

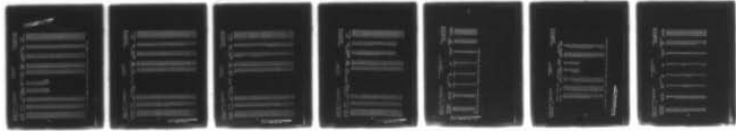
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19305A GSRS MISSILE NUMBER 1055 ROUND NUMBER V-31.(U)
MAY 79

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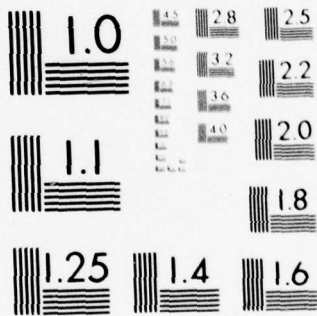
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LEVEL II

REPORTS ON FIELD TESTS, EXPERIMENTAL RESULTS

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METEOROLOGICAL DATA REPORT

12000 HRS
MAY 16, 1958
MAY 17, 1958
MAY 1958

with some meteorological data

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MAY 1958
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COMMUNICATIONS SYSTEMS LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

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REPORT DOCUMENTATION PAGE

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1. REPORT NUMBER DR-1019	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
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4. TITLE (and Subtitle) 19305A GSRS Missile No. 1055 Round No. V-31.	5. TYPE OF REPORT & PERIOD COVERED
6. PERFORMING ORG. REPORT NUMBER	

7. AUTHOR(s) Number White Sands Meteorological Team data rept.	8. CONTRACT OR GRANT NUMBER(s) DA Task 116657-2D126-02
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9. PERFORMING ORGANIZATION NAME AND ADDRESS	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
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11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Comd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico	12. REPORT DATE May 79
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14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research & Development Comd	13. NUMBER OF PAGES	15. SECURITY CLASS. (of this report) UNCLASSIFIED
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16. DISTRIBUTION STATEMENT (of this Report)
Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)
16-17-66572D-126

18. SUPPLEMENTARY NOTES
17-02

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

- Ballistics
- Meteorology
- Wind

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Meteorological data gathered for the launching of 19305A GSRS, Missile No. 1055, Round No. V-31, are presented in tabular form.

410 663

B

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INTRODUCTION

19305A GSRS, Missile Number 1055, Round Number V-31, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1441 MDT, 25 May 1979. The scheduled launch time was 1430 MDT.

