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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1209	2. GOVT ACCESSION NO. 4D-1209-160	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 12828F Lance, Missile Number 5336 Round Number 368-MSL		5. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) White Sands Meteorological Team		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS		8. CONTRACT OR GRANT NUMBER(s) DA TASK 1F665702D127
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cmd 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 Cmd Adelphi, MD 20783		12. REPORT DATE Nov 81
		13. NUMBER OF PAGES 34
		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 12828F Lance, Missile No. 5336 presented in tabular form.		

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A

INTRODUCTION

12828F Lance, Missile Number 5336, Round Number 368-MSL,
was launched from LC-33, White Sands Missile Range (WSMR), New Mexico,
at 0900 MDT on 02 Oct 81. The scheduled launch time was
0900 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 Nike Hercules radar tracked pilot balloon observation at:

SITE AND ALTITUDE

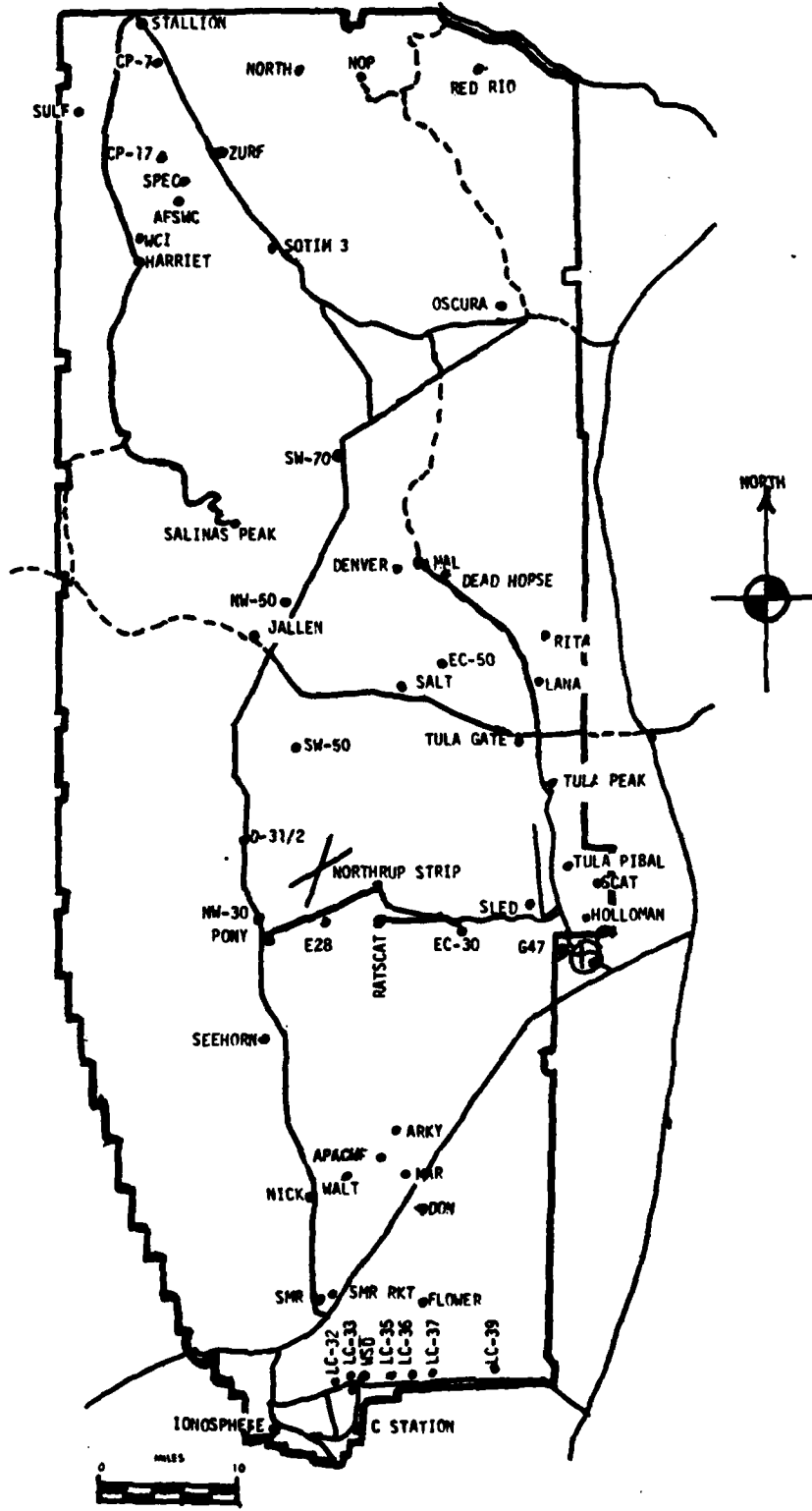
LC-33 11,800 feet

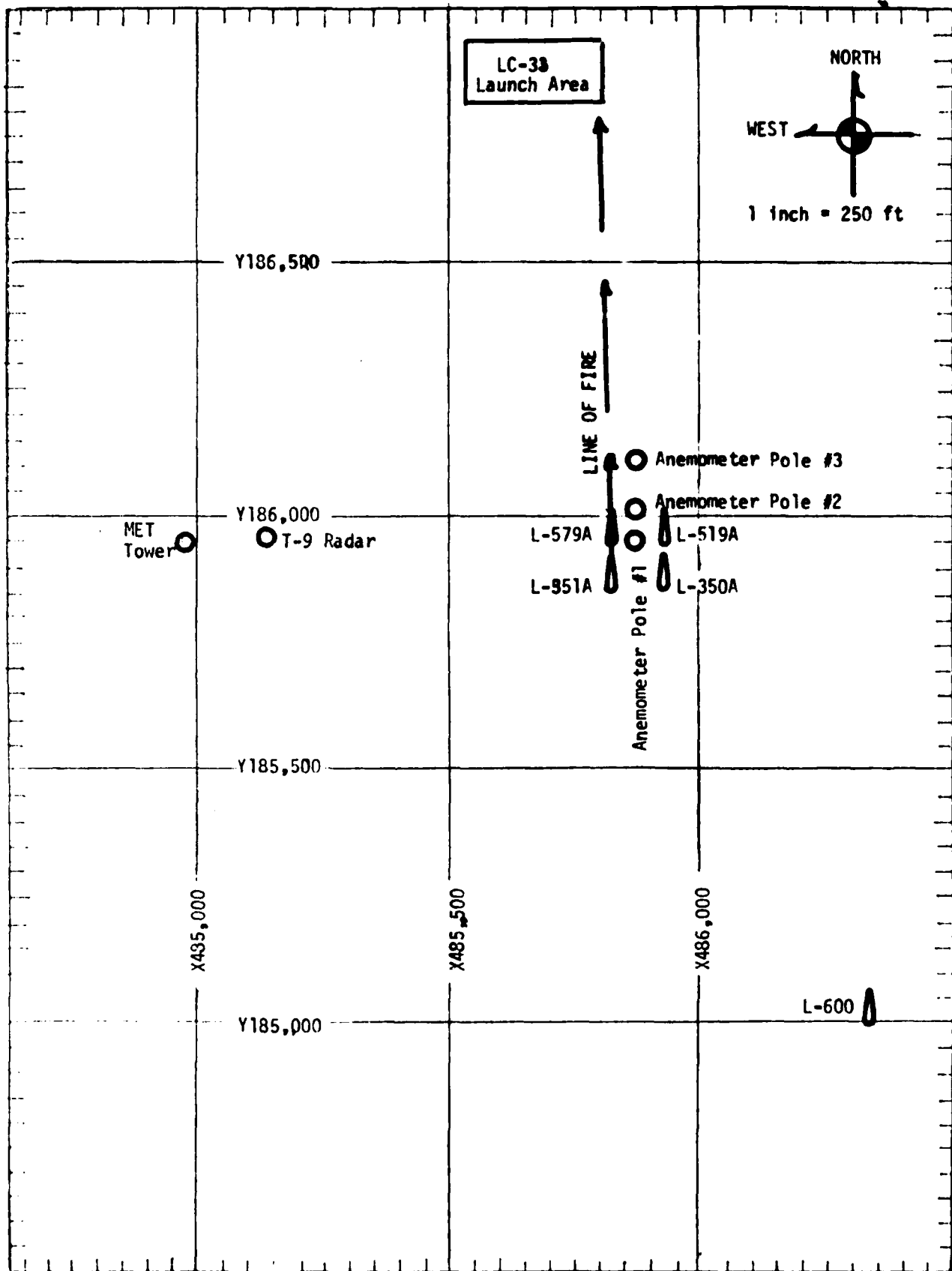
(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to as high as possible in 500-foot increments.

SITE AND TIME

WSD	1000 MDT
APA	0815 MDT
JAL	0850 MDT

WSMR METEOROLOGICAL SITES





PROJECT SURFACE OBSERVATION

STATION LC-33 E&A									
DATE 02		Oct		81		Y=185.957.73		H= 3983.0	
DAY		MONTH		YEAR		X=184.932.64		Y=185.957.73	
TIME	PRESSURE	TEMPERATURE	DEW POINT	RELATIVE	DENSITY	DIRECTION	WIND	CHARACTER	VISIBIL-
M D I	mbs	OF °C	OF °C	HUMIDITY %	gm/m ³	degs Tn	SPEED kts	kts	ITY
0900	882.9	18.2	15.3	83	1055	295	01		15

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER	2nd LAYER		3rd LAYER			
	AMT	TYPE	HGT	AMT	TYPE	HGT	
	4	SC	4000	6	AC	12000	

PSYCHROMETRIC COMPUTATION

TIME: MDT	0900
DRY BULB TEMP.	18.2
WET BULB TEMP.	16.3
WET BULB DEPR.	1.9
DEW POINT	15.3
RELATIVE HUMID.	83%

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	C A L M		T-30	C A L M		T-30	C A L M	
T-20	C A L M		T-20	C A L M		T-20	C A L M	
T-10	C A L M		T-10	C A L M		T-10	C A L M	
T0.0	C A L M		T0.0	C A L M		T0.0	C A L M	
T+10	C A L M		T+10	C A L M		T+10	C A L M	

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	C A L M		T-30	C A L M	
T-20	C A L M		T-20	C A L M	
T-10	C A L M		T-10	C A L M	
T0.0	C A L M		T0.0	C A L M	
T+10	C A L M		T+10	C A L M	

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	C A L M		T-30	153	02
T-20	C A L M		T-20	153	02
T-10	C A L M		T-10	153	02
T0.0	C A L M		T0.0	153	02
T+10	C A L M		T+10	153	02

