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DR 1090
NOVEMBER 1979
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AD A082446

METEOROLOGICAL DATA REPORT

12822A LANCE
Missile No. 4883
Round No. 338-NCL
08 November 1979

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by

White Sands Meteorological Team

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Meteorological data gathered for the launching of the 12822A Lance, Missile Number 4883, Round Number 338-NCL are presented in tabular form.

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INTRODUCTION

12822A Lance, Missile Number 4883, Round Number 338 NCL, was launched from Red Rio, White Sands Missile Range (WSMR), New Mexico, at 0730 MST, 08 Nov 79. The scheduled launch time was 0800 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 (^{o}C), relative humidity, dew point (^{o}C), density (gm/m^3), wind direction and speed, and cloud cover were made at the Red Rio Met Site at T-0 minutes.

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

b. Upper Air

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

SITE AND ALTITUDE

No Pibal data provided

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

SITE AND TIME

Red Rio	0720 MST
Jallen	0800 MST

Accession For
NTIS GRA&I ☑
DDC TAB ☐
Unannounced ☐
Justification
By
Distribution/
Availability Codes
Dist. A | Avail and/or special

TABLE 1. Surface Observations taken at 0720 MST, 08 November 1979, at Red Rio, 12822A Lance, Missile Number 4883, Round Number 338 NCL.

ELEVATION	6331.9	FT/MSL
PRESSURE	800.9	MBS
TEMPERATURE	8.9	^{o}C
RELATIVE HUMIDITY	83	%
DEW POINT	6.2	^{o}C
DENSITY	984	GM/M^3
WIND SPEED	14	KTS
WIND DIRECTION	220	DEGREES
CLOUD COVER	10	SC

STATION ALTITUDE 6331.00 FEET MSL
8 NOV. 79 0720 HRS MST
ASCENSION NO. 2

SIGNIFICANT LEVEL DATA
312930000B
RED RIO

TABLE 2

GEODETIC COORDINATES
33.77650 LAT DEG
106.24993 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
800.9	6331.9	8.9	8.2	83.0
756.0	7953.1	5.0	3.0	92.0
700.0	9943.8	.5	.4	99.0
653.0	11746.5	-1.7	-1.0	99.0
645.0	12094.3	-3.5	-3.7	99.0
569.4	15307.5	-8.5	-8.8	99.0
561.4	15667.9	-9.7	-9.8	99.0
530.4	17162.5	-12.9	-13.8	93.0
522.0	17463.7	-14.4	-15.0	89.0
500.0	18506.0	-10.0	-12.0	85.0
465.2	20331.8	-20.1	-22.8	85.0
431.0	22196.5	-24.0	-26.9	77.0
412.4	23284.3	-26.1	-29.0	71.0
400.0	24009.1	-28.0	-30.5	78.0
387.4	24763.4	-29.3	-37.6	47.0
381.4	25129.0	-29.8	-40.5	34.0
363.6	26247.0	-31.5	-44.5	26.0

STATION ALTITUDE 6331.86 FEET MSL
3 NOV. 79 0720 HRS MST
ASCENSION NO. 2

UPPER AIR DATA
3120353002
RED RIO

TABLE 3

GEODETIC COORDINATES
33.77650 LAT DEG
106.24993 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
6331.9	800.9	8.9	6.2	83.0	984.6	655.7	220.0	14.0	1.000265
6500.0	795.9	8.5	5.9	84.0	966.2	655.2	222.4	14.9	1.000263
7000.0	781.4	7.2	5.2	86.9	965.7	653.7	228.0	17.9	1.000258
7500.0	767.1	5.8	4.4	89.7	955.4	652.2	231.9	21.0	1.000253
8000.0	755.0	4.8	3.6	92.4	940.1	650.3	234.9	24.1	1.000248
8500.0	739.0	3.7	2.8	94.1	926.4	649.4	237.1	27.3	1.000243
9000.0	725.2	2.6	2.0	95.8	912.9	648.1	239.6	30.2	1.000239
9500.0	711.8	1.5	1.1	97.5	899.7	646.7	243.4	32.5	1.000234
10000.0	698.5	.4	.3	99.0	886.4	645.5	246.7	35.0	1.000229
10500.0	685.4	-.2	-.3	99.0	871.8	644.7	248.6	35.0	1.000225
11000.0	672.5	-.8	-.9	99.0	857.5	644.0	250.6	35.7	1.000220
11500.0	659.8	-1.4	-1.5	99.0	843.2	643.2	251.7	37.2	1.000216
12000.0	647.3	-3.1	-3.2	99.0	832.7	641.1	251.2	39.2	1.000211
12500.0	634.9	-4.2	-4.4	99.0	820.3	639.7	250.6	38.7	1.000206
13000.0	622.7	-5.0	-5.1	99.0	806.9	638.8	249.8	36.7	1.000202
13500.0	610.8	-5.7	-5.9	99.0	793.7	637.5	249.7	36.5	1.000198
14000.0	599.0	-6.5	-6.6	99.0	780.6	636.9	249.8	36.7	1.000194
14500.0	587.5	-7.3	-7.4	99.0	766.1	636.0	250.1	38.0	1.000190
15000.0	576.2	-8.0	-8.2	99.0	755.5	635.0	250.5	39.3	1.000186
15500.0	565.1	-9.1	-9.3	99.0	744.2	633.6	249.3	42.7	1.000182
16000.0	554.1	-10.4	-10.7	97.6	733.4	632.0	248.4	46.2	1.000178
16500.0	543.2	-11.5	-12.1	95.5	722.2	630.6	246.9	46.6	1.000174
17000.0	532.6	-12.7	-13.5	93.4	711.2	629.2	245.5	46.6	1.000170
17500.0	522.0	-14.3	-15.7	88.9	701.5	627.2	245.3	43.9	1.000166
18000.0	511.6	-12.3	-14.0	87.1	682.6	629.7	245.7	41.5	1.000164
18500.0	501.7	-10.3	-12.3	85.3	665.8	632.1	248.0	44.0	1.000161
19000.0	491.8	-12.3	-14.3	85.0	655.8	629.7	250.5	46.6	1.000157
19500.0	482.0	-15.1	-17.1	85.0	649.9	626.2	253.1	49.2	1.000154
20000.0	472.4	-16.9	-19.3	85.0	644.2	622.7	254.9	51.0	1.000151
20500.0	462.9	-20.4	-22.3	84.5	637.4	619.7	256.5	52.4	1.000148
21000.0	453.5	-21.4	-23.6	82.3	627.1	618.3	256.0	53.8	1.000145
21500.0	444.2	-22.5	-25.0	80.1	617.0	617.0	255.1	55.1	1.000142
22000.0	435.1	-23.6	-26.3	77.9	607.0	615.6	253.7	56.6	1.000140
22500.0	426.2	-24.6	-27.7	75.3	596.9	614.4	253.2	57.4	1.000137
23000.0	417.3	-25.6	-29.0	72.6	586.9	613.2	253.3	57.7	1.000134
23500.0	408.7	-26.7	-30.0	73.1	577.3	611.8	253.5	57.1	1.000132
24000.0	400.2	-28.0	-30.6	77.9	566.3	610.1	254.1	55.1	1.000130
24500.0	391.8	-28.8	-30.5	87.3	555.4	608.0			1.000126
25000.0	383.5	-29.0	-32.2	38.6	546.5	606.6			1.000123
25500.0	375.4	-30.4	-41.8	31.3	536.6	607.1			1.000121

