

Runme

7131 +5501579

11 381 6 +52 16

10.20

+062 +0.12

-20.5 Deland

-28.0 Winkler 14510274

-1036-006 A623

-035 -010

23

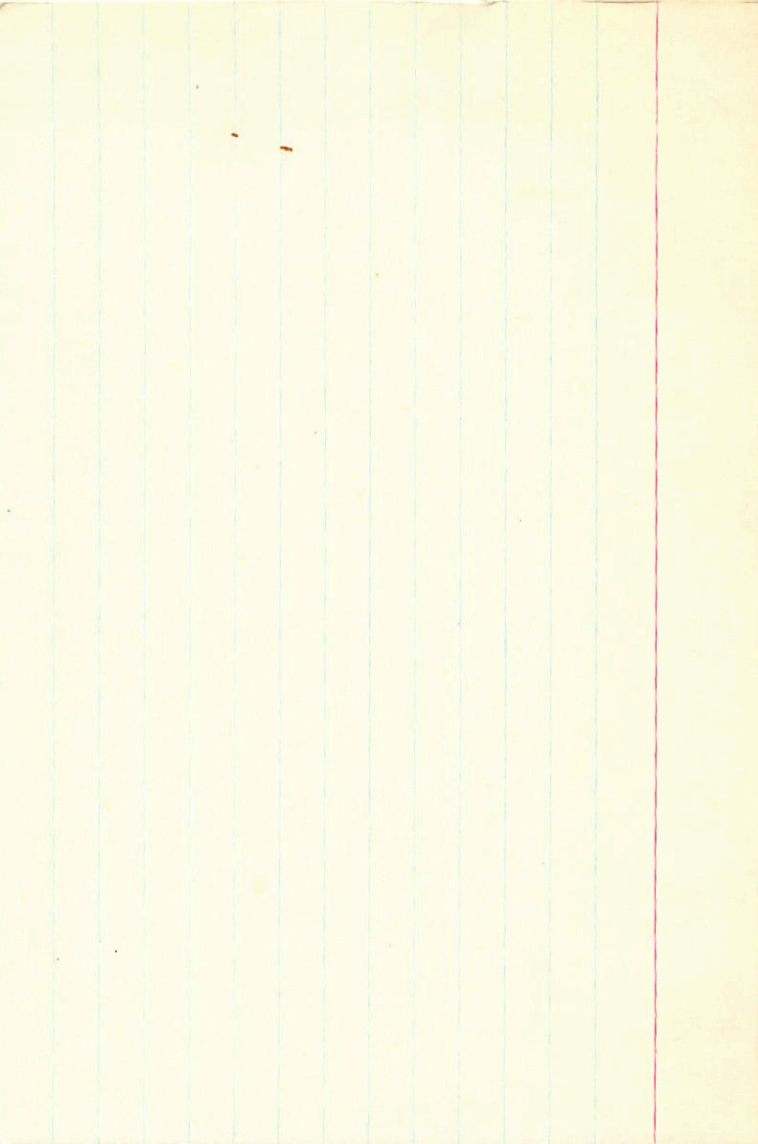
0199 +089

-17.5

101443 11 38.1 -42 53 8.62 +47

F5-V +3.5413 C<sub>2</sub>(4)

9-10 10<sup>11</sup>6





5/6

West Virginia Butcher

dF1

101606

11 39.0 +32 01

HR4501

6C16051

5.75 +0.45 -0.12 - (3) 249

2.623 624

310 .125 .400 (2) SPL

16

900

117

333A

5.75

16

900

117

333A

5.75

[m] 181 +50

[m] 338 +14  
+66

2.50 +55.8 -15.5 +16.4  
+1459 -561 -750

2.14 +48.5 -16.8 +18.3

+15 -6 -4

31

11.250	:	R.A.
35.000	:	DEC.
457.000	:	R.A.
58.000	:	DEC.
5.000	:	STANDARD
55	:	MODULUS
31.500	:	VEL.

-0.855	:	d1 (U)
0.403	:	d2 (U)
0.397	:	d3 (U)
1222.770	:	q0
47.503	:	U

0.403	:	d1 (V)
0.213	:	d2 (V)
-0.020	:	d3 (V)
-271.130	:	q0
-14.132	:	U

0.397	:	d1 (M)
-0.020	:	d2 (M)
0.295	:	d3 (M)
-422.005	:	q0
18.595	:	U



R.A. : 11.650  
DEC. : 32.000  
R.A. : -427.000  
DEC. : 28.000  
STANCE : 2.000  
MODULUS : 25  
VEL. : 31.500

q1 (U) : -0.875  
q2 (U) : 0.403  
q3 (U) : 0.267  
dU : 1555.770  
U : 47.502

q1 (V) : 0.403  
q2 (V) : 0.913  
q3 (V) : -0.056  
dV : -571.136  
V : -16.125

q1 (W) : 0.267  
q2 (W) : -0.058  
q3 (W) : 0.962  
dW : -466.002  
W : 18.595

31

4507	11	39.3	-82	49	+11.5	0
		shc	0.44 ± 8.3	0.10 ± 7.5		
101782		1748	99.5	2122	95.7	
		69		5574		
125	165	1546	19.9	2712		
		808				
10312	10110	110				
1850						
525						
525						