TABLE 5

Launch, Mid-Range, and Impact Area Computer Met Messages

WSD 1000 MDT	APA 0815 MDT	JAL 0850 MDT
METCM1324064	METCM1326064	METCM1332065
021600122882	021430120883	021490124880
00284003 29500882	00320002 29270883	00000000 29260880
01298008 29320872	01298011 29210872	01356002 29190869
02302006 29060847	02286014 29050847	02314007 29030844
03309015 28830808	03305014 28840808	03297015 28790805
04347015 28620761	04332015 28620762	04355013 28560759
05351019 28340717	05362017 28390717	05343016 28310715
06361017 28000675	06342016 28030675	06340018 28040673
07361022 27700635	07333019 27720635	07336022 27680633
08371024 27400597	08329025 27460597	08338026 27370595
09390025 27100560	09333025 27330561	09338022 27050559
10358021 26820526	10343027 27070527	10325024 26820525
11360022 26490494	11329023 26500495	11329029 26470492
12365028 26030448	12318022 26070449	12314027 26040446
13383027 25410392	13386028 25230393	13383029 25330391
14384030 24620342	14394031 24560343	14385033 24570341
15414037 23880298	15402033 23840298	15392039 23830296
16416052 23110257	16418052 23120258	16413050 23100256
17413057 22330222	17412054 22350222	17411052 22380221
18424068 21570190	18425064 21620190	18412061 21600189
19423072 20850162	19427074 20890162	19420069 20900161
20440058 20450137	20443054 20660138	20425052 20640137
21416040 20260116	21398033 20410117	21394035 20470116
22402023 20240098	22411030 20190099	22403025 20370098
23371015 20450083	23349009 20460083	23373012 20680083
24288008 20880071	24340012 20780071	24346013 20920071
25359006 21010060	25140007 21110060	25080010 21190060
26595001 21290051	26248001 21440051	26394012 21440051

STATION ALTITUDE 3989.00 FEET MSL
 2 OCT. 41
 ASCENSION NO. 028

SIGNIFICANT LFVLL DATA
 2750020628
 WHITE SANDS

TABLE 6

PRESSURE GEOMETRIC ALTITUDE		TEMPERATURE		REL. HUM.
MILLIBARS	MSL FEET	AIR	DEMPUNT	PERCENT
		DEGREES	CENTIGRADE	
81.9	3989.0	19.8	15.0	74.0
864.4	4555.1	17.0	13.7	81.0
950.0	5026.1	15.8	12.7	82.0
805.6	6520.9	13.3	12.4	94.0
729.2	9268.3	10.0	8.1	88.0
700.0	10382.1	7.0	6.3	95.0
550.4	16769.9	-3.6	-5.0	90.0
525.2	17985.5	-5.5	-7.6	85.0
500.0	19250.4	-7.8	-12.1	71.0
493.0	19611.0	-8.3	-13.0	69.0
466.7	21000.1	-12.8	-15.4	81.0
459.6	21385.9	-11.8	-17.8	61.0
445.8	22153.0	-12.6	-30.8	20.0
423.2	23453.6	-15.0	-32.8	20.0
400.0	24848.5	-18.0	-35.4	20.0
337.2	28965.2	-28.3	-42.1	25.0
300.0	31692.2	-34.2	-45.6	30.0
267.0	34343.4	-40.4	-50.6	32.0
250.0	35810.8	-43.5		
200.0	40620.8	-55.3		
170.4	43945.5	-62.0		
150.0	46506.1	-68.4		
143.6	47370.4	-67.4		
135.4	48533.0	-69.5		
127.2	49762.9	-69.2		
115.6	51645.8	-69.5		
112.0	52265.4	-71.4		
100.0	54476.1	-71.2		
81.4	58515.6	-69.0		
70.0	61534.3	-63.5		
61.4	64192.0	-63.6		
50.0	68392.2	-60.0		
44.0	71050.6	-56.6		
39.0	73588.9	-55.0		
36.6	74936.7	-53.0		
30.0	79184.7	-52.2		
25.2	82912.4	-52.8		
20.0	87900.4	-48.2		
13.6	96339.9	-46.9		
10.0	103167.5	-41.9		

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

SIGNIFICANT LEVEL DATA

27500 20628
WHITE SANDS

TABLE 6 CONT.

STATION ALTITUDE 3989.00 FEET MSL
2 OCT. 41 10 30 HRS MT
ASCENSION NO. 628

GEOMETRIC ALTITUDE	TEMPERATURE	REL. HUM.
MILLIBARS MSL FEET	AIR DEWPOINT DEGREES CENTIGRADE	PERCENT
7.0 11195.1	-41.0	
6.6 112526.9	-39.5	

UPPER AIR DATA
 2750020626
 WHITE SANDS
 TABLE 7

STATION ALTITUDE 3489.00 FEET MSL
 2 OCT. 61 1030 HRS MDT
 ASCENSION NO. 028

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SOUND SPEED KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
3989.0	881.9	19.8	74.0	1041.0	669.3	160.0	2.9	1.000308
4000.0	881.6	19.7	74.1	1040.8	669.2	160.2	3.0	1.000307
4000.0	866.1	17.3	80.3	1031.7	666.2	163.7	5.1	1.000301
5000.0	850.8	15.9	81.9	1018.8	664.5	167.9	7.3	1.000294
5500.0	835.7	15.0	85.8	1003.6	663.5	169.1	9.5	1.000291
6000.0	820.8	14.2	89.8	988.5	662.6	170.8	11.8	1.000287
6500.0	806.2	13.3	93.8	973.7	661.6	175.5	14.4	1.000283
7000.0	791.7	12.7	93.0	958.5	660.9	179.8	15.9	1.000277
7500.0	777.5	12.1	91.9	943.4	660.1	186.2	15.5	1.000271
8000.0	763.5	11.5	90.8	928.6	659.3	192.0	15.3	1.000265
8500.0	749.8	10.9	89.7	914.1	658.6	196.7	15.5	1.000259
9000.0	736.3	10.3	88.6	899.7	657.8	198.8	16.1	1.000253
9500.0	723.0	9.4	89.5	886.6	656.6	199.1	16.8	1.000248
10000.0	709.9	8.0	92.6	874.8	655.0	198.4	17.5	1.000243
10500.0	696.9	6.8	94.9	862.8	653.5	197.4	18.3	1.000238
11000.0	683.9	6.0	94.5	849.4	652.5	197.0	19.0	1.000232
11500.0	671.2	5.1	94.1	836.2	651.4	198.3	19.6	1.000227
12000.0	658.6	4.3	93.7	823.2	650.4	200.0	20.2	1.000222
12500.0	646.4	3.5	93.3	810.5	649.4	202.2	20.7	1.000217
13000.0	634.3	2.7	93.0	797.9	648.3	204.3	21.5	1.000212
13500.0	622.5	1.8	92.6	785.5	647.3	206.2	22.4	1.000207
14000.0	610.9	1.0	92.2	773.4	646.3	208.1	23.1	1.000203
14500.0	599.5	.2	91.8	761.4	645.2	209.9	23.6	1.000198
15000.0	588.3	-.7	91.4	749.6	644.2	212.0	23.4	1.000194
15500.0	577.3	-1.5	91.0	738.0	643.2	214.4	23.0	1.000190
16000.0	566.6	-2.3	90.6	726.5	642.1	217.6	22.3	1.000186
16500.0	556.0	-3.2	90.2	715.3	641.1	219.1	21.9	1.000182
17000.0	545.5	-4.0	89.1	704.0	640.1	215.7	21.9	1.000178
17500.0	535.1	-4.7	87.0	692.7	639.1	211.5	22.2	1.000174
18000.0	524.9	-5.5	84.8	681.6	638.1	205.0	23.1	1.000170
18500.0	514.8	-6.4	79.3	670.9	636.9	200.4	24.2	1.000165
19000.0	504.9	-7.3	73.8	660.4	635.8	200.5	25.1	1.000161
19500.0	495.1	-8.1	69.6	649.8	634.8	201.0	25.9	1.000157
20000.0	485.5	-9.6	72.4	640.6	633.0	203.2	26.3	1.000154
20500.0	476.0	-11.2	76.7	632.0	631.1	204.9	26.6	1.000152
21000.0	466.7	-12.8	81.0	623.5	629.1	204.8	26.5	1.000149
21500.0	457.5	-11.9	54.9	609.5	630.0	204.9	26.4	1.000145
22000.0	448.5	-12.4	28.2	599.0	629.2	205.2	26.8	1.000137
22500.0	439.7	-13.2	20.0	589.1	628.2	205.6	27.2	1.000134
23000.0	430.9	-14.2	20.0	579.5	627.1	206.5	27.5	1.000131

