

6 85.2

43

Go Cas 1 38.6 +67 47 Ap +5.1 8

(478)

5.51 + 1.1

10227 DAD 3,1 +7E +2 6 DAD

983 10271 +14E -3 37enka

Sup 3,141 + 10096 -004 N30

64600 +0093 -002 G-C con to 430

2045 11.5 5.14

1 800

94 5 007 1 4 0 528 10093-7009

OK

9742 9657  
2255 2896

05215  
00 ~~45~~ 51  
+2.05

V 55700 Cas 2 Sin 7

5.54-5.14 2348 9720 ✓

5.14 Cas 0 Sin 9

-2483 ✓ 9687 ✓

✓ 0999

V 0512

2 10015

90 = 10.7

mod = 6.3

+056 -002 G-C  
+055 -004 N30  
+056 -003

-013

0055 ✓

6.31

417 809 926 378 +054 -003 +5.1 -003 +5 0

-023 001 041-003 -095 199 +1.9 +2 +1 01

-8 +21 +5  
+19 -10 +6

-5 +14 +5 013

+16 -5 +3

11550  
6701

1 397

-50

17

-6.9

rk

+0.67  
1122

6.12 ~ 0.51 1.120

1045

6.6 191 151 2.822

1089

54

10.11-0.23

~~10.11-0.13~~

10.13-0.23

-13

-21

-23

5.72

5.57

-6.9

-6.9

R.A. : 1.650  
DEC. : -50.300  
PM. R.A. : -21.000  
PM. DEC. : -23.000  
DISTANCE : 5.570  
MODULUS : 130  
RAD. VEL. : -6.900

