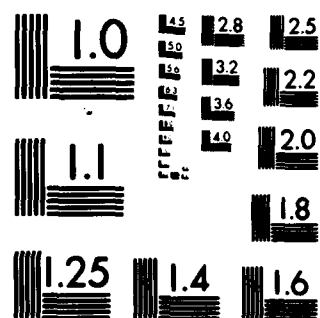


ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
193040, GSRS, MISSILE NUMBERS 1077, 1065, ROUND NUMBERS V-72, V--ETC(U)
OCT 79

ERADCOM/ASL-DR-1072

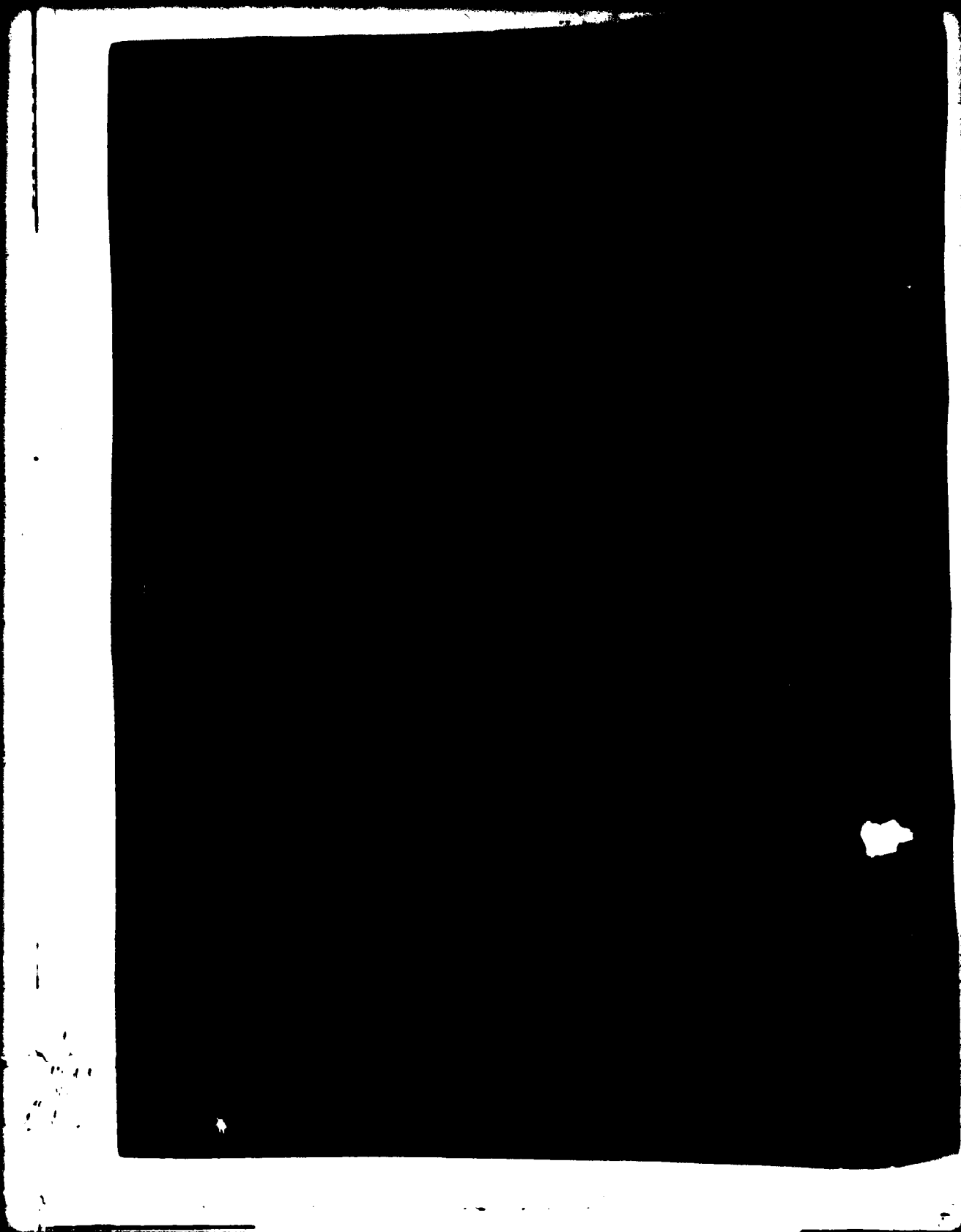
NL

END
DATE
FILMED
4 80
DTIC



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

ADA081774



DISCLAIMER NOTICE

**THIS DOCUMENT IS BEST QUALITY
PRACTICABLE. THE COPY FURNISHED
TO DDC CONTAINED A SIGNIFICANT
NUMBER OF PAGES WHICH DO NOT
REPRODUCE LEGIBLY.**

