0	330.1	-33.9	53.1	480.5	602.0	201.9	48.9	1.000108
29500.0	323.0	-35.2	52.9	472.7	601.0	202.0	49.6	1.000106
30000.0	316.0	-36.5	52.6	463.0	599.4	203.0	50.6	1.000105
30500.0	309.2	-37.7	52.4	457.5	597.6	204.9	52.7	1.000103
31000.0	302.6	-39.0	52.1	450.1	590.2	206.0	54.5	1.000101
31500.0	295.9	-40.3	51.6**	442.7	594.5	207.1	56.0	1.000099
32000.0	289.4	-41.6	51.3**	433.4	592.8	208.0	57.5	1.000097
32500.0	283.0	-43.0	51.0**	423.4	591.0	209.2	59.1	1.000095
33000.0	276.7	-44.6	50.7**	421.0	589.0	210.3	60.7	1.000094
33500.0	270.4	-46.2	50.4**	414.9	587.0	211.0	62.7	1.000092
34000.0	264.2	-47.7	50.1**	408.3	584.9	213.0	64.9	1.000091
34500.0	258.2	-49.3	50.0**	401.6	582.9	214.0	66.0	1.000089
35000.0	252.3	-50.9	50.0**	395.5	580.6	217.0	67.8	1.000088
35500.0	246.5	-52.1	50.0**	389.5	579.2	218.0	70.7	1.000087
36000.0	240.8	-53.2	50.0**	381.3	577.0	220.0	74.4	1.000085
36500.0	235.1	-54.2	50.0**	374.2	570.4	221.7	79.9	1.000083
37000.0	229.7	-55.3	50.0**	367.2	573.0	223.1	85.6	1.000082
37500.0	224.2	-55.9	50.0**	359.0	574.2	224.0	91.0	1.000080
38000.0	218.9	-56.4	50.0**	351.6	573.0	225.3	95.9	1.000078
38500.0	213.8	-56.8	50.0**	344.2	573.0	227.9	99.8	1.000077
39000.0	208.7	-57.3	50.0**	336.8	572.4	229.2	102.3	1.000075
39500.0	203.8	-57.7	50.0**	329.5	571.8	230.4	103.8	1.000073
40000.0	198.9	-58.3	50.0**	322.0	571.0	231.1	104.7	1.000072
40500.0	194.2	-59.3	50.0**	316.0	569.7	231.0	105.3	1.000070
41000.0	189.5	-60.1	50.0**	309.9	560.0	231.7	105.9	1.000069
41500.0	185.0	-60.1	50.0**	302.4	560.7	231.7	106.4	1.000067
42000.0	180.5	-60.0	50.0**	295.1	568.0	232.3	101.8	1.000066
42500.0	176.2	-60.0	50.0**	287.9	560.0	233.5	95.5	1.000064
43000.0	172.0	-59.9	50.0**	281.0	560.9	234.9	86.0	1.000062
43500.0	167.6	-59.3	50.0**	273.4	569.7	235.0	79.3	1.000061