q1 (U) : 0.765  
q2 (U) : 0.637  
q3 (U) : -0.100  
dU : -118.037  
U : -14.658

q1 (V) : -0.615  
q2 (V) : 0.675  
q3 (V) : -0.407  
dV : -34.451  
V : -1.668

q1 (W) : 0.192  
q2 (W) : -0.373  
q3 (W) : -0.908  
dW : 28.440  
W : 9.961

50

0.0

502

1 41.5 + 56 50

10887

2116

6.15

—

new? 1.5

1733<sup>46</sup>  
1130  
1476

from 1007 (11) 32  
7  
548  
+2.5

from 1000

033 163 1.137

2.862 et al +2.5

$\frac{326}{1.463}$   
669  
1.52

378  
53

1.130

0 5/16 inch

+ 5/16 in  
+ 2.5

063 = a  
054 = r

1.93

+ 0.85  
5.85

619 168 1134

+ 0.13 + 0.12

818



57





R.A. : 1.700  
DEC. : 56.850  
M. R.A. : 32.000  
M. DEC. : 7.000  
DISTANCE : 5.980  
MODULUS : 157  
          : 2.500



148

10830

43.3

-25

8

F1E

ARS14

GC2175

E Sol

44

44

44

44

5.30 + 40 (-3) ✓

256 162 528 2690

5.28

3.0

1255

254

169

603

528

552

2690

82734

[21] 215 +3

[21] 484 18  
21

5.27 125 901

180

5

-57

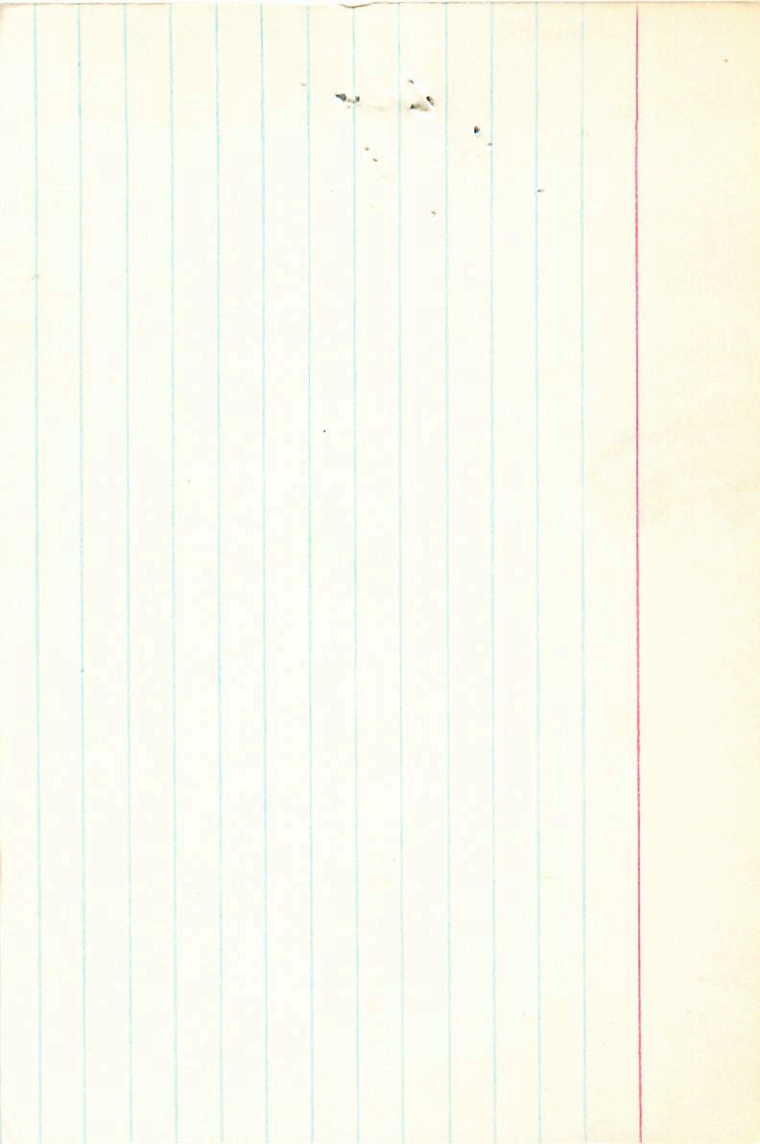
184

430

+387

+328

3.43



ESel  
10830  
GC2145  
W551  
Y372

Y 14  
A051394  
9m 5"

-250704

FRK  
1624-0569

GC 7160 -057

1 43.3 -25 15

+0117 -054 N30

+0120 -052±20 GC Cont N30  
±1.5

414.586 L(57)

11.9 C ago

14.0 bin

13.0

30±10 Y(10)

14051394 9

R.A. : 1.750  
DEC. : -25.300  
R.A. : 180.000  
DEC. : -57.000  
DISTANCE : 1.840  
MODULUS : 23  
VEL. : 13.000

q1 (U) : 0.753  
q2 (U) : 0.628  
q3 (U) : 0.197  
dU : 411.314  
U : 12.154

q1 (V) : -0.622  
q2 (V) : 0.777  
q3 (V) : -0.099  
dV : -689.559  
V : -17.374

q1 (W) : 0.215  
q2 (W) : 0.048  
q3 (W) : -0.975  
dW : 152.726  
W : -9.118

52

52

HR515 149m 43.9 + 17 10 6.37 A7m - 10.50<sup>3</sup> + 3.3 m/hr

CC2156 +0123 6.58 06059.338  
+0036 ± 2.1 +012 ± 1.8  
10845 +0353 -0.12 1400 158 173 974 2.74m 1895.2

+00351  
+052 +012  
+00353 +0123 ZC  
+00368 +0130  
+00368 +0155

147m  
+177  
0.15  
1400 1600<sup>5</sup>

+753 2332 +568 +1820 +0189 +2009 +29.5 +30 +34 +1.9  
-622 4641 +450 -1504 +0365 -1139 -16.7 -18 -17 +1.5  
+215 +692 -689 +0520 +0394 +0914 +13.4 +11 +12 -2.2

9346 9999  
3503 0111

+0035 +0233

+0528  
+0554 +013

9366 9999 } 0551  
3503 0108 } 0114

3





17.00

17.150

58.000

12.000

5.800

145

3.300

0.759

d. Tai

1 50.2 129 20

-12.62

HR 544

3.44 10.46

FSK

+010 - 230 GL

+010 - 232 N30

+010 - 231 FN3

+010 - 231

Sp. C. P=1.7

W350

44A(16)  
5E M(4)

