

AD-A123 331

193088 MLRS MISSILE NUMBERS BC-107 BC-109 BC-112 ROUND
NUMBERS V-372/PA-9. (U) ARMY ELECTRONICS RESEARCH AND
DEVELOPMENT COMMAND WSMR NM ATM. D C KELLER NOV 82
ERADCON/ASL-DR-1276 F/G 4/2

1/1

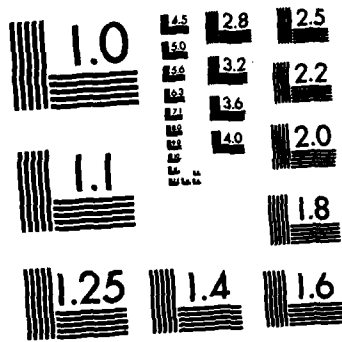
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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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 19308B MLRS, Missile Numbers BC-107, BC-109, BC-112, Round Numbers V-372/PQ-97, V-373/PQ-98, V-374/PQ-99 are presented in tabular form.		

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INTRODUCTION

19308B MLRS, Missile Numbers BC-107, BC-109 and BC-112, Round Numbers V-372/PQ-97, V-373/PQ-98 and V-374/PQ-99, were launched from Brillo, White Sands Missile Range (WSMR), New Mexico, at 1545:02, 1545:06 and 1545:11 MST, 30 Nov 82. The scheduled launch times were 1530, 1530:04.5 and 1530:09 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 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 pilot-balloon observations at:

SITE AND ALTITUDE

D-3 $\frac{1}{2}$ 2 km
DEADHORSE 2 km

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

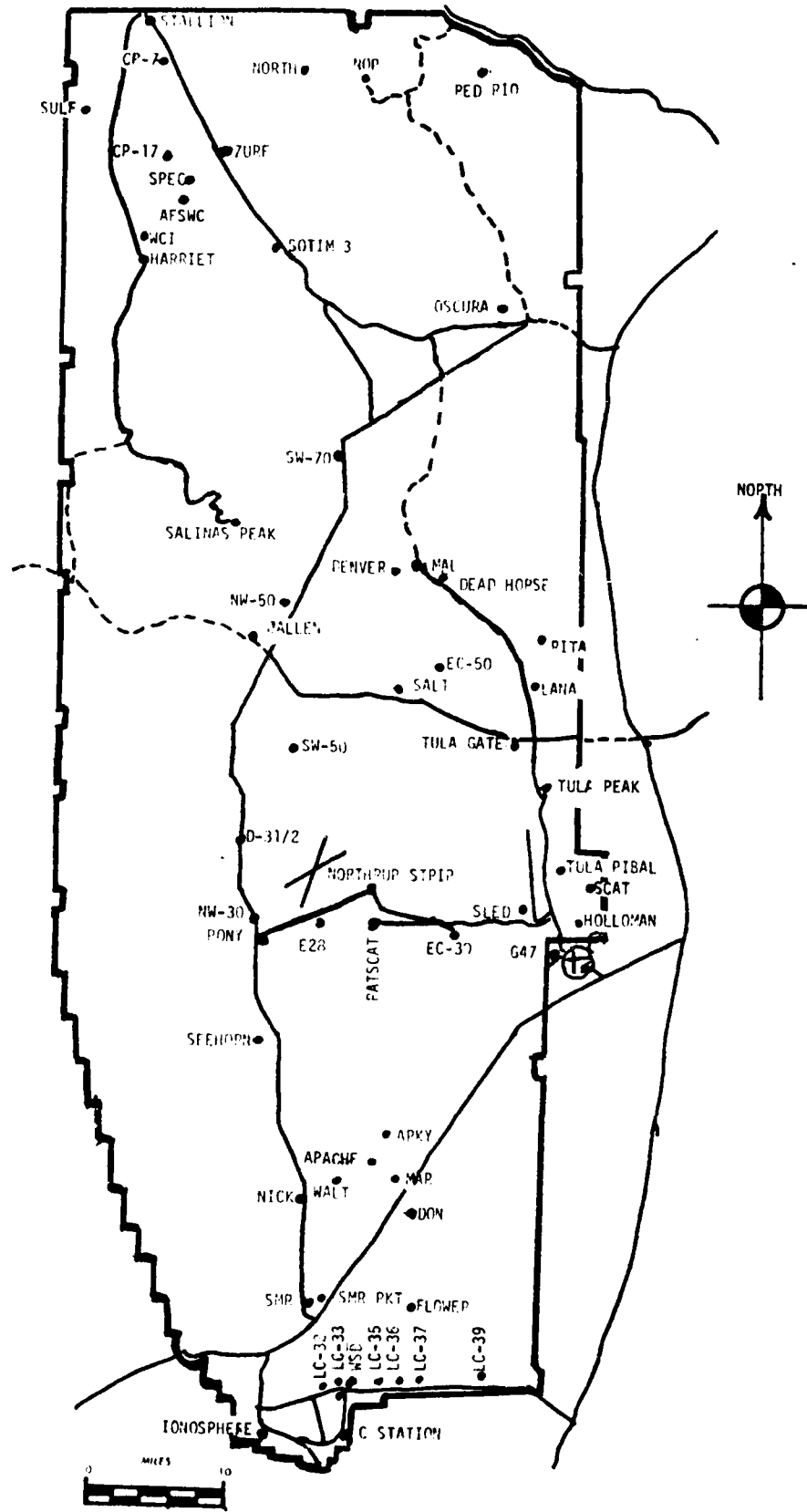
SITE AND TIME

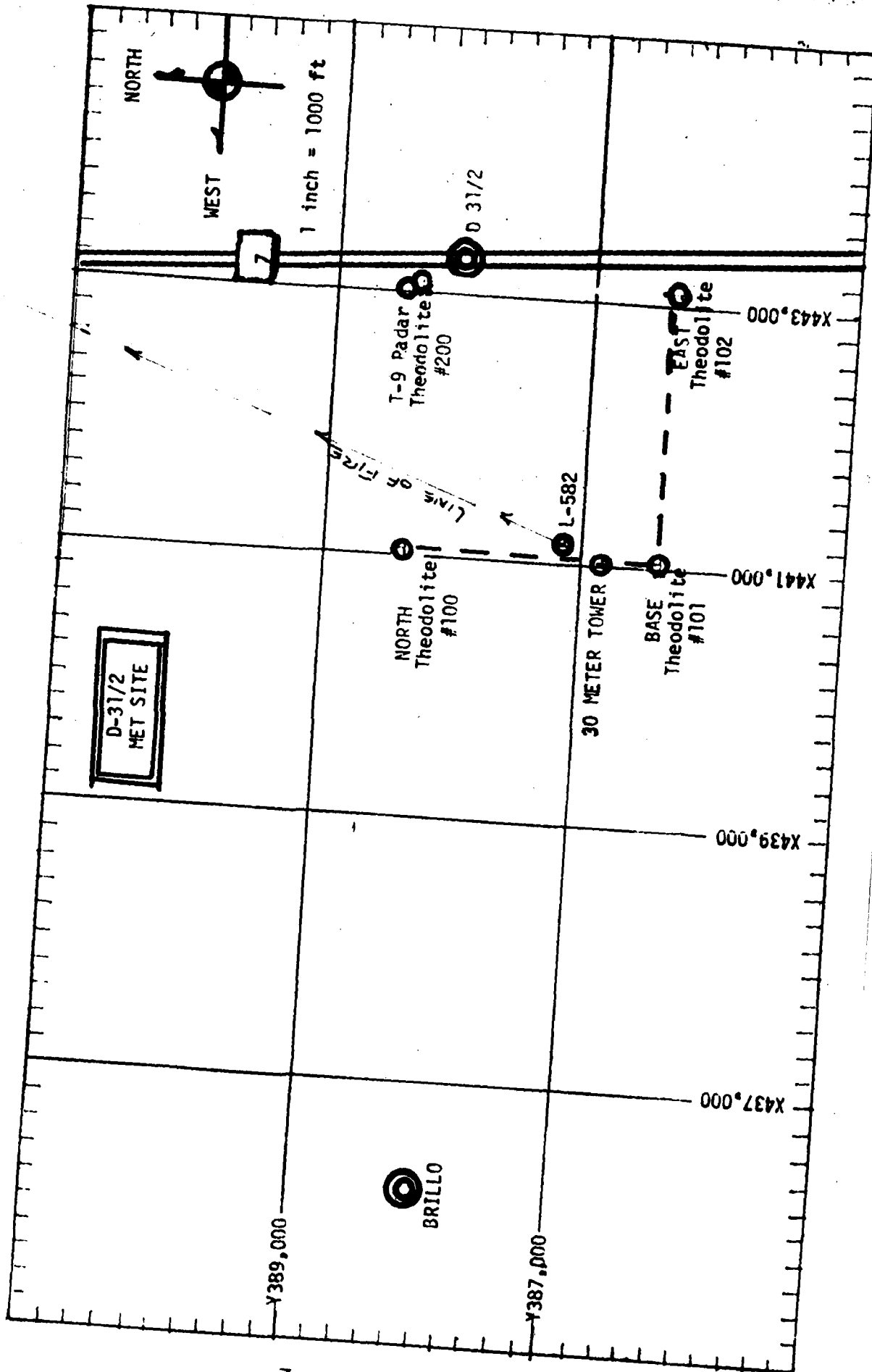
E-28 1230 MST
NW-30 1330 MST

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A	



WSMR METEOROLOGICAL SITES





PROJECT SURFACE OBSERVATION

TABLE 1 STATION D 32
 DATE 30 NOV 82 X= 443,023.73 Y= 388,397.95 H= 3972.63
 MONTH NOV YEAR 82

TIME M S I	PRESSURE hPa	TEMPERATURE OC	DEW POINT OF OC	RELATIVE HUMIDITY %	DENSITY g/m ³	DIRECTION degs In	WIND SPEED kts	CHARACTER kts	VISIBIL- ITY
1545	868.7	14.3	2.4	45	1051	210	12		40

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	HGT	AMT	HGT	AMT	HGT	
NONE	6	4500	3	AS 10,000	1	CS 24,000	

PSYCHROMETRIC COMPUTATION

TIME: MST	1545
DRY BULB TEMP.	14.3
WET BULB TEMP.	8.1
WET BULB DEPR.	6.2
DEW POINT	2.4
RELATIVE HUMID.	45

TABLE 2

Anemometer Data - 30 FT. Level of 30 Meter Tower

X= 441,018.71 Y= 386,849.19 H= 4,004.80 (BASE)

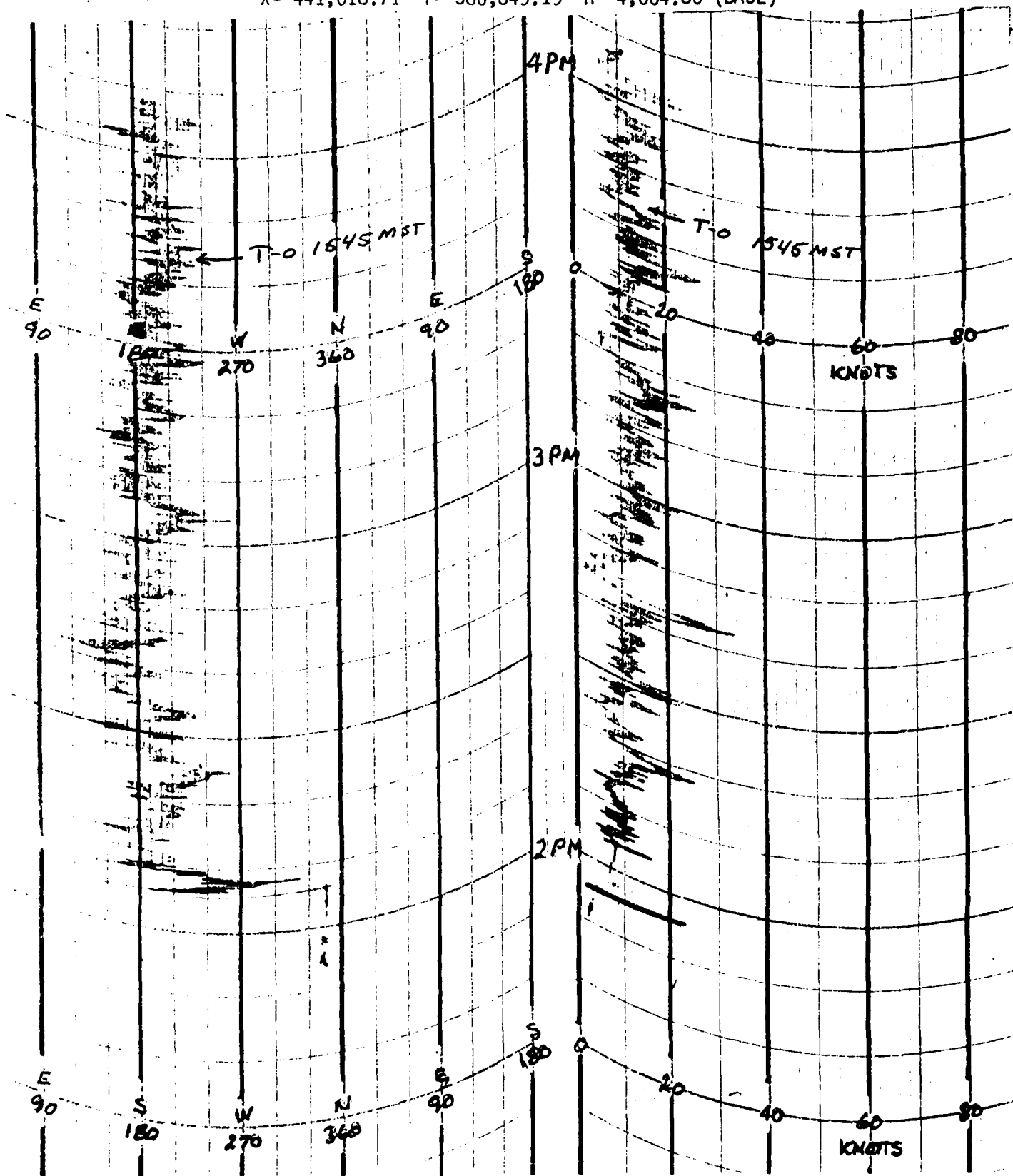


TABLE 3

Anemometer Data - 60 FT. Level of 30 Meter Tower

X= 441,018.71 Y= 386,849.19 H= 4,004.80 (BASE)