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1072	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 19304D GSRS, Missile Numbers 1077, 1065, Round Numbers V-72, V-73, 12 October 1979.		5. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) White Sands Meteorological Team		8. CONTRACT OR GRANT NUMBER(s) DA Task 1F665702D127/27
9. PERFORMING ORGANIZATION NAME AND ADDRESS		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 12/20
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cmd Atmospheric Sciences Laboratory White Sands Missile Range, NM 88002		12. REPORT DATE October 1979
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research & Development Cmd Adelphi, MD 20783		13. NUMBER OF PAGES 19
		15. SECURITY CLASS. (of this report) UNCLASSIFIED
16. DISTRIBUTION STATEMENT (of this Report) 14 ERADCOM/ASL-DR-1072		
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) 1. Ballistics 2. Meteorology 3. Wind		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 19304D GSRS, Missile Numbers 1077, 1065, Round Numbers V-72, V-73 are presented in tabular form.		

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASSIFIED

1 SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

410663

JOB

CONTENTS

INTRODUCTION-----	1
DISCUSSION-----	1
LAUNCH AREA MAP-----	2
GENERAL AREA MAP-----	3
TABLES:	
1. Surface Observations taken at 1415 MDT at LC-33-----	4
2. Anemometer Measured Wind Speed and Direction, LC-33 Fixed Pole, taken at 1449 MDT-----	5
3. Anemometer Measured Wind Speed and Direction, Tower Levels 1, 2, 3 and 4, taken at 1449 MDT-----	6
4. LC-33 Pilot Balloon Measured Wind Data at 1405 MDT-----	7
5. LC-33 Pilot Balloon Measured Wind Data at 1449 MDT-----	8
6. NICK SITE Pilot Balloon Measured Wind Data at 1449 MDT-----	9
7. SMR Significant Level Data at 1330 MST-----	10
8. SMR Upper Air Data at 1330 MST-----	11
9. SMR Mandatory Levels at 1330 MST-----	15

INTRODUCTION

19304D GSRS, Missile Numbers 1077 and 1065, Round Numbers V-72 and V-73, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1449 and 1449:03 MDT, 12 October 1979. The scheduled launch times were 1415 and 1415:02.5 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 RAPTS T-9 pibal observation at:

SITE AND ALTITUDE

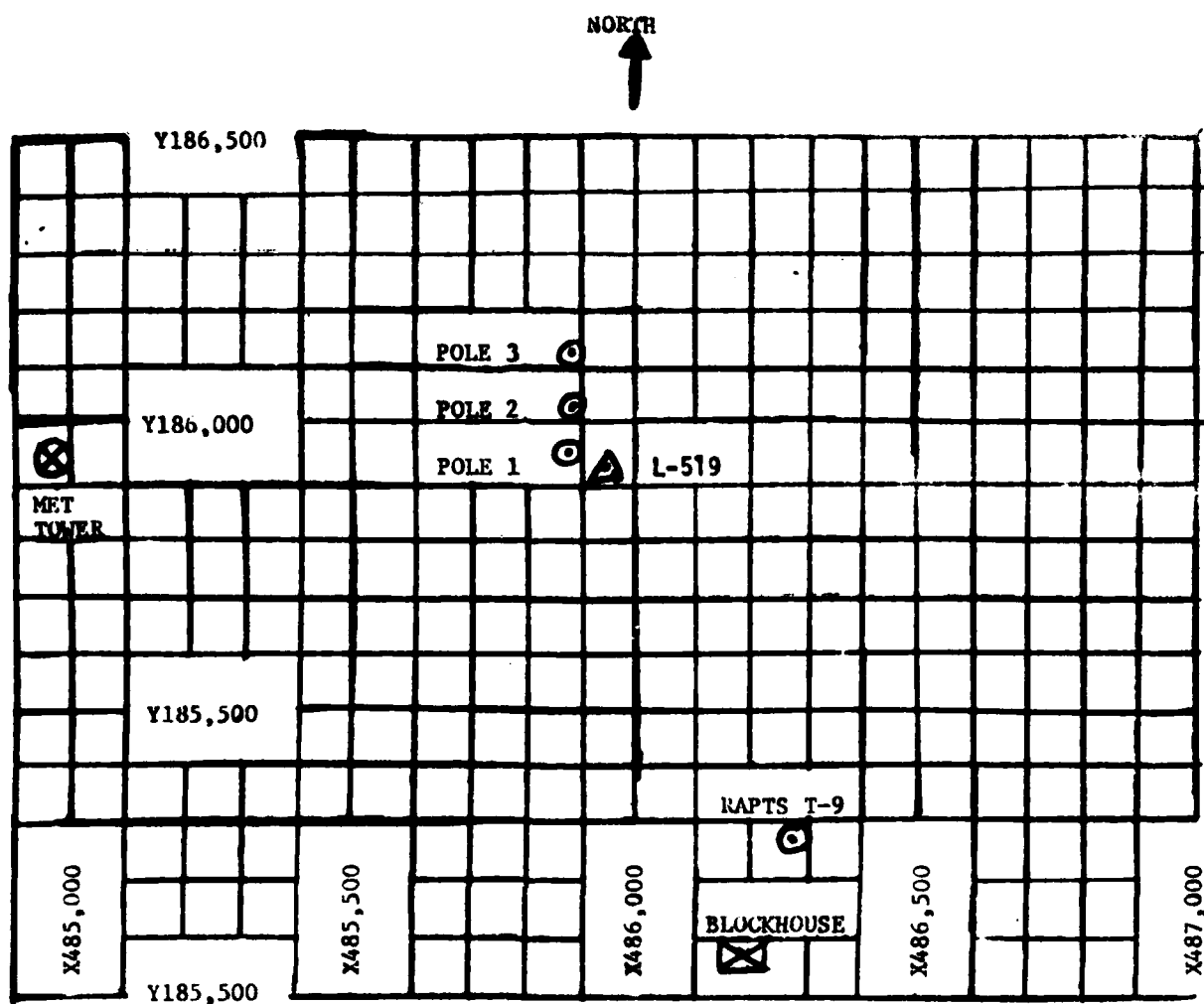
LC-33	2 km
NICK	2 km

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 79,000 feet in 500-foot increments.

SITE AND TIME

SMR 1330

Accession For	
N115 GRA&I	
DDM TAB	
Unannounced	
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or special
A	23



