

V814 Her 131 99

161756

17 487

150 04 704

+50.2457

295 .178

7.0 ✓ 306 133 1.441

549 Fleng  
62 d  
Small run droppings

2.643

75  
+000 94  
FW05-018

Berki et al

MS4d

2000

Fernie Wechler  
MS - 76  
Huron, Pa.

April 26 5 944 1983

17.7

+50.1

79

-18

10.00

24.5

run

7.05 300 115 1520 2646  
224 1460

(R-2) 0.256

Revised against the other values

total  
41.267  
+33  
500  
131

total 559  
-118748  
-014  
45121  
85  
4134  
-1163  
323  
-05007  
+05015  
-018

45.63  
-34  
48.29

17.700

58.100

7.000

-18.000

18.000

1000

~~24.500~~

10.00

520

-8.002

8.982

18.191

-88.793

-79.126

-73.9

8.527

8.163

8.834

22.688

-23.131

46.0

-8.858

8.899

8.517

-26.532

39.283

-53.4

29

A0510787

0000 ± 5.1 - 003 ± 3.9

161623

17

44.1 - 1 12

8.2 dC-1 + 15.9 d

24124

9.1 dC-5

+ 15.2

10276

4.280 1900.5

- 1

11

49.13

1892.1

0

+ 17

48.96



6615  
i' Secor  
24125  
10278

17 44.1 S

-40° 6' 0  
-40.1

3.14 fsp

~~10278~~ -27.6 b

$V_0 = -28 \text{ km}$

10007-5064 FIN4

10008/  
-14

10007-0006

0.006 -0.194 -0.981  
0.523 0.837 -0.163  
-0.852 0.512 -0.106

+14  
-26







6615.000\*

17.000\*

44.100\*

10.000\*

A0510777

161865

24123

10275

-0008 ± 5.0

-0015

17

44.0

+51

58

8.6 g 65

-49.38

+010 ± 5.0

+017

1.547

18933

+51

58

1.08

1893.5

045

592

8.9310

9.23

1.494

27

517

510

-082

18

504

blue

8.4230

and

12.5

53.1

-56

52

1.46

-34

1.12

1945.32

2.04

-28

1.76

1.44

+92

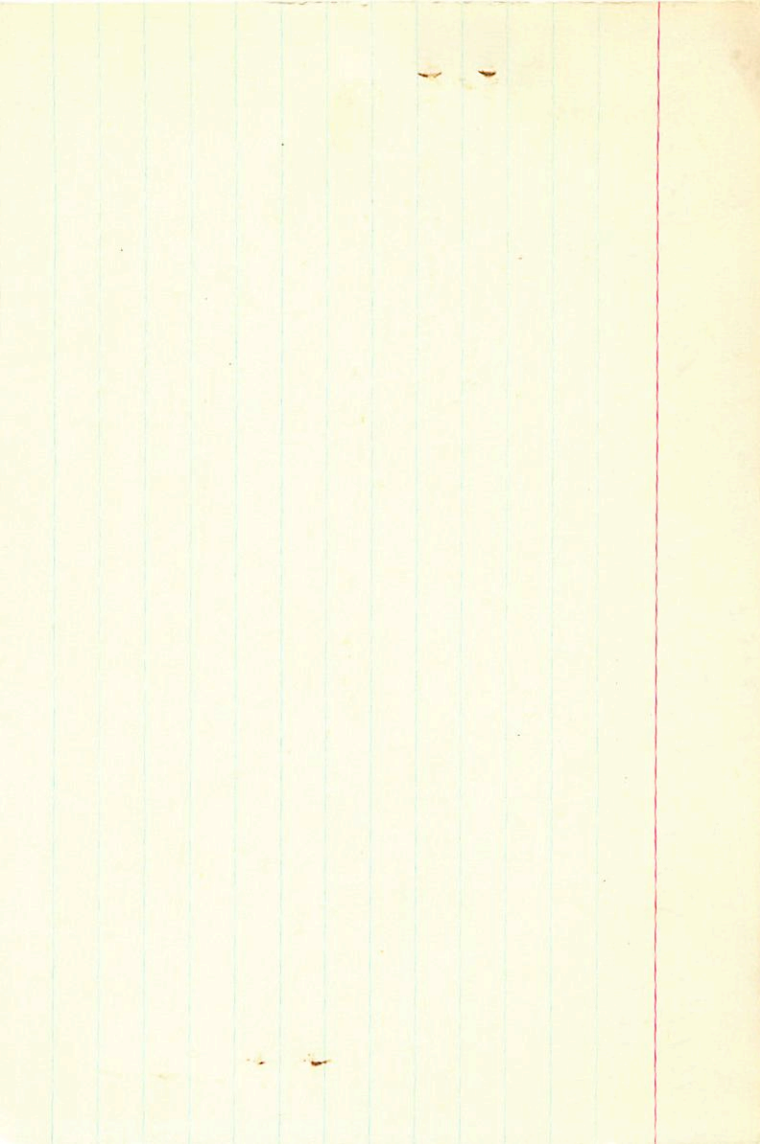
1947.39

1271

46.4

52.9

52.9



-322 SB

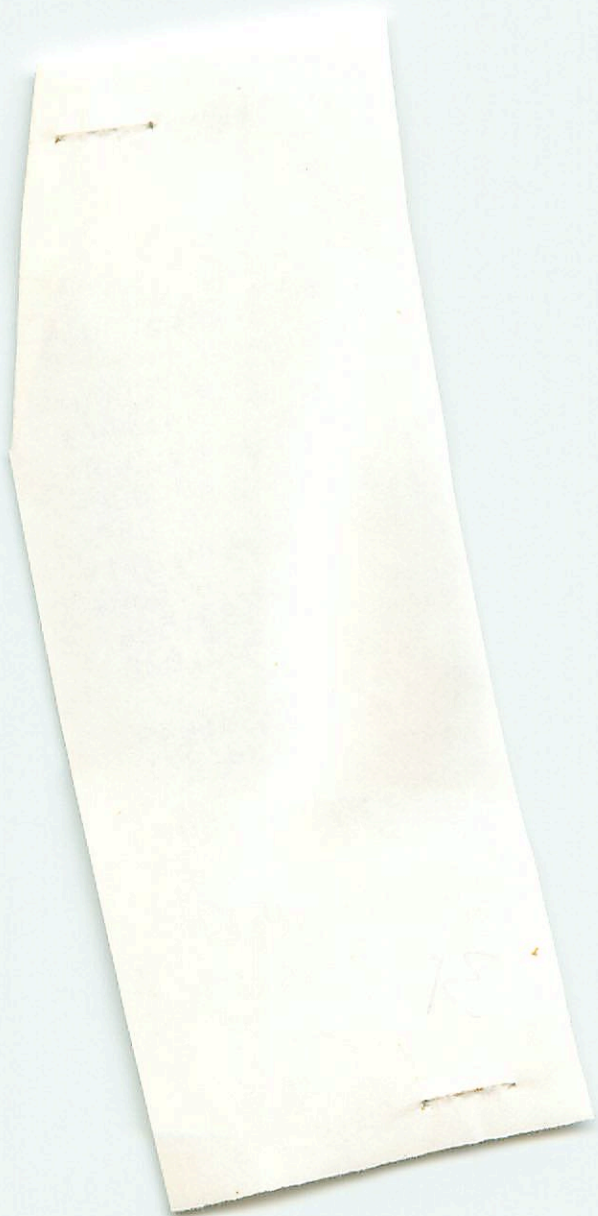
6626 17 44.3 +39 20 646 103.1E

+507 +016-C

↑

1

31



6626.000\*

17.000\*

44.300\*

39.000\*

20.000\*

0.007\*

0.011\*

6.500\*

199.526

-32.000

0.049

-0.371

21.567

0.034

0.793

-18.678

-0.018

0.483

-19.020

35

628841

 $\bar{z} = +1 \mu$ 

X Sep

17 444

-27 49

-13.7

C<sub>1</sub>

+0.00007

-0.0064 FK4

+0.0001

-0.011 N30

410

$$\begin{array}{r|l}
 +008 & +192 & +0.000 & 0 & -0058 \\
 +542 & +853 & +020 & +0022 & -0258 \\
 -853 & +522 & +0004 & +0038 & -0158
 \end{array}$$