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

GEOLYTIC COORDINATES
32.00497 LAT DEG
106.49714 LONG DEG

UPPER AIR DATA
1200Z0001
1W 30

TABLE-15 cont'd

STATION ALTITUDE 4010.00 FEET MSL
4 MAY 02 1330 MDT
ASCENSION NO. 10

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (IN) SPEED (KNOTS)	INDEX OF REFRACTION
44000.0	100.8	-60.1		267.0	560.0	250.0	1.000000
44500.0	109.9	-61.1		262.0	567.3	255.1	1.000058
45000.0	130.0	-62.1		257.0	560.0	254.4	1.000057
45500.0	152.2	-62.7		252.0	565.2	253.7	1.000056
46000.0	148.5	-62.7		245.0	565.2	253.1	1.000055
46500.0	144.9	-60.7		237.0	567.8	252.0	1.000053
47000.0	141.5	-58.3		229.4	571.0	251.0	1.000051
47500.0	138.1	-57.0		222.0	572.0	251.0	1.000050
48000.0	134.6	-57.7		218.0	571.0	250.0	1.000049
48500.0	131.6	-58.4		213.0	570.9	249.0	1.000048
49000.0	128.5	-49.2		209.2	569.0	250.2	1.000047
49500.0	125.4	-60.2		205.1	568.5	251.1	1.000046
50000.0	122.3	-61.2		201.1	567.2	251.0	1.000045
50500.0	119.4	-62.2		197.1	565.8	250.7	1.000044
51000.0	116.5	-63.2		193.3	564.5	249.2	1.000043
51500.0	113.7	-64.2		189.5	563.1	247.0	1.000042
52000.0	110.9	-64.5		185.1	562.8	246.0	1.000041
52500.0	108.2	-64.7		180.0	562.5	245.0	1.000040
53000.0	105.5	-64.9		176.0	562.0	245.4	1.000039
53500.0	102.9	-65.0		172.0	562.0	245.2	1.000038
54000.0	100.4	-64.5		167.0	562.8	244.9	1.000037
54500.0	98.0	-62.0		161.0	560.2	244.4	1.000036
55000.0	95.6	-60.1		156.4	568.0	243.7	1.000035
55500.0	93.3	-60.2		152.0	568.0	242.2	1.000034
56000.0	91.1	-60.3		149.0	568.4	240.2	1.000033
56500.0	88.9	-60.3		145.0	568.0	217.0	1.000032
57000.0	86.8	-60.4		142.1	568.2	214.0	1.000032
57500.0	84.7	-60.5		138.7	568.1	211.0	1.000031
58000.0	82.6	-61.5		136.0	568.0	207.0	1.000030
58500.0	80.6	-62.8		133.0	565.1	200.0	1.000030
59000.0	78.7	-64.1		131.0	565.3	200.7	1.000029
59500.0	76.7	-65.3		129.0	561.7	210.4	1.000029
60000.0	74.9	-65.1		125.4	561.9	215.2	1.000028
60500.0	73.0	-65.0		122.2	562.1	220.0	1.000027
61000.0	71.2	-63.8		118.0	563.7	220.2	1.000026
61500.0	69.5	-62.3		114.8	563.7	230.0	1.000026
62000.0	67.8	-62.1		112.0	563.9	230.4	1.000025
62500.0	66.2	-62.0		109.2	560.1	252.1	1.000024
63000.0	64.6	-61.9		106.5	560.2	304.2	1.000024
63500.0	63.0	-61.8		103.9	560.4	300.9	1.000023

U, PER AIR DATA
1240220010
1.0 30

STATION ALTITUDE 4010.00 FEET MSL
4 MAY 62
ASCENSION NO. 10 1330 MDT

GEOMETRIC ALTITUDE 4010.00 FEET MSL
4 MAY 62
ASCENSION NO. 10 1330 MDT

TABLE-15 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CM ³ MLTER	SOUND SPEED KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (IN)	SPEED KNOTS	
64000.0	61.5	-61.7		101.0	500.0	0.0	17.5	1.000023
64500.0	60.6	-61.5		99.0	500.7	0.0	18.5	1.000022
65000.0	59.6	-61.4		98.4	500.9	40.9	14.9	1.000021
65500.0	57.2	-61.3		94.0	507.0	40.5	9.1	1.000021
66000.0	55.8	-61.2		91.7	507.2	50.5	6.3	1.000020
66500.0	54.4	-60.7		89.3	507.8	100.9	7.0	1.000020
67000.0	53.1	-60.2		86.9	503.5	117.0	8.7	1.000019
67500.0	51.9	-59.7		84.7	509.1	147.5	10.7	1.000019
68000.0	50.6	-59.2		82.4	509.8	179.4	16.6	1.000018
68500.0	49.4	-58.9		80.3	570.2	177.4	23.0	1.000018
69000.0	48.2	-58.7		78.4	570.5	164.2	24.6	1.000017
69500.0	47.1	-58.5		76.4	570.8	147.4	22.6	1.000017
70000.0	46.0	-58.3		74.5	571.0	69.0	31.5	1.000017
70500.0	44.9	-58.1		72.7	571.3	60.1	25.2	1.000016
71000.0	43.8	-57.9		70.9	571.6	67.9	15.3	1.000016
71500.0	42.6	-57.7		69.2	571.9	160.0	4.8	1.000015
72000.0	41.8	-57.5		67.5	572.1			1.000015
72500.0	40.8	-57.3		65.8	572.4			1.000015
73000.0	39.8	-57.1		64.2	572.7			1.000014

