

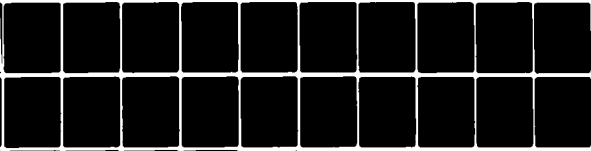
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ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/8 4/2
193040 MLRS, MISSILE NUMBER 002, ROUND NUMBER V-135/MD-2, 20 AP--ETC(U)
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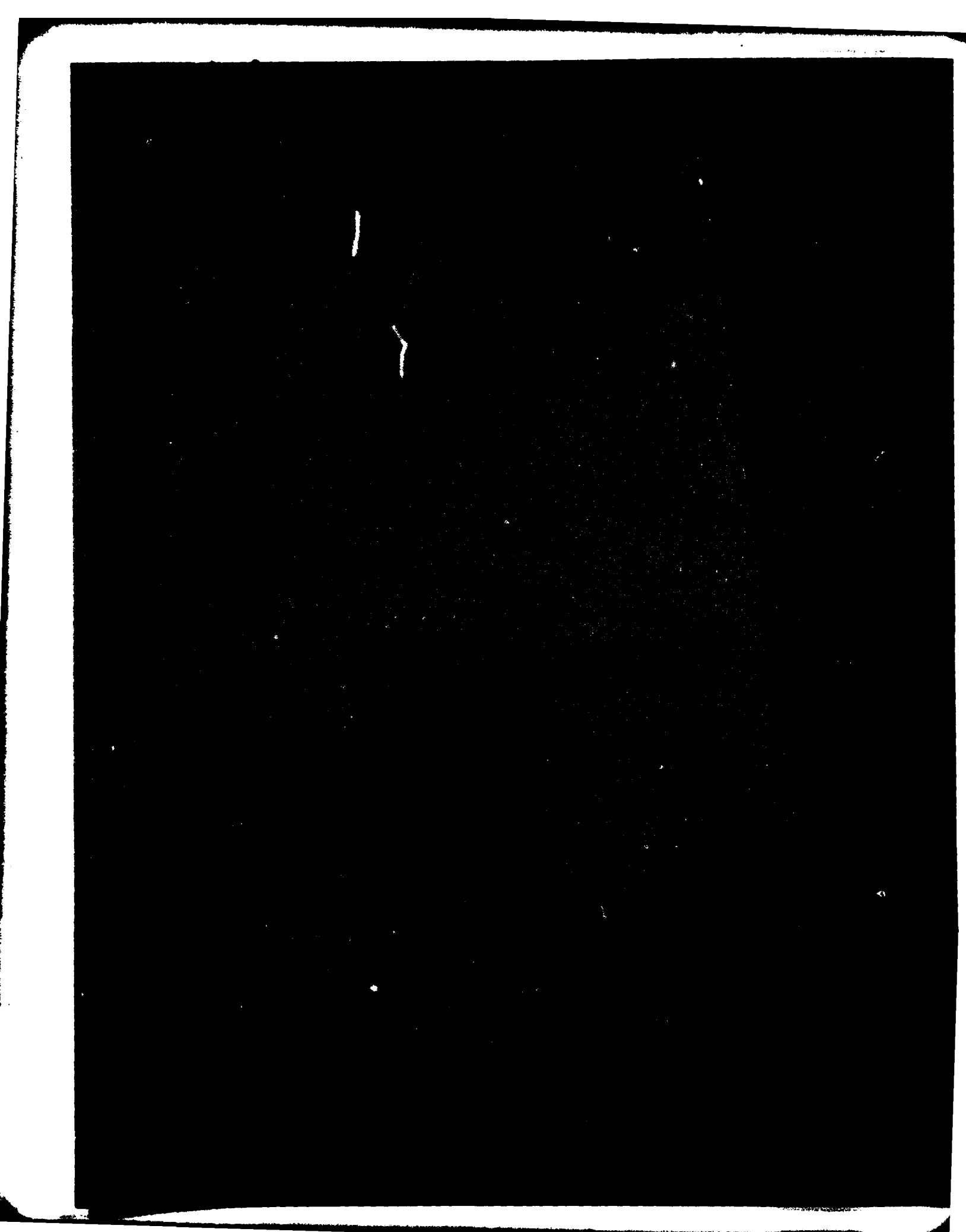
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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1173	2. GOVT ACCESSION NO. AD-A100 555	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 19304D MLRS Missile No. 002 Round No. V-135/MD-2	5. TYPE OF REPORT & PERIOD COVERED	
	6. PERFORMING ORG. REPORT NUMBER	
7. AUTHOR(s) White Sands Meteorological Team	8. CONTRACT OR GRANT NUMBER(s) DA Task 1F665702D127-02	
9. PERFORMING ORGANIZATION NAME AND ADDRESS	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cnd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002	12. REPORT DATE April 1981	
	13. NUMBER OF PAGES 34	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	15. SECURITY CLASS. (of this report) UNCLASSIFIED	
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report) <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p style="text-align: center;">DISTRIBUTION STATEMENT A</p> <p style="text-align: center;">Approved for public release; Distribution Unlimited</p> </div>		
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 19304D MLRS, Missile No. 002, Round No. V-135/MD-2, presented in tabular form.		

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INTRODUCTION

19304D MLRS, Missile Number 002, Round Number V-135/MD-2, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1200 MST on 20 April 1981. The scheduled launch time was 1200 MST.

DISCUSSION

Metecorological data were recorded and reduced by the White Sands Metecorological 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 (g/m^3), wind direction and speed, and cloud cover were made at the LC-33 met site at T-0 minutes.

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

b. Upper Air

(1) Low level wind data were obtained from KAITS (see PID) at the following sites:

SITE AND ALTITUDE

LC-33 1 KM
Nick 2 KM

(b) Air structure data (rawinsondes) were collected at the following sites:

SITE AND TIME

WSD 0900 MST
LC-37 1000 MST
WSD 1140 MST
LC-37 1215 MST

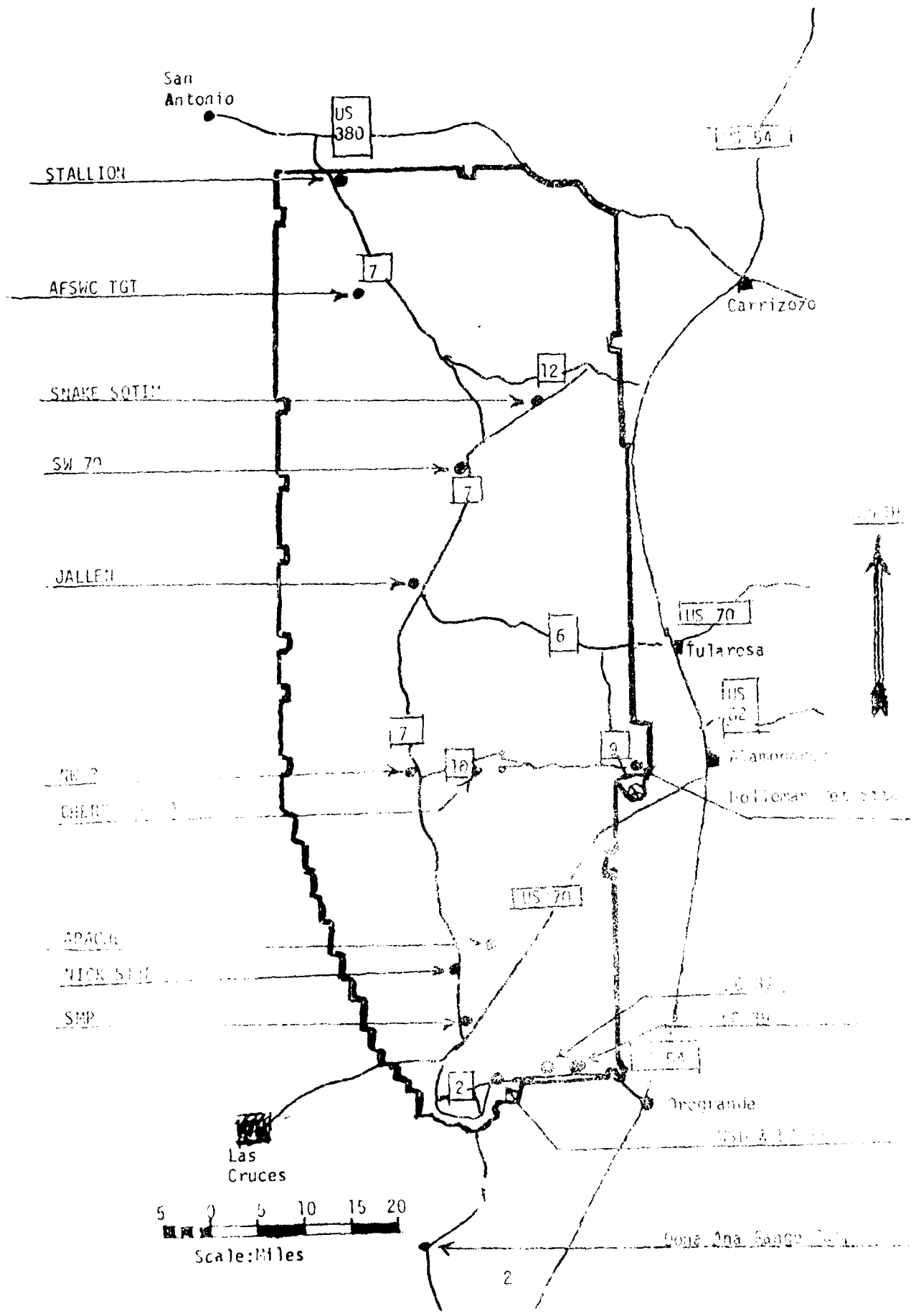


TABLE 1. Surface Observation taken at 1200 MST,
 20 April 1981, at LC-33, 19304D MLRS,
 Missile No. 002, Round No. V-135/MD-2.

