

+0065 = 8.7 +140 = 8.3
+121
+0077

38940 5 45.5

+35.5 ± 0.8 9.15

7270 7.40 + 49

32.133 1400.7 - 45 - 39 56.41 18986

$\frac{-320}{31,813}$

$\frac{-7.20}{3,165}$

49.326

42690

$\frac{32,016}{026}$

$\frac{026}{-023}$

$\frac{023}{023}$

32258

$\frac{-252}{252}$

420

26

$\frac{32,136}{1325}$

$\frac{1325}{1325}$

32.32 1929.76

$\frac{33.18}{59.78}$

$\frac{59.78}{-78}$

$\frac{78}{59.92}$

$\frac{59.92}{59.94}$

8539

42.7

44.1

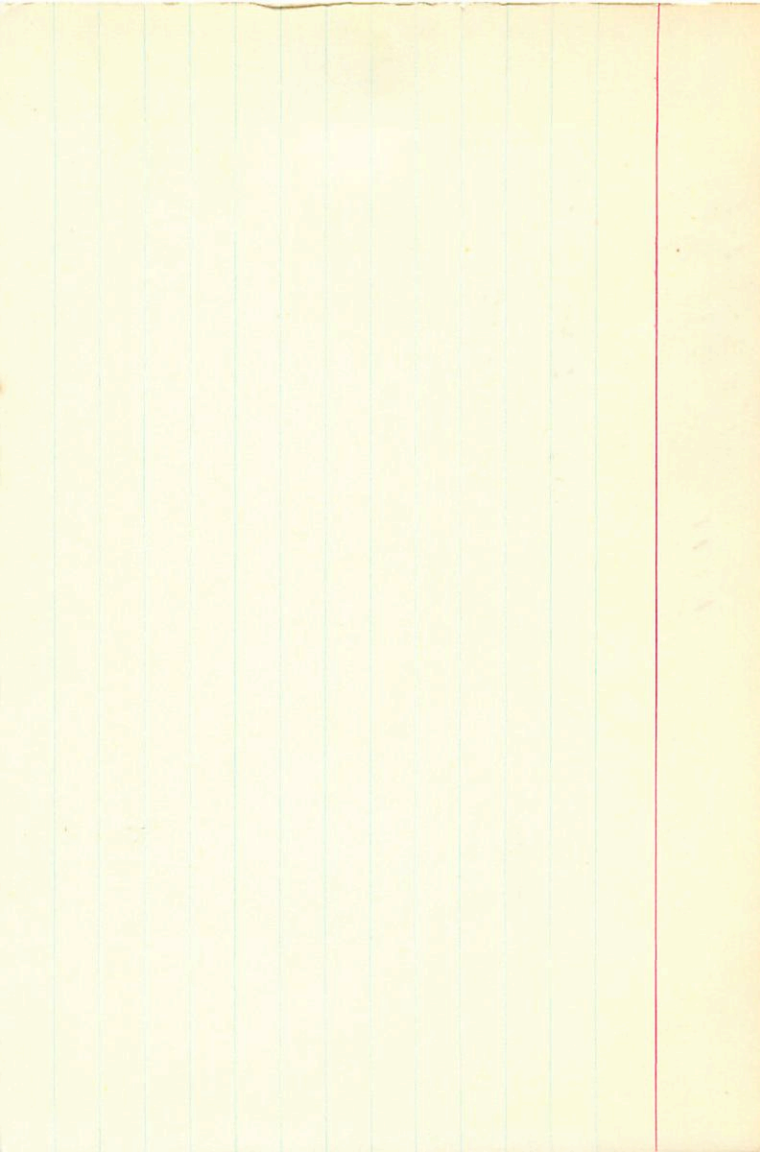
11067

$\frac{5833}{5833}$

$\frac{5833}{-5833}$

56.64 1955.41

$\frac{-73}{73}$



38840

S

45.5 - 45 40

$438.5 \pm 0.8 C, (5)$

7.40 + 0.49 $F6 \overline{10} - \overline{12}$

G07270

$+069 \pm 9 + 140 \pm 8$ G-L
 $+063 + 124$ CP

 $+065 + 132$

+69 - 31 + 19 .010

+41 - 30 + 1 .020

998 0603 -716 648 +065 +132 +35.5 -095 -25 486
-065 095 004 -006 -250 469 +24.5 +2 +25

-26 +72 +18 01

+69 -31 +19

-12 +49 -3 02

+41 -30 +1

AOS 4398

Z Am

5

45.7

+39 10

-19.6a

HR1995

39654

3607

7277

4.53 + 0.94 + 0.69 G8III

-0020 ± 1.9 -025 ± 1.7 Gc → K30

-022 -025 Gc

-186⑥

1 0 632 775 -022 -025 -15.4 -016 -12.4 -090
022 016 00 804 076 -15.2 0 -15.2 01

+10.4 -7.5 -2.4

+5.2 -1.4 -16.9 02

-17.3 -5.1 -10.5

296am

-0006 ± 2.8
-0022

-009#2.1
-0.11

38618 5 46.3 +56 54 16.4 Am +3.9

3615

7293 12.956 1889.3 +56 54 17.65 1889.1

$$\begin{array}{r} 037 \\ \hline 18.023 \end{array}$$

$$\begin{array}{r} 9.966 \\ 7.926 \\ \hline 17.888 \\ 919 \\ \hline 936 \end{array}$$

5.15

$$\begin{array}{r} 2730 \\ \hline 910 \\ \hline 113 \end{array}$$

$$\begin{array}{r} 17.875 \\ 14 \\ \hline 1.89 \end{array}$$

$$\begin{array}{r} 17.882 \\ 213 \\ \hline 903 \end{array}$$

$$\begin{array}{r} 45.0 \\ 34.60 \\ \hline 19.00 \\ \hline 17.27 \\ \hline 17.58 \end{array}$$

1927.4

$$\begin{array}{r} 195 \\ \hline 17.65 \\ \hline 1.55 \end{array}$$

$$\begin{array}{r} 11936 \\ \hline 39.8 \end{array}$$

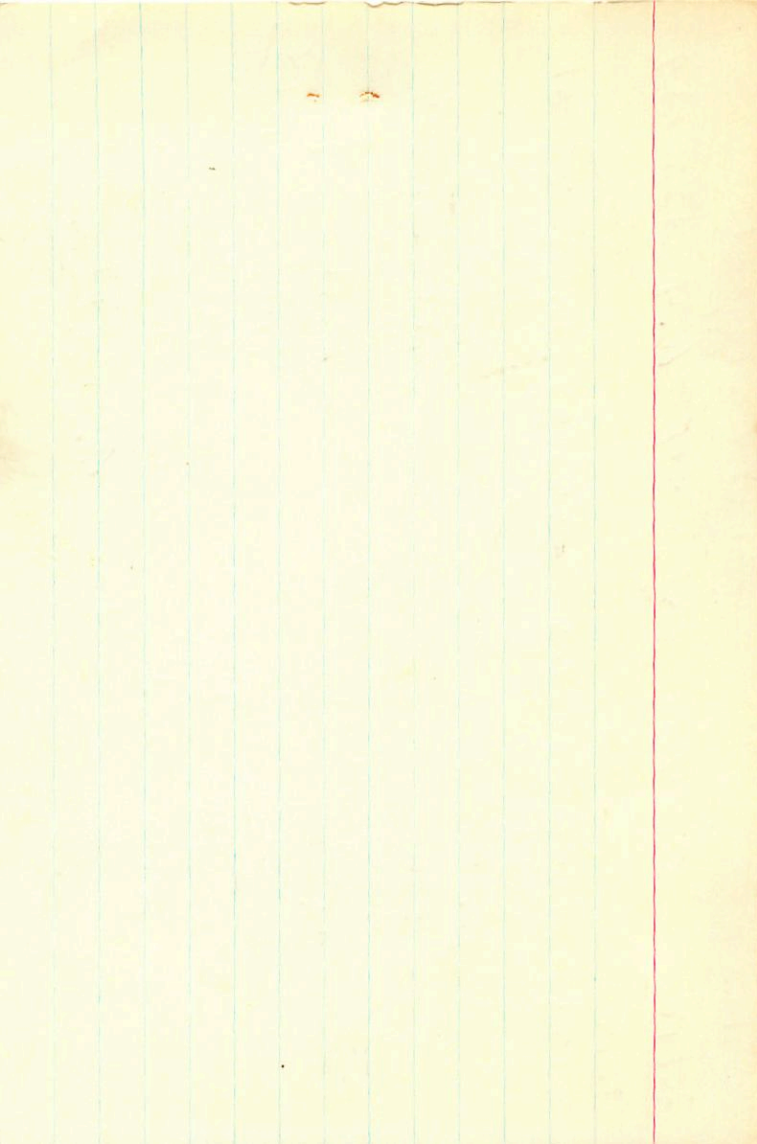
$$\begin{array}{r} 17.925 \\ -184 \\ \hline 17.7 \end{array}$$