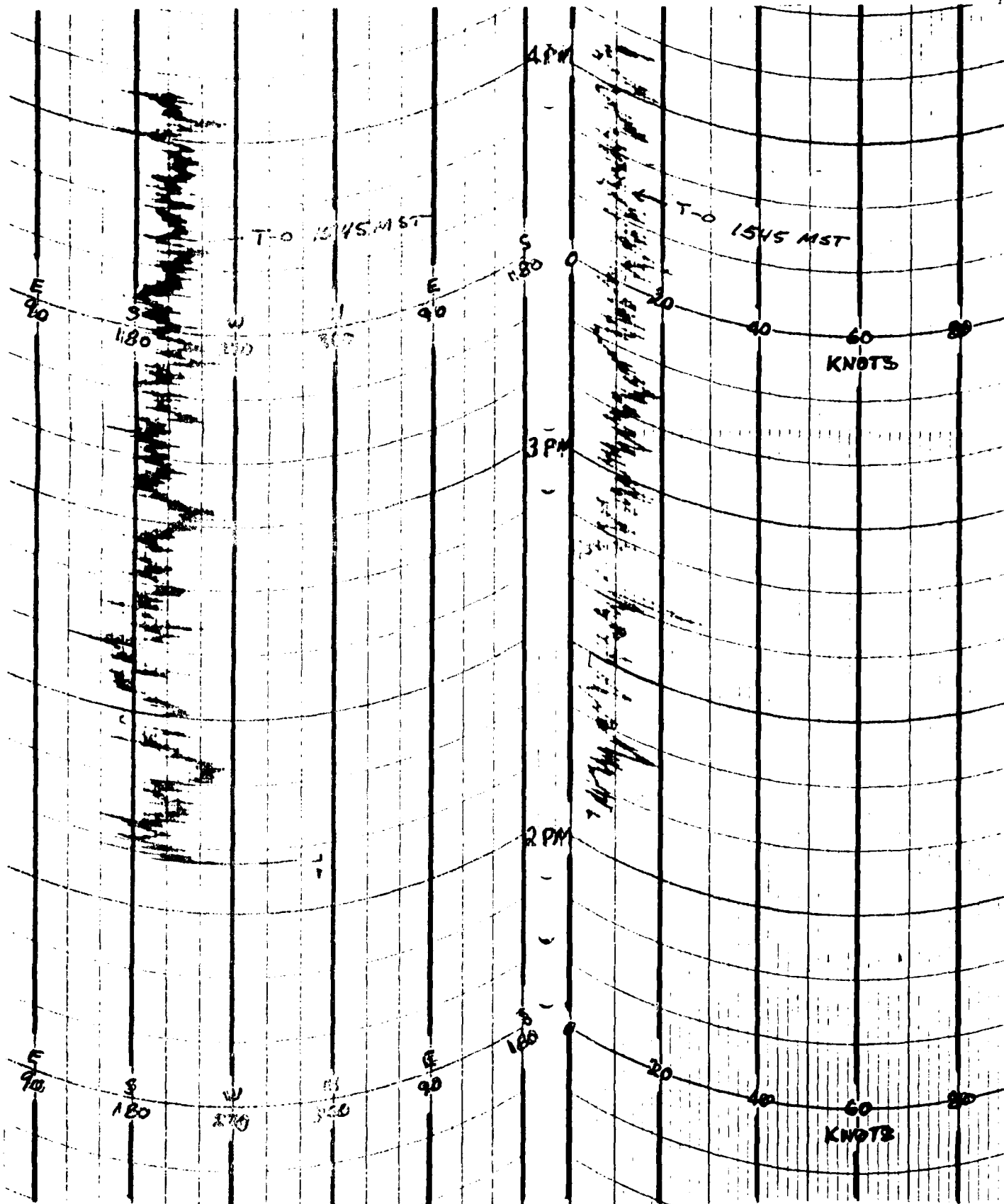


TABLE 4

Anemometer Data - 90 FT Level of 30 Meter Tower

X= 441,018.71 Y= 336,849.19 H= 4,004.80 (BASE)

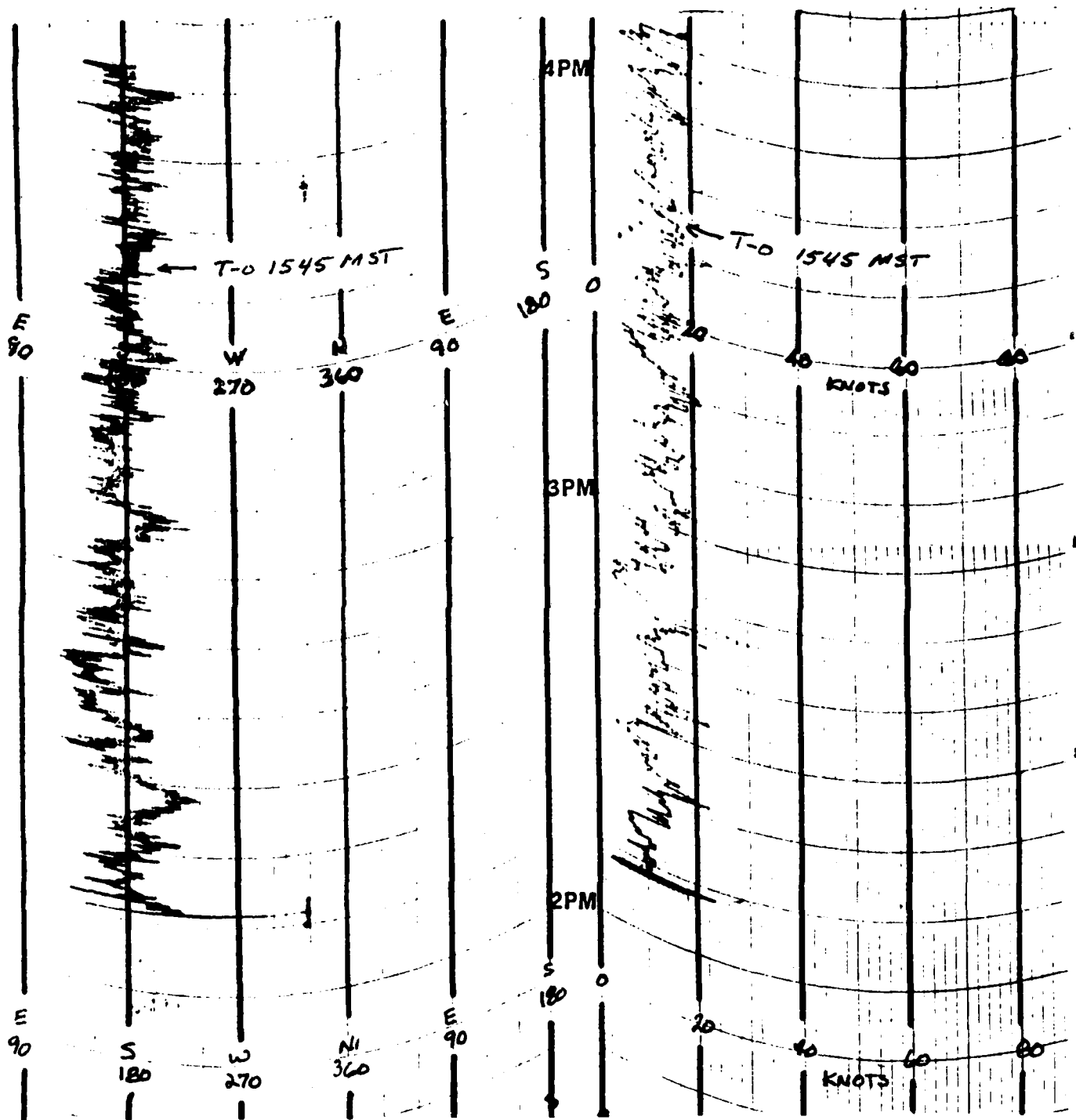


TABLE 5

TIME PILOT-BALLOON MEASURED WIND DATA

DATE 30 Nov 82

SITE: D-3½
 TIME: 1545 MST
 WSTM COORDINATES:
 X= 443,023.73
 Y= 388,397.95
 H= 3,979.63

SITE: DEADHORSE
 TIME: 1530 MST
 WSTM COORDINATES:
 X= 519,982.11
 Y= 490,249.23
 H= 4,133.72

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS	LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	210	12	SURFACE	170	10
150	186	19	150	192	20
210	186	21	210	194	23
270	189	20	270	194	25
330	194	20	330	194	27
390	197	19	390	194	28
500	201	17	500	195	28
650	197	21	650	194	26
800	192	28	800	194	25
950	191	31	950	199	27
1150	194	32	1150	212	27
1350	196	35	1350	226	26
1550	206	37	1550	236	30
1750	208	41	1750	247	40
2000	205	32	2000	246	51

All data obtained from Single Theodolite Tracked pilot-balloon observations.

TABLE 6

AIMING COMPUTER MET MESSAGES

30 Nov 82

E-28 1230 MST		NW-30 1330 MST	
METCM1329064		METCM1329065	
301950119873		302050122871	
00338012	28910873	00338018	28860871
01395013	28600862	01383017	28720860
02386016	28370837	02385019	28410835
03386014	27980797	03377025	27990795
04401016	27490750	04375019	27500748
05423028	27190704	05415026	26980703
06444035	26930661	06439043	26800660
07449038	26620621	07426048	26620619
08456037	26360582	08433039	26250580
09467031	25960545	09453043	26030544
10478033	25600510	10454047	25610509
11476030	25250477	11448045	25150476
12475035	24690431	12452044	24500429
13477045	23800374	13475044	23730373
14497049	23090324	14479060	22880322
15504045	22590279	15481071	22360277
16504054	22260240	16494082	22250238
17492053	21910205	17473067	22010204
18476055	22190176	18475077	22030175
19465046	21910151	19457056	21990150
20452050	21550129	20438052	21420128
21460053	21590110	21457049	21030109
22421044	21320094	22431044	21220093
23432031	21000080	23401018	21270079
24443021	21070068	24439017	21120068
25430020	21260058	25404011	21420058
26424017	21580050	26382010	21410049

GEODETIC COORDINATES
 32.9927 LAT DEG
 136.4691 LONG DEG

SIGNIFICANT LEVEL DATA
 3340290173
 EAST-28/CHERRY
 TABLE 1

STATION ALTITUDE 3912.75 FEET MSL
 1230 HRS 173

PRECIPITATION MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
872.6	3912.7	14.7	53.0
871.4	3950.9	12.7	50.0
650.0	4634.5	11.0	47.0
820.8	5587.8	8.2	53.0
781.5	6009.8	4.2	66.0
757.0	7758.1	1.7	76.0
730.5	8376.5	.1	82.0
724.9	8900.8	-1.2	74.0
718.0	9151.6	-1.1	70.0
714.9	9265.1	-1.0	62.0
708.7	9493.6	-1.1	60.0
700.0	9816.9	-2.2	61.0
588.5	10249.3	-2.4	46.0
568.1	11032.0	-3.8	49.0
558.6	11403.4	-4.4	57.0
555.9	11509.8	-4.4	50.0
546.6	11879.2	-5.0	44.0
540.9	12107.8	-5.6	55.0
537.1	12260.9	-6.2	64.0
610.2	13367.1	-0.1	62.0
502.7	13683.0	-8.0	48.0
598.9	14187.6	-8.7	41.0
547.5	16113.6	-13.5	39.0
530.6	16895.3	-15.3	36.0
500.0	18362.1	-18.4	36.0
466.2	20068.6	-21.8	27.0
430.1	22002.7	-26.4	23.0
418.3	22662.4	-27.7	24.0
400.0	23713.9	-30.8	29.0
367.3	25682.1	-36.6	44.0
361.4	26050.6	-37.6	58.0
349.2	26828.1	-39.0	64.0
328.1	28224.7	-42.4	
316.1	29052.9	-42.8	
300.0	30207.9	-45.2	
273.4	32235.8	-48.1	
270.4	32475.5	-47.6	
257.0	33570.3	-49.6	
250.0	34170.5	-50.5	
242.6	34815.3	-50.9	

STATION ALTITUDE 3912.75 FEET MSL
 30 NOV. 82
 1230 HRS MST
 ASCENSION NO. 173

SIGNIFICANT LEVEL DATA
 3340290173
 EAST-23/CHEERY
 TABLE 7 Cont'd

GEODETIC COORDINATES
 32.09927 LAT DEG
 136.40591 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
234.6	35535.8	-49.9		
208.3	38070.6	-54.5		
200.0	38927.5	-55.0		
186.2	40437.2	-53.7		
175.7	41679.6	-49.1		
163.4	43239.9	-51.8		
156.4	44170.1	-54.4		
150.0	45053.2	-54.1		
144.7	45814.0	-54.1		
134.2	47397.4	-56.9		
114.6	49962.6	-59.6		
110.3	51473.8	-55.5		
100.0	53519.9	-58.8		
77.4	58762.3	-64.1		
70.0	60000.4	-62.7		
56.2	65295.6	-60.3		
50.0	67725.1	-56.4		
44.2	70297.2	-58.8		
38.6	73109.7	-58.6		
36.1	74507.5	-56.5		
30.0	78303.2	-57.4		

STATION ALTITUDE 3912.75 FEET MSL
 30 NOV. 62
 ASCENSION NO. 173

UPPER AIR DATA
 3340290173
 EAST-28/CHERRY
 TABLE 8

GEODETIC COORDINATES
 32°49'27" LAT DEG
 136°40'59" LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES TRUE)	SPEED KNOTS	INDEX OF REFRACTION
3912.7	872.6	14.7	53.0	1052.0	662.2	190.0	12.0	1.000275
4000.0	859.8	12.6	49.8	1057.2	659.6	192.8	12.3	1.000269
4100.0	860.7	12.3	49.3	1054.3	659.3	195.9	12.5	1.000268
4200.0	863.5	12.1	48.9	1051.5	658.9	198.9	12.8	1.000266
4300.0	860.4	11.8	48.5	1048.7	658.6	201.7	13.2	1.000265
4400.0	857.3	11.6	48.0	1045.8	658.3	204.4	13.6	1.000264
4500.0	854.2	11.3	47.6	1043.0	658.0	206.9	14.0	1.000262
4600.0	851.1	11.1	47.2	1040.2	657.7	209.3	14.4	1.000261
4700.0	848.0	10.8	47.4	1037.4	657.4	211.5	14.9	1.000260
4800.0	844.9	10.5	48.0	1034.7	657.0	213.6	15.3	1.000259
4900.0	841.8	10.2	48.7	1032.0	656.7	215.6	15.8	1.000259
5000.0	838.7	9.9	49.3	1029.3	656.4	216.9	16.2	1.000258
5100.0	835.6	9.6	49.9	1026.6	656.0	218.9	16.1	1.000257
5200.0	832.6	9.3	50.6	1023.9	655.7	216.8	16.1	1.000256
5300.0	829.5	9.0	51.2	1021.3	655.3	216.8	16.0	1.000256
5400.0	826.5	8.8	51.8	1018.6	655.0	216.8	16.0	1.000255
5500.0	823.4	8.5	52.4	1015.9	654.6	216.8	16.0	1.000254
5600.0	820.4	8.2	53.1	1013.3	654.3	216.7	15.7	1.000253
5700.0	817.4	7.9	54.1	1010.6	653.9	216.6	15.5	1.000253
5800.0	814.4	7.6	55.1	1008.0	653.6	216.5	15.2	1.000252
5900.0	811.3	7.3	56.1	1005.3	653.2	216.5	15.0	1.000252
6000.0	808.3	7.0	57.1	1002.7	652.9	216.4	14.7	1.000251
6100.0	805.3	6.7	58.0	1000.0	652.5	216.3	14.5	1.000250
6200.0	802.4	6.3	59.0	997.4	652.2	216.3	14.5	1.000250
6300.0	799.4	6.0	60.0	994.8	651.8	216.2	14.4	1.000249
6400.0	796.4	5.7	61.0	992.2	651.5	216.2	14.4	1.000248
6500.0	793.5	5.4	62.0	989.6	651.1	216.1	14.3	1.000248
6600.0	790.5	5.1	63.0	987.0	650.8	216.2	14.2	1.000247
6700.0	787.6	4.8	63.9	984.4	650.4	216.6	14.2	1.000246
6800.0	784.7	4.5	64.9	981.8	650.0	217.1	14.2	1.000246
6900.0	781.8	4.2	65.9	979.3	649.7	217.5	14.1	1.000245
7000.0	778.9	3.9	67.1	976.6	649.3	218.0	14.1	1.000244
7100.0	775.9	3.6	68.2	974.0	649.0	218.5	14.1	1.000244
7200.0	773.0	3.3	69.4	971.4	648.7	219.3	14.1	1.000243
7300.0	770.1	3.1	70.6	968.8	648.3	220.1	14.1	1.000243
7400.0	767.2	2.8	71.8	966.2	648.0	220.9	14.1	1.000242
7500.0	764.4	2.5	73.0	963.6	647.6	221.7	14.1	1.000241
7600.0	761.5	2.2	74.1	961.0	647.3	222.2	14.4	1.000241
7700.0	758.7	1.9	75.3	958.5	646.9	222.1	15.1	1.000240
7800.0	755.8	1.6	76.4	955.8	646.6	222.1	15.7	1.000239

