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ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/6 4/2  
14819AT LANCE, MISSILE NUMBER 4275, ROUND NUMBER 363-APL, 27 FE--ETC(U)

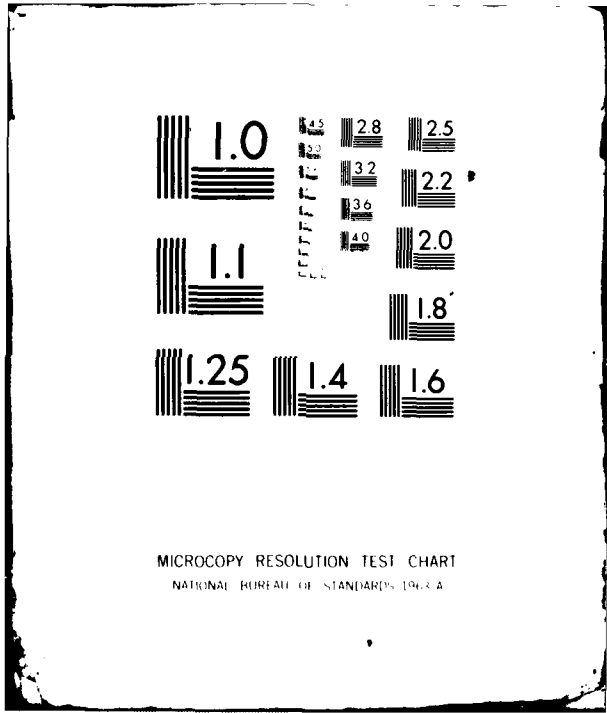
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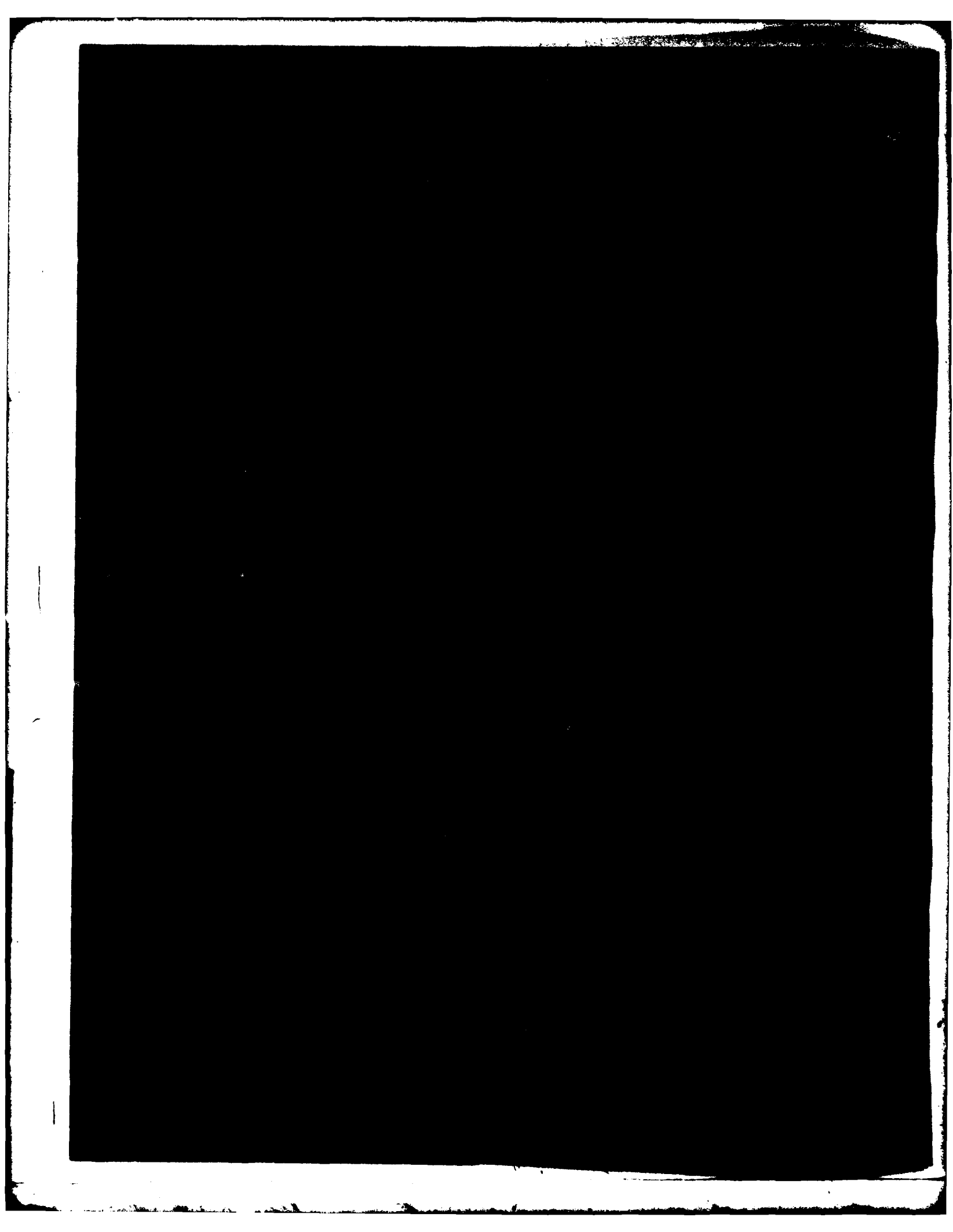
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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1170	2. GOVT ACCESSION NO. AD-A098572	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 14819AT LANCE. Missile Number 4275, Round Number 363-APL		5. TYPE OF REPORT & PERIOD COVERED Technical data report
7. AUTHOR(s) White Sands Meteorological Team		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS 14) Ft. Belvoir, Mo. - DR-1170		8. CONTRACT OR GRANT NUMBER(s) 16) DA Task/F665702D127-02 17)
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cnd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research & Development Cnd Adelphi, MD 20783		12. REPORT DATE February 1981
		13. NUMBER OF PAGES 33
		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) Approved for public release; distribution unlimited.		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 14819AT LANCE, Missile Number 4275, Round Number 363-APL presented in tabular form.		

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## INTRODUCTION

14819AT LANCE, Missile Number 4275, Round Number 363-APL,  
was launched from LC\_39, White Sands Missile Range (WSMR), New  
Mexico, at 1002 on 27 FEB 1981. The scheduled launch time  
was 1000 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 ( $\text{gm}/\text{m}^3$ ), wind direction and speed, and cloud cover were made at the LC-39 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 **Single Theodolite** observation at:

#### SITE AND ALTITUDE

LC-39	1740 Meters	0950 MST
LC-39	0960 Meters	1000 MST

(b) Air structure data (rawinsonde) were collected at the following met sites. Data were collected from surface to as high as possible in 500-foot increments.

#### SITE AND TIME

WSD	0950 MST
SMR	0900 MST
E28	0950 MST



TABLE 1. Surface Observation taken at 1000 MST,  
 27 February 1981. at LC-39, 14819AT LANCE,  
 Missile Number 4275, Round Number 363-APL.

ELEVATION	4063.75	FT/MSL
PRESSURE	877.9	MBS
TEMPERATURE	12.3	°C
RELATIVE HUMIDITY	80	%
DEW POINT	8.9	°C
DENSITY	1066	GM/M <sup>3</sup>
WIND SPEED	CALM	KTS
WIND DIRECTION	CALM	DEGREES
CLOUD COVER 1st	10/SC/4000	AMT/TYPER/HGT





STATION ALTITUDE 3989.00 FEET MSL  
 27 FEB. 61 0950 HRS MDT  
 ASCENSION NO. 138

SINGLE POINT LEVEL DATA

0500020150  
 WPTF 6ADP5

GEODETTIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

TABLE 4

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
879.2	3989.0	11.9	7.8	76.0
871.6	4227.5	10.5	5.9	73.0
850.0	4913.7	9.6	4.0	68.0
783.2	7125.2	3.9	1.3	83.0
717.0	9478.4	1.8	.9	94.0
709.0	10114.4	.9	-.1	93.0
671.0	11232.0	-.1	-1.1	93.0
582.2	14932.5	-6.1	-7.5	90.0
500.0	18811.0	-12.0	-14.3	83.0
461.6	20808.4	-16.0	-18.9	78.0
431.2	22488.2	-19.0	-22.3	75.0
416.4	23340.4	-21.2	-25.2	70.0
400.0	24313.2	-23.0	-26.6	72.0
300.0	31035.7	-38.7	-44.0	57.0
279.0	32661.7	-43.0	-49.5	48.0
250.0	35065.5	-49.2		
213.0	38454.6	-58.5		
200.0	39757.9	-58.9		
196.2	40156.2	-57.1		
184.0	41490.7	-58.5		
170.4	43088.2	-56.8		
150.0	45742.1	-58.4		
114.0	51332.9	-66.1		
100.0	53947.5	-67.2		
80.4	58282.2	-68.0		
73.8	59993.8	-65.0		
70.0	61055.3	-66.0		
67.6	61754.1	-66.1		
64.6	62672.2	-62.0		
58.4	64725.3	-63.6		
55.6	65729.2	-60.3		
50.0	67902.4	-62.9		
38.0	73578.2	-56.1		
30.0	78543.9	-56.4		
20.0	87120.0	-53.4		
17.0	90500.7	-53.7		
12.6	97050.4	-47.3		
11.7	98670.1	-48.6		
10.0	102112.3	-46.0		
7.4	108818.0	-41.7		

