

3556 33.4 29 +30.0 R(1.)
0 3600 45 76
3800 42 01

8.77 40.54 +0.10 G02 R

83.02

10080 -091 Country

114 091

120
141
482
130

800 4

49

3291 0 33.6 +44 22 7.3 B8 -9.18

332 +0025 ± 5.2 +001 ± 3.9 GC
+0026 -004

R671K

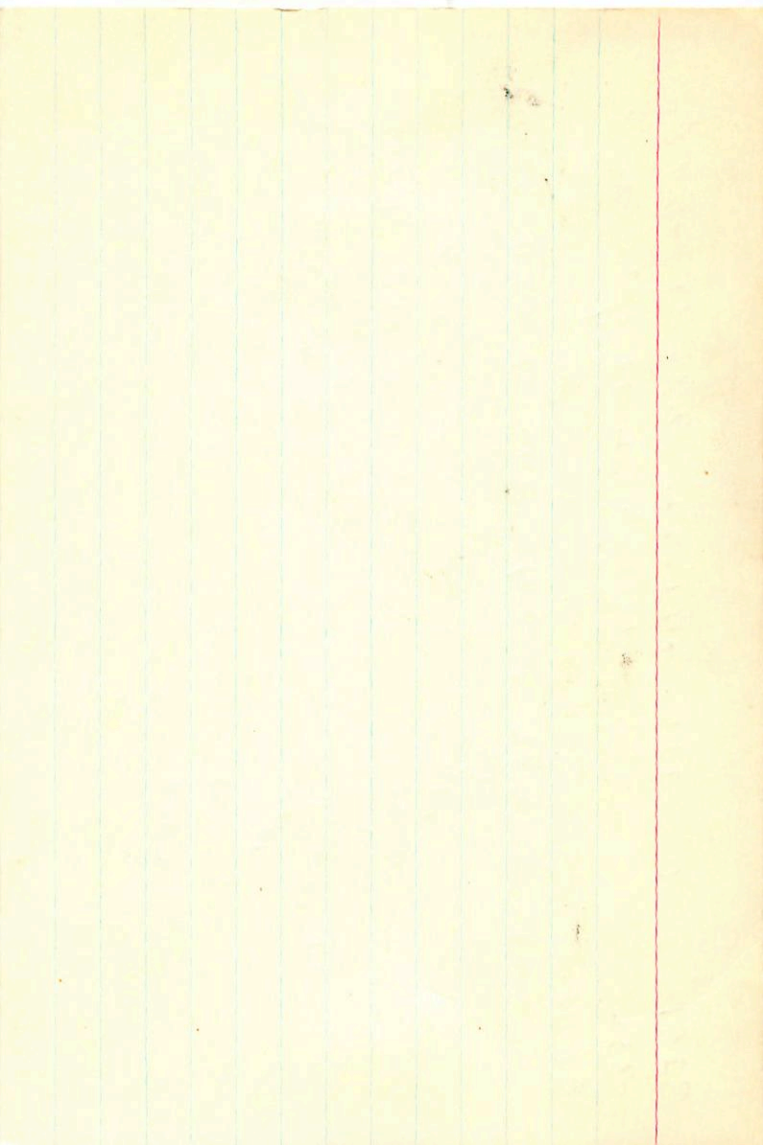
0 33 36.456 1903.4 +44 21 50.11 1999.3
-116
340
Total

32

1

33

Handwritten notes and calculations on a separate sheet of paper, including a table with columns for 'DISTANCE' and 'MODEL'. The text is partially obscured and difficult to read.