STATION ALTITUDE 9010.40 FEET ASL
4 MAY 62
ASCENSION, NO. 16

WIND DIRECTION LEVELS

1200Z 0010

0010

TABLE-16

GEODETIC COORDINATES
32.68497 LAT DEG
106.49714 LONG DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	POTENTIAL PERCENT	DIRECTION	SPEED
150.0	4933.	20.5	3.0	107.0	11.7
800.0	6030.	15.2	50.	197.4	15.9
750.0	8413.	0.5	01.	210.0	14.3
700.0	10270.	4.2	07.	9999.0	9999.0XX
650.0	12240.	-4.	87.	9999.0	9999.0XX
600.0	14330.	-3.9	71.	9999.0	9999.0XX
550.0	16567.	-8.4	47.	9999.0	9999.0XX
500.0	18970.	-13.7	70.	225.0	50.6
450.0	21543.	-17.8	79.	202.0	59.3
400.0	2445.	-23.3	07.	190.1	43.2
350.0	27000.	-30.5	54.	200.3	47.2
300.0	31135.	-39.5	52.	200.4	50.1
250.0	35127.	-51.5		217.7	00.4
200.0	39794.	-56.1		231.0	104.0
175.0	42533.	-60.0		230.0	90.2
150.0	45070.	-62.9		230.4	00.5
125.0	49420.	-60.3		231.2	49.5
100.0	53910.	-64.3		224.0	37.0
80.0	58469.	-63.2		200.0	20.7
70.0	61140.	-62.3		220.9	10.0
60.0	64275.	-61.5		0.0	10.4
50.0	67909.	-59.0		185.0	22.7
40.0	72012.	-57.1			

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

GEODETIC COORDINATES
32.09927 LAT DEG
106.40591 LONG DEG

SIGNIFICANT LEVEL DATA
1240290004
1-28

TABLE-17

STATION ALTITUDE 3912.75 FEET MSL
0 MAY 02 1430 MDT
ASCENSION IS. 04

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	TEMPERATURE DEWPOINT	REL. HUM. PERCENT
MILLIBARS	FEET	DEGREES	CENTIGRADE	
600.0	3912.7	23.2	9.4	41.0
590.0	4001.4	20.3	7.7	44.0
761.0	7022.8	11.9	3.2	55.0
700.0	10203.2	4.7	3.0	69.0
656.7	11060.1	1.0	.9	99.0
639.3	12670.9	.9	-3.4	73.0
621.7	13413.3	-4	-9.3	51.0
613.1	13779.2	-1.1	-11.0	44.0
584.2	15036.3	-4.3	-12.4	53.0
554.2	16396.9	-7.6	-11.1	76.0
500.0	19002.1	-13.9	-14.0	99.0
474.4	20314.3	-14.6	-14.7	99.0
436.5	22377.6	-18.1	-18.5	97.0
400.0	24534.0	-16.2	-17.2	92.0
355.4	27390.7	-29.3	-20.2	92.0
335.2	29757.5	-32.6	-30.3	69.0
300.0	31297.2	-39.0	-42.2	71.0
273.8	33337.6	-44.3		
250.0	35352.9	-42.5		
239.3	36300.6	-51.8		
200.0	40069.2	-57.5		
168.4	43629.3	-62.3		
163.9	44180.9	-62.1		
150.0	45317.3	-62.6		
150.0	45985.4	-61.7		
144.0	46817.0	-62.3		
140.7	47292.4	-60.1		
134.2	48267.2	-59.4		

