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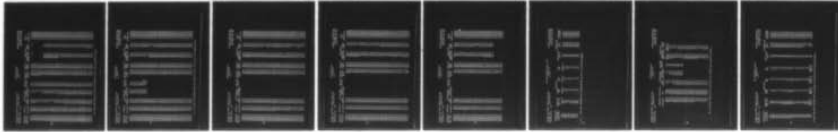
ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/6 4/2
19304A 6SRS, MISSILE NUMBER 1138, ROUND NUMBER V-30.(U)
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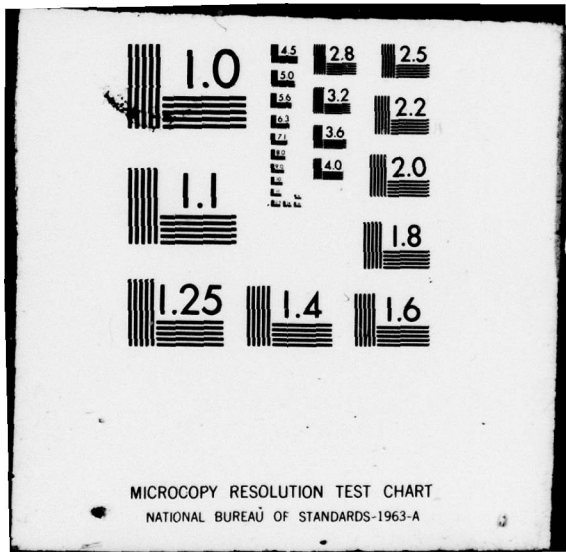
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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1017	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
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18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue 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 19304A GSRS, Missile No. 1138, Round No. V-30, are presented in tabular form.		

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INTRODUCTION

19304A GSRS, Missile Number 1138, Round Number V-30, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0900 MDT, 21 May 1979. 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 RPTS T-9 pibal observation at:

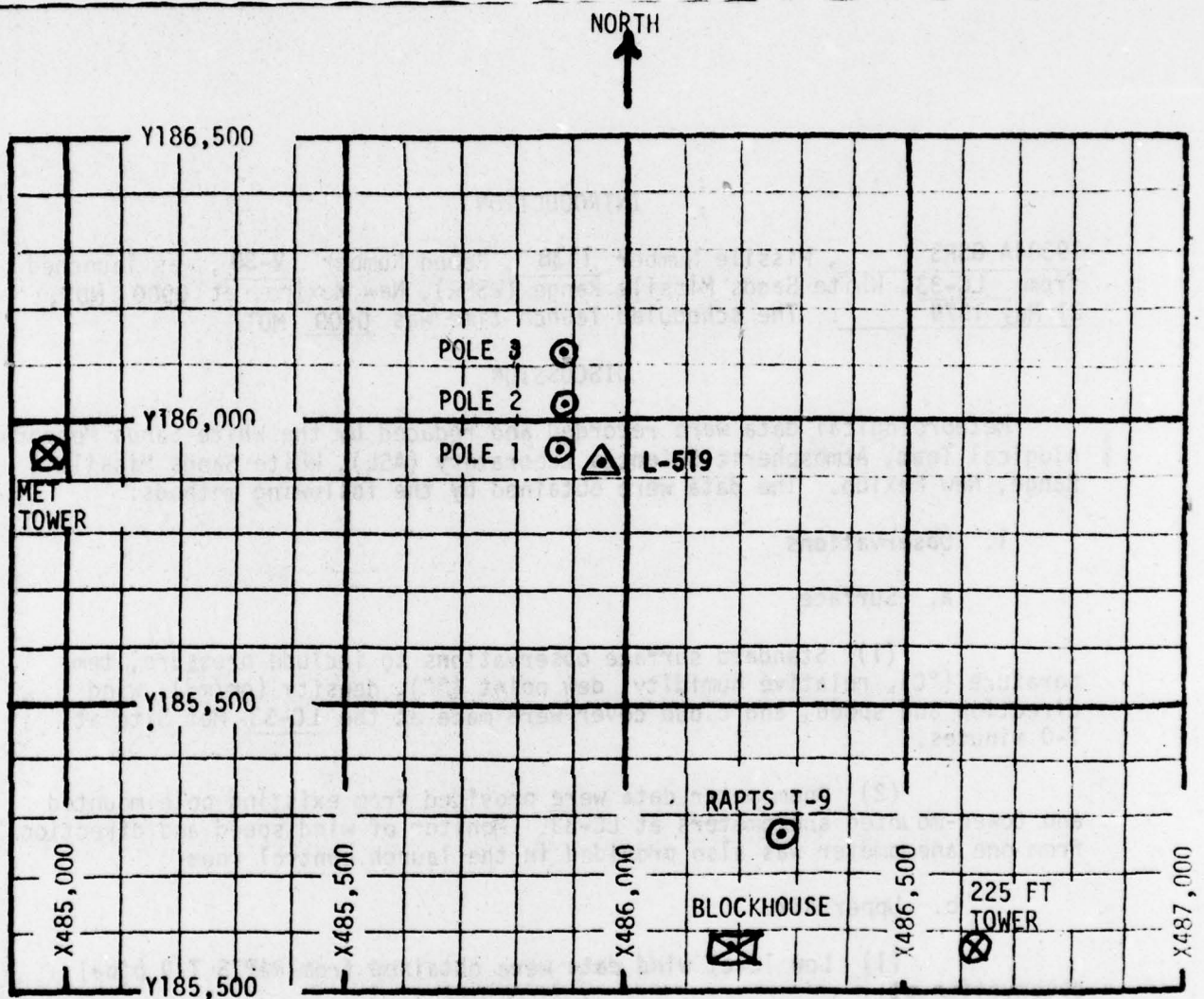
SITE AND ALTITUDE

LC-33 1020 meters (30-meter increments) 0900 MDT

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 98,500 feet in 500-foot increments.

SITE AND TIME

SMR 0800 MST



1. MET TOWER - 4 Bendix Model T-120 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. 225 FT WIND TOWER - 5 Bendix Model T-120 Anemometers at 35 ft, 88 ft, 128 ft, 168 ft and 200 ft with 5 X-Y visual indicators in Blockhouse.
4. RAPTS T-9 - Radar Automatic Pilot-Balloon Tracking System T-9 Radar

TABLE 1. SURFACE OBSERVATIONS TAKEN AT 0900 MDT,
21 MAY 1979 AT LC-33, 19304A GSRS,
MISSILE NO. 1138, ROUND NO. V-30.

ELEVATION	3977.30	FT/MSL
PRESSURE	875.7	MBS
TEMPERATURE	13.7	°C
RELATIVE HUMIDITY	53	%
DEW POINT	4.3	°C
DENSITY	1058	GM/M ³
WIND SPEED	Calm	MPH
WIND DIRECTION	Calm	DEGREES
CLOUD COVER	6	Cu

TABLE 2. LC-33 FIXED POLE ANEMOMETER-MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	000	00	-30	167	06	-30	000	00
-20	000	00	-20	147	06	-20	000	00
-10	000	00	-10	150	06	-10	156	01
0.0	000	00	0.0	153	05	0.0	156	01
+10	000	00	+10	155	05	+10	000	00

Type 19304A GSRS, Missile No. 1138, Round No. V-30 launched
from LC-33 on 21 May 1979 at 0900 MDT.

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

NOTE: Wind directions are referenced to the firing azimuth _____
or true north true north.

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

LEVEL #1 12 ft.			LEVEL #2 62 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	Pen d'n't	03	-30	096	02
-20	Pen d'n't	02	-20	084	03
-10	000	00	-10	043	03
0.0	000	00	0.0	042	02
+10	000	00	+10	048	01
LEVEL #3 102 ft.			LEVEL #4 202 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	000	00	-30	088	02
-20	000	00	-20	088	02
-10	000	00	-10	105	02
0.0	000	00	0.0	085	02
+10	000	00	+10	078	03

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

Type 19304A GSRS, Missile No. 1138, Round No. V-30 launched
from LC-33 on 21 May 1979 at 0900 MDT.

NOTE: Wind directions are referenced to the firing azimuth _____
or true north true north.