100089 - 2314

100087 - 2306

1.85  
+24.35

0114

1012235

114  
-235  
0.85  
12.6

462 987 489 972 +010 -231 -12.6 -113 -6<sup>2</sup> -9<sup>5</sup>2

-005 052 009 -100 450 289 -11.0 -19.5 -5.1 05

-1 +1 -25  
-11 -19 -11

-1.9 0 -22.9

-109 -86.1 -9.1

-5.3 -2.2 -15.7

-9.7 -13.4 -23

057

100

dT<sub>u</sub>

11443

Sp. B. ~~1.3~~ 1.3

1 50.2 +29 20 dF<sub>2</sub> -12.6 a

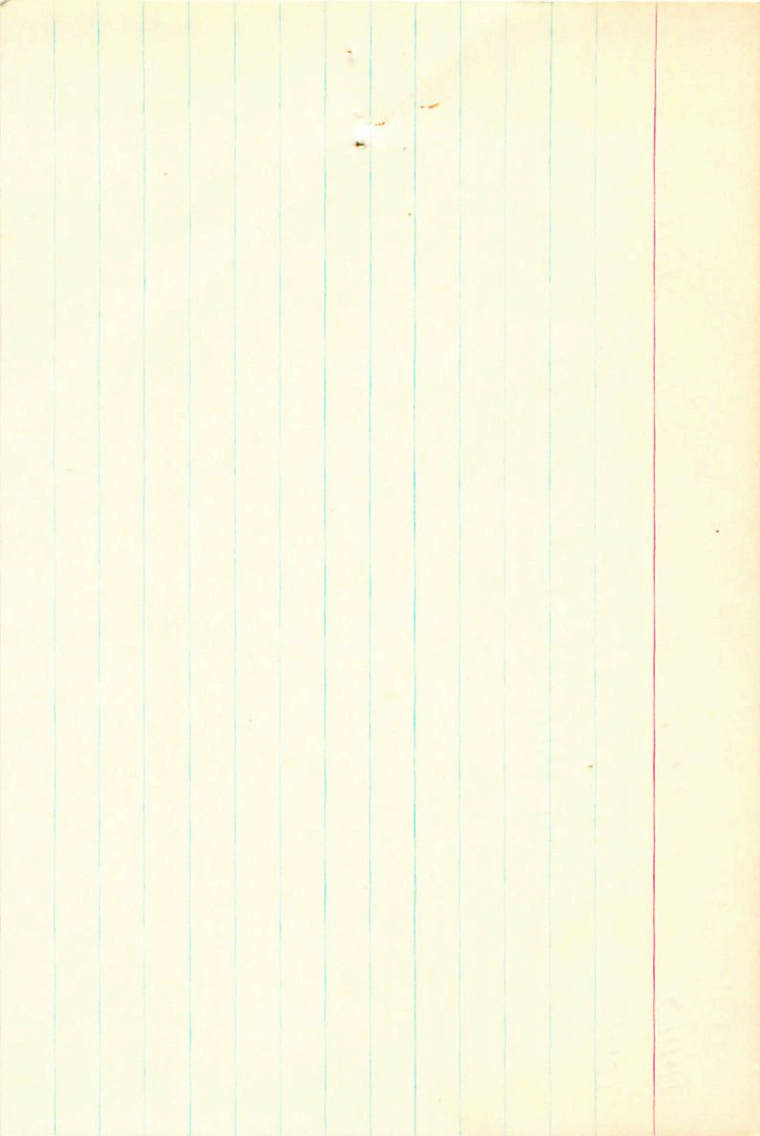
1046

+0007 - 232 N30

2272

+0007 ± 1.0 - 228 ± 1.0 GL cont N30

50±7



11443

1 50.2 +29 20

FLTV

#R544

SpB

3.42 +48 +03 3544

R2272

2Tri

413  
175  
24

48  
128  
.316 .156 .501 (3) SAC 2.637 (5) 6+

84

~~318 246 497~~

2.650 C

[m] 213 +21

$\frac{7}{324}$

+16

-34 FIVY

[C] 438 +103  
126

+24 (1.0)

+00054 -2295  
+0110 2337  
4012-233

-126a

54



1.858 : R.A.  
 22.330 : DEC.  
 14.000 : PM. R.A.  
 -332.000 : PM. DEC.  
 0.850 : DISTANCE  
 12 : MODULUS  
 -12.000 : RAD. VEL.

0.741 : p1 (U)  
 0.193 : p2 (U)  
 0.043 : p3 (U)  
 -152.374 : q1  
 -10.000 : U

-0.000 : p1 (V)  
 0.000 : p2 (V)  
 0.000 : p3 (V)  
 -0.000 : q1  
 -10.000 : U

0.000 : p1 (W)  
 0.000 : p2 (W)  
 -0.000 : p3 (W)  
 -0.000 : q1  
 -0.000 : W

R.A. : 1.850  
DEC. : 29.350  
PM. R.A. : 14.000  
PM. DEC. : -235.000  
DISTANCE : 0.850  
MODULUS : 15  
RAD. VEL. : -12.600

q1 (U) : 0.741  
q2 (U) : 0.193  
q3 (U) : 0.643  
dU : -172.374  
U : -10.650

q1 (V) : -0.628  
q2 (V) : 0.538  
q3 (V) : 0.562  
dV : -635.668  
V : -16.487

q1 (W) : 0.237  
q2 (W) : 0.820  
q3 (W) : -0.520  
dW : -900.188  
W : -6.761

54

540

1 50.5 + 55 > 1

+7.9

11408

2254

6.46 -

2.856 (4)

4084 + 244 + 884 000 SPC

new

6.43 - off 1.257

488

74

13

168

1542

1.66

82

10085-011

+7.98

71

4.42

+7.9

110-110  
047-011

82

2582 6984 5524 8804

10.483

10.11 = 4.65

R.A. : 1.850  
DEC. : 55.350  
R.A. : 82.000  
DEC. : -11.000  
STANCE : 4.420  
MODULUS : 77  
VEL. : 7.900

q1 (U) : 0.741  
q2 (U) : -0.108  
q3 (U) : 0.663  
dU : 169.433  
U : 18.206

q1 (V) : -0.628  
q2 (V) : 0.237  
q3 (V) : 0.741  
151.137

571  
11556

10327071

~~44467005~~

10237071

1314  
269

1314  
~~269~~  
269

14.1

-61

06  
+15.4

17  
63  
2.88  
15.4

699  
233  
157  
617  
2701

6.04  
145  
989

48

71  
609  
1514

278  
279  
1 15.3 + 3 21  
75.3

86

1875  
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2016  
2017  
2018  
2019  
2020  
2021  
2022  
2023  
2024  
2025



R.A. : 1.900  
DEC. : -61.100  
R.A. : 48.000  
DEC. : 71.000  
ANCE : 3.090  
ULUS : 41  
VEL. : 15.400

(U) : 0.735  
(U) : 0.650  
(U) : -0.194  
dU : 299.508  
U : 9.447

1 (V) : -0.631  
2 (V) : 0.551  
3 (V) : -0.546  
dV : 116.003  
V :

575 1 57.8 +70 40

17111

ADS 1548

submit

4.54 +0.16 +0.06 5

<sup>ms</sup>  
ID m = 2.5

Str. ?

new

-50

~~1147~~  
~~1141~~

558

56.7 + 1203

608 - 121207

12140 ✓  
233

(5.96) + 19 + 10 beans

DMV

+ 108 + 196 + 915 DMV SPC

New

2930

-13.0

+1005 - 0.2 (hooky)