507

$$\begin{array}{r} 17.7 \\ \hline 17.79 \end{array}$$

1947.01

-17.63



+10.3

39027 5 46.5 -33 26 6.85 +138 +242 NYTH

GL7300

+24
15
39

-0003
-0011 = 61 -023 = 6.0
+030

30.088
058
20.146

1897.1

~~-00050-026~~

472.07 1897.1
1.22
45.85

35.331

54.740

Step 71

17.41 1524.35

30.121

-0014-025

31.50

129

0

45.91

+6

-0175

46.91

135

4.39

+10

.011

-014 -025

46.91

39027.000*

5.000*

46.500*

-33.000*

-26.000*

-0.014*

-0.025*

6.500*

199.526

10.300

-0.104

0.464

-15.958

-0.012

-0.761

-10.190

-0.087

-0.453

-21.953

134 Tax

5

46.7 +12.35

+192

HR 2010

4.92

4.91 -0.07 -0.20 0.518

-0.18 -0.26 6.0

0.918

*

42228

|



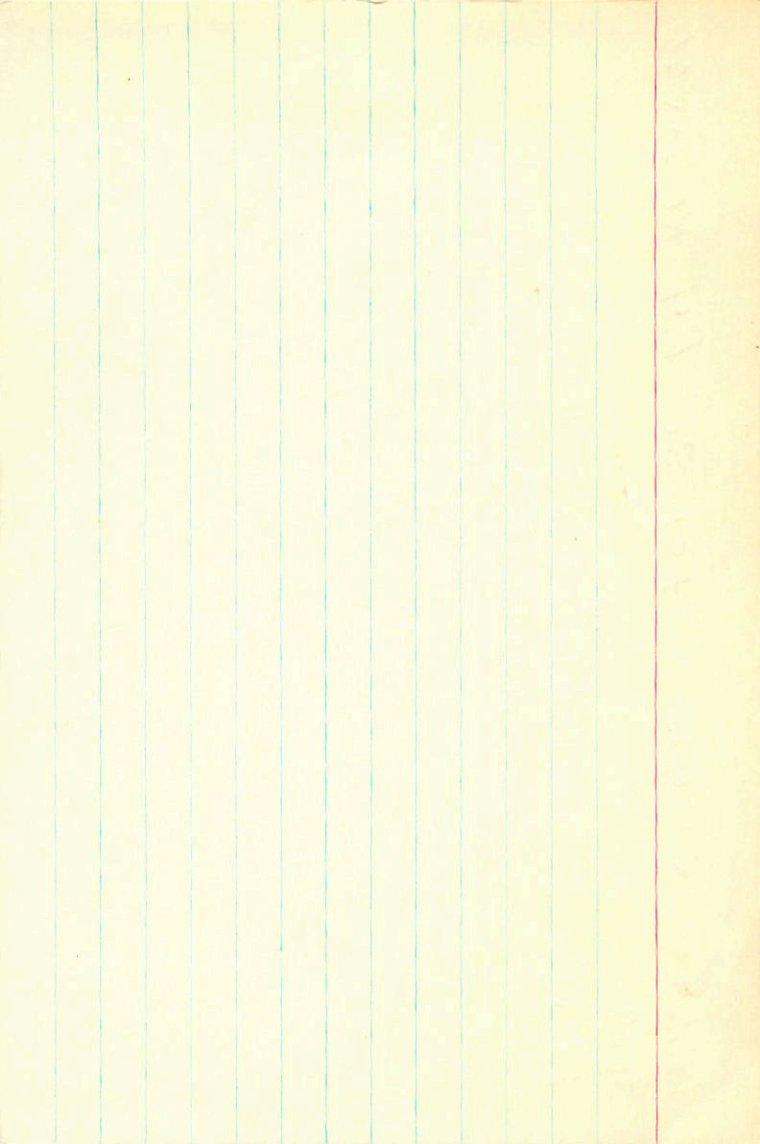
38765 5 47.0 +51 30 6.4 K0 +25.96

3619

7308

+0181¹⁶ -034 N30

+0180±4.0 -039±3.4 GG → N30



$$\begin{array}{r}
 -0034 \pm 9.5 \\
 -0042 \\
 -42 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 -047 \pm 8.0 \\
 -023 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 20 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 0.0 \pm 1.2 \\
 \hline
 \end{array}$$

39192

7312

$$\begin{array}{r}
 8.32 + 56 \\
 \hline
 1.62
 \end{array}$$

$$\begin{array}{r}
 14.642 \\
 -42 \\
 \hline
 1900.0
 \end{array}$$

$$\begin{array}{r}
 170 \\
 \hline
 812
 \end{array}$$

$$\begin{array}{r}
 2.46 \\
 \hline
 23.02
 \end{array}$$

$$\begin{array}{r}
 28.209 \\
 46.422 \\
 14.639 \\
 \hline
 640 \\
 -634 \\
 \hline
 6
 \end{array}$$

$$\begin{array}{r}
 52.271928.57 \\
 24.58 \\
 \hline
 22.79
 \end{array}$$

421

$$\begin{array}{r}
 24.58 \\
 \hline
 22.79
 \end{array}$$

$$\begin{array}{r}
 84.25 \\
 \hline
 42.1
 \end{array}$$

$$\begin{array}{r}
 1144 \\
 \hline
 572 \\
 \hline
 240
 \end{array}$$

$$\begin{array}{r}
 23.60 \\
 \hline
 23.63 \\
 \hline
 23.60 \\
 \hline
 24.04 \\
 \hline
 24.02 \\
 \hline
 23.63
 \end{array}$$

