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DE 1980
October 1979

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LEVEL 12

METEOROLOGICAL DATA REPORT

19702A GSRS
Missile Numbers 225, 226
Round Numbers B-45, B-46
22 October 1979

by

White Sands Meteorological Team

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR-1080	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 19702A GSRS, Missile Numbers 225, 226, Round Numbers B-45, B-46, 22 October 1979		5. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) White Sands Meteorological Team		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS data rept.		8. CONTRACT OR GRANT NUMBER(s) DA Task 1F665702D12702
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 21
16. DISTRIBUTION STATEMENT (of this Report) 13, 21		15. SECURITY CLASS. (of this report) UNCLASSIFIED
15a. DECLASSIFICATION/DOWNGRADING SCHEDULE		
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 19702A GSRS, Missile Numbers 225, 226, Round Numbers B-45, B-46 are presented in tabular form.		

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INTRODUCTION

19702A GSRS, Missile Numbers 225 and 226, Round Numbers B-45 and B-46, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0904 and 0904:05 MDT, 22 October 1979. The scheduled launch times were 0900 and 0900:04 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

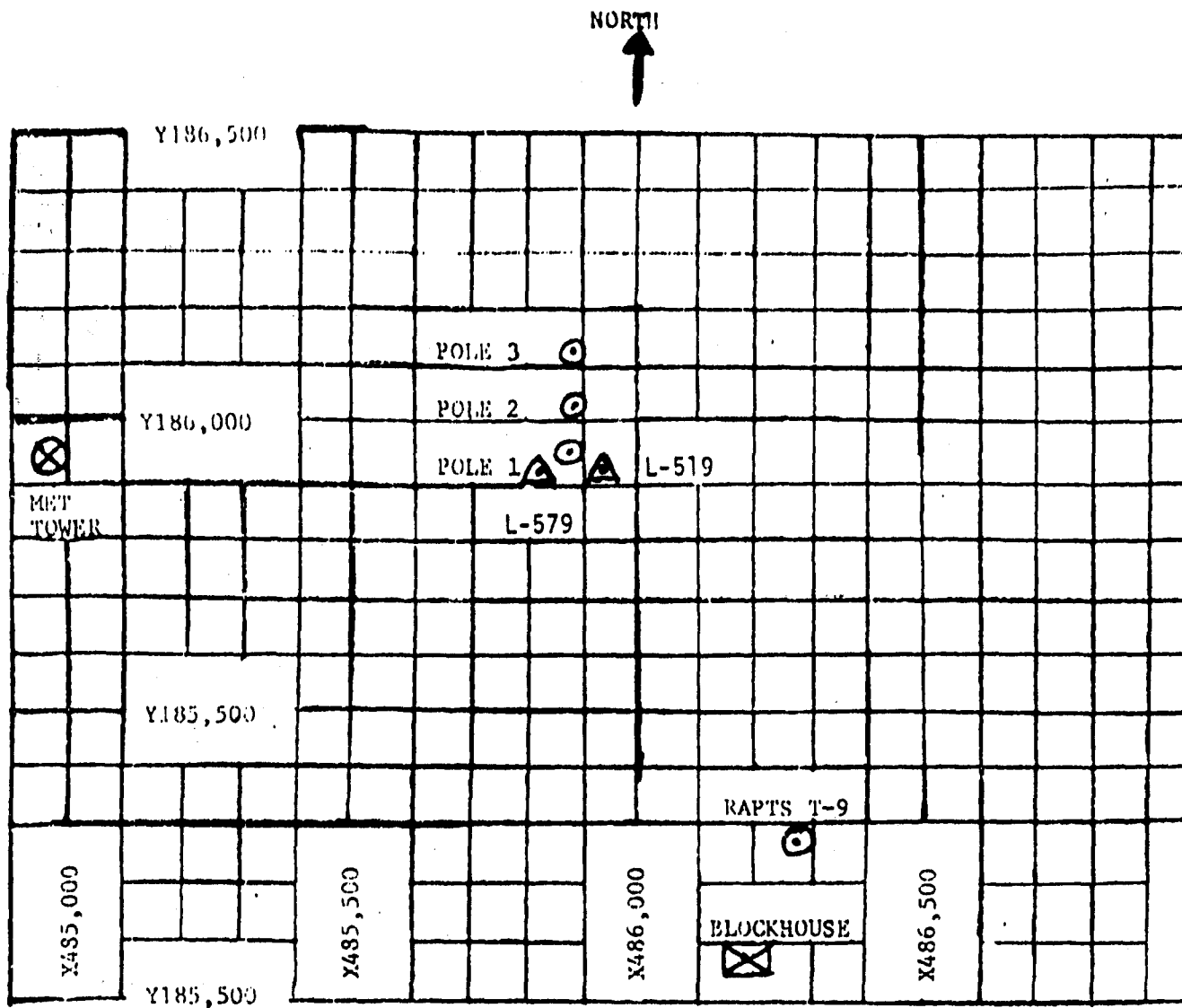
LC-33	2Km
NICK	2Km

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 97,500 feet in 500-foot increments.