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

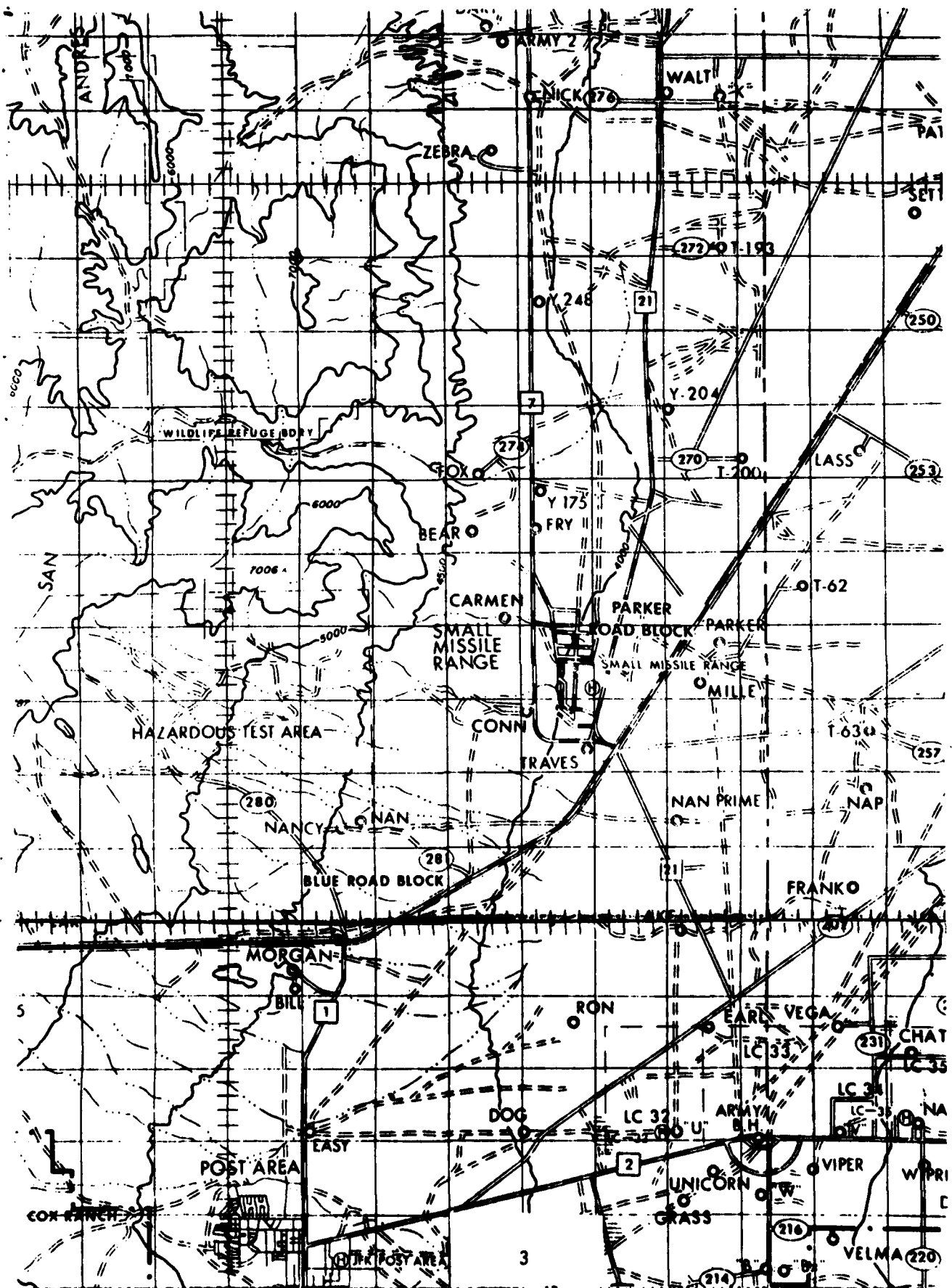


TABLE 1. Surface Observations were taken at 1415 MDT,
12 October 1979, at LC-33, 19304D GSRS,
Missile Numbers 1077, 1065, Round Numbers
V-72, V-73.

ELEVATION	3977.30	FT/MSL
PRESSURE	875.2	MBS
TEMPERATURE	31.1	°C
RELATIVE HUMIDITY	29	%
DEW POINT	11.0	°C
DENSITY	995	GM/M ³
WIND SPEED	09	KTS
WIND DIRECTION	240	DEGREES
CLOUD COVER	4	CI

LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	257	11	-30	292	08	-30	270	12
-20	259	13	-20	268	11	-20	275	11
-10	259	15	-10	264	14	-10	250	09
0.0	263	12	0.0	269	13	0.0	264	14
+10	257	14	+10	263	14	+10	255	13

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

TABLE 2

TYPE 19304D GSRS MISSILE NOS. 1077, 1065 ROUND NOS. V-72, 73

LAUNCHED FROM LC-33 DATE 12 October 1979 TIME 1449, 1449:03 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

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

LEVEL #1 12 ft			LEVEL #2 62 ft		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	MISG	12	-30	262	13
-20	MISG	11	-20	258	13
-10	MISG	09	-10	260	12
0.0	MISG	13	0.0	248	13
+10	MISG	09	+10	253	09
LEVEL #3 102 ft			LEVEL #4 202 ft		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	260	15	-30	252	15
-20	254	13	-20	252	15
-10	260	13	-10	253	14
0.0	249	10	0.0	247	12
+10	255	10	+10	257	14

WTSM COORDINATES: X484,982.64 Y185,957.73 H3983.00(base)

TABLE 3

TYPE 19304D GSRS MISSILE NOS. 1077, 1065 ROUND NOS. V-72, V-73

LAUNCHED FROM LC-33 DATE 12 October 1979 TIME 1449, 1449:03 MDT

NOTE: WIND DIRECTION ARE REFERENCED TO TRUE NORTH.

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 4

RELEASED FROM LC-33 DATE 12 October 1979 TIME 1405 MDT
 TRACKER COORDINATES (WSTM) X= 486,037.24 Y= 182,350.16 H= 3977.30
 MISSILE TYPE 19304D GSRS MISSILE NO. 1077, 1065 ROUND NO. V-72, V-73
 MISSILE LAUNCHED FROM LC-33 DATE 12 October 1979 TIME 1449, 1449:03 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS	HEIGHT AGL	DIRECTION DEGREES	SPEED KTS	HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC	280	07						
90	221	13						
150	312	12						
210	312	11						
270	307	09						
330	295	08						
390	297	07						
500	285	07						
650	278	07						
800	261	06						
950	254	04						
1150	232	05						
1350	247	07						
1550	243	06						
1750	245	09						
2000	253	15						

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM LC-33 DATE 12 October 1979 TIME 1449 MDT
 TRACKER COORDINATES (WSTM) X= 486,037.24 Y= 182,350.16 H= 3977.30
 MISSILE TYPE 19304D GSRS MISSILE NO. 1077, 1065 ROUND NO. V-72, V-73
 MISSILE LAUNCHED FROM LC-33 DATE 12 October 1979 TIME 1449, 1449:03 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC		CALM
90		CALM
150	259	07
210	291	09
270	318	12
330	303	12
390	298	13
500	307	11
650	294	09
800	285	09
950	264	07
1150	227	06
1350	224	11
1550	248	11
1750	260	11
2000	269	12