TABLE 4. PILOT-BALLOON-MEASURED WIND DATA (30-METER INCREMENTS)

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
SFC	000	00
30	000	00
60	000	00
90	079	1.5
120	112	2.5
150	117	3.5
180	121	4.0
210	138	5.5
240	154	6.5
270	151	7.0
300	148	7.0
330	155	5.0
360	162	3.0

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
390	216	2.5
420	270	2.0
450	286	2.5
480	302	3.0
510	277	4.0
540	251	5.0
570	267	4.0
600	282	3.0
630	292	2.5
660	301	2.0
690	325	4.0
720	348	6.0
750	333	6.0

Release Point Coordinates (WSTM): X486,037.24 Y486,037.24 H3977.30

Released from LC-33 on 21 May 1979 at 0900 MDT.

Type 19304A GSRS, Missile No. 1138, Round No. V-30 launched from LC-33 on 21 May 1979 at 0900 MDT.

NOTE: Wind directions are referenced to the firing azimuth _____ or true north true north.

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
780	318	6.0
810	314	5.5
840	309	5.0
870	316	5.5
900	323	6.0
930	312	6.0
960	300	6.0
990	302	6.5
1020	304	7.0
1050		
1080		
1110		
1140		
1170		
1200		
1230		
1260		
1290		
1320		
1350		
1380		
1410		

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
1440		
1470		
1500		
1530		
1560		
1590		
1620		
1650		
1680		
1710		
1740		
1770		
1800		
1830		
1860		
1890		
1920		
1950		
1980		
2010		
2040		
2070		

STATION ALTITUDE 3997.30 FEET MSL
 21 MAY 79
 ASCENSION NO. 132

SIGNIFICANT LEVEL DATA
 1410060132
 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL-HUM. PERCENT
878.2	3997.3	16.0	45.0
862.0	4513.5	12.3	42.0
850.0	4898.6	10.9	52.0
832.8	5457.6	9.6	53.0
823.2	5774.2	10.2	53.0
748.0	8362.9	3.7	61.0
729.6	9026.6	2.4	70.0
700.0	10122.8	.1	63.0
624.4	13092.9	-7.4	74.0
615.8	13447.7	-8.3	87.0
583.0	14839.4	-10.5	48.0
500.0	18665.4	-18.8	62.0
400.0	23999.2	-31.5	45.0
377.4	25344.7	-34.8	52.0
345.6	27354.5	-37.8	25.0
321.6	28980.9	-39.7	
315.8	29391.4	-38.8	
300.0	30549.2	-39.6	
276.6	32308.1	-42.2	
260.6	33635.6	-42.1	
250.0	34619.5	-42.9	
221.2	37331.9	-44.0	
207.2	38768.8	-46.8	
200.0	39541.6	-46.7	
177.8	42105.9	-48.0	
169.6	43130.2	-48.9	
150.0	45762.6	-53.4	
136.0	47833.6	-55.2	
125.8	49465.9	-57.6	
119.2	50587.8	-57.7	
109.8	52284.3	-61.1	
100.0	54206.4	-59.7	
74.2	60284.8	-65.2	
70.0	61457.2	-65.0	
63.0	63581.5	-64.4	
54.8	66441.5	-57.9	
50.0	68346.5	-58.9	
46.6	69813.9	-56.8	
30.0	79125.8	-52.8	
20.0	87932.3	-45.3	

STATION ALTITUDE 3997.30 FEET MSL
21 MAY 79 0800 HRS MST
ASCENSION NO. 132

SIGNIFICANT LEVEL DATA
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GEODETTIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
15.0 94338.6	-41.8	
12.3 98767.0	-42.5	