SITE AND TIME

SMR 0845 MST

Accession For	☒
NTIS GOM&I	
DGC TAB	
Unannounced	
Justification	
By	
Distribution	
Availability Codes	
Avail and/or	
Special	
Dist	23
	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 Plot-Balloon Tracking System T-9 Radar.

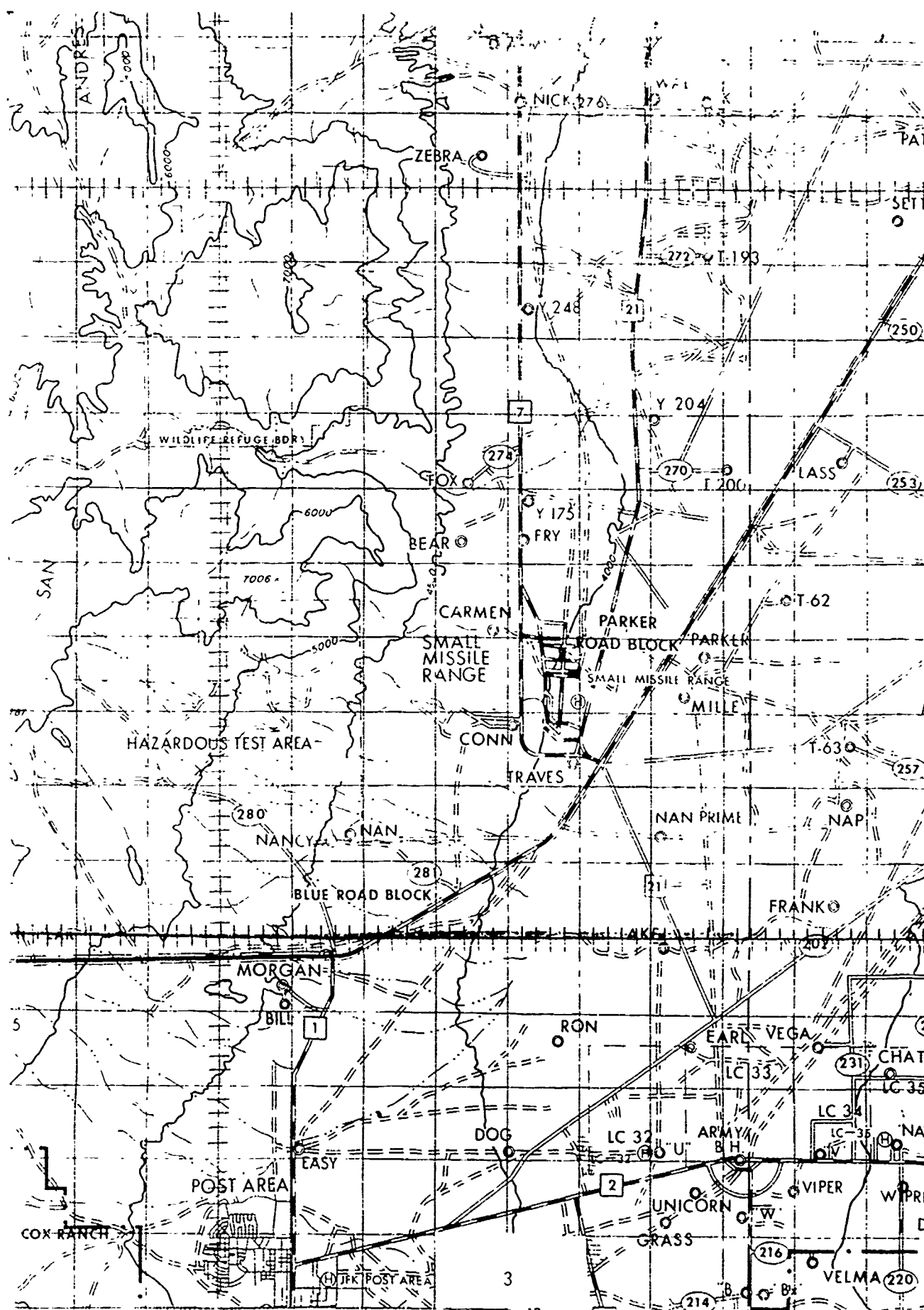


TABLE 1. Surface Observations taken at 0900 MDT,
22 October 1979, at LC-33, 19702A GSRS,
Missile Numbers 225, 226, Round
Numbers B-45, B-46.