DISCUSSION

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

1. Observations

a. Surface

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

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

b. Upper Air

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

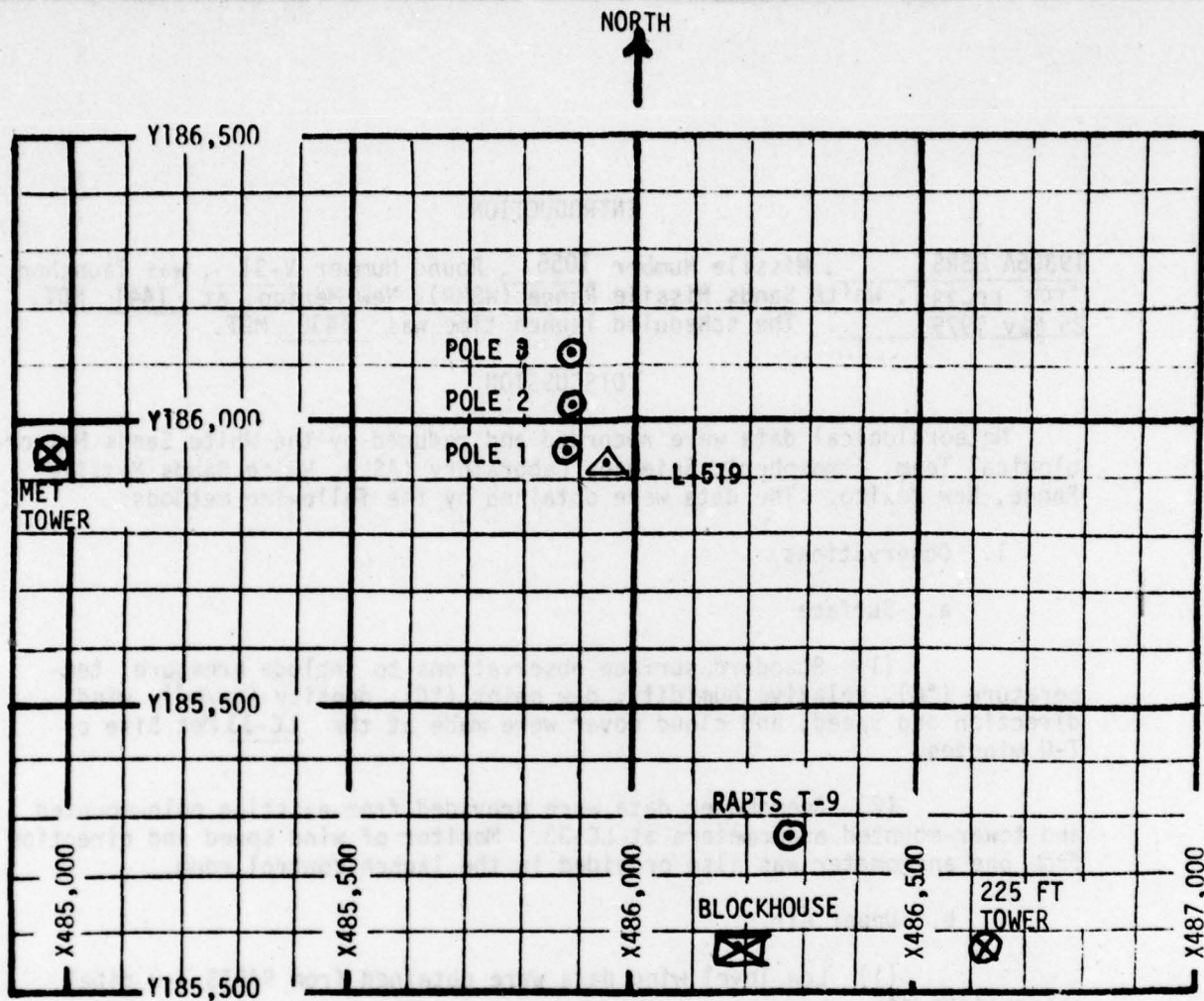
SITE AND ALTITUDE

LC-33 330 meters (30-meter increments) 1441 MDT

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 100,500 feet in 500-foot increments.

SITE AND TIME

SMR 1355 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 1442 MDT,
 25 MAY 1979 AT LC-33, 19305A GSRS,
 MISSILE NO. 1055, ROUND NO. V-31

ELEVATION	3977.30	FT/MSL
PRESSURE	880.9	MBS
TEMPERATURE	28.0	°C
RELATIVE HUMIDITY	50	%
DEW POINT	16.5	°C
DENSITY	1009	GM/M ³
WIND SPEED	04	MPH
WIND DIRECTION	090	DEGREES
CLOUD COVER	2	Cu
CLOUD COVER	4	Cs

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	M	M	-30	M	M
-20	000	00	-20	M	M	-20	M	M
-10	000	00	-10	154	03	-10	000	00
0.0	000	00	0.0	157	02	0.0	000	00
+10	000	00	+10	170	02	+10	000	00

Type 19305A GSRS, Missile No. 1055, Round No. Y-31 launched
 from LC-33 on 25 May 1979 at 1441 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	M	M	-30	M	M
-20	M	M	-20	M	M
-10	009	04	-10	052	02
0.0	008	04	0.0	031	03
+10	360	02	+10	024	02
LEVEL #3 102 ft.			LEVEL #4 202 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	M	M	-30	M	M
-20	M	M	-20	M	M
-10	000	00	-10	000	00
0.0	000	00	0.0	072	01
+10	000	00	+10	060	02

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

Type 19305A GSRS, Missile No. 1055, Round No. V-31 launched
from LC-33 on 25 May 1979 at 1441 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	HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
SFC	Calm	Calm	390		
30	205	4.0	420		
60	168	8.5	450		
90	130	9.5	480		
120	182	10.0	510		
150	190	10.0	540		
180	178	7.5	570		
210	144	7.0	600		
240	148	6.0	630		
270	151	9.5	660		
300	156	10.5	690		
330	153	8.5	720		
360			750		

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

Released from LC-33 on 25 May 1979 at 1442 MDT.

Type 19305A GSRS, Missile No. 1055, Round No. V-31 launched from LC-33 on 25 May 1979 at 1441 MDT.