D

-42

4.59

-12

-130

1007-042

h

R.A. : 1.950  
DEC. : 12.050  
. R.A. : 7.000  
. DEC. : -42.000  
STANCE : 4.590  
ODULUS : 83  
. VEL. : -13.000

q1 (U) : 0.729  
q2 (U) : 0.372  
q3 (U) : 0.575  
dU : -50.342  
U : -11.645

10-4

q1 (V) : -0.634  
q2 (V) : 0.684  
q3 (V) : 0.361  
dV : -156.807  
V : -17.672

15.2

q1 (W) : 0.260  
q2 (W) : 0.627  
q3 (W) : -0.734  
dW : -116.462  
W : -0.097

11)

57

57

580

12216

2445

1 55.1 +72 11

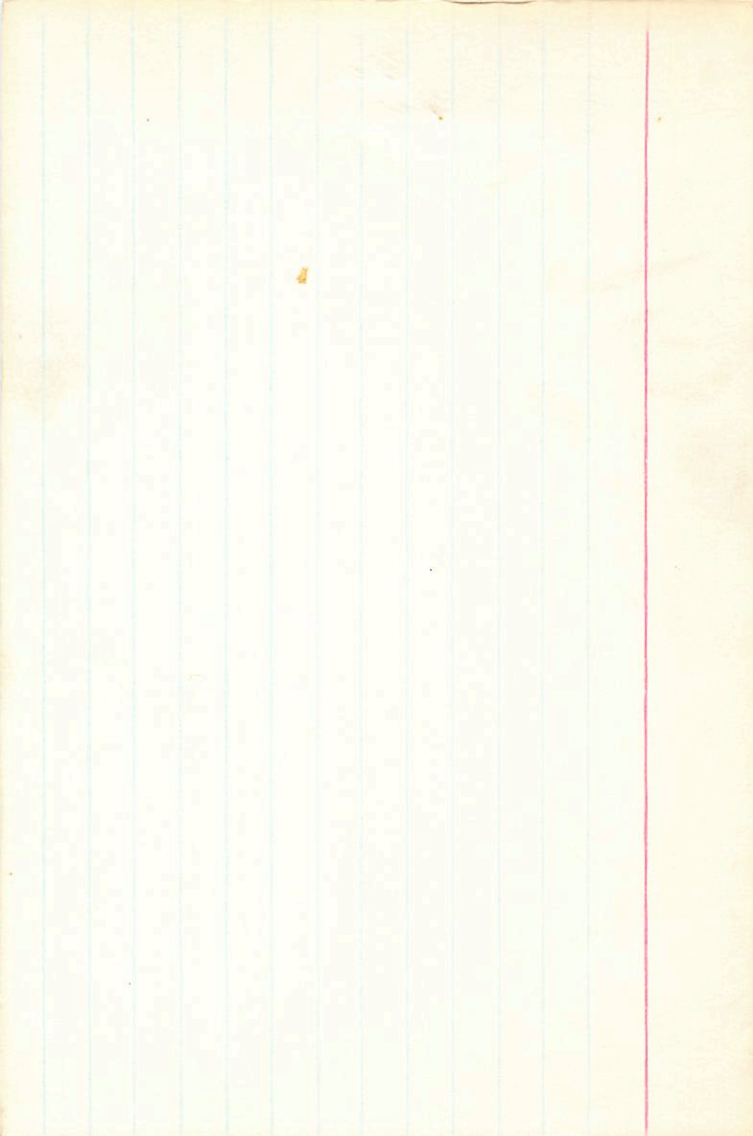
2 Spc ?

3.58 -0.01 +0.04 S

3.92 +0.02 +0.04 Spw

Str ?

Bud 5-1



2HY

1 57.2 -61 49

$\frac{+119}{-136}$   
TVG

+72

HR591

201

2.96 +0.28 +0.07 FOE +263 103Y66

266 (5) 834

→ +275 +031030

166 698 811 911

+272 +3466 →

+266 +040AK3

+275 +31W20

+268 +035

506

+273

180 114 -12 -2

1324

9963 9112

FMS

+03768 +0381

0856 4036

264 025

558

7112 4932 2684

511

6679 1136 → 10022

264

264 264 081  
-3.0 26.4

12



-581 423

12311 285 083 1229  
785 / 57.2 - 61 49 100E

HR591 2.87 + 28 + 13 C  
GC2405 1.145 40.2

dRaysi 525 288 524  
175 - 153 .869 2.77 / cut  
509 331 156 909

[204] 204 - 2 808  
[157] 834 141 / 142 1165

0.50 717 - 131 - 203  
113.6  
500-22 [272-009]