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 6

RELEASED FROM NICK DATE 12 October 1979 TIME 1449 MDT
 TRACKER COORDINATES (WSTM) X= 470.734.56 Y= 255.775.64 H= 4126.57
 MISSILE TYPE 19304D GSRS MISSILE NO. 1077, 1065 ROUND NO. V-72, V-73
 MISSILE LAUNCHED FROM LC-33 DATE 12 October 1979 TIME 1449, 1449:03 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC	263	04
90	259	06
150	244	05
210	235	06
270	262	05
330	256	05
390	254	06
500	254	06
650	273	05
800	265	06
950	260	06
1150	242	05
1350	243	07
1550	262	08
1750	265	07
2000	272	06

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

SIGNIFICANT LEVEL DATA
2850060346
S M R

STATION ALTITUDE 3997.30 FEET MSL
12 OCT. 79 1330 HRS MST
ASCENSION NO. 348

TABLE 7

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	
874.1	29.5	-2.9	12.0
850.0	27.7	1.2	18.0
700.0	11.5	-13.4	16.0
689.8	11.6	-13.3	16.0
620.8	4.2	-18.6	17.0
585.3	2.7	-18.8	19.0
532.3	-4.0	-23.0	20.0
500.0	-6.9	-27.8	17.0
482.3	-7.9	-29.2	16.0
436.8	-12.9	-32.2	18.0
400.0	-18.5	-35.8	20.0
324.3	-31.4	-41.2	37.0
300.0	-36.2	-45.3	38.0
280.3	-40.3	-49.3	37.0
250.0	-46.3		
200.0	-58.0		
183.8	-61.0		
171.3	-59.8		
158.3	-61.9		
150.0	-60.6		
135.3	-64.9		
121.8	-64.4		
104.8	-69.4		
100.0	-70.2		
75.3	-69.1		
70.0	-68.3		
62.8	-63.6		
56.8	-64.4		
50.0	-55.5		
33.8	-54.3		
30.0	-51.1		

STATION ALTITUDE 3997.30 FEET MSL
12 OCT. 79 1330 HRS MST
ASCENSION IS. 348

UPPER AIR DATA
2350060348
5 M R

GEODETTIC COORDINATES
32.48034 LAT DEG
106.42307 LONG DEG

TABLE 8

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
3997.3	874.1	29.5	12.0	1004.0	078.5	240.0	12.0	1.000244
4000.0	874.0	29.5	12.0	1003.9	078.5	240.0	12.0	1.000244
4500.0	859.1	28.4	15.7	989.9	077.4	241.2	11.9	1.000246
5000.0	844.3	27.1	17.9	976.7	076.1	242.5	11.9	1.000245
5500.0	829.5	25.7	17.7	964.5	074.3	243.7	11.8	1.000240
6000.0	814.9	24.2	17.6	952.5	072.6	245.0	11.7	1.000235
6500.0	800.6	22.7	17.4	940.6	070.9	246.3	11.6	1.000230
7000.0	786.6	21.2	17.2	928.9	069.1	247.6	11.5	1.000226
7500.0	772.6	19.8	17.0	917.3	067.4	249.3	10.7	1.000222
8000.0	759.2	18.3	16.8	905.9	065.6	251.2	9.8	1.000218
8500.0	745.9	16.8	16.7	894.7	063.9	253.5	9.0	1.000214
9000.0	732.8	15.3	16.5	883.0	062.2	256.0	8.8	1.000210
9500.0	719.9	13.8	16.3	872.7	060.4	258.0	9.7	1.000206
10000.0	707.3	12.4	16.1	861.9	058.7	260.0	10.5	1.000203
10500.0	694.7	11.6	16.0	849.0	057.7	265.0	10.9	1.000199
11000.0	682.0	10.8	16.1	835.6	056.9	270.0	11.3	1.000196
11500.0	669.6	9.5	16.3	824.3	055.3	274.9	11.9	1.000193
12000.0	657.3	8.2	16.5	813.0	053.8	278.5	12.4	1.000190
12500.0	645.3	6.9	16.6	801.9	052.3	280.0	14.5	1.000187
13000.0	633.5	5.6	16.8	790.9	050.6	280.0	17.1	1.000184
13500.0	621.9	4.3	17.0	780.1	049.2	282.9	18.7	1.000181
14000.0	610.4	3.8	17.6	767.2	048.6	286.0	19.8	1.000178
14500.0	599.0	3.3	18.2	754.2	048.0	287.7	20.3	1.000175
15000.0	587.9	2.8	18.9	741.5	047.5	288.5	20.6	1.000172
15500.0	576.8	1.7	19.2	730.6	046.1	288.5	20.5	1.000169
16000.0	566.0	.3	19.4	720.4	044.5	287.5	20.4	1.000167
16500.0	555.3	-1.0	19.6	710.3	042.9	286.5	20.1	1.000164
17000.0	544.8	-2.4	19.8	700.4	041.3	289.0	19.8	1.000161
17500.0	534.5	-3.7	20.0	690.6	039.7	290.0	20.2	1.000159
18000.0	524.3	-4.7	19.3	680.0	038.5	291.5	20.6	1.000156
18500.0	514.3	-5.6	18.3	669.2	037.4	290.0	20.7	1.000153
19000.0	504.4	-6.5	17.4	656.0	036.3	288.5	20.8	1.000150
19500.0	494.7	-7.2	16.7	647.7	035.5	287.9	20.9	1.000147
20000.0	485.1	-7.7	16.2	636.4	034.8	287.3	21.0	1.000145
20500.0	480.3	-8.6	16.3	626.1	033.8	289.0	21.8	1.000142
21000.0	457.2	-10.6	16.7	616.2	032.6	291.9	22.6	1.000140
21500.0	443.3	-11.6	17.1	606.4	031.4	291.0	23.4	1.000138
22000.0	439.5	-12.6	17.5	596.8	030.2	291.0	24.3	1.000135
22500.0	430.8	-13.8	17.9	587.4	029.0	288.5	25.0	1.000133
23000.0			18.3	578.4	027.5	288.5	25.8	1.000131