STATION ALTITUDE 6531.56 FEET MSL
8 NOV. 79 [illegible] HRS MST
ASCENSION NO. 2

UPPER AIR DATA
[illegible]
RED RIO

GEODETIC COORDINATES
33.77850 LAT DEG
106.24993 LON DEG

TABLE 3 (cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
26000.0	307.5	-31.1	-43.6	27.0	520.8	600.1			1.000119

STATION ALTITUDE 6331.00 FEET MSL
3 [illegible] 79 0720 HRS MST
ASCENSION NO. 2

MANDATORY LEVELS
312030[illegible]002
RED RIO

GEODETIC COORDINATES
33.77850 LAT DEG
106.24993 LON DEG

TABLE 4

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT	WIND DATA DIRECTION DEGREES (N)	WIND DATA SPEED KNOTS
800.0	6358.	6.8	6.1	93.	226.4	14.1
750.0	8191.	4.5	3.5	93.	235.4	24.8
700.0	9935.	.5	.4	99.	240.3	34.7
650.0	11662.	-2.5	-2.5	99.	251.3	38.8
600.0	13351.	-5.4	-6.0	99.	249.3	38.7
550.0	15100.	-10.9	-11.5	97.	247.3	46.5
500.0	16862.	-18.0	-12.2	85.	248.3	44.4
450.0	21160.	-21.8	-24.1	61.	255.7	54.2
400.0	23972.	-28.0	-30.0	78.	254.1	55.1

STATION ALTITUDE 4951.00 FEET MSL
8 NOV. 79 0600 HRS MST
ABQ,SIG. NO. 149

SIGNIFICANT LEVEL DATA
31200.0145
UCLLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 5

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT	RELATIVE HUM. PERCENT
870.4	4951.6	9.4	6.6	76.0
855.0	5393.4	11.8	7.9	77.0
850.0	5702.3	11.2	6.5	73.0
825.2	5515.1	10.9	5.0	67.0
721.0	9145.1	3.3	-.5	76.0
712.4	9887.2	2.9	-.9	76.0
700.0	9953.2	.7	-2.2	71.0
667.0	11199.5	-1.8	-3.6	66.0
641.0	12255.7	-3.9	-7.0	74.0
624.0	12931.7	-5.1	-5.2	99.0
622.0	13039.4	-5.9	-6.0	99.0
599.2	14201.2	-6.6	-6.7	99.0
596.0	14104.2	-7.7	-7.8	99.0
582.4	14728.1	-8.9	-12.0	78.0
571.8	15194.8	-10.3	-16.9	58.0
550.0	16175.0	-12.7	-21.2	49.0
524.8	17348.8	-14.1	-30.2	24.0
517.0	17722.0	-14.0	-26.4	34.0
500.0	18553.1	-16.8	-20.0	72.0
493.6	18861.3	-17.1	-18.9	66.0
478.0	19651.2	-18.4	-18.5	99.0
463.6	20400.5	-19.9	-21.0	86.0
420.4	22783.3	-23.2	-35.5	31.0
400.0	23970.5	-25.3	-45.1	17.0
393.0	24398.0	-25.6	-45.1	14.0
353.4	26904.5	-31.0	-48.4	16.0
340.6	27748.5	-33.0	-50.7	15.0
322.0	29058.1	-34.5		
300.0	30670.8	-39.1		
268.8	33445.7	-46.1		
250.0	34701.3	-47.5		
228.2	36667.2	-52.1		
216.6	37580.3	-53.8		
200.0	39442.8	-58.4		
174.2	42274.2	-63.1		
173.0	42415.1	-60.8		
170.0	42774.2	-60.3		
150.0	45310.6	-66.2		
139.4	46706.7	-68.6		
125.2	48798.0	-67.3		