-2.4

+11

-11.5

-12

-9.0

-5

FK4

+13.7

0

0

N30

-0100

-4.1

+10

-0444

-19.1

-19

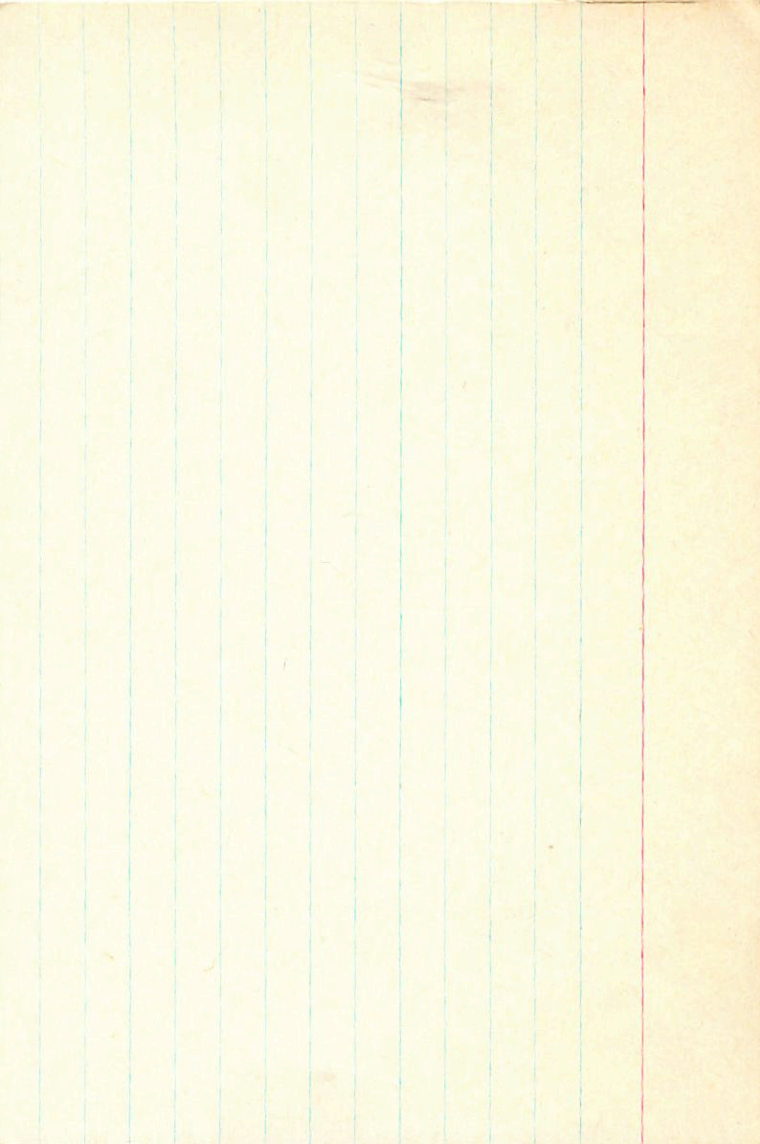
-0271

-11.1

-11

↙



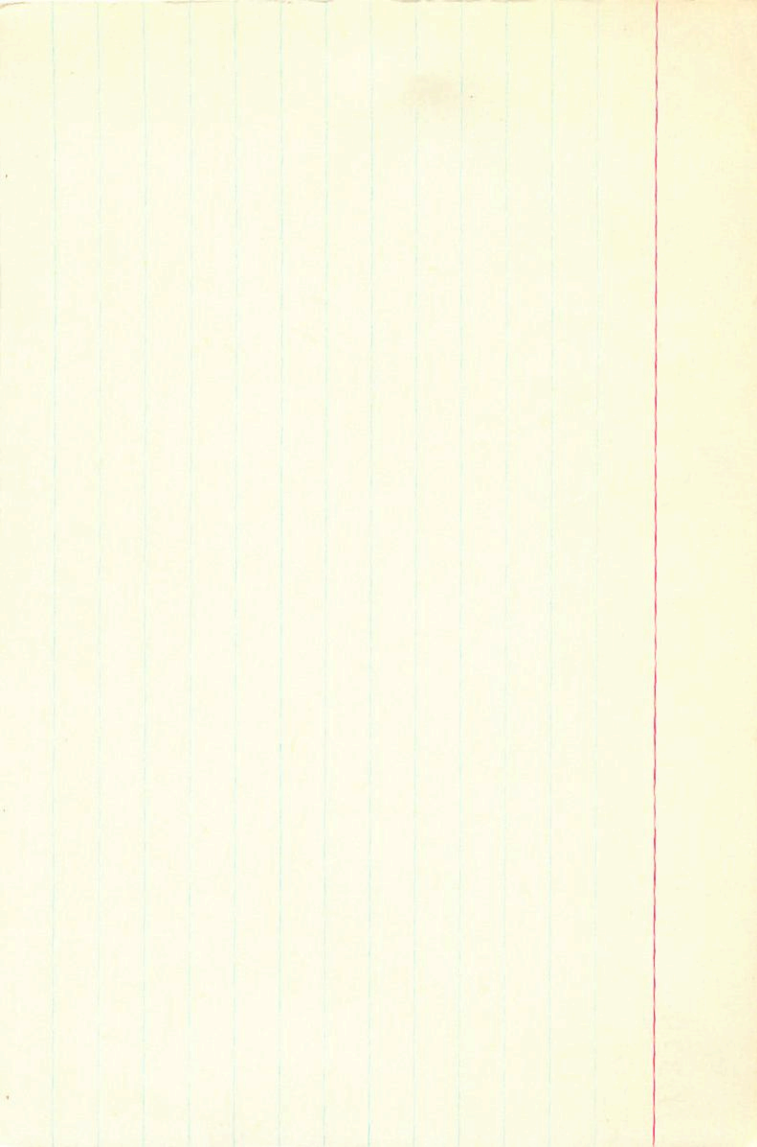


163240 17 46.1 +80 18 7.1 gm2 -28.26

24150

10304 -0067<sup>30</sup> +010<sup>3'</sup>N30

-0065 ± 3.5 +006 ± 4.7 β c → N30



102076 17 46.3 +20 35 5.8 49 05-26.31

24184

10306

+0014<sup>49</sup> +003<sup>43</sup> N30

+0014E3.0-002±2.9 GC → N30

+0048±2.8  
+0037

+028±2.5  
+025

161892 17 46.5 -37 02 3.29 121 +24.7a

24188

10310 27.193 19083 -37 1 45.87 1903.4

$\frac{-200}{26.993}$

$\frac{-1.30}{47.17}$

27.109  
 $\frac{-9}{100}$

40.0

45.99 1940.41

9654  
48.3  
44.9

$\frac{142}{149}$

$\frac{46.06}{1.11}$

27.175  
+8  
103

45.82 1956.16  
-13  
45.95

162113  
24200

17 46.8 +01 58 6.5 102 -58.06

-0019 ± 5.5 +062 ± 5.4  
-0008 +071

10314 47.533 1903.1 +1 58 28.58 1901.3

091  
1624

47.595  
9  
604

47.583  
11  
594

599  
-025

32.0

-3.02  
25.56

27.90 1433.8  
-10  
27.80

28.19 1936.46  
-9  
28.10

27.95  
+2.39

1026  
35.7

33.8

1

32

162021 17 47.3

24211

-002

17.351 1898

073  
424

30.167

47.163

17.337

349

-115

33

50.6  
-46.4  
-48.5  
25.42  
26.0  
26.0

17.276

249

2602

0656

5473

8020

269

2602

9616

15051

57.53

1956.58

-3

57.53

1956.58

-3

57.53

1956.58

470

604

302

122

54.09

26.93

81.68

58.61

195

56.66

34.54

1933.62

9020

45.10

1469

5704

2.95

1956.58

1956.58

1956.58

1956.58

RAD. VEL. :  
MODULUS :  