ELEVATION	3983	FT/MSL
PRESSURE	880.1	MMHG
TEMPERATURE	26.0	DEGREES C
RELATIVE HUMIDITY	22	PERCENT
DEW POINT	2.8	DEGREES C
DENSITY	1021	GM/M ³
WIND SPEED	08	KTS
WIND DIRECTION	165	DEGREES
CLOUD COVER	0/CU/5000	AMT/TYPE/HGT

TABLE 2

LC-33 FIXED POLE ANEMOMETER MEASURED WINDS
 20 April 1981
 TIME: 1200 MST

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 X485,874.93 Y186,012.00 H4063.57 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	170	18	T=30	174	14	T-30	180	19
T-20	168	17	T-20	186	15	T-20	180	18
T-10	168	16	T-10	165	13	T-10	180	17
T0.0	162	20	T0.0	166	16	T0.0	180	17
T+10	165	17	T+10	165	13	T+10	175	17

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	166	19	T-30	176	23
T-20	166	12	T-20	168	24
T-10	154	16	T-10	170	22
T0.0	163	17	T0.0	159	21
T+10	149	17	T+10	171	19

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 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	168	MISG	T-30	165	20
T-20	177	MISG	T-20	171	20
T-10	172	MISG	T-10	171	21
T0.0	153	MISG	T0.0	150	17
T+10	174	MISG	T+10	175	20

TABLE 4

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 20 April 1981

SITE: LC-33
 TIME: 1200 MST
 WSTM COORDINATES:
 X= 486,037.24
 Y= 182,350.16
 H= 3977.30

SITE: NICK
 TIME: 1200 MST
 WSTM COORDINATES:
 X= 470,734.56
 Y= 255,775.64
 H= 4126.57

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	200	07
150	192	13
210	191	16
270	191	19
330	190	21
390	189	23
500	190	24
600	190	26
700	190	26
800	190	27
950	190	27
1150	190	23
1350	190	18
1550	190	14
1750	187	14
2000	191	15

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	181	15
150	186	15
210	165	16
270	203	14
330	208	11
390	175	09
500	199	06
600	155	10
700	169	10
800	189	10
950	187	11
1150	183	10
1350	180	08
1550	191	06
1750	180	06

TABLE 5

AIMING AND T-TIME COMPUTER MET MESSAGES
20 APRIL 1981

WSD 0900 MST
METCM1325065
200900122881
00000000 29470881
01349005 29390871
02298005 29130846
03340003 28730807
04371006 28240760
05343015 27790715
06354025 27460672
07358028 27200631
08376020 26860593

LC37 1000 MST
METCM1325064
201000124880
00516005 29560880
01458005 29430870
02419009 29180845
03324006 28800806
04315008 28320759
05318008 27840714
06331019 27340672
07343031 27060631
08365023 26880592

WSD 1140 MST
METCM1325065
201160122880
00409007 29950881
01360013 29760870
02355017 29350845
03361019 28960806
04368015 28480760
05329015 27990715
06362023 27610673
07377022 27220632
08381026 27000594

LC37 1215 MST
METCM1325064
201220124878
00356007 29920878
01300009 29510868
02305012 29200843
03335012 28810805
04369011 28360752
05350016 27820713
06356020 27340671
07372024 26990630
08380020 26770591

STATION ALTITUDE 3989.0 FEET
 20 APR. 61 0900 HRS
 ASCENSION NO. 280

SIGNIFICANT LEVEL DATA
 1100020260
 WHITE SANDS

GEODETIC COORDINATES
 52.40043 LAT DEG
 106.37033 LONG DEG

TABLE 1

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
881.1	3089.0	20.9	-1.0	23.0
871.2	4309.0	20.4	-5.4	17.0
850.0	5002.9	18.0	-8.6	18.0
787.1	7135.9	11.6	-9.4	22.0
700.0	10307.9	3.4	-9.5	38.0
679.1	11112.4	1.0	-11.4	59.8
653.1	12143.2	.8	-22.8	15.0
593.0	14660.6	-4.3	-27.7	14.0
528.0	17638.2	-10.0	-29.7	19.0
504.0	18807.0	-13.5	-31.9	20.0
501.6	18920.9	-13.2	-33.2	17.0
457.0	21177.0	19.3	-38.2	17.0
451.0	21547.0	-19.0	-38.5	16.0
401.0	24520.0	-26.3	-43.9	17.0
357.0	27635.9	32.0	-49.5	17.0
307.0	31002.0	-42.3		

STATION ALTITUDE 3989.00 FEET ASL
 20 APR. 61
 ASCENSION NO. 288

UPPER AIR DATA
 1100020280
 WHITE SANDS
 TABLE 7

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUMIDITY PERCENT	DENSITY GRAMS PER CUBIC METRE	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TH)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES CELSIUS	DEWPOINT DEGREES CELSIUS						
3989.0	881.1	20.0	-1.1	23.0	1041.3	868.9	90	.0	1.000257
4000.0	880.8	20.9	-1.1	22.8	1041.0	868.8	178.4	.0	1.000257
4500.0	863.3	19.7	-5.8	17.3	1027.4	867.3	173.4	.9	1.000246
5000.0	850.1	18.0	-6.0	14.0	1015.4	865.3	178.4	1.7	1.000243
5500.0	834.9	16.5	-7.2	10.9	1002.5	863.6	178.4	2.6	1.000239
6000.0	820.0	15.0	-7.8	19.9	989.8	861.8	178.4	3.5	1.000236
6500.0	805.4	13.5	-8.5	20.8	977.2	860.1	183.0	3.4	1.000233
7000.0	791.0	12.0	-9.2	21.7	964.9	858.3	190.4	3.3	1.000229
7500.0	776.6	10.7	-9.1	23.8	951.8	856.8	196.2	3.9	1.000226
8000.0	762.4	9.4	-9.0	26.4	938.6	855.3	200.2	4.7	1.000224
8500.0	748.4	8.1	-8.9	28.9	925.6	853.6	198.8	6.9	1.000221
9000.0	734.7	6.6	-8.0	31.6	912.8	852.3	197.0	9.2	1.000218
9500.0	721.2	5.5	-9.1	33.6	900.3	850.8	196.3	12.4	1.000216
10000.0	708.0	4.2	-9.4	36.4	887.9	849.3	195.7	15.5	1.000213
10500.0	695.0	2.2	-10.0	38.3	875.9	847.7	195.1	18.1	1.000209
11000.0	682.0	1.3	-11.1	38.3	864.3	845.9	195.0	21.2	1.000206
11500.0	669.0	.3	-14.7	36.6	849.7	843.3	194.3	24.6	1.000199
12000.0	650.0	.8	-20.1	35.0	834.6	840.1	200.2	27.3	1.000192
12500.0	645.0	.1	-23.1	34.0	821.0	844.1	201.9	29.6	1.000180
13000.0	632.1	-0.9	-24.1	33.1	808.4	842.9	203.2	28.0	1.000184
13500.0	626.3	-1.9	-20.3	32.2	795.1	841.7	201.0	27.4	1.000181
14000.0	600.0	-3.1	-20.1	31.1	784.0	840.3	202.2	23.4	1.000178
14500.0	590.0	-4.0	-23.1	30.1	772.0	839.3	208.0	19.0	1.000175
15000.0	585.0	-5.0	-23.1	30.1	760.1	838.1	211.0	19.5	1.000173
15500.0	574.0	-6.1	-26.1	30.1	748.4	836.8	211.1	20.6	1.000170
16000.0	562.0	-7.1	-28.1	30.1	736.6	835.8	211.4	23.6	1.000167
16500.0	552.0	-8.2	-28.1	30.1	725.5	834.3	211.0	25.1	1.000165
17000.0	541.0	-9.0	-24.2	30.1	714.3	833.0	220.0	23.2	1.000162
17500.0	530.0	-10.3	-28.0	30.1	703.3	831.7	221.1	25.9	1.000160
18000.0	520.0	-11.3	-30.1	30.1	693.0	830.1	223.1	23.8	1.000157
18500.0	510.0	-13.0	-31.1	30.1	683.1	828.9	223.0	27.8	1.000155
19000.0	500.0	-15.0	-31.1	30.1	671.3	827.6	227.3	28.0	1.000152
19500.0	490.0	-17.0	-30.1	30.1	661.3	826.0	228.0	28.0	1.000149
20000.0	480.0	-19.0	-33.1	30.1	651.4	824.9	229.0	28.0	1.000147
20500.0	470.0	-21.0	-30.1	30.1	641.7	823.7	225.0	28.7	1.000144
21000.0	460.0	-23.0	-30.1	30.1	632.0	822.4	230.0	27.5	1.000142
21500.0	450.0	-25.0	-30.1	30.1	620.0	820.0	231.0	27.4	1.000139
22000.0	440.0	-27.0	-30.1	30.1	610.0	819.0	233.0	27.1	1.000137
22500.0	430.0	-29.0	-30.1	30.1	600.0	817.0	234.0	26.0	1.000135
23000.0	420.0	-31.0	-30.1	30.1	590.0	815.0	230.0	25.7	1.000133

UPPER AIR DATA
 110002000
 WHITE SANDS
 TABLE 7 CONT.

