

Ruma, 358

6.2

10 41.2 + 0.9 02

+340

CC14753

-0073 ± 33 -027 ± 3.6

7.912 1900.7

-0075 -035

19.45

1903.1

may

V<sub>E</sub> - 7.83

3rd = +1.50

2.3 = +0.95

may

83 R-4

5.22 +1.50

484 372

197

291

740 449

-0066 -027

-037 -035

8.0 = 400

7.5 = 316 p.m.

5.89.6

|      |      |      |       |       |       |       |     |       |
|------|------|------|-------|-------|-------|-------|-----|-------|
| -843 | -047 | +536 | +1414 | +0060 | +1474 | +59.0 | +77 | +18.2 |
| +255 | +843 | +474 | -0428 | -1079 | -1507 | -683  | -44 | +16.1 |
| +474 | -536 | +659 | -0795 | +0680 | -0109 | -44   | +18 | +22.4 |

|       |       |       |     |     |
|-------|-------|-------|-----|-----|
| +1178 | +0078 | +1566 | +71 | +65 |
| -0447 | -1398 | -1845 | -47 | -39 |
| -0831 | +0589 | +0058 | +24 | +24 |



8410

4205

10 42.3 - 43 42 1051

93154

4.84-14-62 C

2750

1477A

-071 +089 +322 (23) 26610

(89)

178  
(550)

±3.0

(-021 +015)

1255  
-0030  
-0020  
+016

+6

5410

966 (7.25)

18.02 19.90 19.57 19.067

-20

1941.24

465

-66

-06 -2.35

MV = -2.6

53.76 7.00

15.06120

-0038 ✓  
+0030  
-0020543 +003540

18.184 99 53.84 6.7

18.064 4104 53.79

18.002 ✓ 4450 5406

-00299 +0002  
-00314 +0044

-0200  
-0179 +0085

TX Uma

10 42.4 +45 50 -13.2 e

-10015 -002

+2 +3

70017 +001 00 →

+015

+020 +001 (12)

-160 Orbit

-12.9 Orbit

4205.000\*

10.000\*

42.300\*

-63.000\*

-42.000\*

-0.021\*

0.018\*

7.250\*

281.838

25.500

0.120

-0.333

25.275

-0.045

-0.940

-36.594

0.029

20

251

22

35

|      |      |      |      |      |      |  |       |      |                |
|------|------|------|------|------|------|--|-------|------|----------------|
| 332  | -943 | 707  | 707  | +020 | +001 | -13.2  | 001   | -9.3 | 004            |
| -007 | 0    | -019 | -001 | -025 | -050 | -13.2  | +12.4 | -4.4 | 006            |
| -006 | -016 | -024 | -076 |      |      | +7.7   | -5.9  | -8.3 |                |
| +42  | -153 | -8.9 |      |      | 008  | +5.4   | -6.4  | -8.3 | 004            |
|      |      |      |      |      |      | <del>+3.1</del>  |       |      | <del>003</del> |
|      |      |      |      |      |      | +9.6   | -13.4 | -8.9 | 01             |
|      |      |      |      |      |      | <span style="border: 1px solid black; padding: 2px;">-15.2 +4.0 -10.4</span> |       |      | 011            |
|      |      |      |      |      |      | +11.0  | -12.6 | -9.0 |                |
|      |      |      |      |      |      | <span style="border: 1px solid black; padding: 2px;">-14.3 +4.1 -11.7</span> |       |      | 009            |
|      |      |      |      |      |      | +9.3   | -14.4 | -8.9 |                |



5412024  
93044

10 42.5 41 34 7.13 -10

① 18

19250  
-0018  
-0045  
42 70.1  
7 51.70

10 41 3.92  
1 26.870

42 30.790  
- 684.00  
653.21  
30.790

-0032 -052  
+ 2 + 3  
-0030 -049

-033

30.555

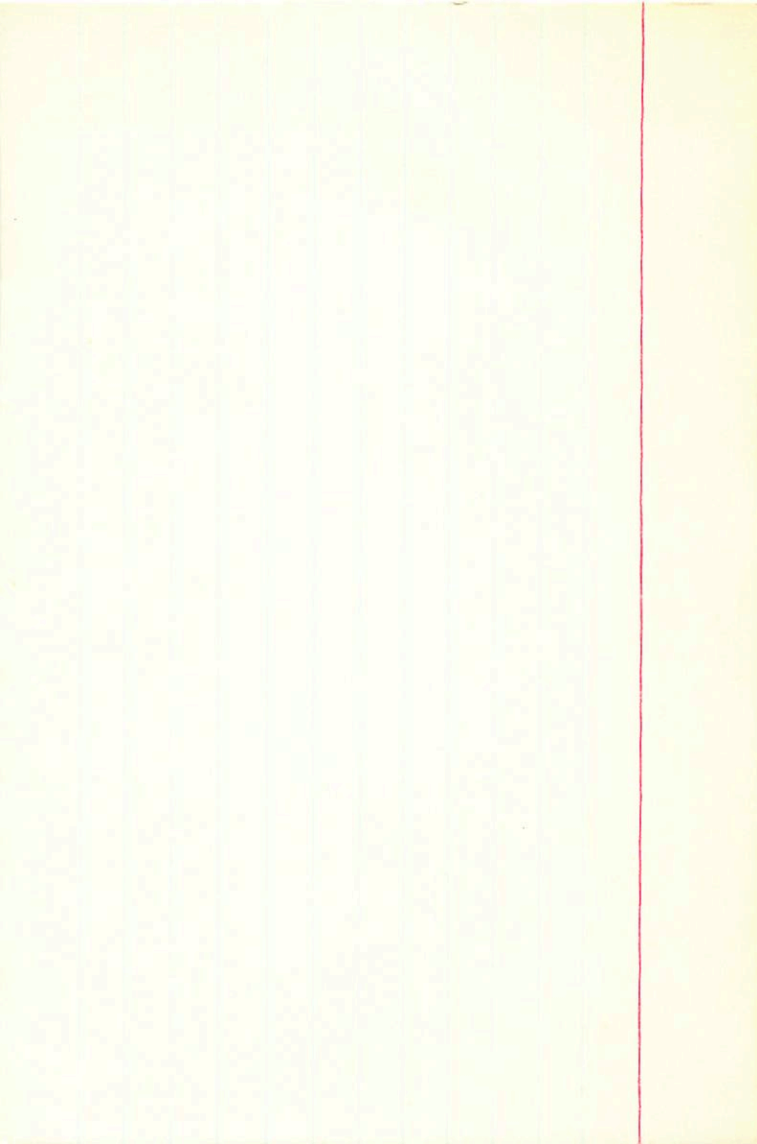
7  
502  
121  
122

34 18.50  
7 51.70

17.90 17.84  
+ 1.12  
19.02  
~~19.304~~  
~~14.28~~

16.86 1552.25  
- 288

16.5  
~~16.54~~  
2.128



LFT 9554 10 439 -29 05 NOI +82.0

-250926

9.56 +0.64 +0.02

-0038 -0249

|      |     |      |  |       |       |  |       |
|------|-----|------|--|-------|-------|--|-------|
| -848 | 528 | -044 |  | +1527 | -6232 |  | -4705 |
| 268  | 355 | -896 |  | -0483 | -4190 |  | -4673 |
| 457  | 771 | 442  |  | -0823 | -9100 |  | -9923 |