DIST. :  
D1 (M) :  
D2 (M) :  
D3 (M) :  
D4 (M) :  
D5 (M) :  
D6 (M) :  
D7 (M) :  
D8 (M) :  
D9 (M) :  
D10 (M) :  
D11 (M) :  
D12 (M) :  
D13 (M) :  
D14 (M) :  
D15 (M) :  
D16 (M) :  
D17 (M) :  
D18 (M) :  
D19 (M) :  
D20 (M) :  
D21 (M) :  
D22 (M) :  
D23 (M) :  
D24 (M) :  
D25 (M) :  
D26 (M) :  
D27 (M) :  
D28 (M) :  
D29 (M) :  
D30 (M) :  
D31 (M) :  
D32 (M) :  
D33 (M) :  
D34 (M) :  
D35 (M) :  
D36 (M) :  
D37 (M) :  
D38 (M) :  
D39 (M) :  
D40 (M) :  
D41 (M) :  
D42 (M) :  
D43 (M) :  
D44 (M) :  
D45 (M) :  
D46 (M) :  
D47 (M) :  
D48 (M) :  
D49 (M) :  
D50 (M) :



33

162570 17 48.7 +22 20 5.9 12m 44.18  
 24251  
 10326 41.947 1898.4 +22 19 44.29 1896.5  
 -086  

$$\begin{array}{r} 911 \\ 41.928 \\ \hline 41.939 \end{array}$$

$$\begin{array}{r} 4.12 \\ 45.41 \\ \hline 44.66 \end{array}$$

$$\begin{array}{r} 44.66 \\ 44.70 \\ \hline 45.17 \end{array}$$

$$\begin{array}{r} 45.17 \\ 1928.44 \\ -24 \\ \hline 4493 \\ \hline 4482 \\ \hline -159 \end{array}$$

$$\begin{array}{r} 6244 \\ 31.2 \\ \hline 347 \end{array}$$

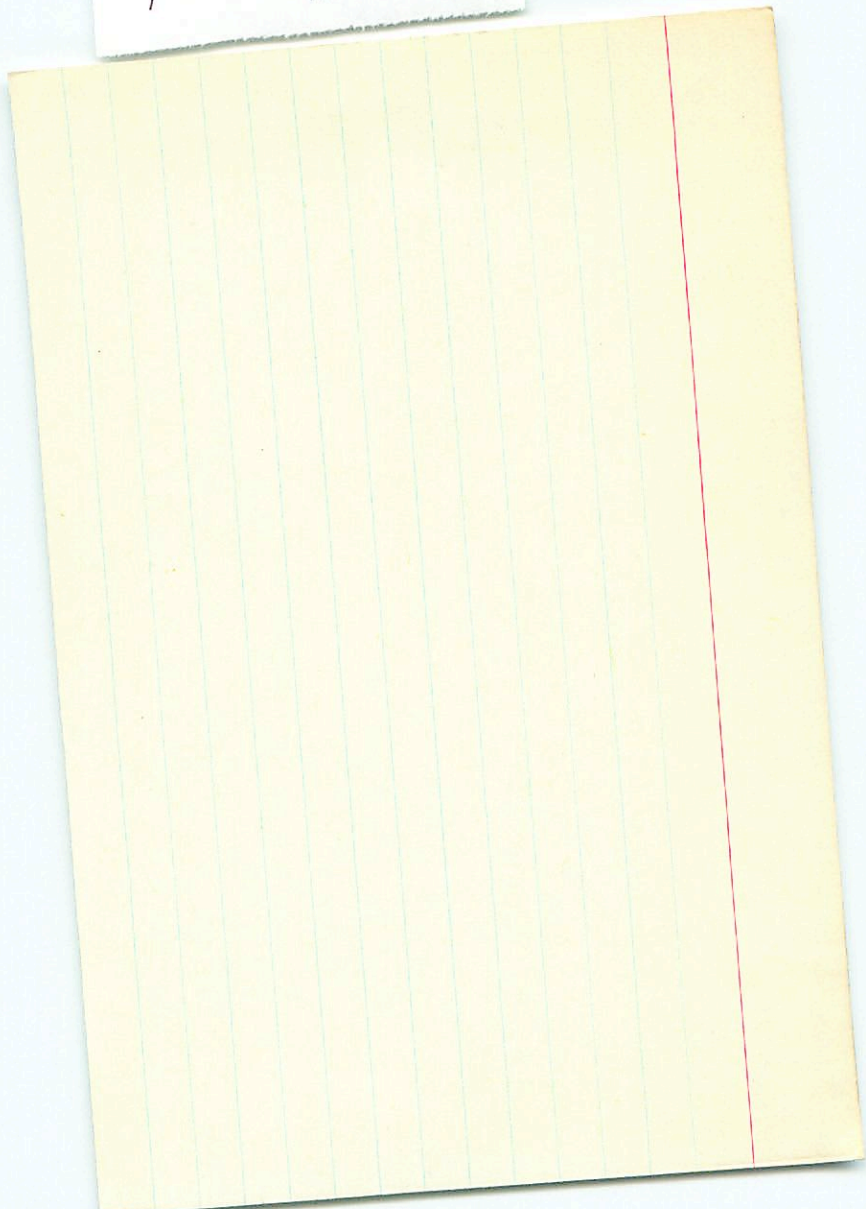
M : 0.000  
 QM : 0.000  
 P3 (N) : 0.000  
 P2 (N) : -0.137  
 P1 (N) : 0.498  
 -0.827  
 U : 0.000  
 QM : 0.000  
 P3 (U) : 0.000  
 P2 (U) : -0.188  
 P1 (U) : 0.838  
 0.218  
 U : 0.000  
 QM : 0.000  
 P3 (U) : -0.273  
 P2 (U) : -0.231  
 P1 (U) : 0.051  
 RAD. VEL. : 0.000  
 MODULUS : 10  
 DISTANCE : 0.000  
 PM. DEC. : 0.000  
 PM. R.A. : 0.000  
 DEC. : 0.000  
 R.A. : 17.888