ELEVATION	3977.30	FT/MSL
PRESSURE	877.1	MB
TEMPERATURE	11.1	°C
RELATIVE HUMIDITY	50	%
DLW POINT	1.0	°C
DENSITY	1070	GM/M ³
WIND SPEED	09	KTS
WIND DIRECTION	360	DEGREE
CLOUD COVER	1	Ac

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	022	08	-30	030	MISG	-30	040	09
-20	022	09	-20	018	MISG	-20	023	08
-10	021	11	-10	016	MISG	-10	026	09
0.0	026	09	0.0	021	MISG	0.0	030	09
+10	026	09	+10	026	MISG	+10	026	09

POLE #1 = X485,374.29 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 = X485,377.29 Y186,116.06 H4063.92 83.6 ft. AGL

TABLE 2

TYPE 19702A GSRS MISSILE NOS. 225, 226 ROUND NOS. B-45, B-46

LAUNCHED FROM LC-33 DATE October 1979 TIME 0904, 0904:05 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

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

LEVEL #1 12 Feet			LEVEL #2 62 Feet		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	354	06	-30	026	09
-20	360	06	-20	009	10
-10	006	09	-10	010	10
0.0	360	08	0.0	016	11
+10	360	07	+10	017	11
LEVFL #3 102 Feet			LEVFL #4 202 Feet		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	012	09	-30	004	12
-20	005	11	-20	003	11
-10	008	11	-10	004	11
0.0	009	10	0.0	013	10
+10	012	11	+10	004	11

WTSM COORDINATES: X484,982.64 Y185,057.73 H3983.00 (base)

TABLE 3

TYPE 19702A GSRS MISSILE NOS. 225, 226 ROUND NOS. B-45, B-46

LAUNCHED FROM LC-33 DATE 22 October 1979 TIMES 0904, 0940:05 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 4

RELEASED FROM LC-33 DATE 22 October 1979 TIME 0850 MDT
 RELEASED POINT COORDINATE (WDM) X= 486,037.24 Y= 182,350.16 H 3977.30
 MISSILE TYPE 19702A GSRS MISSILE NOS. 225, 226 ROUND NOS. B-45, B-46
 MISSILE LAUNCHED FROM LC-33 DATE 22 October 1979 TIMES. 0904, 0904:05 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	360	09						
90	MISG	MISG						
150	017	15						
210	013	15						
270	005	18						
330	003	17						
390	009	16						
500	004	18						
650	008	18						
800	006	15						
950	001	12						
1150	010	06						
1350	214	03						
1550	256	08						
1750	272	11						
2000	291	09						

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM LC-33 DATE 22 October 1979 TIME 0904 MDT

RELEASED POINT COORDINATES (WSTM) X= 486.037.24 Y= 182.350.16 H= 3977.30

MISSILE TYPE 19702A GSRS MISSILE NOS. 225, 226 ROUND NOS. B-45, B-46

MISSILE LAUNCHED FROM LC-33 DATE 22 October 1979 TIMES 0904, 0904:05 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	360	09						
90	MISG	MISG						
150	028	11						
210	031	13						
270	016	15						
330	010	16						
390	002	17						
500	006	17						
650	011	17						
800	360	13						
950	357	11						
1150	014	05						
1350	267	03						
1550	273	10						
1750	280	12						
2000	299	09						

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 6

RELEASED FROM NICK DATE 22 October 1979 TIME 0850 MDT MDT
 RELEASED POINT COORDINATES (WSIM) X= 470,734.56 Y= 255,775.64 H= 4126.57
 MISSILE TYPE 19702A GSRS MISSILE NOS. 225, 226 ROUND NOS. B-45, B-46
 MISSILE LAUNCHED FROM LC-33 DATE 22 October 1979 TIMES 0904, 0904:05 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	300	03						
90	MISG	MISG						
150	266	07						
210	306	12						
270	297	08						
330	270	06						
390	284	07						
500	317	10						
650	334	11						
800	320	07						
950	323	06						
1150	326	02						
1350	214	02						
1550	212	09						
1750	202	09						
2000	216	05						