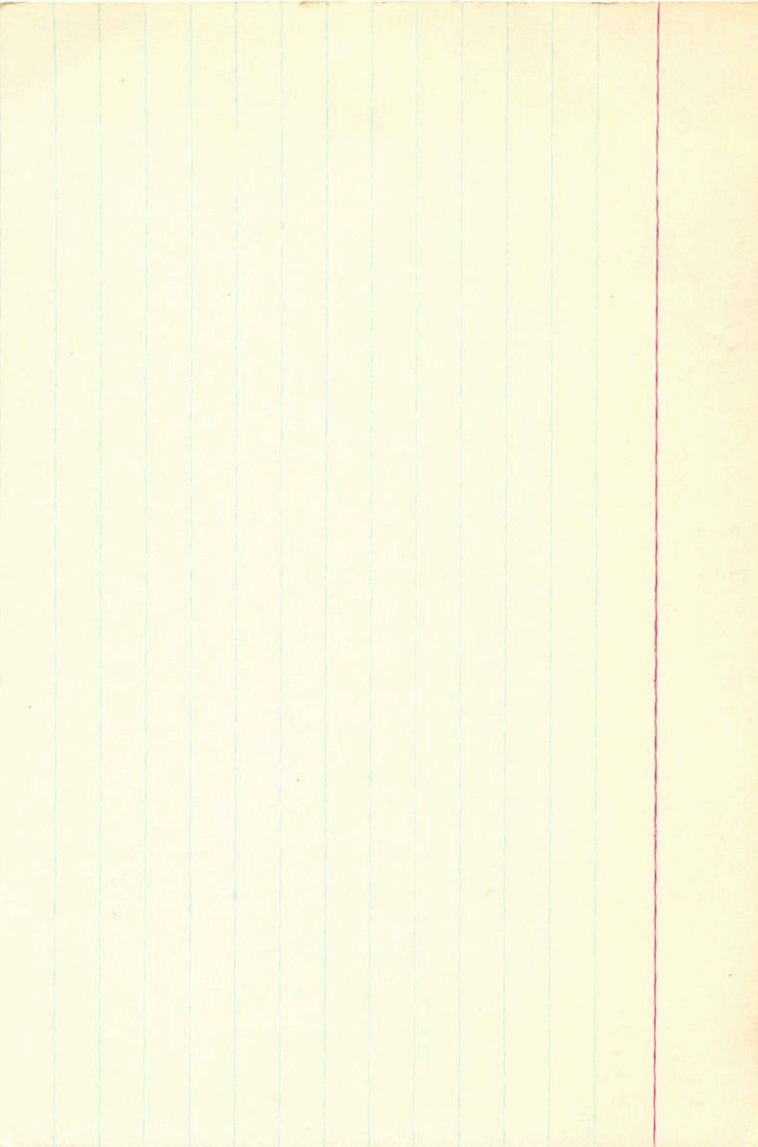
4444

$$\begin{array}{r}
 14,510 \\
 0
 \end{array}$$

$$\begin{array}{r}
 55 \\
 \hline
 310
 \end{array}$$

$$\begin{array}{r}
 24.42 \\
 \hline
 1955.68
 \end{array}$$

4444



7009 ± 9.5 + 0.17 ± 0.3
-0.018 + 0.10

+29.5 ± 0.76 (14)

39280 5 47.9 -44 42 7.74 6.87E

+0.94

7324 54.733 1901.6 -44 41 48.42 1896.7

$\frac{-91}{49.33}$

40.8

76.13 1928.4

$\frac{28.02}{48.11}$

83.66

10.816

43.808

$\frac{54.629}{633}$

$\frac{613}{-0.76}$

$\frac{41.8}{45.1}$

33 $\frac{48.90}{+0.43}$

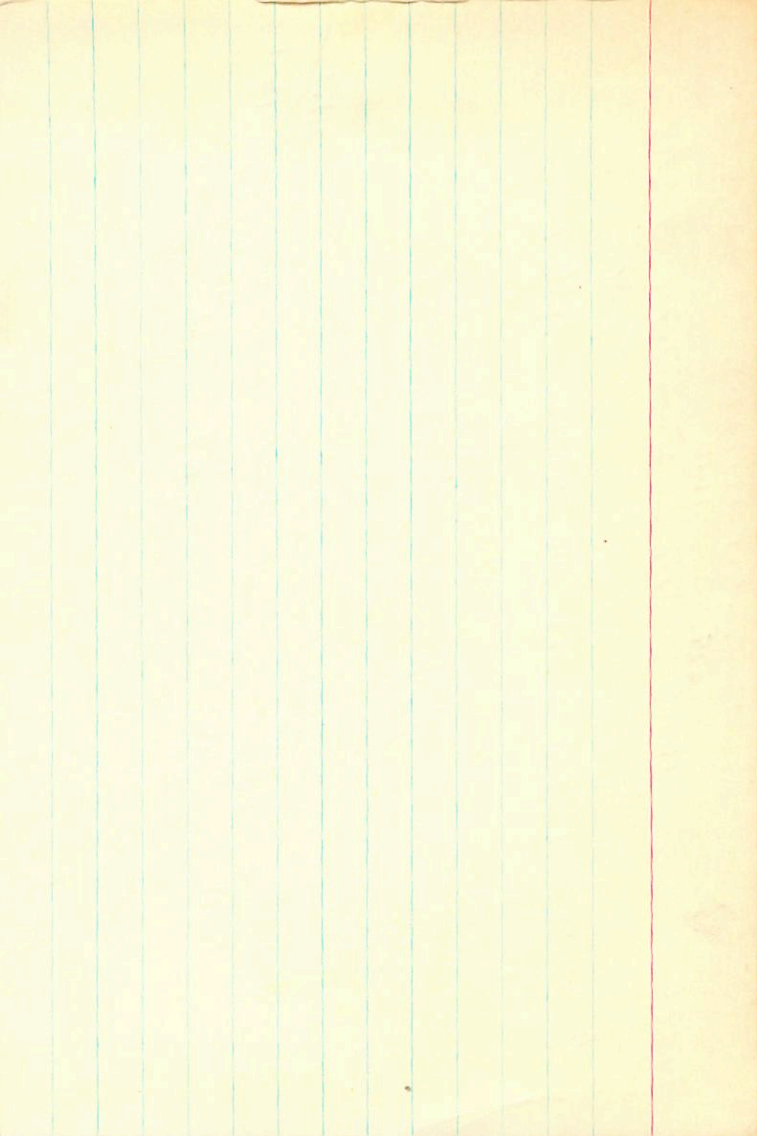
54.620

48.67

1955.55

$\frac{-51}{615}$

$\frac{79.74}{}$



+0010±2.1 +009±1.9
 +0013
 +14 02 6.8 gND -47.68
 39099 5 48.0
 3632

7332 0.906 1892.7 +14 2 6.15 1885.6
 $\frac{0.57}{849}$
 $\frac{-58}{5.57}$

0.879
 $\frac{39}{913}$
 $\frac{908}{+059}$
 0.977
 $\frac{23}{900}$
 5.98 1935.4
 $\frac{17}{6.17}$
 $\frac{1939.09}{+1.51}$
 5.92
 $\frac{10}{6.02}$
 114.59

0.982
 $\frac{29}{911}$
 6.54+105+0.821
 6.10+0.44(2)
 577 584 34
 $\frac{5.11}{5.85}$
 1440.08 38.2
 $\frac{10}{6.12}$
 52.6

1000
+ 0000

+0009 + 0092 844-47.6

1014 + 009

6.5 - 47.6

00

39169

S 48.1-01 27 AgNO +3C W

(+2.1)W

107038

ADS4442

L -101039

$$\begin{array}{r} 5.706 \\ 20 \\ \hline .686 \end{array}$$
 1502.9

10004650

0008

$$\begin{array}{r} 82.04 \\ 2.24 \\ \hline 29.78 \end{array}$$
 1898.4

100655-0444.5

$$\begin{array}{r} +032 \\ +012 \\ \hline -045 \\ -044 \end{array}$$

$$\begin{array}{r} 35.330 \\ 30.394 \\ \hline 45.724 \\ 1 \\ \hline 05.725 \\ 9 \\ \hline 714 \end{array}$$
 .030

$$\begin{array}{r} 41.13 \\ +10.85 \\ \hline 30.28 \\ 30.32 \\ \hline 50.85 \\ \hline 3045 \end{array}$$
 1941.50

$$\begin{array}{r} 5.731 \\ 35 \\ \hline 766 \end{array}$$

$$\begin{array}{r} 3129 \\ 25 \\ \hline 3101 \end{array}$$

1937.5

$$1 \quad 0 \quad 0 \quad 1 \quad +0.12 \quad -0.14 \quad +3 \quad 0 \quad 0 \quad -20.5$$