UPPER AIR DATA
 275002062H
 WHITE SANDS
 TABLE 7 CONT

STATION ALTITUDE 3989.00 FEET MSL
 2 OCT. 61
 100 HRS MDT
 ASCENSION NO. 628

GEOMETRIC ALTITUDE
 MSL FEET

GEOMETRIC ALTITUDE
 MSL FEET

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (T, M)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	422.4	-15.1	20.0	570.1	625.9	207.4	27.7	1.000129
24000.0	414.0	-16.2	20.0	561.0	624.6	208.3	27.0	1.000127
24500.0	405.7	-17.3	20.0	552.1	623.3	209.3	26.3	1.000125
25000.0	397.5	-18.4	20.2	543.4	621.9	213.3	26.7	1.000123
25500.0	389.3	-19.6	20.8	534.9	620.4	217.3	27.2	1.000121
26000.0	381.3	-20.9	21.4	526.5	618.8	218.4	28.3	1.000119
26500.0	373.5	-22.1	22.0	518.2	617.3	218.8	29.6	1.000117
27000.0	365.8	-23.4	22.6	510.2	615.8	218.0	29.9	1.000115
27500.0	358.3	-24.6	23.2	502.2	614.2	216.9	29.9	1.000113
28000.0	351.0	-25.9	23.8	494.4	612.7	216.0	29.8	1.000111
28500.0	343.8	-27.1	24.4	486.7	611.1	215.3	29.7	1.000109
29000.0	336.7	-28.4	25.1	479.1	609.6	215.0	30.1	1.000108
29500.0	329.6	-29.5	26.0	471.0	608.2	214.9	30.6	1.000106
30000.0	322.6	-30.5	26.9	463.1	606.9	218.0	31.8	1.000104
30500.0	315.7	-31.6	27.8	455.3	605.5	221.9	33.4	1.000102
31000.0	309.0	-32.7	28.7	447.7	604.1	226.2	34.1	1.000100
31500.0	302.5	-33.8	29.6	440.2	602.8	230.6	34.6	1.000099
32000.0	296.0	-34.9	30.2	432.7	601.3	234.0	36.9	1.000097
32500.0	289.5	-36.1	30.6	425.4	599.9	236.7	39.8	1.000095
33000.0	283.2	-37.3	31.0	418.2	598.4	237.8	43.3	1.000094
33500.0	277.1	-38.4	31.4	411.2	596.9	238.4	47.2	1.000092
34000.0	271.1	-39.6	31.7	404.3	595.4	237.7	49.1	1.000090
34500.0	265.1	-40.7	28.6*	397.4	593.9	236.4	50.1	1.000089
35000.0	259.3	-41.8	17.7**	390.3	592.6	234.7	50.8	1.000087
35500.0	253.5	-42.8	6.8**	383.5	591.2	232.8	51.3	1.000085
36000.0	247.8	-44.0		376.7	589.8	231.7	51.9	1.000084
36500.0	242.1	-45.2		370.0	588.2	231.7	52.7	1.000082
37000.0	236.6	-46.4		363.5	586.6	231.9	53.6	1.000081
37500.0	231.2	-47.6		357.1	585.0	232.5	54.8	1.000080
38000.0	225.9	-48.9		350.9	583.4	232.9	56.0	1.000078
38500.0	220.7	-50.1		344.7	581.8	232.7	57.2	1.000077
39000.0	215.7	-51.3		338.7	580.2	232.5	58.3	1.000075
39500.0	210.7	-52.5		332.8	578.6	233.5	59.8	1.000074
40000.0	205.9	-53.8		327.0	577.0	234.4	61.3	1.000073
40500.0	201.2	-55.0		321.3	575.4	235.5	63.0	1.000072
41000.0	196.4	-56.0		315.2	574.0	236.7	64.8	1.000070
41500.0	191.8	-57.1		309.1	572.7	237.5	67.4	1.000069
42000.0	187.2	-58.1		303.2	571.3	238.0	70.6	1.000068
42500.0	182.7	-59.1		297.3	570.0	238.5	73.0	1.000066
43000.0	178.4	-60.1		291.6	568.7	238.9	73.4	1.000065

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

UPPER AIR DATA
 275002062H
 WHITE SANDS
 TABLE 7 CONT

STATION ALTITUDE 3989.00 FEET MSL
 2 OCT. 61
 ASCENSION NO. 628

GEOMETRIC ALTITUDE 3989.00 FEET MSL
 2 OCT. 61
 ASCENSION NO. 628

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
43500.0	174.1	-61.1		286.0	567.3	239.3	73.8	1.000064
44000.0	169.9	-62.1		280.6	565.4	240.0	73.8	1.000062
44500.0	165.8	-63.4		275.3	564.2	240.7	73.8	1.000061
45000.0	161.7	-64.6		270.1	562.6	241.3	73.5	1.000060
45500.0	157.7	-65.9		265.1	560.9	241.8	72.9	1.000059
46000.0	153.8	-67.1		260.1	559.2	242.3	72.3	1.000058
46500.0	150.0	-68.4		255.3	557.5	242.8	68.5	1.000057
47000.0	146.3	-67.8		248.2	558.2	243.3	64.1	1.000055
47500.0	142.7	-67.6		241.8	558.5	243.8	60.3	1.000054
48000.0	139.1	-68.5		236.8	557.3	244.2	58.2	1.000053
48500.0	135.6	-69.4		231.9	556.0	244.6	56.1	1.000052
49000.0	132.2	-69.4		226.1	556.1	244.5	54.2	1.000050
49500.0	128.9	-69.3		220.3	556.3	244.2	52.2	1.000049
50000.0	125.7	-69.2		214.7	556.3	243.6	49.9	1.000048
51000.0	119.5	-69.4		209.4	556.2	241.6	45.4	1.000047
51500.0	116.5	-69.5		204.2	556.1	239.3	41.0	1.000045
52000.0	113.5	-70.6		199.2	556.0	235.9	37.7	1.000044
52500.0	110.7	-71.4		195.2	554.5	231.5	35.3	1.000043
53000.0	107.9	-71.3		191.1	553.4	226.5	33.2	1.000043
53500.0	105.1	-71.3		186.2	553.4	227.1	32.1	1.000041
54000.0	102.5	-71.2		181.4	553.5	228.2	31.0	1.000040
54500.0	99.9	-71.2		176.8	553.6	228.8	29.4	1.000039
55000.0	97.4	-70.9		172.3	553.6	227.9	26.2	1.000038
55500.0	94.9	-70.6		167.7	554.0	226.8	23.1	1.000037
56000.0	92.5	-70.4		163.3	554.4	222.6	20.6	1.000036
56500.0	90.2	-70.1		159.0	554.8	215.5	19.0	1.000035
57000.0	87.9	-69.8		154.8	555.1	207.2	17.6	1.000034
57500.0	85.7	-69.6		150.7	555.5	207.6	16.7	1.000034
58000.0	83.6	-69.3		146.7	555.9	208.5	15.7	1.000033
58500.0	81.5	-69.0		142.8	556.3	209.4	15.4	1.000032
59000.0	79.5	-68.1		139.0	556.6	209.9	16.0	1.000031
59500.0	77.5	-67.2		135.0	556.8	210.3	16.6	1.000030
60000.0	75.6	-66.3		131.1	559.1	206.7	14.9	1.000029
60500.0	73.7	-65.4		127.3	560.3	199.9	12.5	1.000028
61000.0	71.9	-64.5		123.6	561.5	189.8	10.2	1.000027
61500.0	70.1	-63.6		120.0	562.8	171.9	8.2	1.000026
62000.0	68.4	-63.5		116.5	564.0	146.4	7.3	1.000025
62500.0	66.7	-63.5		113.7	564.1	137.3	7.5	1.000025
63000.0	65.1	-63.6		110.9	564.0	147.3	7.7	1.000025
				108.2	564.0	156.6	8.0	1.000024

UPPER AIR DATA
 2750020628
 WHITE SANDS
 TABLE 7 CONT

STATION ALTITUDE 3989.00 FEET MSL
 2 OCT. 81
 ASCENSION NO. 628

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

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	
63500.0	63.5	-63.6		105.6	564.0	196.9	7.2	1.000024
64000.0	62.0	-63.6		103.0	564.0	180.6	6.3	1.000023
64500.0	60.5	-63.3		100.4	564.3	196.9	5.8	1.000022
65000.0	59.0	-62.9		97.8	564.9	213.5	5.3	1.000022
65500.0	57.6	-62.5		95.2	565.5	231.4	5.4	1.000021
66000.0	56.2	-62.1		92.8	566.0	241.2	5.4	1.000021
66500.0	54.8	-61.6		90.3	566.6	242.6	5.0	1.000020
67000.0	53.5	-61.2		88.0	567.2	244.4	4.6	1.000020
67500.0	52.2	-60.8		85.7	567.8	244.7	3.2	1.000019
68000.0	51.0	-60.3		83.4	568.3	244.1	1.6	1.000019
68500.0	49.7	-59.9		81.2	569.0	225.1	.0	1.000018
69000.0	48.6	-59.2		79.1	569.8	45.1	1.6	1.000018
69500.0	47.4	-58.6		77.0	570.7	45.1	3.2	1.000017
70000.0	46.3	-57.9		74.9	571.5	47.4	4.2	1.000017
70500.0	45.2	-57.3		72.9	572.4	55.2	4.1	1.000016
71000.0	44.1	-56.7		71.0	573.2	63.5	4.0	1.000016
71500.0	43.1	-56.3		69.2	573.7	75.1	4.2	1.000015
72000.0	42.1	-56.0		67.5	574.1	87.2	4.7	1.000015
72500.0	41.1	-55.7		65.8	574.5	96.5	5.4	1.000015
73000.0	40.1	-55.4		64.2	574.9	118.3	5.5	1.000014
73500.0	39.2	-55.1		62.6	575.3	141.2	6.4	1.000014
74000.0	38.3	-54.4		60.9	576.2	156.8	8.0	1.000014
74500.0	37.4	-53.6		59.3	577.2	171.2	9.9	1.000013
75000.0	36.5	-53.0		57.7	578.1	181.0	12.3	1.000013
75500.0	35.6	-52.9		56.4	578.2	187.6	14.9	1.000013
76000.0	34.8	-52.8		55.1	578.3	189.1	13.1	1.000012
76500.0	34.0	-52.7		53.8	578.4	189.6	10.0	1.000012
77000.0	33.2	-52.6		52.5	578.5	190.6	6.8	1.000012
77500.0	32.5	-52.5		51.3	578.7	187.8	3.6	1.000011
78000.0	31.7	-52.4		50.0	578.8	132.7	.7	1.000011
78500.0	31.0	-52.3		48.9	578.9	29.8	3.0	1.000011
79000.0	30.3	-52.2		47.7	579.0	31.5	4.8	1.000011
79500.0	29.6	-52.3		46.6	579.0	43.1	5.2	1.000010
80000.0	28.9	-52.3		45.6	578.9	52.9	5.8	1.000010
80500.0	28.2	-52.4		44.5	578.8	61.3	6.2	1.000010
81000.0	27.6	-52.5		43.5	578.7	70.3	6.2	1.000010
81500.0	26.9	-52.6		42.5	578.7	79.0	6.4	1.000009
82000.0	26.3	-52.7		41.5	578.5	86.8	6.7	1.000009
82500.0	25.7	-52.7		40.6	578.4	92.7	6.7	1.000009
83000.0	25.1	-52.7		39.7	578.4	98.6	6.7	1.000009