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 7

RELEASED FROM NICK DATE 22 October 1979 TIME 0904 MDT
 RELEASED POINT COORDINATES (WSTM) X= 470,734.56 Y= 255,775.64 H= 4126.57
 MISSILE TYPE 19702A GSRS MISSILE NOS. 225, 226 ROUND NOS. B-45, B-46
 MISSILE LAUNCHED FROM LC-33 DATE 22 October 1979 TIMES. 0904, 0904:05 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	300	03						
90	283	08						
150	294	09						
210	282	09						
270	286	06						
330	302	09						
390	254	06						
500	289	09						
650	257	08						
800	329	10						
950	315	06						
1150	333	03						
1350	198	02						
1550	186	08						
1750	248	04						
2000	225	05						

GEORETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

SIGNIFICANT LEVEL DATA
29500.0360
S M R

STATION ALTITUDE 3997.30 FEET MSL
22 OCT. 79
ASCENSION NO. 360

TABLE 8

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
886.1	3997.3	12.8	-2.6	34.0
879.2	4211.8	10.2	-4.9	34.0
850.0	5124.0	7.8	-7.0	32.0
805.2	6586.0	4.2	-10.2	34.0
774.6	7616.3	5.4	-17.7	17.0
700.0	10322.4	1.9	-20.5	17.0
667.4	10765.0	1.9	-21.2	16.0
664.8	11695.3	5.6	-18.2	16.0
551.2	16755.9	-2.7	-18.2	29.0
527.8	17773.4	-5.3	-20.5	29.0
500.0	19171.6	-7.1	-26.2	20.0
483.4	20035.4	-8.3	-27.2	20.0
469.0	20304.3	-10.4	-26.4	21.0
400.0	24752.2	-21.2	-32.0	37.0
391.9	25247.6	-22.7	-32.0	39.0
385.2	25709.7	-22.7	-36.6	26.0
371.0	26469.1	-23.9	-30.7	24.0
300.0	31548.6	-36.2	-48.3	27.0
292.2	32149.1	-37.4	-49.4	27.0
250.0	35639.0	-46.2		
200.0	40352.0	-57.2		
182.6	42250.5	-61.4		
155.2	45459.0	-68.7		
150.0	46202.5	-69.9		
131.4	48795.1	-71.9		
122.6	50152.5	-69.0		
105.4	53110.2	-72.3		
100.0	54131.0	-72.3		
77.0	61151.8	-66.8		
65.4	63152.2	-61.8		
50.0	68011.0	-61.5		
37.7	73916.4	-52.7		
30.0	78793.2	-53.7		
21.6	85761.3	-54.2		
20.0	87403.4	-50.6		
12.0	97253.4	-45.2		