R.A. : 17.800  
DEC. : -42.300  
PM. R.A. : 0.000  
PM. DEC. : 0.000  
DISTANCE : 10  
MODULUS : 0.000  
RAD. VEL. :

q1 (U) : 0.021  
q2 (U) : -0.231  
q3 (U) : -0.973  
dU : 0.000  
U : 0.000

q1 (V) : 0.516  
q2 (V) : 0.836  
q3 (V) : -0.188  
dV : 0.000  
V : 0.000

33  
q1 (W) : -0.857  
q2 (W) : 0.498  
q3 (W) : -0.137  
dW : 0.000  
W : 0.000



7814w

1627320

24253

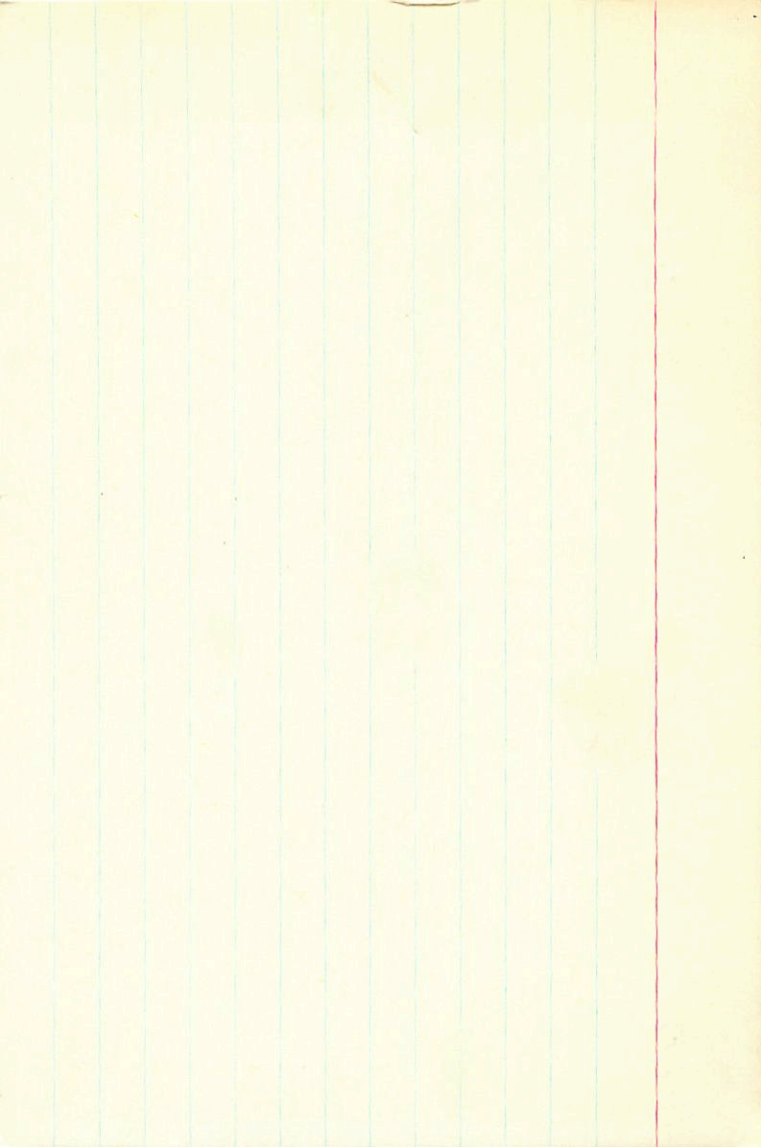
10327

17 48.7 +48 24 6.4 A1p -16.3d

-0009<sup>26</sup> +018<sup>31</sup> N30

-0005±2.1 +014±1.8

12.45 Drgy



6811

17 49.3 + 86 59 Am + 1.2

99999

99999

99999

999

81

386

+ 1.2

99999

99999

R.A. : 17.800  
DEC. : 87.000  
PM. R.A. : 956.000  
PM. DEC. : 18.000  
DISTANCE : 3.860  
MODULUS : 59  
RAD. VEL. : 1.200

q1 (U) : 0.021  
q2 (U) : 0.899  
q3 (U) : 0.437  
dU : 81.750  
U : 5.361

q1 (V) : 0.516  
q2 (V) : -0.384  
q3 (V) : 0.766  
dV : 89.489  
V : 6.213

q1 (W) : -0.857  
q2 (W) : -0.209  
q3 (W) : 0.473

AD510850

-0003 ± 4.9 +026 ± 4.5  
 -0006 +036 No. 111 11.500

162734 17 49.7 +15 20 6.5 120 -43.08

24281

425 (6)