UPPER AIR DATA
 275002062H
 WHITE SANDS
 TABLE 7 CON'T

STATION ALTITUDE 3989.00 FEET MSL
 2 OCT. 61 1900 HRS PDT
 ASCENSION NO. 628

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOGRAPHIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES(T,U))	SPEED KNOTS	INDEX OF REFRACTION
83500.0	24.5	-52.3		34.7	579.0	104.4	6.8	1.000009
84000.0	24.0	-51.8		37.7	579.6	101.0	6.0	1.000008
84500.0	23.4	-51.3		36.8	580.2	92.0	5.0	1.000008
85000.0	22.9	-50.9		35.9	580.8	78.7	4.1	1.000008
85500.0	22.4	-50.4		35.0	581.4	66.4	3.5	1.000008
86000.0	21.8	-50.0		34.1	582.0	61.7	2.9	1.000008
86500.0	21.3	-49.5		33.2	582.6	54.8	2.3	1.000007
87000.0	20.9	-49.0		32.4	583.2	44.0	1.8	1.000007
87500.0	20.4	-48.6		31.6	583.8	61.5	1.8	1.000007
88000.0	19.9	-48.2		30.8	584.3	78.8	1.9	1.000007
88500.0	19.5	-48.1		30.1	584.4	93.2	2.1	1.000007
89000.0	19.0	-48.0		29.4	584.5	110.6	1.9	1.000007
89500.0	18.6	-48.0		28.8	584.6	139.3	1.7	1.000006
90000.0	18.2	-47.9		28.1	584.7	167.9	1.9	1.000006
90500.0	17.8	-47.8		27.5	584.8	182.6	2.5	1.000006
91000.0	17.4	-47.7		26.8	584.9	179.1	3.5	1.000006
91500.0	17.0	-47.6		26.2	585.0	177.2	4.5	1.000006
92000.0	16.6	-47.6		25.6	585.1	175.9	5.5	1.000006
92500.0	16.2	-47.5		25.0	585.2	168.9	4.8	1.000006
93000.0	15.8	-47.4		24.4	585.3	156.5	3.9	1.000005
93500.0	15.5	-47.3		23.9	585.4	138.2	3.3	1.000005
94000.0	15.1	-47.3		23.3	585.5	116.2	3.1	1.000005
94500.0	14.8	-47.2		22.8	585.6	111.2	2.8	1.000005
95000.0	14.5	-47.1		22.3	585.7	104.9	2.5	1.000005
95500.0	14.1	-47.0		21.8	585.8	97.2	2.3	1.000005
96000.0	13.8	-47.0		21.3	585.9	87.0	2.3	1.000005
96500.0	13.5	-46.8		20.8	586.1	79.1	4.7	1.000005
97000.0	13.2	-46.4		20.3	586.6	76.5	7.0	1.000005
97500.0	12.9	-46.1		19.6	587.1	75.2	9.4	1.000004
98000.0	12.6	-45.7		19.3	587.6	75.1	11.7	1.000004
98500.0	12.3	-45.3		18.9	588.0	80.5	13.9	1.000004
99000.0	12.1	-45.0		18.4	588.5	84.3	16.1	1.000004
99500.0	11.8	-44.6		18.0	589.0	87.3	18.4	1.000004
100000.0	11.5	-44.2		17.6	589.4	90.1	20.4	1.000004
100500.0	11.3	-43.9		17.1	589.9	98.5	19.5	1.000004
101000.0	11.0	-43.5		16.7	590.4	107.6	19.0	1.000004
101500.0	10.8	-43.1		16.3	590.9	116.9	19.0	1.000004
102000.0	10.5	-42.8		15.9	591.3	125.2	19.5	1.000004
102500.0	10.3	-42.4		15.6	591.8	125.3	20.2	1.000003
103000.0	10.1	-42.0		15.2	592.3	125.3	20.9	1.000003

STATION ALTITUDE 3989.00 FEET MSL
 2 OCT. 61
 ASCENSION NO. 028

UPPER AIR DATA
 2750020620
 WHITE SANDS
 TABLE 7 CONT

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION, SPEED DEGREES(TAU) KNOTS	INDEX OF REFRACTION
103500.0	9.9	-41.9		14.8	592.5	125.3	1.000003
104000.0	9.6	-41.8		14.5	592.5	125.5	1.000003
104500.0	9.4	-41.8		14.2	592.6	127.7	1.000003
105000.0	9.2	-41.7		13.9	592.7	129.9	1.000003
105500.0	9.0	-41.6		13.6	592.8	132.1	1.000003
106000.0	8.8	-41.6		13.3	592.8	134.4	1.000003
106500.0	8.6	-41.5		13.0	592.9	137.4	1.000003
107000.0	8.4	-41.5		12.7	593.0	140.8	1.000003
107500.0	8.2	-41.4		12.4	593.1	144.5	1.000003
108000.0	8.1	-41.4		12.1	593.1	148.4	1.000003
108500.0	7.9	-41.3		11.9	593.2	149.7	1.000003
109000.0	7.7	-41.2		11.6	593.3	150.9	1.000003
109500.0	7.5	-41.2		11.3	593.3	152.6	1.000003
110000.0	7.4	-41.1		11.1	593.4	154.9	1.000002
110500.0	7.2	-41.1		10.8	593.5		1.000002
111000.0	7.1	-41.0		10.6	593.6		1.000002
111500.0	6.9	-40.7		10.3	594.0		1.000002
112000.0	6.8	-40.1		10.1	594.7		1.000002
112500.0	6.6	-39.5		9.9	595.5		1.000002

STATION ALTITUDE 3489.00 FEET MSL
 2 OCT. 81 1000 HRS MDT
 ASCENSION NO. 028

MANDATORY LEVELS
 2750020628
 WHITE SANDS
 TABLE 8

GEOGRAPHIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	AIR TEMPERATURE DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5022.	15.8	12.7	82.	168.0	7.4
800.0	6709.	13.1	12.1	94.	177.0	15.5
750.0	8489.	10.9	9.3	90.	196.7	15.5
700.0	10372.	7.0	6.3	95.	197.6	18.1
650.0	12365.	3.7	2.8	93.	201.0	20.5
600.0	14490.	.2	-1.0	92.	209.9	23.6
550.0	16767.	-3.6	-5.0	90.	217.2	21.9
500.0	19223.	-7.8	-12.1	71.	200.6	25.5
450.0	21884.	-12.4	-25.4	33.	205.1	26.8
400.0	24807.	-18.0	-35.4	20.	212.0	26.5
350.0	28030.	-26.1	-40.6	24.	215.9	29.8
300.0	31628.	-34.2	-45.6	30.	232.0	35.1
250.0	35732.	-43.5			231.7	51.6
200.0	40530.	-55.3			235.8	63.4
175.0	43289.	-60.9			239.2	73.7
150.0	46380.	-68.4			242.7	68.6
125.0	49962.	-69.3			243.3	49.2
100.0	54307.	-71.2			228.0	26.5
80.0	58664.	-68.4			210.2	16.4
70.0	61323.	-63.5			146.2	7.3
60.0	64428.	-63.2			200.8	5.7
50.0	68135.	-60.0			241.0	.5
40.0	72763.	-55.3			119.2	5.6
30.0	78846.	-52.2			35.0	4.9
25.0	82712.	-52.6			99.1	6.7
20.0	87488.	-48.2			74.0	1.8
15.0	93720.	-47.2			114.9	3.0
10.0	102608.	-41.9			125.3	21.0
7.0	110550.	-41.0				

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

STATION ALTITUDE 3951.40 FEET MSL
 2 OCT. 41 0811 HRS MD
 ASCENSION NO. 35

SIGNIFICANT LEVEL DATA
 27500:00035
 APACHE

GEODETIC COORDINATES
 32.62700 LAT DEG
 106.39352 LONG DEG

TABLE 9

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADES	REL. HUM. PERCENT
682.7	3051.4	17.5	85.8
650.0	5010.4	15.5	83.8
607.4	6441.7	13.1	96.6
714.8	9794.6	9.1	75.0
700.0	10364.3	7.4	95.0
652.6	12256.0	4.1	79.0
609.0	14098.1	.7	99.0
558.8	16368.7	-9	99.0
518.4	18334.0	-3.5	99.0
516.1	18449.2	-6.2	99.0
500.0	19262.8	-8.3	72.0
464.2	21149.6	-11.5	56.0
434.6	22804.8	-14.0	81.0
424.8	23373.5	-15.5	86.0
417.5	23803.0	-17.0	31.0
412.6	24093.8	-18.2	14.0
400.0	24852.5	-20.5	15.0
356.4	27635.1	-25.6	43.9
300.0	31673.4	-34.5	23.0
274.4	33709.0	-38.6	42.0
264.7	34519.9	-40.6	36.0
250.0	35793.2	-43.7	
200.0	40617.6	-54.5	
150.0	46508.7	-67.6	
129.8	49395.0	-65.5	
111.0	52353.9	-70.5	
100.0	54530.2	-72.0	
70.0	61587.4	-65.0	
50.0	68478.7	-57.9	
30.0	74264.0	-52.3	
20.0	87966.3	-51.1	
12.7	97770.2	-50.1	