$$-0.12 \quad 0 \quad 0 \quad 0 \quad -0.57 \quad 0 \quad +3 \quad 0 \quad +3$$

$$-8 \quad +3 \quad -29 \quad 0 \quad 0 \quad 7$$

$$\boxed{-12 \quad -25 \quad -8}$$

39577 5 49.3 -55 04
39565 5 49.2 -55 05

40013 4072 39568 mer +005 +66
40012 4061 39577 -612 +68

40015 40665 0748 0635
40016 40690 7709 0541 070
6364 9486

40142

~~40142~~ 400 PPM

011 612 or 40017 +003

G/

89514

13.726 26

$\frac{802}{76}$

-0011149.5
0009
+0013

41.37

928

+072

+0723.8

13930

67.84

4523

4007

$\frac{4014}{-9}$

13830

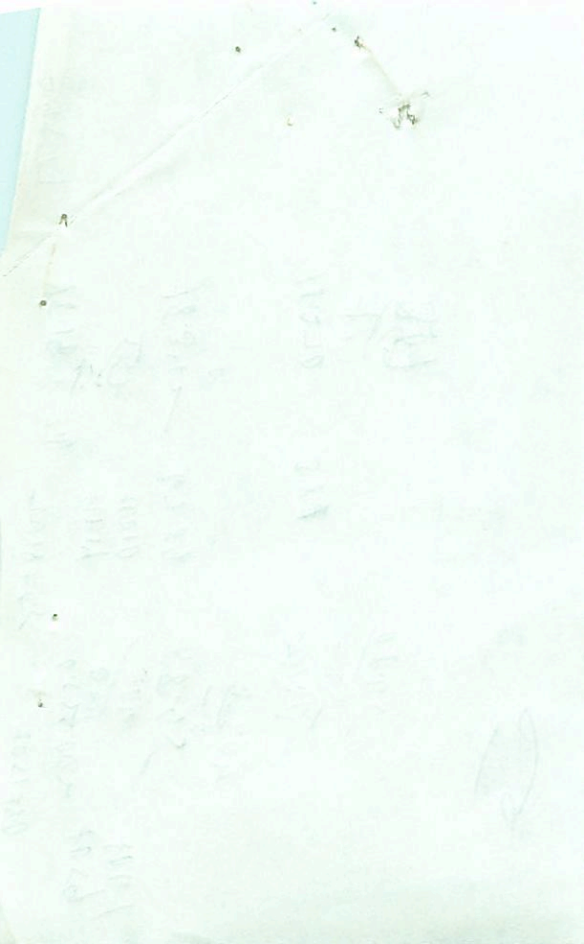
3500

42.50

$\frac{897}{+17}$

$\frac{4285}{-35}$

9



27

18187 34

7014 ± 4.5

7051 ± 5.0

$\frac{657}{252}$

7014
7010

$\frac{6.72}{2.54}$ 002

7054
7044

18342

6784

$\frac{58.45}{9}$ 579.04

15276

388

$\frac{00.30}{-35}$
0 P.L.S

~~15276~~

19

BGV

5 50.0 -66 56

2064

35844

7344 5.10-15-47 L

2.700 36W

5.00W

$$m_V = -0.75$$
$$k_0 = \frac{5.1}{3.88}$$

-0122 +045 · +15841.2

+ 10 - 14

-011 +013

62

2064.000*

5.000*

50.000*

-66.000*

-56.000*

-0.011*

0.013*

5.850*

147.911

15.800

0.063

-0.182

7.672

0.020

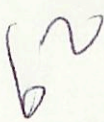
-0.853

-10.462

-0.046

-0.512

-14.963



Sp. Q. P = 6 d 25 pml?

136 Tam 5 50.2 + 27 36

1 + 11 2034 4.50^m + 0.03^m AOTII -16.1a

+0.005 -0.015 Gc

1 0 463 856 4005 -0.5 -16.1 -007 -7.5 -062
-005 007 00 -038 030 -14.3 0 -14.3 006

-4.3 -8.8 -17.8

-16.5 -6.4 -1.5

-3.8 -11.0 -13.7

-16.3 -7.2 -13

0 1 0

+0010±15.0
-0008
-184

-104±15.0

F2V +29.3±0.8 (15)

-44 02

5 50.3

39655

8.55 +35

7393

+2826 (2)

44, 2295

17.992 19044 -44 1 35.53 19046

$$\begin{array}{r} 17.992 \\ 045 \\ \hline 1947 \end{array}$$

$$\begin{array}{r} 4.72 \\ \hline 30.81 \end{array}$$

17.907

31.67 1954.64

$$\begin{array}{r} 17.907 \\ \hline 903 \\ -042 \end{array}$$

$$\begin{array}{r} -4 \\ \hline 31.73 \\ \hline 92 \end{array}$$

39283 5 50.7 +55 42 4.9 A2 -11.88

3654

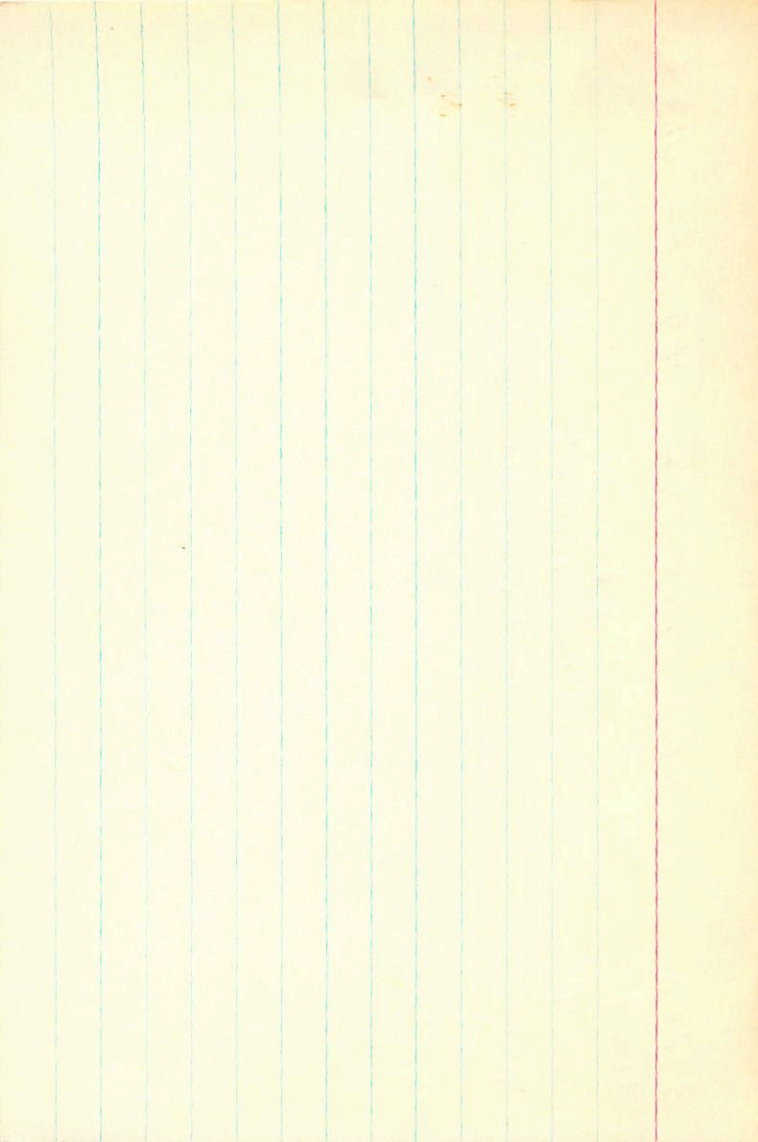
63

7404

-0012 +019 N30

3 Am

-0012 ± 2.5 +017 ± 1.6 CC → N30



30

not published

3 AM

5 50.7

455 412

-11.88

2029

485^M 40.06^M

42p WL

Prud Bin

-008 4017 CL
 -005 4019 #30

 -005 4015

5317 9444
 -8469 5317

-9612
 +7758

-0133 4020

954 041 826 564 -008 +018 -11.8 015 -2p.7 047
+008 -015 001 001 +093 -07.6 -6.7 -0.3 -1.7 004

+0 -23 +2

+6 -20 -2

006

+1.9 -11.8 -6.6

-13.3 +1.2 -2.8

+1.0 -9.8 -7.8

-12.1 -1.0 -2.9

015

025

5 51.8 + 31 42 AS IV

2046

39586

7426

5.43 + 14 + 13 ① 595 - 2855 ④
082 189 1.030 ② 506

$\frac{378}{140} 8$

20.8 ± 3.0

039 177

4R1614

?