STATION ALTITUDE 2999.0 METERS
 20 APR 64 0900 HRS EST
 ASCENSION NO. 257

GEOMETRIC COORDINATES
 32.40042 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FT-FET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KIOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KIOTS	INDEX OF REFRACTION
		AIR DEGREES CELSIUS	DEWPOINT CELSIUS						
23500.0	410.0	-24.2	-42.4	16.7	582.1	614.7	237.7	24.3	1.000151
24000.0	407.5	-25.5	-43.3	16.9	573.0	613.2	239.4	24.2	1.000128
24500.0	397.0	-26.7	-44.2	17.0	563.9	611.7	241.0	24.6	1.000126
25000.0	390.6	-27.9	-45.3	17.0	554.7	610.2	242.5	25.9	1.000124
25500.0	382.4	-29.1	-46.3	17.0	545.7	608.7	243.3	28.1	1.000122
26000.0	374.3	-30.3	-47.3	17.0	536.9	607.2	243.8	30.8	1.000120
26500.0	366.5	-31.5	-48.3	17.0	528.2	605.7	245.2	31.8	1.000118
27000.0	358.7	-32.7	-49.3	17.0	519.6	604.2	246.5	32.7	1.000116
27500.0	351.0	-33.9	-51.2	15.3**	511.0	602.6	249.0	33.3	1.000114
28000.0	343.3	-35.1	-53.5	13.1**	502.4	601.1	249.3	34.0	1.000112
28500.0	335.8	-36.3	-55.0	11.0**	494.0	599.6	247.9	34.9	1.000110
29000.0	328.5	-37.5	-56.5	8.8**	485.7	598.0	245.3	36.6	1.000108
29500.0	321.4	-38.7	-58.7	6.7**	477.6	596.5			1.000106
30000.0	314.4	-39.9	-61.7	4.5**	469.6	594.8			1.000105
30500.0	307.3	-41.1	-70.0	2.4**	461.7	593.4			1.000103
31000.0	300.4	-42.3	-83.0	0.3**	453.1	591.9			1.000101

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

STATION ALTITUDE 3989.00 FEET MSL
 20 APR. 61 0900 HRS MST
 ASCENSION: 110. 280
 MANDATORY LEVELS
 1100020280
 WHITE SANDS
 TAG: 8
 GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE GEOPOTENTIAL		AIR	TEMPERATURE	RELATIVE HUMIDITY	WIND DATA	
MILLIBARS	FEET	DEGREES	DEGREES	PERCENT	DIRECTION	SPEED
		CELSIUS	CELSIUS		(TN)	KNOTS
850.0	4999.	18.7	-6.0	18.	178.4	1.7
800.0	6683.	13.0	-8.7	21.	186.1	3.3
750.0	8445.	8.2	-8.9	29.	198.9	0.6
700.0	10298.	3.4	-9.5	38.	195.3	17.0
650.0	12255.	.5	-23.1	15.	201.1	28.5
600.0	14345.	-3.7	-27.1	14.	207.8	20.2
550.0	16580.	-8.4	-28.9	17.	218.9	25.1
500.0	18980.	-13.7	-33.4	17.	227.5	28.0
450.0	21573.	-19.6	-38.9	16.	232.0	27.4
400.0	24404.	-26.5	-44.1	17.	240.8	24.4
350.0	27521.	-34.0	-51.5	15.**	250.0	33.4
300.0	31000.	-42.5				

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

STATION ALTITUDE 4051.37 FEET MSL
 20 APR. 51
 ASCENSION NO. 30

SIGNIFICANT LEVEL DATA
 1100140030
 1100140037
 TABLE 9

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LONG DEG

MEASUREMENT	ALTITUDE (FEET)	TEMPERATURE DEWPOINT (CENTIGRADE)	REL. HUMIDITY PERCENT
17	381.8	-3.5	10.0
18	377.1	-3.9	20.0
19	372.4	-4.7	23.0
20	367.7	-4.9	25.0
21	363.0	-9.7	38.0
22	358.3	-10.6	50.0
23	353.6	-15.7	54.0
24	348.9	-22.9	20.0
25	344.2	-25.2	16.0
26	339.5	-31.9	13.0
27	334.8	-42.5	20.0
28	330.1	-49.5	21.0
29	325.4		
30	320.7		
31	316.0		
32	311.3		
33	306.6		
34	301.9		
35	297.2		
36	292.5		
37	287.8		
38	283.1		
39	278.4		
40	273.7		
41	269.0		
42	264.3		
43	259.6		
44	254.9		
45	250.2		
46	245.5		
47	240.8		
48	236.1		
49	231.4		
50	226.7		
51	222.0		
52	217.3		
53	212.6		
54	207.9		
55	203.2		
56	198.5		
57	193.8		
58	189.1		
59	184.4		
60	179.7		
61	175.0		
62	170.3		
63	165.6		
64	160.9		
65	156.2		
66	151.5		
67	146.8		
68	142.1		
69	137.4		
70	132.7		
71	128.0		
72	123.3		
73	118.6		
74	113.9		
75	109.2		
76	104.5		
77	99.8		
78	95.1		
79	90.4		
80	85.7		
81	81.0		
82	76.3		
83	71.6		
84	66.9		
85	62.2		
86	57.5		
87	52.8		
88	48.1		
89	43.4		
90	38.7		
91	34.0		
92	29.3		
93	24.6		
94	19.9		
95	15.2		
96	10.5		
97	5.8		
98	1.1		
99			
100			

STATION ALTITUDE 4051.37 FEET MSL
 20 APR. 61 1000 HRS MST
 ASCENSION NO. 30

SIGNIFICANT LEVEL DATA
 1100160030
 LC-37
 TABLE 9 CONT

GEODETIC COORDINATES
 52.40175 LAT DEG
 106.31232 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
20.0	87682.4	-47.0		
18.0	89092.0	-47.0		
14.8	94349.5	-40.4		
10.8	101512.7	-37.4		
10.0	103285.5	-34.4		
7.8	109122.1	-28.2		
7.0	111697.7	-28.2		
6.0	115374.5	-27.3		
4.8	120717.7	-26.5		

STATION ALTITUDE 4051.37 FEET MSL
 20 APR. 51
 ASCENSION NO. 33

UPPER AIR DATA
 1100180030
 1000 HRS MS
 10

GEODETTIC COORDINATES
 32.40175 LAT DEG
 106.31232 LONG DEG

GEOGRAPHIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	DEWPOINT DEGREES CELSIUS	RELATIVE HUMIDITY PERCENT	WIND SPEED KNOTS	WIND DIRECTION DEGREES (T)	WIND DATA		INDEX OF REFRACTION
							SPEED	HEIGHT	
4051.4	879.7	21.9	-3.0	10.6	309.9	290.0	5.1	1.000252	
4500.0	850.9	20.3	-3.6	15.1	698.1	270.8	4.1	1.000249	
5000.0	850.7	19.0	-2.7	22.8	660.6	241.7	3.8	1.000248	
5500.0	830.6	17.5	-3.4	23.7	664.9	215.5	4.5	1.000244	
6000.0	820.8	16.1	-4.3	24.4	663.2	198.7	5.8	1.000240	
6500.0	800.2	14.6	-5.0	25.2	661.5	190.5	6.7	1.000236	
7000.0	791.5	13.1	-5.4	27.0	659.8	184.9	7.2	1.000233	
7500.0	777.1	11.6	-5.9	28.6	658.1	180.0	7.7	1.000230	
8000.0	762.9	10.1	-6.5	30.3	656.3	179.4	8.1	1.000226	
8500.0	749.0	8.7	-7.1	31.9	654.6	180.2	8.4	1.000223	
9000.0	735.4	7.2	-7.8	33.6	652.8	181.6	8.7	1.000220	
9500.0	722.0	5.7	-8.5	35.2	651.1	182.9	9.8	1.000216	
10000.0	708.8	4.2	-9.2	36.9	649.3	182.9	11.1	1.000213	
10500.0	695.8	2.7	-9.9	38.1	647.6	183.5	12.5	1.000210	
11000.0	682.8	1.5	-10.6	42.7	645.9	184.4	14.6	1.000207	
11500.0	670.0	0.1	-11.2	49.9	644.3	185.4	18.5	1.000204	
12000.0	657.4	-1.5	-11.8	49.8	642.6	186.1	22.4	1.000202	
12500.0	644.9	-2.1	-12.5	32.0	641.7	189.9	26.9	1.000193	
13000.0	632.7	-2.5	-13.2	22.6	641.1	193.7	30.2	1.000187	
13500.0	620.7	-3.0	-13.9	19.6	640.5	197.8	31.1	1.000183	
14000.0	608.0	-3.5	-14.6	19.1	639.9	200.5	28.6	1.000180	
14500.0	597.2	-4.0	-15.3	18.6	639.3	203.5	25.3	1.000177	
15000.0	585.8	-4.6	-16.0	18.0	638.6	207.3	21.9	1.000173	
15500.0	574.4	-5.1	-16.7	18.1	637.4	210.9	20.4	1.000170	
16000.0	563.3	-5.7	-17.4	18.2	636.1	215.8	21.3	1.000168	
16500.0	552.3	-6.3	-18.1	18.4	634.6	219.0	22.7	1.000165	
17000.0	541.5	-6.8	-18.8	18.5	633.5	217.4	24.5	1.000162	
17500.0	531.0	-7.4	-19.5	18.6	632.2	219.6	26.1	1.000159	
18000.0	520.7	-8.0	-20.2	18.7	630.9	222.2	27.8	1.000157	
18500.0	510.6	-8.6	-20.9	18.9	629.6	223.9	29.1	1.000154	
19000.0	500.7	-9.2	-21.6	19.0	628.6	225.0	30.0	1.000152	
19500.0	490.5	-9.8	-22.3	19.1	628.8	225.9	30.7	1.000149	
20000.0	480.6	-10.5	-23.0	19.2	628.5	226.5	30.8	1.000147	
20500.0	470.9	-11.2	-23.7	19.3	628.9	227.4	30.7	1.000144	
21000.0	461.5	-11.9	-24.4	19.4	629.6	229.0	30.2	1.000142	
21500.0	452.0	-12.6	-25.1	19.5	629.4	230.2	29.3	1.000140	
22000.0	442.6	-13.3	-25.8	19.5	629.8	231.8	28.0	1.000137	
22500.0	433.0	-14.0	-26.5	19.5	629.7	229.9	26.9	1.000135	
23000.0	423.6	-14.7	-27.2	19.7	629.4	227.0	26.0	1.000133	
23500.0	414.0	-15.4	-27.9	19.7	629.2	227.2	25.8	1.000131	