STATION ALTITUDE 3,551.00 FEET ASL
 2 OCT. 61 0815 HRS MO
 ASCENSION NO. 35

UPPER AIR DATA
 2750050003
 APACHE

GEOMETRIC ALTITUDE 3,551.00 FEET ASL
 2 OCT. 61 0815 HRS MO
 ASCENSION NO. 35

TABLE 10

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CELSIUS	TEMPERATURE DEWPOINT AIR DEGREE CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SOUND SPEED KNOTS	WIND DIRECTION (DEGREES)	WIND SPEED (KNOTS)	INDEX OF REFRACTION
3951.0	882.7	17.5	15.0	85.0	1050.3	660.6	180.0	1.9	1.000310
4000.0	881.2	17.4	14.8	84.9	1048.8	660.5	177.3	2.2	1.000310
4500.0	865.6	16.5	13.7	84.0	1034.0	665.3	167.1	5.3	1.000302
5000.0	850.3	15.5	12.7	83.0	1019.5	664.1	164.4	8.4	1.000294
5500.0	835.2	14.7	12.6	87.4	1004.1	663.1	163.2	11.4	1.000291
6000.0	820.3	13.8	12.6	92.0	989.1	662.2	167.4	13.3	1.000287
6500.0	805.7	13.0	12.4	96.0	974.1	661.3	172.1	14.8	1.000284
7000.0	791.2	12.4	11.8	95.8	958.7	660.5	176.7	15.4	1.000278
7500.0	776.9	11.8	11.2	95.7	943.6	659.8	181.2	15.8	1.000272
8000.0	762.0	11.2	10.6	95.5	928.7	659.1	186.0	15.4	1.000267
8500.0	749.2	10.6	9.9	95.4	914.0	658.3	192.2	15.7	1.000261
9000.0	735.7	10.0	9.3	95.2	899.6	657.6	197.4	16.7	1.000256
9500.0	722.5	9.5	8.7	95.1	885.4	656.9	202.0	16.8	1.000251
10000.0	709.4	8.5	7.7	95.0	872.6	656.6	205.2	16.6	1.000245
10500.0	698.5	7.2	6.5	95.3	861.0	654.0	201.9	15.1	1.000238
11000.0	685.7	6.3	5.8	96.3	848.0	652.9	197.0	14.5	1.000234
11500.0	671.1	5.4	5.0	97.4	835.2	651.8	190.9	15.6	1.000229
12000.0	658.8	4.5	4.3	98.5	822.5	650.8	188.4	17.0	1.000224
12500.0	648.6	3.6	3.5	99.0	810.1	649.6	188.4	18.4	1.000219
13000.0	634.6	2.7	2.6	99.0	797.9	648.5	187.3	18.8	1.000214
13500.0	624.8	1.8	1.7	99.0	785.8	647.3	185.9	19.6	1.000210
14000.0	611.2	.9	.7	99.0	774.0	646.2	184.7	22.2	1.000205
14500.0	599.8	.4	.3	99.0	760.6	645.6	184.5	24.3	1.000201
15000.0	586.5	.1	-.1	99.0	747.5	645.2	185.3	25.4	1.000197
15500.0	571.5	-.3	-.4	99.0	734.4	644.8	185.8	25.9	1.000194
16000.0	560.7	-.6	-.8	99.0	721.6	644.4	187.1	26.3	1.000190
16500.0	550.0	-1.1	-1.2	99.0	709.2	643.8	188.7	26.6	1.000187
17000.0	545.5	-1.7	-1.9	99.0	697.6	643.0	190.2	26.8	1.000183
17500.0	535.2	-2.4	-2.5	99.0	686.1	642.2	191.6	26.9	1.000179
18000.0	525.1	-3.1	-3.2	99.0	674.9	641.4	192.5	26.5	1.000175
18500.0	515.1	-6.3	-6.7	97.3	670.7	637.2	192.3	25.5	1.000169
19000.0	505.1	-7.6	-10.3	80.7	661.4	635.5	190.4	24.1	1.000162
19500.0	495.4	-8.7	-13.2	70.0	651.4	634.1	185.0	22.2	1.000157
20000.0	485.7	-9.6	-14.7	65.7	640.9	633.0	173.5	20.8	1.000153
20500.0	475.2	-10.4	-16.3	61.5	630.5	631.3	171.2	20.2	1.000150
21000.0	465.9	-11.2	-18.0	57.3	620.3	630.8	167.7	20.4	1.000146
21500.0	457.8	-12.0	-17.9	61.3	610.0	629.9	167.0	21.1	1.000144
22000.0	448.7	-12.8	-17.3	68.0	599.6	629.0	172.5	21.9	1.000142
22500.0	439.9	-13.5	-16.0	76.4	589.5	628.1	179.3	23.0	1.000141
23000.0	431.2	-14.5	-16.8	82.7	580.0	627.0	189.6	24.6	1.000138

STATION ALTITUDE 3,514.40 FEET MSL
 2 OCT. 61 0815 HRS MDT
 ASCENSION 140. 35

UPPER AIR DATA
 2750050035
 APACHE

GEOLYTIC COORDINATES
 32.62700 LAT DEG
 106.39352 LONG DEG

TABLE 10 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES TRUE)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	422.6	-15.9	-20.2	69.8	571.4	625.1	199.2	26.1	1.000134
24000.0	414.2	-17.8	-35.5	19.5	564.9	622.6	207.8	27.9	1.000128
24500.0	405.8	-19.4	-39.7	14.5	557.1	620.6	212.3	28.6	1.000125
25000.0	397.6	-20.8	-40.5	15.1	548.7	619.0	216.5	29.0	1.000123
25500.0	389.4	-21.7	-41.1	15.2	539.4	617.4	220.5	29.0	1.000121
26000.0	381.4	-22.6	-41.8	15.4	530.2	616.7	224.7	28.8	1.000119
26500.0	373.6	-23.5	-42.4	15.6	521.3	615.6	227.4	29.3	1.000117
27000.0	365.9	-24.4	-43.1	15.8	512.5	614.4	227.2	31.3	1.000115
27500.0	358.4	-25.4	-43.7	16.0	503.4	613.3	225.5	32.4	1.000113
28000.0	350.9	-26.4	-44.2	16.6	495.3	612.0	223.4	32.9	1.000111
28500.0	343.5	-27.5	-44.7	17.5	487.1	610.6	220.9	32.9	1.000109
29000.0	336.2	-28.6	-45.2	18.4	478.9	609.3	218.7	31.9	1.000107
29500.0	329.1	-29.7	-45.7	19.2	471.0	607.9	217.1	29.9	1.000106
30000.0	322.2	-30.8	-46.3	20.1	463.1	606.5	216.5	28.6	1.000104
30500.0	315.4	-31.9	-46.8	21.0	455.4	605.1	216.7	27.9	1.000102
31000.0	308.7	-33.0	-47.4	21.8	447.9	603.7	222.7	30.0	1.000100
31500.0	302.2	-34.1	-48.0	22.7	440.4	602.3	229.2	33.5	1.000099
32000.0	295.7	-35.2	-47.7	26.0	432.4	601.0	233.0	35.5	1.000097
32500.0	289.3	-36.2	-47.2	30.7	425.3	599.8	234.7	37.1	1.000095
33000.0	283.1	-37.2	-46.8	35.4	417.4	598.5	231.8	37.7	1.000094
33500.0	276.9	-38.2	-46.7	40.0	410.5	597.2	230.1	41.0	1.000092
34000.0	270.9	-39.3	-47.7	39.8	403.5	595.8	229.3	45.9	1.000090
34500.0	264.9	-40.6	-49.7	36.1	396.4	594.2	230.8	48.4	1.000089
35000.0	259.1	-41.8	-49.7	36.1	390.0	592.6	232.7	50.0	1.000087
35500.0	253.3	-43.0	-54.8	22.4**	383.4	591.0	234.5	51.2	1.000085
36000.0	247.6	-44.2	-63.5	8.3**	371.7	589.5	233.2	53.0	1.000084
36500.0	242.0	-45.3			369.9	588.1	232.1	54.4	1.000082
37000.0	236.4	-46.4			363.2	586.6	231.5	55.1	1.000081
37500.0	231.0	-47.5			356.7	585.2	231.5	54.8	1.000079
38000.0	225.7	-48.6			350.3	583.7	231.4	55.4	1.000078
38500.0	220.6	-49.8			344.0	582.3	231.3	56.8	1.000077
39000.0	215.5	-50.9			337.4	580.8	232.7	57.0	1.000075
39500.0	210.6	-52.0			331.4	579.3	234.9	56.8	1.000074
40000.0	205.8	-53.1			325.4	577.9	236.7	57.3	1.000073
40500.0	201.1	-54.2			320.0	576.4	237.1	60.1	1.000071
41000.0	196.3	-55.4			314.0	574.9	237.1	66.2	1.000070
41500.0	191.6	-56.5			308.0	573.5	238.5	73.6	1.000069
42000.0	186.9	-57.6			302.1	572.0	238.8	77.7	1.000067
42500.0	182.4	-58.7			296.3	570.5	239.0	74.3	1.000066
43000.0	178.0	-59.8			290.7	569.0	241.4	69.4	1.000065

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

STATION ALTITUDE 3951.40 FEET MSL
 2 OCT. 51 0815 HRS MDT
 ASCENSION NO. 35

UPPER AIR DATA
 2750050035
 APACHE

TABLE 10 CONT

GEODETIC COORDINATES
 32.62700 LAT DEG
 106.39352 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43000.0	170.7	-60.9		285.2	567.6	243.9	63.2	1.000004
44000.0	169.5	-62.0		279.8	566.1	243.5	63.7	1.000062
44500.0	165.5	-63.1		274.5	564.6	242.3	66.2	1.000061
45000.0	161.5	-64.2		269.3	563.1	242.3	68.9	1.000060
45500.0	157.6	-65.4		264.2	561.6	242.4	71.0	1.000059
46000.0	153.8	-66.5		259.2	560.1	242.9	71.2	1.000058
46500.0	150.1	-67.6		254.3	558.6	244.1	69.2	1.000057
47000.0	146.4	-67.2		247.6	559.0	245.9	65.5	1.000055
47500.0	142.7	-66.9		241.1	559.5	247.3	61.0	1.000054
48000.0	139.2	-66.5		234.7	560.0	248.6	56.3	1.000052
48500.0	135.8	-66.2		228.5	560.5	248.1	50.7	1.000051
49000.0	132.4	-65.8		222.4	561.0	246.2	45.1	1.000050
49500.0	129.1	-65.7		216.8	561.1	242.0	39.6	1.000048
50000.0	125.9	-66.5		212.3	560.0	236.8	36.5	1.000047
50500.0	122.8	-67.4		207.8	558.9	230.9	34.5	1.000046
51000.0	119.7	-68.2		203.5	557.7	227.8	33.5	1.000045
51500.0	116.7	-69.1		199.2	556.6	224.7	32.6	1.000044
52000.0	113.8	-69.9		195.1	555.4	225.2	32.5	1.000043
52500.0	111.0	-70.6		190.8	554.4	226.1	32.7	1.000042
53000.0	108.2	-70.9		186.3	553.0	220.3	34.0	1.000041
53500.0	105.4	-71.3		181.9	553.5	229.9	34.5	1.000041
54000.0	102.8	-71.6		177.6	553.0	230.7	33.8	1.000040
54500.0	100.2	-72.0		173.4	552.6	229.3	31.9	1.000039
55000.0	97.7	-71.5		168.7	553.2	229.3	28.8	1.000038
55500.0	95.2	-71.0		164.1	553.9	226.4	25.2	1.000037
56000.0	92.8	-70.5		159.6	554.5	221.7	21.5	1.000036
56500.0	90.5	-70.0		155.3	553.2	217.1	17.7	1.000035
57000.0	88.3	-69.6		151.0	555.9	211.1	13.8	1.000034
57500.0	86.1	-69.1		146.9	556.6	206.0	11.0	1.000033
58000.0	83.9	-68.6		142.9	557.2	200.6	8.5	1.000032
58500.0	81.8	-68.1		139.0	557.9	197.9	8.2	1.000031
59000.0	79.8	-67.6		135.2	558.0	195.3	8.1	1.000030
59500.0	77.8	-67.1		131.5	559.3	194.2	8.5	1.000029
60000.0	75.8	-66.6		127.9	559.9	192.8	9.0	1.000028
60500.0	74.0	-66.1		124.4	560.0	190.8	9.7	1.000027
61000.0	72.1	-65.6		121.0	561.3	188.2	10.2	1.000027
61500.0	70.3	-65.1		117.7	561.9	184.1	10.7	1.000026
62000.0	68.6	-64.6		114.0	562.6	179.5	10.8	1.000026
62500.0	66.9	-64.1		111.5	563.3	174.3	10.4	1.000025
63000.0	65.3	-63.5		108.6	564.0	158.0	10.1	1.000024