STATION ALTITUDE 3989.00 FEET MSL  
 27 FEB. 81 0950 HRS MST  
 ASCENSION. NO. 138

UPPER AIR DATA  
 0530020138  
 WHITE SANDS  
 TABLE 5

GEODETTIC COORDINATES  
 32.40043 LAT N  
 106.37033 LONG W

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GRAMS PER CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION:
		AIR DEGREES CENTIGRADE	DWPOINT				DIRECTION DEGREES(TN)	SPEED KNOTS	
3989.0	879.2	11.9	7.8	76.0	1069.6	659.2	180.0	1.9	1.000288
4000.0	870.8	11.8	7.7	75.9	1069.4	659.2	179.8	1.9	1.000287
4500.0	863.0	10.1	5.1	71.0	1057.1	657.0	142.1	.4	1.000277
5000.0	847.3	9.4	3.9	68.6	1041.0	656.0	21.4	1.4	1.000270
5500.0	831.8	8.1	3.4	72.0	1026.6	654.5	14.6	2.9	1.000266
6000.0	816.5	6.8	2.8	75.4	1012.5	653.0	36.2	16.9	1.000262
6500.0	801.5	5.5	2.1	78.8	998.7	651.4	38.8	34.3	1.000257
7000.0	786.8	4.2	1.5	82.2	985.0	649.9	43.0	13.7	1.000253
7500.0	772.3	3.6	1.2	84.8	969.0	649.1	200.4	7.7	1.000249
8000.0	757.9	3.1	1.2	87.1	952.5	648.6	217.7	31.5	1.000245
8500.0	743.8	2.7	1.1	87.4	936.3	648.1	219.2	45.3	1.000242
9000.0	730.0	2.2	1.0	91.8	920.5	647.6	220.6	37.3	1.000238
9500.0	716.4	1.8	.9	94.0	904.7	647.1	221.0	34.5	1.000234
10000.0	703.0	1.1	.1	93.2	890.2	646.2	219.7	38.8	1.000229
10500.0	689.9	.6	-.4	91.0	875.2	645.6	218.2	41.4	1.000225
11000.0	676.9	.1	-.9	93.0	860.2	645.0	218.5	43.2	1.000221
11500.0	664.1	-.5	-1.6	92.8	846.0	644.2	217.5	44.6	1.000216
12000.0	651.5	-1.3	-2.4	92.4	832.6	643.2	218.8	45.9	1.000212
12500.0	639.1	-2.2	-3.3	92.0	819.3	642.2	220.6	47.2	1.000207
13000.0	627.0	-3.0	-4.1	91.6	806.2	641.2	221.8	48.4	1.000203
13500.0	615.1	-3.8	-5.0	91.2	793.4	640.2	221.3	49.4	1.000199
14000.0	603.4	-4.6	-5.9	90.8	780.0	639.2	220.9	50.6	1.000195
14500.0	591.9	-5.4	-6.7	90.4	768.3	638.2	220.5	52.0	1.000191
15000.0	580.7	-6.2	-7.6	89.9	756.1	637.2	220.0	54.0	1.000187
15500.0	569.4	-7.0	-8.5	89.0	743.6	636.3	219.4	56.7	1.000183
16000.0	558.3	-7.7	-9.3	88.1	731.3	635.3	218.9	59.5	1.000179
16500.0	547.5	-8.5	-10.2	87.2	719.2	634.4	218.4	62.3	1.000175
17000.0	536.8	-9.2	-11.1	86.3	707.3	633.5	218.9	63.4	1.000172
17500.0	526.4	-10.0	-12.0	85.4	695.7	632.5	219.7	63.8	1.000168
18000.0	516.2	-10.8	-12.9	84.5	684.2	631.6	220.6	63.1	1.000165
18500.0	506.1	-11.5	-13.7	83.6	672.9	630.6	221.5	62.1	1.000162
19000.0	496.2	-12.4	-14.7	82.5	661.9	629.6	222.6	61.3	1.000158
19500.0	486.4	-13.4	-15.9	81.3	651.4	628.3	223.6	60.5	1.000155
20000.0	476.8	-14.4	-17.1	80.0	641.0	627.1	224.5	61.2	1.000152
20500.0	467.3	-15.4	-18.2	78.8	630.8	625.8	225.2	62.1	1.000149
21000.0	458.0	-16.3	-19.3	77.7	620.6	624.6	225.4	63.7	1.000146
21500.0	448.8	-17.2	-20.3	76.8	610.4	623.5	225.6	65.2	1.000143
22000.0	439.8	-18.1	-21.3	75.9	600.2	622.4	225.3	66.0	1.000140
22500.0	431.0	-19.0	-22.3	74.9	590.3	621.3	225.0	66.9	1.000137
23000.0	422.2	-20.3	-24.0	72.0	581.4	619.7	224.0	67.5	1.000135

UPPER AIR DATA  
 0580020136  
 WHITE SANDS  
 TABLE 5 cont'

STATION ALTITUDE 3989.00 FEET MSL  
 27 FEB. 51  
 0950 HRS MST  
 ASCENSION NO. 138

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.57033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
23500.0	413.7	-21.5	70.3	572.2	618.2	223.1	68.1	1.000132
24000.0	405.2	-22.4	71.4	562.6	617.1	221.8	68.7	1.000130
24500.0	396.8	-23.4	71.6	553.2	615.8	220.5	69.2	1.000127
25000.0	388.4	-24.6	70.5	544.1	614.4	219.5	71.1	1.000125
25500.0	380.2	-25.8	69.4	535.1	612.9	218.7	73.5	1.000122
26000.0	372.1	-26.9	68.2	526.3	611.4	218.4	76.9	1.000120
26500.0	364.3	-28.1	67.1	517.6	610.0	218.3	80.6	1.000118
27000.0	356.6	-29.3	66.0	509.1	608.5	218.3	84.3	1.000116
27500.0	349.0	-30.4	64.9	500.6	607.0	218.5	88.0	1.000114
28000.0	341.6	-31.6	63.8	492.6	605.6	218.6	91.9	1.000111
28500.0	334.4	-32.8	62.7	484.5	604.1	218.6	95.9	1.000109
29000.0	327.3	-33.9	61.5	476.6	602.6	218.6	99.2	1.000108
29500.0	320.4	-35.1	60.4	468.8	601.1	218.5	101.6	1.000106
30000.0	313.6	-36.3	59.3	461.1	599.6	218.5	103.5	1.000104
30500.0	307.0	-37.4	58.2	453.6	598.2	218.6	104.6	1.000102
31000.0	300.5	-38.6	57.1	446.2	596.7	218.6	106.1	1.000100
31500.0	293.8	-39.9	54.4	438.9	595.0	218.7	108.8	1.000098
32000.0	287.4	-41.3	51.7	431.6	593.3	218.9	111.5	1.000097
32500.0	281.0	-42.6	48.9	424.5	591.6	219.5	115.6	1.000095
33000.0	274.7	-43.9	41.2**	417.4	589.9	220.1	119.8	1.000093
33500.0	268.5	-45.2	31.3**	410.3	588.2	220.9	124.0	1.000092
34000.0	262.5	-46.5	21.3**	403.3	586.6	221.6	128.2	1.000090
34500.0	256.5	-47.7	11.3**	396.5	584.9	222.1	131.4	1.000088
35000.0	250.7	-49.0	1.3**	389.8	583.2	222.6	134.2	1.000087
35500.0	244.9	-50.4		383.0	581.4	222.6	137.2	1.000085
36000.0	239.2	-51.8		376.4	579.7	222.9	140.3	1.000084
36500.0	233.6	-53.1		369.9	577.9	223.9	143.2	1.000082
37000.0	228.2	-54.5		363.5	576.1	224.6	143.2	1.000081
37500.0	222.8	-55.9		357.3	574.2	224.9	140.3	1.000080
38000.0	217.6	-57.3		351.2	572.4	225.9	137.2	1.000078
38500.0	212.5	-58.5		345.0	570.6	226.9	134.2	1.000077
39000.0	207.5	-58.7		338.9	570.5	227.9	131.4	1.000075
39500.0	202.5	-58.8		332.9	570.3	228.9	128.2	1.000073
40000.0	197.7	-57.8		326.9	571.7	229.9	124.0	1.000071
40500.0	193.0	-57.5		321.7	572.2	230.9	119.8	1.000069
41000.0	188.4	-58.0		305.0	571.5	231.9	115.6	1.000068
41500.0	183.9	-58.5		290.5	570.8	232.9	111.5	1.000066
42000.0	179.6	-58.0		275.7	571.5	233.9	107.4	1.000065
42500.0	175.3	-57.4		260.5	572.2	234.9	103.5	1.000063
43000.0	171.1	-56.9		245.2	572.9	235.9	100.0	1.000061

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

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

GEODLTIC COORDINATES  
52.40043 LAT DEG  
106.37033 LONG DEG

UPPER AIR DATA  
0580020130  
WHITE SANDS  
TABLE 5 cont'

