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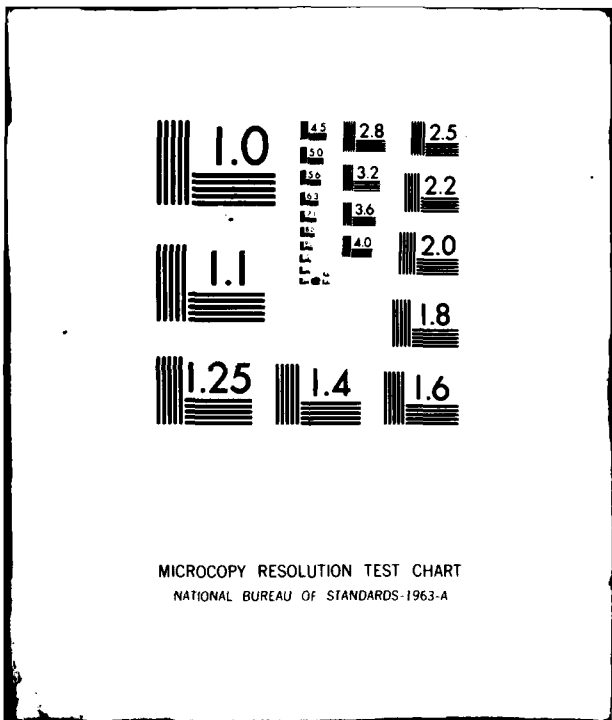
ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/6 4/2
12829C LANCE, MISSILE NUMBER 3312, ROUND NUMBER 336-ESL, 24 SEP--ETC(U)
SEP 79

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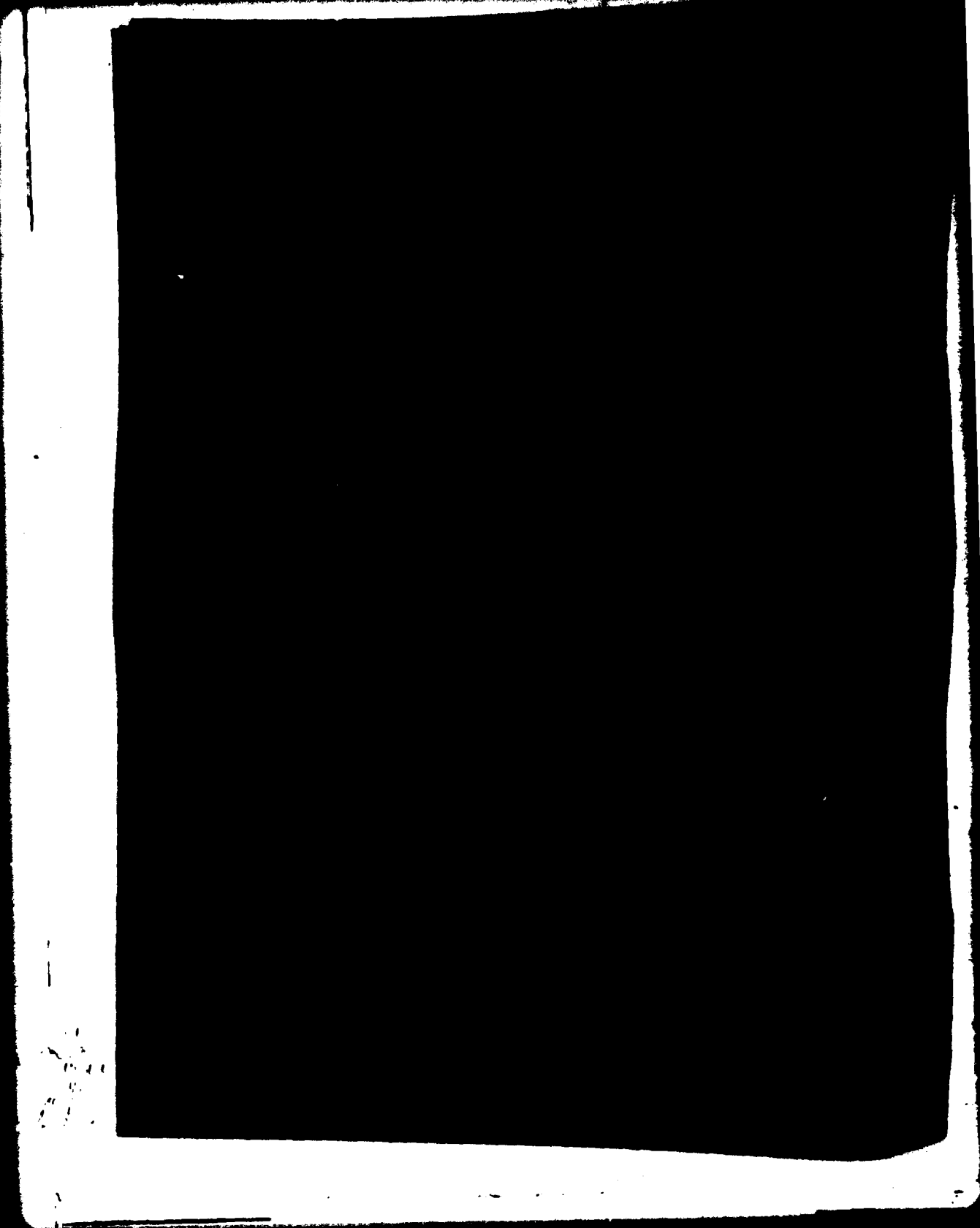
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1. REPORT NUMBER DR-1073	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
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19. KEY WORDS (Continue on reverse side if necessary and identify by block number) 1. Ballistics 2. Meteorology 3. Wind		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 12829C LANCE, Missile Number 3312, Round Number 336-ESL are presented in tabular form.		

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INTRODUCTION

12829C LANCE, Missile Number 3312, Round Number 336-ESL, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1432 MDT, 24 September 1979. The scheduled launch time was 1430 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

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

SITE AND ALTITUDE

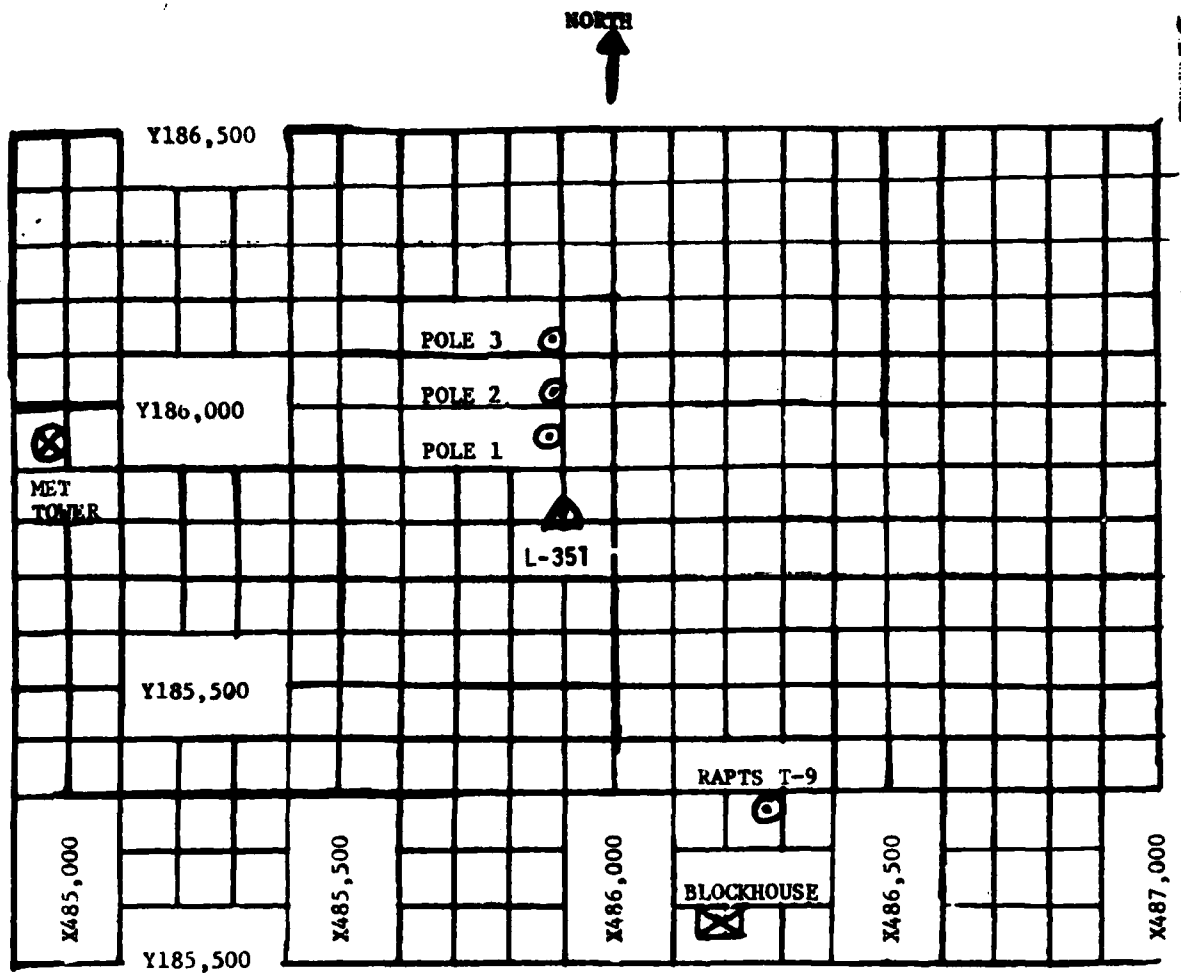
LC-33 2160 Meters and 3690 Meters

(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-foot increments.

SITE AND TIME

WSD 1310 MST
NW30 1245 MST
JAL 1500 MST

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DDC TAB	<input type="checkbox"/>
Unannounced Justification	
By _____	
Distribution/	
Availability Codes	
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A	23 CP



1. MET TOWER - 4 Bendix Model T-20 Anemometers at 12 ft, 62 ft, 102 ft, and 202 ft with E/A recorders.
2. POLE ANEMOMETER - Bendix Model T-120 with E/A recorders.
 - (a) Pole #1 - 38.7 ft
 - (b) Pole #2 - 53.0 ft
 - (c) Pole #3 - 83.6 ft
3. RAPTS T-9 Radar Automatic Pilot-Balloon Tracking System T-9 Radar.