STATION ALTITUDE 3997.30 FEET MSL
12 OCT. 79 1330 HRS MST
ASCENSION I.O. 348

UPPER AIR DATA
2050000348
S M K

TABLE 8 (CONT)

GEODETTIC COORDINATES
32.48034 LAT DEG
106.42307 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	422.2	-15.1	18.8	569.7	626.0	285.2	27.0	1.000129
24000.0	413.8	-16.3	19.2	561.2	624.4	284.7	28.0	1.000127
24500.0	405.5	-17.6	19.7	552.7	622.8	283.1	28.8	1.000125
25000.0	397.4	-18.9	20.5	544.3	621.3	281.4	29.6	1.000123
25500.0	389.1	-20.2	22.2	535.8	619.7	279.5	30.9	1.000121
26000.0	381.1	-21.5	23.9	527.4	618.1	277.1	32.3	1.000119
26500.0	373.2	-22.8	25.6	519.1	616.5	274.4	34.5	1.000117
27000.0	365.5	-24.0	27.3	511.0	614.9	271.5	36.7	1.000115
27500.0	357.9	-25.3	29.0	503.1	613.4	268.4	37.8	1.000113
28000.0	350.5	-26.6	30.7	495.2	611.8	265.2	38.8	1.000112
28500.0	343.3	-27.9	32.4	487.5	610.2	261.9	38.4	1.000110
29000.0	336.2	-29.2	34.1	480.0	608.6	258.6	37.8	1.000108
29500.0	329.2	-30.5	35.8	472.5	607.0	255.5	38.3	1.000106
30000.0	322.4	-31.8	37.1	465.2	605.3	252.1	39.0	1.000105
30500.0	315.5	-33.1	37.4	457.7	603.6	248.1	39.2	1.000103
31000.0	308.7	-34.4	37.6	450.4	602.0	244.1	39.3	1.000101
31500.0	302.1	-35.8	37.9	443.3	600.3	240.1	38.6	1.000099
32000.0	295.5	-37.1	37.8	436.1	598.6	236.0	38.4	1.000098
32500.0	289.1	-38.4	37.5	429.0	596.9	231.7	39.5	1.000096
33000.0	282.8	-39.8	37.1	422.1	595.2	227.3	40.1	1.000094
33500.0	276.5	-41.0	32.6**	414.9	593.6	223.5	39.8	1.000093
34000.0	270.4	-42.2	25.3**	407.8	592.1	219.6	39.5	1.000091
34500.0	264.3	-43.4	18.0**	400.7	590.5	215.2	39.4	1.000089
35000.0	258.4	-44.6	10.7**	393.8	589.0	211.0	39.0	1.000088
35500.0	252.7	-45.7	3.4**	387.1	587.5	207.0	38.6	1.000086
36000.0	246.9	-46.9		380.3	585.9	203.0	39.0	1.000085
36500.0	241.2	-48.2		373.5	584.3	199.0	39.8	1.000083
37000.0	235.6	-49.4		366.8	582.7	194.9	41.7	1.000082
37500.0	230.2	-50.6		360.3	581.1	190.9	43.9	1.000080
38000.0	224.8	-51.9		353.9	579.5	186.5	44.5	1.000079
38500.0	219.6	-53.1		347.7	577.9	182.1	44.8	1.000077
39000.0	214.5	-54.3		341.5	576.3	177.6	44.7	1.000076
39500.0	209.5	-55.6		335.5	574.7	173.0	44.3	1.000075
40000.0	204.7	-56.8		329.6	573.0	168.6	44.0	1.000073
40500.0	199.9	-58.0		323.8	571.4	164.5	43.9	1.000072
41000.0	195.2	-58.9		317.3	570.3	160.3	44.1	1.000071
41500.0	190.5	-59.7		310.9	569.1	156.0	44.9	1.000069
42000.0	185.9	-60.6		304.7	568.0	151.7	45.4	1.000068
42500.0	181.5	-60.8		297.7	567.7	147.9	44.5	1.000066
43000.0	177.1	-60.4		289.9	566.3	143.5	43.8	1.000065