STATION ALTITUDE 4051.00 FEET MSL
8 NOV. 79 0800 HRS MST
ASCENSION NO. 145

SIGNIFICANT LEVEL DATA
3120030145
WALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 5 (cont)

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
118.4	50014.5	-64.3		
111.8	51163.2	-65.6		
101.8	53043.2	-66.5		
100.0	53400.5	-65.2		
89.4	55367.1	-62.5		
86.4	56306.7	-59.7		
83.6	57047.5	-59.0		
70.0	60565.0	-63.5		
50.0	67595.0	-58.2		
46.6	69060.6	-58.0		

STATION ALTITUDE 4051.00 FEET MSL
8 NOV. 79 0300 HRS MST
ASCENSION NO. 145

UPPER AIR DATA
312000145
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 6

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4051.0	870.4	9.4	8.8	96.0	1067.9	656.5	170.0	2.9	1.000292
4200.0	865.7	10.4	6.5	87.7	1050.2	657.7	193.0	3.8	1.000288
4400.0	859.4	11.3	7.9	76.9	1045.8	659.2	210.5	5.5	1.000283
4600.0	853.2	11.4	7.0	74.3	1039.9	658.6	218.0	7.5	1.000279
4800.0	847.0	11.2	6.4	72.3	1035.3	658.3	223.0	9.6	1.000275
5000.0	840.8	11.1	6.0	70.8	1028.2	658.2	226.5	11.7	1.000273
5200.0	834.7	11.0	5.6	69.3	1019.1	658.1	228.0	13.8	1.000270
5400.0	828.7	10.9	5.2	67.8	1012.0	658.0	230.5	16.0	1.000267
5600.0	822.5	10.7	4.9	67.2	1005.5	657.7	231.5	18.1	1.000265
5800.0	816.6	10.3	4.6	67.7	999.6	657.2	232.5	20.3	1.000263
6000.0	810.5	9.9	4.3	68.2	993.6	656.7	233.5	22.1	1.000261
6200.0	804.6	9.5	4.0	68.7	988.0	656.2	235.2	23.0	1.000259
6400.0	798.6	9.0	3.7	69.2	982.2	655.7	236.7	23.9	1.000257
6600.0	792.8	8.6	3.4	69.7	976.5	655.2	238.1	24.9	1.000255
6800.0	786.9	8.2	3.1	70.2	970.8	654.7	239.4	25.9	1.000253
7000.0	781.1	7.8	2.8	70.7	965.1	654.2	240.7	26.9	1.000251
7200.0	775.4	7.4	2.5	71.2	959.5	653.7	242.4	28.2	1.000249
7400.0	769.7	7.0	2.2	71.7	953.9	653.2	243.9	29.5	1.000247
7600.0	764.0	6.5	1.9	72.2	948.3	652.7	245.3	30.7	1.000245
7800.0	758.4	6.1	1.6	72.7	942.8	652.1	246.6	32.0	1.000243
8000.0	752.8	5.7	1.3	73.2	937.3	651.6	247.9	33.1	1.000242
8200.0	747.2	5.3	1.0	73.7	931.8	651.1	249.3	33.5	1.000240
8400.0	741.7	4.9	.7	74.2	926.4	650.6	250.7	34.0	1.000238
8600.0	736.3	4.4	.3	74.6	921.0	650.1	252.1	34.6	1.000236
8800.0	730.9	4.0	.0	75.1	915.7	649.6	253.4	35.1	1.000234
9000.0	725.5	3.6	-.3	75.6	910.4	649.1	254.2	35.3	1.000232
9200.0	720.1	3.2	-.6	76.0	904.9	648.7	254.8	35.5	1.000231
9400.0	714.7	3.0	-.8	76.0	899.9	648.4	255.4	35.6	1.000229
9600.0	709.4	2.4	-1.2	77.2	894.3	647.8	256.0	35.7	1.000227
9800.0	704.1	1.4	-1.7	79.4	890.7	646.5	256.3	36.0	1.000225
10000.0	698.8	.6	-2.2	81.2	886.7	645.5	256.6	36.9	1.000224
10200.0	693.5	.2	-2.5	82.0	881.3	645.0	256.8	37.6	1.000222
10400.0	688.2	-.2	-2.8	82.8	875.9	644.5	256.9	38.7	1.000221
10600.0	683.9	-.6	-3.0	83.6	870.6	644.0	257.0	39.6	1.000219
10800.0	677.8	-1.0	-3.3	84.4	865.3	643.5	256.7	40.9	1.000217
11000.0	672.7	-1.4	-3.6	85.2	860.1	643.1	256.4	42.2	1.000216
11200.0	667.6	-1.8	-3.8	86.0	854.8	642.6	256.1	43.5	1.000214
11400.0	662.5	-2.2	-4.6	83.7	849.7	642.1	255.8	44.8	1.000212
11600.0	657.4	-2.6	-5.4	81.4	844.6	641.5	255.0	45.5	1.000209
11800.0	652.4	-3.0	-6.1	79.0	839.5	641.0	254.1	46.2	1.000207