STATION ALTITUDE 3912.75 FEET NSL
 30 NOV. 82 1230 HRS MST
 ASCENSION NO. 173

UPPER AIR DATA
 3340290173
 EAST-28/CHERRY
 TABLE 8 Cont'd

GEODLTIC COORDINATES
 32.69927 LAT UEG
 136.40591 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	
7900.0	752.9	1.3	-2.2	77.4	953.1	646.3	222.0	16.4	1.000239
8000.0	750.1	1.1	-2.3	78.3	950.4	646.0	222.0	17.0	1.000238
8100.0	747.3	.8	-2.3	79.3	947.7	645.7	222.9	17.6	1.000237
8200.0	744.5	.6	-2.4	80.3	945.1	645.4	224.1	18.2	1.000236
8300.0	741.6	.3	-2.5	81.3	942.4	645.1	225.3	18.7	1.000235
8400.0	738.8	.0	-2.7	81.6	939.7	644.7	226.3	19.3	1.000235
8500.0	736.0	-2.2	-3.2	80.1	937.1	644.4	227.4	19.8	1.000233
8600.0	733.2	-5.5	-3.7	78.6	934.5	644.1	229.1	20.2	1.000232
8700.0	730.5	-7.7	-4.2	77.1	931.8	643.8	230.6	20.6	1.000230
8800.0	727.7	-1.0	-4.7	75.5	929.2	643.5	232.1	21.0	1.000229
8900.0	724.9	-1.2	-5.2	74.0	926.6	643.1	233.6	21.4	1.000228
9000.0	722.2	-1.2	-5.5	72.4	923.0	643.2	234.6	21.9	1.000226
9100.0	719.4	-1.1	-5.7	70.8	919.4	643.2	235.3	22.5	1.000225
9200.0	716.7	-1.1	-6.5	66.6	915.8	643.3	235.9	23.1	1.000223
9300.0	714.0	-1.0	-7.4	61.7	912.2	643.3	236.5	23.7	1.000221
9400.0	711.2	-1.1	-7.6	60.8	908.9	643.2	237.1	24.3	1.000220
9500.0	708.5	-1.1	-7.9	60.0	905.7	643.1	237.8	24.8	1.000219
9600.0	705.8	-1.5	-8.1	60.3	903.4	642.7	238.4	25.4	1.000218
9700.0	703.1	-1.8	-8.4	60.6	901.1	642.3	239.1	25.9	1.000217
9800.0	700.5	-2.1	-8.6	60.9	898.8	641.9	239.7	26.5	1.000217
9900.0	697.8	-2.2	-9.3	58.1	895.8	641.7	240.5	27.0	1.000215
10000.0	695.1	-2.3	-10.2	54.6	892.6	641.7	241.8	27.6	1.000213
10100.0	692.4	-2.3	-11.0	51.2	889.4	641.6	243.2	28.2	1.000212
10200.0	689.8	-2.4	-11.9	47.7	886.3	641.5	244.4	28.8	1.000210
10300.0	687.2	-2.5	-12.4	46.2	883.3	641.3	245.6	29.5	1.000209
10400.0	684.5	-2.7	-12.5	46.6	880.5	641.1	246.5	30.0	1.000208
10500.0	681.9	-2.8	-12.6	47.0	877.7	640.9	247.2	30.4	1.000208
10600.0	679.3	-3.0	-12.6	47.3	874.9	640.7	247.8	30.8	1.000207
10700.0	676.7	-3.2	-12.7	47.7	872.1	640.5	248.4	31.3	1.000206
10800.0	674.1	-3.4	-12.8	48.1	869.4	640.3	249.0	31.7	1.000206
10900.0	671.5	-3.6	-12.8	48.5	866.6	640.1	249.5	32.1	1.000205
11000.0	668.9	-3.7	-12.9	48.9	863.9	639.8	248.9	32.6	1.000204
11100.0	666.4	-3.9	-12.7	50.5	861.1	639.7	248.8	33.0	1.000204
11200.0	663.8	-4.1	-12.5	52.6	858.2	639.5	248.7	33.5	1.000204
11300.0	661.2	-4.2	-11.9	54.8	855.4	639.3	248.9	34.0	1.000203
11400.0	658.7	-4.4	-11.6	56.9	852.6	639.1	249.2	34.6	1.000203
11500.0	656.1	-4.4	-13.1	50.6	849.4	639.1	249.5	35.3	1.000201
11600.0	653.6	-4.5	-13.7	48.5	846.7	638.9	249.8	35.9	1.000200
11700.0	651.1	-4.7	-14.3	46.9	844.0	638.7	250.1	36.5	1.000199
11800.0	648.6	-4.9	-14.9	45.3	841.3	638.5	250.6	37.0	1.000198

UPPER AIR DATA
 3340290175
 EAST-28/CHERRY
 TABLE 8 Cont'd

GEODETIC COORDINATES
 32.8927 LAT DEG
 136.40591 LONG DEG

STATIC ALTITUDE 3912.75 FEET MSL
 30 NOV. 62
 1230 HRS MST
 ASCENSION NO. 175

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
11900.0	640.1	-5.1	-15.1	45.0	838.0	638.2	251.0	37.4	1.000197
12000.0	643.6	-5.3	-14.1	49.8	836.1	638.0	251.4	37.9	1.000197
12100.0	641.1	-5.6	-13.2	54.6	835.6	637.7	251.8	38.3	1.000197
12200.0	638.6	-6.0	-12.4	60.4	831.5	637.2	252.0	38.4	1.000198
12300.0	636.1	-6.3	-12.0	63.9	829.1	636.9	252.1	38.2	1.000198
12400.0	633.7	-6.4	-12.1	63.7	826.5	636.7	252.3	38.1	1.000197
12500.0	631.2	-6.6	-12.3	63.6	823.8	636.5	252.4	37.9	1.000196
12600.0	628.7	-6.8	-12.5	63.4	821.1	636.3	252.6	37.8	1.000195
12700.0	626.3	-7.0	-12.7	63.2	818.5	636.1	252.8	37.5	1.000195
12800.0	623.8	-7.1	-12.9	63.0	815.8	635.8	253.1	37.1	1.000194
12900.0	621.4	-7.3	-13.1	62.8	813.2	635.6	253.4	36.8	1.000193
13000.0	619.0	-7.5	-13.3	62.7	810.6	635.4	253.7	36.5	1.000192
13100.0	616.6	-7.6	-13.5	62.5	807.9	635.2	254.0	36.7	1.000192
13200.0	614.2	-7.8	-13.7	62.3	805.3	635.0	254.4	37.0	1.000191
13300.0	611.8	-8.0	-13.9	62.1	802.7	634.8	254.8	37.3	1.000190
13400.0	609.4	-8.1	-14.3	60.5	799.9	634.7	255.2	37.6	1.000189
13500.0	607.0	-8.1	-15.2	56.1	796.8	634.7	255.3	37.9	1.000188
13600.0	604.7	-8.0	-16.2	51.7	793.7	634.7	255.3	38.3	1.000186
13700.0	602.3	-8.0	-17.1	47.8	790.6	634.7	255.2	38.7	1.000185
13800.0	599.9	-8.2	-17.6	46.4	788.0	634.5	255.1	39.0	1.000184
13900.0	597.6	-8.3	-18.1	45.0	785.3	634.3	255.1	39.4	1.000183
14000.0	595.3	-8.4	-18.6	43.6	782.7	634.1	255.2	39.2	1.000182
14100.0	592.9	-8.6	-19.1	42.2	780.1	633.9	255.3	38.9	1.000181
14200.0	590.6	-8.7	-19.6	41.0	777.5	633.8	255.5	38.7	1.000180
14300.0	588.3	-9.0	-19.8	40.9	775.1	633.5	255.6	38.5	1.000180
14400.0	585.9	-9.2	-20.1	40.8	772.8	633.1	255.8	38.1	1.000179
14500.0	583.6	-9.5	-20.3	40.7	770.5	632.8	256.0	37.6	1.000178
14600.0	581.3	-9.7	-20.6	40.6	768.2	632.5	256.2	37.2	1.000178
14700.0	579.0	-10.0	-20.8	40.5	765.9	632.2	256.4	36.7	1.000177
14800.0	576.7	-10.2	-21.1	40.4	763.6	631.9	255.9	36.0	1.000176
14900.0	574.5	-10.5	-21.4	40.3	761.3	631.6	255.3	35.2	1.000176
15000.0	572.2	-10.7	-21.6	40.2	759.0	631.3	254.6	34.4	1.000175
15100.0	569.9	-11.0	-21.9	40.1	756.8	631.0	253.9	33.6	1.000174
15200.0	567.7	-11.2	-22.1	39.9	754.5	630.7	254.2	32.9	1.000174
15300.0	565.4	-11.5	-22.4	39.8	752.2	630.4	254.7	32.3	1.000173
15400.0	563.2	-11.7	-22.6	39.7	750.0	630.1	255.2	31.7	1.000175
15500.0	561.0	-12.0	-22.9	39.6	747.7	629.8	255.7	31.0	1.000172
15600.0	558.8	-12.2	-23.1	39.5	745.5	629.5	257.3	31.1	1.000171
15700.0	556.5	-12.5	-23.4	39.4	743.3	629.2	258.6	31.2	1.000171
15800.0	554.3	-12.7	-23.6	39.3	741.1	628.9	260.4	31.4	1.000170

STATION ALTITUDE 3912.75 FEET MSL
 30 NOV. 62
 ASCENSION NO. 173

UPPER AIR DATA
 3340290173
 EAST-28/CHERRY
 TABLE 8 Cont'd

GEODETIC COORDINATES
 32.8927 LAT DEG
 136.40591 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT DEGREE						
15900.0	552.2	-13.0	-23.9	39.2	738.8	628.6	261.9	31.6	1.000170
16000.0	550.0	-13.2	-24.2	39.1	736.6	628.3	262.2	31.8	1.000169
16100.0	547.8	-13.5	-24.4	39.0	734.4	628.0	262.6	32.1	1.000168
16200.0	545.6	-13.7	-24.7	38.7	732.2	627.7	262.9	32.4	1.000168
16300.0	543.4	-13.9	-25.0	38.3	729.9	627.4	263.4	32.7	1.000167
16400.0	541.2	-14.2	-25.4	37.9	727.6	627.1	264.3	33.2	1.000166
16500.0	539.1	-14.4	-25.7	37.5	725.4	626.8	265.2	33.7	1.000166
16600.0	536.9	-14.6	-26.0	37.1	723.1	626.6	266.1	34.2	1.000165
16700.0	534.8	-14.9	-26.3	36.7	720.9	626.3	267.0	34.8	1.000165
16800.0	532.6	-15.1	-26.6	36.4	718.6	626.0	267.7	34.4	1.000164
16900.0	530.5	-15.3	-27.0	36.0	716.4	625.7	268.4	33.8	1.000163
17000.0	528.4	-15.5	-27.1	36.0	714.1	625.5	269.2	33.3	1.000163
17100.0	526.2	-15.7	-27.3	36.0	711.8	625.2	270.0	32.8	1.000162
17200.0	524.1	-15.9	-27.5	36.0	709.5	624.9	270.4	32.3	1.000162
17300.0	522.0	-16.2	-27.7	36.0	707.2	624.7	270.3	31.8	1.000161
17400.0	519.9	-16.4	-27.9	36.0	705.0	624.4	270.2	31.3	1.000161
17500.0	517.8	-16.6	-28.1	36.0	702.7	624.2	270.1	30.8	1.000160
17600.0	515.7	-16.8	-28.3	36.0	700.4	623.9	270.0	30.3	1.000159
17700.0	513.6	-17.0	-28.5	36.0	698.2	623.6	268.5	30.4	1.000159
17800.0	511.5	-17.2	-28.7	36.0	695.9	623.4	268.9	30.5	1.000158
17900.0	509.4	-17.4	-28.8	36.0	693.7	623.1	265.4	30.6	1.000158
18000.0	507.4	-17.6	-29.0	36.0	691.5	622.9	263.9	30.8	1.000157
18100.0	505.3	-17.8	-29.2	36.0	689.3	622.6	263.0	30.8	1.000157
18200.0	503.3	-18.1	-29.4	36.0	687.0	622.3	262.6	30.8	1.000156
18300.0	501.3	-18.3	-29.6	36.0	684.8	622.1	262.1	30.8	1.000156
18400.0	499.2	-18.5	-29.9	35.8	682.6	621.8	261.7	30.7	1.000155
18500.0	497.2	-18.7	-30.2	35.3	680.4	621.6	261.3	30.7	1.000154
18600.0	495.1	-18.9	-30.5	34.7	678.1	621.3	262.2	30.8	1.000154
18700.0	493.1	-19.1	-30.9	34.2	675.9	621.1	263.1	30.9	1.000153
18800.0	491.1	-19.3	-31.2	33.7	673.6	620.8	264.0	31.1	1.000153
18900.0	489.1	-19.5	-31.5	33.2	671.4	620.6	264.8	31.2	1.000152
19000.0	487.1	-19.7	-31.9	32.6	669.2	620.3	265.4	31.3	1.000152
19100.0	485.1	-19.9	-32.2	32.1	667.0	620.1	265.4	31.2	1.000151
19200.0	483.1	-20.1	-32.6	31.6	664.8	619.9	265.3	31.2	1.000150
19300.0	481.1	-20.3	-32.9	31.1	662.6	619.6	265.3	31.1	1.000150
19400.0	479.2	-20.5	-33.3	30.5	660.4	619.4	265.3	31.1	1.000149
19500.0	477.2	-20.7	-33.6	30.0	658.2	619.1	265.3	31.1	1.000149
19600.0	475.2	-20.9	-34.0	29.5	656.1	618.9	265.3	31.1	1.000148
19700.0	473.3	-21.1	-34.3	28.9	653.9	618.6	265.3	31.2	1.000148
19800.0	471.4	-21.3	-34.7	28.4	651.7	618.4	265.3	31.2	1.000147