082 1207 1014 2855

$M_V = 11.1$
 $M - M = 4.85$

13





2043.0004

39962

5 52.3 -42 14 125

795 +39 -035 2599

U6a?

$$\begin{array}{r} [M] \ 193 \quad +5 \checkmark \\ \quad \quad \quad 104 \\ \quad \quad \quad +103 \\ \hline [C] \ 412 \quad 209 \end{array}$$

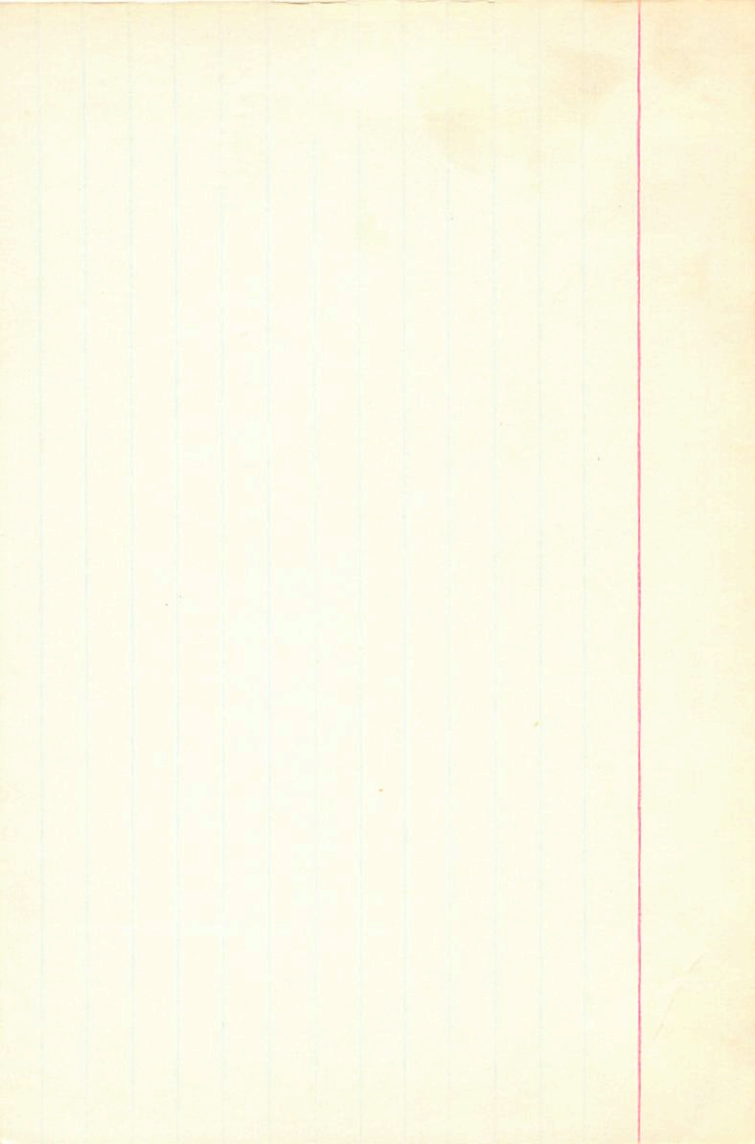
4135

.285 .142 .469 2.631 ②

447.4

$$\begin{array}{r} 515 \\ \downarrow \\ 107 \\ \hline 515 \end{array} \quad +53.8 \quad +3.4 \quad +13.4 \quad +1010 \quad +5.2$$

$$+407 \quad +95 \quad +162 \quad +107$$

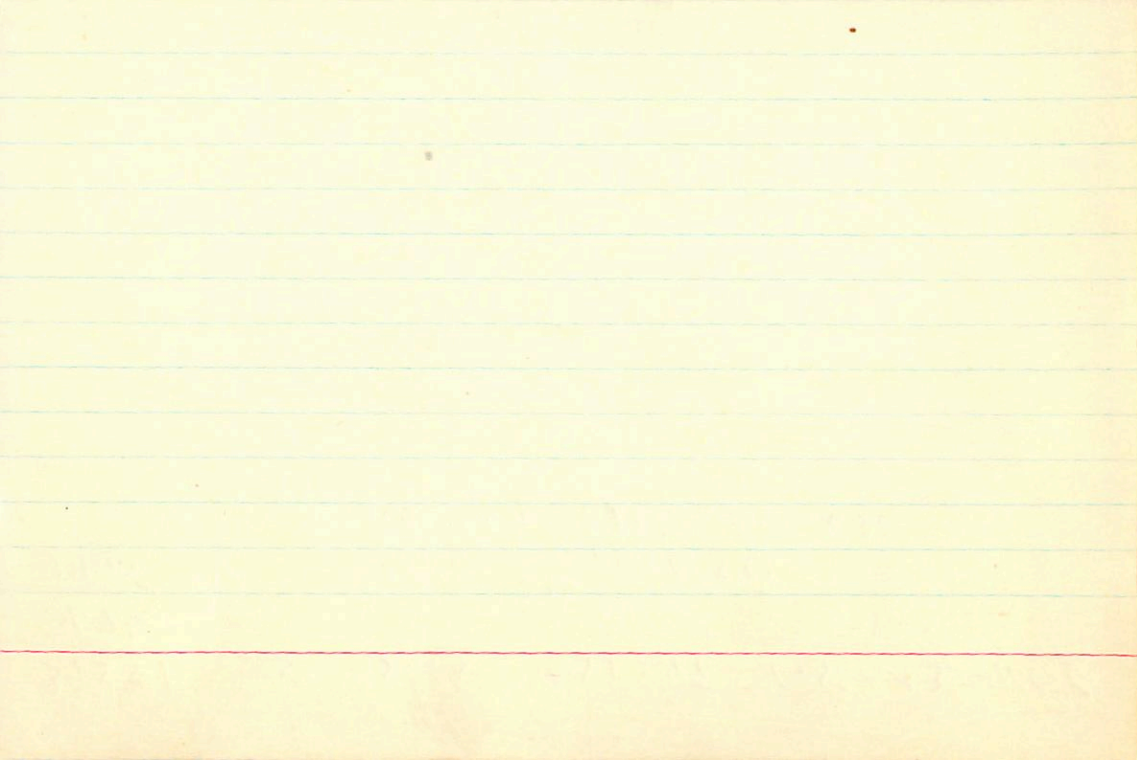


39551 5 52.3 +51 48 6.5 A3 -11.68

3674

7445

-0005- 20 -008N30
-0007±3.9 -001±3.0 6c → N30



+0002 ± 8.7
+0010

+100 ± 80
+108

+8.2 ± 0.8 9(14)