UPPER AIR DATA
 1100180030
 LC-37

STATION ALTITUDE 4651.37 FEET MSL
 20 APR. 81
 ASCENSION NO. 30

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

TABLE 10 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION																														
										2400.0	2450.0	2500.0	2550.0	2600.0	2650.0	2700.0	2750.0	2800.0	2850.0	2900.0	2950.0	3000.0	3050.0	3100.0	3150.0	3200.0	3250.0	3300.0	3350.0	3400.0	3450.0	3500.0	3550.0	3600.0	3650.0	3700.0	3750.0	3800.0	3850.0
2400.0	406.0	-25.2	-41.6	19.9	573.2	613.4	227.0	26.1	1.000129																														
2450.0	399.7	-26.4	-42.6	20.0	564.3	611.9	230.8	26.8	1.000127																														
2500.0	391.2	-27.7	-43.6	20.1	555.1	610.4	234.5	28.0	1.000124																														
2550.0	382.9	-28.9	-44.5	20.3	546.1	608.9	237.2	28.9	1.000122																														
2600.0	374.8	-30.1	-45.5	20.4	537.3	607.3	239.7	29.8	1.000120																														
2650.0	366.9	-31.4	-46.5	20.6	528.6	605.8	241.0	30.7	1.000118																														
2700.0	359.1	-32.6	-47.5	20.7	520.0	604.3	243.4	31.8	1.000116																														
2750.0	351.5	-33.8	-48.5	20.9	511.7	602.7	245.5	33.7	1.000114																														
2800.0	344.1	-35.1	-49.6	20.9**	503.4	601.2	247.2	35.5	1.000113																														
2850.0	336.6	-36.3	-52.1	17.5**	495.0	599.6	248.2	36.8	1.000111																														
2900.0	329.2	-37.6	-55.0	14.1**	486.7	598.0	249.0	38.2	1.000109																														
2950.0	322.0	-38.8	-58.2	10.8**	478.6	596.4	248.6	39.7	1.000107																														
3000.0	314.9	-40.1	-62.0	7.4**	470.7	594.8	248.1	41.3	1.000105																														
3050.0	308.0	-41.5	-67.4	4.0**	462.8	593.2	247.9	41.7	1.000103																														
3100.0	301.3	-42.8	-80.1	.7**	455.2	591.6	247.7	42.1	1.000101																														
3150.0	294.5	-43.7			447.2	590.1	248.5	43.2	1.000100																														
3200.0	287.0	-44.8			439.2	588.7	249.7	44.5	1.000098																														
3250.0	281.4	-45.9			431.4	587.3	250.2	47.1	1.000096																														
3300.0	275.1	-47.9			423.7	585.9	250.2	50.7	1.000094																														
3350.0	268.9	-48.1			416.2	584.5	249.5	53.5	1.000093																														
3400.0	262.7	-49.0			408.3	583.0	247.0	55.3	1.000091																														
3450.0	256.7	-49.8			400.5	582.2	245.5	57.3	1.000089																														
3500.0	250.8	-50.7			392.8	581.1	245.7	59.9	1.000087																														
3550.0	245.0	-51.3			384.9	580.2	245.0	62.3	1.000086																														
3600.0	239.2	-51.9			376.8	579.5	244.9	64.6	1.000084																														
3650.0	233.7	-52.5			369.0	578.7	244.7	67.0	1.000082																														
3700.0	228.3	-53.1			361.4	577.9	244.7	70.4	1.000080																														
3750.0	222.9	-53.7			353.9	577.1	244.0	73.9	1.000079																														
3800.0	217.7	-54.3			346.6	576.3	244.9	76.4	1.000077																														
3850.0	212.7	-54.9			339.5	575.5	244.9	78.9	1.000076																														
3900.0	207.7	-55.5			332.5	574.7	244.3	79.1	1.000074																														
3950.0	202.4	-56.2			325.0	573.9	243.5	76.1	1.000073																														
4000.0	196.1	-56.8			318.0	573.1	242.0	76.6	1.000071																														
4050.0	190.0	-57.0			312.3	572.2	241.7	81.8	1.000070																														
4100.0	184.0	-58.1			305.8	571.3	241.1	84.3	1.000068																														
4150.0	178.1	-58.8			299.5	570.5	241.0	87.3	1.000067																														
4200.0	172.4	-59.7			292.2	570.1	242.0	90.2	1.000065																														
4250.0	166.8	-60.2			284.0	571.2	242.3	96.4	1.000063																														
4300.0	161.4	-60.8			277.8	571.2	242.5	88.2	1.000062																														
4350.0	156.1	-61.5			271.0	570.0	242.7	86.0	1.000060																														

** VALUES ARE THE 10-MPH RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.37 FEET MSL
 20 APR. 61 1000 HRS
 ASCENSION, HO. 30

UPPER AIR DATA
 1100160030
 1000 FT
 1000 TO 600 FT

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES C	TEMPERATURE WET BULB DEGREES C	WIND DIRECTION DEGREES (TIN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4400.0	155.5	-62.0	-62.0	242.7	83.3	1.000059
4350.0	157.5	-62.0	-62.0	242.7	80.7	1.000057
4300.0	159.5	-62.0	-62.0	243.0	80.3	1.000056
4250.0	162.0	-62.0	-62.0	242.9	80.0	1.000054
4200.0	163.0	-62.0	-62.0	242.0	80.2	1.000053
4150.0	164.0	-62.0	-62.0	242.1	80.9	1.000052
4100.0	161.5	-62.0	-62.0	241.0	81.5	1.000051
4050.0	160.1	-62.0	-62.0	241.0	81.4	1.000050
4000.0	157.8	-62.0	-62.0	240.3	81.2	1.000049
3950.0	151.6	-62.0	-62.0	239.6	80.8	1.000048
3900.0	128.4	-62.0	-62.0	240.1	79.4	1.000047
3850.0	129.3	-62.0	-62.0	240.3	77.9	1.000046
3800.0	124.3	-62.0	-62.0	241.1	74.9	1.000045
3750.0	119.6	-62.0	-62.0	242.0	71.3	1.000044
3700.0	116.5	-62.0	-62.0	242.0	67.7	1.000043
3650.0	113.7	-62.0	-62.0	243.5	64.0	1.000042
3600.0	110.0	-62.0	-62.0	244.2	60.4	1.000041
3550.0	108.2	-63.0	-63.0	244.2	57.1	1.000040
3500.0	105.6	-63.0	-63.0	244.2	53.9	1.000039
3450.0	103.0	-63.0	-63.0	243.4	49.9	1.000038
3400.0	100.5	-63.0	-63.0	241.4	44.9	1.000037
3350.0	98.0	-62.7	-62.7	238.9	40.0	1.000036
3300.0	95.7	-62.3	-62.3	238.9	36.5	1.000035
3250.0	92.3	-61.9	-61.9	231.7	33.7	1.000034
3200.0	91.1	-62.0	-62.0	227.0	31.1	1.000034
3150.0	88.9	-63.7	-63.7	228.2	29.5	1.000033
3100.0	86.7	-62.8	-62.8	229.6	29.0	1.000032
3050.0	84.6	-61.8	-61.8	231.3	26.4	1.000031
3000.0	82.6	-61.0	-61.0	234.9	24.3	1.000030
2950.0	80.5	-62.1	-62.1	239.3	22.3	1.000030
2900.0	78.6	-63.2	-63.2	243.2	20.4	1.000029
2850.0	76.8	-62.0	-62.0	244.4	18.5	1.000028
2800.0	74.8	-61.0	-61.0	245.0	16.6	1.000028
2750.0	72.8	-61.0	-61.0	247.4	14.7	1.000027
2700.0	70.8	-60.5	-60.5	249.1	12.8	1.000027
2650.0	68.8	-61.1	-61.1	251.1	10.8	1.000026
2600.0	66.8	-61.1	-61.1	250.7	8.8	1.000026
2550.0	64.8	-61.1	-61.1	250.1	6.8	1.000025
2500.0	62.8	-61.1	-61.1	250.1	4.8	1.000025
2450.0	60.8	-61.1	-61.1	250.1	2.8	1.000025
2400.0	58.8	-61.1	-61.1	250.1	0.8	1.000025

STATION ALTITUDE 4651.37 FEET MSL
 20 APR. 81 1000 HRS MST
 ASCENSION NO. 30

UPPER AIR DATA
 1100140030
 LC-37
 TABLE 10 CONT

GEODETIC COORDINATES
 12.40175 LAT DEG
 106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	61.3	-63.8		101.9	563.7	200.4	5.2	1.000023
64500.0	59.8	-64.0		99.6	563.4	170.5	6.4	1.000022
65000.0	58.3	-63.0		96.7	564.8	151.9	8.7	1.000022
65500.0	56.9	-62.0		93.9	566.1	140.5	11.1	1.000021
66000.0	55.5	-61.4		91.4	566.9	120.8	11.7	1.000020
66500.0	54.2	-61.1		89.1	567.3	104.8	13.5	1.000020
67000.0	52.9	-60.9		86.8	567.6	97.0	14.8	1.000019
67500.0	51.6	-60.6		84.6	568.0	98.5	14.3	1.000019
68000.0	50.4	-60.3		82.5	568.4	99.6	13.7	1.000018
68500.0	49.2	-60.0		80.4	568.8	104.1	13.5	1.000018
69000.0	48.0	-59.6		78.4	569.3	110.5	13.7	1.000017
69500.0	46.9	-59.3		76.4	569.7	116.4	14.1	1.000017
70000.0	45.8	-58.9		74.5	570.2	113.1	14.3	1.000017
70500.0	44.7	-58.6		72.6	570.6	108.2	14.5	1.000016
71000.0	43.7	-58.3		70.8	571.1	103.5	14.9	1.000016
71500.0	42.6	-57.9		69.0	571.5	95.8	14.1	1.000015
72000.0	41.6	-57.6		67.3	572.0	87.5	13.7	1.000015
72500.0	40.6	-57.2		65.6	572.4	79.6	13.9	1.000015
73000.0	39.7	-56.9		63.9	572.9	78.0	16.5	1.000014
73500.0	38.8	-56.6		62.3	573.3	76.8	19.1	1.000014
74000.0	37.8	-56.2		60.8	573.8	77.7	21.9	1.000014
74500.0	37.0	-55.9		59.2	574.2	81.9	25.4	1.000013
75000.0	36.1	-55.5		57.8	574.7	85.1	28.9	1.000013
75500.0	35.2	-55.2		56.3	575.1	86.0	32.0	1.000013
76000.0	34.4	-54.9		54.9	575.6	84.6	34.4	1.000012
76500.0	33.6	-54.5		53.5	576.0	83.4	36.7	1.000012
77000.0	32.8	-54.2		52.2	576.5	82.4	36.4	1.000012
77500.0	32.0	-53.8		50.9	576.9	81.5	34.1	1.000011
78000.0	31.2	-53.5		49.6	577.4	80.4	31.8	1.000011
78500.0	30.5	-53.2		48.4	577.8	81.4	29.0	1.000011
79000.0	29.7	-52.8		47.1	578.3	83.8	26.0	1.000010
79500.0	29.1	-52.2		45.9	579.1	86.6	23.0	1.000010
80000.0	28.5	-51.7		44.8	579.8	88.4	21.2	1.000010
80500.0	27.9	-51.1		43.7	580.5	89.5	19.8	1.000010
81000.0	27.2	-50.6		42.6	581.2	90.2	18.5	1.000009
81500.0	26.6	-50.1		41.5	581.9	91.4	17.4	1.000009
82000.0	26.0	-49.5		40.4	582.6	92.0	16.4	1.000009
82500.0	25.4	-49.0		39.4	583.3	94.1	15.4	1.000009
83000.0	24.8	-48.4		38.4	584.0	94.1	14.4	1.000009
83500.0	24.2	-47.8		37.4	584.7	92.8	13.4	1.000008