STATION ALTITUDE 4851.00 FEET MSL
8 NOV. 79 0600 HRS MST
ASCENSION NO. 145

UPPER AIR DATA
312000145
JALLEN

TABLE 6 (cont)

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
12500.0	647.4	-3.4	-6.9	76.7	834.4	640.5	253.2	46.9	1.000205
12200.0	642.5	-3.8	-7.7	74.4	829.4	640.0	252.4	47.6	1.000203
12400.0	637.5	-4.2	-7.1	79.9	824.0	639.6	251.4	46.9	1.000202
12600.0	632.6	-4.5	-8.3	87.1	818.8	639.2	250.3	45.6	1.000202
12800.0	627.8	-4.9	-5.0	94.3	813.2	638.9	249.1	44.3	1.000202
13000.0	622.9	-5.6	-5.7	99.0	809.2	638.0	247.9	43.0	1.000201
13200.0	618.1	-6.0	-6.1	99.0	804.2	637.5	246.7	42.1	1.000200
13400.0	613.4	-6.2	-6.3	99.0	798.4	637.3	245.8	42.0	1.000198
13600.0	608.6	-6.3	-6.4	99.0	792.7	637.1	244.9	42.0	1.000197
13800.0	603.9	-6.5	-6.6	99.0	787.0	637.0	244.0	42.0	1.000195
14000.0	599.2	-6.6	-6.7	99.0	781.3	636.8	243.1	42.0	1.000194
14200.0	594.5	-7.9	-8.4	95.8	779.2	635.2	242.5	42.6	1.000191
14400.0	589.9	-8.3	-9.7	89.0	774.4	634.6	242.0	43.6	1.000188
14600.0	585.3	-8.7	-11.1	82.3	769.6	634.1	241.5	44.7	1.000186
14800.0	580.8	-9.1	-12.7	74.9	765.1	633.5	241.0	45.7	1.000183
15000.0	576.2	-9.7	-14.8	66.3	761.0	632.7	240.7	46.7	1.000180
15200.0	571.7	-10.3	-17.0	58.0	756.9	631.9	240.9	47.1	1.000177
15400.0	567.2	-10.8	-17.8	56.1	752.4	631.3	241.0	47.5	1.000176
15600.0	562.7	-11.3	-18.7	54.3	747.9	630.7	241.1	47.9	1.000174
15800.0	558.2	-11.8	-19.5	52.4	743.4	630.1	241.3	48.3	1.000173
16000.0	553.8	-12.3	-20.4	50.6	739.0	629.5	241.6	49.2	1.000171
16200.0	549.5	-12.7	-21.3	48.5	734.4	628.9	242.3	50.3	1.000170
16400.0	545.1	-13.0	-22.0	44.2	729.3	628.0	242.8	51.3	1.000168
16600.0	540.7	-13.2	-23.9	39.9	724.2	628.3	243.3	52.3	1.000166
16800.0	536.4	-13.4	-25.4	35.7	719.2	628.0	243.7	52.7	1.000165
17000.0	532.2	-13.7	-27.0	31.4	714.2	627.7	244.0	52.3	1.000163
17200.0	527.9	-13.9	-28.7	27.2	709.2	627.4	244.4	51.9	1.000161
17400.0	523.7	-14.1	-29.6	25.4	704.0	627.2	244.7	51.5	1.000160
17600.0	519.5	-14.0	-27.3	30.7	698.2	627.3	245.2	51.2	1.000159
17800.0	515.4	-14.3	-25.6	37.5	693.1	627.0	246.0	50.8	1.000159
18000.0	511.3	-14.9	-23.8	46.7	689.3	626.2	248.0	50.6	1.000159
18200.0	507.2	-15.6	-22.4	55.8	685.5	625.4	249.4	50.3	1.000158
18400.0	503.1	-16.3	-21.3	65.0	681.7	624.6	250.6	50.1	1.000158
18600.0	499.1	-16.8	-20.3	74.1	677.7	624.0	252.1	50.7	1.000158
18800.0	495.0	-17.0	-19.2	83.2	672.7	623.8	253.4	51.7	1.000158
19000.0	491.0	-17.3	-18.8	88.3	668.0	623.4	254.5	52.6	1.000157
19200.0	487.1	-17.7	-18.7	91.7	663.4	623.0	255.6	53.7	1.000156
19400.0	483.1	-18.0	-18.6	95.1	658.9	622.6	256.5	54.8	1.000155
19600.0	479.2	-18.3	-18.5	98.5	654.4	622.2	256.3	56.6	1.000154
19800.0	475.3	-18.7	-18.2	96.1	650.1	621.7	256.2	58.4	1.000153