4.50  
11.05  
6.15  
1.9  
1.09  
4.00

41012 - 738 + 256  
9524 886 - 1256

88

R.A. : 1.950  
DEC. : -61.800  
. R.A. : 558.000  
. DEC. : 28.000  
STANCE : 1.750  
ODULUS : 22  
. VEL. : 12.000

q1 (U) : 0.729  
q2 (U) : 0.656  
q3 (U) : -0.197  
dU : 997.874  
U : 19.976

q1 (V) : -0.634  
q2 (V) : 0.537  
q3 (V) : -0.557  
dV : -720.764  
V : -22.820

q1 (W) : 0.260  
q2 (W) : -0.531  
q3 (W) : -0.807  
dW : 253.977  
W : -3.996



-0030±10.0 +030±9.0  
-0005 ✓ +010

606  
12563 2 00.2 -29 54 6.4 A3 +11.58

1129 -0.0003 +006

2463 13.779 14004 -29 6-4 21.07 1898.0

X006 149  
13.928 UV3 214 106 1076287 = 1.56  
22.63

~~64057 146.4~~  
146.4  
149.4  
149.4

596.648  
6267.222  
13.88 21.8 1981.9

13.928  
-000  
-912 -030 -4 6

56.4

253  
+159

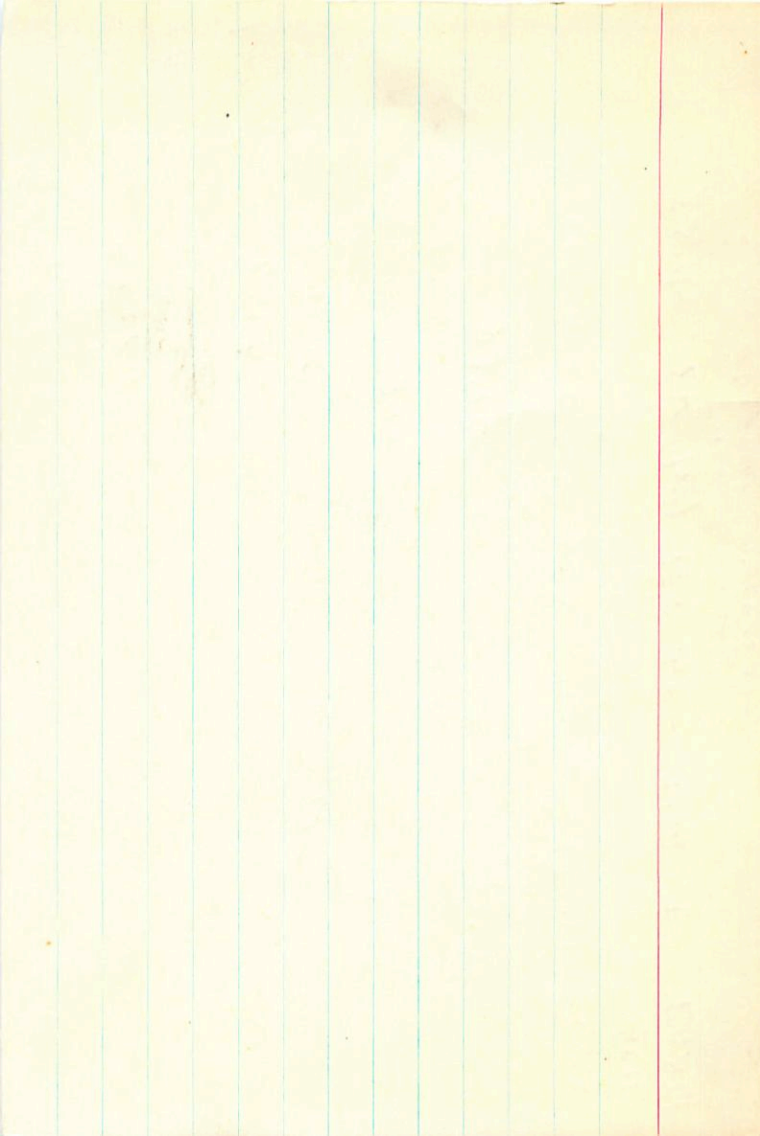
58.8

+2.1  
-2.3  
-11.1

13.902  
-4  
898  
722 666 186  
-636 700 -198  
271 -024 -962  
-0137 +0189  
+0121 +0212  
-0051 -0007