STATION ALTITUDE 4251.77 FEET MSL
 20 APR. 61
 ASCENSION 140. 30

UPPER AIR DATA
 1100160030
 12-57

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

TABLE 10 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
84000.0	23.7	-47.0		36.5	585.2	90.8	12.3	1.000008
84500.0	23.1	-47.3		35.7	585.3	88.0	11.4	1.000008
85000.0	22.6	-47.4		34.9	585.4	86.0	11.0	1.000008
85500.0	22.1	-47.2		34.1	585.5	84.4	10.7	1.000008
86000.0	21.6	-47.2		33.3	585.6	82.0	10.4	1.000007
86500.0	21.1	-47.2		32.5	585.7	80.4	12.1	1.000007
87000.0	20.6	-47.1		31.8	585.7	79.2	13.7	1.000007
87500.0	20.2	-47.0		31.1	585.8	79.2	15.4	1.000007
88000.0	19.7	-47.0		30.4	585.9	77.5	17.0	1.000007
88500.0	19.3	-47.0		29.7	585.9	77.0	18.5	1.000007
89000.0	18.8	-47.0		29.0	585.9	76.5	20.1	1.000006
89500.0	18.4	-47.0		28.4	585.9	79.8	19.5	1.000006
90000.0	18.0	-47.0		27.7	585.9	85.8	18.0	1.000006
90500.0	17.6	-46.2		27.0	586.0	92.9	16.8	1.000006
91000.0	17.2	-45.5		26.3	587.0	101.9	15.0	1.000006
91500.0	16.8	-44.7		25.7	588.8	115.0	12.8	1.000006
92000.0	16.4	-44.0		25.0	589.8	132.3	11.5	1.000006
92500.0	16.1	-43.2		24.4	590.8	148.2	11.3	1.000005
93000.0	15.7	-42.4		23.7	591.7	149.4	10.8	1.000005
93500.0	15.4	-41.7		23.1	592.7	150.6	10.3	1.000005
94000.0	15.0	-40.9		22.6	593.7	152.0	9.9	1.000005
94500.0	14.7	-40.2		22.0	594.4	146.4	8.5	1.000005
95000.0	14.4	-40.1		21.5	594.7	138.2	7.2	1.000005
95500.0	14.1	-39.9		21.0	595.0	126.0	6.1	1.000005
96000.0	13.8	-39.7		20.5	595.2	110.9	5.2	1.000005
96500.0	13.5	-39.5		20.1	595.5	89.6	4.6	1.000004
97000.0	13.2	-39.3		19.6	595.8	65.7	4.7	1.000004
97500.0	12.9	-39.1		19.2	596.0	46.9	5.5	1.000004
98000.0	12.6	-38.9		18.7	596.3	36.3	6.6	1.000004
98500.0	12.3	-38.7		18.3	596.6	35.2	7.7	1.000004
99000.0	12.1	-38.5		17.9	596.8	34.4	8.7	1.000004
99500.0	11.8	-38.2		17.5	597.1	33.7	9.7	1.000004
100000.0	11.5	-38.0		17.1	597.4	35.3	10.6	1.000004
100500.0	11.2	-37.8		16.7	597.6	33.0	11.2	1.000004
101000.0	11.0	-37.6		16.3	597.7	41.4	11.9	1.000004
101500.0	10.7	-37.4		16.0	598.2	44.0	12.7	1.000004
102000.0	10.6	-36.6		15.6	599.2	51.4	15.4	1.000003
102500.0	10.3	-35.7		15.2	600.3	59.0	19.3	1.000003
103000.0	10.1	-34.4		14.8	601.3	63.1	23.5	1.000003
103500.0	9.9	-33.4		14.4	602.2	68.9	27.8	1.000003

UPPER AIR DATA
 1100180030
 LC-37

STATION ALTITUDE 4051.37 FEET MSL
 20 APR. 61
 ASCENSION NO. 30

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

TABLE TO CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
10400.0	9.7	-33.6		14.1	602.9	71.4	29.3	1.000003
10450.0	9.5	-33.1		13.8	603.0	76.4	30.1	1.000003
10500.0	9.3	-32.6		13.5	604.2	81.1	31.1	1.000003
10550.0	9.1	-32.0		13.1	604.9	85.4	32.4	1.000003
106000.0	8.9	-31.5		12.8	605.0	89.1	30.9	1.000003
106500.0	8.7	-31.0		12.5	606.2	93.3	28.7	1.000003
107000.0	8.5	-30.5		12.3	606.9	98.1	26.8	1.000003
107500.0	8.4	-29.9		12.0	607.6	103.6	25.0	1.000003
108000.0	8.2	-29.4		11.7	608.2	103.9	23.4	1.000003
108500.0	8.0	-28.9		11.4	608.9	102.7	21.8	1.000003
109000.0	7.8	-28.3		11.2	609.0	101.2	20.1	1.000002
109500.0	7.7	-28.2		10.9	609.7	99.6	18.5	1.000002
110000.0	7.5	-28.2		10.7	609.7	95.5	18.8	1.000002
110500.0	7.4	-28.2		10.5	609.7	91.2	19.7	1.000002
111000.0	7.2	-28.2		10.3	609.7	87.3	20.7	1.000002
111500.0	7.1	-28.2		10.0	609.7	83.8	21.7	1.000002
112000.0	6.9	-28.1		9.8	609.8	74.8	22.3	1.000002
112500.0	6.8	-28.0		9.6	610.0	64.9	23.4	1.000002
113000.0	6.6	-27.9		9.4	610.1	56.1	25.1	1.000002
113500.0	6.5	-27.8		9.2	610.3	48.5	27.3	1.000002
114000.0	6.4	-27.6		9.0	610.4	51.7	27.0	1.000002
114500.0	6.2	-27.5		8.8	610.6	58.0	26.2	1.000002
115000.0	6.1	-27.4		8.6	610.7	66.2	25.8	1.000002
115500.0	6.0	-27.3		8.5	610.9	73.7	25.8	1.000002
116000.0	5.8	-27.2		8.3	611.0	83.6	28.5	1.000002
116500.0	5.7	-27.1		8.1	611.1	92.2	32.9	1.000002
117000.0	5.6	-27.1		7.9	611.1	98.7	37.9	1.000002
117500.0	5.5	-27.0		7.8	611.2	103.6	43.2	1.000002
118000.0	5.4	-26.9		7.6	611.3			1.000002
118500.0	5.3	-26.8		7.4	611.4			1.000002
119000.0	5.2	-26.8		7.3	611.5			1.000002
119500.0	5.1	-26.7		7.1	611.6			1.000002
120000.0	4.9	-26.6		7.0	611.7			1.000002
120500.0	4.8	-26.5		6.8	611.8			1.000002

STATION ALTITUDE 4051.37 FEET MSL
 20 APR. 61
 ASCENSION NO. 30

MANDATORY LEVELS
 1100180030
 10-17
 101111

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

PRESSURE MILLIBARS	GEOP. TEMP. DEG C	TEMPERATURE		REL. HUMID. PERCENT	WIND DATA	
		AIR DEG C	DEW POINT CENTIGRADE		DIRECTION DEGREES (TH)	SPEED KNOTS
850.0	101.1	10.0	-2.7	23.	240.0	3.0
800.0	97.7	10.0	-5.2	20.	188.0	6.9
750.0	94.7	10.0	-7.1	32.	180.2	8.4
700.0	103.1	10.0	-9.7	39.	183.3	12.0
650.0	122.5	-1.0	-14.2	38.	108.2	24.9
600.0	143.6	-3.9	-24.2	19.	202.7	26.2
550.0	166.1	-8.0	-27.6	18.	215.0	23.1
500.0	190.7	-13.2	-31.4	19.	225.0	30.1
450.0	216.0	-19.4	-36.9	19.	230.4	29.0
400.0	244.1	-26.4	-42.5	20.	230.6	26.8
350.0	275.8	-33.1	-48.7	21.	245.9	34.1
300.0	310.5	-42.0			247.7	42.1
250.0	349.7	-50.0			245.0	60.1
200.0	397.0	-56.5			242.7	77.5
175.0	426.6	-58.1			242.3	90.2
150.0	455.0	-56.4			242.9	80.0
125.0	454.3	-50.0			240.4	77.0
100.0	539.0	-63.1			241.3	44.2
80.0	584.8	-62.6			240.3	21.8
70.0	611.1	-67.1			250.3	11.6
60.0	641.5	-64.0			176.0	0.0
50.0	679.0	-60.2			99.0	13.6
40.0	725.3	-57.0			73.7	15.2
30.0	795.5	-52.0			82.9	27.0
25.0	824.1	-48.6			94.9	15.0
20.0	872.2	-47.0			78.0	15.0
15.0	935.7	-41.0			152.0	9.9
10.0	1027.5	-33.0			65.3	25.5
7.0	1104.7	-28.2			82.4	22.0
5.0	1187.0	-26.6				