TABLE 1. Surface Observations taken at 1430 MDT,
24 September 1979, at LC-33, 12829C LANCE,
Missile Number 3312, Round Number 336-ESL.

ELEVATION	3977.30	FT/MSL
PRESSURE	883.2	MBS
TEMPERATURE	31.2	°C
RELATIVE HUMIDITY	17	%
DEW POINT	3.3	°C
DENSITY	1006	GM/M ³
WIND SPEED	03	KTS
WIND DIRECTION	145	DEGREES
CLOUD COVER	2	Cu

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 2

RELEASED FROM LC-33 DATE 24 September 1979 TIME 1420 MDT
 RELEASED POINT COORDINATES (WSTM) X= 486,037.24 Y= 182,350.16 H= 3977.30
 MISSILE TYPE 12829C LANCE MISSILE NO. 3312 ROUND NO. 336-ESL
 MISSILE LAUNCHED FROM LC-33 DATE 24 September 1979 TIME 1432 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS	HEIGHT AGL	DIRECTION DEGREES	SPEED KTS	HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC		CALM	600	075	04	1200	242	01
30		CALM	630	070	04	1230	224	02
60		CALM	660	064	04	1260	206	03
90		CALM	690	058	03	1290	188	03
120		CALM	720	052	03	1320	169	03
150		CALM	750	046	03	1350	159	04
180		CALM	780	039	03	1380	149	04
210		CALM	810	032	03	1410	139	04
240		CALM	840	025	03	1440	128	04
270	106	02	870	014	03	1470	127	06
300	091	03	900	003	03	1500	126	06
330	076	04	930	352	03	1530	125	08
360	060	06	960	341	02	1560	124	09
390	069	06	990	333	02	1590	122	09
420	077	05	1020	324	02	1620	119	09
450	086	05	1050	316	02	1650	117	09
480	094	04	1080	307	02	1680	114	09
510	090	04	1110	291	02	1710	115	09
540	085	04	1140	275	02	1740	115	09
570	080	04	1170	259	02	1770	116	09

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 3

RELEASED FROM LC-33 DATE 24 September 1979 TIME 1432 MDT
 RELEASED POINT COORDINATES (WSTM) X= 486.037.24 Y= 182.350.16 H= 3977.30
 MISSILE TYPE 12829C LANCE MISSILE NO. 3312 ROUND NO. 336 FSI
 MISSILE LAUNCHED FROM LC-33 DATE 24 September 1979 TIME 1432 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC	145	03
30	143	02
60	140	02
90	138	01
120	135	01
150	106	01
180	077	02
210	048	03
240	018	03
270	019	03
300	020	03
330	021	03
360	021	03
390	040	02
420	058	02
450	077	01
480	095	01
510	136	01
540	177	02
570	218	03

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
600	259	03
630	268	03
660	277	03
690	286	02
720	294	02
750	338	02
780	021	02
810	065	02
840	108	02
870	093	02
900	078	02
930	063	02
960	047	02
990	056	02
1020	065	03
1050	074	04
1080	082	04
1110	083	04
1140	084	04
0070	085	04

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
1200	086	04
1230	087	05
1260	087	05
1290	087	06
1320	087	06
1350	092	07
1380	096	08
1410	100	09
1440	104	09
1470	109	09
1500	114	09
1530	119	09
1560	124	09
1590	124	09
1620	124	09
1650	124	09
1680	123	09
1710	125	09
1740	127	09
1770	129	09

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

SIGNIFICANT LEVEL DATA
 2670020363
 WHITE SANDS

TABLE 4

STATION/ALTIITUDE 3989.00 FEET MSL
 24 SEP 79 1310 HRS MST
 ASCENSION NO. 383

PRESSURE MILLIBARS	GEOMETRIC ALTIITUDE MSL FEET	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT
883.6	5989.0	30.9	29.0
850.0	5125.2	26.1	19.0
788.4	7997.3	17.6	25.0
700.0	10530.3	10.6	31.0
629.2	13451.2	3.5	26.0
585.8	15353.6	-2	15.0
569.0	16116.6	-5	14.0
500.0	19468.0	-8.0	14.0
456.8	21761.7	-11.5	13.0
400.0	25007.4	-18.2	15.0
317.6	30583.1	-32.1	15.0
300.0	31903.5	-33.9	16.0
264.0	34812.7	-46.5	
250.0	36030.7	-42.4	
241.8	36769.8	-44.5	
226.0	38254.2	-46.5	
200.0	40892.9	-52.4	
150.0	45875.9	-63.1	
126.6	49921.9	-69.3	
118.2	51602.2	-72.0	
100.0	54842.6	-73.2	
80.0	59205.8	-68.6	
74.2	60696.7	-58.0	
70.0	61864.3	-63.9	
55.4	66630.6	-58.5	
53.2	67507.4	-55.9	
50.0	68607.5	-57.3	
32.8	77737.0	-51.5	
30.0	79549.1	-52.4	
20.0	83377.4	-49.7	
16.4	92695.4	-47.9	
15.4	94033.3	-43.6	
10.5	102642.1	-42.2	

STATION ALTITUDE 3989.00 FEET MSL
 24 SEP. 79
 ASCENSION NO. 363

UPPER AIR DATA
 2670020363
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 5

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (IN) DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
3989.0	853.8	30.9	29.0	1007.0	661.2	°U	.0	1.000278
4000.0	853.5	30.9	28.9	1006.8	661.1	224.0	.0	1.000277
4500.0	858.4	28.7	24.5	997.9	678.3	224.0	.3	1.000263
5000.0	853.7	26.6	20.1	988.9	675.6	224.0	.6	1.000250
5500.0	836.9	25.0	19.8	977.4	675.6	224.0	1.0	1.000245
6000.0	824.3	23.5	20.8	965.2	671.9	224.0	1.3	1.000241
6500.0	809.9	22.0	21.9	953.3	670.2	170.8	.9	1.000238
7000.0	795.8	20.6	22.9	941.4	668.5	116.8	1.8	1.000234
7500.0	781.9	19.1	24.0	929.8	668.8	103.3	3.1	1.000231
8000.0	768.3	17.6	25.0	918.3	665.1	98.2	4.5	1.000227
8500.0	754.6	16.2	26.2	906.2	663.5	103.0	5.1	1.000224
9000.0	741.1	14.9	27.3	894.2	662.0	115.2	5.8	1.000220
9500.0	727.8	13.5	28.5	882.4	660.4	109.7	6.7	1.000217
10000.0	714.8	12.2	29.7	870.8	658.8	101.4	7.9	1.000214
10500.0	702.0	10.8	30.8	859.4	657.2	92.3	9.4	1.000210
11000.0	689.2	9.6	30.3	847.6	655.7	89.3	10.2	1.000206
11500.0	676.6	8.3	29.4	835.8	654.2	87.1	10.7	1.000202
12000.0	664.2	7.1	28.5	824.2	652.7	82.3	11.1	1.000198
12500.0	652.0	5.9	27.7	812.8	651.2	79.3	11.3	1.000194
13000.0	640.0	4.6	26.8	801.6	649.7	78.2	11.1	1.000190
13500.0	628.3	3.4	25.8	790.4	648.3	77.5	11.8	1.000186
14000.0	616.5	2.4	22.9	778.5	647.1	79.8	12.6	1.000182
14500.0	605.0	1.5	20.0	766.8	645.9	85.9	13.6	1.000178
15000.0	593.7	.5	17.1	755.3	644.7	92.8	14.7	1.000174
15500.0	582.6	-.3	14.8	743.2	643.7	101.4	16.1	1.000170
16000.0	571.6	-.5	14.2	729.8	643.5	107.5	17.2	1.000167
16500.0	560.7	-1.4	14.0	716.3	642.4	111.1	17.7	1.000164
17000.0	550.0	-2.5	14.0	707.5	641.1	110.2	16.9	1.000161
17500.0	539.5	-3.6	14.0	696.9	639.8	109.5	15.5	1.000159
18000.0	529.1	-4.7	14.0	686.4	638.4	102.5	14.8	1.000156
18500.0	519.0	-5.8	14.0	676.1	637.1	99.4	14.2	1.000154
19000.0	509.1	-7.0	14.0	666.0	635.7	100.1	14.3	1.000151
19500.0	499.4	-8.0	14.0	656.0	634.4	99.8	13.3	1.000149
20000.0	489.6	-8.8	13.8	645.1	633.5	97.8	10.8	1.000146
20500.0	480.1	-9.6	13.6	634.3	632.6	92.1	7.3	1.000143
21000.0	470.7	-10.3	13.3	623.8	631.7	89.9	3.3	1.000141
21500.0	461.5	-11.1	13.1	613.4	630.7	87.4	2.4	1.000139
22000.0	452.4	-12.0	13.1	603.4	629.7	84.7	4.9	1.000136
22500.0	443.5	-13.0	13.4	593.7	628.4	81.8	7.0	1.000134
23000.0	434.6	-14.0	13.7	584.1	627.2	81.8	8.7	1.000132

UPPER AIR DATA
2070020300
WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL
24 SEP. 79 1310 HRS MST
ASCENSION NO. 303

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 5 (CONT)