-3.6

-73.5

+26.2



93270

10 494 H<sub>2</sub>S 43

-0.8

313 286 3.50  
330 286

(H)

-0168-005

-107006

9964 -9916 | 9996

0852 -3360 | 0302

R.A. : 10.750  
DEC. : 65.700  
PM. R.A. : 0.000  
PM. DEC. : 0.000  
DISTANCE : 0.000  
MODULUS : 10  
RAD. VEL. : 0.000

q1 (U) : -0.848  
q2 (U) : 0.001  
q3 (U) : 0.530  
dU : 0.000  
U : 0.000

q1 (V) : 0.268  
q2 (V) : 0.864  
q3 (V) : 0.427  
dV : 0.000  
V : 0.000

q1 (W) : 0.457  
q2 (W) : -0.504  
q3 (W) : 0.733  
dW : 0.000  
W : 0.000

-0029 ± 5.6    -015 ± 5.1    +32.46  
+0030    +0027

93540    10    44.5    -64    15    5.5    B8m

14837    -0034    +0033

6703    27.576    1911.2    -64    15    4.10    1908.8

4219     $\frac{113}{.689}$

70.00

3.48    +42  
~~1.48~~

27.575  
23  
598

27466  
+26  
492

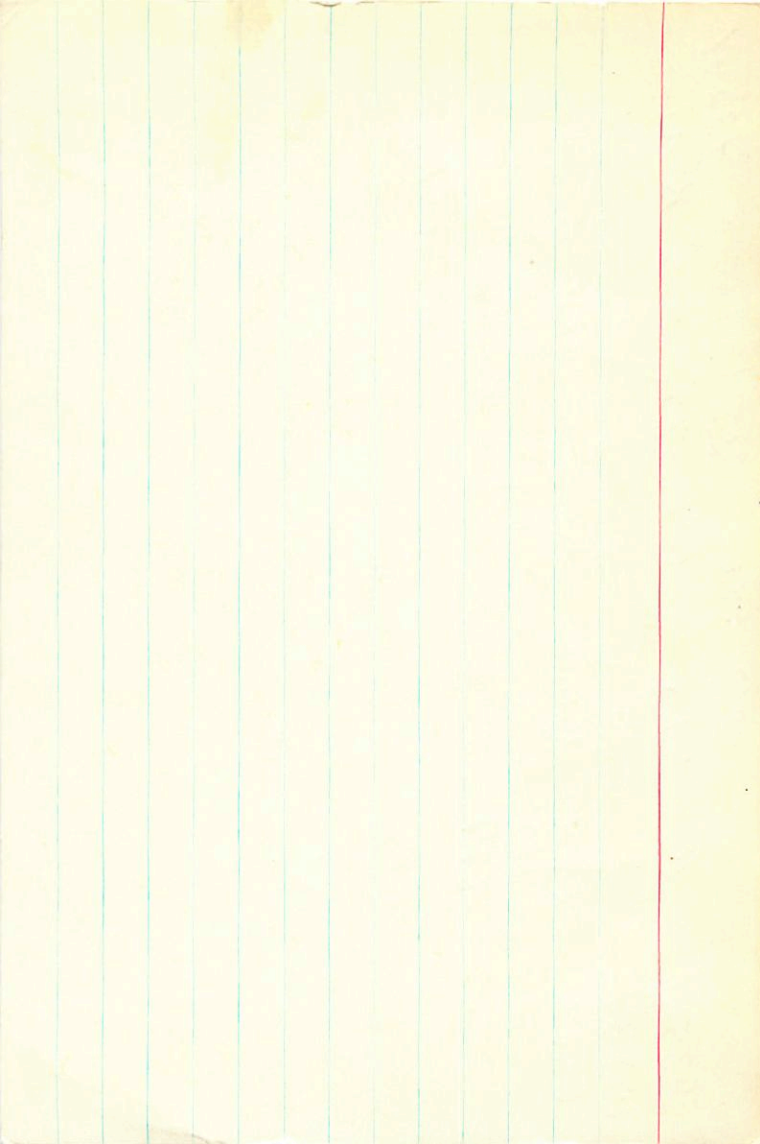
3.13  
-25  
3.28

3.30    1941.47  
-9  
3.39

-36 104 483 1723  
②    490  
676

-00032 +0030  
-000389 +0072

-0221 +0043  
0200 +0113



4214 10 -44.5 -64 15 5.3450 IV

MS29

CSM1

-0000 +003  
-0000 -015

27.576 19112  
11 889  
4.10 19088  
12 848  
3.4

27.575  
+003  
598 898  
-09  
3.39 3.30 194147  
+09  
+09

-0004 ± 4.7    +002 ± 4.4    +7.0    Quest  
+012.0

93549    10    44.7<sup>+0023</sup>    -64    00    5.4    BE    +21.36

14844    -0006    12    5.22    -0.09    +0016    -18

6707    +06    +10

40.085    1909.1    -63    59    58.28    1906.4  
16  
101    -09  
58.37

27.44    -00258    0066  
-00272    +0112

40.003    112    57.85    1942.30  
23  
026    9  
57.94    1672

19.43  
35.12

40.08    56    58.1    1946.3  
6  
056    -66  
58.78

19.42

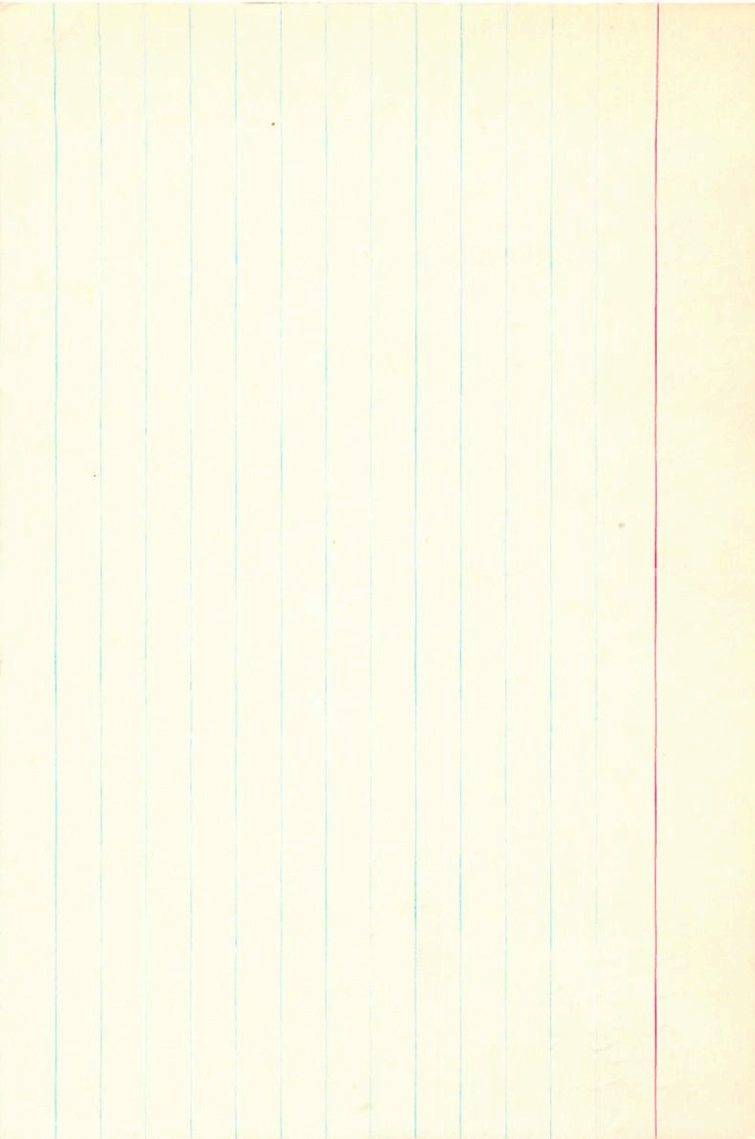
59.02    -0158  
8.04

34909    20  
632

024 +012

9501 ~ 9848  
3120    1544







4222 10 45.0 -64 07 484 051B

93607 10076+006 122(4)