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

STATION ALTITUDE 3989.00 FEET MSL
 20 APR. 71 1147 HRS MST
 ASLUSISIO 110. 202

SIGNIFICANT LEVEL DATA

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

1100020202
 WHITE SANDS

TABLE 12

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUMID. PERCENT
	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
579.0 3989.0	25.0	5	19.0
550.0 4066.1	19.0	3	27.0
750.0 3442.0	0.9	-4.1	37.0
700.0 10307.3	4.2	-0.1	47.0
691.7 10622.4	4.2	-15.0	23.0
623.2 15380.4	-2.2	-22.7	19.0
578.0 15312.5	-3.9	-24.7	19.0
500.0 19041.0	-12.3	-31.1	19.0
400.0 24508.5	-25.5	-41.6	20.0
375.0 25997.9	-29.6	-44.6	22.0
315.4 30019.0	-39.1	-55.0	21.0

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

UPPER AIR DATA
 1100020262
 WHITE SANDS
 TABLE 13

STATION ALTITUDE 3680.00 FEET
 20 INCHES
 1140 METERS
 ASCE 1510 140 200

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KIOTS	DIRECTION DEGREES (IN)	WIND DATA SPEED KIOTS	INDEX OF REFRACTION
3489.0	879.6	25.8	19.0	1022.2	674.5	230.0	7.0	1.000255
4000.0	879.3	25.7	19.1	1022.0	674.4	229.6	7.0	1.000255
4500.0	864.6	22.7	23.2	1014.6	671.0	216.4	9.6	1.000254
5000.0	849.7	19.7	27.1	1007.1	667.6	209.0	12.5	1.000252
5500.0	835.8	18.3	28.5	994.0	666.0	204.4	15.5	1.000248
6000.0	815.9	16.9	30.6	981.1	664.3	201.4	18.5	1.000245
6500.0	804.3	15.4	31.4	969.4	662.7	202.7	18.1	1.000241
7000.0	790.0	14.0	32.8	956.0	661.0	204.2	17.6	1.000237
7500.0	775.9	12.6	34.3	943.7	659.3	206.0	16.6	1.000233
8000.0	762.1	11.2	35.7	931.5	657.7	204.4	15.7	1.000230
8500.0	748.4	9.7	37.3	919.6	656.0	201.6	14.8	1.000226
9000.0	734.7	8.2	40.0	907.7	654.2	197.2	15.0	1.000223
9500.0	721.2	6.7	42.7	895.9	652.4	192.6	15.9	1.000220
10000.0	708.0	5.1	45.4	884.4	650.6	192.6	17.2	1.000217
10500.0	695.0	4.2	32.3	871.7	649.3	195.6	19.0	1.000207
11000.0	682.0	3.2	22.5	859.5	648.1	193.3	20.5	1.000200
11500.0	669.2	2.2	21.7	846.0	646.7	203.6	21.4	1.000196
12000.0	656.6	1.2	21.0	833.7	645.3	207.6	22.4	1.000193
12500.0	644.3	0.2	20.3	821.6	643.9	209.1	23.3	1.000189
13000.0	632.2	-1.3	19.6	809.7	642.5	210.9	24.2	1.000186
13500.0	620.3	-2.3	18.6	797.4	641.3	212.5	25.1	1.000183
14000.0	608.5	-3.3	18.7	785.5	640.0	213.3	25.3	1.000179
14500.0	597.0	-4.3	18.4	769.9	640.0	213.4	25.2	1.000176
15000.0	585.6	-5.6	18.2	756.5	639.6	214.3	25.4	1.000173
15500.0	574.6	-6.3	18.1	743.9	639.9	214.7	25.6	1.000170
16000.0	563.2	-5.4	18.2	732.6	637.0	215.7	26.2	1.000167
16500.0	552.5	-6.0	18.3	721.4	636.2	216.9	26.8	1.000164
17000.0	541.6	-7.7	18.5	710.5	634.9	218.3	27.2	1.000162
17500.0	531.1	-9.3	18.6	699.7	633.0	219.5	27.6	1.000159
18000.0	520.8	-10.0	18.7	689.1	632.1	220.5	28.1	1.000156
18500.0	510.7	-11.1	18.6	676.6	630.6	221.5	28.6	1.000154
19000.0	500.6	-12.0	19.0	666.4	629.4	222.5	29.3	1.000151
19500.0	490.7	-13.4	19.0	657.9	628.0	223.5	30.2	1.000149
20000.0	480.6	-14.0	19.0	647.7	626.7	224.3	30.7	1.000146
20500.0	471.0	-15.1	19.2	637.6	625.0	225.7	30.0	1.000144
21000.0	461.6	-16.0	19.6	627.7	623.6	227.2	29.4	1.000142
21500.0	452.1	-16.0	19.6	617.9	622.1	228.6	28.7	1.000139
22000.0	442.8	-19.3	19.3	608.3	620.6	229.6	29.0	1.000137
22500.0	433.2	-20.2	19.3	598.9	619.1	230.7	29.5	1.000135
23000.0	423.7	-21.9	19.0	589.6	617.6	232.1	28.6	1.000133

UPPER AIR DATA
 1100020282
 WHITE SANDS
 TABLE 13 CONT

STATION ALTITUDE 4894.00 FEET MSL
 20 APR. 51 1140 HRS MST
 ASCENSION NO. 282

GEOMETRIC ALTITUDE 4894.00 FEET MSL
 20 APR. 51 1140 HRS MST
 ASCENSION NO. 282

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE ALP DEGREE CELSIUS	TEMPERATURE DEWPOINT DEGREE CELSIUS	REL. HUM. PERCENT	DENSITY GM/CCUBIC METER	SOUND SPEED METER	WIND DIRECTION DEG TRUE	WIND VELOCITY KNOTS	INDEX OF REFRACTION
23500.0	410.0	-23.1	-30.8	19.6	580.5	010.1	233.0	27.8	1.000130
24000.0	400.4	-24.3	-40.8	19.9	571.5	014.0	230.0	26.2	1.000128
24500.0	400.3	-25.5	-41.7	20.0	562.7	013.1	237.9	25.3	1.000129
25000.0	391.8	-26.9	-42.7	20.7	554.2	011.4	238.0	24.9	1.000124
25500.0	383.0	-28.4	-43.6	21.3	545.8	009.0	235.0	27.5	1.000122
26000.0	373.9	-29.8	-44.6	22.0	537.6	007.8	233.1	31.0	1.000120
26500.0	364.5	-31.0	-45.6	21.9	528.6	006.3	232.0	35.6	1.000118
27000.0	354.6	-32.1	-46.7	21.8	519.7	004.9	234.6	37.9	1.000116
27500.0	351.9	-33.3	-47.7	21.6	511.0	003.4	230.4	39.1	1.000114
28000.0	344.3	-34.4	-48.8	21.5	502.4	001.9	230.2	38.4	1.000112
28500.0	330.9	-35.6	-49.8	21.4	494.0	000.0	230.0	39.2	1.000109
29000.0	329.7	-36.7	-50.9	21.3	485.8	593.0			1.000107
29500.0	322.6	-37.9	-51.9	21.1	477.7	597.5			1.000105
30000.0	310.0	-39.1	-53.9	21.0	469.7	590.1			1.000105

STATION ALTITUDE 5330.00 FEET MSL
 20 APR. 1951
 ASCENSION NO. 48

MANDATORY LEVELS

1100020282
 WATTI SAND

TABLE 14

GLOMETIC COORDINATES
 52.40043 LAT DEG
 106.57033 LON DEG

TEMPERATURE OF AIR	TEMPERATURE OF SURFACE OF WATER	TEMPERATURE OF SURFACE OF WIND	WIND DIRECTION (DEGREES TRUE)	WIND VELOCITY (KNOTS)	WIND VELOCITY (MILES PER HOUR)	WIND VELOCITY (KILOMETERS PER HOUR)
650.0	496.0	18.7	209.0	27.	209.0	12.3
800.0	606.0	15.0	205.1	32.	205.1	10.0
750.0	843.0	6.0	201.0	37.	201.0	14.9
700.0	1020.7	4.2	194.5	47.	194.5	10.3
650.0	1226.3	.4	208.2	21.	208.2	22.9
600.0	1435.2	-3.1	213.0	10.	213.0	23.3
550.0	1659.9	-6.8	217.2	18.	217.2	20.9
500.0	1901.4	-12.3	222.0	19.	222.0	29.4
450.0	2162.4	-18.5	229.2	19.	229.2	28.6
400.0	2446.8	-25.6	237.3	20.	237.3	29.3
350.0	2750.0	-33.0	230.0	22.	230.0	39.0