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LONG DEG

UPPER AIR DATA
2950100300
S M R

STATION ALTITUDE 3997.30 FEET MSL
22 OCT. 79
ASCENSION NO. 360

TABLE 9

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES TRUE	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3997.3	886.1	12.8	-2.6	34.0	1.0772	659.5	30.0	9.9	1.000263
4000.0	885.0	12.8	-2.7	34.0	1.0772	659.4	30.0	9.9	1.000263
4500.0	869.9	9.4	-5.8	33.4	1.0795	655.5	23.4	9.2	1.000257
5000.0	854.1	8.1	-7.4	32.3	1.086.1	653.9	23.2	8.6	1.000252
5500.0	833.4	6.9	-8.4	32.5	1.041.4	652.4	14.2	8.0	1.000248
6100.0	822.9	5.6	-8.3	33.2	1.026.9	650.9	7.4	7.6	1.000244
6500.0	807.8	4.4	-10.1	33.9	1.012.5	649.5	1.0	7.0	1.000240
7000.0	792.8	4.7	-12.6	27.2	993.0	649.7	30.2	6.0	1.000233
7500.0	779.2	5.3	-16.5	18.9	972.9	650.3	30.3	4.8	1.000225
8000.0	763.7	4.9	-18.1	17.0	950.2	649.9	34.3	3.5	1.000220
8500.0	749.5	4.3	-19.6	17.0	949.6	649.1	20.3	3.5	1.000216
9000.0	735.6	3.6	-19.1	17.0	925.3	648.3	201.0	5.8	1.000213
9500.0	721.9	3.0	-19.6	17.0	919.2	647.6	203.0	8.0	1.000209
10000.0	708.5	2.3	-20.2	17.0	995.4	646.8	203.0	8.1	1.000206
10500.0	695.3	1.9	-20.8	16.0	880.1	646.3	243.3	8.6	1.000202
11000.0	682.4	2.8	-20.5	16.0	868.8	647.4	297.6	9.5	1.000198
11500.0	669.7	4.8	-18.8	16.0	833.6	649.8	307.4	11.3	1.000194
12000.0	657.2	5.1	-19.0	16.8	822.1	650.1	303.6	13.3	1.000190
12500.0	644.9	4.3	-17.8	18.1	809.1	649.1	300.7	15.5	1.000188
13000.0	632.8	3.4	-17.7	19.4	796.4	648.2	290.4	16.9	1.000185
13500.0	621.0	2.6	-17.7	20.7	783.8	647.2	293.0	18.1	1.000182
14000.0	609.3	1.7	-17.6	22.0	771.5	646.2	293.0	18.3	1.000180
14500.0	597.9	.9	-17.7	23.4	753.3	645.2	292.7	16.6	1.000177
15000.0	586.8	.1	-17.7	24.7	747.4	644.3	291.0	19.9	1.000174
15500.0	575.8	-8.8	-17.8	26.0	735.7	643.3	291.9	21.0	1.000172
16000.0	565.0	-1.6	-18.0	27.3	724.1	642.3	292.4	22.4	1.000169
16500.0	554.4	-2.4	-18.2	28.6	712.8	641.3	293.0	23.8	1.000166
17000.0	543.9	-3.5	-18.9	29.0	702.0	640.0	290.4	24.6	1.000164
17500.0	533.5	-4.7	-19.9	29.0	691.0	638.6	297.0	25.3	1.000161
18000.0	523.3	-5.6	-21.3	27.6	680.6	637.5	300.7	26.4	1.000158
18500.0	513.2	-6.2	-23.3	24.3	669.4	636.7	301.9	27.7	1.000154
19000.0	503.3	-6.9	-25.4	21.1	658.2	635.9	302.5	29.7	1.000151
19500.0	493.6	-7.6	-25.6	20.0	647.1	635.1	302.0	32.4	1.000148
20000.0	484.1	-8.3	-27.2	20.0	636.3	634.2	303.2	34.5	1.000145
20500.0	474.6	-9.6	-27.9	20.6	627.0	632.6	304.1	36.0	1.000143
21000.0	465.3	-10.9	-28.5	21.6	617.9	631.0	304.7	36.8	1.000141
21500.0	456.0	-12.3	-28.7	23.8	608.8	629.3	305.1	36.8	1.000139
22000.0	446.9	-13.7	-29.0	25.8	599.8	627.7	304.0	37.3	1.000137
22500.0	438.0	-15.0	-29.4	27.9	590.9	626.0	303.0	38.2	1.000135
23000.0	429.3	-16.4	-29.9	29.9	582.2	624.4	302.0	39.3	1.000133

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

UPPER AIR DATA
295000300
S M R

STATION ALTITUDE 9997.30 FEET MSL
22 OCT 79
ASCENSION NO. 300

TABLE 9 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND METERS	DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	420.7	-17.8	31.9	573.7	622.7	301.4	40.6	1.000131
24000.0	412.5	-19.1	34.0	563.2	611.0	297.0	41.8	1.000129
24500.0	404.1	-20.5	36.0	557.0	619.3	297.0	42.8	1.000127
25000.0	395.9	-22.0	38.0	546.9	617.0	294.9	42.7	1.000125
25500.0	387.8	-22.7	38.9	539.3	616.0	293.3	40.8	1.000122
26000.0	379.9	-23.0	35.5	528.9	616.2	291.4	38.6	1.000119
26500.0	372.1	-23.8	24.2	519.7	615.3	283.0	35.9	1.000117
27000.0	364.2	-25.0	24.3	511.2	613.8	284.0	34.7	1.000115
27500.0	356.6	-26.2	24.6	502.9	612.3	294.0	35.4	1.000113
28000.0	349.0	-27.4	24.9	494.8	610.7	296.8	36.9	1.000111
28500.0	341.7	-28.7	25.2	486.8	609.2	302.1	38.9	1.000109
29000.0	334.5	-29.9	25.5	478.9	607.6	300.9	40.2	1.000107
29500.0	327.4	-31.1	25.6	471.2	606.1	298.2	41.4	1.000106
30000.0	320.3	-32.4	26.1	463.6	604.5	297.9	42.1	1.000104
30500.0	313.7	-33.6	26.4	456.2	603.0	295.3	42.6	1.000102
31000.0	307.1	-34.8	26.7	448.9	601.4	290.3	43.1	1.000101
31500.0	300.6	-36.1	27.0	441.7	599.9	293.0	43.7	1.000099
32000.0	294.1	-37.1	27.0	434.0	598.6	297.7	43.7	1.000097
32500.0	287.6	-38.3	24.3**	426.6	597.1	297.3	43.0	1.000095
33000.0	281.5	-39.6	20.4**	419.4	595.4	290.9	42.1	1.000094
33500.0	275.0	-40.8	16.5**	412.4	593.8	290.4	40.6	1.000092
34000.0	268.9	-42.1	12.0**	405.5	592.2	293.2	39.1	1.000090
34500.0	263.0	-43.3	8.8**	398.7	590.6	293.0	37.8	1.000089
35000.0	257.2	-44.6	4.9**	392.0	589.0	294.7	36.8	1.000087
35500.0	251.5	-45.9	1.0**	385.4	587.3	292.2	36.3	1.000086
36000.0	245.7	-47.1		378.7	585.7	294.7	36.2	1.000084
36500.0	240.0	-48.3		371.9	584.1	297.0	38.6	1.000083
37000.0	234.5	-49.5		365.3	582.0	298.2	41.1	1.000081
37500.0	229.0	-50.8		358.8	581.0	293.5	42.8	1.000080
38000.0	223.7	-52.0		352.4	579.4	293.7	44.5	1.000079
38500.0	218.5	-53.2		346.1	577.8	297.0	46.3	1.000077
39000.0	213.5	-54.4		340.0	576.2	293.0	48.0	1.000076
39500.0	208.5	-55.6		334.0	574.6	286.0	49.0	1.000074
40000.0	203.7	-56.8		328.1	573.0	283.4	49.8	1.000073
40500.0	199.0	-58.0		322.2	571.4	283.7	49.8	1.000072
41000.0	194.2	-59.1		316.0	570.0	284.0	49.0	1.000070
41500.0	189.5	-60.2		310.0	568.0	290.4	48.4	1.000069
42000.0	185.0	-61.2		304.1	567.1	290.1	48.7	1.000068
42500.0	180.5	-62.5		298.2	565.7	283.0	49.0	1.000066
43000.0	176.0	-63.4		292.3	564.3	287.7	49.4	1.000065