14750 1018 1005 -0026 -006 -00263

9502-5877 6485-156 -010 -009 ✓ -00263

1117 156 -0029 -0027500 +002743

1670 1410.0 -0023 10.29 1405.5  
105  
578

1008

1663 1615 10.82 10.63 1942.04  
24  
641

1023 10.07 10.72  
1686  
92

~~13.0~~  
11.0

$-008 \pm 4.2$   
 $-0078$   
 10 45.1  
 $-044 \pm 3.0$   
 $-036$   
 22 7.4 dFS  
 $+30.58$

93527  
 14851  
 6712/13  
 $2.98 \ 4.25 \ 7.66 \ +50 \ (1.57)$   $5409$   $+105$   
 $3.96 \ 5.02 \ 8.88 \ +54 \ (1.60)$   $5.669$   $26.1$   $+135$  }  $412$   
 $7.70 \ +0.51$   $(+1.54)$   $-0.09$   $1m16''$   
 own

8.952 1906.5 -15 21 43.35 1899.5  
~~308~~  
~~9.311~~  
 $9.036$   
 $17819$   
 $647$   
 $55.202$   
 $13.857$   
 $9.057$   
 $0.72$   
 $0.13$   
 $0.95$   
 $43.42$   
 $+24$   
 $43.18$   
 $46.68$   
 $53.286$   
 $4.2.70$   
 $4.94$   
 $+30$   
 $4.56$   
 $1934.58$   
 $374$   
 $7603$   
 $38.0$   
 $38.5$   
 $42.51$   
 $-1.38$

31.5

$132$   
 $066$   
 $245$

6712

~~7.62~~ <sup>69 14 4</sup>

+0.52 <sup>53</sup>

-0.06 (1)

(41.54) (1)

x

7.65

+0.54

-0.03

(1.54)

S = 0.09

S = .12?

6713

8.95

+0.55

-0.03 (1)

(1.47) (1)

8.83

+0.58

0.00

1.74

x 8.40?

+0.55

-0.01

S = 0.09

105,940  
-170 +037 CA 113  
-162 +034 CR 28  
-170 +024 CR

93757171 +013 new 46.4 -48 05 +8 556  
Var -116 +82

42519 -170 +028  
+6 +4

6614882 -164 +032

7.05 +0.43 +0.02 3RS

1537  
-3.956  
0.256  
2.54

-0162 ± 9.5 +024 ± 8.0

25.248 1899.2 -0170 PAM

+013 11.39 18960 Slat

-1.30 -0154 +0236

0150 033

450 +033 +020

-154  
-152 +028

116(7)

20.644

16.39

1424.08

4.6674

54.78

15089

25.612

-0158 +019

12.11

9911 -9197 15089

25.612

-00512

12.11

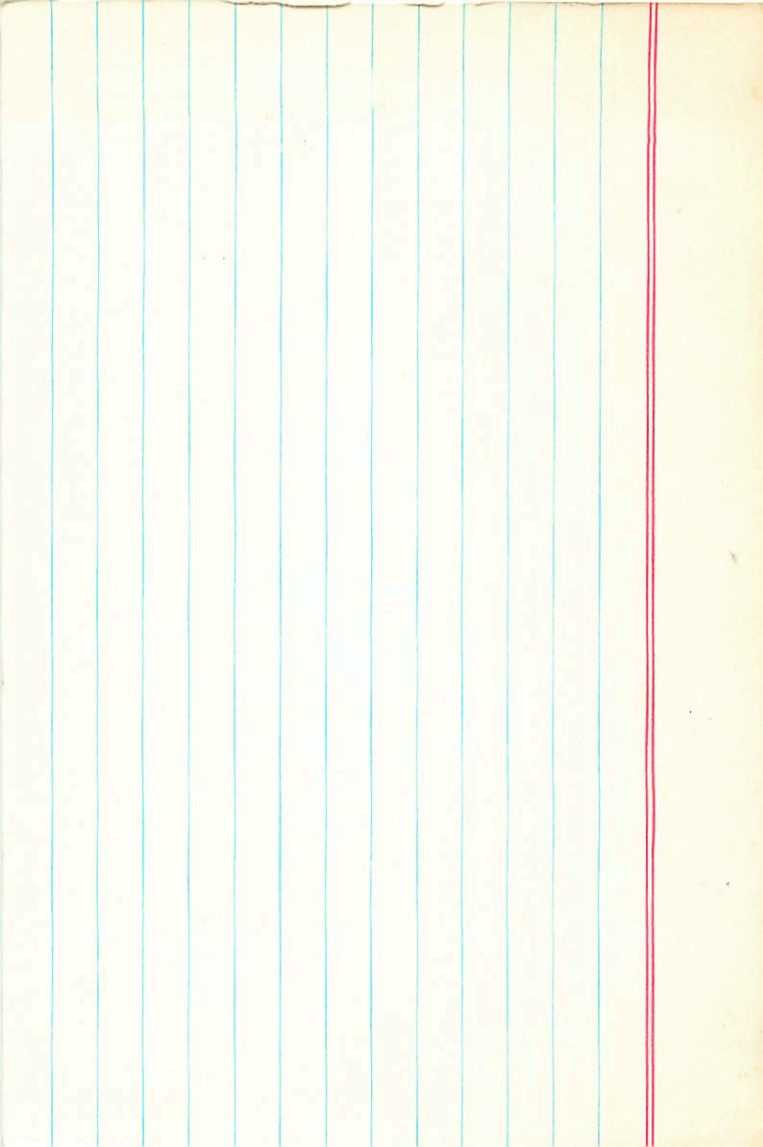
1435 3924 0268

161

-0165 +027 64

12.11

1435 3924 0268



395W  
93704  
14883

$-0004 \pm 3.0$   $-027 \pm 2.4$   
 $-0007$   $-029$   
10 46.5 -08 50 7.2 g 65 -12.18