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 DEGREES CENTIGRADE				DIRECTIO. DEGREES(TN)	SPEED KNOTS	
23500.0	420.0	-15.0	-36.4	14.1	574.8	926.0	319.5	10.3	1.000130
24000.0	417.5	-16.0	-37.0	14.4	565.6	624.7	321.0	11.8	1.000127
24500.0	409.2	-17.0	-37.7	14.7	550.5	923.5	319.0	13.5	1.000125
25000.0	401.1	-18.1	-38.3	15.0	547.0	622.5	308.7	15.4	1.000123
25500.0	392.8	-19.3	-39.2	15.1	539.0	920.8	307.4	17.0	1.000121
26000.0	384.7	-20.6	-40.2	15.2	530.5	619.2	307.5	18.1	1.000119
26500.0	376.7	-21.8	-41.2	15.3	522.1	917.7	312.1	17.7	1.000117
27000.0	368.9	-23.1	-42.2	15.4	513.9	616.1	310.5	17.4	1.000115
27500.0	361.3	-24.3	-43.2	15.4	505.8	914.0	320.2	17.1	1.000113
28000.0	353.8	-25.6	-44.2	15.5	497.8	613.0	323.8	17.6	1.000112
28500.0	346.5	-26.9	-45.2	15.6	490.0	911.4	320.0	19.2	1.000110
29000.0	339.3	-28.1	-46.2	15.7	482.4	609.9	320.4	20.5	1.000108
29500.0	332.3	-29.4	-47.2	15.8	474.8	908.3	323.5	21.5	1.000106
30000.0	325.4	-30.6	-48.2	15.9	467.4	606.7	318.1	23.0	1.000105
30500.0	318.7	-31.9	-49.2	16.0	460.2	905.1	311.8	25.2	1.000103
31000.0	311.9	-32.7	-53.0	10.9**	451.8	604.2	308.0	28.2	1.000101
31500.0	305.3	-33.3	-60.0	4.9**	443.5	903.3	307.0	31.6	1.000099
32000.0	298.7	-34.1			435.4	602.3	300.0	33.3	1.000097
32500.0	292.2	-35.3			427.9	900.9	305.2	34.3	1.000095
33000.0	285.9	-36.4			420.6	599.4	300.0	36.2	1.000094
33500.0	279.7	-37.5			413.5	900.0	308.0	38.5	1.000092
34000.0	273.6	-38.7			406.5	598.6	308.5	39.4	1.000091
34500.0	267.7	-39.8			399.0	900.0	307.4	39.9	1.000089
35000.0	261.8	-40.8			392.5	596.8	305.9	38.6	1.000087
35500.0	256.0	-41.6			385.1	902.8	304.1	36.9	1.000086
36000.0	250.3	-42.4			377.9	591.8	304.5	38.3	1.000084
36500.0	244.8	-43.7			371.7	900.1	304.0	40.0	1.000083
37000.0	239.3	-44.8			365.1	598.7	304.7	42.3	1.000081
37500.0	233.9	-45.5			357.9	900.0	304.7	44.5	1.000080
38000.0	228.6	-46.2			350.9	598.9	305.1	47.3	1.000078
38500.0	223.4	-47.0			344.3	900.0	305.5	50.1	1.000077
39000.0	218.3	-48.2			338.1	595.8	305.0	53.3	1.000075
39500.0	213.3	-49.3			332.0	900.0	304.0	56.0	1.000074
40000.0	208.4	-50.4			326.0	591.4	303.5	55.8	1.000073
40500.0	203.7	-51.5			320.1	900.0	302.0	55.3	1.000071
41000.0	199.0	-52.6			314.3	575.6	300.5	53.8	1.000070
41500.0	194.2	-53.5			308.5	900.0	299.1	52.0	1.000069
42000.0	189.6	-54.4			302.0	570.2	290.5	49.4	1.000067
42500.0	185.1	-55.3			296.0	900.0	297.4	47.8	1.000066
43000.0	180.7	-56.2			290.2	573.9	290.6	48.0	1.000065

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

STATION ALTITUDE 3989.00 FEET MSL
 24 SEP. 79 1310 HRS MST
 ASCENSION NO. 363

UPPER AIR DATA
 2070020363
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 5 (CONT)

GEOMETRIC ALTITUDE MSL_FET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED KNOTS	WIND DIRECTION DEGREES(TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
43500.0	176.4	-57.1		284.4	572.7	295.8	47.8	1.000063
44000.0	172.2	-58.0		276.8	571.5	294.9	46.9	1.000062
44500.0	168.2	-58.9		273.3	570.3	293.6	45.4	1.000061
45000.0	164.2	-59.7		268.0	569.1	291.5	43.2	1.000060
45500.0	160.3	-60.6		262.7	567.9	290.7	42.5	1.000059
46000.0	156.5	-61.5		257.6	566.7	292.0	43.4	1.000057
46500.0	152.7	-62.4		252.5	565.5	293.6	43.3	1.000056
47000.0	149.1	-63.4		247.5	564.3	296.7	41.4	1.000055
47500.0	145.4	-64.4		242.6	562.9	299.5	39.4	1.000054
48000.0	141.8	-65.4		237.8	561.5	300.7	36.6	1.000053
48500.0	138.3	-66.4		233.0	560.2	301.7	33.9	1.000052
49000.0	134.9	-67.4		228.4	558.8	299.9	31.1	1.000051
49500.0	131.5	-68.4		223.9	557.4	297.7	28.6	1.000050
50000.0	128.3	-69.4		219.4	556.1	294.2	28.6	1.000049
50500.0	125.0	-70.2		214.7	555.0	290.9	28.6	1.000048
51000.0	121.9	-71.0		210.1	553.9	288.0	27.4	1.000047
51500.0	118.8	-71.8		205.6	552.8	285.0	26.4	1.000046
52000.0	115.8	-72.1		200.7	552.3	285.0	26.2	1.000045
52500.0	112.8	-72.3		195.8	552.1	284.9	26.0	1.000044
53000.0	110.0	-72.5		191.0	551.8	291.2	27.0	1.000043
53500.0	107.2	-72.7		186.3	551.6	297.1	28.4	1.000041
54000.0	104.4	-72.9		181.7	551.3	300.2	23.2	1.000040
54500.0	101.8	-73.1		177.2	551.1	304.6	17.2	1.000039
55000.0	99.2	-73.0		172.7	551.1	303.0	11.1	1.000038
55500.0	96.7	-72.5		167.9	551.6	285.8	5.1	1.000037
56000.0	94.3	-72.0		163.2	552.6	273.3	3.6	1.000036
56500.0	91.9	-71.5		158.7	553.3	300.1	7.9	1.000035
57000.0	89.6	-70.9		154.3	554.0	306.9	11.9	1.000034
57500.0	87.3	-70.4		150.0	554.7	306.8	10.7	1.000033
58000.0	85.1	-69.9		145.8	555.4	308.6	9.5	1.000032
58500.0	82.9	-69.3		141.8	556.2	278.7	4.7	1.000032
59000.0	80.8	-68.8		137.8	556.9	195.3	5.1	1.000031
59500.0	78.8	-68.3		134.2	557.3	178.0	7.2	1.000030
60000.0	76.9	-68.3		130.7	557.6	174.6	7.0	1.000029
60500.0	74.9	-68.1		127.3	557.9	172.1	6.8	1.000028
61000.0	73.1	-66.9		123.5	559.4	172.4	6.2	1.000027
61500.0	71.3	-65.2		119.4	561.8	177.5	5.6	1.000027
62000.0	69.5	-63.7		115.7	563.8	245.6	6.8	1.000026
62500.0	67.9	-63.2		112.6	564.5	248.5	10.6	1.000025
63000.0	66.2	-62.6		109.6	563.3	241.9	10.2	1.000024

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

UPPER AIR DATA
2070000303
WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL
24 SEP. 79 1310 HRS MST
ASCENSION NO. 383

TABLE 5 (CONT)

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
03500.0	64.6	-62.1		106.7	566.0	231.9	9.5	1.000024
04000.0	63.1	-61.5		103.0	569.6	239.7	8.6	1.000023
04500.0	61.6	-60.9		101.0	567.5	258.0	8.2	1.000023
05000.0	60.1	-60.4		93.4	568.3	274.0	8.2	1.000022
05500.0	58.6	-59.8		95.7	569.0	267.3	8.4	1.000021
06000.0	57.2	-59.2		93.2	569.8	299.3	8.8	1.000021
06500.0	55.8	-58.7		90.7	570.5	309.9	2.3	1.000020
07000.0	54.5	-57.5		83.0	572.2	108.4	4.4	1.000020
07500.0	53.2	-55.9		85.3	574.2	112.7	7.4	1.000019
08000.0	52.0	-56.4		83.5	573.5	113.2	7.2	1.000019
08500.0	50.7	-57.0		81.8	572.8	117.6	7.0	1.000018
09000.0	49.5	-57.2		79.9	573.5	110.6	5.3	1.000018
09500.0	48.4	-56.9		77.9	573.0	97.2	3.7	1.000017
70000.0	47.3	-56.5		76.0	573.4	92.6	3.7	1.000017
70500.0	46.2	-56.2		74.1	573.8	102.3	5.2	1.000016
71000.0	45.1	-55.9		72.3	574.2	107.4	6.9	1.000016
71500.0	44.0	-55.2		70.5	574.7	111.2	9.0	1.000016
72000.0	43.0	-55.2		68.7	575.1	113.6	11.2	1.000015
72500.0	42.0	-54.9		67.0	575.5	115.4	13.4	1.000015
73000.0	41.0	-54.6		65.4	576.0	116.1	14.1	1.000015
73500.0	40.1	-54.3		63.6	576.4	116.7	14.8	1.000014
74000.0	39.1	-53.9		62.2	576.8	116.6	15.1	1.000014
74500.0	38.2	-53.6		60.6	577.2	115.2	14.4	1.000014
75000.0	37.3	-53.3		59.1	577.7	113.6	13.7	1.000013
75500.0	36.5	-53.0		57.7	578.1	111.1	12.9	1.000013
76000.0	35.6	-52.6		56.2	578.5	107.6	12.2	1.000013
76500.0	34.8	-52.3		54.9	578.9	104.2	11.5	1.000012
77000.0	34.0	-52.0		53.5	579.4	102.4	11.4	1.000012
77500.0	33.2	-51.7		52.2	579.8	100.6	11.3	1.000012
78000.0	32.4	-51.6		51.0	579.8	99.1	11.2	1.000011
78500.0	31.7	-51.9		49.8	579.5	98.3	10.8	1.000011
79000.0	30.9	-52.1		48.7	579.2	95.2	10.4	1.000011
79500.0	30.2	-52.3		47.7	578.9	91.0	10.3	1.000011
80000.0	29.5	-52.3		46.6	579.0	90.3	10.8	1.000010
80500.0	28.8	-52.1		45.5	579.2	90.2	11.2	1.000010
81000.0	28.2	-52.0		44.4	579.4	90.3	12.0	1.000010
81500.0	27.5	-51.8		43.3	579.6	91.4	13.1	1.000010
82000.0	26.9	-51.7		42.3	579.3	92.1	14.2	1.000009
82500.0	26.3	-51.5		41.3	580.0	91.7	15.2	1.000009
83000.0	25.7	-51.4		40.3	580.2	91.1	16.1	1.000009

UPPER AIR DATA
 207000000
 WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL
 24 SEP. 79 1310 HRS MST
 ASCENSION NO. 303