GEOMETRIC COORDINATES
32.89927 LAT DEG
106.40591 LONG DEG

UNPLR A.P. DATA
1240290004
E-23

TABLE-18

STATION ALTITUDE 5912.75 FEET MSL
4 MAY 62 1430 MDT
ASCENSION NO. 04

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND METERS PER SECOND	WIND DATA DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
5912.7	800.0	23.2	9.2	41.0	1029.5	672.5	100.0	14.0	1.000260
4000.0	877.3	22.9	9.1	41.3	1027.0	672.0	100.0	14.2	1.000279
4500.0	862.1	21.5	8.3	42.8	1014.4	670.5	100.0	15.5	1.000274
5000.0	847.0	20.0	7.5	44.4	1001.8	669.0	171.0	16.9	1.000269
5500.0	832.0	18.7	6.9	46.2	986.8	667.0	174.0	18.2	1.000265
6000.0	817.2	17.3	6.2	47.9	973.9	665.4	175.0	19.7	1.000260
6500.0	802.7	15.9	5.4	49.7	963.5	663.8	161.7	20.3	1.000255
7000.0	788.5	14.5	4.7	51.5	950.9	662.1	100.7	20.9	1.000251
7500.0	774.5	13.2	3.9	53.3	936.0	660.5	194.2	21.4	1.000247
8000.0	760.8	11.8	3.2	55.5	926.0	658.9	195.0	21.5	1.000242
8500.0	746.9	10.2	3.5	62.9	914.0	657.1	202.5	21.3	1.000241
9000.0	733.3	8.7	3.6	70.3	902.0	655.3	200.0	20.5	1.000239
9500.0	719.9	7.1	3.5	77.7	891.5	653.5	200.7	20.1	1.000236
10000.0	706.8	5.5	3.2	85.1	879.9	651.7	209.5	20.2	1.000234
10500.0	693.8	4.2	2.8	90.4	869.0	650.1	211.4	20.2	1.000230
11000.0	680.9	3.1	2.1	93.3	855.5	648.8	215.9	20.3	1.000228
11500.0	668.3	2.0	1.5	96.3	842.0	647.5	220.0	21.4	1.000222
12000.0	655.9	1.0	.7	97.8	830.3	646.2	225.5	23.8	1.000217
12500.0	643.6	.9	-2.2	79.5	815.5	645.9	229.0	27.8	1.000208
13000.0	631.5	.3	-5.8	63.3	802.5	645.0	229.2	31.7	1.000199
13500.0	619.7	-6	-9.8	49.3	790.5	643.8	231.1	34.6	1.000191
14000.0	607.9	-1.7	-11.8	45.6	776.9	642.4	232.5	36.7	1.000186
14500.0	596.4	-2.9	-12.1	49.2	767.7	640.9	232.9	38.7	1.000184
15000.0	585.1	-4.2	-12.4	52.7	756.7	639.4	232.9	40.6	1.000181
15500.0	573.8	-5.4	-11.8	60.8	745.4	638.0	231.0	42.6	1.000179
16000.0	562.8	-6.6	-11.3	69.3	734.4	636.5	230.7	44.7	1.000177
16500.0	551.9	-7.8	-11.2	76.9	723.5	635.1	229.7	47.1	1.000175
17000.0	541.2	-9.1	-11.7	81.3	712.6	633.7	228.0	49.6	1.000172
17500.0	530.6	-10.3	-12.2	85.7	701.9	632.2	228.4	51.5	1.000170
18000.0	520.2	-11.5	-12.8	90.2	691.4	630.7	228.4	53.2	1.000167
18500.0	510.0	-12.7	-13.4	94.6	681.0	629.2	227.1	54.6	1.000164
19000.0	500.0	-13.9	-14.0	99.0	670.9	627.8	224.0	55.6	1.000161
19500.0	490.1	-14.2	-14.3	99.0	659.5	627.4	221.0	57.4	1.000158
20000.0	480.4	-14.4	-14.6	99.0	648.9	627.1	218.1	59.8	1.000155
20500.0	470.9	-14.9	-15.1	98.8	634.2	626.5	214.0	60.9	1.000152
21000.0	461.5	-15.8	-16.0	98.3	623.7	625.5	211.9	60.6	1.000149
21500.0	452.2	-16.6	-16.9	97.9	613.3	624.4	209.0	56.5	1.000146
22000.0	443.2	-17.5	-17.8	97.4	603.1	623.5	207.7	55.2	1.000143
22500.0	434.5	-18.0	-18.4	96.7	592.3	622.7	205.9	52.4	1.000140
23000.0	425.6	-17.6	-18.1	95.6	579.4	622.2	204.1	49.7	1.000138