3373

0 340 -30 27

-37

13 18

2.5

8

10.5

237

50

q1 (M) : -0.062
q2 (M) : -0.055
q3 (M) : -0.997
MP : -2.959
M : -0.038

q1 (V) : -0.516
q2 (V) : 0.856
q3 (V) : -0.015
DV : 25.094
V : 31.647

q1 (U) : 0.854
q2 (U) : 0.514
q3 (U) : -0.081
DU : 31.676
U : 40.179

R.H. : 8.000
DEC. : 10.500
STANCE : 1259
MODULUS : -3.700
VEL. :

H4

+530104 0 34.0 +54 22 ADD -12 R

10.55 +0.15 +0.01

-025 +036 R

~~-002 +019~~ 7

~~-5002 +015~~ 4

~~-003 +015~~ 7

148 989 813 582 -102 +019 -12 015 -10 -052

0 002 -002 015 -071 0 -7 -1 01

-78 -1 -62
-37 -95 +38

-149 -1 -104 005

140 2405
3359

0 342 49 24

5 +0355 -1259 Y +C RA - +0377 -141 Sky

+0390 -1415 Y +C B

+0377 -145 "

+0377 -143

A db hi $\Delta m = 0.75$ -3.0

Balloonable velocity (+50)

+0376 -1435

+5248

640 +215 8.10 +0.26

2.8

742

(2.4)

+5836 -145

0010

2

FRD. CELL : 1,000
 MODULE : 1,000
 DISTANCE : 1,000
 PM. DEC. : 1,000
 RM. R.A. : 1,000
 DEL. : 1,000
 R. : 1,000

1,000
 1,000
 1,000
 1,000
 1,000

1,000
 1,000
 1,000
 1,000
 1,000

1,000
 1,000
 1,000
 1,000
 1,000

R.A. : 0.550
DEC. : -49.400
PM. R.A. : 536.000
PM. DEC. : -148.000
DISTANCE : 2.400
MODULUS : 30
RAD. VEL. : -3.000

q1 (U) : 0.854
q2 (U) : 0.460
q3 (U) : -0.242
dU : 1089.41
U : 33.62

q1 (V) : -0.51
q2 (V) : 0.80
q3 (V) : -0.29
dV : % -1419.
V : -41.90

q1 (W) : -0.062
q2 (W) : -0.373
q3 (W) : -0.926
dW : 159.237
W : 7.586

15 cut

3512 0 35.5 -00 47 9103 0008 WR-1)

GC702

W348

105534

564 ±2.0

-0031 -0042
-43

-0465

-045-010

11.5 30.5

6.66 + 1.30 + 1.38 (4)

-048±2 -004±2 GC

6.03 + 0.485 (2)

-050 -009 Z

505

500

115

6.45

offered B 12 53 + 0.64 + 0.15 (9)