STATION ALTITUDE 3912.75 FEET MSL
 30 NOV. 82
 ASCENSION NO. 173

UPPER AIR DATA
 3340290173
 EAST-28/CHEMRY
 TABLE 8 Cont'd

GEODETIC COORDINATES
 32.89927 LAT DEG
 136.40591 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION (TIN) DEGREES	WIND SPEED KNOTS	INDEX OF REFRACTION
19900.0	469.4	-21.5	-35.1	27.9	649.6	618.1	265.4	31.2	1.000147
20000.0	467.5	-21.7	-35.4	27.4	647.5	617.9	265.4	31.6	1.000146
20100.0	465.6	-21.9	-35.8	26.9	645.3	617.6	265.5	31.9	1.000145
20200.0	463.7	-22.1	-36.1	26.7	643.3	617.3	265.5	32.2	1.000145
20300.0	461.7	-22.4	-36.3	26.5	641.2	617.0	265.6	32.5	1.000144
20400.0	459.8	-22.6	-36.6	26.3	639.1	616.7	265.6	32.8	1.000144
20500.0	457.9	-22.8	-36.9	26.1	637.1	616.4	265.8	33.1	1.000143
20600.0	456.0	-23.1	-37.2	25.9	635.1	616.1	266.0	33.4	1.000143
20700.0	454.1	-23.3	-37.5	25.7	633.0	615.9	266.1	33.7	1.000142
20800.0	452.2	-23.5	-37.8	25.5	631.0	615.6	266.3	34.0	1.000142
20900.0	450.3	-23.8	-38.1	25.3	629.0	615.3	266.4	34.3	1.000141
21000.0	448.5	-24.0	-38.3	25.1	627.0	615.0	266.7	34.3	1.000141
21100.0	446.6	-24.3	-38.6	24.9	624.9	614.7	267.0	34.3	1.000141
21200.0	444.7	-24.5	-38.9	24.7	622.9	614.4	267.3	34.3	1.000140
21300.0	442.9	-24.7	-39.2	24.5	621.0	614.1	267.6	34.3	1.000140
21400.0	441.0	-25.0	-39.5	24.2	619.0	613.8	267.9	34.3	1.000139
21500.0	439.2	-25.2	-39.8	24.0	617.0	613.5	268.6	34.4	1.000139
21600.0	437.4	-25.4	-40.1	23.8	615.0	613.2	269.3	34.5	1.000138
21700.0	435.6	-25.7	-40.4	23.6	613.0	612.9	270.1	34.7	1.000138
21800.0	433.7	-25.9	-40.6	23.4	611.1	612.6	270.9	34.8	1.000137
21900.0	431.9	-26.2	-40.9	23.2	609.1	612.3	271.6	35.0	1.000137
22000.0	430.1	-26.4	-41.2	23.0	607.2	612.0	272.0	35.2	1.000136
22100.0	428.3	-26.6	-41.3	23.1	605.1	611.8	272.0	35.6	1.000136
22200.0	426.5	-26.8	-41.4	23.3	603.1	611.5	272.0	36.0	1.000135
22300.0	424.7	-27.0	-41.6	23.5	601.0	611.3	272.0	36.4	1.000135
22400.0	423.0	-27.2	-41.7	23.6	599.0	611.0	272.1	36.7	1.000134
22500.0	421.2	-27.4	-41.8	23.8	596.9	610.8	271.9	37.0	1.000134
22600.0	419.4	-27.6	-41.9	23.9	594.9	610.5	271.4	37.2	1.000133
22700.0	417.6	-27.8	-42.0	24.2	592.9	610.2	271.0	37.4	1.000133
22800.0	415.9	-28.1	-42.1	24.7	591.1	609.9	270.6	37.6	1.000133
22900.0	414.1	-28.4	-42.1	25.1	589.3	609.5	270.1	37.8	1.000132
23000.0	412.3	-28.7	-42.2	25.6	587.5	609.1	269.9	38.0	1.000132
23100.0	410.6	-29.0	-42.3	26.1	585.7	608.8	269.8	38.1	1.000131
23200.0	408.8	-29.3	-42.4	26.6	584.0	608.4	269.8	38.2	1.000131
23300.0	407.1	-29.6	-42.5	27.0	582.2	608.0	269.8	38.3	1.000131
23400.0	405.4	-29.9	-42.6	27.5	580.4	607.7	269.8	38.4	1.000130
23500.0	403.7	-30.2	-42.7	28.0	578.7	607.3	269.8	38.6	1.000130
23600.0	401.9	-30.5	-42.8	28.5	576.9	606.9	269.8	39.0	1.000129
23700.0	400.2	-30.8	-42.9	28.9	575.1	606.6	269.8	39.3	1.000129
23800.0	398.5	-31.1	-42.9	29.7	573.4	606.2	269.9	39.6	1.000129

UPPER AIR DATA
 3340290173
 EAST-28/CHERRY
 TABLE 8 Cont'd

STATION ALTITUDE 3912.75 FEET MSL
 30 NOV. 42 1230 HRS MST
 ASCENSION NO. 173

GEODETIC COORDINATES
 32-0927 LAT UEG
 136-40591 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION (DEGREES(TN))	SPEED KNOTS	
23900.0	390.8	-31.3	-43.0	30.4	571.6	605.8	269.9	40.0	1.000128
24000.0	395.1	-31.6	-43.0	31.2	569.8	605.5	269.7	40.4	1.000128
24100.0	393.4	-31.9	-43.0	31.9	568.0	605.1	269.1	40.9	1.000127
24200.0	391.7	-32.2	-43.1	32.7	566.3	604.7	268.6	41.4	1.000127
24300.0	390.0	-32.5	-43.1	33.5	564.5	604.4	268.0	41.9	1.000127
24400.0	388.3	-32.8	-43.2	34.2	562.8	604.0	267.5	42.4	1.000126
24500.0	386.6	-33.1	-43.3	35.0	561.0	603.6	267.0	42.9	1.000126
24600.0	384.9	-33.4	-43.3	35.8	559.3	603.2	266.9	43.4	1.000125
24700.0	383.3	-33.7	-43.4	36.5	557.5	602.9	266.9	43.9	1.000125
24800.0	381.6	-34.0	-43.5	37.3	555.8	602.5	266.8	44.4	1.000125
24900.0	380.0	-34.3	-43.6	38.0	554.1	602.1	266.7	45.0	1.000124
25000.0	378.3	-34.6	-43.7	38.8	552.4	601.8	266.6	45.5	1.000124
25100.0	376.7	-34.9	-43.7	39.6	550.7	601.4	266.9	45.8	1.000123
25200.0	375.1	-35.2	-43.8	40.3	549.0	601.0	267.4	46.1	1.000123
25300.0	373.4	-35.5	-43.9	41.1	547.3	600.6	267.9	46.4	1.000123
25400.0	371.8	-35.8	-44.0	41.8	545.6	600.3	268.4	46.7	1.000122
25500.0	370.2	-36.1	-44.2	42.6	543.9	599.9	268.9	47.0	1.000122
25600.0	368.6	-36.4	-44.3	43.4	542.2	599.5	269.4	47.2	1.000122
25700.0	367.0	-36.6	-44.3	44.7	540.5	599.2	269.6	47.1	1.000121
25800.0	365.4	-36.9	-43.8	48.5	538.8	598.8	269.8	47.0	1.000121
25900.0	363.8	-37.2	-43.3	52.3	537.0	598.5	270.0	46.9	1.000120
26000.0	362.2	-37.5	-42.9	56.1	535.3	598.1	270.3	46.7	1.000120
26100.0	360.6	-37.7	-42.8	50.4	533.5	597.8	270.5	46.6	1.000120
26200.0	359.0	-37.9	-42.8	59.2	531.5	597.6	270.8	46.3	1.000119
26300.0	357.4	-38.0	-42.9	59.9	529.6	597.4	271.1	46.0	1.000119
26400.0	355.9	-38.2	-42.9	60.7	527.6	597.2	271.4	45.7	1.000118
26500.0	354.3	-38.4	-43.0	61.5	525.7	596.9	271.8	45.4	1.000118
26600.0	352.7	-38.6	-43.1	62.2	523.8	596.7	272.1	45.1	1.000118
26700.0	351.2	-38.8	-43.1	63.0	521.9	596.5	272.5	44.9	1.000117
26800.0	349.6	-38.9	-43.2	63.8	520.0	596.2	272.8	44.9	1.000117
26900.0	348.1	-39.2	-43.8	60.7**	518.2	595.9	273.1	44.9	1.000116
27000.0	346.5	-39.4	-44.8	56.1**	516.4	595.6	273.4	44.9	1.000116
27100.0	345.0	-39.7	-45.8	51.5**	514.7	595.3	273.7	44.8	1.000115
27200.0	343.5	-39.9	-46.8	47.0**	512.9	595.0	274.0	45.0	1.000115
27300.0	341.9	-40.1	-48.0	42.4**	511.2	594.7	274.3	45.1	1.000114
27400.0	340.4	-40.4	-49.2	37.8**	509.4	594.4	274.5	45.3	1.000114
27500.0	338.9	-40.6	-50.5	33.2**	507.7	594.1	274.8	45.4	1.000113
27600.0	337.4	-40.9	-52.0	28.6**	506.0	593.8	275.1	45.6	1.000113
27700.0	335.9	-41.1	-53.7	24.0**	504.3	593.4	275.3	45.8	1.000113
27800.0	334.4	-41.4	-55.6	19.5**	502.5	593.1	275.5	46.1	1.000112

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

UPPER AIR DATA
 3340290173
 EAST-28/CHERRY
 TABLE 3 CONT'D

STATION ALTITUDE 3912.75 FEET MSL
 30 NOV. 82
 ASCENSION NO. 173

GEODETIC COORDINATES
 32.89927 LAT DEG
 136.40591 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMP AIR DEGREES	TEMP WET POINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION (DEGREES)	WIND SPEED KNOTS	INDEX OF REFRACTION
27900.0	332.0	-41.6	-57.9	14.9**	500.8	592.8	275.7	46.3	1.000112
28000.0	331.0	-41.9	-61.0	10.3**	499.1	592.5	275.9	46.5	1.000111
28100.0	329.9	-42.1	-65.5	5.7**	497.4	592.2	276.0	47.0	1.000111
28200.0	328.5	-42.3	-76.6	1.1**	495.8	591.9	276.2	47.5	1.000110
28300.0	327.0	-42.4			493.7	591.7	276.3	48.0	1.000110
28400.0	325.5	-42.5			491.6	591.7	276.4	48.6	1.000109
28500.0	324.1	-42.5			489.5	591.6	276.5	49.1	1.000109
28600.0	322.6	-42.6			487.4	591.6	276.9	48.9	1.000109
28700.0	321.2	-42.6			485.3	591.5	277.2	48.8	1.000108
28800.0	319.7	-42.7			483.3	591.4	277.5	48.7	1.000108
28900.0	318.3	-42.7			481.2	591.4	277.9	48.6	1.000107
29000.0	316.9	-42.8			479.1	591.3	278.2	48.5	1.000107
29100.0	315.4	-42.9			477.2	591.1	278.8	48.0	1.000106
29200.0	314.0	-43.1			475.5	590.9	279.5	47.5	1.000106
29300.0	312.6	-43.3			473.8	590.6	280.1	47.0	1.000106
29400.0	311.2	-43.5			472.1	590.3	280.8	46.5	1.000105
29500.0	309.8	-43.7			470.4	590.1	281.6	46.0	1.000105
29600.0	308.4	-43.9			468.7	589.8	282.2	45.4	1.000104
29700.0	307.0	-44.1			467.0	589.5	282.7	44.7	1.000104
29800.0	305.6	-44.4			465.3	589.3	283.3	44.0	1.000104
29900.0	304.2	-44.6			463.6	589.0	283.9	43.3	1.000103
30000.0	302.8	-44.8			461.9	588.7	284.6	42.7	1.000103
30100.0	301.5	-45.0			460.3	588.5	285.0	42.2	1.000103
30200.0	300.1	-45.2			458.6	588.2	284.9	42.3	1.000102
30300.0	298.7	-45.3			456.8	588.0	284.8	42.4	1.000102
30400.0	297.4	-45.5			455.0	587.8	284.7	42.5	1.000101
30500.0	296.0	-45.6			453.2	587.6	284.6	42.6	1.000101
30600.0	294.7	-45.8			451.4	587.5	284.5	42.7	1.000101
30700.0	293.3	-45.9			449.6	587.3	284.2	43.4	1.000100
30800.0	292.0	-46.0			447.9	587.1	284.0	44.1	1.000100
30900.0	290.6	-46.2			446.1	586.9	283.7	44.8	1.000099
31000.0	289.3	-46.3			444.4	586.7	283.5	45.4	1.000099
31100.0	288.0	-46.5			442.6	586.5	283.3	46.1	1.000099
31200.0	286.7	-46.6			440.9	586.4	283.2	46.4	1.000098
31300.0	285.4	-46.8			439.1	586.2	283.3	46.5	1.000098
31400.0	284.1	-46.9			437.4	586.0	283.4	46.6	1.000097
31500.0	282.8	-47.0			435.7	585.8	283.5	46.6	1.000097
31600.0	281.5	-47.2			434.0	585.6	283.5	46.7	1.000097
31700.0	280.2	-47.3			432.2	585.4	283.6	46.8	1.000096
31800.0	278.9	-47.5			430.5	585.2	283.7	46.8	1.000096

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

GEODETIC COORDINATES
32.0927 LAT DEG
136.40591 LON DEG

UPPER AIR DATA
3340290173
EAST-28/CHEMRY
TABLE 8 Cont'd

STATION ALTITUDE 3912.75 FEET MSL
30 NOV. 82
ASLENSION NO. 173
12.30 HRS MST

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES(TN))	SPEED KNOTS	INDEX OF REFRACTION
31900.0	277.6	-47.6		428.8	585.1	263.7	46.8	1.000096
32000.0	276.4	-47.8		427.2	584.9	263.8	46.9	1.000095
32100.0	275.1	-47.9		425.5	584.7	263.9	46.9	1.000095
32200.0	273.8	-48.0		423.8	584.5	263.9	46.9	1.000094
32300.0	272.6	-48.0		421.7	584.6	264.1	46.9	1.000094
32400.0	271.3	-47.8		419.4	584.9	264.4	46.7	1.000093
32500.0	270.1	-47.6		417.2	585.0	264.7	46.5	1.000093
32600.0	268.9	-47.8		415.7	584.8	265.0	46.3	1.000093
32700.0	267.6	-48.0		414.1	584.6	265.4	46.2	1.000092
32800.0	266.4	-48.2		412.5	584.3	265.7	46.0	1.000092
32900.0	265.2	-48.4		410.9	584.1	265.8	46.6	1.000092
33000.0	263.9	-48.6		409.4	583.8	265.4	47.3	1.000091
33100.0	262.7	-48.7		407.8	583.6	265.2	48.1	1.000091
33200.0	261.5	-48.9		406.3	583.4	265.1	48.8	1.000090
33300.0	260.3	-49.1		404.7	583.1	264.9	49.5	1.000090
33400.0	259.1	-49.3		403.2	582.9	264.6	50.1	1.000090
33500.0	257.9	-49.5		401.7	582.7	264.4	50.7	1.000089
33600.0	256.7	-49.6		400.1	582.4	264.1	51.3	1.000089
33700.0	255.5	-49.8		398.5	582.2	263.9	51.9	1.000089
33800.0	254.3	-49.9		397.0	582.0	263.8	52.2	1.000088
33900.0	253.2	-50.1		395.4	581.8	263.9	52.2	1.000088
34000.0	252.0	-50.2		393.8	581.6	264.0	52.3	1.000088
34100.0	250.8	-50.4		392.3	581.4	264.1	52.3	1.000087
34200.0	249.7	-50.5		390.7	581.3	264.2	52.3	1.000087
34300.0	248.5	-50.6		388.9	581.2	264.1	52.7	1.000087
34400.0	247.3	-50.6		387.2	581.1	264.1	53.2	1.000086
34500.0	246.2	-50.7		385.6	581.0	264.0	53.6	1.000086
34600.0	245.0	-50.8		383.9	581.0	263.9	54.1	1.000086
34700.0	243.9	-50.8		382.2	580.9	263.7	54.9	1.000085
34800.0	242.8	-50.9		380.5	580.8	263.4	55.1	1.000085
34900.0	241.6	-50.8		378.6	580.9	263.2	57.4	1.000084
35000.0	240.5	-50.6		376.6	581.1	262.9	58.6	1.000084
35100.0	239.4	-50.5		374.6	581.3	262.6	59.9	1.000083
35200.0	238.3	-50.4		372.6	581.5	262.6	60.4	1.000083
35300.0	237.2	-50.2		370.7	581.7	262.6	60.7	1.000083
35400.0	236.1	-50.1		368.7	581.8	262.6	61.0	1.000082
35500.0	235.0	-49.9		366.8	582.0	262.6	61.4	1.000082
35600.0	233.9	-50.0		365.2	581.9	262.6	61.7	1.000081
35700.0	232.8	-50.2		363.8	581.7	262.8	61.1	1.000081
35800.0	231.7	-50.4		362.3	581.5	263.0	60.0	1.000081