GEODETIC COORDINATES
32.09927 LAT DEG
106.40591 LONG DEG

UPPER AIR DATA
1240200000
L-20

STATION ALTITUDE 3912.75 FEET MSL
6 MAY 62
1430 MDT

TABLE-18 cont'd

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (IN) SPEED (KNOTS)	INDEX OF REFRACTION
23500.0	917.1	-17.1	94.4	560.7	623.0	201.0	1.000131
24000.0	908.8	-16.7	93.2	554.4	624.4	199.2	1.000132
24500.0	900.6	-16.2	92.1	542.3	624.9	197.2	1.000130
25000.0	892.4	-15.3	92.0	535.7	622.3	195.5	1.000127
25500.0	884.3	-14.6	92.0	529.0	619.4	194.7	1.000124
26000.0	876.5	-13.9	92.0	523.0	616.5	194.2	1.000122
26500.0	868.7	-13.2	92.0	517.7	613.7	194.5	1.000120
27000.0	861.2	-12.5	92.0	511.9	610.0	193.1	1.000118
27500.0	853.7	-11.8	90.2	505.0	606.2	190.0	1.000116
28000.0	846.2	-10.8	81.7	497.4	600.0	190.2	1.000113
28500.0	838.9	-12.0	73.3	489.4	603.1	200.1	1.000111
29000.0	831.7	-13.2	69.2	481.4	603.5	201.9	1.000109
29500.0	824.5	-14.5	69.6	473.5	601.9	202.0	1.000107
30000.0	817.5	-15.7	70.0	465.7	600.3	203.0	1.000105
30500.0	810.6	-17.0	70.4	458.1	598.7	203.5	1.000103
31000.0	803.9	-18.3	70.8	450.6	597.1	202.9	1.000101
31500.0	797.3	-19.5	63.9**	443.2	595.5	202.0	1.000100
32000.0	790.7	-20.8	46.5**	435.9	593.8	202.0	1.000098
32500.0	784.3	-22.1	29.1**	428.0	592.2	203.5	1.000096
33000.0	778.0	-23.4	11.7**	421.5	590.5	204.1	1.000094
33500.0	771.8	-24.2		415.5	589.5	205.5	1.000092
34000.0	765.7	-25.7		409.5	590.1	207.2	1.000090
34500.0	759.8	-27.3		393.7	590.7	209.0	1.000088
35000.0	754.0	-28.8		384.2	591.3	211.2	1.000086
35500.0	748.3	-30.3		377.4	589.8	213.5	1.000084
36000.0	742.7	-31.8		370.9	583.5	215.7	1.000084
36500.0	737.1	-33.3		363.7	579.2	218.0	1.000083
37000.0	731.6	-34.8		356.2	576.2	220.5	1.000082
37500.0	726.1	-36.3		350.0	577.2	223.0	1.000080
38000.0	720.8	-37.8		351.0	576.3	225.5	1.000078
38500.0	715.7	-39.3		344.5	575.3	227.0	1.000077
39000.0	710.6	-40.8		337.0	574.3	227.0	1.000075
39500.0	705.7	-42.3		330.9	573.3	228.0	1.000074
40000.0	700.8	-43.8		324.2	572.3	229.1	1.000072
40500.0	696.0	-45.3		317.5	571.4	229.4	1.000071
41000.0	691.3	-46.8		310.9	570.5	229.5	1.000069
41500.0	686.8	-48.3		304.4	569.6	229.7	1.000068
42000.0	682.3	-49.8		298.0	568.7	230.1	1.000066
42500.0	677.9	-51.3		291.0	567.7	230.5	1.000065
43000.0	673.6	-52.8		285.7	566.8	231.0	1.000064

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

STATION ALTITUDE 3912.75 Feet MSL
4 MAY 52 1430 MDT
ASCENSION NO. 04

WATER AIR DATA
1240240004
L-2A

GEOMETRIC COORDINATES
32.89927 LAT DEG
106.40591 LONG DEG

TABLE-18 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA DIRECTION VELOCITY (KNOTS)	INDEX OF REFRACTION
43500.0	169.5	-62.1		279.7	505.9	251.0	1.000002
44000.0	165.4	-62.2		275.0	505.9	252.0	1.000001
44500.0	161.4	-62.2		260.5	505.0	252.5	1.000057
45000.0	157.4	-62.5		260.5	505.5	252.6	1.000058
45500.0	153.0	-62.4		255.9	505.0	253.4	1.000057
46000.0	149.9	-61.7		247.0	500.5	254.5	1.000055
46500.0	146.3	-62.1		241.4	500.0	255.0	1.000054
47000.0	142.7	-61.5		234.9	500.0		1.000052
47500.0	139.3	-61.0		227.0	500.0		1.000051
48000.0	136.0	-59.6		221.0	569.5		1.000049

STATION ALTITUDE 3912.75 FEET MSL
 4 MAY 62 1430 MDT
 ASCENSION NO. 04

MA DATUM LEVELS
 1240290004
 1-25

VELOCITY COORDINATES
 32.09927 LAT DEG
 106.40591 LONG DEG

TABLE-19

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
650.0	4603.	20.3	7.7	44.	171.1	10.6
600.0	6002.	15.7	5.3	50.	183.2	20.4
750.0	8394.	10.6	3.4	61.	201.0	21.4
700.0	10254.	4.7	3.0	89.	210.0	20.2
650.0	12225.	1.0	-0	89.	220.4	23.5
600.0	14326.	-2.5	-12.0	48.	232.9	30.0
550.0	16371.	-4.1	-11.5	70.	229.0	47.5
500.0	18970.	-13.0	-14.0	99.	224.0	53.8
450.0	21594.	-16.8	-17.1	98.	209.2	57.8
400.0	24495.	-16.2	-17.2	92.	197.1	40.0
350.0	27701.	-30.2	-31.7	80.	197.0	50.8
300.0	31236.	-39.0	-42.2	71.	202.0	64.7
250.0	35277.	-42.5			212.7	83.6
200.0	39994.	-57.5			229.1	114.6
175.0	42737.	-61.2			230.0	110.9
150.0	45865.	-61.7			234.4	70.0

FILME
8-8