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

STATION ALTITUDE 3997.30 FEET MSL
 25 MAY 79 1355 HRS MST
 ASCENSION NO. 150

SIGNIFICANT LEVEL DATA
 1450060150
 S M R

GEODETIC COORDINATES
 32.40034 LAT DEG
 106.42307 LONG DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
878.1	3997.3	25.0	34.0
850.0	4928.3	21.0	45.0
810.2	6282.5	16.9	55.0
770.2	7692.1	12.6	74.0
760.4	8046.0	12.2	52.0
721.8	9476.2	9.3	57.0
700.0	10309.6	7.1	67.0
684.2	10225.3	5.5	72.0
665.4	11673.4	4.0	54.0
636.6	12851.9	1.5	81.0
583.4	15142.4	-4.0	69.0
570.5	15722.4	-4.3	27.0
549.2	16700.9	-5.0	25.0
500.0	19106.4	-10.8	41.0
429.8	22869.7	-19.5	61.0
400.0	24614.9	-23.0	47.0
374.8	25357.6	-25.8	33.0
352.4	27630.6	-29.3	20.0
300.0	31335.9	-34.3	20.0
260.2	34464.4	-39.5	20.0
250.0	35349.5	-40.1	
222.4	37337.1	-49.7	
212.2	36813.0	-55.6	
207.2	33315.9	-57.5	
206.0	40057.3	-56.0	
183.4	41860.5	-55.9	
174.4	42901.5	-59.2	
161.4	44497.3	-58.5	
150.0	45993.2	-61.0	
137.0	47041.2	-64.3	
133.2	48411.5	-64.3	
125.6	49580.4	-62.2	
100.0	54273.3	-60.7	
87.0	57101.5	-62.4	
75.6	59012.9	-63.7	
70.0	61353.8	-60.6	
65.2	63017.9	-59.4	
60.0	64739.0	-60.7	
53.0	67318.4	-57.5	
		-59.0	

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STATION ALTITUDE 9997.30 FEET MSL
25 MAY 79
ASCENSION NO. 100

SIGNIFICANT LEVEL DATA
1450060150
S M R

GEODETTIC COORDINATES
32.40034 LAT DEG
106.42307 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
50.0	68532.4	-56.7	
39.0	73771.0	-54.0	
34.6	76338.1	-49.4	
30.0	79433.5	-48.9	
21.9	86317.2	-46.0	
20.0	88332.2	-42.3	
13.0	98048.2	-39.0	
11.6	100657.3	-35.5	

STATION ALTITUDE 3497.30 FEET MSL
 25 MAY 79 1355 HRS MST
 ASCENSION NO. 130

UPPER AIR DATA
 1450050150
 S M R

GEODETTIC COORDINATES
 32.46034 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		INDEX OF REFRACTION
						DIRECTION, DEGREES(TN)	SPEED KNOTS	
3997.3	878.1	25.0	34.0	1021.2	674.3	.0	.0	1.000274
4000.0	878.0	25.0	34.0	1021.2	674.2	151.0	.0	1.000274
4500.0	862.8	22.8	30.9	1010.5	671.9	151.0	1.4	1.000273
5000.0	847.8	20.8	45.5	999.6	669.0	151.0	2.8	1.000272
5500.0	833.0	19.3	49.2	987.4	667.9	151.0	4.2	1.000269
6000.0	818.3	17.8	52.9	975.1	665.1	151.0	5.6	1.000266
6500.0	803.9	16.2	57.9	962.9	664.4	149.0	6.4	1.000263
7000.0	789.6	14.7	64.7	950.0	662.7	147.2	6.9	1.000261
7500.0	775.5	13.2	71.4	938.0	661.0	150.9	7.5	1.000259
8000.0	761.7	12.9	54.9	924.0	660.2	170.5	8.3	1.000244
8500.0	747.9	11.8	53.6	911.1	659.0	150.7	9.4	1.000238
9000.0	734.4	10.5	55.3	898.7	657.3	160.2	10.7	1.000233
9500.0	721.2	9.2	57.3	886.5	656.0	193.5	12.0	1.000229
10000.0	708.0	7.9	63.3	874.4	654.3	199.0	13.8	1.000227
10500.0	695.1	6.6	68.5	862.4	652.6	204.7	15.8	1.000225
11000.0	682.3	5.4	70.2	850.5	651.3	205.3	16.5	1.000220
11500.0	669.7	4.3	58.2	838.4	649.9	205.5	17.0	1.000211
12000.0	657.3	3.3	61.5	826.0	648.0	201.9	15.5	1.000207
12500.0	645.1	2.2	72.9	813.5	647.5	195.7	14.2	1.000207
13000.0	633.0	1.1	80.2	801.4	646.2	195.6	13.6	1.000205
13500.0	621.1	.1	77.5	789.5	644.7	177.1	13.7	1.000200
14000.0	609.4	-1.3	75.0	776.7	643.2	171.0	14.2	1.000195
14500.0	597.9	-2.5	72.4	767.5	641.7	173.1	14.0	1.000190
15000.0	586.6	-3.7	69.7	756.7	640.2	173.1	13.6	1.000186
15500.0	575.4	-4.2	43.1	744.3	639.3	187.5	14.3	1.000176
16000.0	564.4	-4.5	26.4	731.3	638.0	194.5	15.5	1.000169
16500.0	553.0	-4.9	25.4	718.3	636.4	199.0	17.1	1.000166
17000.0	542.9	-5.7	27.0	706.7	637.3	200.7	17.2	1.000163
17500.0	532.4	-6.9	30.3	696.1	635.9	201.2	17.0	1.000161
18000.0	522.1	-8.1	33.6	685.7	634.5	201.2	16.6	1.000159
18500.0	512.0	-9.3	37.0	675.5	633.0	202.9	16.6	1.000157
19000.0	502.1	-10.5	40.3	665.5	631.5	203.8	16.9	1.000154
19500.0	492.2	-11.7	43.1	655.2	630.2	209.0	16.4	1.000152
20000.0	482.4	-12.9	45.7	645.1	629.0	209.1	15.8	1.000150
20500.0	472.6	-14.0	49.4	635.1	627.4	202.0	15.7	1.000147
21000.0	463.4	-15.2	51.1	625.2	626.0	201.2	15.8	1.000145
21500.0	454.1	-16.3	53.7	615.5	624.0	203.7	16.0	1.000142
22000.0	445.1	-17.5	56.4	606.0	623.1	209.0	15.2	1.000140
22500.0	436.2	-18.6	59.0	596.7	621.7	213.7	16.5	1.000138
23000.0	427.5	-19.8	60.0	587.5	620.3	220.2	17.1	1.000135