STATION ALTITUDE 3951.00 FEET MSL
 2 OCT. 61 0815 HRS EDT
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UPPER AIR DATA
 27500-30000
 APACHE
 TABLE 10 CONT

GEODETIC COORDINATES
 32.62700 LAT DEG
 106.39352 LONG DEG

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
63500.0	63.8	-63.0		103.7	564.7	137.9	10.0	1.000024
64000.0	62.2	-62.5		102.4	565.4	123.7	9.0	1.000023
64500.0	60.7	-62.0		101.2	566.1	107.2	5.1	1.000022
65000.0	59.3	-61.5		97.5	566.8	64.0	2.6	1.000022
65500.0	57.8	-61.0		94.9	567.5	350.9	2.3	1.000021
66000.0	56.4	-60.5		92.4	568.2	327.7	3.7	1.000021
66500.0	55.1	-59.9		90.0	568.9	339.0	3.6	1.000020
67000.0	53.7	-59.4		87.6	569.5	347.9	3.8	1.000020
67500.0	52.4	-58.9		85.3	570.2	346.8	4.1	1.000019
68000.0	51.2	-58.4		83.0	570.9	348.8	4.1	1.000018
68500.0	49.9	-57.9		80.8	571.6	3.3	3.3	1.000018
69000.0	48.8	-57.6		78.8	571.9	19.7	2.8	1.000018
69500.0	47.6	-57.4		76.9	572.3	18.0	2.1	1.000017
70000.0	46.5	-57.1		75.0	572.8	20.0	1.7	1.000017
70500.0	45.4	-56.9		73.2	573.0	42.0	3.5	1.000016
71000.0	44.4	-56.6		71.4	573.3	48.5	5.5	1.000016
71500.0	43.3	-56.3		69.6	573.6	48.7	6.5	1.000015
72000.0	42.3	-56.1		67.9	574.0	48.9	7.5	1.000015
72500.0	41.3	-55.8		66.2	574.3	71.4	4.1	1.000015
73000.0	40.4	-55.6		64.0	574.7	147.9	3.3	1.000014
73500.0	39.4	-55.3		63.0	575.0	173.7	6.9	1.000014
74000.0	38.5	-55.0		61.5	575.4	178.4	10.9	1.000014
74500.0	37.6	-54.8		60.0	575.7	180.3	13.4	1.000013
75000.0	36.7	-54.5		58.5	576.0	181.3	13.7	1.000013
75500.0	35.9	-54.3		57.1	576.4	182.1	13.7	1.000013
76000.0	34.2	-54.0		55.7	576.7	180.7	11.0	1.000012
77000.0	33.4	-53.7		54.3	577.1	178.5	8.2	1.000012
77500.0	32.6	-53.5		53.0	577.4	156.6	3.8	1.000012
78000.0	31.9	-53.2		51.7	577.8	60.5	3.4	1.000012
78500.0	31.1	-53.0		50.4	578.1	29.1	5.3	1.000011
79000.0	30.4	-52.7		49.2	578.4	25.2	5.4	1.000011
79500.0	29.7	-52.4		47.9	578.8	31.7	5.4	1.000011
80000.0	29.0	-52.3		46.8	579.0	39.5	4.9	1.000010
80500.0	28.3	-52.2		45.7	579.1	39.5	4.5	1.000010
81000.0	27.7	-52.1		44.6	579.2	47.7	4.9	1.000010
81500.0	27.0	-52.0		43.6	579.3	53.7	5.8	1.000010
82000.0	26.4	-52.0		42.6	579.4	58.0	6.7	1.000009
82500.0	25.8	-51.9		41.6	579.4	71.7	6.3	1.000009
83000.0	25.2	-51.8		40.6	579.5	83.0	6.1	1.000009
83500.0	24.6	-51.8		39.7	579.6	103.3	6.2	1.000009

STATION ALTITUDE 3951.40 FEET .SL
 2 OCT. 51 0815 HRS MDT
 ASCENSION NO. 35

UPPER AIR DATA
 2750050035
 APACHE
 TABLE 10 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
83500.0	24.6	-51.7		38.7	579.7	111.1	5.1	1.000009
84000.0	24.1	-51.6		37.8	579.8	122.9	4.1	1.000008
84500.0	23.5	-51.6		37.0	579.9	132.9	3.0	1.000008
85000.0	23.0	-51.5		36.1	580.0	138.3	1.7	1.000008
85500.0	22.4	-51.4		35.3	580.1	175.2	.5	1.000008
86000.0	21.9	-51.4		34.4	580.2	85.5	.7	1.000008
86500.0	21.4	-51.3		33.6	580.3	76.3	2.1	1.000007
87000.0	20.9	-51.2		32.8	580.4	74.7	3.4	1.000007
87500.0	20.4	-51.2		32.1	580.4	97.4	2.2	1.000007
88000.0	20.0	-51.1		31.3	580.5	142.9	1.9	1.000007
88500.0	19.5	-51.0		30.6	580.6	180.5	2.5	1.000007
89000.0	19.1	-51.0		29.9	580.7	203.0	3.3	1.000007
89500.0	18.6	-50.9		29.2	580.7	215.6	4.3	1.000006
90000.0	18.2	-50.9		28.5	580.8	222.5	5.3	1.000006
90500.0	17.8	-50.8		27.9	580.9	222.5	4.4	1.000006
91000.0	17.4	-50.8		27.2	580.9	222.5	3.4	1.000006
91500.0	17.0	-50.7		26.6	581.0	222.5	2.4	1.000006
92000.0	16.6	-50.7		26.0	581.1	201.6	1.2	1.000006
92500.0	16.2	-50.6		25.4	581.1	113.1	1.0	1.000006
93000.0	15.8	-50.6		24.8	581.2	62.9	2.3	1.000006
93500.0	15.5	-50.5		24.2	581.3	73.8	4.0	1.000005
94000.0	15.1	-50.5		23.7	581.3	69.1	5.8	1.000005
94500.0	14.8	-50.4		23.1	581.4	66.6	7.7	1.000005
95000.0	14.4	-50.4		22.6	581.5			1.000005
95500.0	14.1	-50.3		22.1	581.5			1.000005
96000.0	13.8	-50.3		21.5	581.6			1.000005
96500.0	13.5	-50.2		21.0	581.7			1.000005
97000.0	13.2	-50.2		20.6	581.7			1.000005
97500.0	12.9	-50.1		20.1	581.8			1.000004

STATION ALTITUDE 3951.40 FEET MSL
 2 OCT. 63 085 HRS M D
 ASCENSION NO. 35

MANDATORY LEVELS
 2750050035
 APACHE

TABLE 11

PRESSURE		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT DEGREE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	5007.0	15.5	12.6	83.	164.4	14.4	
800.0	6692.0	12.8	12.2	90.	173.9	15.0	
750.0	8470.0	10.7	10.0	95.	191.9	15.7	
700.0	10354.0	7.4	6.7	95.	202.9	15.5	
650.0	12350.0	3.9	3.8	99.	188.4	18.0	
600.0	14475.0	.4	.3	99.	184.8	24.2	
550.0	16764.0	-1.4	-1.6	99.	189.5	26.7	
500.0	19236.0	-8.3	-12.4	72.	187.7	23.1	
450.0	21898.0	-12.7	-17.4	68.	171.7	21.8	
400.0	24811.0	-20.5	-40.3	15.	215.2	29.0	
350.0	28016.0	-26.5	-44.3	17.	223.2	33.3	
300.0	31610.0	-34.5	-48.2	23.	230.5	34.1	
250.0	35715.0	-43.7			233.8	52.2	
200.0	40519.0	-54.5			237.5	61.3	
175.0	43286.0	-60.6			243.2	64.8	
150.0	46383.0	-67.6			244.0	69.3	
125.0	50004.0	-66.8			235.4	36.0	
100.0	54362.0	-72.0			230.7	31.9	
80.0	58722.0	-67.6			195.7	8.0	
70.0	61377.0	-65.0			183.7	10.7	
60.0	64484.0	-61.7			93.6	4.0	
50.0	68222.0	-57.0			1.4	3.4	
40.0	72864.0	-52.5			161.4	4.0	
30.0	78926.0	-52.0			28.0	5.2	
25.0	82800.0	-51.0			105.1	5.9	
20.0	87555.0	-51.1			135.2	1.8	
15.0	93702.0	-50.5			60.3	6.3	

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

STATION ALTITUDE 6051.00 FEET ASL
 2 OCT. 61 0800 HRS DT
 ASCENSION NO. 101

STATION ALTITUDE DATA
 27500.00161
 JALLEN
 TABLE 12

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
879.6	4051.0	17.5	15.1	86.0
850.0	5011.4	15.4	13.9	91.0
777.8	7474.1	11.3	10.2	93.0
750.0	8119.3	-11.5	-12.4	93.0
740.2	8777.8	9.1	7.9	82.0
721.6	9471.9	8.5	5.8	83.0
712.2	9829.6	9.6	5.4	75.0
700.0	10300.4	5.0	5.1	84.0
676.0	11244.3	5.8	3.3	84.0
667.0	11606.0	6.2	4.4	88.0
640.0	12715.6	3.0	1.8	92.0
595.2	14639.5	-6	-1.9	91.0
583.0	15184.5	-9	-2.2	91.0
574.5	15569.6	-2.4	-3.7	91.0
556.5	16393.8	-3.8	-5.0	91.0
544.0	16940.3	-4.2	-5.4	91.0
540.7	17148.0	-2.6	-5.9	91.0
531.5	17595.0	-5.3	-6.7	90.0
500.0	19109.3	-7.2	-9.6	83.0
475.8	20434.4	-10.7	-12.4	87.0
457.2	21442.9	-11.4	-17.6	60.0
452.5	21703.0	-12.8	-19.3	58.0
432.6	22829.2	-14.3	-18.5	70.0
417.7	23701.3	-16.0	-20.5	33.0
400.0	24764.8	-18.8	-20.9	15.0
380.0	31608.7	-30.3	-40.9	21.0
250.0	35728.2	-43.5	-40.9	
200.0	40558.0	-54.1		
178.7	42906.7	-60.2		
151.5	46244.9	-66.7		
150.0	46448.8	-65.7		
143.0	47403.4	-66.9		
138.8	48584.4	-65.3		
119.0	51077.9	-66.9		
110.1	52612.7	-70.7		
100.9	54326.6	-69.1		
100.0	54502.7	-70.0		
90.5	56614.1	-69.0		
90.0	56879.7	-67.0		
72.9	60797.0	-65.3		