+0052  
+0333  
-0058  
22.22  
+15  
22.04

1956.79



606 R 00.2 -29 54

12563  
2463

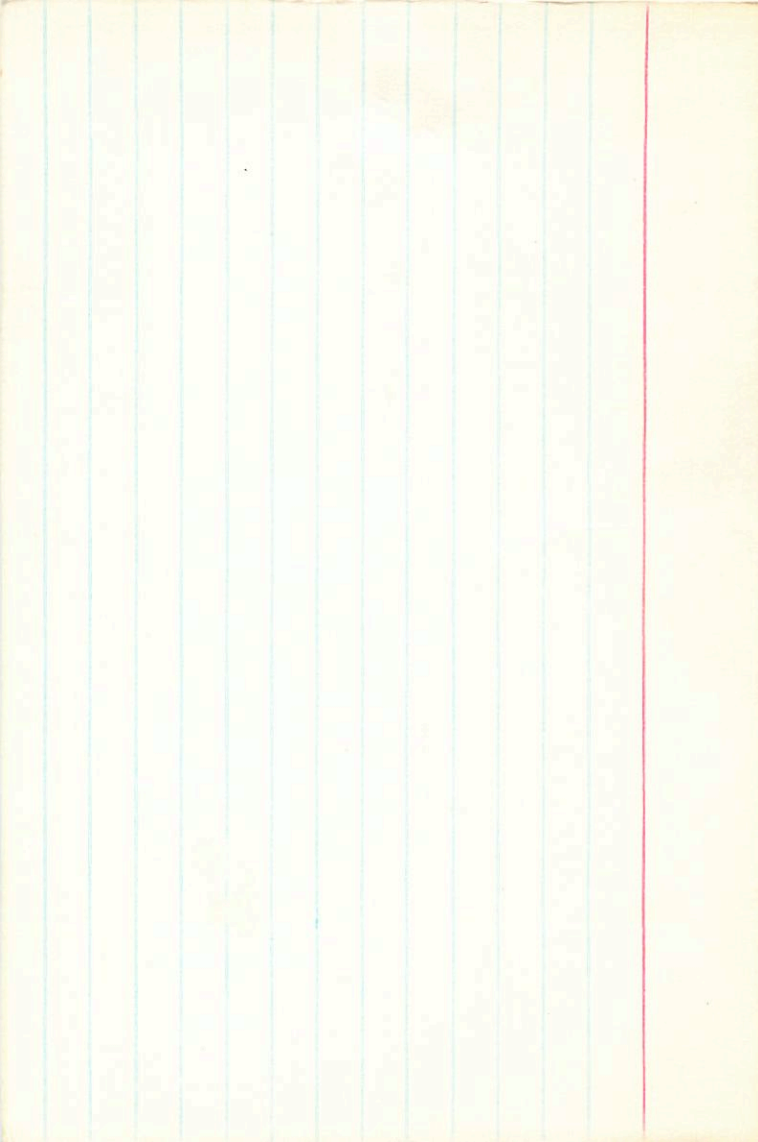
(412)  
6.41 + 0.14 - Canyon

Sta ?

new

6.41 062 206 1.080 2.966 16,39,52  
412  
1.452  
124  
616

41156





572

612

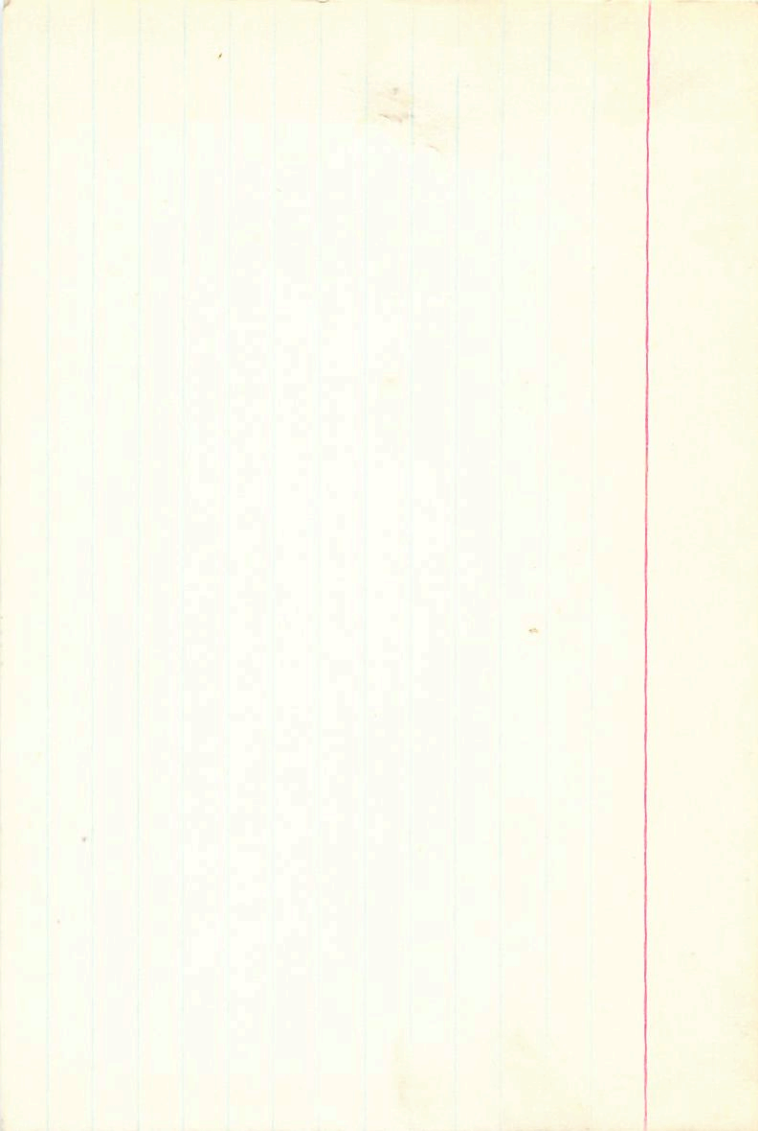
2 02.2

29 33

12767

418.56 (9)

072 112 513 2.714



58 April

(620) 9977

115  
116  
12

5.5 737 35

45 D

HD13041

483+12+14 J

160252 MBM

055 155 1.063 (3) JP

2869 804

154 205 1052 2869 5782

1052 2869 5782

476

4066  
4040

Robbery  
Possibly 6 car  
Velocity: 100  
Blood lines: 1/2 hr.

10182 -026

114 -14

480

1055 1484

Responsibility for  
about 1/2 hr on  
double awarded for  
you are if many plots,  
they been reported here.