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STATION ALTITUDE 3997.30 FEET MSL
 25 MAY 79
 ASCENSION NO. 130

UPPER AIR DATA
 145000150
 S M R

GEODETIC COORDINATES
 32.46034 LAT DEG
 106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TM)	SPEED KNOTS	
4350.0	418.8	-20.3	55.9	577.7	619.1	224.0	17.8	1.000133
4300.0	410.3	-21.3	51.9	568.2	617.8	228.8	18.0	1.000130
4250.0	401.9	-22.8	47.9	558.9	616.0	230.1	18.2	1.000127
4200.0	393.6	-23.9	42.7	549.9	615.2	233.8	18.4	1.000125
4150.0	385.3	-25.0	37.0	541.0	613.8	229.5	19.7	1.000122
4100.0	377.5	-26.1	32.0	532.2	612.4	224.2	21.5	1.000120
4050.0	369.0	-27.1	28.3	523.2	611.2	220.4	23.6	1.000118
4000.0	361.9	-28.1	24.6	514.3	610.0	219.5	24.7	1.000115
3950.0	354.3	-29.3	21.0	505.6	608.7	221.1	24.9	1.000113
3900.0	346.9	-30.3	20.0	497.6	607.1	221.7	24.9	1.000111
3850.0	339.3	-31.7	20.0	489.8	605.4	221.6	24.8	1.000110
3800.0	332.3	-33.1	20.0	482.2	603.8	219.3	24.6	1.000108
3750.0	325.2	-34.5	19.2**	474.6	601.9	218.1	24.4	1.000106
3700.0	318.1	-35.9	14.0**	467.0	600.1	213.7	24.5	1.000104
3650.0	311.2	-37.2	3.5**	459.5	598.4	211.4	24.7	1.000102
3600.0	304.5	-38.6		452.2	596.7	211.3	24.3	1.000101
3550.0	297.8	-39.9		444.8	594.9	211.0	23.8	1.000099
3500.0	291.1	-41.3		437.5	593.2	208.0	23.0	1.000097
3450.0	284.5	-42.7		430.2	591.4	205.2	22.5	1.000095
3400.0	278.3	-44.0		423.1	589.7	204.1	22.9	1.000094
3350.0	272.0	-45.4		416.1	587.9	203.2	23.4	1.000093
3300.0	266.0	-46.8		409.3	586.1	203.1	23.7	1.000091
3250.0	260.0	-48.1		402.5	584.4	202.0	23.9	1.000090
3200.0	254.1	-49.1		395.0	582.2	198.1	23.8	1.000088
3150.0	248.2	-50.1		387.6	581.9	193.4	23.9	1.000086
3100.0	242.5	-51.3		380.7	580.3	187.4	24.6	1.000085
3050.0	236.8	-52.5		374.0	578.7	184.1	25.2	1.000083
3000.0	231.3	-53.7		367.3	577.1	184.2	25.4	1.000082
2950.0	226.0	-55.0		360.8	575.4	187.0	25.2	1.000080
2900.0	220.7	-56.1		354.1	574.0	194.9	24.8	1.000079
2850.0	215.3	-56.9		347.2	572.8	200.0	24.9	1.000077
2800.0	210.4	-57.0		339.0	572.0	203.3	25.2	1.000075
2750.0	205.4	-56.0		329.5	574.1	203.4	25.9	1.000073
2700.0	200.5	-55.9		321.0	574.2	203.0	26.7	1.000072
2650.0	195.8	-56.7		313.1	573.1	207.4	28.2	1.000070
2600.0	191.1	-57.5		309.0	571.9	212.2	29.9	1.000069
2550.0	186.2	-58.5		302.9	570.7	218.2	30.9	1.000067
2500.0	182.2	-59.1		296.3	570.0	220.5	31.6	1.000066
2450.0	177.8	-58.8		289.0	570.4	225.8	34.3	1.000064
2400.0	173.8	-58.7		281.9	570.0	230.7	38.2	1.000063