154 988 -014 1.000 -049 -006 -55.8 0 41 -028
008 0 -048 0 638 -227 -55.8 -55 -9

-36 -123 -13 002

-117 +28 +45

-47 -53 -5 005

-53 -4 +47

2





3512 405534 0 35.5 - 00 47913 - 55.5 8

348 11^m30^{sec} physical? - 0032 ± 1.9 - 004 ± 1.6
66752 - 0036 - 003

0 35 31.018 18943 - 0 46 41.52 1889.2
 $\frac{178}{196}$ + 124

34 14.347

16.740

35 31.080

0.97

- 0.14

0.83

35 31.067

- 0.152

0.552

35 0.367

20.701

31.068

0.997

54 56.81

5 15.52

46 41.29

- 2.4

41.52

41.24

41.24

41.24

41.24

41.24

41.24

41.24

41.24

43.5

31.041

- 1.55

44 59.56

3 18.10

46 71.46

+ 1.24

1933.07

1133.0

1938.27

1941.66

1937.87

48.6

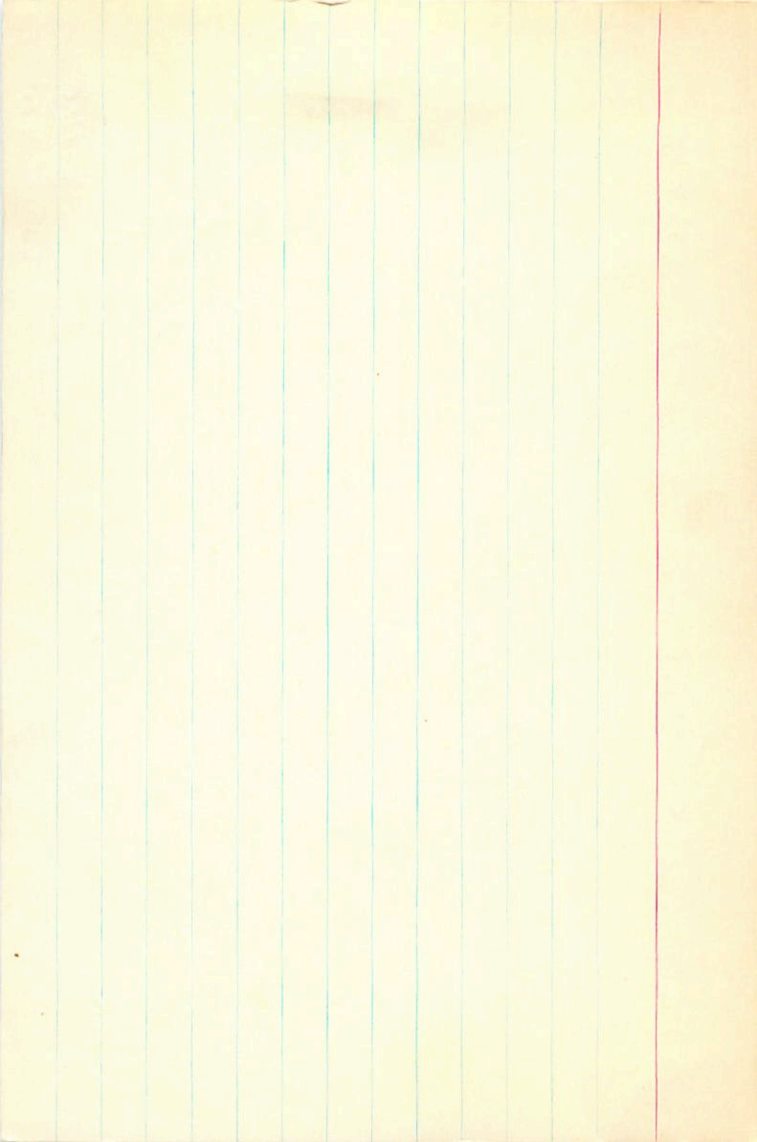
- 52.2 15th

Carole

Carole

Wendy

48.6



+73°26

353

+105

" -0.0016(8)

$\pi_{\bar{u}}$

-213 -83 G.P

$\delta = +08$

9.24 +0.68 +0.14 120'