** AT LEAST ONE ASSUMED REL TIME HUMIDITY VALUE WAS USED IN LINE INTERPOLATION.

STATION ALTITUDE 3997.30 FEET MSL
22 OCT. 79 0845 HRS MST
ASCENSION NO. 300

UPPER AIR DATA
295060300
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 9 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND METERS PER SECOND	DIRECTION DEGREES (TR)	SPEED KNOTS	INDEX OF REFRACTION
43500.0	171.7	-64.4		286.6	502.9	203.0	49.9	1.000064
44000.0	167.5	-65.3		286.9	501.4	203.0	50.5	1.000063
44500.0	163.4	-66.5		275.0	500.0	202.0	51.0	1.000061
45000.0	159.4	-67.6		270.0	500.6	201.1	51.4	1.000060
45500.0	155.4	-68.0		264.8	507.1	200.7	51.7	1.000059
46000.0	151.5	-68.8		253.4	500.9	200.1	51.7	1.000058
46500.0	147.7	-69.2		252.4	506.3	200.7	51.4	1.000056
47000.0	144.0	-69.8		246.7	505.5	200.5	50.1	1.000055
47500.0	140.4	-70.4		241.2	504.7	200.0	47.9	1.000054
48000.0	136.8	-71.0		235.8	503.9	200.4	46.7	1.000053
48500.0	133.4	-71.6		230.5	503.1	200.2	46.6	1.000051
49000.0	130.0	-71.5		224.6	503.3	200.0	46.5	1.000050
49500.0	126.8	-70.4		217.8	504.7	200.0	46.7	1.000049
50000.0	123.6	-69.3		211.2	506.2	200.0	46.9	1.000047
50500.0	120.4	-69.4		205.9	506.1	200.0	46.1	1.000046
51000.0	117.4	-69.9		201.3	505.3	200.0	45.3	1.000045
51500.0	114.4	-70.5		190.7	504.6	200.0	46.1	1.000044
52000.0	111.6	-71.1		182.5	503.8	200.0	47.9	1.000043
52500.0	108.7	-71.6		180.0	503.1	200.0	48.1	1.000042
53000.0	106.0	-72.2		183.7	502.3	200.0	47.0	1.000041
53500.0	103.3	-72.3		179.2	502.1	200.0	44.9	1.000040
54000.0	100.7	-72.3		174.0	502.1	200.0	40.1	1.000039
54500.0	98.1	-72.0		170.0	502.5	200.0	35.5	1.000038
55000.0	95.7	-71.0		165.4	503.1	200.0	33.2	1.000037
55500.0	93.3	-71.2		160.9	503.6	200.0	31.0	1.000036
56000.0	90.9	-70.8		156.6	504.1	200.0	27.4	1.000035
56500.0	88.7	-70.4		152.4	504.7	200.0	23.3	1.000034
57000.0	86.4	-70.1		148.3	505.2	200.0	19.0	1.000033
57500.0	84.2	-69.7		144.3	505.7	200.0	15.1	1.000032
58000.0	82.2	-69.3		140.4	506.3	200.0	13.3	1.000031
58500.0	80.1	-68.9		136.6	506.8	200.0	17.0	1.000030
59000.0	78.1	-68.5		132.9	507.3	200.0	20.8	1.000030
59500.0	76.1	-68.1		129.3	507.9	200.0	23.6	1.000029
60000.0	74.2	-67.7		125.8	508.4	200.0	26.6	1.000028
60500.0	72.4	-67.3		122.5	508.9	200.0	27.6	1.000027
61000.0	70.5	-66.9		119.2	509.5	200.0	27.4	1.000027
61500.0	68.8	-66.9		115.7	509.8	200.0	26.9	1.000026
62000.0	67.1	-64.7		112.2	502.5	200.0	22.5	1.000025
62500.0	65.3	-63.4		108.8	504.2	200.0	19.3	1.000024
63000.0	63.9	-62.2		105.5	505.9	200.0	14.1	1.000023