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

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UPPER AIR DATA
 1450000100
 S M R

STATION ALTITUDE 997.30 FEET MSL
 25 MAY 79 1355 HRS MST
 ASCENSION NO. 100

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY G/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION, DEGREES (T.)	SPEED KNOTS	INDEX OF REFRACTION
42500.0	169.4	-59.4		276.1	569.5	234.3	42.4	1.000061
44000.0	165.5	-60.2		270.5	568.5	236.9	46.6	1.000060
44500.0	161.4	-61.0		265.0	567.4	239.8	48.4	1.000059
45000.0	157.5	-61.0		258.6	567.4	243.9	46.5	1.000058
45500.0	153.7	-61.0		252.4	567.4	248.2	44.1	1.000056
46000.0	150.0	-61.0		246.3	567.4	252.4	39.7	1.000055
46500.0	146.5	-61.9		241.3	566.2	257.2	35.5	1.000054
47000.0	142.8	-62.8		236.5	565.0	255.6	30.9	1.000053
47500.0	139.5	-63.7		231.7	563.8	253.9	26.4	1.000052
48000.0	135.9	-63.7		226.1	563.8	249.8	24.3	1.000050
48500.0	132.6	-62.1		216.9	563.0	245.0	22.5	1.000049
49000.0	129.4	-61.4		213.0	560.6	246.2	19.1	1.000047
49500.0	126.5	-60.9		207.2	567.7	257.5	15.4	1.000046
50000.0	123.2	-60.9		202.2	567.0	260.5	12.9	1.000045
50500.0	120.5	-61.0		197.5	567.4	271.1	11.4	1.000044
51000.0	117.4	-61.2		192.9	567.1	272.1	10.3	1.000043
51500.0	114.5	-61.4		188.4	566.9	254.8	10.7	1.000042
52000.0	111.8	-61.6		184.0	566.7	239.8	11.9	1.000041
52500.0	109.1	-61.8		179.7	566.4	243.0	12.6	1.000040
53000.0	106.4	-61.9		175.5	566.2	247.1	13.3	1.000039
53500.0	103.9	-62.1		171.4	565.9	255.2	14.2	1.000038
54000.0	101.5	-62.3		167.4	565.7	267.4	15.6	1.000037
54500.0	98.9	-62.5		153.5	565.4	270.0	16.4	1.000036
55000.0	96.5	-62.7		159.7	565.1	283.7	14.7	1.000036
55500.0	94.1	-63.0		156.0	564.8	293.3	13.2	1.000035
56000.0	91.8	-63.2		152.4	564.5	300.5	11.5	1.000034
56500.0	89.6	-63.4		148.9	564.2	323.1	10.5	1.000033
57000.0	87.4	-63.7		145.4	563.9	336.4	10.4	1.000032
57500.0	85.5	-63.3		141.6	564.4	333.4	10.5	1.000032
58000.0	83.5	-62.7		137.8	563.1	333.5	10.5	1.000031
58500.0	81.2	-62.2		134.1	565.9	327.4	10.4	1.000030
59000.0	79.5	-61.6		130.5	566.0	321.2	10.4	1.000029
59500.0	77.5	-61.1		127.0	567.4	321.3	9.6	1.000028
60000.0	75.5	-60.5		123.7	568.1	323.9	8.4	1.000028
60500.0	73.7	-60.2		120.5	566.5	330.0	7.3	1.000027
61000.0	71.9	-59.8		117.4	569.0	322.0	6.6	1.000026
61500.0	70.2	-59.4		114.4	567.5	312.0	6.1	1.000025
62000.0	68.5	-59.0		111.8	567.0	302.1	6.2	1.000025
62500.0	66.9	-60.2		109.4	568.5	293.5	6.7	1.000024
63000.0	65.5	-60.7		107.0	567.9	287.1	7.3	1.000024