6722

27.490 1903.6 -8 50 6.09 1896.0  
 $\frac{018}{508}$   $\frac{+1.46}{4.63}$

12.302  
15.180  
27.482  
06  
488  
03  
493

27.467  
 $+9$   
475

484  
 $-024$

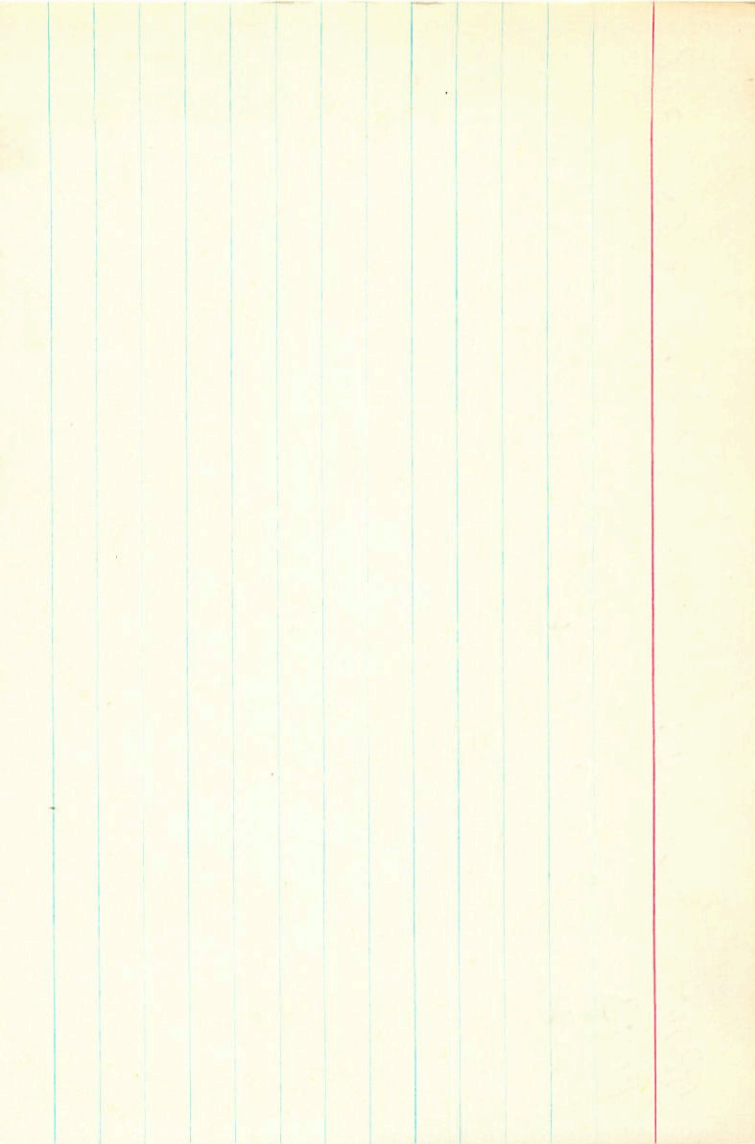
34.3

10.66 1934.34  
 $-4.68$   
5.34  
 $-41$   
5.75  
 $+18$   
5.57

6.32 1941.30  
 $+22$   
6.10

75.74  
37.9  
41.9

1167  
584 -1.21





G58-23

+210 2244

10 47.2 +20 46

$\begin{matrix} -3.2 \\ -2.5 \\ \hline -2.8 \end{matrix}$  unlay



9.46 +0.60 -0.03 210 (+16)

(4.50)

+11.4 (9)

-12 (25)



(60)

-0.256 -0.94 (ML)



-0.256 -0.94

4228

10 47.6 - 33 48

40 Var.

-11.9 (3)

90906

-0020-001 1P4

-0038 7005 stay

~~10046~~

-01896 +10061

-0464

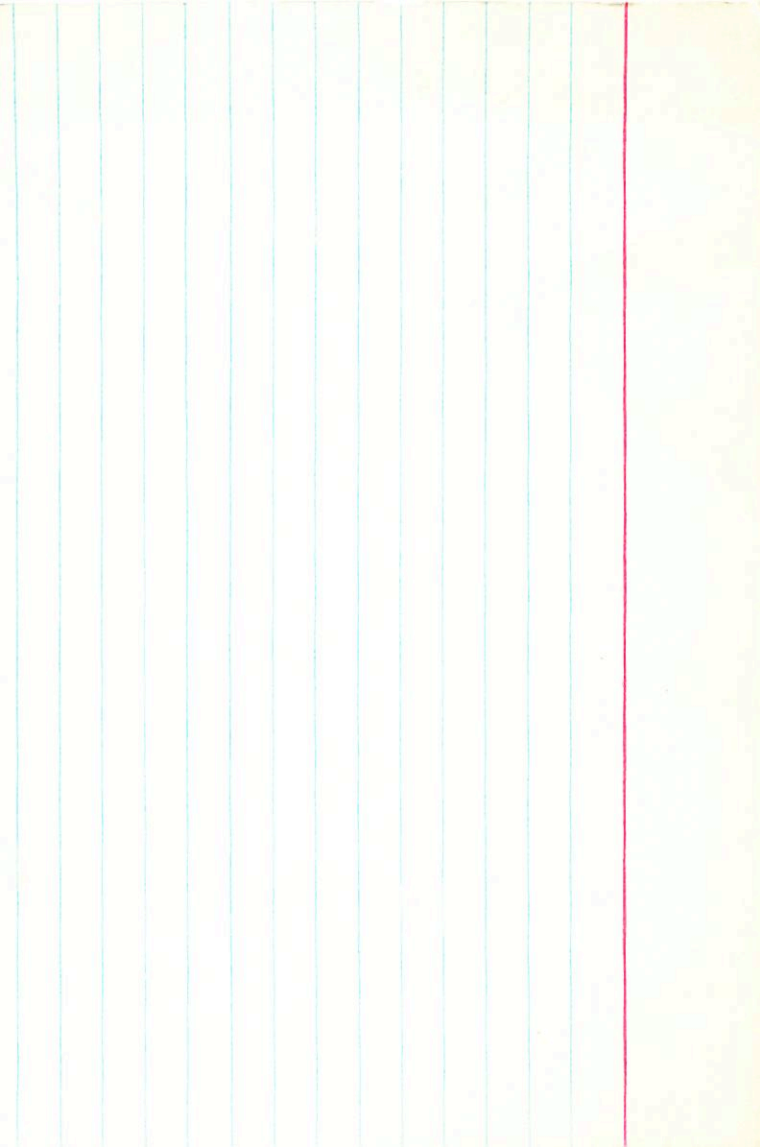
5624 - 9735  
2725

5188  
3315

0457  
0062

[047 7010]

]