STATION ALTITUDE 4951.00 FEET MSL
8 NOV. 79 0600 HRS MST
ASCENSION NO. 145

UPPER AIR DATA
3120030145
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 6 (cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
20000.0	471.4	-19.1	-20.0	92.8	645.9	621.2	256.0	60.2	1.000151
20200.0	467.6	-19.5	-20.6	89.4	641.6	620.7	255.9	62.0	1.000150
20400.0	463.8	-19.9	-21.6	86.0	637.4	620.2	255.4	64.0	1.000148
20600.0	460.0	-20.2	-22.5	81.4	632.9	619.9	254.7	66.1	1.000147
20800.0	456.2	-20.5	-23.4	76.8	628.5	619.5	254.0	68.3	1.000145
21000.0	452.5	-20.7	-24.4	72.2	624.0	619.2	253.4	70.4	1.000144
21200.0	448.8	-21.0	-25.4	67.5	619.6	618.8	252.8	72.6	1.000143
21400.0	445.1	-21.3	-26.4	62.9	615.2	618.5	252.3	74.5	1.000141
21600.0	441.4	-21.6	-27.5	58.3	610.9	618.1	251.9	76.1	1.000140
21800.0	437.8	-21.8	-28.7	53.7	606.6	617.7	251.6	77.7	1.000139
22000.0	434.2	-22.1	-29.9	49.1	602.3	617.4	251.2	79.3	1.000137
22200.0	430.6	-22.4	-31.2	44.5	598.0	617.0	250.9	80.9	1.000136
22400.0	427.1	-22.7	-32.5	39.8	593.8	616.7	251.0	81.9	1.000135
22600.0	423.5	-22.9	-34.0	35.2	589.6	616.3	251.2	82.6	1.000133
22800.0	420.1	-23.2	-35.6	30.8	585.4	616.0	251.4	83.3	1.000132
23000.0	416.6	-23.6	-36.7	28.5	581.4	615.5	251.0	84.0	1.000131
23200.0	413.2	-23.9	-37.9	26.1	577.4	615.1	252.0	84.4	1.000130
23400.0	409.7	-24.3	-39.1	23.8	573.4	614.6	252.8	84.3	1.000129
23600.0	406.3	-24.6	-40.4	21.4	569.5	614.2	253.5	84.2	1.000128
23800.0	403.0	-25.0	-41.3	19.1	565.6	613.8	254.2	84.2	1.000127
24000.0	399.6	-25.3	-43.2	16.8	561.6	613.3	254.9	84.1	1.000126
24200.0	396.3	-25.5	-44.1	15.4	557.3	613.2	255.9	84.5	1.000125
24400.0	393.0	-25.6	-45.1	14.0	553.0	613.0	256.8	84.9	1.000124
24600.0	389.6	-26.0	-45.4	14.2	549.2	612.4	257.7	85.3	1.000123
24800.0	386.4	-26.5	-45.6	14.3	545.6	611.9	258.7	85.8	1.000122
25000.0	383.1	-26.9	-45.9	14.5	541.9	611.4	259.6	87.7	1.000121
25200.0	379.9	-27.3	-46.1	14.6	538.3	610.8	260.5	90.0	1.000120
25400.0	376.7	-27.3	-46.4	14.8	534.7	610.3	261.3	92.4	1.000120
25600.0	373.5	-28.2	-46.7	15.0	531.1	609.8	262.2	94.7	1.000119
25800.0	370.3	-28.6	-46.9	15.1	527.5	609.2	262.9	97.3	1.000118
26000.0	367.2	-29.1	-47.2	15.3	524.0	608.7	263.5	100.0	1.000117
26200.0	364.1	-29.5	-47.5	15.4	520.5	608.2	264.1	102.6	1.000116
26400.0	361.0	-29.9	-47.7	15.6	517.0	607.6	264.7	105.3	1.000116
26600.0	358.0	-30.3	-48.0	15.8	513.6	607.1	265.3	108.1	1.000115
26800.0	355.0	-30.8	-48.3	15.9	510.2	606.5	265.8	110.0	1.000114
27000.0	352.0	-31.2	-48.7	15.9	506.8	606.0	266.2	111.5	1.000113
27200.0	349.0	-31.7	-49.2	15.6	503.4	605.4	266.7	113.0	1.000113
27400.0	345.9	-32.2	-49.7	15.4	500.1	604.8	267.1	114.6	1.000112
27600.0	343.0	-32.6	-50.3	15.2	496.8	604.2	267.6	116.1	1.000111
27800.0	340.0	-33.1	-51.0	14.4**	493.4	603.7	267.9	117.3	1.000110

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

STATION: ALTITUDE 5051.00 FEET MSL
9 NOV. 79 0800 HRS MST
ASCENSION NO. 145

UPPER AIR DATA
312093014S
DALLEN
TABLE 6 (cont)