STATION ALTITUDE 3997.30 FEET MSL
 25 MAY 79
 ASCENSION NO. 130

UPPER AIR DATA
 1450060150
 S M R

GEODETIC COORDINATES
 32.46034 LAT DEG
 106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY G/M ³ /CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION, DEGREES (T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
03500.0	63.7	-59.8			104.0	569.0	297.0	6.6	1.000023
04000.0	62.2	-58.9			101.1	570.3	300.9	6.1	1.000023
04500.0	60.7	-57.9			98.3	571.5	320.7	6.6	1.000022
05000.0	59.3	-57.7			95.8	571.9	329.0	7.9	1.000021
05500.0	57.8	-57.9			93.5	571.5	334.7	9.3	1.000021
06000.0	56.5	-58.2			91.5	571.1	350.7	8.2	1.000020
06500.0	55.1	-58.5			89.5	570.7	21.4	8.6	1.000020
07000.0	53.8	-58.8			87.5	570.4	41.0	9.5	1.000019
07500.0	52.5	-58.7			85.3	570.6	57.7	10.0	1.000019
08000.0	51.3	-57.7			82.9	571.8	71.6	11.3	1.000018
08500.0	50.1	-56.8			80.6	573.1	79.9	9.7	1.000018
09000.0	48.9	-56.5			78.0	573.5	90.9	7.2	1.000018
09500.0	47.8	-56.2			76.7	573.6	110.0	5.4	1.000017
10000.0	46.6	-55.9			74.6	574.2	114.1	6.6	1.000017
10500.0	45.5	-55.7			73.0	574.5	117.0	7.8	1.000016
11000.0	44.3	-55.4			71.2	574.8	110.7	8.5	1.000016
11500.0	43.4	-55.2			69.4	575.2	113.3	6.6	1.000015
12000.0	42.4	-54.9			67.7	575.3	110.0	6.7	1.000015
12500.0	41.4	-54.7			66.0	575.9	99.0	8.6	1.000015
13000.0	40.5	-54.4			64.4	576.2	80.3	8.8	1.000014
13500.0	39.3	-54.1			62.8	576.3	70.2	9.3	1.000014
14000.0	38.6	-53.6			61.2	577.3	73.4	9.9	1.000014
14500.0	37.7	-52.7			59.6	578.4	71.0	10.6	1.000013
15000.0	36.8	-51.6			58.0	579.6	65.0	12.5	1.000013
15500.0	36.0	-50.9			56.4	580.8	50.0	15.9	1.000013
16000.0	35.1	-50.0			54.9	582.0	54.4	19.3	1.000012
16500.0	34.3	-49.4			53.5	582.6	54.1	20.3	1.000012
17000.0	33.6	-49.3			52.2	582.9	54.2	20.8	1.000012
17500.0	32.8	-49.2			51.0	583.0	54.4	21.3	1.000011
18000.0	32.0	-49.1			49.8	583.1	57.3	18.0	1.000011
18500.0	31.3	-49.1			48.7	583.2	62.1	14.7	1.000011
19000.0	30.5	-49.0			47.6	583.3	65.2	11.7	1.000011
19500.0	29.9	-48.9			46.5	583.4	70.0	11.9	1.000010
20000.0	29.2	-48.7			45.4	583.7	82.0	12.2	1.000010
20500.0	28.6	-48.5			44.3	584.0	60.3	12.7	1.000010
21000.0	27.9	-48.2			43.3	584.3	50.4	13.2	1.000010
21500.0	27.3	-48.0			42.2	584.3	52.3	13.8	1.000009
22000.0	26.7	-47.8			41.2	584.3	53.7	14.3	1.000009
22500.0	26.1	-47.6			40.3	585.1	52.4	14.7	1.000009
23000.0	25.5	-47.4			39.3	585.3	51.2	15.1	1.000009