STATION ALTITUDE 3997.30 FEET MSL
 21 MAY 79
 ASCENSION NO. 132

UPPER AIR DATA
 1410060132
 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
3997.3	878.2	16.0	45.0	1054.3	663.6	00	00	1.000272
4000.0	878.1	16.0	45.0	1054.3	663.6			1.000272
4500.0	862.4	12.4	47.9	1049.0	659.3			1.000266
5000.0	846.9	10.7	52.2	1036.4	657.3			1.000262
5500.0	831.5	9.7	53.0	1021.2	656.1			1.000258
6000.0	816.4	9.6	53.7	1002.7	656.1			1.000254
6500.0	801.4	8.4	55.2	986.8	654.6			1.000249
7000.0	786.7	7.1	56.8	975.1	653.1			1.000245
7500.0	772.3	5.9	58.3	961.7	651.6			1.000241
8000.0	758.1	4.6	59.9	948.4	650.1			1.000236
8500.0	744.2	3.4	62.9	935.0	648.7			1.000233
9000.0	730.3	2.5	69.6	920.7	647.6			1.000230
9500.0	716.7	1.4	67.0	907.2	646.3			1.000225
10000.0	703.3	.4	63.8	893.8	645.0			1.000219
10500.0	689.9	-.9	64.4	880.9	643.5			1.000215
11000.0	676.8	-2.1	66.2	868.2	642.0			1.000211
11500.0	663.9	-3.4	68.1	855.7	640.5			1.000208
12000.0	651.2	-4.6	70.0	843.4	638.9			1.000204
12500.0	638.8	-5.9	71.8	831.3	637.4			1.000200
13000.0	626.6	-7.2	73.7	819.4	635.9			1.000197
13500.0	614.5	-8.4	85.5	807.2	634.5			1.000195
14000.0	602.6	-9.2	71.5	794.1	633.4			1.000189
14500.0	590.8	-10.0	57.5	781.2	632.3			1.000183
15000.0	579.3	-10.8	48.6	768.7	631.2			1.000178
15500.0	567.7	-11.9	50.4	756.5	629.9			1.000175
16000.0	556.5	-13.0	52.2	744.6	628.6			1.000172
16500.0	545.4	-14.1	54.1	732.9	627.3			1.000170
17000.0	534.6	-15.2	55.9	721.4	625.9			1.000167
17500.0	523.9	-16.3	57.7	710.0	624.6			1.000164
18000.0	513.5	-17.4	59.6	698.9	623.3			1.000161
18500.0	503.3	-18.4	61.4	688.0	622.0			1.000158
19000.0	493.1	-19.6	60.9	677.0	620.5			1.000155
19500.0	482.8	-20.8	59.3	666.2	619.0			1.000152
20000.0	472.8	-22.0	57.7	655.5	617.6			1.000150
20500.0	463.1	-23.2	56.2	645.0	616.1			1.000147
21000.0	453.5	-24.4	54.6	634.7	614.6			1.000144
21500.0	444.1	-25.5	53.0	624.5	613.1			1.000142
22000.0	434.9	-26.7	51.4	614.7	611.6			1.000139
22500.0	425.9	-27.9	49.8	604.9	610.1			1.000137
23000.0	417.1	-29.1	48.2	595.3	608.6			1.000134