35562 5- 52.0

-42 14

7.96 + 39 F2E

7447

18.480 1898.9 -42 14 24.38 1896.7

$\frac{-010}{470}$

$\frac{-533}{29.71}$

32.014
 $\frac{46.504}{18.518}$
 $\frac{522}{-6}$
514

43.77 1924.36
 $\frac{1850}{25.27}$

8594
 $\frac{43.0}{45.3}$

$\frac{515}{+0.45}$

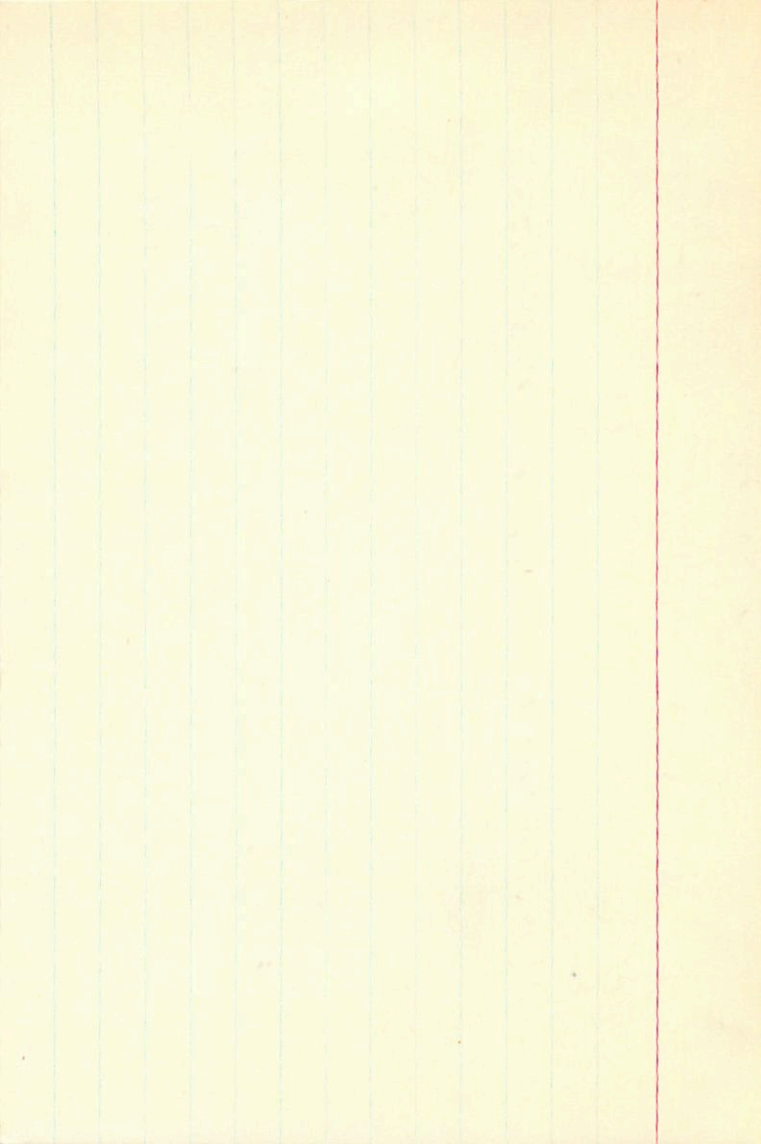
26.12
 $\frac{969}{24.84}$
 $\frac{87}{87}$

23.55 + 4.15655

18.512
 $\frac{2}{514}$

$\frac{-2}{25.57}$

44.1



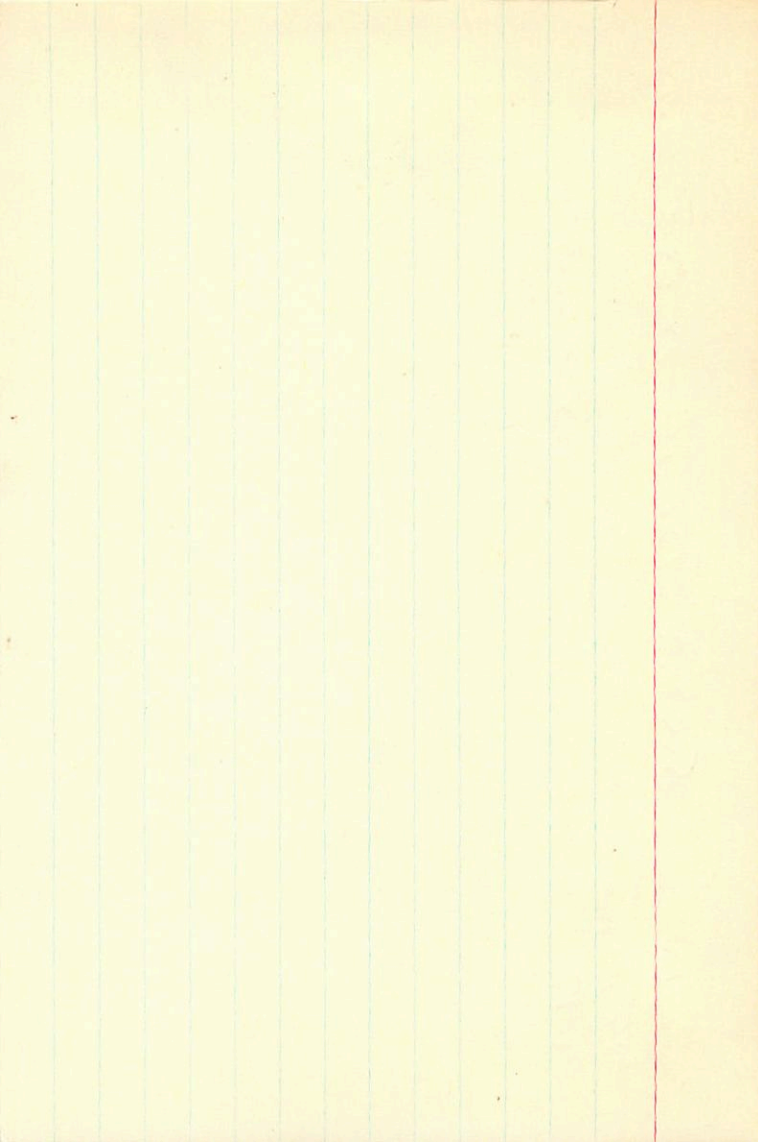
39713 5.52.13 +29 10 7.8 G517F +68.94 +676 ① 4D

+2901039

3677

+003 ± 6 -024 ± 6 Ritz

-009 -027 ✓
+6 -3
503 1000



3956) 4.523 - 24 62 09 036
18.4

9446 16#8100

29.256 17.624 9.8 1020
16#8100
0200 933
98 772
020
300
1560

19.478 3462 3524
58.1427 18.45
17.668 1631
625 106
141 17.37
141 17.1
6 6

39853
6C7444
W3678
-1101321
H19 2065

5 52.4

-11 47

5114

+87.4 8613)

+82.2 156.

5.66 +1.53 +1.84 N5104 R

W (-0.4)

✓
mostly
highly dev.

absolutely
CN₁ weak

79957

+44	-61	+41	+91	.003
+42	-57	+44	+44	.005
+77	-53	+8	+8	.010
+73	-53	-2	-2	.015
+72	-52	-8	-8	.020