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

SIGNIFICANT LEVEL DATA
 27500.00161
 JALLEN

STATION ALTITUDE 4051.00 FEET MSL
 2 OCT. 61 8 50 HRS MDI
 ASCENSION NO. 161

TABLE 12 CON'T

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MFL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
71.7	61132.2	-63.3	
70.0	61619.2	-63.3	
61.9	64121.2	-62.3	
59.1	65069.4	-60.5	
50.0	68529.9	-50.5	
44.3	71049.9	-56.9	
43.3	71530.6	-54.4	
33.4	77061.8	-51.8	
30.0	79359.5	-52.6	
20.0	80085.1	-49.6	
15.4	93783.2	-47.1	

STATION ALTITUDE 4,510.00 FEET (SL)
 2 OCT. 51
 ASCENSION NO. 101

UPPER AIR DATA
 Z/S0030161
 JALLEN

STATION ALTITUDE 4,510.00 FEET (SL)
 2 OCT. 51
 ASCENSION NO. 101

STATION ALTITUDE 4,510.00 FEET (SL)
 2 OCT. 51
 ASCENSION NO. 101

GEODETIC COORDINATES
 33-16712 LAT DEG
 106-49511 LONG DEG

UPPER AIR DATA
 Z/S0030161
 JALLEN

STATION ALTITUDE 4,510.00 FEET (SL)
 2 OCT. 51
 ASCENSION NO. 101

STATION ALTITUDE 4,510.00 FEET (SL)
 2 OCT. 51
 ASCENSION NO. 101

TABLE 13

GEOMETRIC ALTITUDE (MSL) FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPELLO OF SOUNDING METER	WIND DIRECTION (T) DEGREES	WIND SPEED (T) KNOTS	INDEX OF REFRACTION
4051.0	879.6	17.5	86.0	1046.5	660.6	00	0.0	1.000311
4500.0	865.6	16.5	88.3	1033.5	665.5	169.2	3.2	1.000305
5000.0	850.3	15.4	90.9	1019.2	669.2	169.2	6.9	1.000300
5500.0	835.2	14.6	91.4	1004.2	663.1	169.2	10.5	1.000293
6000.0	820.2	13.8	91.8	989.3	662.1	168.7	12.4	1.000287
6500.0	805.6	12.9	92.2	976.7	661.1	167.4	11.8	1.000281
7000.0	791.2	12.1	92.6	960.3	660.0	174.4	11.7	1.000275
7500.0	777.0	10.4	93.0	949.3	657.9	165.2	12.2	1.000267
8000.0	762.4	-7.3	93.0	937.4	655.7	192.0	13.8	1.000240
8500.0	748.1	.4	92.4	929.6	655.3	190.9	15.5	1.000241
9000.0	734.2	8.9	89.1	902.0	650.0	196.8	15.3	1.000249
9500.0	720.9	8.6	82.4	887.0	655.5	190.4	15.2	1.000242
10000.0	707.8	8.4	78.3	870.1	655.8	193.7	16.1	1.000236
10500.0	694.9	7.2	84.0	859.4	652.7	191.5	17.1	1.000233
11000.0	682.1	6.3	84.0	846.7	652.5	190.5	17.9	1.000228
11500.0	669.6	6.1	86.8	831.6	651.5	189.1	18.7	1.000225
12000.0	657.3	5.1	89.4	819.3	649.5	189.0	19.5	1.000216
12500.0	645.2	3.6	91.2	808.6	649.5	189.0	20.6	1.000211
13000.0	633.2	2.5	91.9	797.1	648.1	189.3	21.7	1.000206
13500.0	621.3	1.5	91.6	785.0	648.9	189.4	23.0	1.000202
14000.0	609.7	.6	91.3	773.1	645.7	190.4	24.2	1.000197
14500.0	598.3	-3	91.1	761.4	644.0	190.2	24.7	1.000194
15000.0	587.1	-8	91.0	748.4	644.0	190.0	25.0	1.000194
15500.0	576.0	-2.1	91.0	736.1	642.4	190.0	25.0	1.000189
16000.0	565.1	-3.1	91.0	726.9	641.1	189.8	24.5	1.000185
16500.0	554.4	-3.9	91.0	715.1	640.2	189.3	23.0	1.000181
17000.0	543.8	-4.1	91.0	702.1	639.9	187.8	22.2	1.000178
17500.0	533.4	-4.7	90.2	690.4	639.2	185.1	22.2	1.000174
18000.0	523.2	-5.0	88.2	680.0	637.8	183.5	23.4	1.000170
18500.0	513.2	-6.4	86.0	668.5	637.1	182.6	25.3	1.000166
19000.0	503.3	-7.0	83.8	657.3	636.3	183.5	26.2	1.000163
19500.0	493.6	-8.1	84.0	647.4	634.9	184.6	27.0	1.000159
20000.0	484.1	-9.5	85.6	638.2	633.2	181.6	30.0	1.000156
20500.0	474.6	-10.7	85.2	628.9	631.7	179.2	33.2	1.000153
21000.0	465.3	-11.1	71.9	617.6	631.1	175.9	36.6	1.000148
21500.0	456.2	-11.7	59.6	607.1	630.3	175.9	40.1	1.000143
22000.0	447.2	-13.2	61.2	596.0	628.5	175.5	39.0	1.000141
22500.0	438.3	-13.9	66.5	586.2	627.7	175.4	36.3	1.000139
23000.0	429.6	-14.6	62.5	576.3	626.7	175.2	33.7	1.000136
23500.0	421.1	-15.6	41.5	569.2	625.4	177.0	26.1	1.000131

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

WIND AIR U, V
 2750030161
 JALLEN

TABLE 13 CON'T

STATION ALTITUDE 4351.00 FEET SL
 2 OCT. 61
 ASCENSION NO. 101
 0850 HRS MST

GEODETIC ALTITUDE FSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GRAMS PER CUBIC METER	SPEED OF SOUND METERS PER SECOND	DIRECTION DEGREES (TH)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	412.7	-10.8	28.0	561.5	623.9	190.9	18.0	1.000127
24500.0	404.4	-18.1	19.5	552.2	622.3	213.2	18.5	1.000125
25000.0	396.1	-19.3	15.2	543.6	620.7	222.7	22.7	1.000122
25500.0	387.9	-30.8	15.6	534.6	619.3	221.0	27.9	1.000120
26000.0	379.8	-21.6	16.1	525.9	617.9	219.0	29.5	1.000118
26500.0	371.9	-22.7	16.5	517.3	616.6	216.6	31.1	1.000116
27000.0	364.2	-23.9	17.0	508.8	615.2	216.1	31.4	1.000114
27500.0	356.6	-25.0	17.4	500.5	613.8	215.7	31.6	1.000112
28000.0	349.2	-26.1	17.8	492.3	612.3	215.9	32.3	1.000110
28500.0	341.9	-27.3	18.3	484.3	610.9	216.2	33.1	1.000109
29000.0	334.8	-28.4	18.7	476.4	609.5	216.9	33.4	1.000107
29500.0	327.8	-29.5	19.2	468.7	608.1	217.0	33.6	1.000105
30000.0	321.0	-30.7	19.6	461.1	606.7	217.4	34.0	1.000103
30500.0	314.3	-31.8	20.0	453.6	605.3	216.9	34.5	1.000102
31000.0	307.8	-32.9	20.5	446.3	603.8	217.0	35.2	1.000100
31500.0	301.4	-34.1	20.9	439.1	602.4	217.2	36.0	1.000098
32000.0	294.8	-35.2	19.0**	431.6	601.0	220.0	38.0	1.000097
32500.0	288.4	-36.3	16.5**	424.1	599.6	223.0	40.3	1.000095
33000.0	282.1	-37.4	13.9**	416.8	598.2	226.3	43.2	1.000093
33500.0	275.9	-38.5	11.4**	409.6	596.7	229.2	46.1	1.000091
34000.0	269.9	-39.6	8.0**	402.6	595.3	231.5	47.6	1.000090
34500.0	264.0	-40.8	6.3**	395.7	593.9	233.3	49.0	1.000088
35000.0	258.2	-41.9	3.7**	388.9	592.5	233.7	49.7	1.000087
35500.0	252.5	-43.0	1.2**	382.2	591.0	233.6	49.7	1.000085
36000.0	246.9	-44.1		375.5	589.6	233.3	48.6	1.000084
36500.0	241.2	-45.2		368.7	588.2	232.7	48.0	1.000082
37000.0	235.7	-46.3		362.0	586.8	231.9	48.5	1.000081
37500.0	230.4	-47.4		355.4	585.4	231.3	49.6	1.000079
38000.0	225.1	-48.5		349.0	583.9	230.9	51.8	1.000078
38500.0	220.0	-49.6		342.7	582.5	230.6	53.9	1.000076
39000.0	214.9	-50.7		336.6	581.1	230.3	55.1	1.000075
39500.0	210.0	-51.8		330.5	579.6	230.1	56.3	1.000074
40000.0	205.2	-52.9		324.6	578.2	229.8	57.6	1.000072
40500.0	200.5	-54.0		318.7	576.8	229.5	58.8	1.000071
41000.0	195.8	-55.2		313.0	575.4	230.1	60.0	1.000070
41500.0	191.2	-56.5		307.3	573.9	231.1	61.1	1.000068
42000.0	186.6	-57.8		302.0	572.5	232.1	62.2	1.000067
42500.0	182.2	-59.1		296.9	571.0	233.1	63.3	1.000066
43000.0	177.9	-60.4		291.2	569.5	234.1	64.5	1.000065
43500.0	173.5	-61.4		285.4	567.9	235.1	69.6	1.000064