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

STATION ALTITUDE 3997.30 FEET MSL
 21 MAY 79 0800 HRS MST
 ASCENSION NO. 132

UPPER AIR DATA
 1410060132
 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
23500.0	408.4	-30.3	46.6	585.8	607.2	25.7	16.9	1.000132
24000.0	400.0	-31.5	45.0	576.5	605.7	21.4	17.3	1.000130
24500.0	391.4	-32.7	47.6	567.1	604.1	17.5	17.3	1.000128
25000.0	383.1	-34.0	50.2	557.8	602.6	13.6	16.8	1.000125
25500.0	374.8	-35.0	49.9	548.3	601.2	11.5	16.4	1.000123
26000.0	366.7	-35.8	43.2	538.1	600.3	12.7	16.1	1.000121
26500.0	358.8	-36.5	36.5	528.1	599.3	13.7	16.1	1.000118
27000.0	351.0	-37.3	29.8	518.4	598.4	14.1	16.8	1.000116
27500.0	343.4	-38.0	22.8**	508.6	597.5	14.0	17.2	1.000114
28000.0	335.9	-38.6	15.1**	498.7	596.7	10.6	15.3	1.000111
28500.0	328.5	-39.1	7.4**	489.0	596.0	6.1	13.5	1.000109
29000.0	321.3	-39.7		479.4	595.3	1.4	10.5	1.000107
29500.0	314.3	-38.9		467.3	596.3	353.0	7.5	1.000104
30000.0	307.4	-39.2		457.8	595.9	335.0	7.2	1.000102
30500.0	300.7	-39.6		448.4	595.4	318.3	8.1	1.000100
31000.0	294.0	-40.2		439.8	594.5	321.2	11.7	1.000098
31500.0	287.5	-41.0		431.4	593.6	325.8	16.2	1.000096
32000.0	281.2	-41.7		423.2	592.7	330.4	19.7	1.000094
32500.0	275.0	-42.2		414.7	592.1	334.4	22.8	1.000092
33000.0	268.9	-42.2		405.5	592.1	336.7	24.3	1.000090
33500.0	262.9	-42.1		396.4	592.2	338.3	24.6	1.000088
34000.0	257.1	-42.4		388.0	591.8	339.5	23.6	1.000086
34500.0	251.3	-42.8		380.1	591.3	340.1	20.3	1.000085
35000.0	245.7	-43.1		372.1	590.9	340.0	17.2	1.000083
35500.0	240.3	-43.3		364.1	590.7	333.2	15.1	1.000081
36000.0	234.9	-43.5		356.3	590.4	324.4	13.4	1.000079
36500.0	229.7	-43.7		348.6	590.2	311.8	15.2	1.000078
37000.0	224.5	-43.9		341.2	589.9	302.4	18.0	1.000076
37500.0	219.5	-44.3		334.2	589.3	297.5	20.2	1.000074
38000.0	214.6	-45.3		328.1	588.1	295.1	21.5	1.000073
38500.0	209.8	-46.3		322.1	586.8	293.4	22.6	1.000072
39000.0	205.0	-46.8		315.5	586.2	294.1	22.8	1.000070
39500.0	200.4	-46.7		308.3	586.2	294.8	23.0	1.000069
40000.0	195.8	-46.9		301.6	585.9	293.7	24.1	1.000067
40500.0	191.4	-47.2		295.1	585.6	292.3	25.4	1.000066
41000.0	187.1	-47.4		286.7	585.3	290.4	27.0	1.000064
41500.0	182.8	-47.7		282.3	585.0	288.2	28.9	1.000063
42000.0	178.7	-47.9		276.4	584.6	286.2	30.8	1.000062
42500.0	174.6	-48.3		270.6	584.1	284.4	32.4	1.000060
43000.0	170.6	-48.8		264.9	583.5	282.7	34.2	1.000059

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

STATION ALTITUDE 3997.30 FEET MSL
 21 MAY 79 0800 HRS MST
 ASCENSION NO. 132

UPPER AIR DATA
 1410060132
 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
43500.0	166.7	-49.5		259.7	582.6	282.5	34.2	1.000058
44000.0	162.9	-50.4		257.7	581.5	282.5	34.1	1.000057
44500.0	159.1	-51.2		249.8	580.3	283.8	33.2	1.000056
45000.0	155.4	-52.1		245.0	579.2	286.3	31.8	1.000055
45500.0	151.8	-53.0		240.2	578.1	289.8	30.1	1.000054
46000.0	148.3	-53.6		235.4	577.2	295.5	28.1	1.000052
46500.0	144.9	-54.0		230.3	576.7	301.7	26.3	1.000051
47000.0	141.5	-54.5		225.4	576.1	305.2	23.6	1.000050
47500.0	138.2	-54.9		220.5	575.5	309.4	21.0	1.000049
48000.0	134.9	-55.4		215.9	574.8	310.1	18.1	1.000048
48500.0	131.7	-56.2		211.5	573.8	307.5	14.8	1.000047
49000.0	128.6	-56.9		207.2	572.9	303.0	11.9	1.000046
49500.0	125.6	-57.6		203.0	572.0	294.6	10.5	1.000045
50000.0	122.6	-57.6		198.2	571.9	284.0	9.4	1.000044
50500.0	119.7	-57.7		193.5	571.8	276.1	9.3	1.000043
51000.0	116.8	-58.5		189.7	570.7	273.4	10.1	1.000042
51500.0	114.0	-59.5		186.0	569.4	271.1	10.8	1.000041
52000.0	111.3	-60.5		182.4	568.1	267.3	12.6	1.000041
52500.0	108.7	-60.9		178.4	567.5	264.2	14.7	1.000040
53000.0	106.0	-60.6		173.8	568.0	260.7	16.8	1.000039
53500.0	103.5	-60.2		169.3	568.5	256.1	18.9	1.000038
54000.0	101.0	-59.9		165.0	569.0	252.4	21.2	1.000037
54500.0	98.6	-60.0		161.1	568.8	252.4	20.2	1.000036
55000.0	96.2	-60.4		157.5	568.2	252.6	19.1	1.000035
55500.0	93.8	-60.9		154.0	567.6	254.2	18.2	1.000034
56000.0	91.6	-61.3		150.6	567.0	257.5	17.6	1.000034
56500.0	89.4	-61.8		147.3	566.4	261.0	17.0	1.000033
57000.0	87.2	-62.2		144.0	565.8	266.9	16.1	1.000032
57500.0	85.1	-62.7		140.8	565.2	273.0	15.3	1.000031
58000.0	83.0	-63.1		137.7	564.6	278.2	13.6	1.000031
58500.0	81.0	-63.6		134.6	564.0	279.3	10.4	1.000030
59000.0	79.0	-64.0		131.7	563.4	281.4	7.1	1.000029
59500.0	77.1	-64.5		128.7	562.8	251.4	3.2	1.000029
60000.0	75.2	-64.9		125.9	562.1	163.9	4.5	1.000028
60500.0	73.4	-65.2		123.0	561.8	144.2	9.4	1.000027
61000.0	71.6	-65.1		119.9	562.0	139.8	10.3	1.000027
61500.0	69.9	-65.0		116.9	562.1	136.2	11.2	1.000026
62000.0	68.1	-64.8		114.0	562.3	134.4	11.3	1.000025
62500.0	66.5	-64.7		111.1	562.5	136.6	9.4	1.000025
63000.0	64.8	-64.6		108.3	562.6	139.9	7.4	1.000024