32

+680658

11 39.6

+68

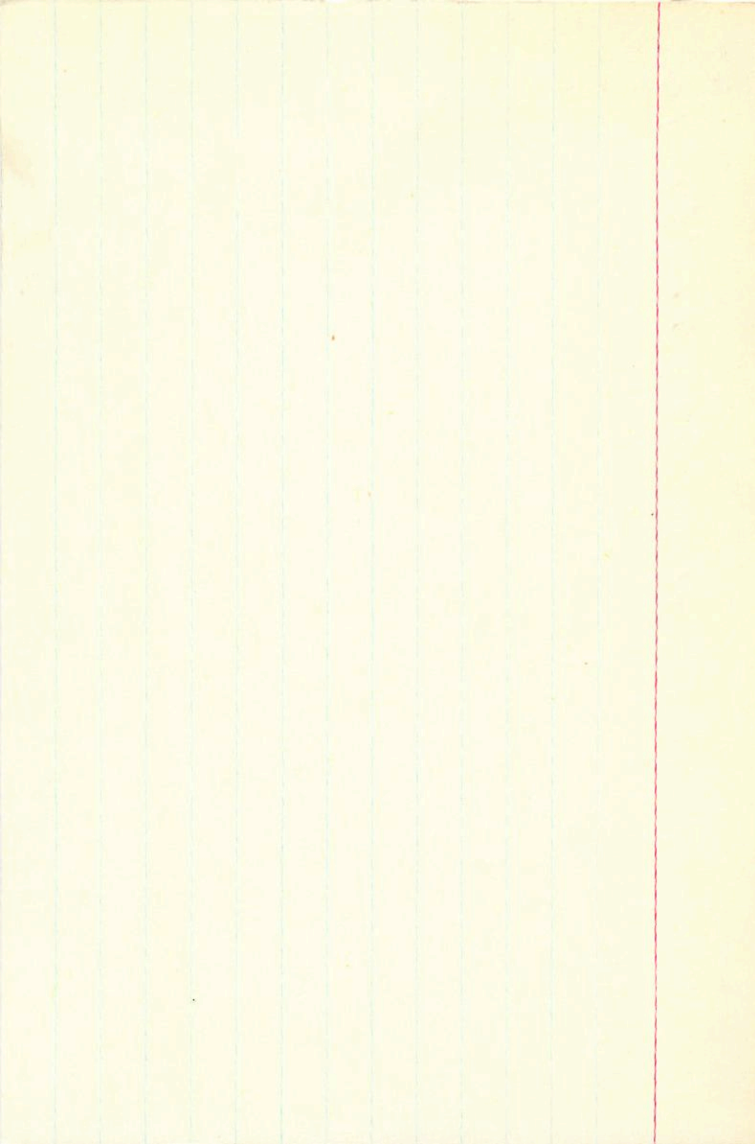
28

9.1 264

-12

w4

101656



101623

11 39.7 467 01

g 152 + 248

14R-4505

248a

62

-0073 +033 N30

N3711

161623

16072

7107

-0078 ± 13 + 034 ± 1.2 GC → 1470

-048 + 035 GC

-043 + 033 N

-049 + 0341

-047 + 034

088-956 921 351-047+034 +3.4 031 43 062  
004-003 047-031 166

101853 11 41.0 +42 00 6.8 968 +2.8a

16088

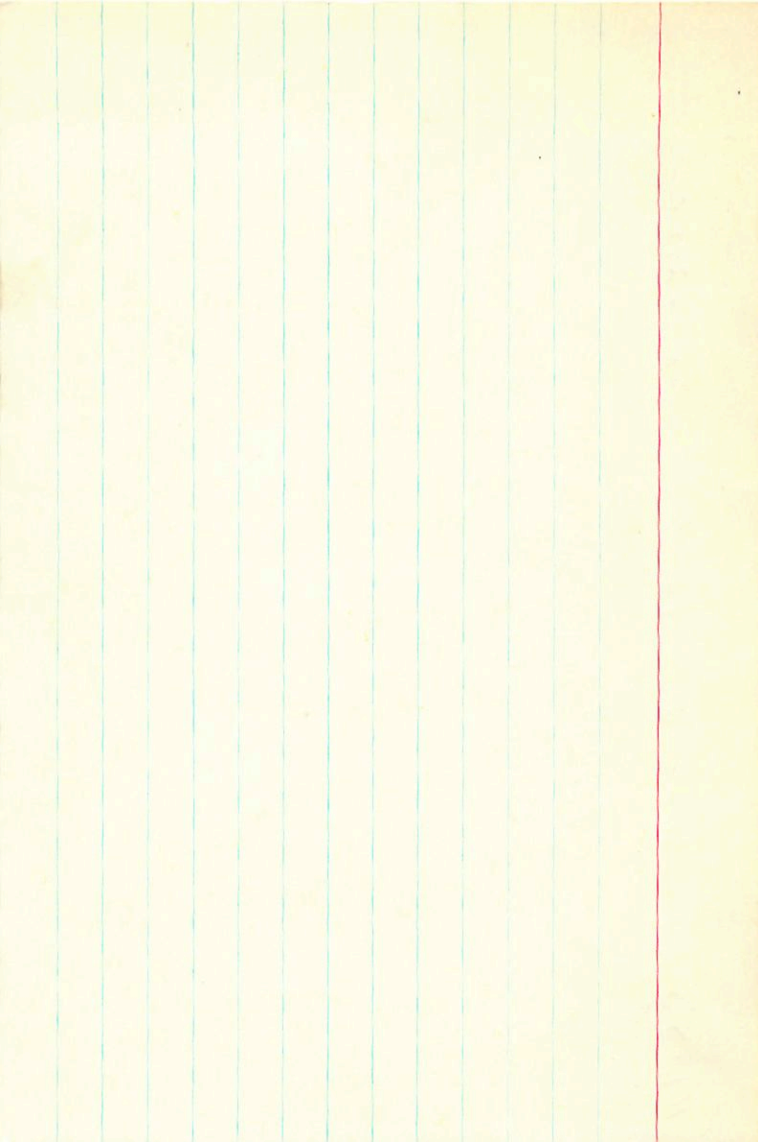
7110

+00269-005N30

+00203.0-011±26.6L+227

+3887D





$m_v + 1.3$

A3F

11 41.6 +30 10

-18 km/sec

30° 2141

101468

AGN1-AGN2

+0.0006 +0.007 Gr10

-0.0008 +0.007 F123

+i +1

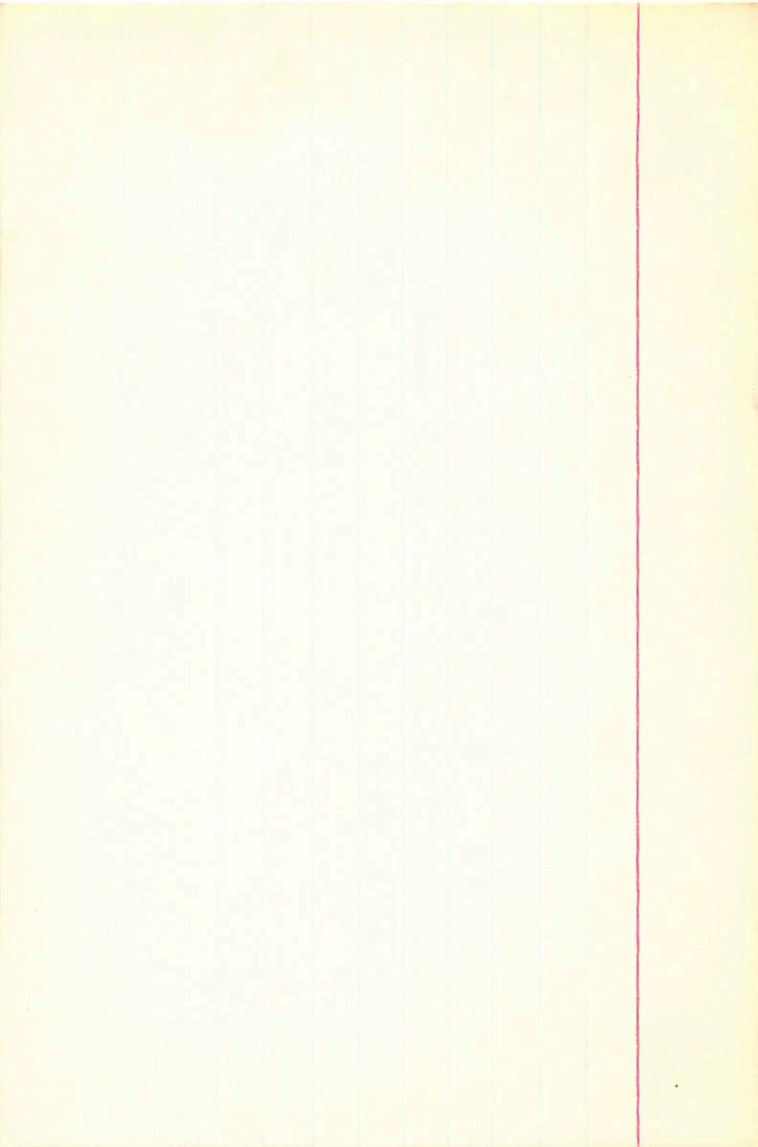
-0.0007 +8

-0.009 +0.008

200 ps. X

7.89 +13 +188 1.027 +36 ± 15 W G-③

7.57 +30 +178 1.015 -18 ± 2 Perry③



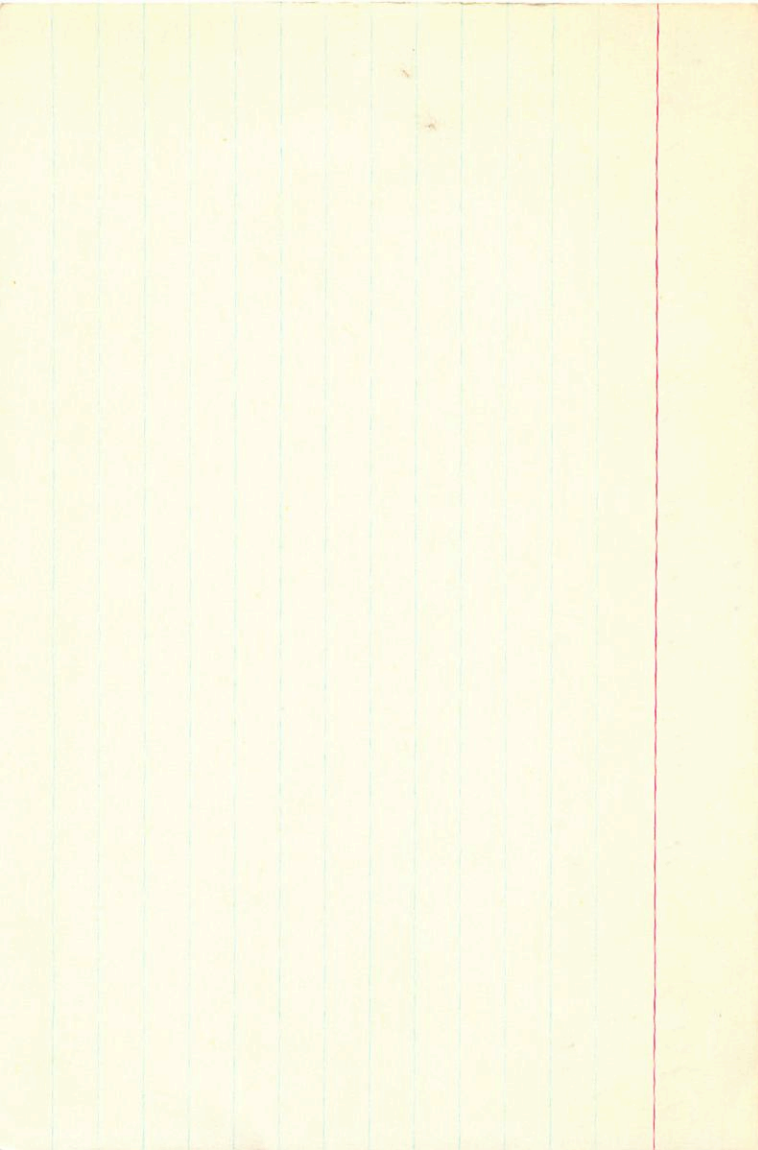
-01964

101967