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

STATION ALTITUDE 4051.00 FEET MSL
 2 OCT. 61 0830 HRS PDf
 ASCENSION NO. 161

UPPER AIR DATA
 2750030101
 JALLEN
 TABLE 13 CON'T

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SOUND SPEED KNOTS	WIND DIRECTION (DEGREES (TN))	WIND SPEED (KNOTS)	INDEX OF REFRACTION
44000.0	169.3	-62.3		279.0	565.7	232.3	74.8	1.000062
45000.0	165.2	-63.3		274.2	564.4	232.4	75.0	1.000061
45000.0	161.1	-64.3		268.0	563.0	232.7	74.4	1.000060
45000.0	157.2	-65.2		263.4	561.7	235.6	70.6	1.000059
46000.0	153.4	-66.2		258.2	560.4	240.0	65.8	1.000058
46500.0	149.6	-65.8		251.3	561.0	242.9	61.4	1.000056
47000.0	145.9	-66.4		245.9	560.2	244.8	57.0	1.000055
47500.0	142.3	-66.8		240.2	559.7	244.2	53.1	1.000053
48000.0	138.8	-66.1		233.5	560.6	241.7	49.7	1.000052
48500.0	135.4	-65.4		227.0	561.5	236.7	47.2	1.000051
49000.0	132.0	-65.6		221.6	561.3	229.9	45.8	1.000049
49500.0	128.8	-65.9		216.4	560.9	224.9	44.4	1.000048
50000.0	125.6	-66.2		211.4	560.4	222.8	42.2	1.000047
50500.0	122.5	-66.5		206.5	560.0	220.5	40.0	1.000046
51000.0	119.5	-66.9		201.7	559.6	224.5	39.3	1.000045
51500.0	116.5	-67.9		197.7	558.1	228.6	38.8	1.000044
52000.0	113.6	-69.2		194.0	556.4	230.0	35.8	1.000043
52500.0	110.7	-70.4		190.3	554.7	229.7	31.3	1.000042
53000.0	108.0	-70.3		185.4	554.8	229.7	27.5	1.000041
53500.0	105.2	-69.9		180.3	553.4	230.5	24.8	1.000040
54000.0	102.6	-69.4		175.4	556.1	231.2	22.4	1.000039
54500.0	100.0	-70.0		171.5	555.3	229.2	21.5	1.000038
55000.0	97.5	-69.9		167.1	555.4	227.1	20.7	1.000037
55500.0	95.1	-69.8		162.8	555.5	222.3	19.2	1.000036
56000.0	92.7	-68.7		157.9	557.1	216.4	17.7	1.000035
56500.0	90.4	-67.2		152.9	559.0	214.2	18.1	1.000034
57000.0	88.1	-66.8		148.0	559.6	214.5	19.5	1.000033
57500.0	86.0	-66.6		145.0	559.9	214.5	19.7	1.000032
58000.0	83.8	-66.4		141.3	560.1	213.9	17.3	1.000031
58500.0	81.8	-66.2		137.7	560.4	212.9	14.9	1.000031
59000.0	79.7	-66.0		134.1	560.7	204.7	11.6	1.000030
59500.0	77.8	-65.8		130.7	560.9	190.7	8.7	1.000029
60000.0	75.9	-65.6		127.3	561.2	179.5	8.7	1.000028
60500.0	74.0	-65.4		124.1	561.5	174.2	10.8	1.000028
61000.0	72.2	-64.1		120.3	563.3	170.5	10.5	1.000027
61500.0	70.4	-63.3		116.9	564.4	167.5	9.0	1.000026
62000.0	68.7	-63.1		114.0	564.6	163.3	7.5	1.000025
62500.0	67.0	-62.9		111.1	564.8	162.8	5.1	1.000025
63000.0	65.4	-62.7		108.3	565.1	162.5	2.7	1.000024
63500.0	63.8	-62.5		105.6	565.4	131.1	.9	1.000024

UPPER AIR DATA
 2750030161
 JALLEN

STATION ALTITUDE 4051.00 FEET MSL
 2 OCT. 81 0850 HRS MDT
 ASCENSION ISO. 161

GEOMETRIC ALTITUDE MSL FEET

PRESSURE MILLIBARS

TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE

REL. HUM. PERCENT

DENSITY GM/CUBIC METER

SPEED OF SOUND KNOTS

WIND DIRECTION DEGREES (TN)

SPEED KNOTS

INDEX OF REFRACTION

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

TABLE 13 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	62.3	-62.3		102.9	565.0	55.0	1.5	1.000023
64500.0	60.8	-61.6		100.1	560.7	39.0	3.0	1.000022
65000.0	59.3	-60.6		97.2	567.9	23.8	2.1	1.000022
65500.0	57.9	-60.3		94.7	568.4	343.6	1.4	1.000021
66000.0	56.5	-60.0		92.3	568.8	276.0	1.8	1.000021
66500.0	55.1	-59.7		90.0	569.2	240.4	4.0	1.000020
67000.0	53.8	-59.4		87.7	569.6	231.3	6.7	1.000020
67500.0	52.5	-59.1		85.5	570.0	227.2	6.8	1.000019
68000.0	51.3	-58.8		83.4	570.4	222.4	5.9	1.000019
68500.0	50.1	-58.5		81.3	570.7	218.2	5.3	1.000018
69000.0	48.9	-58.2		79.2	571.2	218.2	4.9	1.000018
69500.0	47.7	-57.9		77.2	571.6	218.2	4.5	1.000017
70000.0	46.6	-57.6		75.3	572.0	218.2	5.5	1.000017
70500.0	45.5	-57.2		73.4	572.4	218.2	6.7	1.000016
71000.0	44.4	-56.9		71.5	572.9	218.2	7.2	1.000016
71500.0	43.4	-56.6		69.1	576.0	218.2	6.5	1.000015
72000.0	42.4	-56.2		67.4	576.5	218.2	5.8	1.000015
72500.0	41.4	-55.9		65.8	576.8	201.7	3.8	1.000015
73000.0	40.4	-55.7		64.2	577.1	159.5	2.6	1.000014
73500.0	39.5	-55.5		62.6	577.4	122.4	3.8	1.000014
74000.0	38.6	-55.2		61.1	577.7	126.6	7.2	1.000014
74500.0	37.7	-55.0		59.6	578.0	128.1	10.5	1.000013
75000.0	36.8	-52.8		58.2	578.3	128.5	11.6	1.000013
75500.0	35.9	-52.5		56.8	578.6	128.4	9.9	1.000013
76000.0	35.1	-52.3		55.4	579.0	128.1	8.3	1.000012
76500.0	34.3	-52.1		54.0	579.3	127.9	5.1	1.000012
77000.0	33.5	-51.8		52.7	579.6	126.3	1.2	1.000012
77500.0	32.7	-52.0		51.5	579.4	309.3	2.7	1.000011
78000.0	32.0	-52.1		50.4	579.2	314.2	2.6	1.000011
78500.0	31.2	-52.3		49.3	579.0	322.5	2.1	1.000011
79000.0	30.5	-52.5		48.2	578.7	334.3	1.7	1.000011
79500.0	29.8	-52.6		47.1	578.6	342.2	1.2	1.000010
80000.0	29.1	-52.4		46.0	578.8	358.7	.8	1.000010
80500.0	28.5	-52.2		44.9	579.1	36.4	.6	1.000010
81000.0	27.8	-52.0		43.8	579.3	132.0	4.1	1.000010
81500.0	27.2	-51.9		42.8	579.5	136.5	8.3	1.000010
82000.0	26.5	-51.7		41.7	579.8	137.8	12.5	1.000009
82500.0	25.9	-51.5		40.8	580.0	139.5	13.1	1.000009
83000.0	25.3	-51.3		39.8	580.2	142.4	11.3	1.000009
83500.0	24.7	-51.2		38.8	580.4	146.3	9.6	1.000009

..EQUATIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

UPPER AIR DATA
 2750030161
 JALLEN
 TABLE 13 CONT

STATION ALTITUDE 1151.00 FEET MSL
 2 OCT. 61 0850 HRS MDT
 ASCENSION NO. 161

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
8400.0	24.2	-51.0		37.9	580.6	154.3	7.2	1.000009
8450.0	23.6	-50.8		37.0	580.9	194.5	3.6	1.000008
8500.0	23.1	-50.7		36.1	581.1	205.7	4.9	1.000008
8550.0	22.6	-50.5		35.3	581.3	206.0	9.4	1.000008
8600.0	22.0	-50.3		34.4	581.5	204.6	8.7	1.000008
8650.0	21.5	-50.1		33.6	581.8	279.7	7.5	1.000007
8700.0	21.0	-50.0		32.8	582.0	273.2	6.4	1.000007
8750.0	20.6	-49.8		32.1	582.2	258.9	5.5	1.000007
8800.0	20.1	-49.6		31.3	582.4	237.3	5.4	1.000007
8850.0	19.6	-49.4		30.6	582.7	217.2	5.9	1.000007
8900.0	19.2	-49.2		29.8	583.0	203.1	6.7	1.000007
8950.0	18.7	-49.0		29.1	583.3	194.2	5.3	1.000006
9000.0	18.3	-48.8		28.4	583.6	179.8	4.2	1.000006
9050.0	17.9	-48.5		27.8	583.9	157.4	3.5	1.000006
9100.0	17.5	-48.3		27.1	584.1			1.000006
9150.0	17.1	-48.1		26.5	584.4			1.000006
9200.0	16.7	-47.9		25.8	584.7			1.000006
9250.0	16.3	-47.7		25.2	585.0			1.000006
9300.0	16.0	-47.4		24.6	585.3			1.000005
9350.0	15.6	-47.2		24.1	585.6			1.000005

STATION ALTITUDE 4051.00 FEET SL
 2 OCT. 51
 ASCENSION NO. 161

MANDATORY LEVELS
 27500.50161
 JALLEN
 TABLE 14

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LO. DEG

PRESSURE GEO-POTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	ATK DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
650.0	5000.	15.4	13.9	91.	169.2	1.9	
600.0	6692.	12.6	11.4	92.	167.5	11.6	
750.0	8419.	-1.7	-2.0	93.	196.5	15.3	
700.0	10291.	7.6	5.1	94.	192.3	16.7	
650.0	12268.	4.2	2.0	90.	188.9	20.1	
600.0	14412.	-.2	-1.5	91.	190.2	24.6	
550.0	16685.	-4.0	-5.3	91.	189.1	22.4	
500.0	19143.	-7.2	-9.6	83.	183.9	20.4	
450.0	21810.	-13.0	-19.2	59.	175.5	39.9	
400.0	24729.	-18.8	-38.9	15.	222.9	20.1	
350.0	27947.	-26.0	-43.3	18.	215.9	32.3	
300.0	31547.	-34.3	-48.4	21.	217.3	30.2	
250.0	35652.	-43.5			233.0	49.2	
200.0	40463.	-54.1			229.5	58.9	
175.0	43227.	-61.0			233.5	67.7	
150.0	46325.	-65.7			242.0	62.0	
125.0	49955.	-66.3			222.5	41.6	
100.0	54337.	-70.0			229.3	21.6	
80.0	58741.	-66.0			206.0	12.2	
70.0	61411.	-63.3			166.0	8.7	
60.0	64530.	-61.1			33.0	2.7	
50.0	68272.	-58.5			218.2	5.3	
40.0	72925.	-53.6			139.0	2.7	
30.0	79024.	-52.6			338.8	1.4	
25.0	82900.	-51.3			144.0	10.5	
20.0	87676.	-49.6			235.3	5.4	

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

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DATE
FILME

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