STATION ALTITUDE 3989.00 FEET MSL  
27 FEB. 51 0950 HRS MST  
ASCENSION: NO. 138

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GRAMS PER CUBIC CENTIMETER	SPEED OF SOUND METERS PER SECOND	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
43500.0	167.1	-57.0		264.3	572.7			1.000060
44000.0	163.1	-57.3		263.3	572.3			1.000059
44500.0	159.2	-57.7		257.4	571.9			1.000057
45000.0	155.4	-58.0		251.6	571.5			1.000056
45500.0	151.8	-58.3		246.0	571.1			1.000055
46000.0	148.1	-58.8		240.7	570.4			1.000054
46500.0	144.5	-59.4		235.6	569.5			1.000052
47000.0	141.0	-60.1		230.6	568.6			1.000051
47500.0	137.6	-60.8		225.8	567.7			1.000050
48000.0	134.3	-61.5		221.0	566.8			1.000049
48500.0	131.0	-62.2		216.3	565.8			1.000048
49000.0	127.8	-62.9		211.8	564.9			1.000047
49500.0	124.7	-63.6		207.3	564.0			1.000046
50000.0	121.7	-64.3		203.0	563.1			1.000045
50500.0	118.8	-65.0		198.7	562.1			1.000044
51000.0	115.9	-65.6		194.5	561.2			1.000043
51500.0	113.0	-66.2		190.3	560.3			1.000042
52000.0	110.3	-66.8		185.8	560.2			1.000041
52500.0	107.5	-66.6		181.3	559.9			1.000040
53000.0	104.9	-66.8		177.0	559.0			1.000039
53500.0	102.3	-67.0		172.8	559.3			1.000038
54000.0	99.7	-67.2		168.7	559.1			1.000038
54500.0	97.3	-67.3		164.6	558.9			1.000037
55000.0	94.8	-67.4		160.6	558.8			1.000036
55500.0	92.5	-67.5		156.7	558.7			1.000035
56000.0	90.2	-67.6		152.8	558.6			1.000034
56500.0	87.9	-67.7		149.1	558.4			1.000033
57000.0	85.8	-67.8		145.5	558.3			1.000032
57500.0	83.6	-67.9		141.9	558.2			1.000032
58000.0	81.6	-67.9		138.4	558.1			1.000031
58500.0	79.5	-67.6		134.6	558.5			1.000030
59000.0	77.6	-66.7		130.9	559.7			1.000029
59500.0	75.6	-65.9		127.1	560.9			1.000028
60000.0	73.8	-65.0		123.5	562.1			1.000027
60500.0	72.0	-65.5		120.7	561.4			1.000026
61000.0	70.2	-65.9		118.0	560.8			1.000026
61500.0	68.5	-66.1		115.2	560.0			1.000026
62000.0	66.8	-65.0		111.8	562.1			1.000025
62500.0	65.2	-62.8		107.9	565.1			1.000024
63000.0	63.6	-62.3		105.0	565.8			1.000023

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

UPPER AIR DATA  
 0530020130  
 WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL  
 27 FEB. 51  
 0950 HRS MST  
 ASCENSION NO. 13R

GEOMETRIC ALTITUDE 3989.00 FEET MSL  
 27 FEB. 51  
 0950 HRS MST  
 ASCENSION NO. 13R

GEOLITIC COORDINATES  
 32.40043 LAT REG  
 106.37033 LON REG

TABLE 5 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
63500.0	62.0	-62.6		102.6	585.2			1.000023
64000.0	60.5	-63.0		100.3	584.7			1.000022
64500.0	59.1	-63.4		98.1	584.2			1.000022
65000.0	57.6	-62.7		95.4	585.2			1.000021
65500.0	56.2	-61.1		92.4	587.4	310.1	29.3	1.000021
66000.0	54.9	-60.6		89.9	587.9	313.0	29.3	1.000020
66500.0	53.5	-61.2		88.0	587.1	323.0	15.0	1.000020
67000.0	52.3	-61.8		86.1	586.3	12.2	10.5	1.000019
67500.0	51.0	-62.4		84.3	585.5	50.9	14.8	1.000019
68000.0	49.8	-62.8		82.4	585.0	57.7	19.4	1.000018
68500.0	48.6	-62.2		80.2	585.9	61.9	24.2	1.000018
69000.0	47.4	-61.6		78.1	586.7	57.8	24.4	1.000017
69500.0	46.3	-61.0		76.0	587.5	53.7	24.6	1.000017
70000.0	45.2	-60.4		74.0	588.3	48.5	24.9	1.000016
70500.0	44.1	-59.8		72.0	589.1	42.8	25.4	1.000016
71000.0	43.0	-59.2		70.1	589.9	37.8	24.9	1.000016
71500.0	42.0	-58.6		68.2	570.7	32.1	22.0	1.000015
72000.0	41.0	-58.0		66.4	571.4	25.1	19.4	1.000015
72500.0	40.0	-57.4		64.6	572.2	28.4	20.7	1.000014
73000.0	39.1	-56.8		62.9	573.0	31.5	22.1	1.000014
73500.0	38.1	-56.2		61.2	573.8	36.9	25.1	1.000014
74000.0	37.2	-56.1		59.8	573.9	43.2	30.1	1.000013
74500.0	36.4	-56.2		58.4	573.9	47.7	35.4	1.000013
75000.0	35.5	-56.2		57.0	573.8	51.5	34.3	1.000013
75500.0	34.7	-56.2		55.7	573.8	55.7	32.9	1.000012
76000.0	33.9	-56.2		54.4	573.8	60.1	31.0	1.000012
76500.0	33.1	-56.3		53.1	573.7	65.5	28.2	1.000012
77000.0	32.3	-56.3		51.9	573.7	71.5	25.6	1.000012
77500.0	31.5	-56.3		50.7	573.6	75.1	24.7	1.000011
78000.0	30.8	-56.4		49.5	573.6	78.2	24.1	1.000011
78500.0	30.1	-56.4		48.3	573.6	80.8	23.5	1.000011
79000.0	29.4	-56.2		47.2	573.6	81.7	22.5	1.000010
79500.0	28.7	-56.1		46.0	574.0	82.7	21.6	1.000010
80000.0	28.0	-55.9		44.9	574.2	83.1	20.3	1.000010
80500.0	27.4	-55.7		43.8	574.5	83.4	18.9	1.000010
81000.0	26.7	-55.5		42.8	574.7	83.7	17.5	1.000010
81500.0	26.1	-55.4		41.7	574.9	84.1	16.2	1.000009
82000.0	25.5	-55.2		40.7	575.2	84.8	14.9	1.000009
82500.0	24.9	-55.0		39.7	575.4	84.1	13.8	1.000009
83000.0	24.3	-54.8		38.8	575.6	81.4	13.0	1.000009

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

GEODETIC COORDINATES  
 32.40043 LAT NEG  
 106.57033 LONG NEG

UPPER AIR DATA  
 0580020130  
 WHITE SANDS  
 TABLE 5 CONT'

STATION ALTITUDE 3989.00 FEET MSL  
 27 FEB 81 0950 HRS MST  
 ASCENSION NO. 130

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	
83500.0	23.7	-54.7	37.8	575.8	78.4	12.2	1.000009	
84000.0	23.2	-54.5	36.9	576.1	74.5	11.7	1.000008	
84500.0	22.6	-54.3	36.0	576.3	69.1	11.7	1.000008	
85000.0	22.1	-54.1	35.2	576.5	63.8	11.7	1.000008	
85500.0	21.6	-54.0	34.3	576.8	60.4	11.9	1.000008	
86000.0	21.1	-53.8	33.5	577.0	61.4	12.0	1.000007	
86500.0	20.6	-53.6	32.7	577.2	62.3	12.2	1.000007	
87000.0	20.1	-53.4	31.9	577.5	64.1	12.3	1.000007	
87500.0	19.6	-53.4	31.1	577.5	68.2	12.1	1.000007	
88000.0	19.2	-53.5	30.4	577.4	72.4	11.9	1.000007	
88500.0	18.7	-53.5	29.7	577.4	76.3	11.7	1.000007	
89000.0	18.3	-53.6	29.0	577.3	80.3	10.9	1.000006	
89500.0	17.9	-53.6	28.4	577.2	84.7	10.2	1.000006	
90000.0	17.5	-53.6	27.7	577.2	89.6	9.2	1.000006	
90500.0	17.1	-53.7	27.1	577.1	95.8	6.8	1.000006	
91000.0	16.7	-53.3	26.4	577.7	108.4	4.6	1.000006	
91500.0	16.3	-52.8	25.8	578.3	140.0	2.8	1.000006	
92000.0	15.9	-52.3	25.1	579.0	216.3	2.9	1.000006	
92500.0	15.6	-51.8	24.5	579.6	244.3	5.7	1.000005	
93000.0	15.2	-51.3	23.9	580.3	253.0	8.8	1.000005	
93500.0	14.9	-50.8	23.3	580.9	262.9	8.2	1.000005	
94000.0	14.5	-50.3	22.7	581.5	274.0	7.9	1.000005	
94500.0	14.2	-49.8	22.1	582.2	285.6	7.9	1.000005	
95000.0	13.9	-49.3	21.6	582.8	321.2	6.4	1.000005	
95500.0	13.5	-48.8	21.0	583.5	357.3	6.0	1.000005	
96000.0	13.2	-48.3	20.5	584.1	16.7	11.4	1.000005	
96500.0	12.9	-47.8	20.0	584.8	18.8	12.1	1.000004	
97000.0	12.6	-47.3	19.5	585.4	19.5	12.3	1.000004	
97500.0	12.3	-47.7	19.1	585.0	20.2	12.5	1.000004	
98000.0	12.1	-48.1	18.7	584.5	8.5	10.3	1.000004	
98500.0	11.8	-48.5	18.3	584.0	340.3	8.7	1.000004	
99000.0	11.5	-48.4	17.9	584.1	311.6	9.4	1.000004	
99500.0	11.3	-48.0	17.4	584.6	292.1	13.0	1.000004	
100000.0	11.0	-47.6	17.0	585.1	262.3	17.8	1.000004	
100500.0	10.8	-47.2	16.6	585.6	270.9	23.0	1.000004	
101000.0	10.5	-46.8	16.2	586.1	274.0	27.5	1.000004	
101500.0	10.3	-46.5	15.8	586.6	273.2	29.7	1.000004	
102000.0	10.1	-46.1	15.4	587.0	272.5	31.9	1.000003	
102500.0	9.8	-45.8	15.1	587.5	271.9	34.2	1.000003	
		-45.4	14.7	587.9	271.4	36.4	1.000003	

STATION ALTITUDE 3989.00 FEET MSL  
 27 FEB. 41  
 ASCENSION, NO. 138

UPPER AIR DATA  
 0500020136  
 WHITE SANDS  
 TABLE 5 CONT'