11 416 +44 46 7.8 dF4 +15.18

16106

7116 38.844 19133



4220.2 2.00

11 42.0 45 45

44.2 20

1024 1024 1024

1024 1024

1024 1024 1024

4514

4514

4514

3 Vi

102124

+004151.9 -024#1.4

next Published

+0037

-026

11

42.7

+08 32

-0.56

W7121

16118  
71214.83+0.17 +0.12 2" 43  
(+1.57) 24"1

HR4515

+066 -02466

42.427 1897.2 +8 32 10.31 1890.9 +0.56 -0242

-216  
2111.42  
11.73

+060 -024

42.327  
19  
34610.54 1933.7  
-2  
10.5234.3  
43.442.355  
24  
379347  
+136

37.1

10.00 1939.26  
24  
10.2410.58  
-1.1525.094  
17.2326  
42.326

514/323

30.16 1924.55  
19.48  
10.70  
10.61  
+36 10.99

$$\textcircled{B} - b \quad 0 \quad 1 \quad +0.60 - 0.24 - 0.5 \quad 0 \quad 0 \quad -1.14$$

$$\textcircled{6.0} - 0.60 \quad 0 \quad 0 \quad \textcircled{2.84} - \textcircled{2.84} - 0.5 + 0.5 + \textcircled{6.8} \quad 0 \quad 2$$