434 mg  
 93859 10 48.1 +56 51 5.8 g NI +1488  
 14910

6731 6.967 1891.7 +56 50 50.80 1892.7

$$\begin{array}{r} 426 \\ \hline 7.393 \end{array}$$

146.7 1928.0

3433

33.008

7.331

1.137 21095

1.45

6.974 7.032

975

6.974

975

18.4

55.62 22.9

57.08

50.50

0.89

50.71

51.17

51.01

51.17

51.01

51.01

51.01

51.01

12040

40.1

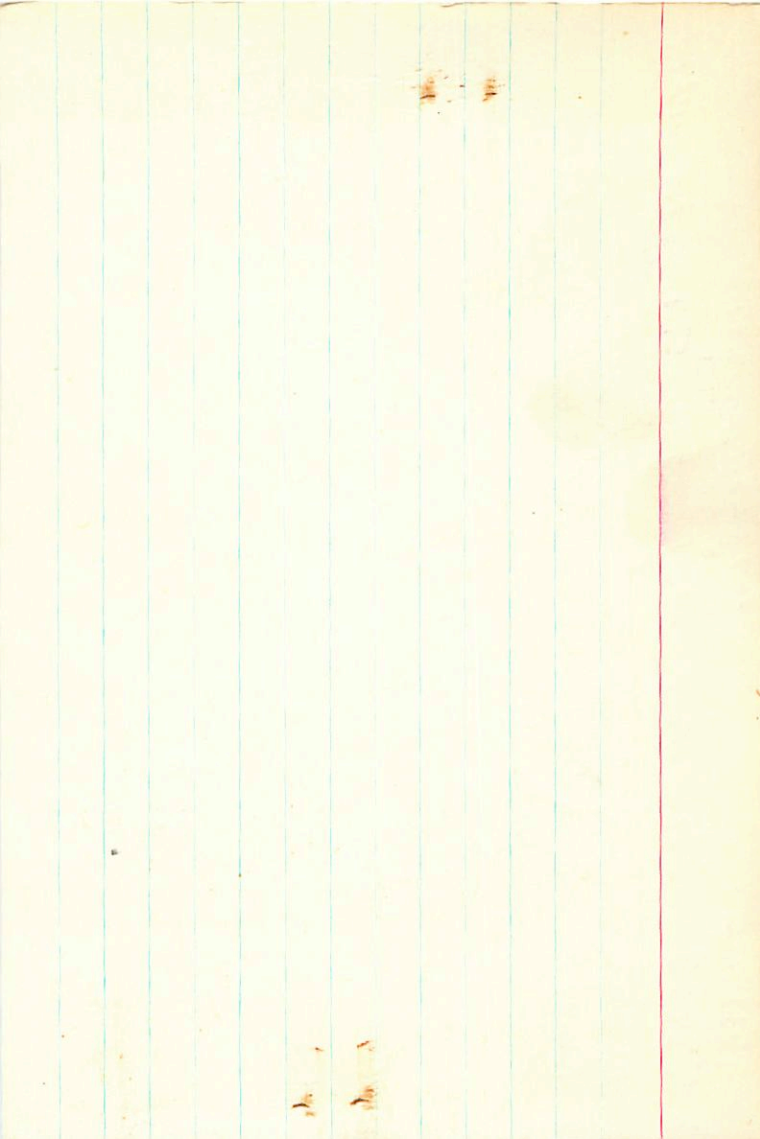
47.4

1945.26

1947.14

50.76

51.15



4286 10 48.3 459 36 5.529102 -172

$$\begin{array}{r} -030 \\ +1 \\ \hline -029 \end{array} \quad \begin{array}{r} -057 \\ + \\ \hline -056 \end{array} \quad \begin{array}{l} 02 \\ \vdots \\ \vdots \end{array}$$

3



20

4236.000\*

10.000\*

48.300\*

59.000\*

36.000\*

-0.029\*

-0.056\*

5.000\*

100.000

-17.000

0.099

0.521

1.041

94084  
6C14937  
W6737

10 49.5 +52 46 920-3 2.58?

6.44 +1.1 11.0(12.8)R  
-6.6 v(4)  
-0.1 w(4)

w(+0.6)

23 -0.56 24 N30

-0069  
-0076 ± 2.2 -0.57 ± 2.06 c → m3 0

(P)