GEODETIC COORDINATES  
 32.40043 LAT NEG  
 106.37033 LONG NEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
103500.0	9.4	-45.1		14.4	548.3	270.9	36.2	1.000003
104000.0	9.2	-44.8		14.0	540.7	270.4	35.7	1.000003
104500.0	9.0	-44.5		13.7	539.1	269.8	35.2	1.000003
105000.0	8.8	-44.1		13.4	539.5	269.3	34.7	1.000003
105500.0	8.6	-43.8		13.0	540.0			1.000003
106000.0	8.4	-43.5		12.7	540.4			1.000003
106500.0	8.2	-43.2		12.4	540.8			1.000003
107000.0	8.0	-42.9		12.1	541.2			1.000003
107500.0	7.9	-42.5		11.9	541.6			1.000003
108000.0	7.7	-42.2		11.6	542.0			1.000003
108500.0	7.5	-41.9		11.3	542.4			1.000003

STATION ALTITUDE 3989.00 FEET MSL  
 27 FEB. 81 0950 HRS MST  
 ASCENSION NO. 138

MANDATORY LEVELS  
 0580020138  
 WHITE SANDS  
 TABLE 6

GEODETTIC COORDINATES  
 32.40043 LAT DEG  
 106.57033 LONG DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE	REL. HUMID.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4910.	7.6	68.	24.7	1.1
800.0	6551.	5.4	79.	39.0	32.1
750.0	8274.	2.9	88.	218.8	44.8
700.0	10105.	.9	93.	219.5	39.7
650.0	12055.	-1.4	92.	219.0	46.1
600.0	14138.	-4.8	91.	220.7	51.0
550.0	16372.	-8.3	87.	218.5	61.6
500.0	18785.	-12.0	83.	222.1	61.6
450.0	21406.	-17.1	77.	225.0	65.1
400.0	24273.	-23.0	72.	221.0	69.0
350.0	27438.	-30.3	65.	218.5	67.8
300.0	30974.	-38.7	57.	218.6	106.2
250.0	34989.	-49.2		222.6	134.5
200.0	39663.	-58.9		9999.0	9999.0XX
175.0	42425.	-57.4		9999.0	9999.0XX
150.0	45619.	-58.4		9999.0	9999.0XX
125.0	49337.	-63.5		9999.0	9999.0XX
100.0	53782.	-67.2		9999.0	9999.0XX
80.0	58189.	-67.8		9999.0	9999.0XX
70.0	60847.	-66.0		9999.0	9999.0XX
60.0	63948.	-63.2		9999.0	9999.0XX
50.0	67648.	-62.9		50.3	16.2
40.0	72216.	-57.4		28.2	20.6
30.0	78210.	-56.4		80.8	23.5
25.0	82020.	-55.1		84.9	14.1
20.0	86714.	-53.4		64.7	12.3
15.0	92800.	-51.0		257.0	6.5
10.0	101564.	-46.0		272.4	32.2

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

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

STATION ALTITUDE 3997.30 FEET MSL  
 27 FEB. 81 0900 HRS MST  
 ASCENSION NO. 33

SIGNIFICANT LEVEL DATA

05800,0033  
 S M R

TABLE 7

GEODETIC COORDINATES  
 32.48034 LAT DEG  
 106.42307 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
880.8	3997.3	11.8	9.4	25.0
670.2	4330.7	11.9	4.9	62.0
850.0	4975.7	10.8	3.6	61.0
826.6	5734.3	8.9	2.3	63.0
751.0	8323.2	3.1	2.2	94.0
700.0	10191.0	.7	-.2	94.0
669.2	11380.1	.3	-.5	94.0
541.6	16976.9	-0.3	-9.6	90.0
500.0	18005.7	-11.8	-13.7	66.0
448.2	21636.7	-16.8	-18.8	84.0
400.0	24418.4	-22.5	-26.1	72.0
341.0	28208.1	-31.3	-36.0	63.0
300.0	31152.1	-38.4	-43.4	59.0
287.6	32102.4	-41.1	-46.7	54.0
269.6	33537.5	-44.8	-50.5	52.0
250.0	35181.9	-49.8		
215.6	39318.6	-57.3		
200.0	39877.0	-59.0		
195.8	40317.1	-57.6		
181.8	41858.1	-58.3		
168.4	43452.5	-56.6		
150.0	45864.6	-57.9		
138.8	47471.8	-59.5		
119.8	50470.9	-65.0		
100.0	54080.0	-67.8		
80.4	58384.1	-70.3		
74.2	59977.2	-65.4		
70.0	61149.0	-65.0		
62.4	63481.2	-61.7		
56.8	65395.5	-63.7		
54.0	66427.1	-60.8		
51.4	67437.0	-62.5		
50.0	68001.5	-61.3		
30.0	74605.8	-56.2		
20.0	87187.8	-53.3		
16.0	91950.6	-52.8		
13.4	95769.9	-49.5		
12.6	97109.4	-48.3		
11.2	99671.8	-47.7		
10.0	102146.1	-46.8		

GEODETTIC COORDINATES  
32.48034 LAT DEG  
106.42307 LON DEG

SIGNIFICANT LEVEL DATA

0580000033  
S M R

TABLE 7 cont'

STATION ALTITUDE 3997.30 FEET MSL  
27 FEB. 61 0900 HRS MST  
ASCENSION NO. 33

GEOMETRIC ALTITUDE	TEMPERATURE	REL. HUM.
MILLIBARS MSL FEET	AIR DEWPOINT	PERCENT
	DEGREES CENTIGRADE	
7.0 110075.9	-41.7	
5.0 117697.9	-38.5	

STATION ALTITUDE 3977.30 FEET MSL  
 27 FEB. 81  
 ASCENSION, NO. 33

UPPER AIR DATA  
 0580060033  
 S M R

GEODETIC COORDINATES  
 32.48034 LAT 11EG  
 106.42307 LON 11EG

TABLE 8

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	TEMPERATURE DEWPOINT	REL. HUM. PERCENT	DENSITY GM/CM <sup>3</sup>	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3997.3	980.8	11.8	9.4	85.0	1071.4	659.3	180.0	1.0	1.000294
4000.0	880.7	11.8	9.3	84.8	1071.3	659.3	180.2	1.0	1.000294
4500.0	864.9	11.6	4.5	61.7	1054.1	658.6	203.0	.5	1.000274
5000.0	849.2	10.7	3.5	61.1	1038.5	657.6	311.2	1.3	1.000268
5500.0	833.8	9.5	2.7	62.4	1024.3	656.1	320.3	2.3	1.000263
6000.0	818.6	8.3	2.4	66.1	1009.8	654.7	322.5	3.1	1.000260
6500.0	803.6	7.2	2.5	72.1	995.1	653.4	320.7	3.4	1.000257
7000.0	788.8	6.1	2.6	79.1	980.7	652.1	314.7	2.6	1.000254
7500.0	774.3	4.9	2.5	84.1	966.5	650.8	267.7	.9	1.000251
8000.0	760.1	3.8	2.4	90.1	952.5	649.5	205.7	3.6	1.000248
8500.0	746.0	2.9	2.0	94.0	938.2	648.4	202.3	7.5	1.000244
9000.0	732.1	2.2	1.4	94.0	922.9	647.6	207.5	12.4	1.000239
9500.0	718.5	1.6	.7	94.0	907.9	646.8	212.4	17.9	1.000235
10000.0	705.1	.9	.1	94.0	893.1	646.0	216.4	23.3	1.000230
10500.0	691.9	.6	-.3	94.0	877.6	645.0	219.9	28.5	1.000226
11000.0	678.9	.4	-.4	94.0	861.6	645.1	223.1	32.7	1.000222
11500.0	666.1	-.7	-.7	93.9	846.4	645.1	226.2	36.0	1.000218
12000.0	653.4	-.7	-1.6	93.5	832.8	644.1	226.4	38.0	1.000213
12500.0	641.0	-1.5	-2.4	93.2	819.4	643.1	224.7	39.0	1.000209
13000.0	628.8	-2.2	-3.2	92.8	806.2	642.2	223.5	39.9	1.000204
13500.0	616.8	-3.0	-4.1	92.5	793.2	641.2	222.4	40.7	1.000200
14000.0	605.0	-3.8	-4.9	92.1	780.4	640.2	223.6	41.1	1.000196
14500.0	593.5	-4.6	-5.7	91.7	767.9	639.3	225.6	41.4	1.000192
15000.0	582.2	-5.4	-6.5	91.4	755.5	638.3	226.1	42.0	1.000188
15500.0	571.1	-6.1	-7.4	91.0	743.4	637.3	226.3	42.8	1.000184
16000.0	560.2	-6.9	-8.2	90.6	731.4	636.4	226.4	43.8	1.000181
16500.0	549.5	-7.7	-9.0	90.3	719.7	635.4	226.5	44.9	1.000177
17000.0	539.0	-8.5	-9.9	89.8	708.1	634.4	226.7	45.7	1.000173
17500.0	528.5	-9.4	-10.9	88.8	696.6	633.3	227.0	46.2	1.000170
18000.0	518.2	-10.2	-11.9	87.8	685.3	632.3	227.4	46.4	1.000166
18500.0	508.1	-11.1	-12.9	86.8	674.3	631.2	227.8	46.4	1.000163
19000.0	498.1	-12.0	-13.8	85.9	663.3	630.1	228.2	46.3	1.000159
19500.0	488.2	-12.9	-14.8	85.6	652.5	629.0	228.7	46.0	1.000156
20000.0	478.6	-13.8	-15.7	85.2	641.9	627.8	228.9	46.2	1.000153
20500.0	469.1	-14.7	-16.7	84.8	631.5	626.7	229.9	46.8	1.000150
21000.0	459.8	-15.6	-17.6	84.5	621.2	625.6	229.1	47.5	1.000147
21500.0	450.7	-16.5	-18.6	84.1	611.1	624.4	229.4	48.4	1.000144
22000.0	441.6	-17.5	-19.8	82.4	601.2	623.2	230.5	48.7	1.000141
22500.0	432.6	-18.6	-21.1	80.3	591.4	621.9	232.0	48.7	1.000138
23000.0	423.9	-19.6	-22.4	78.1	581.9	620.0	231.6	48.2	1.000136