$$+4.2 + 0.57 - 5.7$$

$$\boxed{-1.1 + 2.3 - 5.1}$$

$$+0.5 - 14.2 - 5.7$$

$$\boxed{-15.1 + 2.3 - 0.8}$$

$$+0.5 - 25.4 - 11.4 \quad 0 \quad 1$$

$$\boxed{-30.1 + 4.3 - 1.1}$$



102148

11 42.8 -34 32

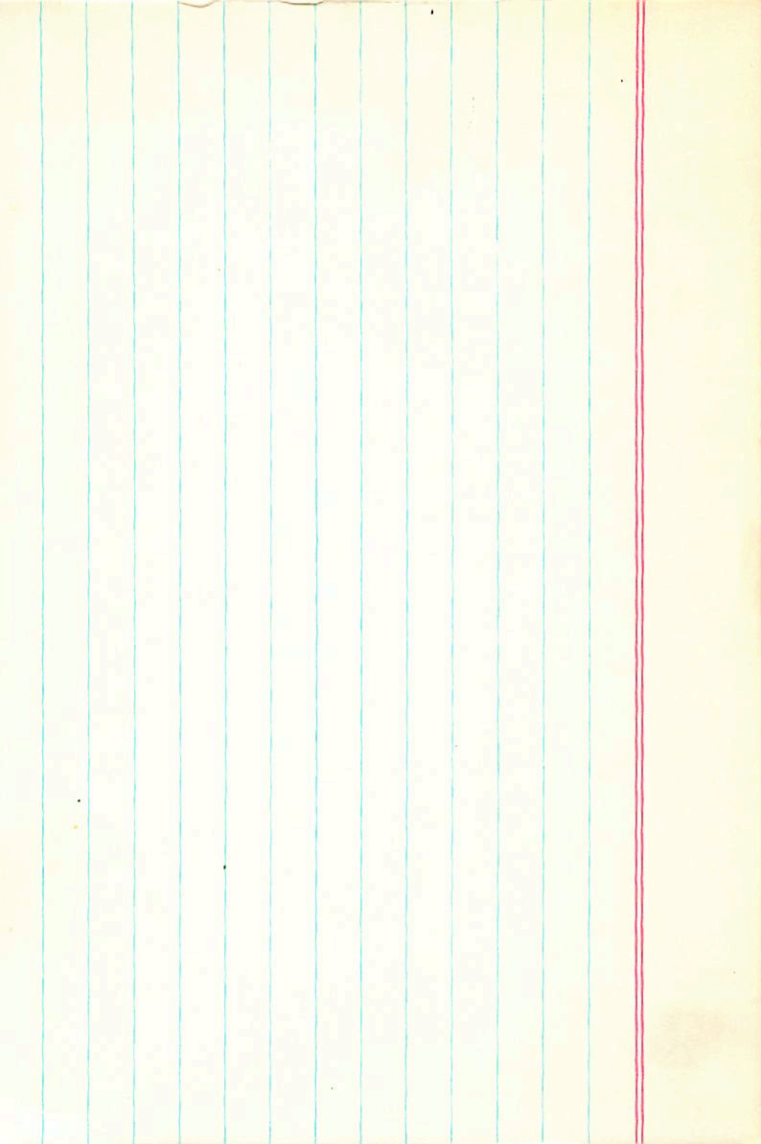
121.4 +11.3

50

FD925

8.50 +1.13 (2.16)

-026 +012



LF

4365

102184

11 43.0

-37

21 787+0.44

-0.0

726 Gov.

-201 -014

-878383 -300

411 270 -870

253 983 354

18336 -0254

-3916 -0179

-2410 -0586

8082

-4095

-2996

-134

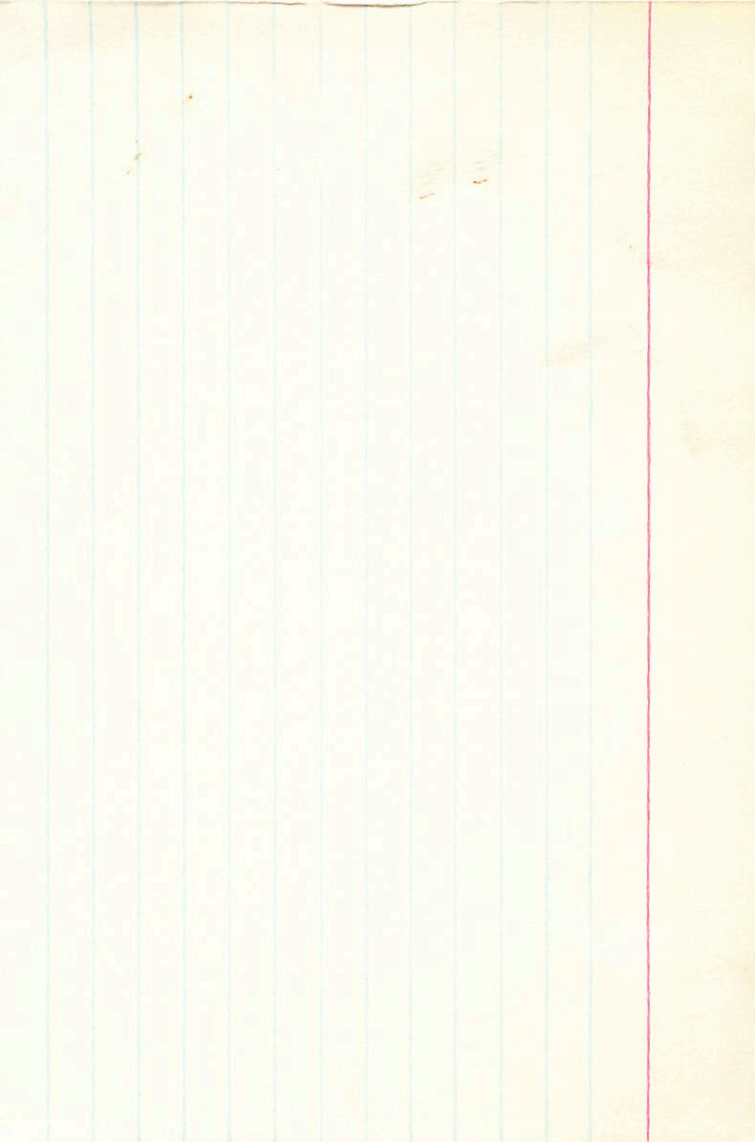
-42

-5

-7.8

-22.6

+10.2



TVMMa

102159

11

43.0

436

10

gms

Var:  $6.96 + 1.56 + 1.36$  ①

~~5.31~~ + 1.41 ①

~~5.30~~ + 1.60 ⑤

~~7.00~~ + 1.50 + 1.40 ⑧

492

200

200

5.3

+54.26

-0044 1021 62

-0026 1020 new(2)