10336 43.033 1898.1 +15 20 11.35 1891.2

7.2.25 0.5

$\frac{0.16}{.049}$

$\frac{-1.53}{9.82}$

C/P

43.025  
 $\frac{.}{.029}$

43  
 14

-0005 +036  
 -007 +036

11.60 1434.4  $\frac{11.38}{37.9}$   
 $\frac{-2}{11.58}$  46.7

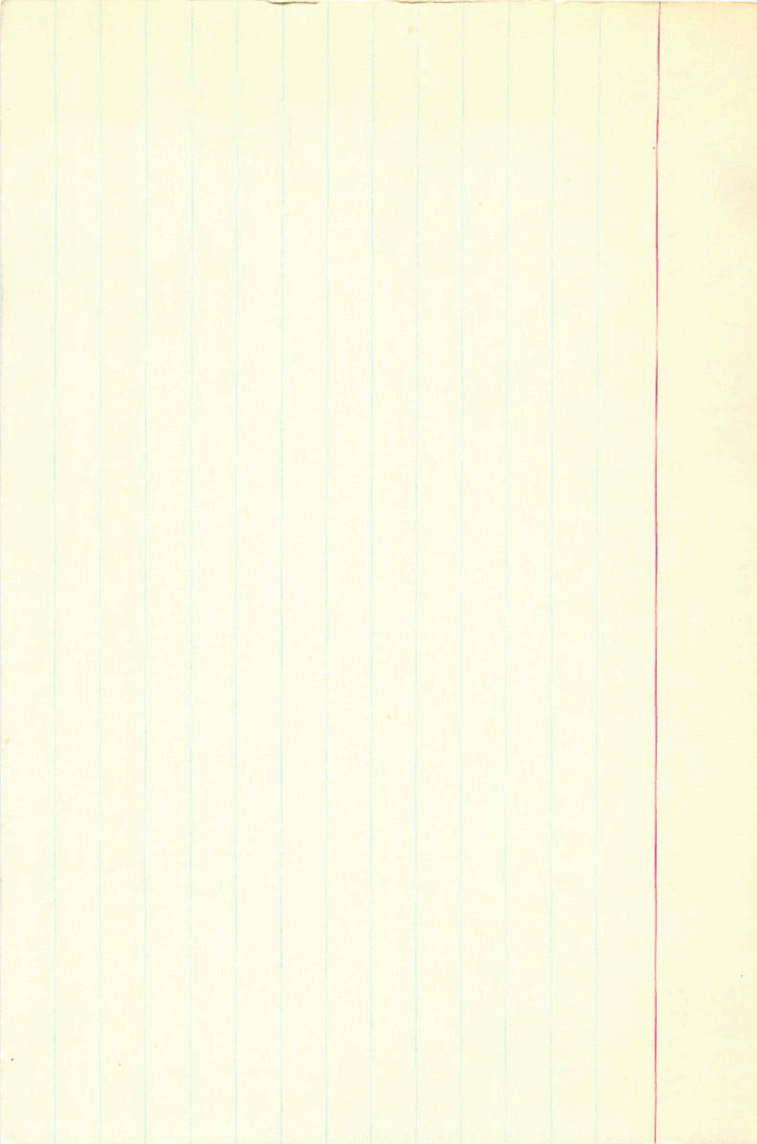
43.021  
 $\frac{0.25}{-0.24}$

38.6

11.59 1439.0  
 $\frac{11.58}{+1.76}$  134  
 $\frac{36.7}{45.5}$   
 11.36 1940.41  
 $\frac{-6}{11.30}$

42.989  
 $\frac{4}{993}$





3 Ceph

17 49.9 - 6.07

-0.10  
-0.10

+0004  
+0002 176  
-015 ± 4.6

-604072

57.778  
0.11  
-----  
.767

~~1552.5~~  
15033

59.24 1854.9  
22 1501.9

37.325

57.727

57.769 - 2.715  
-----  
55.054

-0.0002 - 0.12  
+ 1 + 3 (35.82)  
-----  
32.486

-0001  
00.70  
-----  
00.44

59.24  
-----  
58.99

-14  
-----  
755

59.12  
+ 25  
-----  
55.87

1533.56

0.22

57.734  
+ 5  
-----  
62.734

58.82  
-----  
59.04

1554.63

-002 -004

8

~~920~~ ~~955~~ -6.5

500 Punkte  
29.5

-5.3

+6.2

-2.8

-1.9

$$\begin{array}{r|l}
 1029 & -921 \\
 +512 & +715 \\
 -859 & +181 \\
 & +177 + 0.8D \\
 & -0.252 \cdot 0.7
 \end{array}
 \begin{array}{l}
 -0.166 \cdot 0.4 \\
 -0.334 \cdot 0.2 \\
 -0.33 \\
 -1.6
 \end{array}$$

Wof 630

Schritt

$$A(II) = 1.5E$$

$$E(R-I) = +0.54$$

-6.5

$$\begin{array}{r}
 7.6 \\
 3.4 \\
 1.1
 \end{array}$$

$$4.28$$

$$\langle R \rangle = 5.38$$

$$\langle R-I \rangle = +0.72$$

$$\begin{array}{r}
 5.4 \\
 1.8 \\
 \hline
 7.2
 \end{array}
 = (R-I)_0$$

$$\begin{array}{r}
 3.2E \\
 3.3 \\
 2.1 \\
 \hline
 8.6
 \end{array}$$

$$I_{0.5} = 3.14$$

$$\begin{array}{r}
 9.5 \\
 -6.4 \\
 \hline
 3.1
 \end{array}$$

$$\begin{array}{r}
 3.350 \\
 \hline
 3.350
 \end{array}
 \text{ (I}_0 = 3.50)$$

$$-5.4 = M_{801}$$

$$\begin{array}{r}
 3.16 \\
 0.7 \\
 2.46 \\
 1.76 \\
 0.7 \\
 \hline
 3.16
 \end{array}$$

$$\begin{array}{r}
 4.14 \\
 1.17 \\
 \hline
 5.31
 \end{array}$$

+0034 = 2.7 - 038 + 2.8  
+0030 - 041

162757 17 50.3 -10 53 6.3 911 -34.78

24301

10340 16.782 1901.0 -10 53 20.82 1899.7

$$\begin{array}{r} -167 \\ \hline .613 \end{array}$$

$$\begin{array}{r} 53.422 \\ 23.235 \\ \hline 16.659 \end{array}$$

$$\begin{array}{r} 666 \\ + 666 \\ \hline 1332 \\ \hline 725 \\ \hline 110 \end{array}$$

$$\begin{array}{r} 16.792 \\ -11 \\ \hline 782 \end{array}$$

$$\begin{array}{r} +1.91 \\ \hline 22.73 \\ \hline 18.91 \end{array}$$

58.02 1935.38

$$\begin{array}{r} 2428 \\ \hline 22.30 \end{array}$$

$$\begin{array}{r} +152 \\ \hline 20.78 \end{array}$$

$$\begin{array}{r} 20.710 \\ \hline 20.62 \end{array}$$

$$\begin{array}{r} 20.38 \\ + 188.83 \\ \hline 20.46 \end{array}$$

$$\begin{array}{r} 20.30 \\ \hline 20.46 \\ \hline -1.58 \end{array}$$

36.2

431

37.2

37.5

188.83

20.46

-1.58

162559

GC24309

w10346

Y4081

484

r40°3228

17 50.4 +40 00 9.04

4.0

w(+0.1)