STATION ALTITUDE 997.30 FEET MSL
 25 MAY 79 1355 HRS MST
 ASCENSION NO. 100

UPPER AIR DATA
 1450060150
 S M P

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL HUM. PERCENT	DENSITY GY/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TH)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
83500.0	24.9	-47.2		38.4	565.0	91.1	15.3	1.000009
84000.0	24.5	-47.0		37.5	565.9	94.6	15.0	1.000008
84500.0	23.8	-46.8		36.6	566.4	94.2	14.7	1.000008
85000.0	23.3	-46.9		35.8	566.4	101.0	14.3	1.000008
85500.0	22.7	-46.3		34.9	566.7	104.1	13.3	1.000008
86000.0	22.2	-46.1		34.1	567.0	107.0	12.3	1.000008
86500.0	21.7	-45.7		33.3	567.6	110.4	11.4	1.000007
87000.0	21.2	-44.7		32.4	568.6	117.8	11.1	1.000007
87500.0	20.8	-43.6		31.5	590.0	125.5	11.1	1.000007
88000.0	20.5	-42.9		30.7	591.1	133.0	11.3	1.000007
88500.0	19.9	-42.2		29.9	592.0	138.3	11.1	1.000007
89000.0	19.4	-42.1		29.3	592.2	142.9	10.7	1.000007
89500.0	19.0	-41.9		28.6	592.4	147.8	10.4	1.000006
90000.0	18.6	-41.7		28.0	592.6	149.0	10.0	1.000006
90500.0	18.2	-41.6		27.3	592.9	145.5	9.3	1.000006
91000.0	17.8	-41.4		26.7	593.1	130.5	8.7	1.000006
91500.0	17.4	-41.2		26.1	593.3	128.7	8.3	1.000006
92000.0	17.0	-41.1		25.5	593.5	115.7	8.4	1.000006
92500.0	16.6	-40.9		24.9	593.7	103.6	9.0	1.000006
93000.0	16.3	-40.7		24.4	593.9	93.3	9.9	1.000005
93500.0	15.9	-40.5		23.6	594.2	93.0	10.0	1.000005
94000.0	15.6	-40.4		23.3	594.4	90.6	9.4	1.000005
94500.0	15.2	-40.2		22.8	594.6	91.6	8.5	1.000005
95000.0	14.9	-40.0		22.2	594.8	93.2	8.6	1.000005
95500.0	14.6	-39.9		21.7	595.0	96.8	9.5	1.000005
96000.0	14.2	-39.7		21.2	595.2	99.4	10.4	1.000005
96500.0	13.9	-39.5		20.8	595.5	101.7	11.4	1.000005
97000.0	13.6	-39.4		20.3	595.7	90.6	12.5	1.000005
97500.0	13.3	-39.2		19.8	595.9	91.1	13.7	1.000004
98000.0	13.0	-39.0		19.4	596.1	60.7	15.1	1.000004
98500.0	12.7	-38.4		18.9	596.3			1.000004
99000.0	12.5	-37.7		18.5	597.3			1.000004
99500.0	12.2	-37.1		18.0	598.0			1.000004
100000.0	11.9	-36.6		17.6	599.3			1.000004
100500.0	11.7	-35.7		17.1	600.3			1.000004

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STATION ALTITUDE 3997.30 FEET MSL
 25 MAY 79 1355 HRS MST
 ASCENSION NO. 150

MRM SIGNIFICANT LEVEL DATA
 1450060150
 S M R

GEODETIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

GEOPOTENTIAL ALTITUDE DECEMETERS	DIRECTION DEG (TR)	SPEED MPS	WIND DATA		DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
			N-S MPS	E-W MPS		AIR DEG C		
3052.	9999.**	9999.**	-9999.**	-9999.**	99	-35.5	1.160+1	
2973.	86.	8.	-1.	-0.	99	-39.0	1.300+1	
2880.	127.	6.	4.	-4.	99	-42.3	2.000+1	
2819.	109.	6.	2.	-0.	99	-46.0	2.190+1	
2411.	75.	6.	-2.	-0.	99	-48.9	3.000+1	
2317.	54.	10.	-6.	-0.	99	-49.4	3.460+1	
2240.	75.	5.	-1.	-5.	99	-54.0	3.900+1	
2081.	50.	5.	-1.	-5.	99	-56.7	5.000+1	
2044.	52.	5.	-3.	-4.	99	-59.0	5.300+1	
1960.	325.	4.	-3.	2.	99	-57.5	6.000+1	
1914.	287.	4.	-1.	4.	99	-60.7	6.520+1	
1870.	311.	3.	-2.	2.	99	-59.4	7.000+1	
1820.	325.	4.	-4.	3.	99	-60.6	7.580+1	
1735.	333.	5.	-5.	2.	99	-63.7	8.700+1	
1649.	273.	9.	-0.	9.	99	-62.4	1.000+2	