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

STATION ALTITUDE 3997.30 FEET MSL
12 OCT. 79 1330 HRS MST
SUNSHINE NO. 348

UPPER AIR DATA
2000000340
S H K

TABLE 8 (CONT)

GEODETIC COORDINATES
32.46034 LAT DEG
106.42307 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
4350.0	172.6	-60.0		282.4	506.8	274.3	45.0	1.000063
4400.0	168.7	-60.2		279.9	506.5	269.5	46.8	1.000061
4450.0	164.6	-60.9		276.1	507.0	260.4	51.8	1.000060
4500.0	160.6	-61.5		264.4	508.0	264.2	56.3	1.000059
4550.0	156.6	-61.7		256.2	508.5	268.2	51.0	1.000058
4600.0	153.0	-61.1		251.3	507.3	272.9	47.6	1.000056
4650.0	149.3	-60.8		244.9	507.7	277.5	40.6	1.000055
4700.0	145.7	-61.8		240.1	508.3	283.5	33.9	1.000053
4750.0	142.1	-62.9		235.4	505.0	282.0	30.1	1.000052
4800.0	138.7	-63.9		230.8	503.0	279.4	26.5	1.000051
4850.0	135.3	-64.9		226.3	502.2	278.5	25.7	1.000050
4900.0	132.0	-64.8		220.0	502.4	278.7	25.5	1.000049
4950.0	128.7	-64.7		215.1	502.5	275.4	23.3	1.000048
5000.0	125.6	-64.5		209.7	502.7	269.4	20.3	1.000047
5050.0	122.5	-64.4		204.5	502.8	260.4	17.0	1.000046
5100.0	119.5	-65.0		200.0	502.0	248.2	13.8	1.000045
5150.0	116.5	-65.9		195.8	500.9	239.2	13.1	1.000044
5200.0	113.6	-66.7		191.7	509.7	247.5	14.8	1.000043
5250.0	110.8	-67.5		187.6	508.0	253.7	16.5	1.000042
5300.0	108.1	-68.4		183.9	507.5	257.9	18.0	1.000041
5350.0	105.4	-69.2		180.0	500.3	261.0	18.9	1.000040
5400.0	102.8	-69.7		176.0	505.0	265.3	17.2	1.000039
5450.0	100.2	-70.2		171.9	505.0	269.8	15.9	1.000038
5500.0	97.7	-70.1		167.6	505.1	273.9	15.9	1.000037
5550.0	95.2	-70.0		163.3	505.3	273.1	16.1	1.000036
5600.0	92.8	-69.9		159.1	505.4	261.7	17.4	1.000035
5650.0	90.5	-69.8		155.0	505.5	264.3	18.7	1.000034
5700.0	88.2	-69.7		151.1	505.7	268.9	19.2	1.000034
5750.0	86.0	-69.6		147.2	505.8	268.2	18.8	1.000033
5800.0	83.8	-69.5		143.4	505.9	269.0	18.5	1.000032
5850.0	81.7	-69.4		139.8	500.1	290.9	17.2	1.000031
5900.0	79.7	-69.3		136.2	500.2	292.0	15.4	1.000030
5950.0	77.7	-69.2		132.7	500.3	294.0	13.6	1.000030
6000.0	75.7	-69.1		129.3	500.5	301.3	10.2	1.000029
6050.0	73.8	-68.9		125.9	500.8	315.4	7.0	1.000028
6100.0	72.0	-68.6		122.0	507.2	320.0	6.1	1.000027
6150.0	70.2	-68.3		119.4	507.5	328.5	5.6	1.000027
6200.0	68.5	-67.3		115.9	500.9	339.5	5.8	1.000026
6250.0	66.8	-66.5		112.5	500.4	340.0	6.1	1.000025
6300.0	65.1	-65.2		109.1	501.0	335.5	6.4	1.000024