+065 +040
+064 ±10 +083 ±11 4

400 53 +034
+01493 +0326

5.49
7.18
77
32

0724

078 +032

+7614

23.546

$\frac{171}{1375}$

13.645

$\frac{9.855}{23.500}$

$\frac{507}{23.489}$

23.489

$\frac{503}{14}$

1911.1

23657

$\frac{28}{685}$

4.32

5602

+0044 ± 6.5

+0050

+0053

+0055

-11

+040 ± 5.6

+638

+034

46

+024

$\frac{1.66}{5807}$

1908.4556

26.2

$\frac{4}{5.98}$

2343

$\frac{25}{676}$

44.51

39.40

$\frac{4}{56.36}$

75.00

$\frac{19.18}{55.82}$

$\frac{-1.27}{59.09}$

57.26

+31

1938.40

2.54

$\frac{56.95}{57.02}$

+ 1.05

$\frac{36.3}{27.9}$

27.9

39

AD. VEL.	:	79.900
MODULUS	:	229
DISTANCE	:	8.800
PM. DEC.	:	32.000
MM. R.A.	:	77.000
DEC.	:	-11.000
R.A.	:	2.900

U	:	79.921
U6	:	83.147
d3 (U)	:	8.757
d2 (U)	:	8.332
d1 (U)	:	-0.874

V	:	-82.437
U6	:	-82.199
d3 (V)	:	-0.588
d2 (V)	:	0.939
d1 (V)	:	-0.504

QM	:	304
d3 (M)	:	100
d2 (M)	:	207
d1 (M)	:	0.892

R.A. : 5.900
DEC. : -11.800
PM. R.A. : 77.000
PM. DEC. : 32.000
DISTANCE : 6.800
MODULUS : 229
AD. VEL. : 79.900

q1 (U) : -0.044
q2 (U) : 0.652
q3 (U) : 0.757
dU : 83.147
U : 79.521

q1 (V) : -0.504
q2 (V) : 0.639
q3 (V) : -0.580
dV : -83.199
V : -65.427

64
q1 (W) : 0.862
q2 (W) : 0.407
q3 (W) : -0.301
dW : 369.879
W : 60.710

32.8120

β low

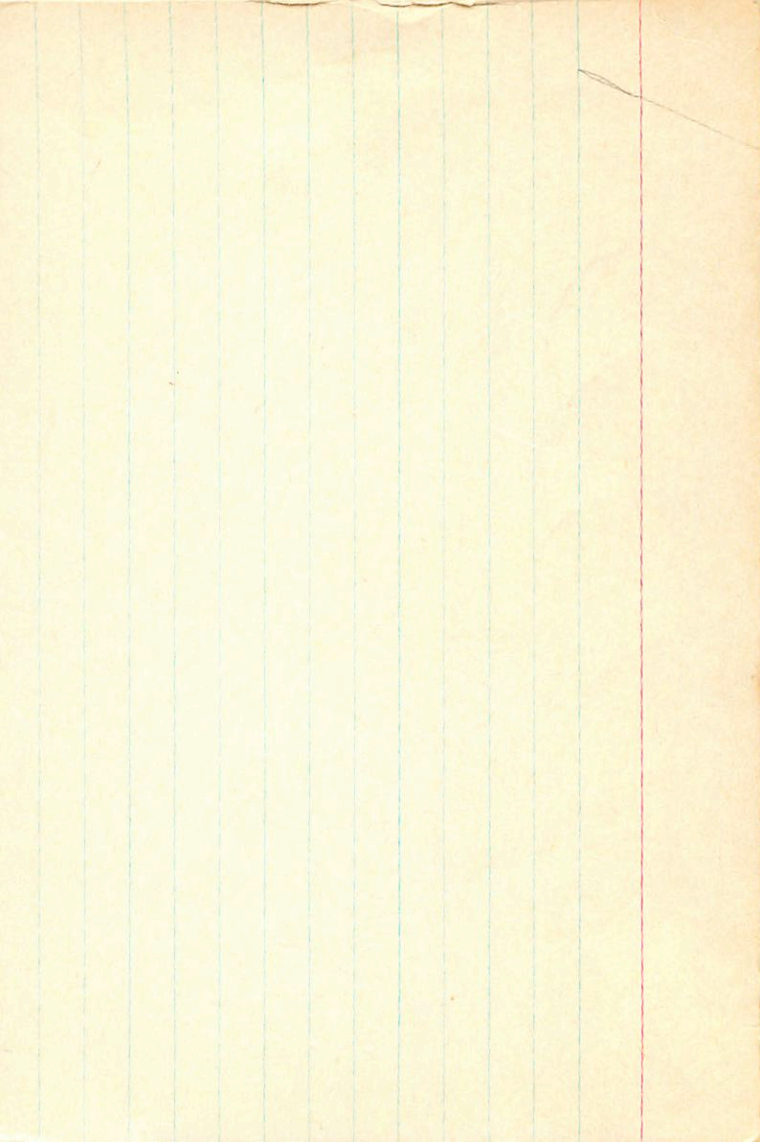
5 53.2 -62 31

N30
FN4

+0005 5000+
+0.00025 +0.0071

+8.1

+035 +999 -025
-542 -002 -840
+840 -043 -541



870

40306

5

53.9

-5332

-133(4)C2

8.65 +0.91 (1.55) 6875

"	-022	-010	CP
	<u> </u>	<u> </u>	
	-024	-012	
	<u> </u>	<u> </u>	
	+ 6	+ 3	
	<u> </u>	<u> </u>	
	-018	-009	



68



1000
1000
1000
1000
1000

40483

5 55.4

-44 01 60 ~~IV~~ -V +18.8 64

FD871

6.63 + 0.52 (1.61)

667522

+0.0046 ± 5.6 + 075 ± 6.3

25.447 1906.1 + 0.0051

+089

202
25.245

+0.0058 + 0864

52.42 1907.1

- 3.22
55.64

40.814

44.548

25.362
- 3
359.114

65.33 1928.35

+ 11.62

53.71
- 04
53.75
+ 1.89

1

10



5.900
-44.000
78.000
84.000
3.000
40
18.800

-0.044
0.955
0.293
368.552
20.188

-0.504
0.232
-0.832
-41.821
-17.303

40062 5 55.6 +55 19 6.5 A2+45C

7527

3720

15 -090.5 N30

-0002 -088

-0014 ± 3.1 -090 ± 2.3 GC → N30 -093

-0012 ± 3.1 -090 ± 2.3

38.5 26 94.7
64
69

9.45 89.5

544
14.89

0000 -090
-0003 -087.5

5735

8.66
9
8.57

1714

-0002 890

35.591
14
607

10.34
-15
10.16

-0005 -088

48
V1 004 bli

5 55.8 +1 50

H12,10

+00074

Ann

(45.7)

(Orbit)

+004-008 +45.3

SB 274 box
HIC QS

5.9

2.779 116 213 952

5.92 2.816 123 210 958

67



1000
 1000
 1000
 1000
 1000

1000
 1000
 1000
 1000
 1000

1000
 1000
 1000
 1000
 1000

1000
 1000
 1000
 1000
 1000



435

7413

5.900

1.850

4.000

-8.000

5.000

100

45.300

-0.044

0.455

0.889

-18.092

439

38.479

-0.504

0.758

-0.413

-08.313

-22

-00.541

0.862

0.467

-0.196

-1.358

5

-9.017



$$\begin{array}{r} -0008 \pm 3.6 \\ -00114 \\ \hline \end{array} + 018 \pm 2.8$$

$$40369 \quad 5 \quad 56.1 \quad 48 \quad 48 \quad 5.8 \quad 9 \quad 64 \quad +11.58$$

3732

$$7547 \quad 4.353 \quad 1903.0 \quad +12 \quad 48 \quad 19.30 \quad 1907.5$$

$$\begin{array}{r} 088 \\ \hline 391 \end{array}$$

$$\begin{array}{r} -87 \\ \hline 18.43 \end{array}$$

Double?