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GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
63500.0	63.3	-64.4			105.6	562.8	150.6	6.2	1.000024
64000.0	61.7	-63.4			102.5	564.2	168.0	6.2	1.000023
64500.0	60.2	-62.3			99.5	565.7	184.2	6.6	1.000022
65000.0	58.8	-61.2			96.6	567.2	195.0	6.4	1.000022
65500.0	57.4	-60.0			93.8	568.7	206.2	5.9	1.000021
66000.0	56.0	-58.9			91.0	570.2	218.7	5.7	1.000020
66500.0	54.6	-57.9			88.5	571.5	216.6	3.2	1.000020
67000.0	53.3	-58.2			86.5	571.2	189.1	.6	1.000019
67500.0	52.1	-58.5			84.5	570.8	51.2	2.2	1.000019
68000.0	50.8	-58.7			82.6	570.5	52.3	3.8	1.000018
68500.0	49.6	-58.7			80.6	570.5	52.8	5.3	1.000018
69000.0	48.5	-58.0			78.4	571.5	53.0	6.9	1.000017
69500.0	47.3	-57.2			76.3	572.4	54.3	6.7	1.000017
70000.0	46.2	-56.7			74.3	573.1	55.7	6.4	1.000017
70500.0	45.1	-56.5			72.5	573.4	57.2	6.1	1.000016
71000.0	44.1	-56.3			70.8	573.7	58.4	6.1	1.000016
71500.0	43.0	-56.1			69.1	574.0	59.6	6.1	1.000015
72000.0	42.0	-55.9			67.4	574.3	60.8	6.1	1.000015
72500.0	41.0	-55.6			65.7	574.6	61.3	7.1	1.000015
73000.0	40.1	-55.4			64.1	574.8	61.6	8.2	1.000014
73500.0	39.1	-55.2			62.6	575.1	61.9	9.4	1.000014
74000.0	38.2	-55.0			61.1	575.4	62.0	11.1	1.000014
74500.0	37.3	-54.8			59.6	575.7	62.1	13.0	1.000013
75000.0	36.5	-54.6			58.1	576.0	62.1	15.0	1.000013
75500.0	35.6	-54.4			56.7	576.3	67.3	16.3	1.000013
76000.0	34.8	-54.1			55.3	576.5	75.2	17.5	1.000012
76500.0	34.0	-53.9			54.0	576.8	82.0	18.9	1.000012
77000.0	33.2	-53.7			52.7	577.1	87.7	19.8	1.000012
77500.0	32.4	-53.5			51.4	577.4	93.0	20.0	1.000011
78000.0	31.6	-53.3			50.1	577.7	98.2	20.3	1.000011
78500.0	30.9	-53.1			48.9	577.9	101.1	20.4	1.000011
79000.0	30.2	-52.9			47.7	578.2	98.7	19.8	1.000011
79500.0	29.5	-52.5			46.6	578.7	96.2	19.2	1.000010
80000.0	28.8	-52.1			45.4	579.3	94.0	18.8	1.000010
80500.0	28.2	-51.6			44.3	579.8	97.5	19.2	1.000010
81000.0	27.5	-51.2			43.2	580.4	100.9	19.7	1.000010
81500.0	26.9	-50.8			42.1	580.9	104.1	20.3	1.000009
82000.0	26.3	-50.4			41.1	581.5	104.9	21.0	1.000009
82500.0	25.7	-49.9			40.1	582.1	105.2	21.7	1.000009
83000.0	25.1	-49.5			39.1	582.6	105.5	22.4	1.000009