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
28000.0	337.1	-33.3	-52.7	12.1**	489.6	603.4	208.0	118.1	1.000109
28200.0	334.2	-33.5	-54.6	9.8**	485.8	603.1	208.2	118.9	1.000108
28400.0	331.3	-33.7	-56.9	7.5**	482.1	602.8	208.4	119.7	1.000108
28600.0	328.5	-34.0	-59.9	5.2**	478.4	602.5	208.6	120.5	1.000107
28800.0	325.6	-34.2	-64.4	3.0**	474.7	602.2	208.6	121.8	1.000106
29000.0	322.8	-34.4	-74.0	.7**	471.1	601.9	208.5	123.2	1.000105
29200.0	320.0	-34.9			467.9	601.3	208.4	124.6	1.000104
29400.0	317.2	-35.5			464.9	600.6	208.3	126.1	1.000104
29600.0	314.4	-36.0			462.0	599.9	208.2	127.6	1.000103
29800.0	311.7	-36.6			459.0	599.2	208.0	129.7	1.000102
30000.0	309.0	-37.2			456.1	598.4	207.9	131.7	1.000102
30200.0	306.3	-37.8			453.2	597.7	207.7	133.7	1.000101
30400.0	303.5	-38.3			450.4	597.0	207.6	135.8	1.000100
30600.0	300.9	-38.9			447.5	596.3	207.3	138.7	1.000100
30800.0	298.3	-39.4			444.6	595.6	207.1	141.9	1.000099
31000.0	295.6	-39.9			441.5	594.9	206.6	145.0	1.000098
31200.0	292.9	-40.4			438.5	594.3			1.000098
31400.0	290.3	-40.9			435.5	593.7			1.000097
31600.0	287.7	-41.4			432.6	593.0			1.000096
31800.0	285.1	-41.9			429.6	592.4			1.000096
32000.0	282.6	-42.5			426.7	591.7			1.000095
32200.0	280.1	-43.0			423.8	591.1			1.000094
32400.0	277.6	-43.5			421.0	590.4			1.000094
32600.0	275.1	-44.0			418.1	589.8			1.000093
32800.0	272.6	-44.5			415.3	589.1			1.000092
33000.0	270.2	-45.0			412.5	588.5			1.000092
33200.0	267.7	-45.5			409.7	587.8			1.000091
33400.0	265.3	-46.0			406.9	587.2			1.000091
33600.0	262.9	-46.3			403.7	586.8			1.000090
33800.0	260.5	-46.5			400.4	586.5			1.000089
34000.0	258.2	-46.7			397.2	586.2			1.000088
34200.0	255.6	-46.9			393.9	585.9			1.000088
34400.0	253.5	-47.2			390.7	585.6			1.000087
34600.0	251.2	-47.4			387.6	585.4			1.000086
34800.0	248.9	-47.7			384.6	584.9			1.000086
35000.0	246.5	-48.2			381.6	584.3			1.000085
35200.0	244.3	-48.7			379.1	583.7			1.000084
35400.0	242.0	-49.1			376.4	583.1			1.000084
35600.0	239.8	-49.6			373.7	582.5			1.000083
35800.0	237.6	-50.1			371.0	581.9			1.000083

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

STATION ALTITUDE 4051.00 FEET MSL
8 NOV. 79 0800 HRS MST
ASCL/SION NO. 145

UPPER AIR DATA
3120030145
DALLEN

TABLE 6 (cont)

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES( )	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
36000.0	235.4	-50.5			368.3	581.3			1.000082
36200.0	233.2	-51.0			365.7	580.6			1.000081
36400.0	231.0	-51.5			363.1	580.0			1.000081
36600.0	228.9	-51.9			360.5	579.4			1.000080
36800.0	226.8	-52.3			357.6	578.9			1.000080
37000.0	224.7	-52.7			355.0	578.4			1.000079
37200.0	222.5	-53.1			352.3	577.9			1.000078
37400.0	220.5	-53.5			349.6	577.4			1.000078
37600.0	218.4	-53.8			346.9	576.9			1.000077
37800.0	216.3	-54.3			344.4	576.3			1.000077
38000.0	214.3	-54.3			341.9	575.8			1.000076
38200.0	212.2	-55.3			339.4	575.0			1.000076
38400.0	210.2	-55.8			337.0	574.3			1.000075
38600.0	208.2	-56.3			334.5	573.7			1.000075
38800.0	206.2	-56.8			332.1	573.0			1.000074
39000.0	204.3	-57.3			329.7	572.4			1.000073
39200.0	202.3	-57.8			327.3	571.7			1.000073
39400.0	200.4	-58.3			324.9	571.0			1.000072
39600.0	198.5	-58.7			322.4	570.6			1.000072
39800.0	196.5	-59.0			319.7	570.1			1.000071
40000.0	194.6	-59.3			317.1	569.7			1.000071
40200.0	192.7	-59.7			314.5	569.2			1.000070
40400.0	190.9	-60.0			311.9	568.8			1.000069
40600.0	189.0	-60.3			309.4	568.3			1.000069
40800.0	187.2	-60.7			306.9	567.9			1.000068
41000.0	185.4	-61.0			304.4	567.5			1.000068
41200.0	183.6	-61.3			301.9	567.0			1.000067
41400.0	181.8	-61.6			299.4	566.6			1.000067
41600.0	180.0	-62.0			297.0	566.1			1.000066
41800.0	178.3	-62.3			294.6	565.7			1.000066
42000.0	176.5	-62.6			292.2	565.2			1.000065
42200.0	174.8	-63.0			289.8	564.8			1.000065
42400.0	173.1	-61.0			284.4	567.4			1.000063
42600.0	171.4	-60.3			280.9	568.0			1.000063
42800.0	169.8	-60.4			276.0	568.3			1.000062
43000.0	168.1	-60.8			275.8	567.7			1.000061
43200.0	166.5	-61.3			273.7	567.0			1.000061
43400.0	164.8	-61.6			271.6	566.4			1.000060
43600.0	163.2	-62.2			269.6	565.3			1.000060
43800.0	161.6	-62.7			267.5	565.2			1.000060