-66c

-68.3v(17)

-61.6w(4)

MA(20)

-001232 +05137N30

-0017E1.8 +052±1.7

cc

+43 -52 -16 .010

+39 -52 -20 .015

-617 +047

-014 +051

-015 +050

15A120

13w16

14±6

3 Her

444-042 643 746 .015 1050 -68 032-44 180  
-015 032-001-001 -066 156 -52.1+2+52-

26.494

-9

005

-0035 +17.0 -051 ±17.0

215  
-25  
36.8509

<sup>14</sup>  
17 50.5 -47 25 N17

62619

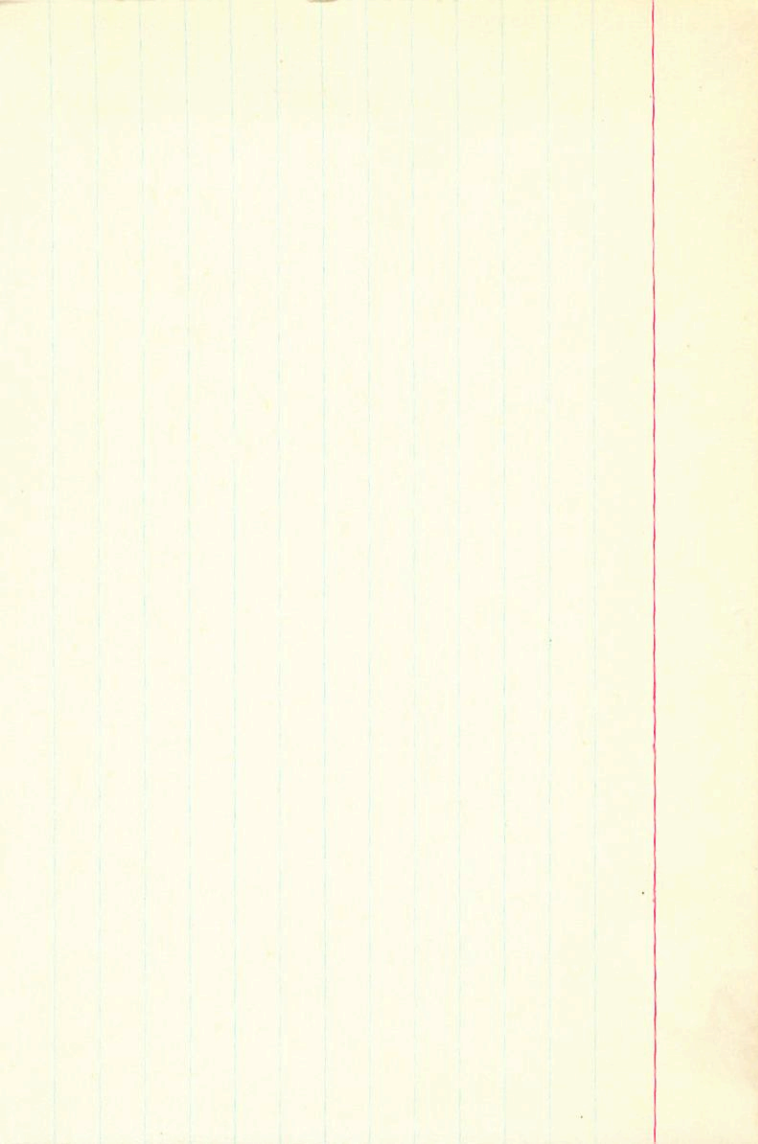
8.75 +1.23

24312

31.774 1904.6 -47 25 3.44 1904.6

159  
933

2.27  
1.17





163075 17 50.6 +46 39 6.6 100 -28.36 5D  
 +0034+3.4 -129+3.0  
 +0036 +46 39 6.6 100 -28.36

24317  
10348

37.748 1895.9 +46 39 19.61 1893.9  

$$\begin{array}{r} -184 \\ \hline 567 \end{array}$$

$$\begin{array}{r} 56.2 \\ 41.45 \\ \hline 37.66 \\ 672 \\ \hline 672 \end{array}$$

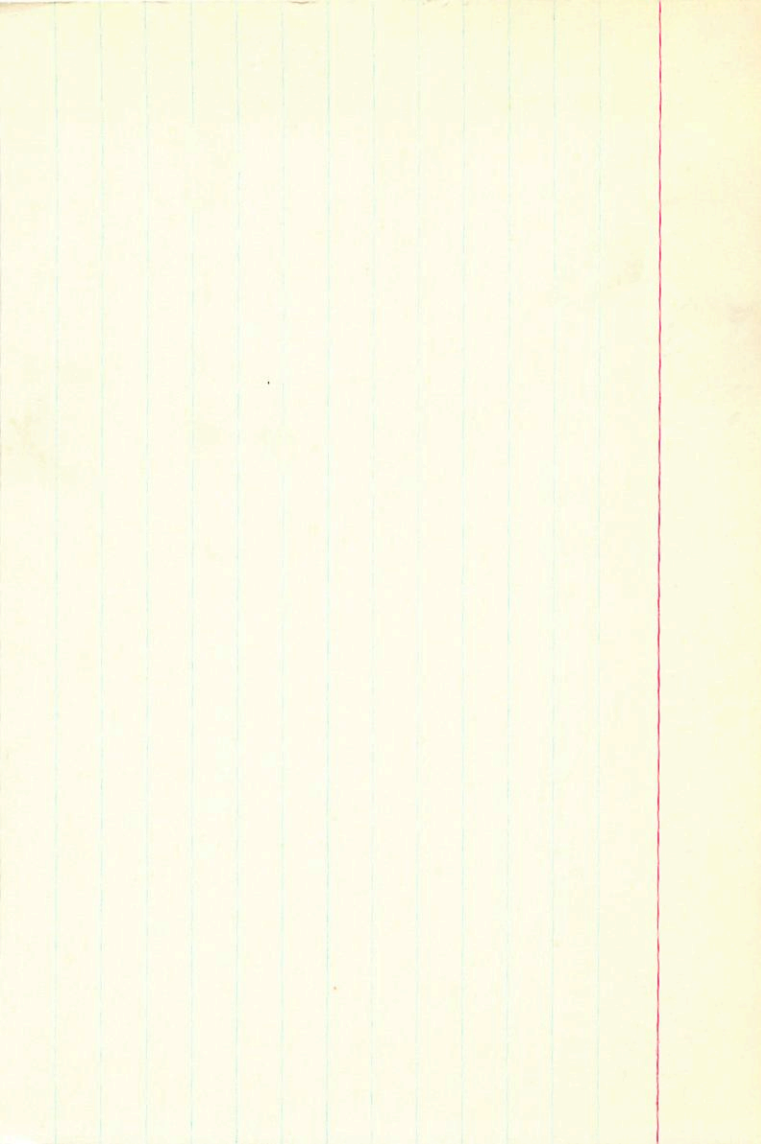
44.4 1926.7

$$\begin{array}{r} 22.60 \\ -22.00 \\ \hline 27.5 \\ 2339 \\ \hline 23.26 \\ 580 \\ \hline 22.90 \\ 34.7 \\ \hline 28.6 \\ 591 \end{array}$$