STATION ALTITUDE 3997.30 FEET MSL
12 OCT. 79 1330 HRS MST
ASCENSION IS. 348

UPPER AIR DATA
2050000540
5 M H

GEODETTIC COORDINATES
32.48034 LAT LEG
196.42307 LONG LEG

TABLE 8 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (T)	SPEED KNOTS	
03500.0	03.5	-64.1		105.9	503.3	330.0	6.8	1.000024
04000.0	02.0	-63.7		103.1	503.8	318.0	6.7	1.000023
04500.0	00.5	-63.9		100.7	503.5	307.2	6.8	1.000022
05000.0	59.0	-64.1		96.3	503.3	298.5	6.6	1.000022
05500.0	57.5	-64.3		93.0	503.0	289.0	6.3	1.000021
06000.0	56.2	-64.0		93.5	503.5	283.5	5.8	1.000021
06500.0	54.8	-63.0		90.8	504.7	283.5	4.7	1.000020
07000.0	53.5	-62.1		88.2	509.0	283.5	3.7	1.000020
07500.0	52.2	-61.1		85.7	507.3	281.7	2.4	1.000019
08000.0	50.9	-60.2		83.3	508.5	211.4	2.0	1.000019
08500.0	49.7	-59.4		81.0	509.5	188.7	3.2	1.000018
09000.0	48.5	-59.1		79.0	570.0	195.7	4.8	1.000018
09500.0	47.4	-58.8		77.0	570.4	199.1	6.6	1.000017
70000.0	46.3	-58.5		75.1	570.8	217.5	7.6	1.000017
70500.0	45.2	-58.1		73.2	571.2	237.2	9.4	1.000016
71000.0	44.1	-57.8		71.3	571.7	249.7	11.9	1.000016
71500.0	43.1	-57.5		69.6	572.1	254.0	12.7	1.000015
72000.0	42.0	-57.2		67.8	572.5	259.0	13.2	1.000015
72500.0	41.1	-56.9		66.1	572.9	262.7	13.6	1.000015
73000.0	40.1	-56.6		64.5	573.3	261.1	12.0	1.000014
73500.0	39.1	-56.2		62.9	573.6	259.1	10.4	1.000014
74000.0	38.2	-55.9		61.3	574.2	255.9	9.1	1.000014
74500.0	37.3	-55.6		59.7	574.6	250.1	8.5	1.000013
75000.0	36.4	-55.3		58.3	575.0	243.5	8.0	1.000013
75500.0	35.6	-55.0		56.8	575.4	240.0	8.3	1.000013
76000.0	34.7	-54.7		55.4	575.9	243.5	9.6	1.000012
76500.0	33.9	-54.3		54.0	576.3	245.7	10.9	1.000012
77000.0	33.1	-53.8		52.0	577.0			1.000012
77500.0	32.4	-53.1		51.2	577.9			1.000011
78000.0	31.6	-52.5		49.9	578.7			1.000011
78500.0	30.9	-51.9		48.0	579.5			1.000011
79000.0	30.2	-51.2		47.4	580.3			1.000011

STATION ALTITUDE 3997.30 FEET MSL
12 OCT. 79
ASCENSION, NO. 348

MANDATORY LEVELS
2850000340
S M K
TABLE 9

GEODETIC COORDINATES
32.44034 LAT DEG
106.42307 LONG DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		RELATIVE HUMIDITY		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	WET-BULB POINT DEGREE	PERCENT	DIRECTION DEGREES (TN)	SPEED KINOTS	
850.0	4807.	27.7	1.2	18.	242.0	11.9	
800.0	6550.	22.6	-3.2	17.	246.4	11.6	
750.0	8372.	17.3	-8.2	17.	252.9	9.2	
700.0	10281.	11.5	-13.4	16.	263.3	10.7	
650.0	12299.	7.4	-16.3	17.	279.8	13.4	
600.0	14440.	3.3	-18.0	18.	287.6	20.3	
550.0	16736.	-1.7	-21.0	20.	289.0	19.9	
500.0	19198.	-6.9	-27.0	17.	288.3	20.9	
450.0	21875.	-11.4	-31.3	17.	291.4	24.2	
400.0	24800.	-16.5	-35.0	20.	287.0	29.3	
350.0	28018.	-26.7	-38.7	31.	291.1	39.0	
300.0	31597.	-36.2	-45.2	38.	294.7	38.4	
250.0	35657.	-46.3			291.1	38.6	
200.0	40396.	-58.0			280.3	43.9	
175.1	43133.	-60.2			277.1	44.3	
150.0	46277.	-60.6			270.2	42.3	
125.0	49949.	-64.5			268.4	19.9	
100.0	54365.	-70.2			269.8	15.9	
80.0	58726.	-69.3			292.2	15.8	
70.0	61347.	-68.3			338.6	5.6	
60.0	64426.	-64.0			304.0	6.9	
50.0	68114.	-59.5			184.5	2.6	
40.0	72727.	-56.5			261.2	12.1	
30.0	78778.	-51.1					

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