STATION ALTITUDE 4051.00 FEET MSL
8 NOV. 79 0800 HRS MST
ASCE,SIO, NO. 145

UPPER AIR DATA
3120030145
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 6 (cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES( )	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
44000.0	160.0	-63.2			265.5	564.6			1.000059
44200.0	158.5	-63.6			263.4	563.9			1.000059
44400.0	156.9	-64.1			261.4	563.3			1.000058
44600.0	155.4	-64.5			259.4	562.7			1.000058
44800.0	153.8	-65.0			257.5	562.0			1.000057
45000.0	152.3	-65.5			255.5	561.4			1.000057
45200.0	150.8	-65.9			253.6	560.8			1.000056
45400.0	149.3	-66.3			251.5	560.2			1.000056
45600.0	147.8	-66.7			249.4	559.6			1.000056
45800.0	146.4	-67.0			247.3	559.3			1.000055
46000.0	144.9	-67.3			245.2	558.9			1.000055
46200.0	143.4	-67.7			243.2	558.5			1.000054
46400.0	142.0	-68.0			241.1	558.0			1.000054
46600.0	140.6	-68.3			239.1	557.6			1.000053
46800.0	139.2	-68.6			237.6	557.2			1.000053
47000.0	137.8	-68.5			234.5	557.4			1.000052
47200.0	136.4	-68.3			232.0	557.5			1.000052
47400.0	135.0	-68.2			229.5	557.7			1.000051
47600.0	133.7	-68.1			227.1	557.9			1.000051
47800.0	132.3	-68.0			224.7	558.0			1.000050
48000.0	131.0	-67.8			222.3	558.2			1.000050
48200.0	129.7	-67.7			219.9	558.4			1.000049
48400.0	128.4	-67.6			217.6	558.5			1.000048
48600.0	127.1	-67.5			215.3	558.7			1.000048
48800.0	125.8	-67.4			213.0	558.9			1.000047
49000.0	124.5	-67.0			210.5	559.3			1.000047
49200.0	123.3	-66.5			207.9	560.1			1.000046
49400.0	122.1	-65.9			205.3	560.8			1.000046
49600.0	120.9	-65.4			202.7	561.5			1.000045
49800.0	119.7	-64.9			200.2	562.2			1.000045
50000.0	118.5	-64.3			197.7	563.0			1.000044
50200.0	117.3	-64.5			195.9	562.7			1.000044
50400.0	116.2	-64.7			194.1	562.4			1.000043
50600.0	115.0	-65.0			192.4	562.1			1.000043
50800.0	113.9	-65.2			190.7	561.8			1.000042
51000.0	112.7	-65.4			189.1	561.5			1.000042
51200.0	111.6	-65.6			187.4	561.2			1.000042
51400.0	110.5	-65.7			185.6	561.1			1.000041
51600.0	109.4	-65.8			183.8	561.0			1.000041
51800.0	108.3	-65.9			182.1	560.8			1.000041

STATION ALTITUDE 4051.00 FEET MSL
8 NOV. 79 0800 HRS MST
ASCENSION NO. 145

UPPER AIR DATA
312000145
JALLEN

TABLE 6 (cont)

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTIO DEGREES(T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
52100.0	107.2	-66.0			180.4	560.7			1.000040
52200.0	106.2	-66.1			178.6	560.6			1.000040
52300.0	105.1	-66.2			177.0	560.5			1.000039
52400.0	104.1	-66.3			175.3	560.3			1.000039
52500.0	103.0	-66.4			173.6	560.2			1.000039
52600.0	102.0	-66.5			172.0	560.1			1.000038
52700.0	101.0	-65.9			169.6	560.8			1.000038
52800.0	100.0	-65.2			167.5	561.8			1.000037
52900.0	99.0	-65.0			165.7	562.1			1.000037
53000.0	98.0	-64.7			163.9	562.4			1.000036
53100.0	97.1	-64.5			162.1	562.8			1.000036
53200.0	96.1	-64.2			160.3	563.1			1.000036
53300.0	95.2	-64.0			158.5	563.4			1.000035
53400.0	94.2	-63.8			156.8	563.7			1.000035
53500.0	93.3	-63.5			155.1	564.0			1.000035
53600.0	92.4	-63.3			153.4	564.4			1.000034
53700.0	91.5	-63.1			151.7	564.7			1.000034
53800.0	90.6	-62.8			150.0	565.0			1.000033
53900.0	89.7	-62.5			148.4	565.3			1.000033
54000.0	88.8	-62.0			146.5	566.1			1.000033
54100.0	88.0	-61.2			144.5	567.2			1.000032
54200.0	87.1	-60.4			142.6	568.3			1.000032
54300.0	86.3	-59.7			140.8	569.2			1.000031
54400.0	85.4	-59.5			139.3	569.5			1.000031
54500.0	84.5	-59.3			137.8	569.8			1.000031
54600.0	83.8	-59.0			136.3	570.0			1.000030
54700.0	83.0	-59.2			135.1	569.9			1.000030
54800.0	82.2	-59.4			133.9	569.5			1.000030
54900.0	81.4	-59.7			132.8	569.2			1.000030
55000.0	80.6	-59.9			131.7	568.9			1.000029
55100.0	79.8	-60.2			130.5	568.5			1.000029
55200.0	79.0	-60.4			129.4	568.2			1.000029
55300.0	78.3	-60.7			128.3	567.9			1.000029
55400.0	77.5	-60.9			127.2	567.5			1.000028
55500.0	76.7	-61.2			126.1	567.2			1.000028
55600.0	76.0	-61.4			125.0	566.9			1.000028
55700.0	75.3	-61.7			124.0	566.5			1.000028
55800.0	74.5	-61.9			122.9	566.2			1.000027
55900.0	73.8	-62.2			121.9	565.9			1.000027
56000.0	73.1	-62.4			120.8	565.6			1.000027