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 5 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY G/CM ³	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (T)	SPEED KNOTS	
6350.0	25.1	-51.2		39.4	560.4	90.0	17.0	1.000009
6400.0	24.5	-51.1		39.4	560.6	89.7	17.8	1.000009
6450.0	23.9	-50.9		37.5	561.6	89.9	18.5	1.000008
6500.0	23.4	-50.7		36.0	561.0	89.0	19.1	1.000008
6550.0	22.9	-50.6		35.8	561.2	87.1	18.9	1.000008
6600.0	22.3	-50.4		34.9	561.4	86.1	18.7	1.000008
6650.0	21.8	-50.3		34.1	561.6	85.2	18.5	1.000008
6700.0	21.3	-50.1		33.3	561.8	83.4	18.4	1.000007
6750.0	20.8	-50.0		32.5	562.0	83.7	18.3	1.000007
6800.0	20.4	-49.3		31.7	562.2	80.0	18.2	1.000007
6850.0	19.9	-49.6		31.0	562.4	80.5	18.1	1.000007
6900.0	19.4	-49.4		30.3	562.7	87.1	18.1	1.000007
6950.0	19.0	-49.2		29.6	563.0	87.6	18.1	1.000007
7000.0	18.6	-49.0		28.9	563.2	87.9	18.3	1.000006
7050.0	18.1	-48.8		28.2	563.5	88.0	18.4	1.000006
7100.0	17.7	-48.6		27.5	563.8	89.1	18.6	1.000006
7150.0	17.3	-48.4		26.9	564.0	87.2	18.9	1.000006
7200.0	16.9	-48.2		26.2	564.3	85.7	19.4	1.000006
7250.0	16.5	-48.0		25.6	564.6	84.2	19.9	1.000006
7300.0	16.2	-47.0		24.9	565.9	83.9	20.2	1.000006
7350.0	15.8	-45.4		24.2	567.9	84.6	20.2	1.000005
7400.0	15.5	-43.9		23.5	569.9	85.7	20.3	1.000005
7450.0	15.1	-43.5		22.9	590.3	86.7	20.2	1.000005
7500.0	14.8	-43.5		22.4	590.4	88.0	19.6	1.000005
7550.0	14.5	-43.4		21.9	590.5	89.3	19.0	1.000005
7600.0	14.1	-43.3		21.4	590.6	91.0	18.5	1.000005
7650.0	13.8	-43.2		20.9	590.6	93.9	18.5	1.000005
7700.0	13.5	-43.1		20.5	590.9	100.7	18.7	1.000005
7750.0	13.2	-43.0		20.0	591.0	105.4	19.0	1.000004
7800.0	12.9	-43.0		19.6	591.1	106.1	20.1	1.000004
7850.0	12.6	-42.9		19.1	591.2	105.8	21.4	1.000004
7900.0	12.4	-42.8		18.7	591.3	105.5	22.7	1.000004
7950.0	12.1	-42.7		18.3	591.4	102.4	21.7	1.000004
8000.0	11.8	-42.6		17.9	591.5	93.5	18.8	1.000004
8050.0	11.6	-42.6		17.5	591.6	80.2	16.2	1.000004
8100.0	11.3	-42.5		17.1	591.7			1.000004
8150.0	11.1	-42.4		16.7	591.8			1.000004
8200.0	10.8	-42.3		16.3	591.9			1.000004
8250.0	10.6	-42.2		15.9	592.0			1.000004

STATION ALTITUDE 3989.00 FEET MSL
 24 SEP. 79
 ASCENSION NO. 303

MANDATORY LEVELS
 20700.0300
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 6

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL. HUM. PERCENT	#IN. DATA	
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5121.	26.1	.7	19.	224.0	.7
800.0	6655.	21.0	-1.1	25.	125.5	1.4
750.0	8057.	15.8	-3.4	27.	111.6	5.3
700.0	10570.	10.6	-5.8	31.	91.2	9.7
650.0	12577.	5.7	-11.0	28.	79.2	11.2
600.0	14705.	1.0	-20.1	19.	66.5	14.1
550.0	16925.	-2.5	-26.2	14.	110.2	10.9
500.0	19440.	7.0	-30.7	14.	99.9	13.5
450.0	22105.	-12.3	-34.6	13.	511.1	5.7
400.0	25025.	-18.2	-38.4	15.	308.5	13.6
350.0	28245.	-26.2	-44.7	16.	325.4	10.5
300.0	31639.	-33.9			300.2	33.1
250.0	35951.	-42.4			304.3	56.3
200.0	40793.	-52.4			300.9	54.1
175.0	43593.	-57.4			295.5	47.5
150.0	46748.	-63.1			295.6	41.9
125.0	50363.	-70.2			291.0	26.6
100.0	54072.	-75.2			305.4	13.4
80.0	59009.	-68.6			161.6	0.9
70.0	61051.	-63.9			212.0	5.9
60.0	64777.	-60.3			273.4	8.2
50.0	68547.	-57.3			114.5	0.0
40.0	73209.	-54.2			116.7	14.8
30.0	79368.	-52.4			50.9	10.4
25.0	83165.	-51.2			90.6	17.1
20.0	87960.	-49.7			66.5	10.1
15.0	94195.	-43.5			67.0	20.1

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

STATION ALTITUDE 4010.00 FEET MSL
 24 SEP. 79
 ASCENSION NO. 5 1245 HRS MST

SIGNIFICANT LEVEL DATA
 0.0002500
 0.00030

GEODETTIC COORDINATES
 32.88497 LAT DEG
 106.49714 LON DEG

TABLE 7

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
883.0	4010.4	28.0	11.1	35.0
850.0	9123.6	25.0	6.7	31.0
785.0	7373.3	20.1	4.0	28.0
700.0	10565.5	10.7	-4.5	34.0
608.0	14374.0	4	-7.8	34.0
594.2	14978.4	-8	-15.0	33.0
590.8	15129.2	-11	-22.8	16.0
564.2	15393.1	8	-33.0	14.0
540.4	17003.1	-2.9	-28.0	14.0
503.0	19472.3	-8.0	-33.7	14.0
477.4	20648.1	-10.7	-32.9	14.0
454.5	21862.0	-12.3	-33.9	15.0
411.2	24332.8	-16.8	-37.2	15.0
400.0	25062.6	-18.6	-38.1	16.0
363.2	27405.5	-24.1	-42.1	17.0
324.8	30051.7	-31.0	-47.9	17.0
308.4	31405.2	-33.5	-50.1	
309.0	31895.2	-34.2		
283.0	32734.3	-35.1		
277.2	33704.3	-37.6		
250.0	36027.1	-42.5		
239.0	37024.1	-44.5		
209.0	39952.5	-49.3		
200.0	40593.4	-51.7		
172.5	44002.7	-58.1		
160.0	45570.4	-59.8		
150.0	46290.2	-63.0		
133.0	49200.9	-68.2		
123.4	50044.0	-69.3		
115.2	52120.5	-71.5		
100.0	54866.0	-71.2		
85.0	59764.1	-71.3		
72.4	61297.3	-66.2		
70.0	61955.8	-63.9		
67.0	62629.5	-60.5		
59.0	65440.8	-61.2		
53.6	67420.1	-57.0		
50.0	68331.0	-54.2		
38.4	74430.8	-54.5		
35.0	75937.1	-52.7		

STATION ALTITUDE 4010.40 FEET ASL
24 SEP. 79 1245 HRS MST
ASCENSION NO. 5

SIGNIFICANT LEVEL DATA
207020000
NW 30

GEODEIC COORDINATES
32.88497 LAT DEG
106.49714 LON DEG

TABLE 7 (CONT)

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR TEMPOIN DEGREES CENTIGRADE	REL. HUM. PERCENT
30.0 79725.0	-51.1	
20.0 86496.4	-48.6	
17.4 91523.5	-49.2	
13.0 98965.3	-41.8	