STATION ALTITUDE 3997.30 FEET MSL  
 27 FEB. 61 0900 HRS MST  
 ASCENSION: 140. 33

UPPER AIR DATA  
 0580060035  
 S M R  
 TABLE 8 cont'

GEODETTIC COORDINATES  
 32.48034 LAT DEG  
 106.42307 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM <sup>3</sup> METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTIO.
23500.0	415.3	-20.6	76.0	572.4	619.3	250.0	47.3	1.000133
24000.0	400.9	-21.6	73.8	563.2	618.1	227.5	46.4	1.000130
24500.0	398.6	-22.7	71.8	554.1	616.8	223.3	45.8	1.000128
25000.0	390.3	-23.9	70.6	545.1	615.3	221.3	47.1	1.000125
25500.0	382.2	-25.0	69.4	536.3	613.8	220.6	49.5	1.000123
26000.0	374.2	-26.2	68.2	527.6	612.4	220.7	52.1	1.000121
26500.0	366.4	-27.3	67.1	519.1	610.9	221.6	54.9	1.000118
27000.0	358.8	-28.5	65.9	510.7	609.5	221.8	56.8	1.000116
27500.0	351.3	-29.7	64.7	502.5	608.0	221.2	57.1	1.000114
28000.0	344.0	-30.8	63.5	494.4	606.6	220.7	57.8	1.000112
28500.0	336.7	-32.0	62.6	486.3	605.1	220.2	59.5	1.000110
29000.0	329.4	-33.2	61.9	478.2	603.5	219.8	61.0	1.000108
29500.0	322.4	-34.4	61.2	470.3	602.0	219.7	61.9	1.000106
30000.0	315.4	-35.6	60.6	462.5	600.5	219.6	62.6	1.000104
30500.0	308.6	-36.8	59.9	454.9	598.9	219.7	61.8	1.000102
31000.0	302.0	-38.0	59.2	447.4	597.4	219.7	61.0	1.000101
31500.0	295.4	-39.4	57.2	440.2	595.7	219.7	62.3	1.000099
32000.0	288.9	-40.8	54.5	433.1	593.9	219.7	63.5	1.000097
32500.0	282.5	-42.1	53.4	425.9	592.2	219.6	64.5	1.000095
33000.0	276.2	-43.4	52.7	418.8	590.5	219.9	65.3	1.000094
33500.0	270.1	-44.7	52.1	411.8	588.9	220.3	67.3	1.000092
34000.0	263.9	-46.2	37.4**	405.1	586.9	221.5	71.1	1.000090
34500.0	257.9	-47.7	21.6**	398.6	584.9	222.3	75.6	1.000089
35000.0	252.1	-49.2	5.0**	392.2	582.9	223.7	82.2	1.000087
35500.0	246.3	-50.6		385.4	581.2	224.6	87.7	1.000086
36000.0	240.5	-51.8		378.5	579.7	225.4	89.2	1.000084
36500.0	234.9	-53.0		371.7	578.1	226.1	90.4	1.000083
37000.0	229.4	-54.1		365.0	576.5	226.5	90.2	1.000081
37500.0	224.1	-55.3		358.4	575.0	226.8	90.1	1.000080
38000.0	218.9	-56.5		352.0	573.4	226.7	90.2	1.000078
38500.0	213.7	-57.5		345.2	572.1	226.8	90.2	1.000077
39000.0	208.6	-58.0		337.9	571.4	227.4	89.1	1.000075
39500.0	203.7	-58.6		330.7	570.7	228.1	88.1	1.000074
40000.0	198.8	-58.6		322.8	570.0	229.6	87.3	1.000072
40500.0	194.1	-57.7		313.8	571.9	231.7	86.3	1.000070
41000.0	189.5	-57.9		306.7	571.6	234.0	83.4	1.000068
41500.0	185.0	-58.1		299.7	571.3	236.5	80.8	1.000067
42000.0	180.6	-58.1		292.6	571.2	239.4	78.1	1.000065
42500.0	176.3	-57.6		284.9	571.9	242.6	75.7	1.000063
43000.0	172.1	-57.1		277.5	572.7	244.6	74.8	1.000062

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

STATION ALTITUDE 3977.30 FEET MSL  
 27 FEB. 61 0900 HRS MST  
 ASCENSION NO. 33

UPPER AIR DATA  
 0580060032  
 S M P

TABLE 8 cont'

GEODETIC COORDINATES  
 52.48034 LAT 1EG  
 106.42507 LONG 1EG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPLFD OF SOUND M/SEC	WIND DATA		INDEX OF REFRACTION
						DIRECTION (DEGREES TRUE)	SPEED KNOTS	
43500.0	160.0	-56.6		270.5	573.3	240.0	74.1	1.000000
44000.0	164.0	-56.9		264.2	572.9	247.0	72.5	1.000059
44500.0	160.1	-57.2		258.3	572.5	248.5	70.8	1.000058
45000.0	156.4	-57.4		252.5	572.2	249.5	69.0	1.000056
45500.0	152.6	-57.7		246.8	571.8	250.4	67.1	1.000054
46000.0	149.0	-58.0		241.3	571.4	251.5	65.1	1.000053
46500.0	145.5	-58.5		236.1	570.7	251.0	62.9	1.000051
47000.0	142.0	-59.0		231.0	570.1	251.4	60.7	1.000050
47500.0	138.6	-59.6		226.1	569.4	250.7	57.4	1.000049
48000.0	135.2	-60.5		221.5	568.1	249.9	54.0	1.000048
48500.0	132.0	-61.4		217.1	566.9	249.1	51.9	1.000047
49000.0	128.8	-62.3		212.0	565.7	248.8	50.1	1.000046
49500.0	125.6	-63.2		206.5	564.5	249.0	49.0	1.000046
50000.0	122.6	-64.1		204.3	563.2	249.4	49.5	1.000045
50500.0	119.6	-65.0		200.2	562.0	251.5	48.7	1.000044
51000.0	116.7	-65.4		195.6	561.5	252.0	47.8	1.000043
51500.0	113.8	-65.8		191.2	561.0	253.0	47.1	1.000042
52000.0	111.0	-66.2		186.8	560.5	253.4	47.7	1.000041
52500.0	108.2	-66.6		182.5	559.9	253.2	48.2	1.000040
53000.0	105.6	-67.0		178.3	559.4	253.3	48.4	1.000039
53500.0	102.9	-67.4		174.3	558.9	253.4	48.2	1.000038
54000.0	100.4	-67.7		170.3	558.4	253.4	48.0	1.000037
54500.0	97.9	-68.0		166.3	557.9	254.7	46.3	1.000036
55000.0	95.4	-68.3		162.3	557.5	250.2	44.6	1.000035
55500.0	93.1	-68.6		158.5	557.1	257.0	43.5	1.000034
56000.0	90.7	-68.9		154.8	556.8	259.5	43.4	1.000033
56500.0	88.5	-69.2		151.1	556.4	259.3	44.5	1.000032
57000.0	86.2	-69.5		147.5	556.0	259.0	45.8	1.000031
57500.0	84.1	-69.8		144.0	555.6	258.8	45.8	1.000030
58000.0	82.0	-70.1		140.6	555.2	258.6	44.7	1.000029
58500.0	79.9	-69.9		137.0	555.5	260.4	43.5	1.000028
59000.0	77.9	-68.4		132.6	557.4	262.2	36.6	1.000027
59500.0	76.0	-66.9		128.4	559.5	264.3	33.3	1.000026
60000.0	74.1	-65.4		124.3	561.5	266.5	30.1	1.000025
60500.0	72.3	-65.2		121.1	561.8	269.2	26.9	1.000024
61000.0	70.5	-65.1		118.1	562.0	272.5	23.8	1.000024
61500.0	68.8	-64.5		114.9	562.7	275.5	20.4	1.000024
62000.0	67.1	-63.8		111.7	563.7			
62500.0	65.5	-63.1		108.6	564.6			
63000.0	63.9	-62.4		105.6	565.6			

STATION ALTITUDE 3997.30 FEET MSL  
 27 FEB. 61 0900 HRS MST  
 ASCENSION: NO. 33

UPPER AIR DATA  
 0580060033  
 S M R  
 TABLE 8 cont'