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

STATION ALTITUDE 5997.30 FEET MSL
 25 MAY 79 1355 HRS MST
 ASCENSION NO. 150

MANDATORY LEVELS
 1450060150
 S M R

GEODETTIC COORDINATES
 32.46034 LAT DEG
 106.42307 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREE	DEPT	PERCENT	DIRECTION DEGREE	SPEED KNOTS
		CELSIUS	INCH		(IN)	
850.0	4925.	21.0	8.6	45.	151.0	2.6
800.0	6032.	15.8	8.0	60.	149.1	0.6
750.0	8418.	11.9	2.0	53.	179.3	9.2
700.0	10259.	7.1	1.4	67.	202.9	15.0
650.0	12285.	2.7	-2.0	60.	190.6	14.7
600.0	14354.	-2.2	-6.4	73.	172.3	14.1
550.0	16646.	-5.0	-21.9	25.	200.4	17.3
500.0	19080.	-10.8	-21.4	41.	206.4	10.9
450.0	21707.	-16.9	-23.7	55.	205.3	10.1
400.0	24574.	-23.0	-31.1	47.	230.8	10.2
350.0	27741.	-29.7	-45.4	20.	221.7	24.9
300.0	31274.	-39.5			211.3	24.0
250.0	35272.	-49.7			195.5	23.8
200.0	39961.	-59.9			200.9	20.8
175.0	42722.	-58.5			229.0	30.7
150.0	45674.	-61.0			252.2	39.9
125.0	49569.	-60.7			262.2	14.1
100.0	54106.	-62.4			272.1	10.5
80.0	58014.	-61.8			324.0	10.4
70.0	61342.	-59.4			311.8	0.1
60.0	64507.	-57.5			324.3	7.1
50.0	66274.	-56.7			79.0	9.7
40.0	72942.	-54.3			21.3	9.0
30.0	79023.	-42.9			74.0	11.6
25.0	83017.	-47.2			90.4	13.4
20.0	87916.	-42.3			130.4	11.3
15.0	94329.	-40.1			52.1	0.5

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

THIS PAGE IS BEST QUALITY PRACTICABLE
 FROM COPY FURNISHED TO DDG

STATION ALTITUDE 3997.30 FEET MSL
 25 MAY 79 1355 HRS MST
 ASCENSION NO. 100

MRN MANDATORY LEVELS
 1450060150
 S M R

GEODETTIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

GEOPOTENTIAL ALTITUDE METERS	DIRECTION DEG (TN)	WIND DATA		L-W MPS	DEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
		SPEED MPS	N-S MPS			AIR DEG C		
2875.	92.	4.	0.	-4.	99	-40.1	1.500+1	
2060.	136.	6.	4.	-4.	99	-42.3	2.000+1	
2531.	90.	6.	0.	-8.	99	-47.2	2.500+1	
2411.	75.	6.	-2.	-6.	99	-48.9	3.000+1	
2223.	81.	5.	-1.	-5.	99	-54.3	4.000+1	
2081.	80.	5.	-1.	-5.	99	-56.7	5.000+1	
1960.	324.	4.	-3.	-2.	99	-57.5	6.000+1	
1870.	312.	3.	-2.	-2.	99	-59.4	7.000+1	
1787.	324.	5.	-4.	-3.	99	-61.8	8.000+1	
1649.	272.	6.	-0.	-6.	99	-62.4	1.000+2	
1511.	262.	7.	1.	7.	99	-60.7	1.250+2	
1328.	252.	21.	6.	20.	99	-61.0	1.500+2	
1302.	229.	19.	12.	14.	99	-58.5	1.750+2	
1216.	207.	14.	12.	8.	99	-55.9	2.000+2	
1075.	195.	12.	12.	3.	99	-49.7	2.500+2	
953.	211.	12.	11.	6.	99	-39.5	3.000+2	
840.	222.	13.	10.	9.	10	-29.7	3.500+2	
749.	231.	9.	6.	7.	00	-23.0	4.000+2	
662.	205.	8.	7.	4.	07	-16.9	4.500+2	
582.	206.	9.	8.	4.	11	-10.8	5.000+2	
507.	200.	9.	8.	3.	17	-5.0	5.500+2	
434.	172.	7.	7.	-1.	04	-2.2	6.000+2	
374.	199.	8.	7.	2.	05	2.7	6.500+2	
314.	203.	8.	7.	3.	00	7.1	7.000+2	
257.	179.	5.	5.	-0.	09	11.9	7.500+2	
202.	149.	3.	3.	-2.	08	15.8	8.000+2	
150.	152.	1.	1.	-1.	12	21.0	8.500+2	