GEODETIC COORDINATES
32.48034 LAT UEG
106.42307 LONG UEG

UPPER AIR DATA
2450000300
S M R

STATION ALTITUDE 3997.30 F. T. WSL
22 OCT. 79
ASCELSION NO. 360

TABLE 9 (CONT)

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 (TIN)	SPEED KNOTS	INDEX OF REFRACTION
63500.0	62.0	-61.8		102.7	566.4	350.1	10.1	1.000023
64000.0	60.8	-61.7		100.2	566.4	20.2	8.4	1.000022
64500.0	59.4	-61.7		97.8	566.5	57.1	7.1	1.000022
65000.0	57.9	-61.7		95.4	566.5	67.7	7.0	1.000021
65500.0	56.5	-61.7		93.1	566.6	114.1	9.2	1.000021
66000.0	55.2	-61.6		90.8	566.6	120.1	11.2	1.000020
66500.0	53.8	-61.6		88.6	566.6	137.0	13.3	1.000020
67000.0	52.5	-61.6		86.5	566.7	147.5	14.1	1.000019
67500.0	51.3	-61.5		84.4	566.7	160.4	15.5	1.000019
68000.0	50.0	-61.5		82.3	566.8	170.9	15.5	1.000018
68500.0	48.8	-60.4		80.1	567.7	182.9	15.1	1.000018
69000.0	47.7	-60.0		78.0	568.7	195.0	15.4	1.000017
69500.0	46.6	-59.5		75.8	569.7	205.0	15.3	1.000017
70000.0	45.5	-58.5		73.8	570.7	205.1	15.3	1.000016
70500.0	44.4	-57.8		71.8	571.7	201.8	14.4	1.000016
71000.0	43.3	-57.0		69.9	572.7	210.1	11.6	1.000016
71500.0	42.3	-56.3		68.0	573.7	225.0	9.1	1.000015
72000.0	41.3	-55.0		66.1	574.7	223.1	7.2	1.000015
72500.0	40.3	-54.8		64.4	575.7	235.5	5.5	1.000014
73000.0	39.4	-54.1		62.6	576.8	237.1	3.9	1.000014
73500.0	38.5	-53.5		60.9	577.8	191.5	4.3	1.000014
74000.0	37.6	-52.8		59.3	578.4	171.5	6.3	1.000013
74500.0	36.7	-52.0		58.0	578.3	159.5	8.1	1.000013
75000.0	35.8	-52.0		56.7	579.1	147.5	8.8	1.000013
75500.0	35.0	-53.0		55.4	578.0	141.4	9.8	1.000012
76000.0	34.2	-53.1		54.1	577.9	133.7	9.4	1.000012
76500.0	33.4	-53.2		52.9	577.7	131.1	8.3	1.000012
77000.0	32.6	-53.5		51.7	577.6	137.2	7.2	1.000012
77500.0	31.9	-53.4		50.5	577.5	273.2	7.9	1.000011
78000.0	31.1	-53.5		49.4	577.3	280.5	22.2	1.000011
78500.0	30.4	-53.6		48.2	577.2	283.5	33.9	1.000011
79000.0	29.7	-53.7		47.1	577.1	299.9	35.4	1.000010
79500.0	29.0	-53.8		46.1	577.0	290.7	16.8	1.000010
80000.0	28.3	-53.8		45.0	577.0	294.0	4.5	1.000010
80500.0	27.7	-53.9		44.0	577.0	109.0	16.7	1.000010
81000.0	27.0	-53.9		42.9	576.9	118.2	37.9	1.000010
81500.0	26.4	-53.9		41.9	576.9	107.5	44.9	1.000009
82000.0	25.8	-53.9		41.0	576.8	117.7	36.2	1.000009
82500.0	25.2	-54.1		40.0	576.8	105.4	27.6	1.000009
83000.0	24.6	-54.0		39.1	576.7	57.4	20.4	1.000009