GEODETIC COORDINATES  
 32.48034 LAT DEG  
 106.42307 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
63500.0	62.3	-61.7			102.7	560.5	279.7	17.0	1.000023
64000.0	60.8	-62.2			100.5	565.8	285.6	13.7	1.000022
64500.0	59.4	-62.8			98.3	565.1	294.5	10.4	1.000022
65000.0	57.9	-63.3			96.1	564.4	310.7	7.6	1.000021
65500.0	56.5	-63.4			93.9	564.2	325.3	5.6	1.000021
66000.0	55.1	-62.0			91.0	566.1	343.1	4.0	1.000020
66500.0	53.8	-60.9			88.3	567.5	11.9	3.1	1.000020
67000.0	52.5	-61.8			86.5	566.4	30.2	2.3	1.000019
67500.0	51.2	-62.4			84.7	565.6	62.4	1.8	1.000019
68000.0	50.0	-61.3			82.2	567.0	119.1	1.3	1.000018
68500.0	48.8	-61.1			80.2	567.4	185.2	2.4	1.000018
69000.0	47.7	-60.8			78.2	567.7	200.4	4.5	1.000017
69500.0	46.5	-60.6			76.2	568.0	207.3	6.1	1.000017
70000.0	45.4	-60.3			74.3	568.3	211.5	7.7	1.000017
70500.0	44.3	-60.1			72.5	568.6	214.3	9.1	1.000016
71000.0	43.3	-59.9			70.7	569.0	217.4	8.1	1.000016
71500.0	42.2	-59.6			68.9	569.3	221.4	7.1	1.000015
72000.0	41.2	-59.4			67.2	569.6	227.1	5.7	1.000015
72500.0	40.3	-59.1			65.5	569.9	240.0	3.5	1.000015
73000.0	39.3	-58.9			63.9	570.2	283.4	2.0	1.000014
73500.0	38.4	-58.7			62.3	570.6	332.6	2.2	1.000014
74000.0	37.5	-58.4			60.8	570.9	354.3	2.9	1.000014
74500.0	36.6	-58.2			59.2	571.2	6.3	3.9	1.000013
75000.0	35.7	-57.9			57.6	571.5	11.9	3.7	1.000013
75500.0	34.8	-57.7			56.3	571.8	18.4	3.0	1.000013
76000.0	34.0	-57.5			54.9	572.2	28.1	2.5	1.000012
76500.0	33.2	-57.2			53.6	572.5	47.5	2.0	1.000012
77000.0	32.4	-57.0			52.2	572.8	73.6	1.9	1.000012
77500.0	31.6	-56.7			50.9	573.1	97.1	2.2	1.000011
78000.0	30.9	-56.5			49.7	573.4	111.0	3.4	1.000011
78500.0	30.2	-56.3			48.4	573.8	117.1	4.8	1.000011
79000.0	29.4	-56.1			47.3	574.0	120.5	6.2	1.000011
79500.0	28.8	-55.9			46.1	574.2	113.6	7.2	1.000010
80000.0	28.1	-55.7			45.0	574.4	106.4	8.2	1.000010
80500.0	27.4	-55.6			43.9	574.7	100.7	9.4	1.000010
81000.0	26.8	-55.4			42.9	574.9	98.0	9.0	1.000010
81500.0	26.2	-55.2			41.8	575.1	97.9	8.1	1.000009
82000.0	25.6	-55.1			40.8	575.3	96.8	7.2	1.000009
82500.0	25.0	-54.9			39.8	575.6	108.3	5.8	1.000009
83000.0	24.4	-54.7			38.9	575.8	136.0	4.8	1.000009

STATION ALTITUDE 3997.30 FEET MSL  
 27 FEB. 81 0900 HRS MST  
 ASCENSION NO. 33

UPPER AIR DATA  
 0580000033  
 S M R  
 TABLE 8 CONT'

GEODETIC COORDINATES  
 32.48034 LAT N  
 106.42307 LONG W

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KILOTS	WIND DATA			INDEX OF REFRACTION
						DIRECTION (DEGREES(TN))	SPEED/ KNOTS		
83500.0	23.8	-54.5		37.9	576.0	167.3	5.2	1.000008	
84000.0	23.3	-54.4		37.0	576.2	185.0	6.3	1.000008	
84500.0	22.7	-54.2		36.1	576.4	194.5	7.4	1.000008	
85000.0	22.2	-54.0		35.3	576.7	201.4	8.7	1.000008	
85500.0	21.7	-53.9		34.4	576.9	204.7	9.6	1.000008	
86000.0	21.2	-53.7		33.6	577.1	205.0	9.9	1.000007	
86500.0	20.7	-53.5		32.8	577.3	206.0	10.3	1.000007	
87000.0	20.2	-53.4		32.0	577.6	206.7	10.3	1.000007	
87500.0	19.7	-53.3		31.2	577.7	200.4	8.5	1.000007	
88000.0	19.3	-53.2		30.5	577.8	190.9	6.9	1.000007	
88500.0	18.8	-53.2		29.8	577.8	176.4	5.6	1.000007	
89000.0	18.4	-53.1		29.1	577.9	163.9	6.1	1.000006	
89500.0	17.9	-53.1		28.4	578.0	158.0	7.3	1.000006	
90000.0	17.5	-53.0		27.7	578.0	150.3	8.6	1.000006	
90500.0	17.1	-53.0		27.1	578.1	149.9	8.9	1.000006	
91000.0	16.7	-52.9		26.5	578.2	157.3	7.7	1.000006	
91500.0	16.3	-52.8		25.8	578.2	167.2	6.7	1.000006	
92000.0	16.0	-52.8		25.2	578.4	180.2	5.9	1.000006	
92500.0	15.6	-52.3		24.6	578.9	207.2	4.6	1.000005	
93000.0	15.2	-51.9		24.0	579.5	242.1	4.7	1.000005	
93500.0	14.9	-51.5		23.4	580.1	266.8	6.3	1.000005	
94000.0	14.5	-51.0		22.8	580.6	272.7	8.0	1.000005	
94500.0	14.2	-50.6		22.2	581.2	270.8	9.5	1.000005	
95000.0	13.9	-50.2		21.7	581.7	269.5	11.0	1.000005	
95500.0	13.6	-49.7		21.2	582.3	268.5	12.4	1.000005	
96000.0	13.3	-49.3		20.6	582.9	268.3	13.8	1.000005	
96500.0	13.0	-48.8		20.1	583.5	268.1	15.1	1.000004	
97000.0	12.7	-48.4		19.6	584.0	267.9	16.4	1.000004	
97500.0	12.4	-48.5		19.2	583.9	269.5	17.3	1.000004	
98000.0	12.1	-48.8		18.8	583.5	271.9	18.1	1.000004	
98500.0	11.8	-49.1		18.4	583.2	274.1	18.9	1.000004	
99000.0	11.6	-49.3		18.0	582.8	275.0	19.7	1.000004	
99500.0	11.3	-49.6		17.6	582.5	274.5	21.0	1.000004	
100000.0	11.0	-49.3		17.2	582.9	273.5	22.2	1.000004	
100500.0	10.8	-48.7		16.7	583.0	272.6	23.5	1.000004	
101000.0	10.5	-48.1		16.3	583.4	271.2	24.0	1.000004	
101500.0	10.3	-47.6		15.9	585.1	269.6	24.3	1.000004	
102000.0	10.1	-47.0		15.5	585.9	268.0	24.6	1.000003	
102500.0	9.8	-46.6		15.1	586.4	267.4	24.6	1.000003	
103000.0	9.6	-46.3		14.8	586.8	270.3	23.3	1.000003	

UPPER AIR DATA  
 058000033  
 S M R

STATION ALTITUDE 3997.30 FEET MSL  
 27 FEB. 61 0900 HRS MST  
 ASCENSION NO. 33

GEODETIC COORDINATES  
 32.48034 LAT NEG  
 106.42307 LONG NEG

TABLE 8 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
103500.0	9.4	-45.9	14.4	273.5	22.1	1.000003
104000.0	9.2	-45.6	14.1	277.1	20.9	1.000003
104500.0	9.0	-45.3	13.8	279.1	20.5	1.000003
105000.0	8.8	-45.0	13.4	280.1	20.3	1.000003
105500.0	8.6	-44.6	13.1	281.1	20.2	1.000003
106000.0	8.4	-44.3	12.8	281.3	20.4	1.000003
106500.0	8.2	-44.0	12.5	276.2	23.6	1.000003
107000.0	8.0	-43.7	12.2	272.3	26.9	1.000003
107500.0	7.9	-43.4	11.9	269.3	30.4	1.000003
108000.0	7.7	-43.0	11.0	267.0	33.6	1.000003
108500.0	7.5	-42.7	11.4	265.2	36.7	1.000003
109000.0	7.3	-42.4	11.1	263.7	39.9	1.000002
109500.0	7.2	-42.1	10.8	262.4	43.0	1.000002
110000.0	7.0	-41.7	10.6	261.3	46.2	1.000002
110500.0	6.9	-41.5	10.3	260.1	47.4	1.000002
111000.0	6.7	-41.3	10.1	259.0	48.6	1.000002
111500.0	6.6	-41.1	9.9	258.0	49.7	1.000002
112000.0	6.4	-40.9	9.6	257.0	50.9	1.000002
112500.0	6.3	-40.7	9.4	256.1	52.1	1.000002
113000.0	6.2	-40.5	9.2	255.1	53.6	1.000002
113500.0	6.0	-40.3	9.0	254.2	55.0	1.000002
114000.0	5.9	-40.1	8.8	253.3	56.5	1.000002
114500.0	5.8	-39.8	8.6	252.4	58.0	1.000002
115000.0	5.6	-39.6	8.4	251.6	59.5	1.000002
115500.0	5.5	-39.4	8.2			1.000002
116000.0	5.4	-39.2	8.0			1.000002
116500.0	5.3	-39.0	7.8			1.000002
117000.0	5.2	-38.8	7.7			1.000002
117500.0	5.0	-38.6	7.5			1.000002