-0352  
35

198 9829 8496

-44 3034 -5306

3.94

776

+158 -039

+0132 -049 RS 5000

157-044

157-044



620 2 05.5 + 37 37

13041

7858

2552

4.83 + 0.12 + 0.13 J 2

+ 0.55 + 195 1.063 5 PC 2.869  
390 546 46

1652

a=91

210

1,953

n=64

1,563

+10  
4.6

Bud 51

250000

1157 - 036

+ 7.6

54





q1 (W) : 0.878  
 q2 (W) : -0.383  
 q3 (W) : 34.942  
 MW : -0.718  
 W :

39

8538.000\*

+4.6  
 -18.1  
 -1.4

1.000\*  
 22.500\*  
 59.000\*  
 59.000\*  
 0.300\*  
 -0.049\*  
 2.050\*  
 25.704 3076  
 6.700

+1.8

1.146  
 0.604

104.3 33.508

-0.872  
 0.796

21.5 -17.076

-0.046  
 -0.041

1.7 -1.0



10014

622 2 06.6 t34 45

$\beta$  Tm

13161

2572

std  $\rightarrow$

3.60 + 0.14 + 0.12 J

SR 314

+ 0.71 + 191

1.065  $\mu$ u SPc 2 sp.

$$\frac{382}{1,447}$$

2.836 56

Final

Bul 51

701216 - 0038

150

24M

150-090

330

198716

0.81

710

20

R.A. : 2.100  
DEC. : 34.750  
R.A. : 183.000  
DEC. : -40.000  
DISTANCE : 3.300  
MODULUS : 46  
VEL. : 10.000

q1 (U) : 0.709  
q2 (U) : 0.105  
q3 (U) : 0.697  
dU : 485.546  
U : 29.166

q1 (V) : -0.641  
q2 (V) : 0.506  
q3 (V) : 0.576  
dV : -553.176  
V : -19.522

q1 (W) : 0.293  
q2 (W) : 0.856  
q3 (W) : -0.426  
dW : 46.336  
W : -2.146

60

17206

2 - 12.5

- 1847

1300

12843

17206

0398

328 127 406 2696

307 150

36.26

1361  
10

330.95  
2156 0.26

10236 1034 Carroll

33534

354

27

0446

43

9999 | 3315  
          | 0309

7119

6162

7022 ✓

61

13174

2

6.6

+25

42

F2 III ✓

HR623

GC2523

5.00 +34 +18 2549

+0.62  
+0.02

14 Pri

[m]

222 -5

.211

.184

.874

(20)

SAC

2.723 Stal Lt

[c]

832 <sup>240</sup>/<sub>235</sub>

+0.97

4.98

1801229

81

-36

466

+0054-036 Calvin Corp.

+15.6 -21.3 -1.9

+21.6 -31.6 -21

-1.5

073-036

8904 7017

1386 7125

8904 7017  
1386 7125

81  
-36



62

DEC 1 1958  
R.H. ...  
DEC 1 1958  
R.H. ...  
STANCE ...  
MODULUS ...  
VEL ...  
d1 (U) ...  
d2 (U) ...  
d3 (U) ...  
d4 (U) ...  
d5 (U) ...  
d6 (U) ...  
d7 (U) ...  
d8 (U) ...  
d9 (U) ...  
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d55 (U) ...  
d56 (U) ...  
d57 (U) ...  
d58 (U) ...  
d59 (U) ...  
d60 (U) ...  
d61 (U) ...  
d62 (U) ...  
d63 (U) ...  
d64 (U) ...  
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d67 (U) ...  
d68 (U) ...  
d69 (U) ...  
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d72 (U) ...  
d73 (U) ...  
d74 (U) ...  
d75 (U) ...  
d76 (U) ...  
d77 (U) ...  
d78 (U) ...  
d79 (U) ...  
d80 (U) ...  
d81 (U) ...  
d82 (U) ...  
d83 (U) ...  
d84 (U) ...  
d85 (U) ...  
d86 (U) ...  
d87 (U) ...  
d88 (U) ...  
d89 (U) ...  
d90 (U) ...  
d91 (U) ...  
d92 (U) ...  
d93 (U) ...  
d94 (U) ...  
d95 (U) ...  
d96 (U) ...  
d97 (U) ...  
d98 (U) ...  
d99 (U) ...  
d100 (U) ...



R.A.	:	:	2.10
DEC.	:	:	25.700
1. R.A.	:	:	81.000
1. DEC.	:	:	-36.000
1. DISTANCE	:	:	4.660
1. MODULUS	:	:	86
1. VEL.	:	:	-1.500

q1 (U)	:	:	0.709
q2 (U)	:	:	0.213
q3 (U)	:	:	0.672
dp	:	:	208.959
U	:	:	16.859

q1 (V)	:	:	-0.641
q2 (V)	:	:	0.581
q3 (V)	:	:	
dp	:	:	
U	:	:	

(672)

477 420 2625  
253

Spd 949

14214

2 15.4 +01 31

GC-2770<sup>1281</sup>

+473

5.56 +0.61 +0.09 F9V R

+10410

$\delta = 0.5$

+45 +8 -2 070

+48 +9 +4 .060

+0247 +375 W30  
+0248 2.2 +370 2.1 GC W30  
+372 +381 GC

+73 +21 +22 .040

W250  
+02431 +3740  
+02423 +3739  
93.