~~1002-62~~

~~1003 1022~~

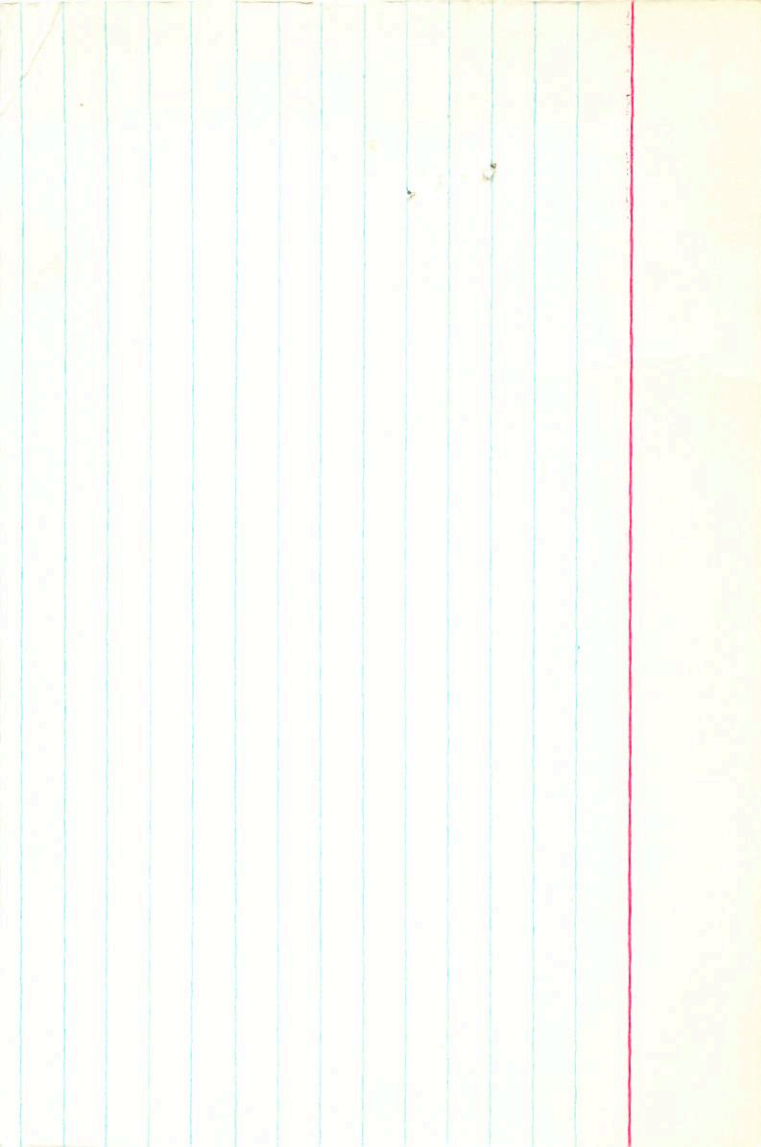
$\boxed{-036+022}$  ①

45

42

80

45.2



TV Wma

11 430 +36 10

15 = +02

6.9 5.25

Σ 99 ~

+1.55 +1.58

+1.45

9118 702 +1.53 +1.42

139 6.54 +1.56 +1.46

216 7.06 +1.50 +1.35

230 7.26 +1.47 +1.17

244 7.16 +1.53 +1.41

247 7.10 +1.57 +1.40

267 7.02 +1.50 +1.44

276

Exp. Sum 131

2.8

8.35

-4.55

459.2

LB

-042a - 008a

+1

-041 - 008

5.21 +1.565

4.88

3.02

2.5

8.35

6148 mg

-4.55

TV Wma 6.55 +1.55 +1.45 +90 -53 +345 -42 +54.2

102159 5.13 +1.60 8.35 +1.6 -12 -5 -8 11517

50 d<sub>4</sub>

+730

1 E-102

2.8 4.8



33



R.A. : 11.700  
DEC. : 36.150  
R.A. : -45.000  
DEC. : 22.000  
STANCE : 8.000  
MODULUS : 398  
VEL. : 59.200

q1 (U) : -0.875  
q2 (U) : 0.389  
q3 (U) : 0.287  
dU : 191.373  
U : 93.154

q1 (V) : 0.410  
q2 (V) : 0.912  
q3 (V) : 0.014  
dV : 24.421  
V : 10.555

q1 (W) : 0.256  
q2 (W) : -0.130  
q3 (W) : 0.958  
dW : -57.616  
W : 33.773

33

LFT  
 4368  
 11 43.6 -37 53 8.50 1060 000  
 +4 852

102256

+155 -163

-875 375-385	-6428 -2897	-9325	-1.2
417 266-869	+3063 -2055	+1008	-3.5
245 888 389	+1800 -6861	-5061	+1.6

102136

11 42.7 40 29

935 480 301 298 (7)

937 482 294 263 (1)

480 300 (295)

-0.16

0.56

356

(19)

10278

+5.58

5.72



068-888 407 814 -025 000 +7.5 0 +3 0  
 005 0 025 0 024 355<sup>1</sup> +7.3 -7 +1

-4 +45 +3

005

+41 -20 -3

009

-4 +40 +3

+36 -17 -3

9748<sup>1</sup> -9944  
 1498 0357

-3.3

0024

5.54

+38 -18 -3

0095



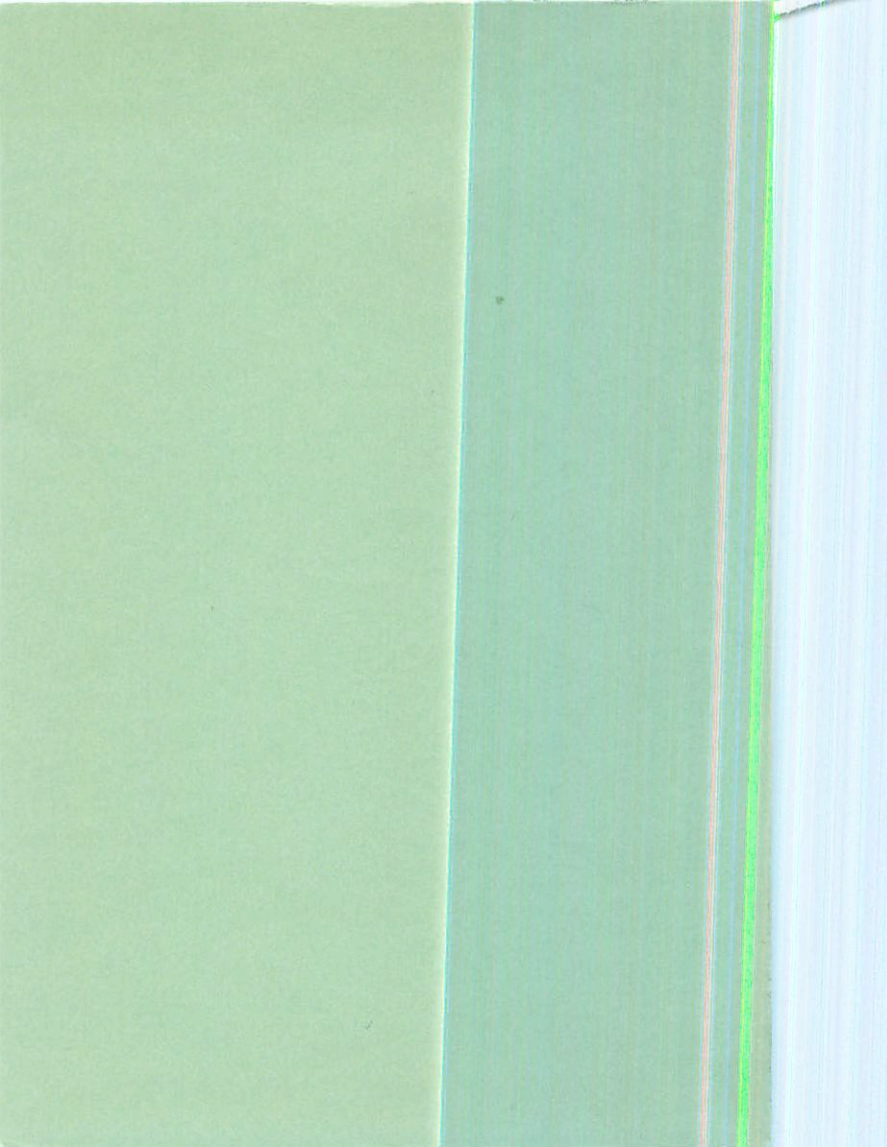
11 441 -60 5-4

1035-027 5-4

1035-0209

1035-0209





102 326

11 44.6 +77 19 267 -93 24(4)