$$4.335$$

$$18.10 \quad 1935.4$$

$$\frac{34}{369}$$

$$\frac{17}{18.23}$$

$$4.357$$

$$\begin{array}{r} 1938.72 \\ \hline \end{array}$$

$$\frac{23}{1380}$$

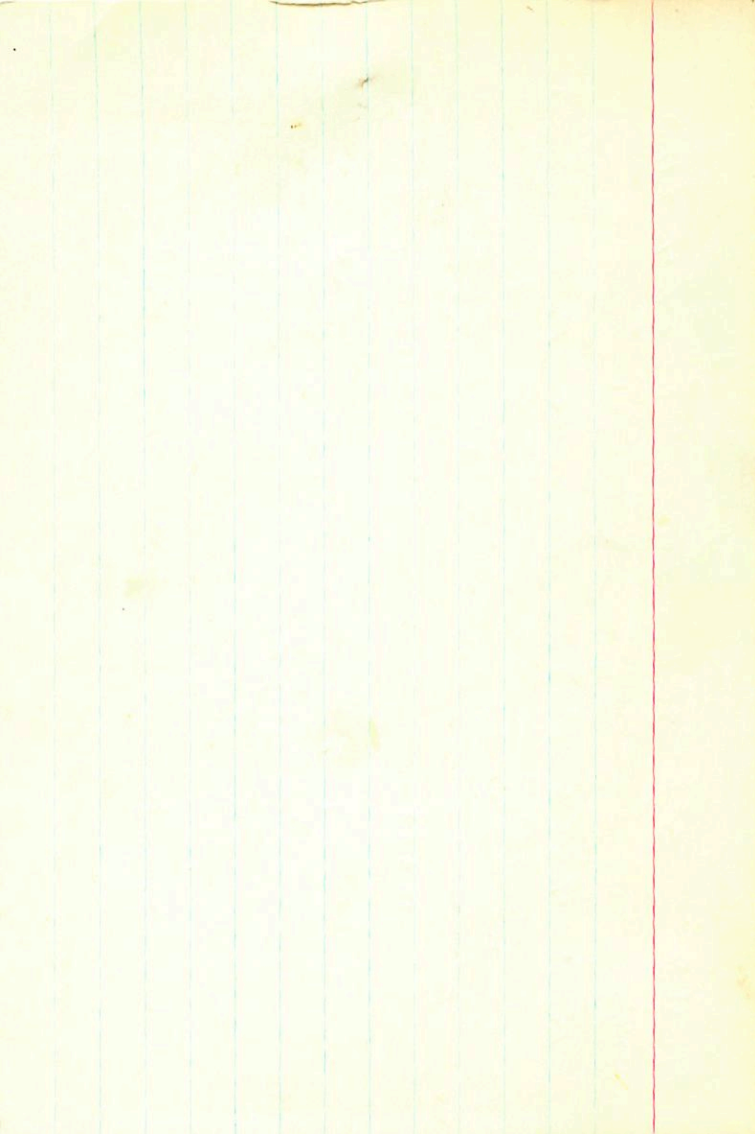
$$\begin{array}{r} 18.31 \quad 133 \\ \hline 18.44 \end{array}$$

$$4.347$$

$$\frac{4}{18.37}$$

$$\begin{array}{r} 18.03 \quad 1940.08 \\ \hline \end{array}$$

$$\frac{110}{18.23}$$



S.A.m

5 55.4 454 17

1792077

40035

3717

7521

+085 -128 6-2

3.69 + 0.99 + 0.86 N0.01 + 0.85 -127 FR3

+085 -128 N30

+085 -128

58

+0099 -128 N30

+0095 ± 1.2 -128 ± 1.0 6-2 → N30

-167

257

419

1836
612
601
322

4087.1 -1247
FR5

140.7

-124.7

38

18.7

WB +1.2
710.1
+8.2 2

912 SVY

89

P. A. 1 21.000

M. R. A. 24.000

DEC. 140.000

STANCE 124.000

MODULUS 3.000

U. 28

8.000

-8.000

-8.000

8.000

238.000

21.000

8.000

8.000

8.000

-8.000

-8.000

P. A. 1
M. R. A.
DEC.
STANCE
MODULUS
U.

21 (U)
22 (U)
23 (U)
24 (U)
25 (U)

26 (U)
27 (U)
28 (U)
29 (U)
30 (U)

01.000

R.A. : 5.900
DEC. : 54.300
1. R.A. : 140.700
1. DEC. : -124.700
DISTANCE : 3.820
MODULUS : 58
PARALLAX : 8.200

q1 (U) : -0.044
q2 (U) : -0.428
q3 (U) : 0.903
dU : 235.675
U : 21.090

q1 (V) : -0.504
q2 (V) : 0.790
q3 (V) : 0.349
dV : -663.003
V : -37

200.0
240.0

+0830
-24
+0830 - .126

3.45

+06548 +0.1257 Pity +8.24

330
24
295

3.72 + 0.59 + 0.51 5-5
3.30 + 0.35 5-5
3.30 + 0.345 14
3.30 + 85
24 24 24
24 24 24
105

2077
40035
200
110
-36
10

+15

5 5.54 5 5.54 5 5.54
4548 4245 4142 1.182 864 .200
1000 625 412 2046
5 June
100 110 110

69



2077.000*

5.000*

55.400*

54.000*

17.000*

0.000*

-0.126*

3.300*

45.709

8.200

0.236

0.903

M3II Skyline

17 Aug 5 56.2 445 56 543 40900

HR2091

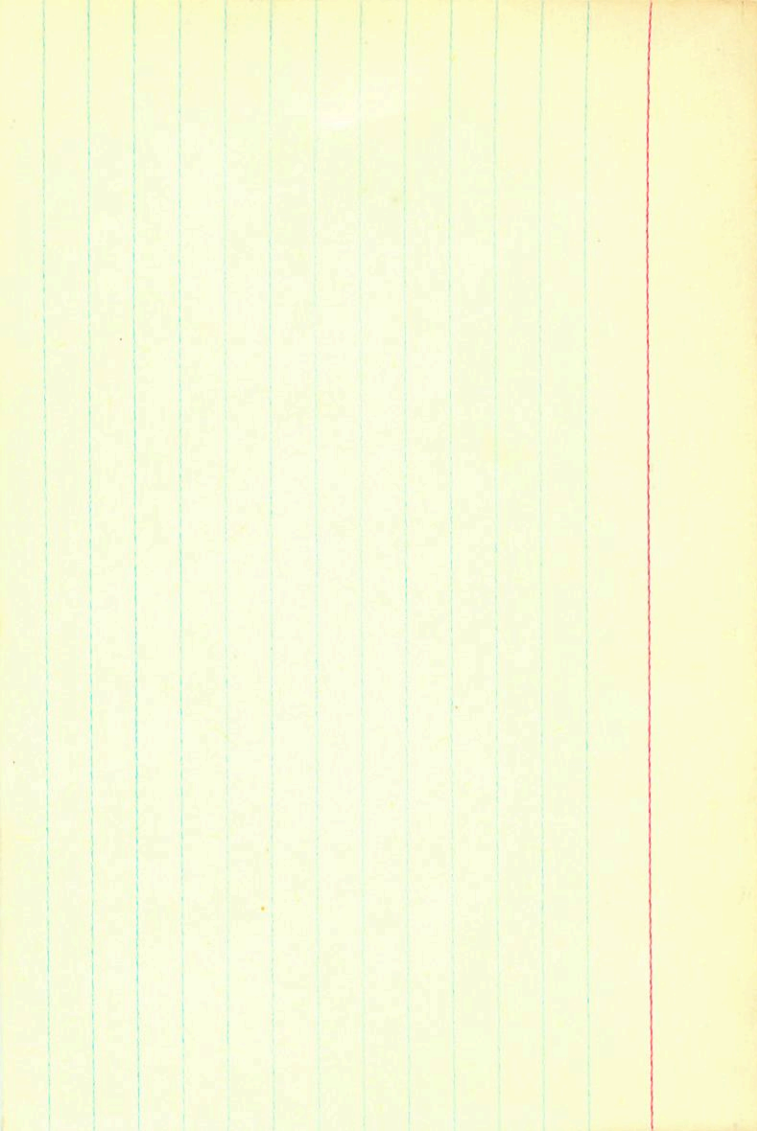
40.9 (6)

4.30 +1.65 H

VB

-3.0

4002 -00966



ADS4544 8m3 65.2 +0043 E1.1 -083±1.0
+0044 -688

Am 5 56.3 +37 13 Ap +29.3a

40312 2.70 -0.04 1897.3 0.30
3735 1898.9 +37 12) 40.04 +0.51 -0.83 6-6

7557 18.658 220
438

38.5

Pc = +35.1
Mw = 23.8

19300

74.85
37.4

523.61
120.9) 40.51
37 18.80

36.39
42.150
18.575
578
549

607-8602
Swi-5100
Cos-9666

176

31.60
11.40
43.49
41.22
41.75

40.1

1944.85

18624
608
+2
626 + 170

Swi-3746
U=0854
U=0197

39.93

40.88
-3.53

1 0 605 287 7051 -083 4283 -050418 -313 ✓
-051 050 0 0 -212 337 +234 0 623 ✓

-9 +31 +8

[+30 -12 +6]