$$\begin{array}{r} 37.67 \\ \hline 685 \end{array}$$

$$\begin{array}{r} 22.9 \\ -34 \\ \hline 22.5 \end{array}$$

22.9 1930.4



-0085±3.1 +0069±2.7  
-0080 +074

162917 17 50.8 +06 07 5.8 day -32.87

24320

10349

47566

1400.7

+6

6

36.29

1503.4

419

385

48.103

114

48.095

4

091

102

-283

-3.22

33.07

35.35-1933.4

-13

35.22

35.79 1938.92

-4

35.75

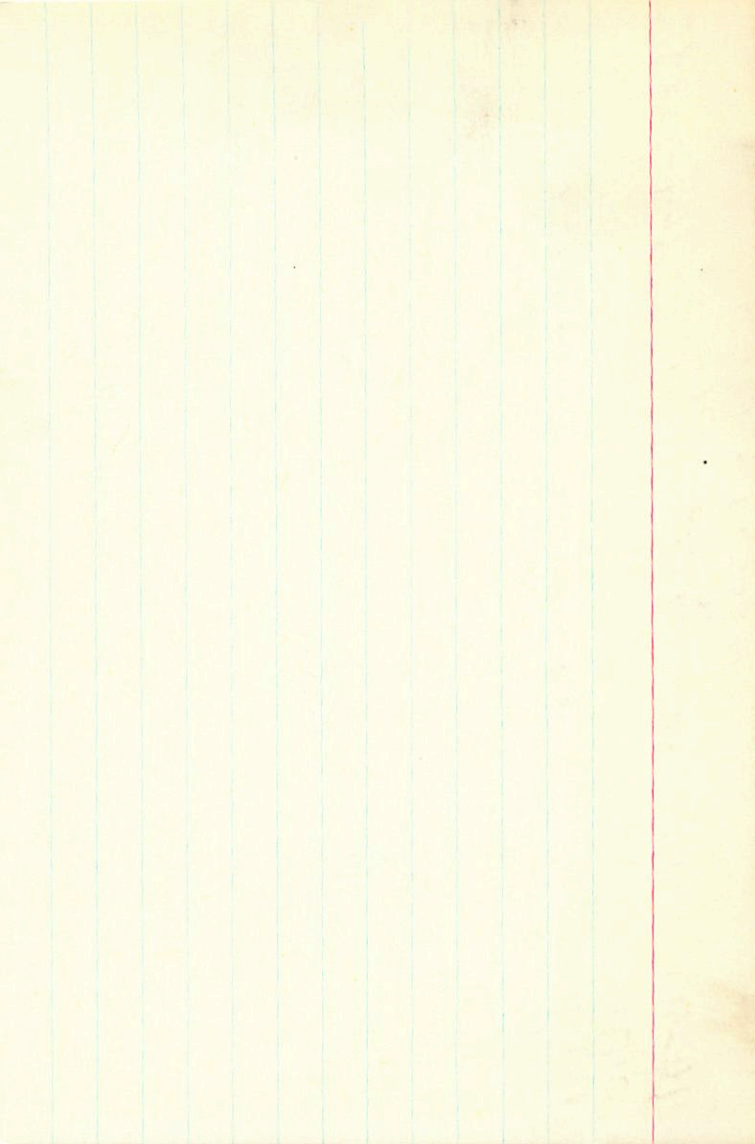
35.49

+ 2.42

1232

36.12

32.8



8506 G

7.95 +0.74

+0.26

682 +8.6

163077

- .0073

- .050

+25° 33' 68"

17<sup>h</sup> 51<sup>m</sup> 16.133<sup>s</sup> 1899.3

1899.5

GC 24331

+ 370  
16.503

+ 2.53  
0' 7.46

- .072 - .050  
- .065 - .002  
- .077 - .052  
- .001 + .000  
- .078 - .048

17<sup>h</sup> 51<sup>m</sup> 16.346

+25° 0' 6.18

1928.44

- .003

- .19

29.4

16.343

5.99

17<sup>h</sup> 51<sup>m</sup>

+25° 0' 6.30

1930.4

16.340

- .30

340

6.00

342

29.4

- 161

- 1.46

30.1

54

48

10871

See 699m A.S. 70, 19

51.3 1950  
44.2 +25

Class 2  
000 01

+5.83W "  
+8.66-084-046  
u v w  
n = .020 -11 -8 +11

C A B

37.4 1524.83 0.46 -0030 -269 +084 -022 0.270 72°  
0.1 131 .01 .005 006 002 007 005 0

S  
7.95 +0.74 +0.26 +06

Ag 66 m+w

G 8 I  
1 V I E

Π P 0155(15)