UPPER AIR DATA
 3340290173
 EAST-28/CHEERY
 TABLE 8 Cont'd

STATION ALTITUDE 3912.75 FEET SL
 36 NOV 62
 ASCENSION NO. 173

GEODETIC COORDINATES
 32.6927 LAT DEG
 136.40591 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
3500.0	230.0	-50.6			360.9	581.2	283.3	59.0	1.000080
3600.0	229.5	-50.7			359.5	581.0	283.6	58.0	1.000080
3700.0	229.5	-50.9			358.2	580.8	283.9	56.9	1.000080
3800.0	227.4	-51.1			356.8	580.5	284.2	56.0	1.000079
3900.0	226.3	-51.3			355.4	580.3	284.4	55.2	1.000079
3940.0	225.3	-51.5			354.0	580.0	284.6	54.4	1.000079
39500.0	224.2	-51.6			352.7	579.8	284.9	53.7	1.000079
39600.0	223.2	-51.8			351.3	579.6	285.1	52.9	1.000078
39700.0	222.1	-52.0			349.9	579.3	285.4	52.1	1.000078
39800.0	221.1	-52.2			348.6	579.1	285.4	51.6	1.000078
39900.0	220.1	-52.4			347.2	578.9	285.5	51.0	1.000077
37000.0	219.0	-52.6			345.9	578.6	285.5	50.5	1.000077
37100.0	218.0	-52.7			344.6	578.4	285.6	50.0	1.000077
37200.0	217.0	-52.9			343.2	578.1	285.6	49.5	1.000076
37300.0	216.0	-53.1			341.9	577.9	285.5	49.0	1.000076
37400.0	215.0	-53.3			340.6	577.7	285.1	48.6	1.000076
37500.0	214.0	-53.5			339.3	577.4	284.7	48.2	1.000076
37600.0	212.9	-53.6			338.0	577.2	284.3	47.8	1.000075
37700.0	212.0	-53.8			336.7	576.9	283.9	47.4	1.000075
37800.0	211.0	-54.0			335.4	576.7	283.4	47.0	1.000075
37900.0	210.0	-54.2			334.1	576.5	282.6	47.1	1.000074
38000.0	209.0	-54.4			332.8	576.2	281.6	47.3	1.000074
38100.0	208.0	-54.5			331.4	576.0	280.9	47.4	1.000074
38200.0	207.0	-54.6			330.0	576.0	280.1	47.6	1.000073
38300.0	206.0	-54.6			328.5	575.9	279.3	47.9	1.000073
38400.0	205.1	-54.7			327.0	575.8	278.3	48.7	1.000073
38500.0	204.1	-54.8			325.6	575.7	277.3	49.6	1.000073
38600.0	203.1	-54.8			324.1	575.7	276.3	50.5	1.000072
38700.0	202.2	-54.9			322.7	575.6	275.4	51.5	1.000072
38800.0	201.2	-54.9			321.2	575.5	274.6	52.5	1.000072
38900.0	200.3	-55.0			319.8	575.4	273.7	53.9	1.000071
39000.0	199.3	-54.9			318.2	575.5	272.9	55.4	1.000071
39100.0	198.4	-54.9			316.6	575.6	272.1	56.8	1.000071
39200.0	197.4	-54.8			314.9	575.7	271.4	58.3	1.000070
39300.0	196.5	-54.7			313.3	575.8	270.7	59.7	1.000070
39400.0	195.6	-54.6			311.7	575.9	270.0	60.9	1.000069
39500.0	194.7	-54.5			310.1	576.1	269.3	62.1	1.000069
39600.0	193.7	-54.4			308.6	576.2	268.6	63.4	1.000069
39700.0	192.8	-54.3			307.0	576.3	268.0	64.6	1.000068
39800.0	191.9	-54.2			305.4	576.4	267.4	65.0	1.000068

STATION ALTITUDE 3912.75 Feet MSL
 30 NOV. 82
 ASCENSION NO. 173

UPPER AIR DATA
 3340290173
 EAST-28/CHEVRY
 TABLE 8 Cont'd

GEODETIC COORDINATES
 32.89927 LAT DEG
 136.40591 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
3900.0	191.0	-54.2		303.8	576.5	266.9	64.4	1.000068
4000.0	190.1	-54.1		302.3	576.6	266.3	63.8	1.000067
40100.0	189.2	-54.0		300.7	576.7	265.7	63.3	1.000067
40200.0	188.3	-53.9		299.2	576.8	265.2	62.7	1.000067
40300.0	187.4	-53.8		297.7	577.0	264.9	61.8	1.000066
40400.0	186.5	-53.7		296.1	577.1	265.0	60.8	1.000066
40500.0	185.7	-53.5		294.4	577.4	265.0	59.7	1.000066
40600.0	184.8	-53.1		292.5	577.9	265.0	58.6	1.000065
40700.0	183.9	-52.7		290.7	578.4	265.1	57.6	1.000065
40800.0	183.1	-52.4		288.8	578.9	265.2	56.6	1.000064
40900.0	182.2	-52.0		287.0	579.4	265.5	56.0	1.000064
41000.0	181.4	-51.6		285.2	579.8	265.9	55.4	1.000064
41100.0	180.5	-51.2		283.4	580.3	266.2	54.8	1.000063
41200.0	179.7	-50.9		281.6	580.8	266.6	54.2	1.000063
41300.0	178.8	-50.5		279.8	581.3	267.0	53.6	1.000062
41400.0	178.0	-50.1		278.1	581.8	267.3	53.1	1.000062
41500.0	177.2	-49.8		276.3	582.3	267.7	52.5	1.000062
41600.0	176.4	-49.4		274.6	582.7	268.0	52.0	1.000061
41700.0	175.5	-49.1		273.0	583.1	268.3	51.4	1.000061
41800.0	174.7	-49.3		271.9	582.9	268.7	50.9	1.000061
41900.0	173.9	-49.5		270.9	582.6	269.0	50.4	1.000060
42000.0	173.1	-49.7		269.8	582.4	269.3	50.0	1.000060
42100.0	172.3	-49.8		268.8	582.2	269.6	49.6	1.000060
42200.0	171.5	-50.0		267.7	582.0	269.8	49.3	1.000060
42300.0	170.7	-50.2		266.7	581.7	270.1	48.9	1.000059
42400.0	169.9	-50.3		265.7	581.5	270.4	48.6	1.000059
42500.0	169.1	-50.5		264.6	581.3	270.5	48.3	1.000059
42600.0	168.3	-50.7		263.6	581.1	270.5	48.0	1.000059
42700.0	167.6	-50.9		262.6	580.8	270.4	47.8	1.000058
42800.0	166.8	-51.0		261.6	580.6	270.3	47.6	1.000058
42900.0	166.0	-51.2		260.6	580.4	270.2	47.3	1.000058
43000.0	165.2	-51.4		259.6	580.2	270.1	47.1	1.000058
43100.0	164.5	-51.6		258.6	579.9	269.7	47.0	1.000058
43200.0	163.7	-51.7		257.6	579.7	269.3	47.0	1.000057
43300.0	162.9	-52.0		256.6	579.4	268.9	47.0	1.000057
43400.0	162.2	-52.2		255.7	579.0	268.5	47.0	1.000057
43500.0	161.4	-52.5		254.9	578.7	268.1	46.9	1.000057
43600.0	160.7	-52.8		254.0	578.3	267.7	46.9	1.000057
43700.0	159.9	-53.1		253.1	577.9	267.3	47.0	1.000056
43800.0	159.1	-53.4		252.3	577.6	266.8	47.1	1.000056

STATION ALTITUDE 3912.75 FEET MS
 TO NAV. PT 1230 HIPS MS
 ASCENSION NO. 17A

UPPER AIR DATA
 3360290173
 EAST-28/CHERRY
 TABLE 3 CONT'D

GEODETIC COORDINATES
 32.69927 LAT 1E5
 136.49591 LONG 1E5

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
3900.0	156.4	-53.6		251.4	577.2	292.4	47.2	1.000056
3800.0	157.7	-53.0		250.5	576.8	296.0	47.3	1.000056
3700.0	159.1	-54.2		249.7	576.5	295.5	47.2	1.000056
3600.0	160.7	-54.8		248.7	576.2	295.2	47.4	1.000056
3500.0	162.4	-54.4		247.5	576.3	294.9	47.3	1.000055
3400.0	164.7	-54.3		246.3	576.3	294.6	47.3	1.000055
3300.0	167.0	-54.3		245.1	576.3	294.4	47.2	1.000055
3200.0	169.3	-54.3		243.9	576.4	294.1	47.2	1.000054
3100.0	171.6	-54.2		242.7	576.4	293.8	47.2	1.000054
3000.0	174.0	-54.2		241.5	576.5	293.6	47.1	1.000054
2900.0	176.3	-54.2		240.3	576.5	293.3	47.1	1.000054
2800.0	178.7	-54.1		239.2	576.6	293.1	47.0	1.000053
2700.0	181.1	-54.1		238.0	576.6	292.8	47.0	1.000053
2600.0	183.5	-54.1		236.9	576.6	292.6	47.0	1.000053
2500.0	185.9	-54.1		235.8	576.6	292.3	46.9	1.000053
2400.0	188.3	-54.1		234.7	576.6	292.0	46.9	1.000052
2300.0	190.7	-54.1		233.6	576.6	291.7	46.9	1.000052
2200.0	193.1	-54.1		232.5	576.6	291.3	46.9	1.000052
2100.0	195.5	-54.1		231.4	576.6	290.9	46.8	1.000052
2000.0	197.9	-54.1		230.3	576.6	290.6	46.8	1.000051
1900.0	200.3	-54.3		229.3	576.4	290.2	46.8	1.000051
1800.0	202.7	-54.4		228.4	576.2	289.9	46.7	1.000051
1700.0	205.1	-54.6		227.5	575.9	289.5	46.6	1.000051
1600.0	207.5	-54.8		226.6	575.7	289.2	46.6	1.000050
1500.0	210.0	-55.0		225.7	575.5	288.8	46.5	1.000050
1400.0	212.4	-55.1		224.9	575.2	288.5	46.4	1.000050
1300.0	214.8	-55.3		224.0	575.0	288.1	46.3	1.000050
1200.0	217.2	-55.5		223.1	574.8	287.7	46.2	1.000050
1100.0	219.6	-55.7		222.2	574.5	287.4	46.1	1.000049
1000.0	222.0	-55.8		221.3	574.3	287.0	46.1	1.000049
900.0	224.4	-56.0		220.5	574.1	286.6	46.0	1.000049
800.0	226.8	-56.2		219.6	573.8	286.2	45.9	1.000049
700.0	229.2	-56.4		218.7	573.6	285.9	45.9	1.000049
600.0	231.6	-56.6		217.9	573.4	285.5	45.9	1.000049
500.0	234.0	-56.7		217.0	573.1	285.2	45.9	1.000048
400.0	236.4	-56.9		216.2	572.9	284.8	46.0	1.000048
300.0	238.8	-57.0		215.2	572.8	284.5	46.0	1.000048
200.0	241.2	-57.1		214.3	572.6	284.2	46.1	1.000048
100.0	243.6	-57.2		213.4	572.5	283.8	46.2	1.000048
0.0	246.0	-57.3		212.5	572.3	283.5	46.5	1.000047

UPPER AIR DATA
 3340290173
 EAST-28/CHEERY
 TABLE 8 Cont'd

STATION ALTITUDE 3912.75 FT MSL
 30 NOV. 82 1236 HRS MST
 ASCENSION NO. 173

GEODETIC COORDINATES
 32.89927 LAT DEG
 136.40591 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 CENTIGRADE	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
47900.0	131.0	-57.4		211.5	572.2	253.2	46.9	1.000047	
48000.0	130.4	-57.5		210.6	572.1	252.8	47.2	1.000047	
48100.0	129.7	-57.6		209.7	571.9	252.5	47.5	1.000047	
48200.0	129.1	-57.7		208.8	571.8	252.2	47.9	1.000047	
48300.0	128.5	-57.9		207.9	571.6	251.9	48.4	1.000046	
48400.0	127.9	-58.0		207.0	571.5	251.8	49.1	1.000046	
48500.0	127.3	-58.1		206.1	571.4	251.6	49.9	1.000046	
48600.0	126.6	-58.2		205.2	571.2	251.5	50.6	1.000046	
48700.0	126.0	-58.3		204.3	571.1	251.3	51.4	1.000046	
48800.0	125.4	-58.4		203.5	570.9	251.2	52.1	1.000045	
48900.0	124.8	-58.5		202.6	570.8	251.2	52.8	1.000045	
49000.0	124.2	-58.6		201.7	570.7	251.5	53.5	1.000045	
49100.0	123.6	-58.7		200.8	570.5	251.7	54.1	1.000045	
49200.0	123.0	-58.8		200.0	570.4	251.9	54.8	1.000045	
49300.0	122.4	-58.9		199.1	570.2	252.1	55.4	1.000044	
49400.0	121.9	-59.0		198.2	570.1	252.3	56.1	1.000044	
49500.0	121.3	-59.1		197.4	570.0	253.0	56.5	1.000044	
49600.0	120.7	-59.2		196.5	569.8	253.7	56.8	1.000044	
49700.0	120.1	-59.3		195.7	569.7	254.4	57.2	1.000044	
49800.0	119.5	-59.4		194.8	569.5	255.1	57.6	1.000043	
49900.0	119.0	-59.5		194.0	569.4	255.8	57.9	1.000043	
50000.0	118.4	-59.5		193.0	569.4	256.7	58.1	1.000043	
50100.0	117.8	-59.2		191.9	569.8	257.5	58.2	1.000043	
50200.0	117.3	-59.0		190.7	570.2	258.4	58.4	1.000042	
50300.0	116.7	-58.7		189.6	570.5	259.2	58.6	1.000042	
50400.0	116.1	-58.4		188.4	570.9	259.8	58.6	1.000042	
50500.0	115.6	-58.1		187.3	571.2	260.1	58.2	1.000042	
50600.0	115.0	-57.9		186.1	571.6	260.5	57.8	1.000041	
50700.0	114.5	-57.6		185.0	572.0	260.8	57.4	1.000041	
50800.0	113.9	-57.3		183.9	572.3	261.1	57.0	1.000041	
50900.0	113.4	-57.1		182.8	572.7	261.1	56.1	1.000041	
51000.0	112.8	-56.8		181.7	573.0	260.8	54.8	1.000040	
51100.0	112.3	-56.5		180.6	573.4	260.6	53.5	1.000040	
51200.0	111.8	-56.2		179.5	573.8	260.3	52.3	1.000040	
51300.0	111.2	-56.0		178.4	574.1	260.0	51.0	1.000040	
51400.0	110.7	-55.7		177.3	574.5	259.3	49.7	1.000039	
51500.0	110.2	-55.5		176.4	574.7	258.6	48.4	1.000039	
51600.0	109.6	-55.7		175.6	574.5	257.8	47.1	1.000039	
51700.0	109.1	-55.9		174.9	574.3	256.9	45.8	1.000039	
51800.0	108.6	-56.0		174.2	574.0	256.1	44.5	1.000039	