PC16159

8.75 +0.73 +0.45 G8 IV-V R

W 7137

S = -.11

+2724

+770440

-105 -162 -72

007

-101 -127 -74

010

+181<sup>±6</sup> -101<sup>±10</sup> FC

+181 -073 GAZ

+181 -090

6 ± 11 R (8)



$$+0544 \pm 4.4$$

$$-10.1 \pm 5.5$$

$$-0.93$$

$$35.919$$

$$19044$$

$$+77$$

$$19$$

$$7.21$$

$$19094$$

$$2492$$

$$4.10$$

$$33,427$$

$$11.31$$

$$34.76$$

$$19$$

$$9.5$$

$$1930.3$$

$$84$$

$$-1.3$$

$$844$$

$$9.35$$

$$93$$

$$51$$

$$209$$

$$319.81$$

$$1681$$

$$790$$

$$25.7 \quad 141.7$$

$$12385$$

$$132550$$

4524

+7.4

2550

+9.8

var

66110

11 44.6

-35 36

+89 20

var

+0033 -047-5kg

+0034 -0394

+0414

+043 -044

+20'26.5

11 44.6 +15 35 -0.028 to 0.006 Y

102389

0.000 0.000 0.000

1920 11 43 2.958  
1 33.244  
44 36.202

+15 45 2.21 1518.40

W20

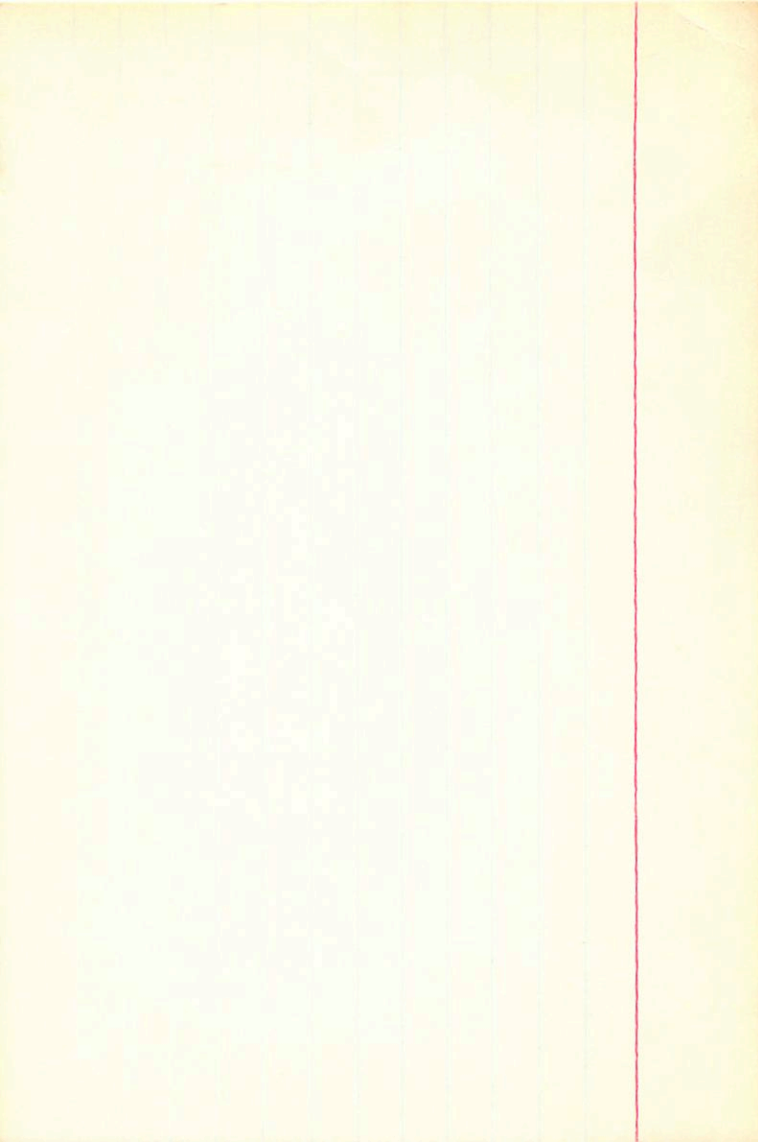
-10 59.57  
+15 35 2.24

X

11 44 36.077

2.32

1928.26





102461

W7138 11 44.9 -57 25 -51.66

14054241

5.43 + 165 + 1.99 205 122.8 -52.8 25.8

~~031 + 1006~~

~~474~~  
1185

~~474~~  
1185  
3710  
23410  
474

~~0030 + 0012~~ 62 →

~~0023 + 018~~ 130

~~0026~~ 1015

141

+146  
-8.5

-025

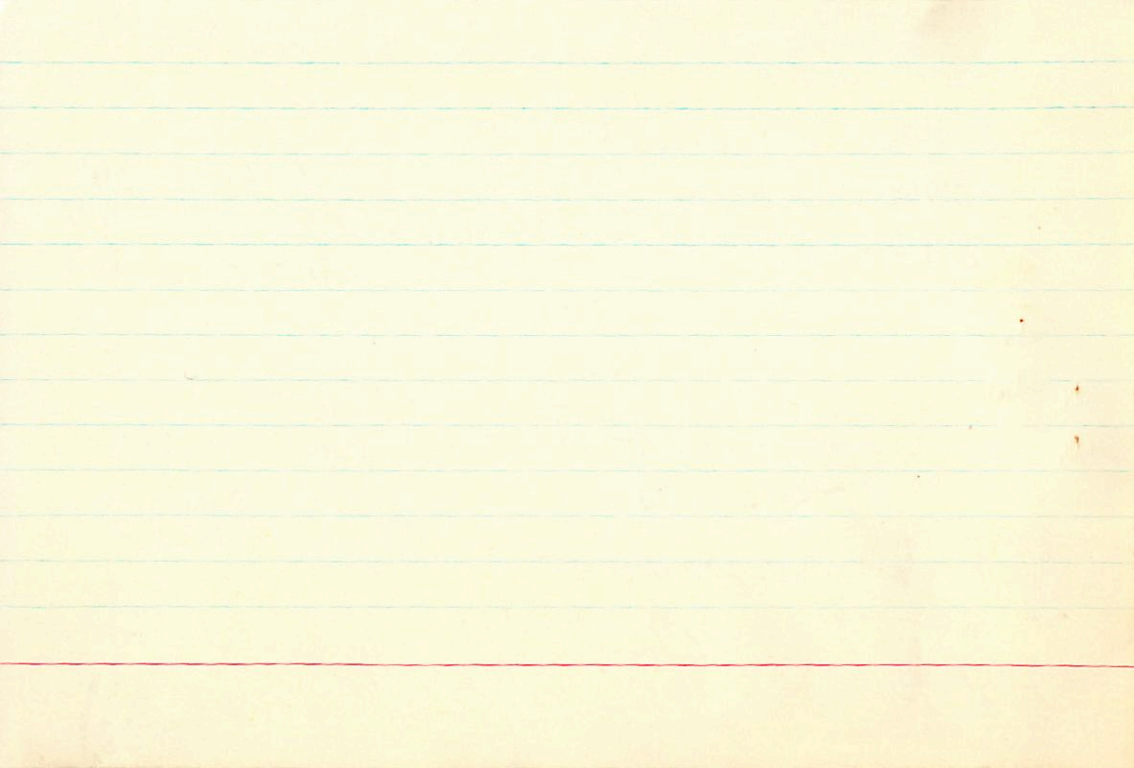
163

-875 252 -413  
47 -040 -508  
245 967 070

11040 + 0178 + 1218 + 23.2 + 21.3  
-0445 - 0028 - 0523 - 10.0 + 46.6  
-0291 + 0682 + 0391 + 74 - 3.6