583

+28 -44 -8 .008  
+33 -50 -8 .007

-071 -059 6-6  
-063 -056 N30  
-067 -058

303-953 798603 -067-058 -7.0-046-6-164<sub>24</sub>

020 014 064 044 -114 370 -4.2 +4-1

-15+41-34

+37-60-15

006

94367 10 50.5 -56 58 5.6 B9 -22.5-8

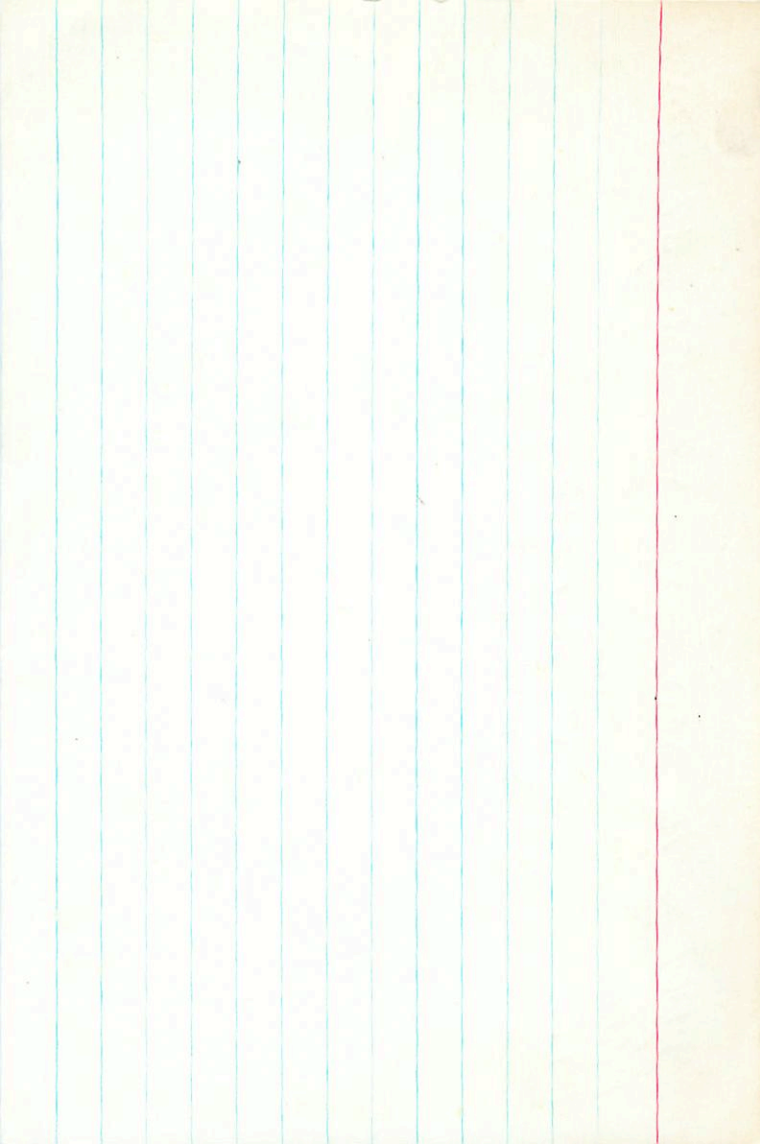
14660

12

6744

-0007 +001 N30

+0001 #5.8 0 ± 3.7



+8.56

HR4245 10 50.0 400 09

WG741

-0007 ±5.8 -022 ±5.1

GL14452

2.388 14026

53.08 14016

-0001 -027  
+ 1 ±2

ZC

250

0000 -025

69

-852 484 199

0 -0573 -14.3 +1.7 -13

281 745 -605

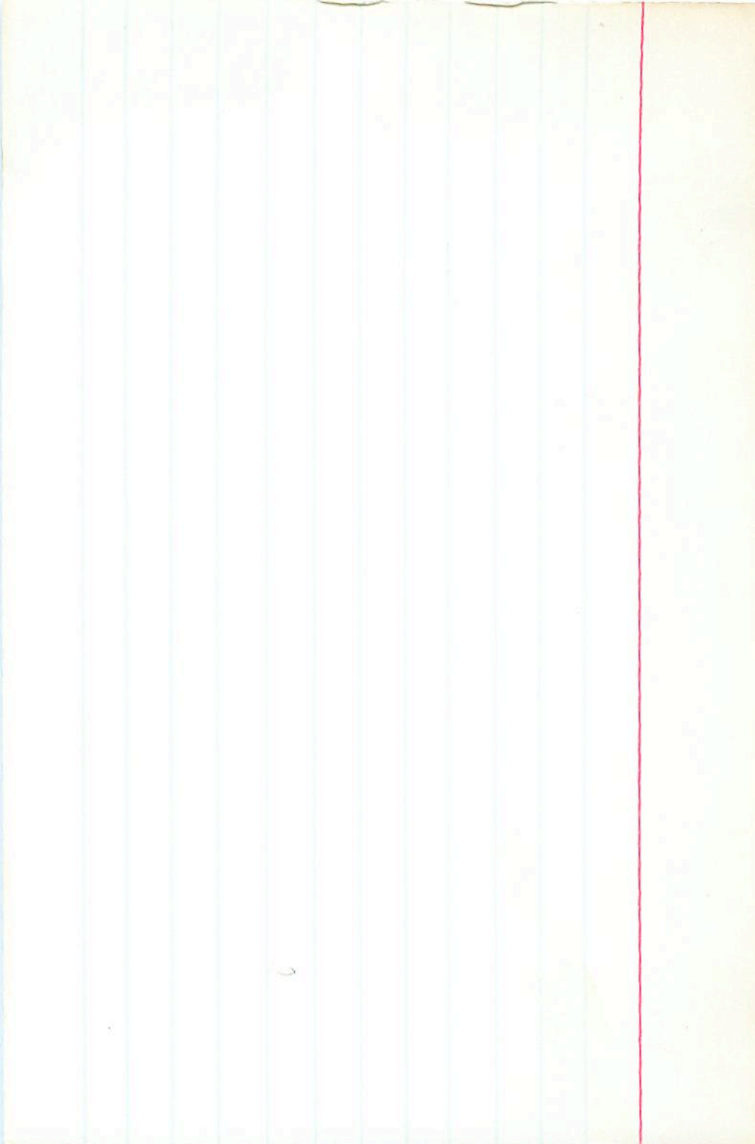
0 -0883 -22.1 -5.1 -27

441 460 571

0 -0544 -13.6 +6.6 -7

408  
52





HD94263

10 50.6 + 49 29

7.81

+ 12

49 6.22

1 28.7522

35.00  
35.1448

50

855  
21.855 / 853

1925.2

+ 0032 + 0026m  
+ 0013 + 004mm  
+ 0007

+ 0024 + 0056

+ 024 + 005

1.048.4  
57.52

88  
50.88

47

1  
50.43

+ 50.44

34860  
144  
1844

34870

+ 220

890

+ 037

5166  
250  
5416

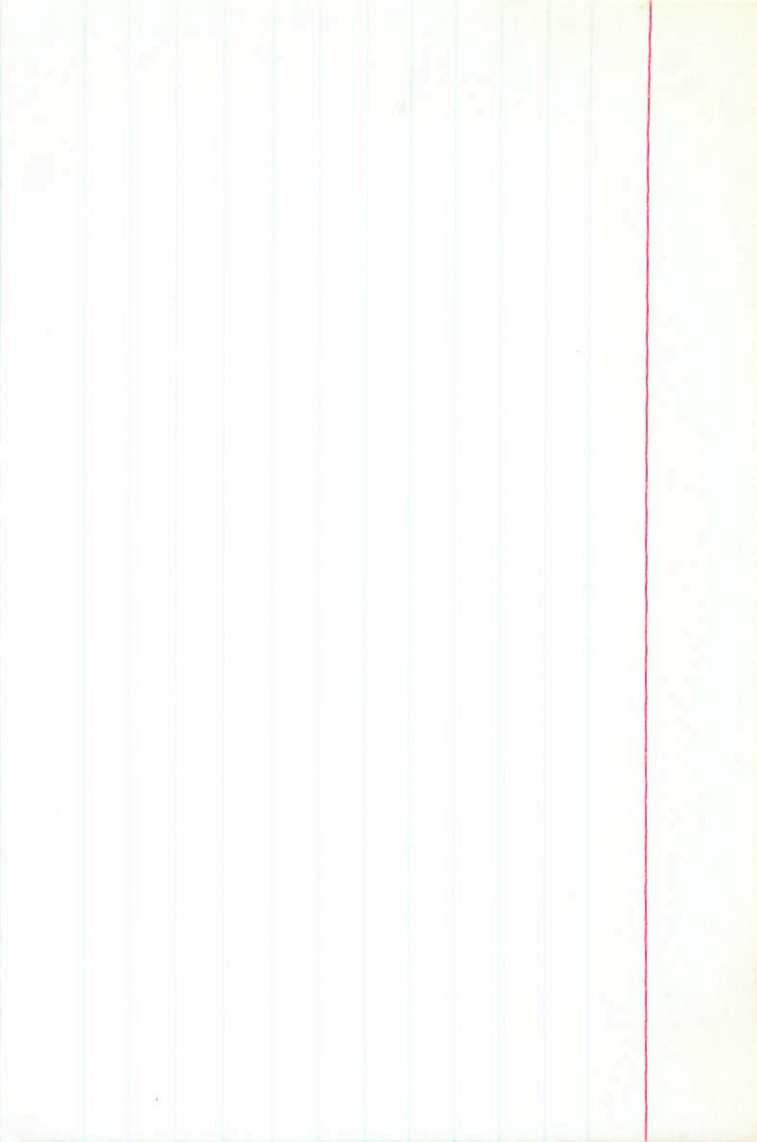
50.65 1952.64

40  
50.55

+ .11

~~144777~~ Yale

Blank



4422ma

-6079 ± 2.3  
-0076  
-015 ± 1.7

94247 10 50.6 + 54 51 5.4 5122 + 1.28  
1462

6746 33.511 1892.5 + 54 51 4.98 1893.5  
415  
926

2.55  
31.34

~~898~~  
33-19.6  
7.7

1821  
607

319

33.554  
-17  
547

33.550  
-1  
551

(42.1)