STATION ALTITUDE 5912.75 FEET MSL
 30 NOV. 82
 ASCENSION NO. 173

UPPER AIR DATA
 3340290173
 EAST-28/CHEERY
 TABLE 8 CONT'D

GEODETIC COORDINATES
 32.89927 LAT DEG
 136.40591 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
51900.0	100.1	-56.2			173.5	573.8	255.1	43.9	1.000039
52000.0	107.6	-56.3			172.8	573.6	254.1	43.4	1.000038
52100.0	107.0	-56.5			172.1	573.4	253.1	42.9	1.000038
52200.0	106.5	-56.7			171.4	573.2	252.1	42.4	1.000038
52300.0	106.0	-56.8			170.7	573.0	251.0	42.0	1.000038
52400.0	105.5	-57.0			170.0	572.8	250.2	42.3	1.000038
52500.0	105.0	-57.2			169.4	572.6	249.4	42.6	1.000038
52600.0	104.5	-57.3			168.7	572.3	248.5	42.9	1.000038
52700.0	104.0	-57.5			168.0	572.1	247.7	43.2	1.000037
52800.0	103.5	-57.6			167.3	571.9	246.9	43.6	1.000037
52900.0	103.0	-57.8			166.6	571.7	246.2	43.9	1.000037
53000.0	102.5	-58.0			166.0	571.5	245.6	44.2	1.000037
53100.0	102.0	-58.1			165.3	571.3	244.9	44.4	1.000037
53200.0	101.5	-58.3			164.6	571.1	244.3	44.7	1.000037
53300.0	101.1	-58.4			164.0	570.8	243.7	45.0	1.000037
53400.0	100.6	-58.6			163.3	570.6	243.1	45.3	1.000036
53500.0	100.1	-58.8			162.7	570.4	242.5	45.6	1.000036
53600.0	99.6	-58.9			161.9	570.3	242.1	45.7	1.000036
53700.0	99.1	-59.0			161.2	570.1	241.9	45.5	1.000036
53800.0	98.6	-59.1			160.5	570.0	241.6	45.2	1.000036
53900.0	98.2	-59.2			159.8	569.9	241.4	45.0	1.000036
54000.0	97.7	-59.3			159.1	569.7	241.1	44.8	1.000035
54100.0	97.2	-59.4			158.4	569.6	240.9	44.5	1.000035
54200.0	96.7	-59.5			157.7	569.5	240.6	44.3	1.000035
54300.0	96.3	-59.6			157.0	569.3	240.5	43.9	1.000035
54400.0	95.8	-59.7			156.3	569.2	240.4	43.4	1.000035
54500.0	95.3	-59.8			155.6	569.1	240.3	42.9	1.000035
54600.0	94.9	-59.9			155.0	568.9	240.2	42.5	1.000035
54700.0	94.4	-60.0			154.3	568.8	240.1	42.0	1.000034
54800.0	93.9	-60.1			153.6	568.6	240.0	41.5	1.000034
54900.0	93.5	-60.2			152.9	568.5	239.9	41.0	1.000034
55000.0	93.0	-60.3			152.2	568.4	239.4	40.2	1.000034
55100.0	92.6	-60.4			151.6	568.2	238.9	39.3	1.000034
55200.0	92.1	-60.5			150.9	568.1	238.5	38.4	1.000034
55300.0	91.7	-60.6			150.2	568.0	237.7	37.5	1.000033
55400.0	91.2	-60.7			149.0	567.8	237.1	36.6	1.000033
55500.0	90.8	-60.8			148.9	567.7	236.4	35.7	1.000033
55600.0	90.3	-60.9			148.3	567.6	235.7	34.8	1.000033
55700.0	89.9	-61.0			147.6	567.4	234.3	33.2	1.000033
55800.0	89.5	-61.1			147.0	567.3	232.7	31.6	1.000033

STATION ALTITUDE 3912.75 FEET MSL
 30 NOV. 82
 1230 HRS MST
 ASCENSION NO. 173

UPPER AIR DATA
 3340290173
 EAST-28/CHEKRY
 TABLE 8 Cont'd

GEODETIC COORDINATES
 32.89927 LAT DEG
 136.40591 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 CENTIGRADE	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
53900.0	89.0	-61.2			146.5	567.2	231.0	30.1	1.000033
54000.0	88.6	-61.3			145.7	567.0	229.1	28.5	1.000032
54100.0	88.2	-61.4			145.0	566.9	227.0	27.1	1.000032
54200.0	87.7	-61.5			144.4	566.8	224.6	25.6	1.000032
54300.0	87.3	-61.6			143.8	566.6	222.5	24.5	1.000032
54400.0	86.9	-61.7			143.1	566.5	221.8	24.0	1.000032
54500.0	86.4	-61.8			142.5	566.3	221.0	23.5	1.000032
54600.0	86.0	-61.9			141.9	566.2	220.3	23.0	1.000032
54700.0	85.6	-62.0			141.2	566.1	219.5	22.5	1.000031
54800.0	85.2	-62.1			140.6	565.9	218.6	22.0	1.000031
54900.0	84.8	-62.2			140.0	565.8	220.9	22.7	1.000031
55000.0	84.4	-62.3			139.4	565.7	224.1	23.8	1.000031
57100.0	83.9	-62.4			138.8	565.5	226.9	25.1	1.000031
57200.0	83.5	-62.5			138.2	565.4	229.5	26.4	1.000031
57300.0	83.1	-62.6			137.6	565.3	231.9	27.8	1.000031
57400.0	82.7	-62.7			137.0	565.1	233.9	29.1	1.000031
57500.0	82.3	-62.8			136.4	565.0	235.4	30.0	1.000030
57600.0	81.9	-62.9			135.8	564.9	236.8	30.9	1.000030
57700.0	81.5	-63.0			135.2	564.7	238.1	31.8	1.000030
57800.0	81.1	-63.1			134.6	564.6	239.4	32.8	1.000030
57900.0	80.7	-63.2			134.0	564.4	240.5	33.8	1.000030
58000.0	80.3	-63.3			133.4	564.3	241.2	34.0	1.000030
58100.0	79.9	-63.4			132.8	564.2	241.6	33.9	1.000030
58200.0	79.6	-63.5			132.2	564.0	242.0	33.8	1.000029
58300.0	79.2	-63.6			131.6	563.9	242.4	33.7	1.000029
58400.0	78.8	-63.7			131.1	563.8	242.8	33.6	1.000029
58500.0	78.4	-63.8			130.5	563.6	243.2	33.5	1.000029
58600.0	78.0	-63.9			129.9	563.5	243.4	33.1	1.000029
58700.0	77.6	-64.0			129.3	563.4	243.6	32.7	1.000029
58800.0	77.3	-64.1			128.7	563.3	243.8	32.3	1.000029
58900.0	76.9	-64.0			128.0	563.4	244.0	31.9	1.000029
59000.0	76.5	-63.9			127.4	563.5	244.2	31.5	1.000028
59100.0	76.1	-63.9			126.7	563.6	244.5	31.2	1.000028
59200.0	75.7	-63.8			126.0	563.7	244.8	30.9	1.000028
59300.0	75.4	-63.7			125.4	563.6	245.0	30.6	1.000028
59400.0	75.0	-63.7			124.7	563.9	245.3	30.4	1.000028
59500.0	74.6	-63.6			124.1	564.0	245.6	30.1	1.000028
59600.0	74.3	-63.5			123.4	564.1	245.9	29.8	1.000027
59700.0	73.9	-63.5			122.8	564.1	246.3	29.6	1.000027
59800.0	73.5	-63.4			122.1	564.2	246.6	29.5	1.000027

STATION ALTITUDE 3912.75 FT 1 ASL
 30 NOV. 62
 ASCENSION NO. 1/3

UPPER AIR DATA
 334029017J
 EAST-20/CHERRY
 TABLE 8 Cont'd

GEODETIC COORDINATES
 32.0927 LAT DEG
 136.40591 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (IN) SPEED (KNOTS)	REFRACTION INDEX
5000.0	75.2	-63.3		102.1	564.5	247.8	1.000027
5100.0	74.8	-63.2		102.1	564.4	247.3	1.000027
5200.0	74.5	-63.2		102.1	564.5	247.1	1.000027
5300.0	74.1	-63.1		102.1	564.5	247.2	1.000027
5400.0	73.7	-63.0		102.1	564.7	246.7	1.000026
5500.0	73.4	-63.0		102.1	564.6	246.5	1.000026
5600.0	73.0	-62.9		102.1	564.9	246.0	1.000026
5700.0	72.7	-62.8		102.1	565.0	245.3	1.000026
5800.0	72.3	-62.8		102.1	565.1	245.8	1.000026
5900.0	72.0	-62.7		102.1	565.2	245.4	1.000026
6000.0	71.7	-62.6		102.1	565.2	245.0	1.000026
6100.0	71.3	-62.6		102.1	565.3	244.5	1.000026
6200.0	71.0	-62.5		102.1	565.4	244.0	1.000025
6300.0	70.6	-62.5		102.1	565.4	243.5	1.000025
6400.0	70.3	-62.4		102.1	565.5	243.0	1.000025
6500.0	70.0	-62.4		102.1	565.6	242.4	1.000025
6600.0	69.7	-62.3		102.1	565.6	241.8	1.000025
6700.0	69.3	-62.3		102.1	565.7	241.2	1.000025
6800.0	69.0	-62.2		102.1	565.8	240.5	1.000025
6900.0	68.7	-62.2		102.1	565.9	239.9	1.000025
7000.0	68.3	-62.1		102.1	565.9	239.2	1.000025
7100.0	68.0	-62.1		102.1	566.0	238.5	1.000024
7200.0	67.7	-62.0		102.1	566.1	237.8	1.000024
7300.0	67.4	-62.0		102.1	566.2	237.1	1.000024
7400.0	67.1	-61.9		102.1	566.2	236.5	1.000024
7500.0	66.7	-61.8		102.1	566.3	235.8	1.000024
7600.0	66.4	-61.8		102.1	566.4	235.1	1.000024
7700.0	66.1	-61.7		102.1	566.4	234.4	1.000024
7800.0	65.8	-61.7		102.1	566.5	233.7	1.000023
7900.0	65.5	-61.6		102.1	566.6	233.0	1.000023
8000.0	65.2	-61.6		102.1	566.7	232.3	1.000023
8100.0	64.9	-61.5		102.1	566.7	231.6	1.000023
8200.0	64.6	-61.5		102.1	566.8	230.9	1.000023
8300.0	64.3	-61.4		102.1	566.9	230.2	1.000023
8400.0	64.0	-61.4		102.1	566.9	229.5	1.000023
8500.0	63.7	-61.3		102.1	567.0	228.8	1.000023
8600.0	63.4	-61.3		102.1	567.1	228.1	1.000022
8700.0	63.1	-61.2		102.1	567.2	227.4	1.000022
8800.0	62.8	-61.2		99.8	567.2	226.7	1.000022
8900.0	62.5	-61.1		99.3	567.3	226.0	1.000022

STATION ALTITUDE 3912.75 FEET MSL
 30 NOV. 42 1230 HRS MST
 ASCENSION NO. 173

UPPER AIR 44TA
 330290143A
 EAST-20/CHEERY
 TABLE 8 Cont'd

GEODETIC COORDINATES
 32.64927 LAT DEG
 136.40591 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION (DEGREES(TN))	SPEED KNOTS	
63900.0	60.2	-61.0		98.8	567.4	249.6	16.9	1.000022
64000.0	59.9	-61.0		98.3	567.4	247.9	16.0	1.000022
64100.0	59.6	-60.9		97.8	567.5	246.1	15.2	1.000022
64200.0	59.3	-60.9		97.3	567.6	244.9	14.9	1.000022
64300.0	59.0	-60.8		96.8	567.7	244.3	15.0	1.000022
64400.0	58.7	-60.8		96.3	567.7	243.7	15.1	1.000021
64500.0	58.4	-60.7		95.8	567.8	243.2	15.1	1.000021
64600.0	58.1	-60.7		95.3	567.9	242.6	15.2	1.000021
64700.0	57.9	-60.6		94.8	567.9	242.1	15.3	1.000021
64800.0	57.6	-60.6		94.4	568.0	240.4	14.7	1.000021
64900.0	57.3	-60.5		93.9	568.1	238.3	13.9	1.000021
65000.0	57.0	-60.5		93.4	568.2	235.9	13.1	1.000021
65100.0	56.7	-60.4		92.9	568.2	233.2	12.4	1.000021
65200.0	56.5	-60.4		92.4	568.3	230.2	11.7	1.000021
65300.0	56.2	-60.3		92.0	568.4	226.6	11.0	1.000020
65400.0	55.9	-60.1		91.4	568.6	218.2	9.6	1.000020
65500.0	55.7	-60.0		90.9	568.8	207.3	8.5	1.000020
65600.0	55.4	-59.8		90.4	569.0	193.9	7.8	1.000020
65700.0	55.1	-59.7		89.9	569.2	189.6	7.8	1.000020
65800.0	54.9	-59.5		89.4	569.5	194.1	8.1	1.000020
65900.0	54.6	-59.3		88.9	569.7	198.3	8.5	1.000020
66000.0	54.3	-59.2		88.4	569.9	202.0	8.9	1.000020
66100.0	54.1	-59.0		88.0	570.1	200.8	8.8	1.000020
66200.0	53.8	-58.8		87.5	570.3	199.5	8.7	1.000019
66300.0	53.5	-58.7		87.0	570.5	198.1	8.6	1.000019
66400.0	53.3	-58.5		86.5	570.7	197.1	8.6	1.000019
66500.0	53.0	-58.4		86.0	570.9	190.4	8.5	1.000019
66600.0	52.8	-58.2		85.5	571.2	195.6	8.5	1.000019
66700.0	52.5	-58.0		85.1	571.4	194.9	8.4	1.000019
66800.0	52.3	-57.9		84.6	571.6	184.3	8.0	1.000019
66900.0	52.0	-57.7		84.1	571.8	172.9	7.8	1.000019
67000.0	51.8	-57.6		83.7	572.0	161.5	7.9	1.000019
67100.0	51.5	-57.4		83.2	572.2	150.8	8.4	1.000019
67200.0	51.3	-57.2		82.7	572.4	141.6	9.1	1.000018
67300.0	51.0	-57.1		82.3	572.7	133.6	10.0	1.000018
67400.0	50.8	-56.9		81.8	572.9	127.4	11.0	1.000018
67500.0	50.5	-56.8		81.4	573.1	128.6	10.8	1.000018
67600.0	50.3	-56.6		80.9	573.3	129.9	10.5	1.000018
67700.0	50.1	-56.4		80.5	573.5	131.3	10.3	1.000018
67800.0	49.8	-56.5		80.1	573.5	131.3	10.3	1.000018

UPPER AIR DATA
 3340290173
 EAST-28/CHERRY
 TABLE 3 CONT'D

STATION ALTITUDE 3912.75 FE. 1 MSL
 30 NOV. 52
 1230 HRS. 151

ASCENSION NO. 173

GEODETIC COORDINATES
 32.04-27 LAT DEG
 136.40591 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND (KNOTS)	DIR. OF WIND (IN DEG)	WIND DATA (KNOTS)	INDEX OF REFRACTION
67900.0	49.4	-56.6	79.7	573.5	149.0		1.000018	
68000.0	49.3	-56.7	79.6	573.2	148.9		1.000018	
68100.0	49.1	-56.7	79.5	573.1	148.4		1.000018	
68200.0	48.9	-56.8	79.4	573.0	148.3		1.000018	
68300.0	48.6	-56.9	79.4	572.8	148.0		1.000017	
68400.0	48.4	-57.0	79.3	572.7	147.8		1.000017	
68500.0	48.2	-57.1	79.3	572.6	147.7		1.000017	
68600.0	47.9	-57.2	79.4	572.5	147.5		1.000017	
68700.0	47.7	-57.3	79.4	572.4	147.4		1.000017	
68800.0	47.5	-57.4	76.7	572.2	146.6		1.000017	
68900.0	47.3	-57.5	76.3	572.1	147.2		1.000017	
69000.0	47.0	-57.6	76.0	572.0	147.2		1.000017	
69100.0	46.8	-57.7	75.7	571.9	147.2		1.000017	
69200.0	46.6	-57.8	75.4	571.7	147.0		1.000017	
69300.0	46.4	-57.9	75.0	571.6	146.5		1.000017	
69400.0	46.1	-58.0	74.7	571.5	146.1		1.000017	
69500.0	45.9	-58.1	74.4	571.4	146.5		1.000017	
69600.0	45.7	-58.1	74.1	571.2	145.9		1.000016	
69700.0	45.5	-58.2	73.7	571.1	146.1		1.000016	
69800.0	45.3	-58.3	73.4	571.0	146.3		1.000016	
69900.0	45.0	-58.4	73.1	570.9	146.8		1.000016	
70000.0	44.8	-58.5	72.8	570.7	146.8		1.000016	
70100.0	44.6	-58.6	72.5	570.6	146.8		1.000016	
70200.0	44.4	-58.7	72.1	570.5	146.8		1.000016	
70300.0	44.2	-58.8	71.8	570.4	146.8		1.000016	
70400.0	44.0	-58.8	71.5	570.4	146.8		1.000016	
70500.0	43.8	-58.8	71.1	570.4	146.8		1.000016	
70600.0	43.5	-58.8	70.8	570.4	146.8		1.000016	
70700.0	43.4	-58.8	70.4	570.4	146.8		1.000016	
70800.0	43.1	-58.8	70.1	570.4	146.8		1.000016	
70900.0	42.9	-58.8	69.8	570.4	146.8		1.000016	
71000.0	42.7	-58.8	69.4	570.4	146.8		1.000016	
71100.0	42.5	-58.7	69.1	570.4	146.8		1.000015	
71200.0	42.3	-58.7	68.8	570.5	146.8		1.000015	
71300.0	42.1	-58.7	68.4	570.5	146.8		1.000015	
71400.0	41.9	-58.7	68.1	570.5	146.8		1.000015	
71500.0	41.7	-58.7	67.8	570.5	146.8		1.000015	
71600.0	41.5	-58.7	67.4	570.5	146.8		1.000015	
71700.0	41.3	-58.7	67.1	570.5	146.8		1.000015	
71800.0	41.1	-58.7	66.8	570.5	146.8		1.000015	