JLODETEL COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

SIGNIFICANT LEVEL DATA

1100160031
 LC-37

TABLE 1

STATION ALTITUDE 4051.37 FEET MSL
 20 APR. 61 1215 HRS MST
 ASCENSION NO. 31

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
678.3	4051.4	25.2	-0.0	19.0
875.0	4158.9	20.9	.2	25.0
850.0	4078.3	19.0	-0.9	26.0
788.4	7074.1	12.5	-4.1	31.0
760.6	8058.6	10.1	-5.0	34.0
716.8	9662.9	4.7	-7.7	40.0
700.0	10296.1	2.9	-12.1	52.0
681.8	10094.7	1.1	-10.7	41.0
664.6	11667.4	-1.0	-14.8	34.0
630.8	13029.4	-3.6	-23.2	20.0
606.2	14061.3	-4.1	-24.0	18.0
549.8	16563.2	-10.3	-27.4	23.0
533.8	17310.1	-11.0	-29.5	20.0
500.0	18947.3	15.4	-33.2	20.0
457.4	19500.8	-16.5	-34.1	20.0
444.1	21045.5	-23.3	-39.5	21.0
380.3	25321.1	-29.5	-44.7	23.0
370.0	25131.0	34.2	-49.2	20.0
351.4	27330.0	-37.6		
310.2	30121.0	-48.5		
300.0	30853.4	-45.0		
271.0	33019.4	-50.0		
250.0	34783.0	-53.4		
210.0	39378.2	-58.6		
200.0	39446.0	-58.2		
175.0	42207.1	-50.7		
166.4	43250.0	-57.7		
152.4	44277.4	-56.9		
150.0	45306.0	-59.4		
140.0	45306.0	-50.0		
136.0	47011.0	-60.9		
130.0	47521.0	-50.7		
127.0	50721.0	-61.6		
120.0	49311.0	-61.3		
100.0	53611.0	-61.3		
97.0	53011.0	-61.3		
93.0	50011.0	-61.3		
70.0	59011.0	-61.3		
70.0	60011.0	-61.3		
60.0	62011.0	-61.3		

STATION ALTITUDE 4051.37 FEET MSL
 20 APR. 81 1215 HRS MST
 ASCENSION, NO. 31

SIGNIFICANT LEVEL DATA
 1100180031
 10-37
 TABLE TO CONT

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LONG DEG

PRESSURE	GEOMETRIC	TEMPERATURE	REL. HUM.
MILLIBARS	ALTITUDE	AIR DEWPOINT	PERCENT
	FEET	DEGREES	
		CENTIGRADE	
61.0	6374.0	-61.1	
58.0	6046.5	-61.7	
56.0	5673.9	-59.9	
50.0	3773.1	-50.4	
43.0	2052.0	-56.4	
39.0	1214.0	-55.9	
35.0	757.0	-52.7	
30.0	354.0	-51.3	
25.0	62.0	-68.4	
20.0	0.0	-47.1	

STATION ALTITUDE 4051.37 FEET MSL
 20 APR. 61 1215 HRS MST
 ASCENSION NO. 31

UPPER AIR DATA
 1100180051
 LC-37
 TABLE 7C

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.51232 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TH)	ALSO DATA		INDEX OF REFRACTION
								SPEED KNOTS	SPEED KNOTS	
4051.4	870.3	25.2	-0.0	19.0	1022.9	673.6	200.0	7.0	1.000254	
4500.0	864.5	20.1	-0.3	25.4	1024.3	668.0	190.5	8.3	1.000255	
5000.0	849.3	16.9	-0.9	26.1	1010.4	666.7	182.7	9.9	1.000250	
5500.0	834.2	17.4	-1.7	27.2	997.8	664.9	177.5	11.7	1.000247	
6000.0	819.4	15.8	-2.4	28.4	985.4	663.0	180.7	11.8	1.000243	
6500.0	804.8	14.3	-3.2	29.6	973.2	661.2	188.6	11.4	1.000239	
7000.0	790.5	12.7	-4.0	30.8	961.2	659.4	197.6	10.7	1.000235	
7500.0	776.3	11.5	-4.5	32.3	948.1	657.9	206.5	10.3	1.000232	
8000.0	762.2	10.2	-5.0	33.8	935.0	656.5	203.7	10.6	1.000228	
8500.0	748.3	8.6	-5.7	35.7	923.3	654.6	201.1	11.3	1.000225	
9000.0	734.6	6.9	-6.5	37.5	911.9	652.6	199.0	13.4	1.000221	
9500.0	721.1	5.2	-7.4	39.4	900.7	650.6	197.9	15.4	1.000218	
10000.0	707.8	3.7	-10.0	35.7	889.2	648.8	194.9	17.4	1.000212	
10500.0	694.6	2.4	-11.6	34.6	877.1	647.1	200.6	18.9	1.000208	
11000.0	681.7	1.1	-10.7	40.6	864.6	645.6	199.1	19.3	1.000206	
11500.0	668.3	-0.5	-13.8	35.7	853.5	643.7	200.3	19.1	1.000201	
12000.0	656.2	-1.6	-16.7	30.6	841.1	642.2	203.2	19.2	1.000196	
12500.0	643.7	-2.6	-19.7	25.3	828.2	641.0	207.4	22.6	1.000191	
13000.0	631.5	-3.5	-23.0	20.3	815.5	639.5	209.3	24.2	1.000187	
13500.0	619.5	-3.8	-24.0	18.1	800.8	639.5	210.4	24.6	1.000183	
14000.0	607.6	-4.1	-24.7	18.1	780.3	639.2	212.3	21.9	1.000179	
14500.0	595.6	-5.2	-25.2	18.0	774.3	637.9	214.0	20.6	1.000177	
15000.0	584.1	-6.4	-25.7	16.9	762.6	636.4	214.9	21.6	1.000174	
15500.0	573.0	-7.7	-26.2	20.9	751.7	634.9	213.4	22.6	1.000171	
16000.0	562.0	-8.9	-26.7	21.3	740.6	633.4	215.0	24.3	1.000169	
16500.0	551.2	-10.1	-27.3	22.9	729.7	631.9	215.8	25.7	1.000166	
17000.0	540.4	-10.7	-27.6	21.2	717.0	631.2	215.8	27.0	1.000163	
17500.0	529.8	-11.5	-28.9	20.0	705.1	630.3	217.1	26.2	1.000160	
18000.0	519.5	-12.9	-31.0	20.0	694.8	628.6	218.5	29.2	1.000157	
18500.0	509.0	-14.2	-32.2	20.0	684.6	627.0	221.2	28.6	1.000155	
19000.0	499.6	-15.5	-33.3	20.0	674.4	625.4	224.0	27.9	1.000152	
19500.0	489.0	-16.4	-34.0	20.0	665.2	624.4	226.6	26.6	1.000150	
20000.0	479.1	-17.8	-35.3	20.0	653.4	622.7	228.6	26.1	1.000147	
20500.0	469.4	-19.3	-36.3	20.6	643.9	620.8	228.6	26.7	1.000145	
21000.0	459.6	-20.8	-37.4	20.0	634.6	619.0	228.6	27.4	1.000143	
21500.0	450.5	-22.3	-38.6	20.8	625.5	617.1	227.5	28.2	1.000141	
22000.0	441.3	-23.7	-39.8	21.7	616.2	615.4	226.9	28.5	1.000138	
22500.0	432.1	-24.9	-40.1	21.0	606.4	613.8	227.0	28.2	1.000136	
23000.0	423.0	-26.2	-41.5	21.0	596.8	612.3	228.3	28.5	1.000134	
23500.0	414.0	-27.6	-42.9	21.6	587.3	610.7	229.0	29.2	1.000132	

UPPER AIR DATA
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STATION ALTITUDE 4651.37 FEET (ASL)
 20 APR. 61
 ASCENSION NO. 31

GEOMETRIC ALTITUDE 4651.37 FEET (ASL)
 20 APR. 61
 ASCENSION NO. 31

UPPER AIR DATA
 1100180031
 LC-37

TABLE 15 CONT

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMIDITY PERCENT	DENSITY GRAMS PER CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	405.7	-28.7	21.0	574.0	609.2	229.1	31.0	1.000130
24500.0	397.2	-29.9	20.8	568.9	607.0	229.1	32.8	1.000127
25000.0	388.8	-31.2	20.6	559.8	605.0	229.9	34.3	1.000125
25500.0	380.5	-32.5	20.4	550.8	604.4	230.6	35.6	1.000123
26000.0	372.4	-33.8	20.2	542.0	602.7	231.3	36.2	1.000121
26500.0	364.4	-35.2	14.1**	533.5	601.0	232.2	36.6	1.000119
27000.0	356.5	-36.6	5.6**	525.1	599.1	233.8	37.0	1.000117
27500.0	348.6	-38.0		516.7	597.4	236.9	37.3	1.000115
28000.0	341.0	-39.3		508.0	595.6	241.9	37.7	1.000113
28500.0	333.5	-40.5		499.4	594.2	244.0	38.5	1.000111
29000.0	326.1	-41.7		490.9	592.8	245.8	39.4	1.000109
29500.0	318.8	-43.0		482.7	591.1	243.9	41.0	1.000108
30000.0	311.9	-44.2		474.6	589.5	242.0	42.6	1.000106
30500.0	304.9	-45.2		466.0	588.2	242.5	43.9	1.000104
31000.0	298.0	-46.2		457.5	586.9	242.6	45.5	1.000102
31500.0	291.2	-47.2		449.1	585.5	242.7	48.0	1.000100
32000.0	284.6	-48.3		440.9	584.2	242.5	51.2	1.000098
32500.0	278.1	-49.3		432.9	582.8	242.2	55.0	1.000096
33000.0	271.8	-50.4		425.0	581.5	242.3	58.0	1.000095
33500.0	265.5	-51.2		416.7	580.4	242.5	60.5	1.000093
34000.0	259.3	-52.1		408.7	579.3	242.9	62.5	1.000091
34500.0	253.3	-52.9		400.7	578.1	243.4	64.3	1.000089
35000.0	247.4	-53.7		392.8	577.1	243.7	66.0	1.000087
35500.0	241.6	-54.4		384.8	576.1	244.0	67.5	1.000086
36000.0	235.9	-55.2		377.0	575.2	243.9	69.4	1.000084
36500.0	230.3	-55.9		369.3	574.2	242.9	71.4	1.000082
37000.0	224.9	-56.6		361.8	573.3	242.2	73.9	1.000081
37500.0	219.6	-57.3		354.5	572.5	241.5	76.3	1.000079
38000.0	214.4	-58.1		347.3	571.4	241.6	77.8	1.000077
38500.0	209.3	-58.6		339.8	570.7	241.7	79.1	1.000076
39000.0	204.1	-59.4		331.5	570.0	242.3	80.5	1.000074
39500.0	199.0	-60.2		323.3	571.1	242.9	82.0	1.000072
40000.0	194.0	-61.0		316.0	570.6	243.0	83.5	1.000070
40500.0	189.1	-61.8		308.9	570.0	242.0	84.9	1.000069
41000.0	184.3	-62.6		301.9	570.0	242.5	85.4	1.000067
41500.0	179.5	-63.3		295.0	569.7	241.9	85.5	1.000066
42000.0	174.8	-64.0		288.3	569.3	241.4	85.4	1.000065
42500.0	170.1	-64.7		280.9	569.1	241.0	85.1	1.000063
43000.0	165.4	-65.2		272.9	571.2	240.4	84.5	1.000061
43500.0	160.7	-65.7		265.6	573.1	239.7	83.7	1.000059