62.9 1926.75

5730

~~5.50~~  
5.17

44

5.15  
-68

510

5.54 1844.92

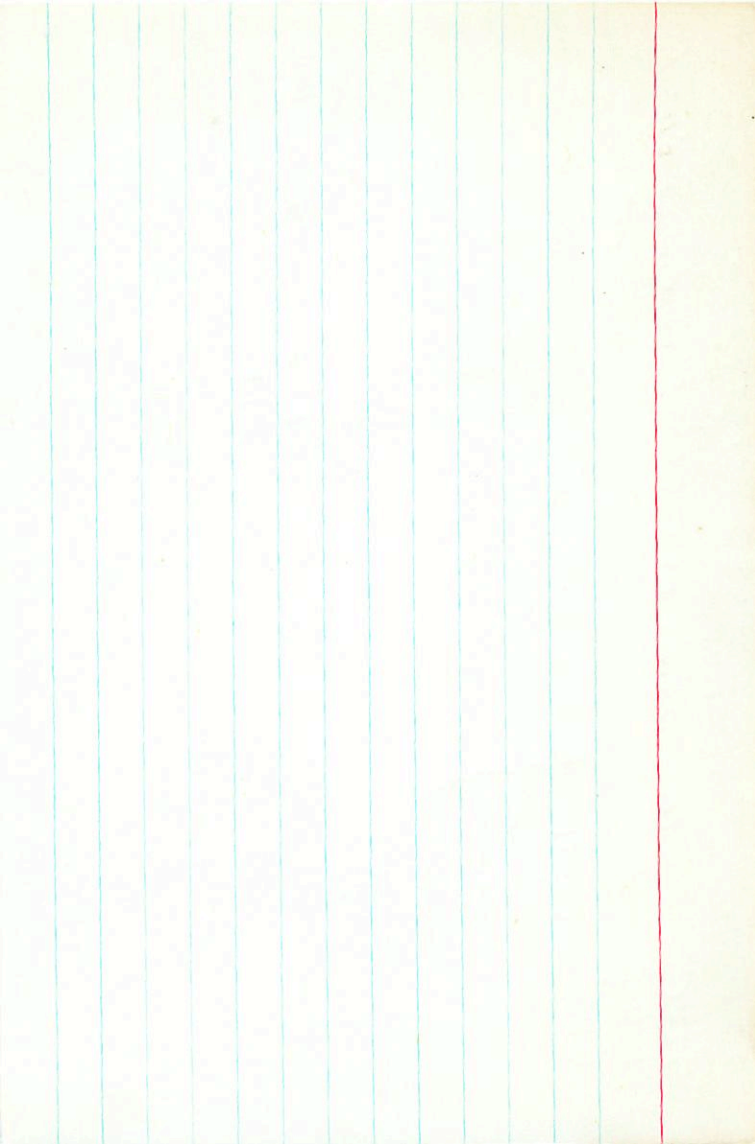
-9  
513

5122 1947.14

-1  
15.1

1128.81  
396

(46.1)



-0114 ± 6.4 -272 ± 5.9  
-0104 -270

94340 10 50.6 -20 21 7.1 dG-3 -13.18

14963 7.03 + 0.62 + 1.71 1 24.1

6747 38.605 1903.1 -20 21 29.45 1900.2

535  
39.440 7.01 406 192.384 (1)

25.693 0.97 2.03

13.090 0.335

38.024  
1.808  
8.15

82.0 30.7

38.921 - 1.320

82.5

27.25 1934.32  
57.55

24.80  
-3.68

25.100  
24.88

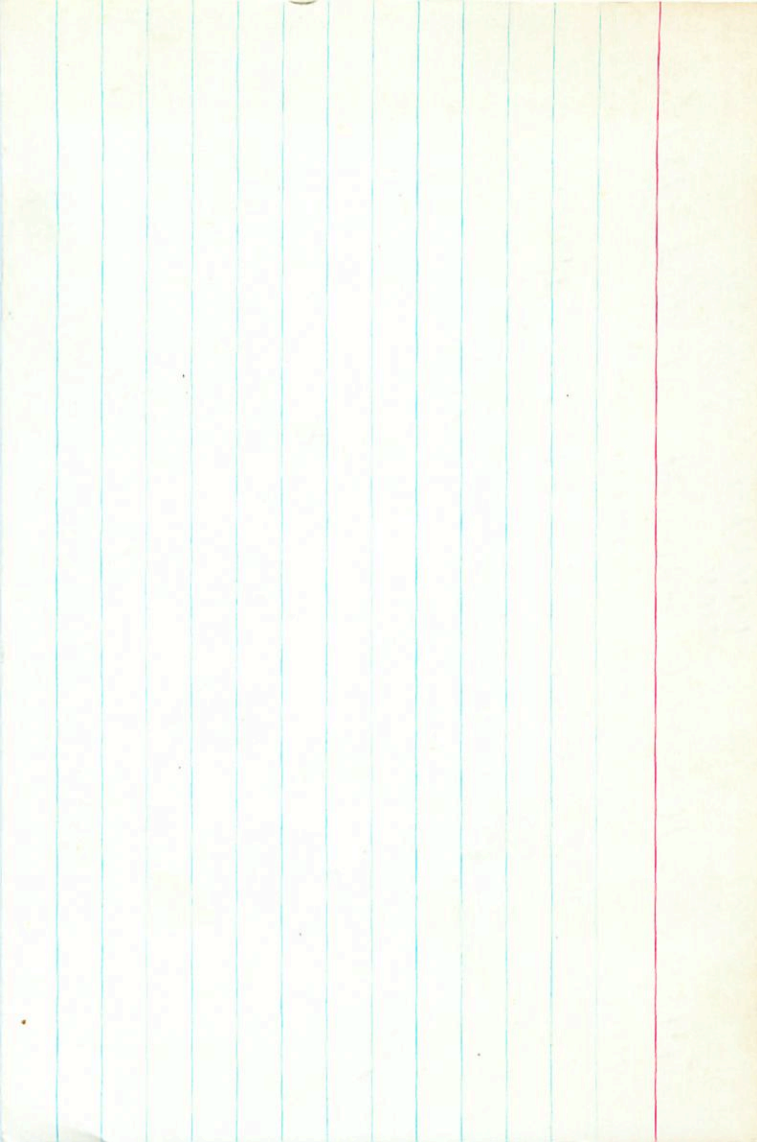
25.133 1933.33

+2.8  
25.05

7.65  
33.5  
33.6

24.96 - 9.06

398(1)