STATION ALTITUDE 3912.75 FEET MSL
 30 NOV. 82
 ASCENSION NO. 173

UPPER AIR DATA
 3340290173
 EAST-26/CHEKRY
 TABLE 8 Cont'd

GEODETIC COORDINATES
 32.89927 LAT DEG
 136.40591 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INJEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
71900.0	40.9	-58.7		66.5	570.5	261.8	45.2	1.000015
72000.0	40.7	-58.7		66.1	570.5	261.8	46.2	1.000015
72100.0	40.5	-58.7		65.8	570.5	261.8	47.2	1.000015
72200.0	40.3	-58.7		65.5	570.6	261.8	48.2	1.000015
72300.0	40.1	-58.7		65.2	570.6	261.8	49.1	1.000015
72400.0	39.9	-58.7		64.9	570.6	261.8	50.1	1.000014
72500.0	39.8	-58.6		64.6	570.6	261.8	51.1	1.000014
72600.0	39.6	-58.6		64.2	570.6	261.8	52.1	1.000014
72700.0	39.4	-58.6		63.9	570.6	261.8	53.1	1.000014
72800.0	39.2	-58.6		63.6	570.6	261.8	53.9	1.000014
72900.0	39.0	-58.6		63.3	570.6	261.8	54.0	1.000014
73000.0	38.8	-58.6		63.0	570.6	261.8	54.2	1.000014
73100.0	38.6	-58.6		62.7	570.6	261.8	54.3	1.000014
73200.0	38.4	-58.5		62.4	570.8	261.6	54.5	1.000014
73300.0	38.2	-58.3		62.0	571.0	261.8	54.6	1.000014
73400.0	38.1	-58.2		61.7	571.2	261.8	54.8	1.000014
73500.0	37.9	-58.0		61.3	571.4	261.8	54.9	1.000014
73600.0	37.7	-57.9		61.0	571.6	261.8	55.1	1.000014
73700.0	37.5	-57.7		60.7	571.8	261.8	55.2	1.000014
73800.0	37.3	-57.6		60.3	572.0	261.6	55.4	1.000013
73900.0	37.2	-57.4		60.0	572.2	261.6	55.5	1.000013
74000.0	37.0	-57.3		59.7	572.4	261.2	55.7	1.000013
74100.0	36.8	-57.1		59.4	572.6	260.8	55.8	1.000013
74200.0	36.6	-57.0		59.0	572.8	260.4	56.0	1.000013
74300.0	36.5	-56.8		58.7	573.0	260.0	56.1	1.000013
74400.0	36.3	-56.7		58.4	573.2	259.7	56.2	1.000013
74500.0	36.1	-56.5		58.1	573.4	259.3	56.4	1.000013
74600.0	35.9	-56.5		57.8	573.4	258.9	56.6	1.000013
74700.0	35.8	-56.5		57.5	573.4	258.5	56.7	1.000013
74800.0	35.6	-56.6		57.3	573.3	258.1	56.9	1.000013
74900.0	35.4	-56.6		57.0	573.3	257.8	57.0	1.000013
75000.0	35.3	-56.6		56.7	573.3	257.4	56.6	1.000013
75100.0	35.1	-56.6		56.5	573.2	256.9	56.0	1.000013
75200.0	34.9	-56.7		56.2	573.2	256.5	55.4	1.000013
75300.0	34.8	-56.7		55.9	573.2	256.0	54.8	1.000012
75400.0	34.6	-56.7		55.7	573.1	255.5	54.2	1.000012
75500.0	34.4	-56.7		55.4	573.1	255.0	53.6	1.000012
75600.0	34.3	-56.8		55.2	573.1	254.5	53.0	1.000012
75700.0	34.1	-56.8		54.9	573.1	254.0	52.4	1.000012
75800.0	33.9	-56.8		54.6	573.0	253.5	51.9	1.000012

UPPER AIR DATA
 3340290173
 EAST-28/CHLHRY
 TABLE 8 CONT'D

STATION ALTITUDE 3912.75 FEET MSL
 30 NOV. 62
 ASCENSION NO. 173

GEOMETRIC COORDINATES
 32.8927 LAT DEG
 138.40591 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES (IN))	SPEED KNOTS	INDEX OF REFRACTION
75900.0	35.0	-56.8			51.4	573.0	293.0	51.3	1.000012
76000.0	35.0	-56.8			51.1	573.0	292.4	50.7	1.000012
76100.0	35.3	-56.9			51.0	572.9	292.4	50.6	1.000012
76200.0	35.5	-56.9			50.9	572.9	292.3	50.6	1.000012
76300.0	35.1	-56.9			50.9	572.9	292.3	50.5	1.000012
76400.0	35.0	-56.9			50.1	572.8	292.3	50.5	1.000012
76500.0	32.3	-57.0			52.9	572.8	292.3	50.5	1.000012
76600.0	32.0	-57.0			52.6	572.8	292.2	50.5	1.000012
76700.0	32.5	-57.0			52.4	572.7	292.2	50.4	1.000012
76800.0	32.4	-57.0			52.2	572.7	292.2	50.4	1.000012
76900.0	32.2	-57.1			51.9	572.7	292.1	50.4	1.000012
77000.0	32.0	-57.1			51.7	572.7	292.1	50.3	1.000012
77100.0	31.7	-57.1			51.4	572.6	292.1	50.3	1.000011
77200.0	31.7	-57.1			51.2	572.6			1.000011
77300.0	31.5	-57.1			51.0	572.6			1.000011
77400.0	31.1	-57.2			50.7	572.5			1.000011
77500.0	31.3	-57.2			50.5	572.5			1.000011
77600.0	31.1	-57.2			50.2	572.5			1.000011
77700.0	31.0	-57.2			50.0	572.4			1.000011
77800.0	30.8	-57.3			49.8	572.4			1.000011
77900.0	30.7	-57.3			49.5	572.4			1.000011
78000.0	30.6	-57.3			49.3	572.3			1.000011
78100.0	30.4	-57.3			49.1	572.3			1.000011
78200.0	30.3	-57.4			48.9	572.3			1.000011
78300.0	30.1	-57.4			48.6	572.3			1.000011

STATION ALTITUDE 3912.75 FEET MSL
 30 NOV. 82
 ASCENSION NO. 173

MANDATORY LEVELLS
 3340290173
 EAST-28/CHEKRY
 TABLE 9

GEODETIC COORDINATES
 32.8927 LAT DEG
 136.40591 LON DEG

PRESSURE MILLIHARS	GEOPOTENTIAL FEET	TEMPERATURE		REL. HUM. PERCENT	WIND DATA		
		AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS	
850.0	4631.	11.0	.1	47.	210.0	14.6	
800.0	6277.	6.1	-1.1	60.	216.2	14.4	
750.0	7997.	1.1	-2.3	78.	222.0	17.0	
700.0	9408.	-2.2	-8.7	61.	239.8	28.5	
650.0	11732.	-4.8	-14.5	46.	250.3	36.7	
600.0	13782.	-8.2	-17.6	46.	255.1	39.0	
550.0	15980.	-13.2	-24.2	39.	262.2	31.8	
500.0	18338.	-18.4	-29.7	36.	261.9	30.7	
450.0	20891.	-23.8	-38.1	25.	266.5	34.3	
400.0	23676.	-30.8	-42.9	29.	269.8	39.3	
350.0	26730.	-38.9	-43.2	64.	272.7	44.9	
300.0	30150.	-45.2			284.9	42.3	
250.0	34099.	-50.5			284.2	52.3	
200.0	38837.	-55.0			273.6	54.1	
175.0	41663.	-49.2			268.5	51.2	
150.0	44936.	-54.1			263.0	47.0	
125.0	48739.	-58.5			251.1	52.5	
100.0	53359.	-58.8			242.5	45.6	
80.0	57906.	-63.4			241.4	34.0	
70.0	60596.	-62.7			251.2	29.9	
60.0	63726.	-61.0			249.2	16.7	
50.0	67475.	-56.4			131.2	10.3	
40.0	72086.	-58.7			261.8	49.5	
30.0	78054.	-57.4					

STATION, ALTITUDE 4010.40 FEET MSL
 30 NOV. 42
 ASCENSION NO. 33

SIGNIFICANT LEVEL DATA
 3340220033
 NW 30
 TABLE 13

GEODETTIC COORDINATES
 32.08497 LAT DEG
 106.49714 LONG DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
370.0	4010.4	14.5	49.0
350.0	4671.8	11.8	41.0
309.7	5026.6	7.8	40.0
289.2	5553.6	4.3	35.0
248.0	6378.0	1.0	29.0
212.7	6838.8	-2.5	28.0
168.0	7754.0	-5.1	28.0
89.1	10348.6	-11.6	23.0
670.5	10610.4	-5.2	20.0
662.0	11261.1	-5.0	20.0
550.1	11764.0	-6.2	20.0
538.1	12445.7	-6.2	22.0
410.8	13365.5	-7.6	20.0
367.3	15238.6	-12.3	20.0
340.6	16335.8	-12.0	27.0
300.0	18365.7	-18.4	23.0
454.4	21103.4	-24.5	23.0
445.1	21170.2	-26.1	41.0
421.4	22490.2	-29.0	20.0
400.0	23708.0	-31.8	20.0
325.0	28419.5	-43.7	20.0
300.0	30171.3	-48.0	20.0
270.4	31706.9	-50.0	20.0
250.0	34102.4	-49.5	20.0
211.6	37670.8	-53.2	20.0
200.0	38866.1	-53.7	20.0
186.8	40318.1	-51.0	20.0
166.5	42763.9	-53.9	20.0
158.1	43864.7	-51.9	20.0
150.0	44986.4	-52.6	20.0
123.3	49085.8	-60.6	20.0
103.0	52573.1	-64.0	20.0
100.0	53348.0	-63.1	20.0
96.3	54111.7	-64.0	20.0
90.0	55516.5	-59.6	20.0
88.6	55819.5	-56.3	20.0
72.3	60008.0	-63.8	20.0
70.0	60664.8	-62.3	20.0
66.7	61647.0	-63.4	20.0
63.7	62590.3	-59.0	20.0

STATION: ALTITUDE 4010.40 FEET MSL
30 NOV. 82 1330 HRS MST
ASCENSION NO. 33

SIGNIFICANT LEVEL DATA
3340220033
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LON DEG

TABLE 10 CONT'D

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
50.0 67609.8	-58.8		
43.5 70490.7	-60.0		
36.3 74255.2	-56.5		

UPPER AIR DATA
 5340220033
 PW 30
 TABLE 11

STATION ALTITUDE 4010.0 FEET MSL
 20 NOV. 42
 ASCENSION NO. 33

GEOMETRIC ALTITUDE
 MSL FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND M/SEC	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	REFRACTION
4010.4	870.6	14.5	49.0	1050.7	661.9	190.8	18.1	1.000231
4500.0	833.3	12.5	43.1	1040.4	659.3	174.5	17.2	1.000231
5000.0	796.0	10.4	32.2	1029.3	657.2	168.9	16.3	1.000231
5500.0	758.7	7.3	19.1	1017.1	654.4	163.3	15.4	1.000231
6000.0	721.4	4.2	10.0	1004.9	651.7	157.7	14.5	1.000231
6500.0	684.1	1.1	5.1	992.6	649.0	152.1	13.6	1.000231
7000.0	646.8	-2.0	0.6	980.3	646.3	146.5	12.7	1.000231
7500.0	609.5	-5.1	0.7	968.0	643.6	140.9	11.8	1.000231
8000.0	572.2	-8.2	0.6	955.7	640.9	135.3	10.9	1.000231
8500.0	534.9	-11.3	0.5	943.4	638.2	129.7	10.0	1.000231
9000.0	497.6	-14.4	0.4	931.1	635.5	124.1	9.1	1.000231
9500.0	460.3	-17.5	0.3	918.8	632.8	118.5	8.2	1.000231
10000.0	423.0	-20.6	0.2	906.5	630.1	112.9	7.3	1.000231
10500.0	385.7	-23.7	0.1	894.2	627.4	107.3	6.4	1.000231
11000.0	348.4	-26.8	0.1	881.9	624.7	101.7	5.5	1.000231
11500.0	311.1	-29.9	0.0	869.6	622.0	96.1	4.6	1.000231
12000.0	273.8	-33.0	0.0	857.3	619.3	90.5	3.7	1.000231
12500.0	236.5	-36.1	0.0	845.0	616.6	84.9	2.8	1.000231
13000.0	199.2	-39.2	0.0	832.7	613.9	79.3	1.9	1.000231
13500.0	161.9	-42.3	0.0	820.4	611.2	73.7	1.0	1.000231
14000.0	124.6	-45.4	0.0	808.1	608.5	68.1	0.1	1.000231
14500.0	87.3	-48.5	0.0	795.8	605.8	62.5	0.2	1.000231
15000.0	50.0	-51.6	0.0	783.5	603.1	56.9	0.3	1.000231
15500.0	12.7	-54.7	0.0	771.2	600.4	51.3	0.4	1.000231
16000.0		-57.8	0.0	758.9	597.7	45.7	0.5	1.000231
16500.0		-60.9	0.0	746.6	595.0	40.1	0.6	1.000231
17000.0		-64.0	0.0	734.3	592.3	34.5	0.7	1.000231
17500.0		-67.1	0.0	722.0	589.6	28.9	0.8	1.000231
18000.0		-70.2	0.0	709.7	586.9	23.3	0.9	1.000231
18500.0		-73.3	0.0	697.4	584.2	17.7	1.0	1.000231
19000.0		-76.4	0.0	685.1	581.5	12.1	1.1	1.000231
19500.0		-79.5	0.0	672.8	578.8	6.5	1.2	1.000231
20000.0		-82.6	0.0	660.5	576.1	0.9	1.3	1.000231
20500.0		-85.7	0.0	648.2	573.4	0.0	1.4	1.000231
21000.0		-88.8	0.0	635.9	570.7	0.0	1.5	1.000231
21500.0		-91.9	0.0	623.6	568.0	0.0	1.6	1.000231
22000.0		-95.0	0.0	611.3	565.3	0.0	1.7	1.000231
22500.0		-98.1	0.0	599.0	562.6	0.0	1.8	1.000231
23000.0		-101.2	0.0	586.7	559.9	0.0	1.9	1.000231
23500.0		-104.3	0.0	574.4	557.2	0.0	2.0	1.000231
24000.0		-107.4	0.0	562.1	554.5	0.0	2.1	1.000231