UPPER AIR DATA
 2370220005
 NW 30

STATION ALTITUDE 4010.40 FEET MSL
 24 SEP. 79
 ASCENSION NO. 5 1245 HRS MST

GEODETIC COORDINATES
 32.68497 LAT DEG
 106.49714 LON DEG

TABLE 8

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION (DEGREES TRUE)	WIND DATA		INDEX OF REFRACTION
								SPEED KNOTS	OF REFRACTION	
4010.4	663.3	23.0	11.1	35.0	1013.0	676.0	0	1.000262	0	1.000262
4500.0	800.5	26.7	9.2	33.2	1004.0	676.3	13.3	1.000273	0.3	1.000273
5000.0	953.6	25.3	7.2	31.4	991.8	674.6	13.3	1.000264	0.7	1.000264
5500.0	838.9	24.2	5.8	30.3	978.8	673.2	13.3	1.000258	1.1	1.000258
6000.0	824.3	23.1	4.5	29.6	965.6	671.8	352.5	1.000252	2.2	1.000252
6500.0	810.0	22.0	3.2	29.2	952.6	670.3	344.6	1.000246	3.6	1.000246
7000.0	795.9	20.9	2.0	28.5	939.8	669.2	341.6	1.000240	3.8	1.000240
7500.0	782.0	19.7	0	28.2	927.3	667.8	340.0	1.000235	3.6	1.000235
8000.0	769.1	18.3	0	29.2	915.5	666.1	341.2	1.000231	2.4	1.000231
8500.0	754.4	16.3	-0.8	30.1	903.8	664.3	353.0	1.000227	0.8	1.000227
9000.0	741.0	15.3	-1.7	31.0	892.3	662.6	159.0	1.000223	1.2	1.000223
9500.0	727.8	13.9	-2.5	32.0	881.0	660.9	137.4	1.000220	2.4	1.000220
10000.0	714.9	12.4	-3.4	32.9	869.9	659.2	131.8	1.000216	3.1	1.000216
10500.0	702.2	11.0	-4.3	33.8	858.9	657.4	116.6	1.000212	3.2	1.000212
11000.0	689.3	9.6	-4.7	36.2	847.3	655.8	93.6	1.000209	3.4	1.000209
11500.0	676.5	8.2	-5.0	38.8	835.7	654.2	89.3	1.000206	4.3	1.000206
12000.0	664.1	6.9	-5.3	41.5	824.3	652.7	84.9	1.000204	5.7	1.000204
12500.0	651.9	5.5	-6.2	44.1	813.1	651.1	85.8	1.000201	7.9	1.000201
13000.0	639.9	4.1	-6.8	46.7	802.1	649.5	86.6	1.000198	10.1	1.000198
13500.0	628.1	2.8	-7.3	49.4	791.2	647.8	88.1	1.000195	12.3	1.000195
14000.0	616.5	1.4	-7.3	52.0	780.5	646.2	90.3	1.000192	14.2	1.000192
14500.0	605.1	0.1	-9.1	49.6	769.8	644.7	93.6	1.000187	15.8	1.000187
15000.0	593.7	-0.7	-15.9	30.6	759.3	643.4	101.6	1.000178	15.7	1.000178
15500.0	582.5	0	-23.8	14.0	748.6	644.8	110.1	1.000170	15.6	1.000170
16000.0	571.5	-0.3	-24.5	14.0	729.2	643.7	113.1	1.000167	15.6	1.000167
16500.0	560.7	-1.2	-25.2	14.0	717.6	642.7	115.3	1.000164	15.6	1.000164
17000.0	550.1	-2.1	-25.9	14.0	706.6	641.6	112.9	1.000161	15.7	1.000161
17500.0	539.7	-3.0	-25.7	14.0	695.6	640.5	111.3	1.000159	15.6	1.000159
18000.0	529.4	-4.3	-27.7	14.0	685.5	639.0	109.6	1.000156	15.5	1.000156
18500.0	519.2	-5.5	-28.7	14.0	675.6	637.5	109.3	1.000153	15.4	1.000153
19000.0	509.2	-6.8	-29.6	14.0	665.8	635.9	108.7	1.000151	15.1	1.000151
19500.0	499.5	-8.1	-30.8	14.0	656.1	634.4	107.1	1.000149	14.4	1.000149
20000.0	489.7	-9.2	-31.7	14.0	646.2	633.0	105.1	1.000146	12.9	1.000146
20500.0	479.2	-10.4	-32.6	14.0	636.4	631.6	102.0	1.000144	9.9	1.000144
21000.0	470.8	-11.2	-33.1	14.3	626.8	630.7	93.4	1.000141	6.3	1.000141
21500.0	461.5	-11.6	-33.3	14.7	615.0	629.9	43.7	1.000139	2.7	1.000139
22000.0	452.5	-12.5	-33.7	15.0	604.6	629.0	336.6	1.000137	4.1	1.000137
22500.0	443.5	-13.4	-34.4	15.0	594.6	627.9	321.9	1.000134	6.2	1.000134
23000.0	434.7	-14.3	-35.2	15.0	584.6	626.9	314.3	1.000132	8.5	1.000132
23500.0	426.0	-15.2	-35.9	15.0	575.2	625.8	309.6	1.000130	10.8	1.000130

GEODETIC COORDINATES
32.68497 LAT DEG
106.49714 LON DEG

UPPER AIR DATA
2670220005
NW 30

STATION ALTITUDE 4010.40 FEET MSL
24 SEP. 79 1245 HRS MST
ASCENSION NO. 5

TABLE 8 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (True)	WIND SPEED KNOTS	INDEX OF REFRACTION
2400.0	417.6	-16.1	15.0	565.8	624.7	308.0	13.4	1.000128
2450.0	409.2	-17.1	15.2	559.7	623.4	310.3	16.1	1.000125
2500.0	401.0	-18.4	15.9	543.3	621.8	310.3	18.2	1.000123
2550.0	392.9	-19.6	16.2	537.7	620.4	309.2	19.5	1.000121
2600.0	384.9	-20.8	16.4	531.2	618.9	308.4	20.1	1.000119
2650.0	377.0	-22.0	16.6	524.6	617.5	307.7	20.1	1.000117
2700.0	369.3	-23.1	16.8	518.0	616.0	308.9	19.8	1.000116
2750.0	361.6	-24.3	17.0	511.4	614.5	312.3	19.2	1.000114
2800.0	354.2	-25.7	17.0	498.5	612.9	315.5	19.4	1.000112
2850.0	346.8	-27.0	17.0	490.7	611.3	317.8	21.0	1.000110
2900.0	339.5	-28.3	17.0	483.0	609.7	318.7	22.6	1.000108
2950.0	332.5	-29.6	17.0	475.4	608.1	318.5	24.3	1.000106
3000.0	325.5	-30.9	17.0	468.0	606.4	314.0	26.0	1.000105
3050.0	318.5	-31.9	17.0	459.9	605.2	309.1	27.9	1.000103
3100.0	311.8	-32.6	17.0	451.9	604.0	304.8	29.9	1.000101
3150.0	305.2	-33.7	13.7**	444.0	602.8	302.6	32.6	1.000099
3200.0	298.6	-34.3		435.5	602.1	301.0	35.3	1.000097
3250.0	292.2	-34.8		427.1	601.4	301.3	37.1	1.000095
3300.0	285.9	-35.7		419.4	600.3	301.8	38.8	1.000093
3350.0	279.7	-37.0		412.7	598.6	303.3	40.4	1.000092
3400.0	273.6	-38.2		405.7	597.1	303.0	42.0	1.000090
3450.0	267.6	-39.3		398.6	595.8	303.9	43.0	1.000089
3500.0	261.7	-40.3		391.6	594.4	306.4	43.8	1.000087
3550.0	255.9	-41.4		384.7	593.1	305.7	43.8	1.000086
3600.0	250.3	-42.4		378.0	591.7	303.9	43.3	1.000084
3650.0	244.7	-43.4		371.1	590.4	302.2	43.0	1.000083
3700.0	239.3	-44.5		364.5	589.2	301.9	43.2	1.000081
3750.0	233.8	-45.3		357.5	588.1	301.5	43.5	1.000080
3800.0	228.6	-46.1		350.7	587.0	301.4	46.0	1.000078
3850.0	223.4	-46.9		344.0	586.0	301.3	49.1	1.000077
3900.0	218.3	-47.7		337.4	584.9	300.9	52.1	1.000075
3950.0	213.4	-48.6		331.0	583.8	300.4	55.1	1.000074
4000.0	208.5	-49.4		324.7	582.7	300.0	57.2	1.000072
4050.0	203.7	-50.7		318.1	581.1	299.5	57.1	1.000071
4100.0	199.0	-51.3		311.4	579.5	299.1	57.1	1.000070
4150.0	194.4	-52.9		307.5	578.1	298.8	55.9	1.000068
4200.0	189.8	-54.0		301.7	576.8	298.1	54.7	1.000067
4250.0	185.4	-55.0		293.0	575.4	297.4	53.1	1.000066
4300.0	181.0	-56.0		290.4	574.0	296.4	51.3	1.000065
4350.0	176.8	-57.1		285.0	572.7	295.4	49.5	1.000063

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

STATION ALTITUDE 4010.40 FEET MSL
 24 SEP. 79 1245 HRS MST
 ASCENSION NO. 5

UPPER AIR DATA
 297022005
 NW 30

GEODETIC COORDINATES
 52.88497 LAT DEG
 106.49714 LON DEG

TABLE 8 (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
4400.0	172.6	-58.1		279.6	571.3	294.3	47.8	1.000062
4500.0	169.5	-58.6		279.6	570.6	293.2	46.1	1.000061
4600.0	164.5	-59.2		267.6	569.9	292.6	45.6	1.000060
4500.0	160.5	-59.7		262.0	569.1	292.5	45.3	1.000058
4600.0	156.7	-60.8		257.1	567.6	292.9	44.0	1.000057
4500.0	152.9	-62.1		252.3	566.0	294.3	41.4	1.000056
4700.0	149.2	-63.2		247.6	564.4	295.9	36.8	1.000055
4750.0	145.5	-64.3		242.8	563.0	297.5	37.9	1.000054
4600.0	141.9	-65.4		236.0	561.5	299.4	37.3	1.000053
4600.0	138.4	-66.5		233.4	560.0	300.5	36.5	1.000052
4900.0	135.0	-67.6		228.9	558.5	300.2	35.4	1.000051
4950.0	131.7	-68.3		225.9	557.6	299.9	34.4	1.000050
5000.0	128.4	-68.5		220.5	557.3	297.0	32.3	1.000049
5050.0	125.1	-69.2		215.8	556.3	291.5	29.5	1.000048
5100.0	122.0	-69.9		209.1	555.4	284.6	27.0	1.000047
5150.0	118.9	-70.6		204.6	554.4	283.9	27.1	1.000046
5200.0	115.9	-71.3		200.1	553.3	283.2	27.3	1.000045
5250.0	113.0	-71.5		195.2	553.3	285.7	26.5	1.000043
5300.0	110.2	-71.4		190.2	553.3	292.6	24.6	1.000042
5350.0	107.4	-71.4		185.5	553.4	300.6	23.1	1.000041
5400.0	104.6	-71.3		180.6	553.5	301.0	20.5	1.000040
5450.0	102.0	-71.2		175.0	553.6	300.0	17.6	1.000039
5500.0	99.4	-71.2		171.5	553.6	298.7	14.8	1.000038
5550.0	96.9	-71.3		167.2	553.5	298.0	13.2	1.000037
5600.0	94.5	-71.1		162.9	553.6	297.1	11.6	1.000036
5650.0	92.1	-70.6		158.4	554.4	299.7	9.8	1.000035
5700.0	89.8	-70.2		154.1	555.1	300.4	7.5	1.000034
5750.0	87.6	-69.7		149.9	555.7	307.1	5.3	1.000033
5800.0	85.4	-69.2		145.8	556.3	310.4	3.1	1.000032
5850.0	83.2	-68.8		141.9	557.0	269.3	1.3	1.000032
5900.0	81.2	-68.3		138.0	557.6	183.3	2.1	1.000031
5950.0	79.1	-67.8		134.3	558.2	183.1	3.5	1.000030
6000.0	77.2	-67.4		130.6	558.9	195.0	4.7	1.000029
6050.0	75.2	-66.9		127.1	559.5	202.0	5.9	1.000028
6100.0	73.3	-66.4		123.6	560.1	209.1	6.5	1.000028
6150.0	71.5	-65.4		119.9	561.6	213.3	7.1	1.000027
6200.0	69.8	-64.7		116.0	563.9			1.000026
6250.0	68.1	-61.8		112.2	566.4			1.000025
6300.0	66.4	-60.5		108.9	569.0			1.000024
6350.0	64.8	-60.7		105.3	571.9			1.000024