-0072 ± 5.9 -012 ± 7.5  
+012

10 51.3 777 21 20 g m 2 -50.0 f

94170

14977

6755

15.524 1901.5 777 21 1373 1905.8

$\frac{349}{873}$

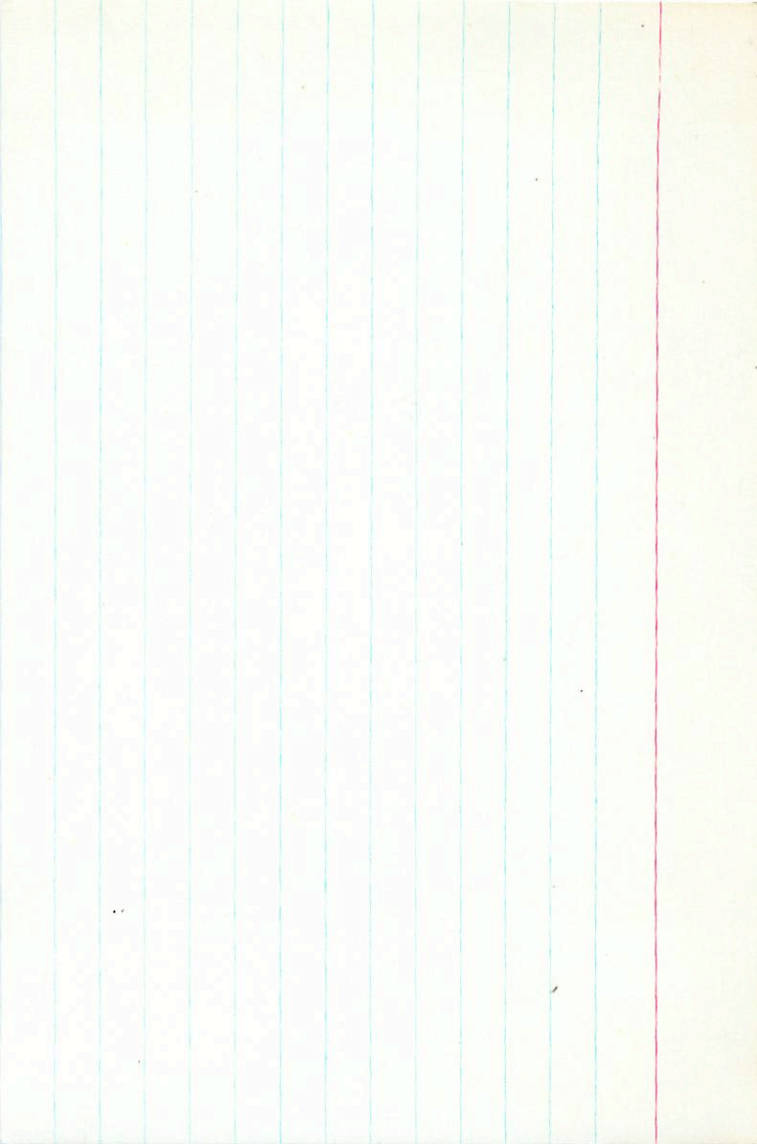
$\frac{53}{14.26}$

-0106 0.22 +2

14.82 1944.55

15.426  
 $\frac{-13}{413}$

$\frac{17.84}{2}$



140° 2384

94479

10 52.1

440 04

$$\begin{array}{r}
 43.26 \\
 25.22 \\
 \hline
 8.488 \\
 - 3.8 \\
 \hline
 4.688
 \end{array}$$

$$\begin{array}{r}
 +005 \\
 \hline
 7015 \\
 +003 \\
 \hline
 -019 \\
 \hline
 1925.9
 \end{array}$$

$$\begin{array}{r}
 10017 \\
 \hline
 -016 \\
 \hline
 1018
 \end{array}$$

$$\begin{array}{r}
 85.5 \\
 58.440 \\
 \hline
 143.940 \\
 - 17.10 \\
 \hline
 126.84 \\
 - 6.8 \\
 \hline
 120.04
 \end{array}$$

$$\begin{array}{r}
 8.416 \\
 + 8 \\
 \hline
 424 \\
 + 041
 \end{array}$$

$$\begin{array}{r}
 26.30 \\
 - 2.22 \\
 \hline
 24.08 \\
 - .50 \\
 \hline
 23.58
 \end{array}$$

26.30 19 52.17



$\overline{007}$  2.750 243 851 -161 12  
 4254 10 520 +25 45 Am

94480  $\overline{6.15}$   
 14999

6.20 + 285 + 17 259, em  $\overline{10}$

14999 +

184 178 888

$\overline{2}$  505 + 2.750

$\begin{array}{r} 55453 \\ 100 \\ \hline 55453 \end{array}$ 
 $\begin{array}{r} 2.5 \\ 100 \\ \hline 250 \end{array}$ 
 $\begin{array}{r} 26.51 \\ 10 \\ \hline 265.1 \end{array}$ 
 $\begin{array}{r} 26.51 \\ 10 \\ \hline 265.1 \end{array}$

$\overline{4.550}$

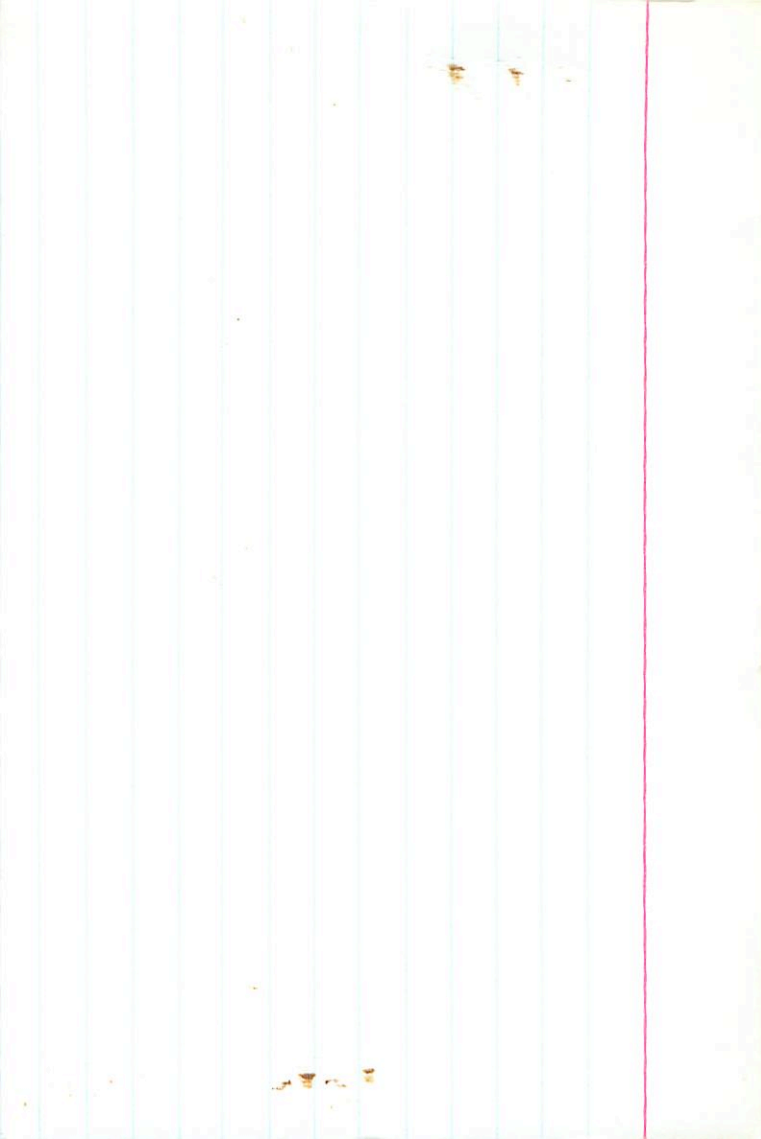
$\overline{5054+03}$

$\begin{array}{r} 055 \\ 916 \\ \hline 916 \end{array}$

59.343  $\overline{71.20}$   
 + 11  
 $\overline{357}$

$\begin{array}{r} 26.26 \\ 11 \\ \hline 26.37 \end{array}$

$\begin{array}{r} 055 \\ 916 \\ \hline 916 \end{array}$ 
 $\begin{array}{r} 055 \\ 916 \\ \hline 916 \end{array}$ 
 $\begin{array}{r} 055 \\ 916 \\ \hline 916 \end{array}$



-2748

4256

10 52.2

+34

18

52967

$$\begin{array}{r} -059 \\ \underline{0} \\ -059 \end{array} \quad \begin{array}{r} -05664 \\ \underline{+3} \\ -053 \end{array}$$



4

94601/2

54400

446763 -

70

529

725

01

7306

-0054

-0054

-017 420

-018 66-7420

38M.

-854 +359 +375

+287 +929 -231

+432 +099 +897

+2967-0288

8870-6762

-0997-0749

-1500-6072

+2679

-171

54575