STATION ALTITUDE 9997.30 FEET MSL
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UPPER AIR DATA
2950000300
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 9 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE'S CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (M)	SPEED KNOTS	
83500.0	24.0	-54.1		33.2	576.7	93.4	14.0	1.000009
84000.0	23.5	-54.1		37.3	576.6	71.1	8.0	1.000008
84500.0	22.9	-54.1		36.5	576.5	61.4	7.0	1.000008
85000.0	22.4	-54.1		35.6	576.5	107.7	7.7	1.000008
85500.0	21.9	-54.2		34.8	576.5	141.9	8.9	1.000008
86000.0	21.4	-53.7		33.9	577.1	130.3	9.8	1.000008
86500.0	20.9	-52.6		33.0	578.6	137.2	10.9	1.000007
87000.0	20.4	-51.5		32.0	580.0	142.0	11.7	1.000007
87500.0	19.9	-50.6		31.2	581.2	141.9	10.6	1.000007
88000.0	19.3	-50.3		30.4	581.6	141.8	9.6	1.000007
88500.0	19.0	-50.0		29.7	581.9	140.2	8.1	1.000007
89000.0	18.6	-49.3		29.0	582.3	131.2	5.5	1.000006
89500.0	18.2	-49.5		28.3	582.8	120.3	3.3	1.000006
90000.0	17.8	-49.3		27.6	582.9	70.0	3.0	1.000006
90500.0	17.4	-49.0		27.0	583.3	61.4	4.2	1.000006
91000.0	17.0	-48.7		26.3	583.6	50.3	5.6	1.000006
91500.0	16.6	-48.5		25.7	583.9	53.9	6.9	1.000006
92000.0	16.2	-48.2		25.1	584.3	53.1	8.3	1.000006
92500.0	15.8	-48.5		24.5	584.8	61.1	9.8	1.000005
93000.0	15.3	-47.7		23.9	584.9	63.4	11.2	1.000005
93500.0	15.1	-47.3		23.4	585.3	63.9	12.4	1.000005
94000.0	14.8	-47.2		22.8	585.6	63.9	13.5	1.000005
94500.0	14.3	-46.9		22.3	585.9	63.9	14.6	1.000005
95000.0	14.1	-46.7		21.7	586.3	63.9		1.000005
95500.0	13.8	-46.4		21.2	586.8			1.000005
96000.0	13.5	-46.2		20.7	586.9			1.000005
96500.0	13.2	-45.9		20.2	587.3			1.000005
97000.0	12.9	-45.6		19.7	587.6			1.000004
97500.0	12.6	-45.4		19.3	588.0			1.000004

STATION ALTITUDE 3997.30 FEET MSL
22 OCT. 79 0845 HRS MST
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MANDATORY LEVELS
2400000000
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LONG DEG

TABLE 10

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUMID. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5126.	7.8	-7.9	32.	16.7	8.4
800.0	6754.	4.4	-11.2	31.	360.0	0.5
750.0	8479.	4.3	-18.6	17.	280.0	3.5
700.0	10312.	1.0	-20.5	17.	275.2	8.3
650.0	12286.	4.6	-17.9	18.	301.7	14.6
600.0	14410.	1.1	-17.7	23.	292.0	16.7
550.0	16889.	-2.8	-18.3	29.	294.0	24.2
500.0	19145.	-7.1	-26.2	20.	302.0	30.6
450.0	21813.	-13.2	-28.9	25.	305.1	37.0
400.0	24711.	-21.2	-32.0	37.	295.0	43.3
350.0	27989.	-27.3	-41.3	25.	293.4	50.7
300.0	31486.	-30.2	-48.3	27.	290.0	43.7
250.0	35552.	-46.2			291.0	36.2
200.0	40294.	-57.8			286.4	50.0
175.0	43020.	-63.6			267.2	49.5
150.0	46078.	-68.0			283.0	51.6
125.0	49628.	-69.8			289.1	46.9
100.0	53964.	-72.3			309.7	39.1
80.0	58308.	-68.9			250.0	16.8
70.0	60943.	-66.8			262.8	27.6
60.0	64050.	-61.7			41.5	7.5
50.0	67757.	-61.5			170.0	15.6
40.0	72370.	-54.5			234.0	5.1
30.0	78408.	-53.7			289.7	29.8
25.0	82291.	-54.0			102.2	25.6
20.0	87001.	-50.6			141.9	10.9
15.0	93196.	-47.4			63.9	12.7

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