STATION ALTITUDE 4051.00 FEET MSL
8 NOV. 79 0800 HRS MST
WSCC.510. NO. 145

UPPER AIR DATA
3120030145
JALLCN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 6 (cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES( )	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
00100.0	72.4	-62.7			119.8	565.2			1.000027
00200.0	71.7	-62.9			118.8	564.9			1.000026
00400.0	71.0	-63.1			117.7	564.6			1.000026
00600.0	70.3	-63.4			116.7	564.2			1.000026
00800.0	69.6	-63.4			115.6	564.2			1.000026
01000.0	68.9	-63.3			114.4	564.4			1.000025
01200.0	68.3	-63.1			113.2	564.6			1.000025
01400.0	67.6	-63.0			112.0	564.8			1.000025
01600.0	66.9	-62.8			110.9	565.0			1.000025
01800.0	66.3	-62.6			109.7	565.2			1.000024
02000.0	65.7	-62.5			108.6	565.4			1.000024
02200.0	65.0	-62.3			107.4	565.6			1.000024
02400.0	64.4	-62.2			106.3	565.9			1.000024
02600.0	63.8	-62.0			105.2	566.1			1.000023
02800.0	63.1	-61.9			104.1	566.3			1.000023
03000.0	62.5	-61.7			103.0	566.5			1.000023
03200.0	61.9	-61.6			102.0	566.7			1.000023
03400.0	61.3	-61.4			100.9	566.9			1.000022
03600.0	60.7	-61.3			99.9	567.1			1.000022
03800.0	60.1	-61.1			98.8	567.3			1.000022
04000.0	59.6	-61.0			97.8	567.5			1.000022
04200.0	59.0	-60.8			96.8	567.7			1.000022
04400.0	58.4	-60.7			95.8	567.9			1.000021
04600.0	57.9	-60.5			94.8	568.1			1.000021
04800.0	57.3	-60.3			93.8	568.3			1.000021
05000.0	56.7	-60.2			92.8	568.5			1.000021
05200.0	56.2	-60.0			91.8	568.7			1.000020
05400.0	55.6	-59.9			90.9	568.9			1.000020
05600.0	55.1	-59.7			89.9	569.1			1.000020
05800.0	54.6	-59.6			89.0	569.3			1.000020
06000.0	54.0	-59.4			88.1	569.5			1.000020
06200.0	53.5	-59.3			87.2	569.7			1.000019
06400.0	53.0	-59.1			86.3	569.9			1.000019
06600.0	52.5	-59.0			85.4	570.2			1.000019
06800.0	52.0	-58.8			84.5	570.4			1.000019
07000.0	51.5	-58.7			83.6	570.6			1.000019
07200.0	51.0	-58.5			82.7	570.8			1.000018
07400.0	50.5	-58.3			81.9	571.0			1.000018
07600.0	50.0	-58.2			81.0	571.2			1.000018
07800.0	49.5	-58.2			80.2	571.2			1.000018

STATION ALTITUDE 4051.00 FEET MSL
8 NOV. 79 0600 HRS MST
ASCENSION NO. 145

UPPER AIR DATA
3120030145
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 6 (cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
00100.0	49.9	-58.1			79.5	571.2			1.000018
00200.0	48.8	-58.1			78.7	571.3			1.000018
00300.0	48.1	-58.1			77.9	571.3			1.000017
00400.0	47.6	-58.1			77.2	571.4			1.000017
00500.0	47.2	-58.0			76.4	571.4			1.000017
00600.0	46.7	-58.0			75.7	571.4			1.000017

STATION ALTITUDE 4851.00 FEET MSL
8 NOV. 79 0300 HRS MST
ASCENSION NO. 145

MANDATORY LEVELS
312003014S
DALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 7

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	WIND DATA DIRECTION DEGREES(N)	WIND DATA SPEED KNOTS
850.0	4699.	11.2	6.5	75.	221.5	8.5
800.0	6359.	9.1	3.0	69.	236.4	23.8
750.0	8164.	5.5	1.1	73.	248.7	33.3
700.0	9944.	.7	-2.2	81.	250.6	36.7
650.0	11866.	-3.2	-6.5	78.	253.7	46.5
600.0	13951.	-6.6	-6.7	99.	243.3	42.0
550.0	16155.	-12.7	-21.2	49.	242.2	50.1
500.0	18529.	-16.8	-20.6	72.	251.8	50.4
450.0	21106.	-20.9	-25.1	69.	253.0	71.8
400.0	23939.	-25.3	-43.1	17.	254.8	64.1
350.0	27083.	-31.5	-49.0	10.	266.5	112.4
300.0	30612.	-39.1			267.3	139.6
250.0	34629.	-47.5				
200.0	39351.	-56.4				
175.0	42078.	-62.9				
150.0	45153.	-66.2				
125.0	48792.	-67.2				
100.0	53251.	-65.2				
80.0	57771.	-64.1				
70.0	60483.	-63.5				
60.0	63606.	-61.1				
50.0	67347.	-58.2				