STATION ALTITUDE 3997.30 FEET MSL  
 27 FEB. 61  
 ASCENSION NO. 33

MANDATORY LEVELS  
 0560000033  
 S M R

GEODETIC COORDINATES  
 32.48034 LAT NEG  
 106.42307 LONG NEG

TABLE 9

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL. HUMID. PERCENT	WIND DATA	
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4972.	10.0	3.0	61.	310.3	1.2
800.0	6620.	6.9	2.5	74.	320.4	3.5
750.0	8351.	3.1	2.2	84.	202.9	6.4
700.0	10181.	.7	-0.2	94.	217.9	25.2
650.0	12134.	-0.0	-1.0	93.	225.9	38.3
600.0	14222.	-4.1	-5.2	42.	224.5	41.2
550.0	16462.	-7.7	-9.0	40.	226.5	44.0
500.0	18879.	-11.0	-13.7	46.	228.1	46.3
450.0	21505.	-16.6	-18.7	44.	229.4	48.4
400.0	24378.	-22.5	-26.1	72.	224.1	45.9
350.0	27549.	-29.9	-34.4	64.	221.1	57.1
300.0	31090.	-38.4	-43.4	59.	219.7	64.4
250.0	35105.	-49.8			224.0	64.4
200.0	39781.	-59.0			229.4	87.5
175.0	42542.	-57.5			243.1	75.4
150.0	45742.	-57.9			251.1	65.8
125.0	49471.	-63.4			249.0	50.0
100.0	53914.	-67.8			253.3	48.1
80.0	58290.	-70.0			258.0	45.9
60.0	64053.	-65.0			264.8	32.5
50.0	67747.	-62.5			289.4	12.0
40.0	72314.	-61.3			112.8	1.3
30.0	78272.	-59.1			243.9	3.2
25.0	82085.	-56.2			117.7	5.0
20.0	86782.	-54.0			104.4	6.1
15.0	92872.	-53.3			205.1	9.7
10.0	101598.	-51.6			257.9	5.5
7.0	109444.	-46.8			267.8	24.7
5.0	116979.	-41.7			261.2	46.3
		-38.5				

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

STATION ALTITUDE 3912.75 FEET MSL  
 27 FEB. 81 0950 HRS MST  
 ASCENSION NO. J7

SIGNIFICANT LEVEL DATA  
 0580290037  
 E-28

GEODETIC COORDINATES  
 32.89927 LAT DEG  
 106.40591 LONG DEG

TABLE 10

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
081.5	3912.7	12.0	4.7	61.0
050.0	4912.8	11.1	3.4	59.0
737.8	8722.1	.2	-6	94.0
724.0	9220.5	.5	-2	95.0
700.0	10110.6	.2	-6	94.0
616.2	13449.8	-3.9	-5.0	92.0
500.0	14793.1	-12.4	-14.0	88.0
432.5	22391.6	-19.4	-21.7	82.0
400.0	24288.1	-23.4	-26.9	73.0
300.0	30996.3	-39.3	-44.5	57.0
274.4	32989.1	-43.7	-49.2	54.0
250.0	35022.0	-50.0		
224.0	37350.7	-56.7		
207.9	38896.0	-60.2		
200.0	39697.3	-67.4		
172.2	42816.9	-57.0		
150.0	45685.4	-58.8		
117.4	50677.1	-65.7		
103.1	53293.8	-63.6		
100.0	53911.0	-64.3		
82.8	57677.4	-69.1		
79.8	58406.7	-68.4		
74.4	59809.7	-67.7		
70.0	61041.2	-64.8		
67.8	61682.2	-66.4		
63.4	63031.4	-64.1		
58.3	64724.4	-64.8		
56.2	65472.0	-60.2		
50.0	67868.2	-62.4		
36.8	74206.0	-56.7		
30.0	78494.7	-56.1		
20.0	87060.5	-54.2		
17.8	89539.0	-53.4		
15.8	92085.5	-52.3		

STATION ALTITUDE 3912.75 FEET MSL  
 27 FEB. 61 0950 HRS MST  
 ASCENSION NO. 37

UPPER AIR DATA  
 0500Z30037  
 E-20

GEODETIC COORDINATES  
 32.89927 LAT DEG  
 106.40591 LONG DEG

TABLE 11

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TH)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT DEGREES						
3912.7	881.5	12.0	4.7	61.0	1073.0	659.1	300.0	1.9	1.000279
4000.0	870.7	11.9	4.6	60.8	1069.9	659.0	303.5	2.0	1.000278
4500.0	862.9	11.5	3.9	59.8	1052.4	658.4	320.9	2.2	1.000272
5000.0	847.2	10.9	3.4	59.8	1035.7	657.7	333.8	2.7	1.000267
5500.0	831.7	9.4	3.1	64.4	1021.8	656.0	342.7	3.2	1.000264
6000.0	816.3	8.0	2.7	67.0	1008.1	654.3	349.0	2.8	1.000260
6500.0	801.3	6.6	2.2	73.6	994.6	652.7	359.4	2.3	1.000256
7000.0	786.6	5.1	1.6	78.2	981.4	651.0	6.0	2.2	1.000252
7500.0	772.1	3.7	1.0	82.8	968.4	649.3	12.0	2.0	1.000248
8000.0	757.9	2.3	.4	87.4	955.6	647.5	13.1	1.0	1.000244
8500.0	743.9	.8	-.3	92.0	943.0	645.8	232.0	2.7	1.000240
9000.0	730.1	.4	-.4	94.6	927.0	645.3	229.7	10.0	1.000237
9500.0	716.4	.4	-.3	94.7	909.4	645.4	219.1	16.2	1.000233
10000.0	702.9	.2	-.6	94.1	892.9	645.2	210.2	22.4	1.000229
10500.0	689.7	-.3	-1.2	93.8	877.8	644.3	208.5	26.4	1.000224
11000.0	676.6	-.9	-1.8	93.5	863.2	643.8	208.7	30.0	1.000220
11500.0	663.8	-1.5	-2.5	93.2	848.8	643.0	218.3	33.6	1.000215
12000.0	651.3	-2.1	-3.1	92.9	834.7	642.3	224.4	37.1	1.000211
12500.0	639.0	-2.7	-3.8	92.6	820.9	641.5	225.0	38.2	1.000207
13000.0	626.9	-3.3	-4.4	92.3	807.3	640.3	225.1	39.1	1.000203
13500.0	615.0	-4.0	-5.1	92.0	793.9	640.0	223.0	39.7	1.000199
14000.0	603.1	-4.8	-5.9	91.6	780.9	639.0	222.9	40.8	1.000195
14500.0	591.4	-5.6	-6.8	91.2	768.1	638.0	222.5	42.9	1.000191
15000.0	580.0	-6.4	-7.6	90.8	755.6	637.0	222.4	45.8	1.000187
15500.0	568.7	-7.2	-8.4	90.5	743.3	636.1	222.4	49.2	1.000183
16000.0	557.7	-8.0	-9.3	90.1	731.1	635.1	221.8	51.8	1.000179
16500.0	546.9	-8.8	-10.1	89.7	719.2	634.1	221.1	54.3	1.000176
17000.0	536.3	-9.5	-11.0	89.3	707.5	633.1	220.6	56.6	1.000172
17500.0	525.9	-10.3	-11.8	89.0	695.9	632.1	220.1	58.7	1.000169
18000.0	515.8	-11.1	-12.6	88.6	684.6	631.1	220.0	58.7	1.000165
18500.0	505.8	-11.9	-13.5	88.6	673.4	630.2	221.0	58.6	1.000162
19000.0	495.8	-12.8	-14.4	87.7	662.5	629.1	221.5	58.2	1.000159
19500.0	486.0	-13.8	-15.5	86.6	651.8	627.9	222.1	57.7	1.000155
20000.0	476.3	-14.7	-16.6	86.0	641.2	626.7	222.3	58.5	1.000152
20500.0	466.8	-15.7	-17.6	85.2	630.9	625.5	223.5	59.3	1.000149
21000.0	457.4	-16.7	-18.7	84.3	620.7	624.2	223.2	60.1	1.000146
21500.0	448.3	-17.7	-19.8	83.5	610.7	623.0	223.9	60.8	1.000143
22000.0	439.4	-18.6	-20.8	82.7	600.0	621.8	224.0	61.3	1.000141
22500.0	430.6	-19.6	-22.0	81.5	591.1	620.6	225.2	61.6	1.000138
23000.0	421.8	-20.7	-23.3	79.1	581.5	619.3	225.0	61.9	1.000135

STATION ALTITUDE 3912.75 FEET MSL  
 27 FEB. 61 0950 HRS MST  
 ASCENSION NO. 37

UPPER AIR DATA  
 0580290037  
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GEODETTIC COORDINATES  
 32.89927 LAT DEG  
 106.40591 LONG DEG