STATION ALTITUDE 4010.40 FT. I.S.L.
 30 NOV. 62
 ASCENSION NO. 33

UPPER AIR DATA
 3340220033
 NW 30
 TABLE 11 Cont'd

GEODLTIC COORDINATES
 32.08497 LAT DEG
 106.49714 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR	DEWPOINT				DIRECTION DEGREES (TN)	SPEED KNOTS	
24000.0	394.9	-32.5	-40.8	43.1**	571.6	604.4	262.9	42.6	1.000128
24500.0	380.3	-35.8	-43.1	38.3**	562.1	602.8	264.8	42.6	1.000126
25000.0	377.0	-35.1	-45.4	33.4**	552.8	601.2	266.7	43.0	1.000124
25500.0	369.6	-36.3	-48.0	28.5**	543.7	599.5	268.4	43.9	1.000122
26000.0	361.6	-37.6	-50.7	23.6**	534.7	597.9	269.2	46.3	1.000119
26500.0	353.7	-38.9	-53.7	18.7**	525.9	596.3	268.9	50.5	1.000117
27000.0	340.0	-40.1	-57.2	13.9**	517.2	594.7	268.6	54.3	1.000115
27500.0	330.4	-41.4	-61.6	9.0**	508.7	593.1	268.4	57.5	1.000113
28000.0	331.1	-42.6	-68.3	4.1**	500.3	591.5	268.2	60.7	1.000111
28500.0	323.8	-43.9			492.1	589.8	268.7	61.5	1.000110
29000.0	316.5	-45.3			483.9	588.0	269.2	61.9	1.000108
29500.0	309.3	-46.7			475.9	586.2	269.5	62.7	1.000106
30000.0	302.4	-48.1			468.1	584.4	269.6	63.8	1.000104
30500.0	295.5	-48.9			459.0	583.4	269.7	65.2	1.000102
31000.0	288.7	-49.4			449.4	582.8	269.7	67.3	1.000100
31500.0	282.1	-49.8			440.0	582.2	269.9	69.5	1.000098
32000.0	275.6	-49.9			430.2	582.0	270.8	72.0	1.000096
32500.0	269.3	-49.8			420.1	582.2	271.8	74.5	1.000094
33000.0	263.1	-49.7			410.3	582.3	273.2	76.9	1.000091
33500.0	257.1	-49.6			400.7	582.4	274.6	79.3	1.000089
34000.0	251.2	-49.5			391.3	582.6	275.2	80.3	1.000087
34500.0	245.4	-49.9			382.9	582.1	275.2	80.2	1.000085
35000.0	239.7	-50.4			375.0	581.4	275.2	80.0	1.000084
35500.0	234.2	-50.9			367.2	580.7	274.7	78.0	1.000082
36000.0	228.8	-51.5			359.5	580.0	274.0	75.2	1.000080
36500.0	223.5	-52.0			352.0	579.4	273.2	72.4	1.000078
37000.0	218.3	-52.5			344.7	578.7	272.8	69.9	1.000077
37500.0	213.3	-53.0			337.6	578.0	272.5	67.5	1.000075
38000.0	208.3	-53.3			330.2	577.6	271.9	65.6	1.000074
38500.0	203.5	-53.5			322.8	577.3	269.4	67.0	1.000072
39000.0	198.7	-53.5			315.3	577.3	267.2	69.3	1.000070
39500.0	194.1	-52.9			307.1	578.1	265.7	73.6	1.000068
40000.0	189.6	-52.3			299.1	579.0	265.1	76.0	1.000067
40500.0	185.2	-52.0			291.8	579.3	265.5	76.1	1.000065
41000.0	180.9	-52.5			285.6	578.7	265.9	76.3	1.000064
41500.0	177.7	-52.9			279.4	578.2	266.1	73.9	1.000062
42000.0	174.6	-53.3			273.4	577.7	266.1	70.0	1.000061
42500.0	171.6	-53.7			267.6	577.1	266.1	66.2	1.000060
43000.0	168.7	-53.5			261.1	577.4	265.9	62.3	1.000058
43500.0	160.8	-52.6			254.0	578.6	264.6	57.6	1.000057

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

6991 AIR DATA
 A390220030
 28.0047 LAT DEG
 106.00714 LON DEG

TABLE II CONT.

TABLE III CONT.

MSL FEET	ALTITUDE	TEMPERATURE	PERCENT	WIND	WIND	INDEX
FEET	FEET	DEGREES	PERCENT	MPH	MPH	REFRACTIVE
49000.0	10.1	-2.0	247.0	17.9	203.0	1.000005
48500.0	10.2	-2.0	246.1	17.9	201.9	1.000004
48000.0	10.3	-2.0	245.0	17.9	200.8	1.000003
47500.0	10.4	-2.0	243.8	17.9	199.7	1.000002
47000.0	10.5	-2.0	242.6	17.9	198.6	1.000001
46500.0	10.6	-2.0	241.4	17.9	197.5	1.000000
46000.0	10.7	-2.0	240.2	17.9	196.4	1.000000
45500.0	10.8	-2.0	239.0	17.9	195.3	1.000000
45000.0	10.9	-2.0	237.8	17.9	194.2	1.000000
44500.0	11.0	-2.0	236.6	17.9	193.1	1.000000
44000.0	11.1	-2.0	235.4	17.9	192.0	1.000000
43500.0	11.2	-2.0	234.2	17.9	190.9	1.000000
43000.0	11.3	-2.0	233.0	17.9	189.8	1.000000
42500.0	11.4	-2.0	231.8	17.9	188.7	1.000000
42000.0	11.5	-2.0	230.6	17.9	187.6	1.000000
41500.0	11.6	-2.0	229.4	17.9	186.5	1.000000
41000.0	11.7	-2.0	228.2	17.9	185.4	1.000000
40500.0	11.8	-2.0	227.0	17.9	184.3	1.000000
40000.0	11.9	-2.0	225.8	17.9	183.2	1.000000
39500.0	12.0	-2.0	224.6	17.9	182.1	1.000000
39000.0	12.1	-2.0	223.4	17.9	181.0	1.000000
38500.0	12.2	-2.0	222.2	17.9	179.9	1.000000
38000.0	12.3	-2.0	221.0	17.9	178.8	1.000000
37500.0	12.4	-2.0	219.8	17.9	177.7	1.000000
37000.0	12.5	-2.0	218.6	17.9	176.6	1.000000
36500.0	12.6	-2.0	217.4	17.9	175.5	1.000000
36000.0	12.7	-2.0	216.2	17.9	174.4	1.000000
35500.0	12.8	-2.0	215.0	17.9	173.3	1.000000
35000.0	12.9	-2.0	213.8	17.9	172.2	1.000000
34500.0	13.0	-2.0	212.6	17.9	171.1	1.000000
34000.0	13.1	-2.0	211.4	17.9	170.0	1.000000
33500.0	13.2	-2.0	210.2	17.9	168.9	1.000000
33000.0	13.3	-2.0	209.0	17.9	167.8	1.000000
32500.0	13.4	-2.0	207.8	17.9	166.7	1.000000
32000.0	13.5	-2.0	206.6	17.9	165.6	1.000000
31500.0	13.6	-2.0	205.4	17.9	164.5	1.000000
31000.0	13.7	-2.0	204.2	17.9	163.4	1.000000
30500.0	13.8	-2.0	203.0	17.9	162.3	1.000000
30000.0	13.9	-2.0	201.8	17.9	161.2	1.000000
29500.0	14.0	-2.0	200.6	17.9	160.1	1.000000
29000.0	14.1	-2.0	199.4	17.9	159.0	1.000000
28500.0	14.2	-2.0	198.2	17.9	157.9	1.000000
28000.0	14.3	-2.0	197.0	17.9	156.8	1.000000
27500.0	14.4	-2.0	195.8	17.9	155.7	1.000000
27000.0	14.5	-2.0	194.6	17.9	154.6	1.000000
26500.0	14.6	-2.0	193.4	17.9	153.5	1.000000
26000.0	14.7	-2.0	192.2	17.9	152.4	1.000000
25500.0	14.8	-2.0	191.0	17.9	151.3	1.000000
25000.0	14.9	-2.0	189.8	17.9	150.2	1.000000
24500.0	15.0	-2.0	188.6	17.9	149.1	1.000000
24000.0	15.1	-2.0	187.4	17.9	148.0	1.000000
23500.0	15.2	-2.0	186.2	17.9	146.9	1.000000
23000.0	15.3	-2.0	185.0	17.9	145.8	1.000000
22500.0	15.4	-2.0	183.8	17.9	144.7	1.000000
22000.0	15.5	-2.0	182.6	17.9	143.6	1.000000
21500.0	15.6	-2.0	181.4	17.9	142.5	1.000000
21000.0	15.7	-2.0	180.2	17.9	141.4	1.000000
20500.0	15.8	-2.0	179.0	17.9	140.3	1.000000
20000.0	15.9	-2.0	177.8	17.9	139.2	1.000000
19500.0	16.0	-2.0	176.6	17.9	138.1	1.000000
19000.0	16.1	-2.0	175.4	17.9	137.0	1.000000
18500.0	16.2	-2.0	174.2	17.9	135.9	1.000000
18000.0	16.3	-2.0	173.0	17.9	134.8	1.000000
17500.0	16.4	-2.0	171.8	17.9	133.7	1.000000
17000.0	16.5	-2.0	170.6	17.9	132.6	1.000000
16500.0	16.6	-2.0	169.4	17.9	131.5	1.000000
16000.0	16.7	-2.0	168.2	17.9	130.4	1.000000
15500.0	16.8	-2.0	167.0	17.9	129.3	1.000000
15000.0	16.9	-2.0	165.8	17.9	128.2	1.000000
14500.0	17.0	-2.0	164.6	17.9	127.1	1.000000
14000.0	17.1	-2.0	163.4	17.9	126.0	1.000000
13500.0	17.2	-2.0	162.2	17.9	124.9	1.000000
13000.0	17.3	-2.0	161.0	17.9	123.8	1.000000
12500.0	17.4	-2.0	159.8	17.9	122.7	1.000000
12000.0	17.5	-2.0	158.6	17.9	121.6	1.000000
11500.0	17.6	-2.0	157.4	17.9	120.5	1.000000
11000.0	17.7	-2.0	156.2	17.9	119.4	1.000000
10500.0	17.8	-2.0	155.0	17.9	118.3	1.000000
10000.0	17.9	-2.0	153.8	17.9	117.2	1.000000
9500.0	18.0	-2.0	152.6	17.9	116.1	1.000000
9000.0	18.1	-2.0	151.4	17.9	115.0	1.000000
8500.0	18.2	-2.0	150.2	17.9	113.9	1.000000
8000.0	18.3	-2.0	149.0	17.9	112.8	1.000000
7500.0	18.4	-2.0	147.8	17.9	111.7	1.000000
7000.0	18.5	-2.0	146.6	17.9	110.6	1.000000
6500.0	18.6	-2.0	145.4	17.9	109.5	1.000000
6000.0	18.7	-2.0	144.2	17.9	108.4	1.000000
5500.0	18.8	-2.0	143.0	17.9	107.3	1.000000
5000.0	18.9	-2.0	141.8	17.9	106.2	1.000000
4500.0	19.0	-2.0	140.6	17.9	105.1	1.000000
4000.0	19.1	-2.0	139.4	17.9	104.0	1.000000
3500.0	19.2	-2.0	138.2	17.9	102.9	1.000000
3000.0	19.3	-2.0	137.0	17.9	101.8	1.000000
2500.0	19.4	-2.0	135.8	17.9	100.7	1.000000
2000.0	19.5	-2.0	134.6	17.9	99.6	1.000000
1500.0	19.6	-2.0	133.4	17.9	98.5	1.000000
1000.0	19.7	-2.0	132.2	17.9	97.4	1.000000
500.0	19.8	-2.0	131.0	17.9	96.3	1.000000
0.0	19.9	-2.0	129.8	17.9	95.2	1.000000

UPPER AIR DATA
 3340220033
 NW 30
 TABLE 11 Cont'd

STATION ALTITUDE 1010.40 FEET MSL
 30 NOV. 62
 1330 HRS MST
 ASCENSION NO. 33

GEODLTIC COORDINATES
 32.88497 LAT DEG
 106.49714 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
64000.0	59.5	-58.9		96.8	570.2	236.1	15.1	1.000022
64500.0	58.1	-58.9		94.5	570.2	232.0	14.1	1.000021
65000.0	56.7	-58.9		92.2	570.2	223.5	12.0	1.000021
65500.0	55.4	-58.9		90.0	570.3	212.0	10.4	1.000020
66000.0	54.0	-58.9		87.8	570.3	204.8	9.0	1.000020
66500.0	52.7	-58.8		85.7	570.3	195.9	7.9	1.000019
67000.0	51.5	-58.8		83.7	570.3	190.7	7.6	1.000019
67500.0	50.3	-58.8		81.7	570.4	211.2	8.3	1.000018
68000.0	49.1	-59.0		79.8	570.2	221.4	9.3	1.000018
68500.0	47.9	-59.2		78.0	569.9	230.6	11.3	1.000017
69000.0	46.8	-59.4		76.2	569.6	236.9	13.5	1.000017
69500.0	45.6	-59.6		74.4	569.3	241.1	15.2	1.000017
70000.0	44.5	-59.8		72.7	569.0	243.7	15.8	1.000016
70500.0	43.5	-60.0		71.1	568.8	246.2	16.3	1.000016
71000.0	42.4	-59.5		69.2	569.4	249.5	15.4	1.000015
71500.0	41.4	-59.1		67.4	570.0	254.4	13.5	1.000015
72000.0	40.5	-58.6		65.7	570.6	260.8	11.8	1.000015
72500.0	39.5	-58.1		64.0	571.3			1.000014
73000.0	38.6	-57.7		62.3	571.9			1.000014
73500.0	37.6	-57.2		60.7	572.5			1.000014
74000.0	36.7	-56.7		59.2	573.1			1.000013

STATION ALTITUDE 4610.00 FEET MSL
 20 NOV. 82
 ASCENSION 10. 55
 1330 HRS MST

MARGATORY LEVELLS
 3340220033
 NW 70
 TABLE 12

GEOGECIC COORDINATES
 32.09497 LAT DEG
 106.49714 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
550.0	4660.	11.8	-1.0	41.	203.0	17.0
400.0	6317.	5.6	-3.4	40.	211.2	28.6
750.0	8090.	1.0	-3.7	69.	212.0	19.2
380.0	8385.	-4.7	-5.9	86.	237.4	29.5
250.0	11216.	-11.1	-11.1	60.	240.7	40.2
600.0	15407.	-8.7	-23.1	30.	230.9	43.3
450.0	18008.	-12.0	-31.8	17.	251.7	46.3
400.0	18361.	-18.4	-34.3	23.	253.0	43.5
350.0	20405.	-25.4	-35.9	38.	282.0	43.3
400.0	23620.	-31.8	-39.5	46.	261.7	42.7
350.0	26719.	-39.5	-55.3	16.**	260.0	32.7
300.0	30119.	-49.6			269.7	54.1
250.0	34071.	-49.5			275.2	60.3
200.0	38776.	-53.7			267.7	59.0
175.0	41606.	-53.0			280.1	72.4
150.0	44868.	-52.6			359.1	45.2
125.0	48668.	-50.0			349.7	52.8
100.0	53188.	-53.1			342.4	45.7
80.0	57754.	-50.1			197.3	4.7
70.0	60461.	-52.3			239.4	14.6
60.0	63606.	-59.0			237.2	15.3
50.0	67360.	-58.8			212.9	8.4
40.0	71246.	-58.4				

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