TABLE 15 CONT

UPPER AIR DATA
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STATION ALTITUDE 4051.37 FEET MSL
 20 APR. 51
 1215 HRS PST
 ASCENSION NO. 31

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LONG DEG

TABLE 16 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUMIDITY PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA		INDEX OF REFRACTION
							SPEED KNOTS	REFRACTION	
4400.0	160.5	-57.1		258.8	572.6	239.0	83.3	1.000058	
4450.0	150.7	-57.4		253.0	572.2	230.3	83.7	1.000056	
4500.0	150.0	-58.5		248.3	570.0	237.0	84.1	1.000055	
4550.0	149.3	-59.5		243.5	569.4	237.7	84.3	1.000054	
4600.0	148.8	-60.1		238.3	568.7	237.8	83.6	1.000053	
4650.0	142.3	-60.5		233.0	568.1	238.1	81.6	1.000052	
4700.0	138.8	-60.9		227.8	567.6	238.3	79.3	1.000051	
4750.0	135.5	-59.9		221.3	569.0	240.0	76.5	1.000049	
4800.0	132.2	-60.5		216.6	568.1	241.4	72.9	1.000048	
4850.0	129.0	-61.4		212.3	566.9	243.0	67.9	1.000047	
4900.0	125.9	-61.6		207.4	566.7	243.9	62.6	1.000046	
4950.0	122.9	-61.4		202.2	566.9	243.3	56.6	1.000045	
5000.0	119.9	-61.7		197.5	566.3	242.1	51.2	1.000044	
5050.0	117.0	-62.0		193.0	566.1	239.1	47.1	1.000043	
5100.0	114.2	-62.3		188.6	565.7	235.6	43.1	1.000042	
5150.0	111.4	-62.6		184.3	565.3	233.3	39.3	1.000041	
5200.0	108.7	-62.9		180.1	564.9	230.4	35.6	1.000040	
5250.0	106.0	-63.2		175.9	564.5	228.9	30.6	1.000039	
5300.0	103.5	-63.5		171.9	564.1	226.9	25.5	1.000038	
5350.0	101.0	-63.8		168.0	563.7	225.0	21.3	1.000037	
5400.0	98.5	-64.6		164.5	562.8	222.4	17.3	1.000037	
5450.0	96.1	-64.2		160.2	563.1	221.0	16.6	1.000036	
5500.0	93.7	-61.5		154.3	560.7	221.0	16.1	1.000034	
5550.0	91.6	-62.5		151.2	565.4	224.6	20.3	1.000034	
5600.0	89.2	-63.5		146.2	564.1	227.0	24.7	1.000033	
5650.0	87.0	-64.5		143.2	562.7	229.0	27.4	1.000032	
5700.0	84.8	-65.5		142.3	561.4	230.0	29.5	1.000032	
5750.0	82.7	-66.5		139.5	560.0	232.4	31.6	1.000031	
5800.0	80.7	-67.5		136.7	559.7	233.5	29.2	1.000030	
5850.0	78.6	-68.5		134.0	557.3	234.9	25.4	1.000030	
5900.0	76.6	-69.5		131.3	550.0	236.6	21.5	1.000029	
5950.0	74.9	-69.9		128.3	555.4	236.7	16.6	1.000029	
6000.0	73.0	-67.8		123.6	558.9	233.2	11.3	1.000028	
6050.0	71.2	-64.0		119.1	562.3	230.7	6.4	1.000027	
6100.0	69.6	-63.2		115.3	564.5	214.7	4.8	1.000026	
6150.0	67.8	-63.5		112.6	564.1	187.0	3.9	1.000025	
6200.0	66.1	-63.7		110.0	563.6	159.0	3.6	1.000024	
6250.0	64.5	-63.3		107.1	564.3	150.1	4.1	1.000023	
6300.0	62.9	-62.9		103.9	560.1	141.7	4.9	1.000023	
6350.0	61.4	-62.2		101.0	567.2	100.0	5.9	1.000022	

GEODETIC COORDINATES
 32.40175 LAT UEG
 106.31232 LONG UEG

UPPER AIR DATA
 1100180031
 20 APR 61
 TABLE 10 CONT

STATION ALTITUDE 4051.37 FEET MSL
 20 APR 61
 1214 HRS EST
 ASCENSION NO. 31

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY CM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		ATP DEGREES	DEPT. DEGREES				DIRECTION DEGREES (TN)	SPEED KNOTS	
6400.0	59.7	-51.5			98.7	500.8	90.5	7.2	1.000022
6450.0	59.5	-51.6			96.4	566.6	91.0	8.5	1.000021
6500.0	59.3	-51.8			95.7	567.7	91.7	9.4	1.000021
6550.0	59.1	-52.0			91.0	568.9	91.8	10.4	1.000020
6600.0	58.9	-52.1			83.5	570.1	91.8	11.1	1.000020
6650.0	58.7	-52.2			86.4	570.1	91.9	11.9	1.000019
6700.0	58.5	-52.3			84.4	569.9	92.0	12.3	1.000019
6750.0	58.3	-52.4			82.4	569.7	92.2	12.4	1.000018
6800.0	58.1	-52.5			80.4	569.9	91.7	12.7	1.000018
6850.0	57.9	-52.6			78.5	570.7	87.0	14.3	1.000017
6900.0	57.7	-52.7			76.2	571.4	85.5	16.0	1.000017
6950.0	57.5	-52.8			74.2	572.1	78.1	19.1	1.000017
7000.0	57.3	-52.9			72.5	572.8	75.7	22.9	1.000016
7050.0	57.1	-53.0			70.4	573.6	72.0	26.6	1.000016
7100.0	56.9	-53.1			68.7	573.7	74.8	29.5	1.000015
7150.0	56.7	-53.2			67.1	573.9	77.2	32.5	1.000015
7200.0	56.5	-53.3			65.6	574.0	80.7	32.1	1.000015
7250.0	56.3	-53.4			63.9	574.2	84.9	31.0	1.000014
7300.0	56.1	-53.5			62.2	575.1	90.2	28.2	1.000014
7350.0	55.9	-53.6			60.5	576.0	99.1	22.4	1.000013
7400.0	55.7	-53.7			59.0	576.9	113.5	17.6	1.000013
7450.0	55.5	-53.8			57.4	577.8	115.6	16.3	1.000013
7500.0	55.3	-53.9			55.9	578.5	117.7	15.1	1.000012
7550.0	55.1	-54.0			54.6	578.7	107.7	15.6	1.000012
7600.0	54.9	-54.1			53.3	579.0	91.4	19.0	1.000012
7650.0	54.7	-54.2			52.0	579.2	61.5	23.1	1.000012
7700.0	54.5	-54.3			50.8	579.5	81.7	24.2	1.000011
7750.0	54.3	-54.4			49.5	579.7	82.0	25.4	1.000011
7800.0	54.1	-54.5			48.4	580.0	82.4	24.5	1.000011
7850.0	53.9	-54.6			47.2	580.2	82.5	22.4	1.000011
7900.0	53.7	-54.7			46.1	580.7	82.5	20.5	1.000010
7950.0	53.5	-54.8			44.9	581.2	79.9	18.8	1.000010
8000.0	53.3	-54.9			43.8	581.7	78.5	17.2	1.000010
8050.0	53.1	-55.0			42.8	582.1	71.7	16.9	1.000010
8100.0	52.9	-55.1			41.7	582.6	66.0	20.9	1.000009
8150.0	52.7	-55.2			40.7	583.1			1.000009
8200.0	52.5	-55.3			39.7	583.6			1.000009
8250.0	52.3	-55.4			38.7	584.1			1.000009

STATION ALTITUDE 4051.37 FEET MSL
 20 APR. 81 1215 HRS MST
 ASCENSION, NO. 31

MANDATORY LEVELS
 1100180031
 LC-37
 TABLE 1

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREE'S CENTIGRADE	REL. HUM. PERCENT	WIND DATA		
				DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	4975	19.0	26.	183.0	9.8	
800.0	6065.	13.8	30.	191.6	11.2	
750.0	8433.	8.0	35.	201.4	11.1	
700.0	10286.	2.9	32.	200.9	18.6	
650.0	12235.	-2.1	28.	205.4	20.8	
600.0	14310.	-4.8	19.	213.7	20.2	
550.0	16533.	-10.3	23.	215.8	25.8	
500.0	18922.	-15.4	20.	223.7	26.0	
450.0	21500.	-22.5	21.	227.2	28.3	
400.0	24298.	-29.5	21.	229.0	32.2	
350.0	27372.	-37.8		235.9	37.3	
300.0	30796.	-45.9		242.9	44.7	
250.0	34708.	-53.8		243.6	65.2	
200.0	39052.	-58.2		242.6	81.8	
175.0	42103.	-59.7		241.3	85.3	
150.0	45287.	-59.4		237.7	84.2	
125.0	49012.	-61.9		243.8	61.1	
100.0	53020.	-63.9		224.3	20.0	
80.0	58003.	-67.8		234.0	28.0	
70.0	65338.	-63.1		221.7	9.3	
60.0	63766.	-61.8		97.2	7.1	
50.0	67092.	-59.6		92.3	12.5	
40.0	72122.	-55.9		83.8	31.3	
30.0	78203.	-51.3		62.9	22.4	
25.0	82370.	-47.0				