TABLE 11 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPLD OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	413.2	-21.7	76.7	572.1	617.9	224.4	62.1	1.000132
24000.0	404.8	-22.8	74.4	562.9	616.6	224.0	62.9	1.000130
24500.0	396.4	-23.9	72.5	553.7	615.2	223.5	64.0	1.000127
25000.0	388.0	-25.1	71.3	544.5	613.8	223.4	65.3	1.000125
25500.0	379.7	-26.3	70.1	535.6	612.5	223.3	66.7	1.000122
26000.0	371.7	-27.5	68.9	526.8	610.8	223.4	68.7	1.000120
26500.0	363.8	-28.6	67.7	518.1	609.5	223.5	71.2	1.000118
27000.0	356.1	-29.8	66.5	509.6	607.8	223.4	73.3	1.000116
27500.0	348.5	-31.0	65.3	501.3	606.3	223.5	75.3	1.000114
28000.0	341.1	-32.2	64.1	493.1	604.8	223.6	76.3	1.000112
28500.0	333.9	-33.4	63.0	485.0	603.3	221.6	76.8	1.000110
29000.0	326.8	-34.6	61.8	477.1	601.8	220.5	78.5	1.000108
29500.0	319.9	-35.8	60.6	469.3	600.3	219.2	80.9	1.000106
30000.0	313.1	-36.9	59.4	461.7	598.8	218.3	84.3	1.000104
30500.0	306.5	-38.1	58.2	454.2	597.3	217.8	88.6	1.000102
31000.0	300.0	-39.3	57.0	446.8	595.6	217.6	92.7	1.000100
31500.0	293.3	-40.4	56.2	439.0	594.4	217.6	96.2	1.000098
32000.0	286.8	-41.5	55.5	431.3	593.0	217.7	99.5	1.000097
32500.0	280.5	-42.6	54.7	423.8	591.5	217.9	101.8	1.000095
33000.0	274.3	-43.7	53.7**	416.4	590.1	218.1	104.0	1.000093
33500.0	268.1	-45.3	40.4**	409.8	588.1	218.6	105.4	1.000092
34000.0	262.0	-46.8	27.1**	403.2	586.1	219.1	106.8	1.000090
34500.0	256.1	-48.4	13.9**	396.8	584.1	219.7	109.7	1.000088
35000.0	250.3	-49.9	.6**	390.6	582.2	220.3	112.8	1.000087
35500.0	244.4	-51.4		383.9	580.2	220.7	116.0	1.000086
36000.0	238.7	-52.8		377.4	578.5	221.1	119.2	1.000084
36500.0	233.2	-54.3		371.1	576.4	221.4	121.6	1.000083
37000.0	227.7	-55.7		364.8	574.5	221.8	122.2	1.000081
37500.0	222.4	-57.0		358.5	572.7	222.2	122.9	1.000080
38000.0	217.1	-58.2		351.8	571.2	222.8	123.1	1.000078
38500.0	211.9	-59.3		345.2	569.7	223.5	123.3	1.000077
39000.0	206.9	-59.8		337.8	569.0	224.7	122.8	1.000075
39500.0	201.9	-58.1		327.1	571.5	226.2	122.1	1.000073
40000.0	197.1	-57.4		318.2	572.3	228.0	120.0	1.000071
40500.0	192.4	-57.3		310.6	572.4	230.5	116.4	1.000070
41000.0	187.9	-57.2		303.1	572.5	233.0	112.0	1.000068
41500.0	183.4	-57.2		295.9	572.5	235.4	107.7	1.000066
42000.0	179.1	-57.1		288.8	572.6	237.8	103.1	1.000064
42500.0	174.8	-57.0		281.8	572.7	239.0	99.8	1.000063
43000.0	170.7	-57.1		275.2	572.9	240.2	96.5	1.000061

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



STATION ALTITUDE 3912.75 FEET MSL  
 27 FEB. 61 0950 HRS MST  
 ASCENSION, NO. 37

UPPER AIR DATA  
 058029003/  
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GEODETIC COORDINATES  
 32.8927 LAT 1EG  
 106.40591 LON 1EG

TABLE 11 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GN/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION (DEGREES (TN))	WIND SPEED KNOTS	INDEX OF REFRACTION
63500.0	61.9	-64.3		10.3	563.0	344.2	13.5	1.000023
64000.0	60.4	-64.5		100.9	562.7	11.9	12.7	1.000022
64500.0	59.0	-64.7		91.5	562.5	37.1	14.7	1.000022
65000.0	57.5	-63.1		95.4	564.6	49.9	16.2	1.000021
65500.0	56.1	-60.2		91.8	568.5	58.4	16.7	1.000020
66000.0	54.8	-60.7		89.8	567.9	60.3	17.6	1.000020
66500.0	53.5	-61.1		87.8	567.2	66.2	16.5	1.000020
67000.0	52.2	-61.6		85.9	566.6	64.3	15.0	1.000019
67500.0	50.9	-62.1		84.0	566.0	61.9	13.6	1.000019
68000.0	49.7	-62.3		82.1	565.7	55.3	12.9	1.000018
68500.0	48.5	-61.8		79.9	566.3	48.1	12.4	1.000018
69000.0	47.3	-61.4		77.9	566.9	41.1	12.2	1.000017
69500.0	46.2	-60.9		75.8	567.5	35.8	12.3	1.000017
70000.0	45.1	-60.5		73.9	568.1	30.3	12.5	1.000016
70500.0	44.0	-60.0		72.0	568.7	26.5	12.8	1.000016
71000.0	43.0	-59.6		70.1	569.3	23.9	12.9	1.000016
71500.0	41.9	-59.1		68.3	569.9	21.3	13.1	1.000015
72000.0	40.9	-58.7		66.5	570.5	18.8	13.3	1.000015
72500.0	40.0	-58.2		64.8	571.1	20.8	12.8	1.000014
73000.0	39.0	-57.8		63.1	571.7	22.7	12.3	1.000014
73500.0	38.1	-57.3		61.5	572.3	24.9	11.9	1.000014
74000.0	37.2	-56.9		59.9	572.9	31.6	10.8	1.000013
74500.0	36.3	-56.7		58.4	573.2	42.3	9.8	1.000013
75000.0	35.4	-56.6		57.0	573.3	54.9	9.1	1.000013
75500.0	34.6	-56.5		55.6	573.4	67.8	9.1	1.000012
76000.0	33.8	-56.4		54.3	573.5	78.2	9.6	1.000012
76500.0	33.0	-56.4		53.0	573.6	87.3	10.4	1.000012
77000.0	32.2	-56.3		51.8	573.7	94.9	11.4	1.000012
77500.0	31.5	-56.2		50.5	573.8	96.7	11.5	1.000011
78000.0	30.7	-56.2		49.3	573.9	98.4	11.6	1.000011
78500.0	30.0	-56.1		48.1	574.0	100.0	11.8	1.000011
79000.0	29.3	-56.0		47.0	574.1	100.4	11.3	1.000010
79500.0	28.6	-55.9		45.9	574.2	100.1	10.4	1.000010
80000.0	27.9	-55.8		44.8	574.4	99.6	9.5	1.000010
80500.0	27.3	-55.7		43.7	574.5	98.3	8.5	1.000010
81000.0	26.6	-55.5		42.7	574.7	93.7	7.3	1.000009
81500.0	26.0	-55.4		41.6	574.8	87.4	6.2	1.000009
82000.0	25.4	-55.3		40.6	575.0	78.4	5.2	1.000009
82500.0	24.8	-55.2		39.7	575.1	72.9	4.9	1.000009
83000.0	24.2	-55.1		38.7	575.3	63.0	4.8	1.000009

UPPER AIR DATA  
 0580290037  
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STATION ALTITUDE 3912.75 FEET MSL  
 27 FEB. 81 0950 HRS MST  
 ASCENSION NO. 37

GEODETIC COORDINATES  
 32.89927 LAT NFG  
 106.40591 LONG WEG

TABLE 11 Cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
83500.0	23.7	-55.0		37.8	575.4	62.8	4.7	1.000008
84000.0	23.1	-54.9		36.9	575.6	63.1	4.9	1.000008
84500.0	22.6	-54.8		36.0	575.7	73.9	5.4	1.000008
85000.0	22.0	-54.7		35.2	575.9	81.1	6.0	1.000008
85500.0	21.5	-54.5		34.3	576.0	88.8	6.8	1.000008
86000.0	21.0	-54.4		33.5	576.1	89.9	8.1	1.000007
86500.0	20.5	-54.3		32.7	576.3	92.2	9.3	1.000007
87000.0	20.1	-54.2		31.9	576.4	94.0	10.6	1.000007
87500.0	19.6	-54.1		31.2	576.6	92.9	11.9	1.000007
88000.0	19.1	-53.9		30.4	576.9	91.3	13.2	1.000007
88500.0	18.7	-53.7		29.7	577.1	89.9	14.6	1.000007
89000.0	18.3	-53.6		29.0	577.3	90.7	13.7	1.000006
89500.0	17.8	-53.4		28.3	577.5	94.6	10.5	1.000006
90000.0	17.4	-53.2		27.6	577.8	101.8	7.4	1.000006
90500.0	17.0	-53.0		26.9	578.1			1.000006
91000.0	16.6	-52.8		26.3	578.3			1.000006
91500.0	16.2	-52.6		25.6	578.6			1.000006
92000.0	15.9	-52.3		25.0	578.9			1.000006

STATION ALTITUDE 3912.75 FEET MSL  
 27 FEB. 81  
 ASCENSION, NO. 37

MANDATORY LEVELS  
 0500290057  
 E-28

GEODETTIC COORDINATES  
 32.89927 LAT N EG  
 106.40591 LONG W EG

TABLE 12

MILLIBARS	PRESSURE GEOPOTENTIAL FEET	AIR TEMPERATURE DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT	WIND DATA	
				DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4909.	11.1	59.	331.8	2.6
800.0	6557.	6.4	74.	.3	2.3
750.0	8281.	1.5	90.	14.8	.4
700.0	10101.	.2	94.	209.4	25.5
650.0	12045.	-2.2	93.	224.4	37.2
600.0	14125.	-5.0	91.	222.8	41.4
550.0	16357.	-8.5	90.	221.3	53.7
500.0	18768.	-12.4	88.	221.3	58.4
450.0	21385.	-17.5	84.	223.8	60.7
400.0	24249.	-23.4	73.	223.7	63.5
350.0	27408.	-30.8	66.	223.3	75.1
300.0	30936.	-39.3	57.	217.6	92.6
250.0	34947.	-50.0		220.3	112.8
200.0	39604.	-57.4		226.7	121.9
175.0	42375.	-57.0		238.9	100.0
150.0	45565.	-50.8		9999.0XX	9999.0XX
125.0	49275.	-63.9		9999.0	9999.0XX
100.0	53748.	-64.3		9999.0	9999.0XX
80.0	58168.	-68.4		273.1	37.9
70.0	60835.	-64.8		281.7	26.8
60.0	63919.	-64.6		18.3	12.9
50.0	67617.	-62.4		57.0	13.1
40.0	72181.	-58.3		20.4	12.9
30.0	78165.	-56.1		99.9	11.7
25.0	81975.	-55.2		74.8	5.0
20.0	86659.	-54.2		94.1	10.7

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

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

**DATE**  
**ILME**