UPPER AIR DATA
 2675220000
 NH 30

STATION ALTITUDE 4010.40 FEET MSL
 24 SEP. 79 1245 HRS MST
 ASCENSION NO. 5

GEODETIC COORDINATES
 32.88497 LAT DEG
 106.49714 LON DEG

TABLE 8 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GR/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (T)	WIND SPEED KNOTS	INDEX OF REFRACTION
6400.0	65.3	-60.8		103.6	567.7			1.000023
6450.0	61.8	-60.9		101.4	567.5			1.000023
6500.0	58.3	-61.1		99.0	567.5			1.000022
6550.0	54.8	-61.1		96.6	567.5			1.000022
6600.0	51.4	-60.2		93.9	566.5			1.000021
6650.0	48.1	-59.3		91.3	569.7			1.000020
6700.0	44.7	-58.4		88.7	570.9			1.000020
6750.0	41.4	-57.5		86.3	572.1			1.000019
6800.0	38.1	-57.0		84.1	572.7			1.000019
6850.0	34.9	-56.6		81.9	573.3			1.000018
6900.0	31.7	-56.2		79.6	573.9			1.000018
6950.0	28.6	-56.0		77.9	574.1			1.000017
7000.0	25.4	-55.9		76.0	574.3			1.000017
7050.0	22.3	-55.7		74.2	574.5			1.000017
7100.0	19.2	-55.6		72.4	574.7			1.000016
7150.0	16.1	-55.4		70.6	574.9			1.000016
7200.0	13.1	-55.2		68.9	575.1			1.000015
7250.0	10.1	-55.1		67.3	575.3			1.000015
7300.0	7.1	-54.9		65.7	575.5			1.000015
7350.0	4.2	-54.8		64.1	575.7			1.000014
7400.0	1.2	-54.6		62.5	575.9			1.000014
7450.0		-54.4		61.0	576.1			1.000014
7500.0		-53.8		59.4	576.9			1.000013
7550.0		-53.2		57.9	577.7			1.000013
7600.0		-52.7		56.4	576.5			1.000013
7650.0		-52.5		55.0	575.7			1.000012
7700.0		-52.3		53.7	579.0			1.000012
7750.0		-52.0		52.4	579.3			1.000012
7800.0		-51.8		51.2	579.6			1.000011
7850.0		-51.6		50.0	579.8			1.000011
7900.0		-51.4		48.6	560.1			1.000011
7950.0		-51.2		47.0	560.4			1.000011
8000.0		-51.0		46.5	560.8			1.000010
8050.0		-50.9		45.4	560.8			1.000010
8100.0		-50.8		44.3	561.0			1.000010
8150.0		-50.6		43.3	561.1			1.000010
8200.0		-50.5		42.3	561.3			1.000009
8250.0		-50.4		41.3	561.3			1.000009
8300.0		-50.2		40.3	561.5			1.000009
8350.0		-50.1		39.4	561.8			1.000009

GEODETIC COORDINATES
 32.68497 LAT DEG
 105.49714 LON DEG

UPPER AIR DATA
 207020000
 (M 30

STATION ALTITUDE 4010.40 FEET MSL
 24 SEP. 79 1245 HRS MST
 ASCENSION NO. 5

TABLE 8 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
0400.0	24.6	-50.0		36.4	502.0			1.000009
0450.0	24.1	-49.8		37.5	502.2			1.000008
0500.0	23.5	-49.7		36.7	502.3			1.000008
0550.0	23.0	-49.6		35.8	502.5			1.000008
0600.0	22.4	-49.5		35.0	502.7			1.000008
0650.0	21.9	-49.3		34.1	502.8			1.000008
0700.0	21.4	-49.2		33.3	503.0			1.000007
0750.0	20.9	-49.1		32.6	503.2			1.000007
0800.0	20.5	-48.9		31.6	503.4			1.000007
0850.0	20.0	-48.8		31.1	503.5			1.000007
0900.0	19.5	-48.9		30.4	503.4			1.000007
0950.0	19.1	-48.9		29.7	503.4			1.000007
1000.0	18.7	-49.0		29.0	503.3			1.000006
1050.0	18.2	-49.1		28.4	503.2			1.000006
1100.0	17.6	-49.1		27.7	503.1			1.000006
1150.0	17.4	-49.2		27.1	503.0			1.000006
1200.0	17.0	-48.6		26.4	503.8			1.000006
1250.0	16.6	-47.9		25.7	504.7			1.000006
1300.0	16.3	-47.2		25.1	505.6			1.000006
1350.0	15.9	-46.5		24.5	506.5			1.000005
1400.0	15.5	-45.8		23.8	507.4			1.000005
1450.0	15.2	-45.2		23.2	508.2			1.000005
1500.0	14.9	-44.5		22.6	509.1			1.000005
1550.0	14.5	-43.8		22.1	510.0			1.000005
1600.0	14.2	-43.1		21.5	510.9			1.000005
1650.0	13.9	-42.4		21.0	511.7			1.000005

STATION ALTITUDE 4010.40 FEET MSL
 24 SEP. 79
 ASCENSION NO. 5

MANDATORY LEVELS
 207020000
 NR 30

GEODETTIC COORDINATES
 32.68497 LAT DEG
 106.49714 LON DEG

TABLE 9

MILLIBARS	PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
	FEET	DEGREES	DEGREE POINT	DIRECTION DEGREES(TN)		SPEED KNOTS	
650.0	5120.	25.0	6.7	51.	13.3	8	
600.0	6853.	21.2	2.4	29.	342.6	3.8	
750.0	6670.	16.3	-1.1	30.	40.8	3	
700.0	10575.	10.7	-4.5	34.	113.9	3.2	
650.0	12522.	5.3	-5.0	45.	85.9	0.3	
600.0	14733.	-3	-11.6	42.	96.3	10.0	
550.0	16967.	-2.1	-25.9	14.	112.9	15.7	
500.0	19450.	-8.0	-30.7	14.	107.2	14.4	
450.0	22104.	-12.6	-33.9	15.	331.7	4.6	
400.0	25021.	-18.6	-38.1	10.	310.1	10.3	
350.0	28239.	-26.4	-44.0	17.	310.7	20.2	
300.0	31650.	-34.2			34.7	34.7	
250.0	35949.	-42.5			301.3	43.3	
200.0	40800.	-51.7			299.2	57.1	
175.0	43004.	-57.5			303.6	43.8	
150.0	46754.	-63.0			295.0	39.5	
125.0	50382.	-69.3			295.4	29.5	
100.0	54717.	-71.2			291.4	15.6	
50.0	59074.	-66.0			299.1	5.0	
70.0	61724.	-63.9			173.6		
50.0	65054.	-61.1					
50.0	68223.	-56.2					
40.0	73290.	-54.8					
30.0	79355.	-51.1					
20.0	85205.	-50.1					
20.0	88082.	-48.3					
10.0	94033.	-44.7					

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

STATION ALTITUDE 4051.00 FEET MSL
 24 SEP. 79
 ASCENSION NO. 99

SIGNIFICANT LEVEL DATA
 2070030093
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

TABLE 10

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM.
MILLIBARS	ALTITUDE MSL FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT
081.7	4051.0	30.6	10.0	28.0
672.0	4374.5	28.6	5.5	20.0
350.0	5119.0	26.5	2.4	21.0
700.0	10379.8	10.5	-3.9	36.0
610.0	14201.2	.6	-8.4	20.0
601.4	14555.9	.2	-15.7	29.0
590.0	15160.5	.8	-23.0	14.0
564.4	16327.2	-1.1	-26.0	13.0
500.0	19456.0	-9.1	-31.0	14.0
477.8	20604.9	-12.1	-34.1	14.0
414.8	24128.0	-17.1	-37.5	15.0
400.0	25620.1	-19.7	-39.0	15.0
328.8	29691.4	-32.2	-49.4	16.0
313.6	30709.7	-35.1		
300.0	31801.2	-35.5		
295.4	32155.5	-35.3		
250.0	35910.5	-44.4		
200.0	40735.9	-53.7		
159.0	46632.3	-64.4		
139.2	46175.4	-68.1		
114.0	52079.7	-74.4		
112.9	52257.5	-73.2		
107.4	53219.0	-74.6		
106.3	53417.2	-73.2		
100.0	54555.7	-73.9		
81.6	58519.3	-68.3		
74.6	60342.5	-68.7		
70.0	62513.8	-64.5		
60.3	64641.4	-62.1		
58.4	65300.7	-58.5		
50.0	68525.3	-52.6		
40.6	72868.3	-56.8		
35.4	75769.0	-52.5		
30.0	79250.8	-54.3		
20.0	87569.2	-50.3		
13.6	96404.4	-45.0		