+20.2 +41.5

-8.6  
+4.5



4528

11 45.3 + 8 32 A1

162510

16171

5.21 + 0.2 + 0.4 C  
 010 174 1014 2920 10000  
 609 173 1002 2516 56

010  
 609  
 173  
 1002  
 2516  
 56

174 1014 2920 10000  
 609 173 1002 2516 56

010  
 609  
 173  
 1002  
 2516  
 56

Dms 1

-058 + 006  
 -0.9

1.55 1.6  
 3.75 3.7



20.723

4.0

-0034±20  
+0041

+006±1.5  
+005  
25.07

3.1

174  
95-2

-0034

-28

24.79

-0040 +005

-00386 +0042

20.812

+24

-0574

24.82 37.28

826

-056+004

21.06

20.683

+17  
1.700

25.01

-14  
24.87

64.17

25



11.750  
8.500  
-56.000  
9.000  
3.900  
60  
-2.000

-0.875  
0.480  
0.062  
250.243  
14.955

0.417  
0.813  
-0.405  
-74.811  
-3.697

0.245  
0.329  
0.912  
-50.210  
-4.850

35

46m

-2.0

102510

11 45.3 +0.8 31 5.2 A1 -0.98

16171

4m

740

5134 +0.01 +0.04 18"

var no. 1?

452A

-0040<sup>30</sup> +004 N30

-0039 ± 2.0 +008 ± 1.8 6c → 1000

0042A +0041

-0040 +0035 11.95  
+8.5

-0543

-548  
+8  
~~24~~ 3.9  
-2.0

$\boxed{-058.5 +004}$

9331

-9961

0585

1532

0886

+0026

-2.05

+008 176 1015

2917

(175)

(1013)