a<sup>3</sup>

p<sup>2</sup>

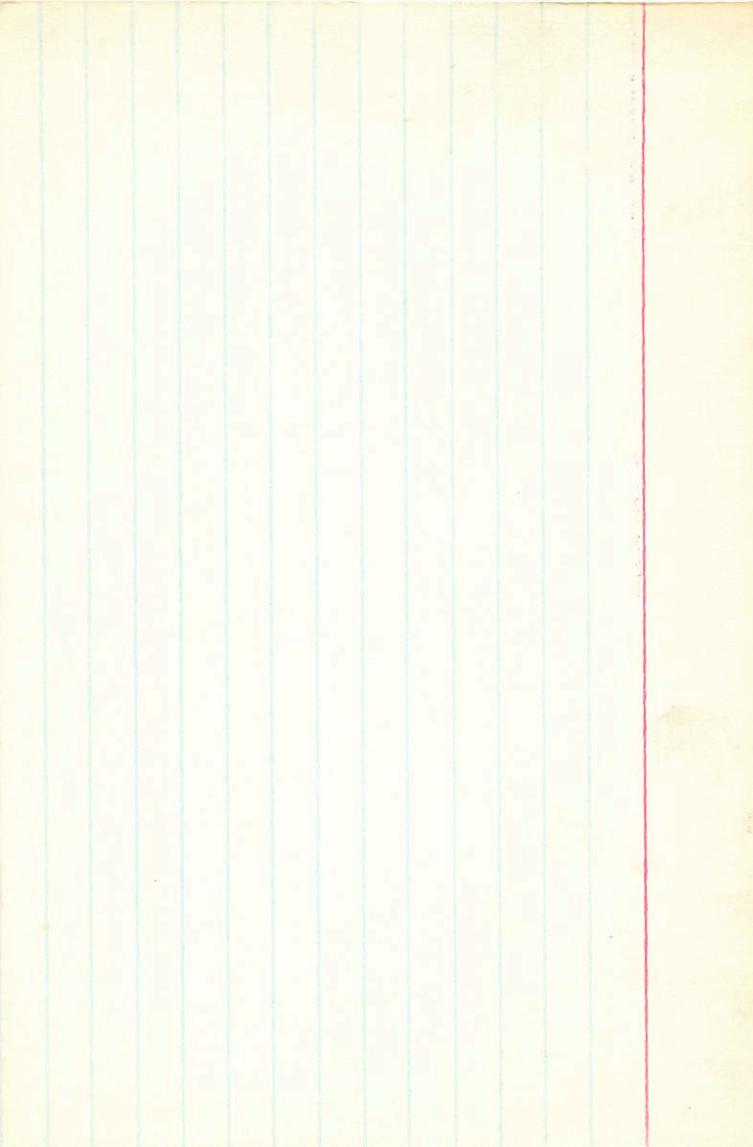
1167 m<sub>v</sub> = +5.20

n = 012350

a<sup>3/02</sup> = 14.17 × 10<sup>-6</sup>

n = 020 Π<sub>3</sub> = 8

n<sub>3</sub> 12 2 n<sub>1</sub> = n<sub>2</sub> = 0.980



+126 + 26 - 324

162521

FO1012

fy333

① 6.36 + 15 (160)

17 514 - 65 43 687 - 22.2

52

21706  
511  
165

14077  
40121  
40130  
+0120-330  
1871  
36.44 18943  
-324  
-326746  
43  
+0112783

+0138 - 325

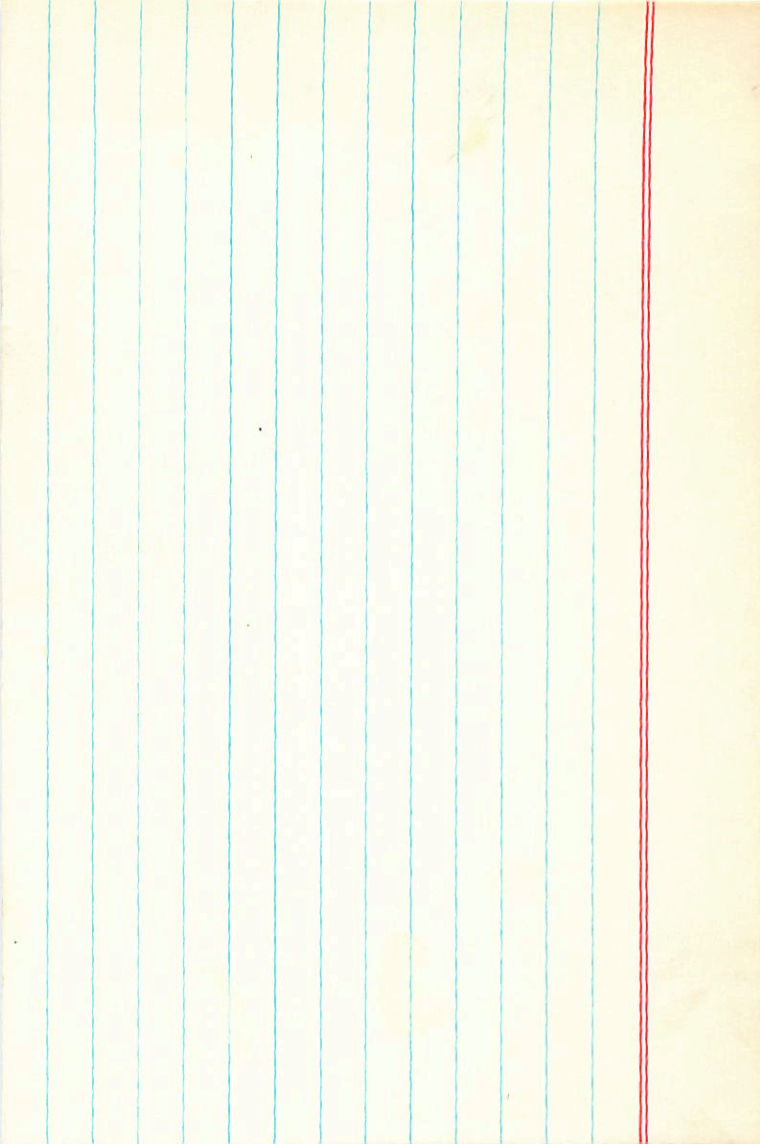
7.54  
1530.11  
1476  
1924

31.71  
+10  
31.81  
31.9  
346  
34

50.802  
30.730  
21.531  
533  
21  
511

2183  
-068  
2176





163589 35 den  
24343

17 51.7 776 58 5.0 d/e 5 -23.0a

10352

~~10108 65 +240 65 N30~~

+19 (4)

317

~~10105 ±1.1 +245 ±1.2 6c 7u 3u~~

-250 (20)

6701

5.62 339 156 454 2.621 den

17 123 551  
24 113  
195 538

101024 +2423

+2486

0379

178

249  
1.45

070 010

-23.0

25



R.A. : 17.850  
DEC. : 77.000  
PM. R.A. : 178.000  
PM. DEC. : 249.000  
DISTANCE : 1.850  
MODULUS : 23  
AD. VEL. : -23.000

q1 (U) : 0.033  
q2 (U) : 0.961  
q3 (U) : 0.274  
dU : 1140.515  
U : 20.426

q1 (V) : 0.510  
q2 (V) : -0.252  
q3 (V) : 0.822  
dV : -200.758  
V : -23.621

35  
q1 (W) : -0.860  
q2 (W) : -0.113  
q3 (W) : 0.498  
dW : -296.596  
W : -18.416

R.A. : 17.750  
DEC. : 2.000  
PM. R.A. : -27.000  
PM. DEC. : 65.000  
DISTANCE : 5.800  
MODULUS : 145  
RAD. VEL. : -58.000

q1 (U) : 0.0  
q2 (U) : 0.  
q3 (U) : -0.  
dU : -10.  
U : 15

q1 (V) :  
q2 (V) :  
q3 (V) :  
dV :  
V :

q1  
d

-0014±9.5 -057±8.3  
-0026 -060

215

162021 17 47.3

140 III -22.9±0.3

24211

u20-062

6.67 ±1.04

022-062

17.351 1898.1  
073  
424

-42 18 57.17 1895.9

3.08

54.09

~~9020~~  
41

30.167  
47.165  
17.337  
349  
-115  
33

470

26.93 1933.62  
81.68  
58.61  
195

9020  
45.10

604  
302  
122

1409  
5704  
2.95

~~899~~  
~~49.2~~

50.6 2542  
-4645 26.0  
-4585 26.0

5973 2602 0656  
8020 -9618 0051

57.53 1956.58  
37.53

2449

33