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

UPPER AIR DATA
 2570030099
 JALLEN

STATION ALTITUDE 4051.00 FEET MSL
 24 SEP. 79 1500 HRS MST
 ASCENSION NO. 99

TABLE 11

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/S	WIND DATA DIRECTION, DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREE CENTIGRADE	DEWPOINT CENTIGRADE						
4051.0	861.7	30.6	10.0	28.0	1005.9	080.8	20.0	1.9	1.000275
4500.0	838.2	28.2	3.3	20.2	1000.2	677.5	59.4	1.0	1.000255
5000.0	833.4	26.0	2.6	20.8	987.8	675.8	135.3	1.4	1.000251
5500.0	836.5	25.4	2.2	22.1	975.3	674.2	154.9	2.8	1.000248
6000.0	833.7	23.9	1.8	23.4	962.9	672.5	149.0	3.0	1.000244
6500.0	839.2	22.4	1.4	24.6	950.7	670.9	136.0	2.9	1.000241
7000.0	793.0	21.0	.9	26.2	938.0	669.2	126.2	2.8	1.000238
7500.0	761.0	19.5	.3	27.5	926.6	667.5	118.2	2.7	1.000234
8000.0	767.2	18.1	-.3	25.9	913.1	665.8	114.0	2.6	1.000231
8500.0	753.7	16.6	-.9	30.3	903.6	664.1	109.3	2.6	1.000227
9000.0	740.4	15.1	-1.6	31.7	892.3	662.4	102.0	2.7	1.000224
9500.0	727.4	13.7	-2.3	33.0	881.1	660.7	92.6	3.5	1.000220
10000.0	714.6	12.2	-3.0	34.4	870.1	658.9	90.4	4.9	1.000217
10500.0	702.0	10.7	-3.8	35.6	859.3	657.2	91.1	6.8	1.000213
11000.0	689.1	9.4	-4.3	37.6	847.0	655.6	91.9	8.5	1.000210
11500.0	676.5	8.1	-4.8	39.5	835.9	654.1	92.5	10.2	1.000207
12000.0	664.0	6.8	-5.4	41.4	824.4	652.6	94.4	12.0	1.000203
12500.0	651.8	5.5	-6.0	43.3	813.1	651.0	96.1	13.7	1.000200
13000.0	639.8	4.2	-6.6	45.2	801.9	649.5	98.6	15.3	1.000197
13500.0	626.0	2.8	-7.3	47.0	791.0	647.9	100.0	16.1	1.000194
14000.0	613.4	1.5	-8.0	48.9	780.1	646.3	102.7	15.2	1.000191
14500.0	600.0	.4	-12.3	37.7	759.1	644.9			1.000183
15000.0	593.6	.6	-20.5	18.6	754.6	644.6			1.000174
15500.0	586.4	.2	-24.3	13.7	741.7	644.3			1.000170
16000.0	571.5	-.6	-25.3	13.3	730.0	643.4			1.000167
16500.0	560.6	-1.5	-26.3	13.1	718.7	642.2			1.000164
17000.0	549.9	-2.8	-27.2	13.2	706.3	640.7			1.000161
17500.0	539.3	-4.1	-28.1	13.4	696.0	639.2			1.000159
18000.0	529.0	-5.4	-29.0	13.5	687.9	637.6			1.000156
18500.0	518.9	-6.7	-29.9	13.7	676.0	636.1			1.000154
19000.0	509.9	-7.9	-30.8	13.9	666.2	634.6			1.000151
19500.0	499.1	-9.2	-31.7	14.0	656.6	633.0			1.000149
20000.0	489.4	-10.5	-32.8	14.0	646.9	631.4			1.000147
20500.0	479.8	-11.8	-33.3	14.0	639.4	629.9			1.000144
21000.0	470.3	-12.7	-34.4	14.1	626.6	628.3			1.000142
21500.0	460.9	-13.4	-34.9	14.3	613.0	626.0			1.000139
22000.0	451.8	-14.1	-35.4	14.4	607.4	624.1	329.1	4.5	1.000137
22500.0	442.8	-14.8	-35.9	14.5	598.9	620.3	313.3	6.4	1.000135
23000.0	434.0	-15.5	-36.4	14.7	586.7	623.4	307.5	9.0	1.000132
23500.0	425.4	-16.2	-36.9	14.8	576.6	624.5	303.1	11.7	1.000130

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

UPPER AIR DATA
 2070030099
 CALLEN

STATION ALTITUDE 4091.00 FEET MSL
 24 SEP 79 1500 HRS MST
 ASCENDING. NO. 99

WIND DATA
 33.10712 LAT DEG
 100.49511 LON DEG

TABLE 11 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GRAMS PER CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TR)	WIND SPEED KNOTS	INDEX OF REFRACTION
4400.0	410.9	-10.9	15.0	560.7	623.7	305.9	14.5	1.000128
4350.0	409.6	-10.2	15.0	558.1	624.1	308.0	17.4	1.000126
4300.0	409.3	-10.6	15.0	550.0	620.3			1.000124
4250.0	392.0	-21.0	15.1	541.0	619.7			1.000122
4200.0	363.9	-22.3	15.2	533.1	617.0			1.000120
4150.0	375.9	-23.7	15.3	525.6	613.4			1.000118
4100.0	360.1	-25.0	15.4	518.7	613.7			1.000116
4050.0	363.0	-20.3	15.5	500.7	614.1			1.000114
4000.0	363.0	-27.7	15.6	500.9	610.4			1.000112
3950.0	345.7	-29.0	15.7	493.2	603.7			1.000110
3900.0	360.5	-30.3	15.9	485.6	607.1			1.000109
3850.0	361.5	-31.7	16.0	478.2	603.4			1.000107
3800.0	367.4	-33.0	11.4**	470.7	603.7			1.000105
3750.0	317.5	-34.4	4.0**	463.2	602.0			1.000103
3700.0	310.7	-35.2		454.8	601.0			1.000101
3650.0	304.0	-35.4		445.4	600.7			1.000099
3600.0	297.4	-35.4		435.8	600.7			1.000097
3550.0	293.9	-36.1		427.0	599.8			1.000095
3500.0	284.5	-37.3		420.3	598.2			1.000094
3450.0	273.3	-38.6		413.2	599.7			1.000092
3400.0	272.2	-39.8		400.2	595.2			1.000090
3350.0	260.2	-41.0		399.4	593.0	308.1	39.3	1.000089
3300.0	250.3	-42.2		392.7	594.1	308.3	40.8	1.000087
3250.0	244.6	-43.4		386.1	590.5	307.5	42.1	1.000086
3200.0	244.0	-44.5		379.4	589.0	305.8	43.2	1.000085
3150.0	243.3	-45.3		374.3	587.8	304.0	44.3	1.000083
3100.0	237.7	-46.5		365.4	580.5	302.0	45.5	1.000081
3050.0	232.3	-47.5		353.5	583.3	300.0	47.7	1.000080
3000.0	227.0	-48.4		351.9	584.0	300.1	51.1	1.000078
2950.0	221.2	-49.4		345.3	582.6	299.4	53.8	1.000077
2900.0	210.7	-50.4		338.9	581.5	298.3	55.7	1.000075
2850.0	211.8	-51.3		332.6	580.2	297.0	56.7	1.000074
2800.0	200.9	-52.3		320.4	579.0	296.4	55.9	1.000073
2750.0	202.2	-53.2		320.3	577.7			1.000071
2700.0	197.5	-54.2		314.1	570.5			1.000070
2650.0	192.7	-55.1		307.9	573.3			1.000069
2600.0	180.1	-56.0		301.8	574.1			1.000067
2550.0	183.6	-56.9		295.8	574.9			1.000066
2500.0	179.2	-57.8		289.9	574.7			1.000065
2450.0	175.0	-58.7		284.2	570.5			1.000063

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

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

STATION ALTITUDE 4051.00 FEET MSL
 24 SEP. 79
 ASCENSION NO. 99

UPPER AIR DATA
 267000099
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 102.49511 LONG DEG

TABLE 11 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	"IND DATA" DIRECTION DEGREES (T.M)	SPEED KNOTS	INJEX OF REFRACTION
4400.0	179.8	-59.6		276.0	369.3			1.000002
4450.0	169.7	-60.5		273.1	369.1			1.0000061
4500.0	162.7	-61.4		267.7	369.9			1.0000060
4550.0	158.8	-62.3		262.4	369.7			1.0000058
4600.0	153.0	-63.2		257.2	364.5			1.0000057
4650.0	151.3	-64.1		252.1	363.6			1.0000056
4700.0	147.0	-65.2		247.9	361.8			1.0000055
4750.0	144.0	-66.4		242.5	361.1			1.0000054
4800.0	140.4	-67.7		238.1	360.5			1.0000053
4850.0	136.9	-68.6		235.2	357.1			1.0000052
4900.0	133.4	-69.4		229.2	356.0			1.0000051
4950.0	129.1	-70.2		223.3	354.9			1.0000050
5000.0	126.8	-71.1		218.5	353.8			1.0000049
5050.0	123.6	-71.9		213.8	352.7			1.0000048
5100.0	120.4	-72.7		209.3	351.6			1.0000047
5150.0	117.4	-73.5		204.8	350.5			1.0000046
5200.0	114.4	-74.3		200.4	349.4			1.0000045
5250.0	111.5	-75.6		194.6	353.4	261.9	16.0	1.0000044
5300.0	108.6	-74.3		190.3	349.4	267.4	23.3	1.0000043
5350.0	105.8	-73.2		184.5	349.4	294.9	28.9	1.0000042
5400.0	103.1	-73.5		180.0	350.4	273.0	30.3	1.0000041
5450.0	100.5	-73.5		175.7	350.4	297.9	27.2	1.0000040
5500.0	99.0	-73.5		170.8	350.7	294.8	18.3	1.0000039
5550.0	95.5	-72.6		163.9	351.7	286.7	12.0	1.0000038
5600.0	93.1	-71.9		161.1	352.7	289.1	11.9	1.0000037
5650.0	90.7	-71.2		158.5	353.7	281.4	11.9	1.0000036
5700.0	88.4	-70.5		152.0	354.6	273.0	10.1	1.0000035
5750.0	86.2	-69.8		147.6	355.0	261.2	8.5	1.0000034
5800.0	84.0	-69.0		143.4	355.0	249.9	7.3	1.0000033
5850.0	81.9	-68.3		139.3	357.0	257.1	6.4	1.0000032
5900.0	79.8	-68.4		135.8	357.4	250.9	6.0	1.0000031
5950.0	77.3	-69.5		132.9	357.3	253.9	6.0	1.0000030
6000.0	75.9	-68.5		129.3	357.1	246.3	6.1	1.0000029
6050.0	74.0	-68.2		125.6	357.0	263.4	6.6	1.0000028
6100.0	72.2	-68.5		121.7	359.0	277.9	7.6	1.0000027
6150.0	70.4	-64.9		117.0	361.2	267.0	8.5	1.0000026
6200.0	68.7	-64.2		114.5	363.1	290.6	9.2	1.0000025
6250.0	67.0	-63.8		111.5	363.7	269.5	10.0	1.0000024
6300.0	65.4	-63.4		108.0	364.2	269.9	11.2	1.0000023
6350.0	63.5	-63.0		105.7	364.7	269.0	12.4	1.0000022
6400.0	61.5	-63.0		103.7	364.7	269.0	12.2	1.0000021

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

STATION ALTITUDE 4051.00 FEET ASL
 24 SEP 79 1500 MAG MST
 WSCATION NO. 99

UPPER AIR DATA
 2570050099
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.47511 LONG DEG