~~+02432 +3734 W30~~  
2412 / 3754 F124

516  
486  
186

726.8a

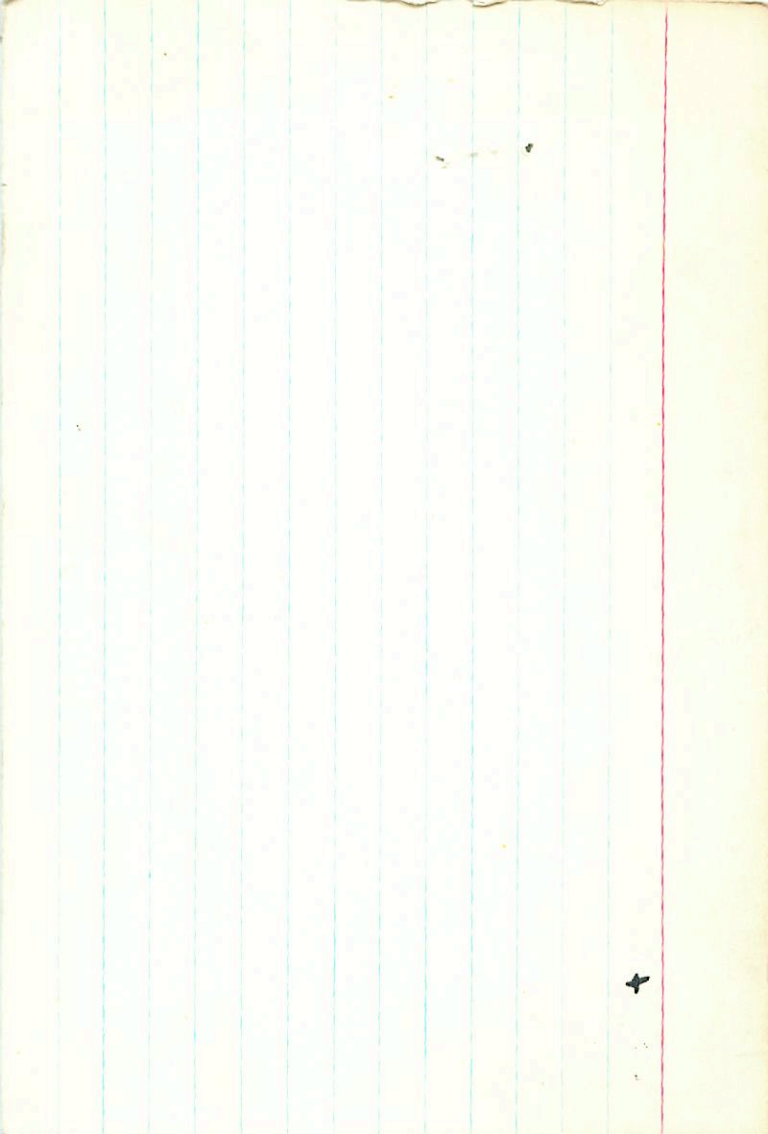
Orbit Height  
50

.3617 hr  

362	372
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1.815

46 A(16)  
22 A(10) 36 ± 5  
31 X(12)



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Item	Description	Quantity	Unit Price	Total
1	VEL	13.000		
2	DULUS	23		
3	TANGE	7.848		
4	DEC	7.848		
5	R.F.	7.848		
6	DEC	186.868		
7	R.F.	27.300		
8	R.F.	4.750		
9	U	18.154		
10	U	18.154		
11	U	11.314		
12	U	0.187		
13	U	0.038		
14	U	0.538		
15	U	18.154		
16	U	18.154		
17	U	18.154		
18	U	18.154		
19	U	18.154		
20	U	18.154		
21	U	18.154		
22	U	18.154		
23	U	18.154		
24	U	18.154		
25	U	18.154		
26	U	18.154		
27	U	18.154		
28	U	18.154		
29	U	18.154		
30	U	18.154		

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R.A. : 1.750  
DEC. : -25.300  
R.A. : 180.000  
DEC. : -57.000  
DISTANCE : 1.840  
MODULUS : 23  
VEL. : 13.000

q1 (U) : 0.753  
q2 (U) : 0.628  
q3 (U) : 0.197  
dU : 411.314  
U : 12.154

q1 (V) : -0.622  
q2 (V) : 0.777  
q3 (V) : -0.099  
dV : -689.559  
V : -17.374

q1 (W) : 0.215  
q2 (W) : 0.048  
q3 (W) : -0.975  
dW : 152.726  
W : -9.118

52

HR515 14 Jan 43.9 + 17 10 6.37 A7m - 10.50 +3.3 m/h

GC2156 +0123 6.58 0605<sup>9</sup>1.328  
+0036 ±2.1 +012 ±1.8  
10845 +0351  
+010 52.166 1500 158 173 974 472.45 1895.2  
974 2.774

10528  
+0554 +013

+00353 +01133 ZC  
+0081 +0130  
+00368 +0155

+052 +012  
0821

147m  
+77  
0.15  
+753 +332 +568 +1820 +0189 +2009 +29.5 +3 +34 +1.9  
-622 +6.41 +450 -1504 +0365 -1139 -16.7 -18 -17 -1.5  
+215 +692 -689 +0520 +0354 +0614 +13.4 +11 +12 -2.2  
9346 9999  
3503 0111

147m 160m

9366 9999 } 0551  
3583 0108 } 0114