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GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INJEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
83500.0	24.5	-49.1		38.1	583.2	104.0	22.2	1.000008
84000.0	24.0	-48.6		37.2	583.7	98.3	20.2	1.000008
84500.0	23.4	-48.2		36.3	584.3	91.4	18.4	1.000008
85000.0	22.9	-47.8		35.4	584.8	83.2	17.0	1.000008
85500.0	22.4	-47.4		34.5	585.4	78.2	15.4	1.000008
86000.0	21.9	-46.9		33.7	585.9	72.8	13.9	1.000007
86500.0	21.4	-46.5		32.8	586.5	66.2	12.5	1.000007
87000.0	20.9	-46.1		32.0	587.0	61.1	11.6	1.000007
87500.0	20.4	-45.7		31.2	587.6	60.4	11.1	1.000007
88000.0	19.9	-45.3		30.5	588.1	59.7	10.7	1.000007
88500.0	19.5	-45.0		29.8	588.5	59.0	10.2	1.000007
89000.0	19.1	-44.7		29.1	588.8	56.9	10.1	1.000006
89500.0	18.6	-44.4		28.4	589.2	54.5	10.0	1.000006
90000.0	18.2	-44.2		27.7	589.5	52.1	10.0	1.000006
90500.0	17.8	-43.9		27.1	589.9	54.1	9.8	1.000006
91000.0	17.4	-43.6		26.4	590.2	67.7	9.8	1.000006
91500.0	17.0	-43.4		25.8	590.6	80.7	10.3	1.000006
92000.0	16.7	-43.1		25.2	590.9	92.0	11.2	1.000006
92500.0	16.3	-42.8		24.6	591.3	97.5	12.3	1.000005
93000.0	15.9	-42.5		24.1	591.6	100.6	13.3	1.000005
93500.0	15.6	-42.3		23.5	592.0	103.3	14.3	1.000005
94000.0	15.2	-42.0		23.0	592.3	105.5	15.3	1.000005
94500.0	14.9	-41.8		22.4	592.5	106.6	15.2	1.000005
95000.0	14.6	-41.9		21.9	592.4	107.7	15.2	1.000005
95500.0	14.2	-42.0		21.5	592.3	108.8	15.2	1.000005
96000.0	13.9	-42.1		21.0	592.2			1.000005
96500.0	13.6	-42.1		20.5	592.1			1.000005
97000.0	13.3	-42.2		20.1	592.0			1.000004
97500.0	13.0	-42.3		19.7	591.9			1.000004
98000.0	12.7	-42.4		19.2	591.8			1.000004
98500.0	12.5	-42.5		18.8	591.7			1.000004

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GEOPOTENTIAL ALTITUDE DECAMETERS	DIRECTION DEG (TN)	WIND DATA		E-W MPS	DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
		SPEED MPS	N-S MPS			AIR DEG C		
2995.	9999.**	9999.**	-9999.**	-9999.**	99	-42.5	1.230+1	
2861.	106.	8.	2.	-8.	99	-41.8	1.500+1	
2668.	60.	6.	-3.	-5.	99	-45.3	2.000+1	
2401.	98.	10.	1.	-10.	99	-52.8	3.000+1	
2120.	55.	3.	-2.	-3.	99	-56.8	4.660+1	
2075.	53.	2.	-2.	-2.	99	-58.9	5.000+1	
2018.	217.	2.	1.	1.	99	-57.9	5.480+1	
1931.	154.	3.	3.	-1.	99	-64.4	6.300+1	
1867.	137.	6.	4.	-4.	99	-65.0	7.000+1	
1831.	149.	4.	3.	-2.	99	-65.2	7.420+1	
1777.	252.	11.	3.	10.	99	-59.7	1.000+2	

** WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

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MANDATORY LEVELS
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GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4895.	10.9	1.4	52.	9999.0	9999.0XX
800.0	6543.	8.3	-1.	55.	9999.0	9999.0XX
750.0	8284.	3.9	-3.0	61.	318.9	8.4
700.0	10113.	.1	-6.1	63.	319.7	7.3
650.0	12045.	-4.8	-9.4	70.	357.2	6.3
600.0	14094.	-9.3	-14.0	68.	36.4	8.5
550.0	16285.	-13.6	-21.1	53.	40.8	7.2
500.0	18640.	-18.8	-24.2	62.	43.9	9.5
450.0	21186.	-24.8	-31.4	54.	42.3	10.4
400.0	23960.	-31.5	-39.4	45.	21.5	17.3
350.0	27019.	-37.4	-48.8	29.	14.1	16.9
300.0	30490.	-39.6			317.3	6.2
250.0	34545.	-42.9			340.2	19.6
200.0	39447.	-46.7			294.9	23.0
175.0	42344.	-48.3			284.6	32.2
150.0	45640.	-53.4			292.4	29.1
125.0	49457.	-57.6			293.2	10.3
100.0	54039.	-59.7			252.3	20.9
80.0	58572.	-63.8			280.1	8.8
70.0	61246.	-65.0			136.7	11.1
60.0	64341.	-62.1			185.3	6.7
50.0	68090.	-58.9			52.7	4.7
40.0	72732.	-55.4			61.6	6.2
30.0	78738.	-52.8			98.3	19.7
25.0	82678.	-49.4			105.5	22.4
20.0	87520.	-45.3			59.9	10.8
15.0	93867.	-41.8			106.2	15.3

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

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MRN MANDATORY LEVELS
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GEOPOTENTIAL ALTITUDE DECAMETERS	DIRECTION DEG (TN)	SPEED MPS	WIND DATA		E-W MPS	DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
			N-S MPS	ANGLE			AIR DEG C	SEA DEG C	
2861.	106.	8.	2.		-8.	99	-41.8		1.500+1
2668.	60.	6.	-3.		-5.	99	-45.3		2.000+1
2520.	105.	12.	3.		-11.	99	-49.4		2.500+1
2401.	98.	10.	1.		-10.	99	-52.8		3.000+1
2217.	62.	4.	-2.		-4.	99	-55.4		4.000+1
2075.	53.	2.	-1.		-2.	99	-58.9		5.000+1
1961.	185.	3.	3.		0.	99	-62.1		6.000+1
1867.	137.	6.	4.		-4.	99	-65.0		7.000+1
1785.	280.	5.	-1.		4.	99	-63.8		8.000+1
1647.	252.	11.	3.		10.	99	-59.7		1.000+2
1507.	293.	5.	-2.		5.	99	-57.6		1.250+2
1391.	292.	15.	-6.		14.	99	-53.4		1.500+2
1291.	285.	17.	-4.		16.	99	-48.3		1.750+2
1202.	295.	12.	-5.		11.	99	-46.7		2.000+2
1053.	340.	10.	-10.		3.	99	-42.9		2.500+2
929.	317.	4.	-3.		3.	99	-39.6		3.000+2
824.	14.	9.	-8.		-2.	11	-37.4		3.500+2
730.	21.	9.	-8.		-3.	08	-31.5		4.000+2
646.	42.	5.	-4.		-4.	07	-24.8		4.500+2
568.	44.	5.	-4.		-3.	05	-18.8		5.000+2
496.	41.	4.	-3.		-2.	07	-13.6		5.500+2
430.	36.	4.	-4.		-3.	05	-9.3		6.000+2
367.	357.	3.	-3.		0.	05	-4.8		6.500+2
308.	320.	4.	-3.		2.	06	.1		7.000+2
253.	319.	4.	-3.		3.	07	3.9		7.500+2
200.	9999.**	9999.**	-9999.**		-9999.**	08	8.3		8.000+2
149.	9999.**	9999.**	-9999.**		-9999.**	09	10.9		8.500+2

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