TABLE 11 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CELSIUS	REL. HUM. PERCENT	DENSITY G/CM ³	SPEED OF SOUND M/SEC	WIND DATA DIRECTION, SPEED DEGREES(T), KNOTS	INDEX OF REFRACTION
04000.0	93.2	-62.6		103.0	505.5	298.0	1.000023
04500.0	90.7	-62.2		100.5	505.8	298.7	1.000022
05000.0	88.3	-60.1		98.9	506.0	294.7	1.000022
05500.0	87.8	-58.5		93.9	570.9	322.5	1.000021
06000.0	85.5	-58.5		91.7	570.7	37.0	1.000020
06500.0	83.1	-58.5		89.5	570.7	79.2	1.000020
07000.0	80.8	-56.8		87.4	570.7	80.9	1.000019
07500.0	78.5	-56.8		85.3	570.7	82.5	1.000019
08000.0	76.1	-55.0		83.3	570.0	100.4	1.000018
08500.0	73.8	-55.0		81.3	570.0	109.5	1.000018
09000.0	71.7	-53.2		79.3	571.2	116.1	1.000018
10000.0	69.6	-53.0		77.3	571.4	118.5	1.000017
11000.0	67.5	-51.8		75.4	571.4	125.9	1.000017
12000.0	65.4	-51.8		73.5	571.7	121.5	1.000016
13000.0	63.3	-51.8		71.6	572.0	120.5	1.000016
14000.0	61.3	-51.8		70.0	572.5	119.0	1.000016
15000.0	59.3	-51.8		68.3	572.5	118.9	1.000015
16000.0	57.3	-50.5		66.8	572.8	115.2	1.000015
17000.0	55.3	-50.5		65.2	573.3	115.7	1.000014
18000.0	53.3	-50.5		63.8	574.0	119.4	1.000014
19000.0	51.3	-50.5		62.5	575.2	115.0	1.000013
20000.0	49.3	-50.5		61.2	575.2	113.0	1.000013
21000.0	47.3	-50.5		59.9	575.2	119.4	1.000013
22000.0	45.3	-50.5		58.5	577.2	105.2	1.000013
23000.0	43.3	-50.5		57.2	578.2	101.0	1.000012
24000.0	41.3	-50.5		55.9	579.2	97.0	1.000012
25000.0	39.3	-50.5		54.7	579.2	95.0	1.000012
26000.0	37.3	-50.5		53.5	579.2	94.2	1.000011
27000.0	35.3	-50.5		52.2	579.2	94.4	1.000011
28000.0	33.3	-50.5		51.1	579.2	94.6	1.000011
29000.0	31.3	-50.5		50.0	579.2	94.6	1.000011
30000.0	29.3	-50.5		48.9	579.2	93.0	1.000011
31000.0	27.3	-50.5		47.8	579.2	93.0	1.000010
32000.0	25.3	-50.5		46.7	579.2	93.0	1.000010
33000.0	23.3	-50.5		45.6	579.2	93.0	1.000010
34000.0	21.3	-50.5		44.5	579.2	93.0	1.000010
35000.0	19.3	-50.5		43.4	579.2	93.0	1.000010
36000.0	17.3	-50.5		42.3	579.2	93.0	1.000010
37000.0	15.3	-50.5		41.2	579.2	93.0	1.000009
38000.0	13.3	-50.5		40.1	579.2	93.0	1.000009
39000.0	11.3	-50.5		39.0	579.2	93.0	1.000009
40000.0	9.3	-50.5		37.9	579.2	93.0	1.000009
41000.0	7.3	-50.5		36.8	579.2	93.0	1.000009
42000.0	5.3	-50.5		35.7	579.2	93.0	1.000009
43000.0	3.3	-50.5		34.6	579.2	93.0	1.000009
44000.0	1.3	-50.5		33.5	579.2	93.0	1.000009
45000.0	0.3	-50.5		32.4	579.2	93.0	1.000009
46000.0	0.3	-50.5		31.3	579.2	93.0	1.000009
47000.0	0.3	-50.5		30.2	579.2	93.0	1.000009
48000.0	0.3	-50.5		29.1	579.2	93.0	1.000009
49000.0	0.3	-50.5		28.0	579.2	93.0	1.000009
50000.0	0.3	-50.5		26.9	579.2	93.0	1.000009
51000.0	0.3	-50.5		25.8	579.2	93.0	1.000009
52000.0	0.3	-50.5		24.7	579.2	93.0	1.000009
53000.0	0.3	-50.5		23.6	579.2	93.0	1.000009
54000.0	0.3	-50.5		22.5	579.2	93.0	1.000009
55000.0	0.3	-50.5		21.4	579.2	93.0	1.000009
56000.0	0.3	-50.5		20.3	579.2	93.0	1.000009
57000.0	0.3	-50.5		19.2	579.2	93.0	1.000009
58000.0	0.3	-50.5		18.1	579.2	93.0	1.000009
59000.0	0.3	-50.5		17.0	579.2	93.0	1.000009
60000.0	0.3	-50.5		15.9	579.2	93.0	1.000009
61000.0	0.3	-50.5		14.8	579.2	93.0	1.000009
62000.0	0.3	-50.5		13.7	579.2	93.0	1.000009
63000.0	0.3	-50.5		12.6	579.2	93.0	1.000009
64000.0	0.3	-50.5		11.5	579.2	93.0	1.000009
65000.0	0.3	-50.5		10.4	579.2	93.0	1.000009
66000.0	0.3	-50.5		9.3	579.2	93.0	1.000009
67000.0	0.3	-50.5		8.2	579.2	93.0	1.000009
68000.0	0.3	-50.5		7.1	579.2	93.0	1.000009
69000.0	0.3	-50.5		6.0	579.2	93.0	1.000009
70000.0	0.3	-50.5		4.9	579.2	93.0	1.000009
71000.0	0.3	-50.5		3.8	579.2	93.0	1.000009
72000.0	0.3	-50.5		2.7	579.2	93.0	1.000009
73000.0	0.3	-50.5		1.6	579.2	93.0	1.000009
74000.0	0.3	-50.5		0.5	579.2	93.0	1.000009
75000.0	0.3	-50.5		0.4	579.2	93.0	1.000009
76000.0	0.3	-50.5		0.3	579.2	93.0	1.000009
77000.0	0.3	-50.5		0.2	579.2	93.0	1.000009
78000.0	0.3	-50.5		0.1	579.2	93.0	1.000009
79000.0	0.3	-50.5		0.1	579.2	93.0	1.000009
80000.0	0.3	-50.5		0.0	579.2	93.0	1.000009

STATION ALTITUDE 4051.00 FEET MSL
 25 SEP. 79
 ASSOCIATION NO. 49

UPPER AIR DATA
 2070000000
 CALLED

GEODETIC COORDINATES
 33.10712 LAT DEG
 105.49511 LON DEG

TABLE 11 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY G/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION (DEGREES TRUE)	WIND DATA SPEED (KNOTS)	INDEX OF REFRACTION
9400.0	24.1	-52.1		37.9	379.2		56.6	11.6
9450.0	23.5	-51.9		37.0	374.5		55.2	12.4
9500.0	23.0	-51.7		36.1	370.0		75.3	14.4
9550.0	22.4	-51.4		35.3	365.1		69.2	17.6
9600.0	21.9	-51.2		34.4	360.4		90.1	21.2
9650.0	21.4	-51.0		33.2	355.7		105.0	23.6
9700.0	20.9	-50.7		32.6	351.0		105.0	26.2
9750.0	20.4	-50.5		32.0	346.5		110.7	27.9
9800.0	20.0	-50.3		31.2	341.9		105.3	23.1
9850.0	19.5	-50.1		30.5	337.0		109.1	18.5
9900.0	19.1	-49.7		29.7	332.4		69.7	14.3
9950.0	18.7	-49.3		29.0	327.8		65.1	14.1
10000.0	18.2	-49.0		28.2	323.2		60.0	14.2
10050.0	17.8	-48.7		27.7	318.6		70.2	14.3
10100.0	17.4	-48.4		27.0	314.0		74.4	15.4
10150.0	17.0	-48.1		26.3	309.5		73.4	16.8
10200.0	16.6	-47.8		25.7	304.9		72.5	18.1
10250.0	16.3	-47.5		25.1	300.3		73.4	19.7
10300.0	15.9	-47.1		24.5	295.7		75.0	21.3
10350.0	15.5	-46.8		23.9	291.1		70.3	23.0
10400.0	15.2	-46.5		23.6	286.5			
10450.0	14.8	-46.2		22.8	281.9			
10500.0	14.5	-45.9		22.2	277.3			
10550.0	14.2	-45.6		21.7	272.7			
10600.0	13.9	-45.3		21.2	268.1			

STATION ALTITUDE 4051.00 FEET MSL
 24 SEP. 79 1500 HRS MST
 ASCENS. UN. NO. 99

MANDATORY LEVELS
 0070000000
 000000

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

TABLE 12

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR	SEMP. POINT	PERCENT	DIRECTION	SPEED
		DEGREES	CENTIGRADE		(TN)	KNOTS
850.0	5113.	26.5	2.4	21.	142.4	1.7
800.0	6049.	21.5	1.0	20.	130.1	2.8
750.0	6960.	16.2	-1.1	31.	107.5	4.6
700.0	7870.	10.5	-3.9	36.	51.2	7.1
650.0	8770.	5.3	-6.1	44.	50.0	14.0
600.0	9670.	.3	-16.4	27.	9999.0XX	9999.0XX
550.0	10561.	-3.8	-27.1	13.	9999.0XX	9999.0XX
500.0	11430.	-9.1	-31.0	14.	9999.0XX	9999.0XX
450.0	12274.	-14.2	-5.5	14.	325.5	4.6
400.0	13079.	-19.7	-39.0	15.	9999.0XX	9999.0XX
350.0	13877.	-20.2	-46.3	10.	9999.0XX	9999.0XX
300.0	14730.	-25.5			9999.0XX	9999.0XX
250.0	15533.	-34.4			300.2	43.0
200.0	16339.	-53.7			9999.0XX	9999.0XX
175.0	16420.	-56.7			9999.0XX	9999.0XX
150.0	16550.	-64.4			9999.0XX	9999.0XX
125.0	16740.	-71.5			9999.0XX	9999.0XX
100.0	16930.	-73.9			9999.0XX	9999.0XX
70.0	17160.	-60.4			294.1	17.0
50.0	17400.	-61.5			237.2	0.0
30.0	17650.	-61.5			260.1	9.4
20.0	17900.	-61.5			290.4	7.5
15.0	18171.	-50.5			109.5	4.6
10.0	18430.	-50.3			110.9	0.3
5.0	18750.	-54.3			94.9	11.0
2.0	19000.	-52.5			61.2	12.5
1.0	19260.	-50.3			107.2	23.8
0.5	19377.	-40.3				

MAX WIND DATA INVALID DUE TO MISSING RAY AZIMUTH AND ELEVATION ANGLES.