542

11

36

+37.46

11 45.8 -66 32

gm2

+R4530

11 mm

4.78

+1.56

wave

+0.23

-0.26

+0.039 ± 5.1

± 0.0

+0.034

1903.6

12.12

1910.8

49.313

-153

160

+1.21

+0.042

-0.216

-0.23

10.91

11.87

1940.2

-137

49.244

259

+0.22

-11

11.96

128

-0.193

+0.188

-0.103

-11.48

+0.643

+8.7

-16.8

-33.5

-3.1

-875

184

-446

-180

-890

-082

-082



102555

11

45.8

+28

42

7.2

f2 +17.78

16177

28

-0062 -009 N30

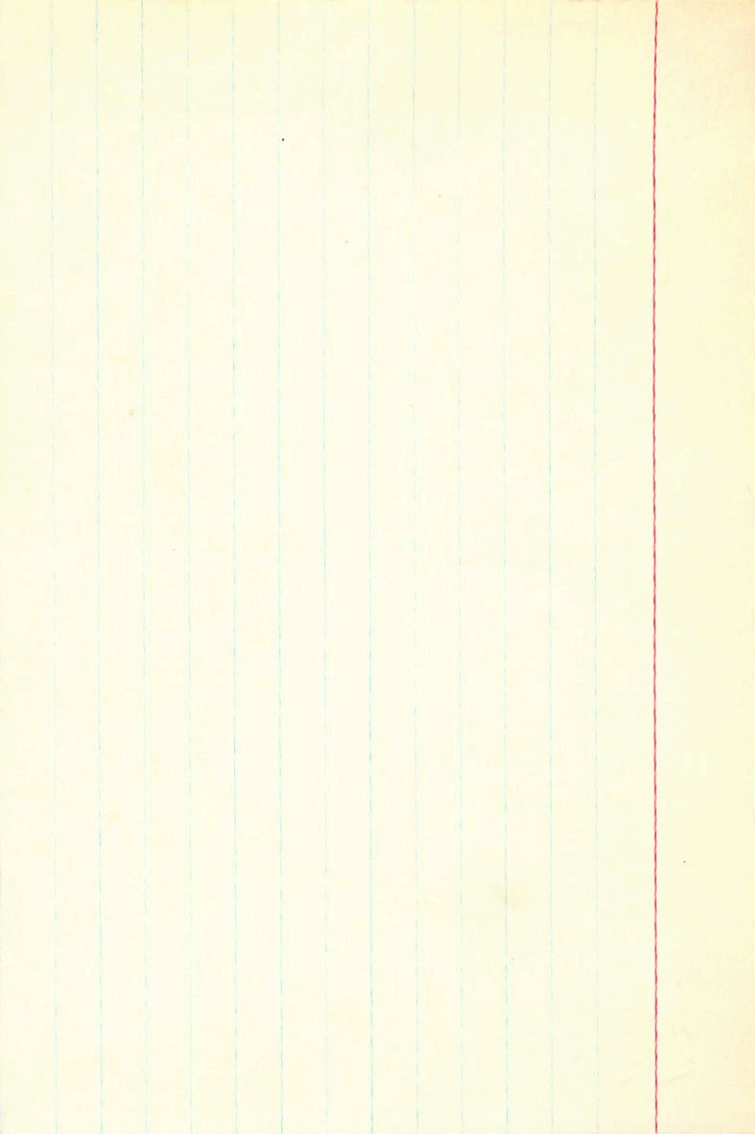
4128

7143

-0072±73 -015±536C 7030

5





4P4532

11 46.2 - 24 28 +6.8

W747

48

6.4/8  
12

473/4  
4.2/4  
4.2/4  
1/4

473/4  
3.1/4  
3.1/4  
3.1/4

~~027~~ -017

~~0019~~

-0166C

-0027

-018 N30

116.4

~~0023~~ -017

116.6

~~031~~

4.4

117.1

-875 428 -224 41288 -0344

417 433 -798 -0615 -0347

245 792 558 -0360 -0635

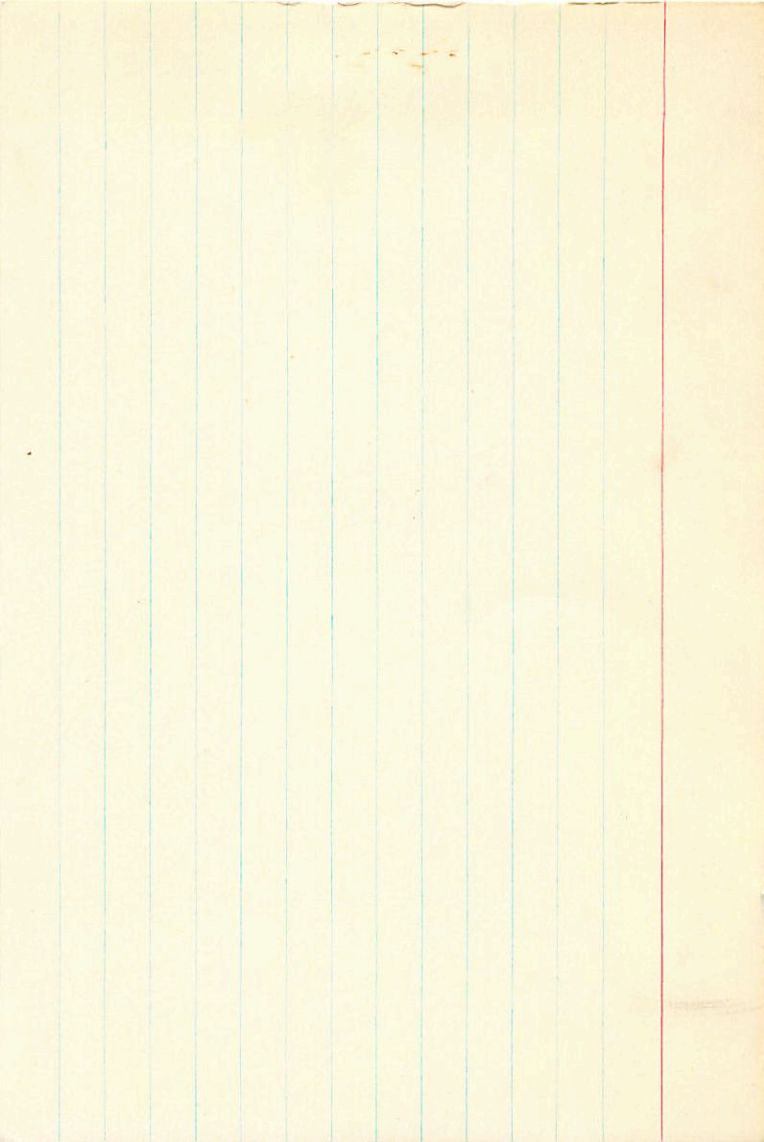
31

+0944+15.6 = 71.6 +14.0

-0962-10.0 -5.4 -21.4

-0995-10.6 -3.8 -20.4

33



$$m_v = +1.4 \quad 7.06 + 0.06 + 0.07$$

$$A440$$

876

42502216

11 46.0 +29 05

-6.2

102589

$$-6019 -016$$

$$-0010 -023$$

GC16180

$$11 \quad 416 \quad 1044 \quad 14049 \quad +29 \quad 4$$

$$40.16 \quad 1903.3$$

$$\frac{1.07}{4123}$$

$$1.089 \quad -6014 -020$$

13200.

$$1.028 \quad \frac{0.25}{1.045} \quad \boxed{-018 \quad -017}$$

$$40.9 \quad 1930.1$$

$$-1.7$$

$$\frac{40.73}{4112}$$

$$1928.26$$

$$1.020$$

$$2.020$$

$$\frac{1.040}{1.040}$$

$$-23$$

$$\frac{40.89}{40.81}$$

$$\frac{42}{42}$$

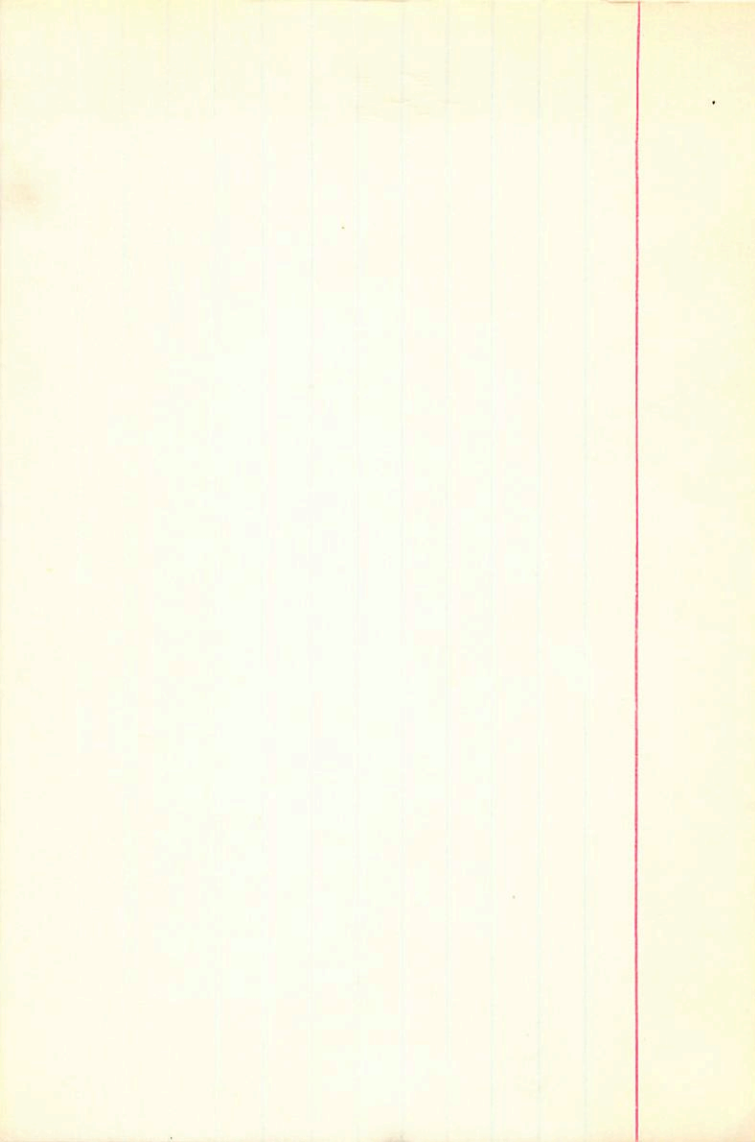
tube

$$1.042$$

$$40.41 \quad 1943.4$$

$$-32$$

$$\frac{40.09}{40.09}$$



AD89327

11 46 + 48 8.3 120 III  $\pi$

AD5933/2

7.40 +0.47 +0.70 3.0

672

705

+30

63

41.4

41.6

7.93 +0.49 +0.02 FLT 3E

NO

1.298 [1.223] [1.393] 2.651 (3)

358

25

20

12

057

124

1006

+33