u v w

$M_v = 15.75 -41 +31 -17$

+3.5 -112 +83 -45

0 36.3 +74 29 9.1 dG4 +0.683W

1088 H

3574 00 36.4 +49 05 5.7 gms -9.86

355

GC770 +0002. -0001 N30

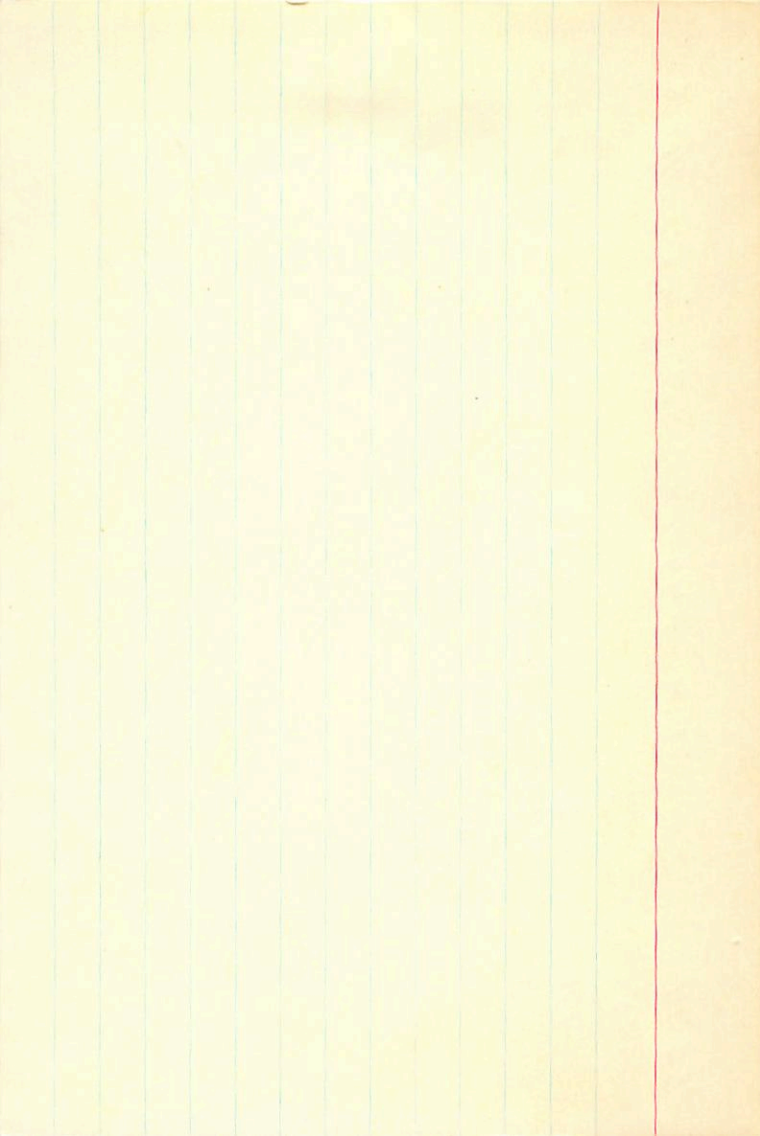
+0003²²⁸ -0008^{±24} GC cont. N30

ADS540

10^m 14^{''}

optical

-7.7 @ Var
~ 7.0 @



H0

3622

26.51

0 36.4 -25 52

2.77 +0.22 +1.55 A > D

-0.45 -0.26 ± 1.3 Y

+3.3 (2)

4

A +2.0 ± 1.6

145 990 ~ 437 500 - 045 - 026 + 7.0 011 - 3.0 - 111 ✓
006 001 - 045 011 - 024 - 215 + 6.3 + 6.2 + 0.9 01

+ 3.8 - 21.1 - 14.1

- 24.9 + 0.6 - 6.5

-121 -100

1272

3689 00 36.4 -74 14 F51E -I +440(6)

66771

4101(2)

FD809

7.42 +0.47 (1.60)

-0332 ± 75 -0.98 ± 73

23.518 1898.9 -0320 9.28 1846.5

1.647 -0326 -0.101 5.274

25.215

22.50 1928.64

26.021
58.428
24.449

15.15
7.38

654
38.24

-460

7.43

101

-03
7.46 09.01447.9

15
23.81

23.1428
164

300
244

8.42

9.38

53

—

AD. VEL. : 44.000
 MODULUS : 40
 DISTANCE : 0.000
 PM. DEC. : -181.000
 PM. R.A. : -540.000
 DEC. : -74.270
 R.A. : 0.000

D1 (D) : 0.000
 D2 (U) : 0.000
 D3 (U) : -0.410
 D4 : -0.000
 D5 : -0.000
 D6 : -0.000

D1 (D) : -0.000
 D2 (U) : 0.000
 D3 (U) : -0.000
 D4 : 0.000
 D5 : 0.000
 D6 : -0.000

D1 (D) : -0.000
 D2 (U) : -0.000
 D3 (U) : -0.000
 D4 : 0.000
 D5 : 0.000
 D6 : 0.000



R.A. : 0.600
DEC. : -74.250
PM. R.A. : -460.000
PM. DEC. : -101.000
DISTANCE : 3.000
MODULUS : 40
RAD. VEL. : 44.000

q1 (U) : 0.852
q2 (U) : 0.326
q3 (U) : -0.410
dU : -660.211
U : -44.340

q1 (V) : -0.522
q2 (V) : 0.603
q3 (V) : -0.604
dV : 20.335
V : -25.751

q1 (W) : -0.050
q2 (W) : -0.728
q3 (W) : -0.684
dW : 378.407
W : -15.010

3689 0 36.4 -74 14 F51E

-7453 7101

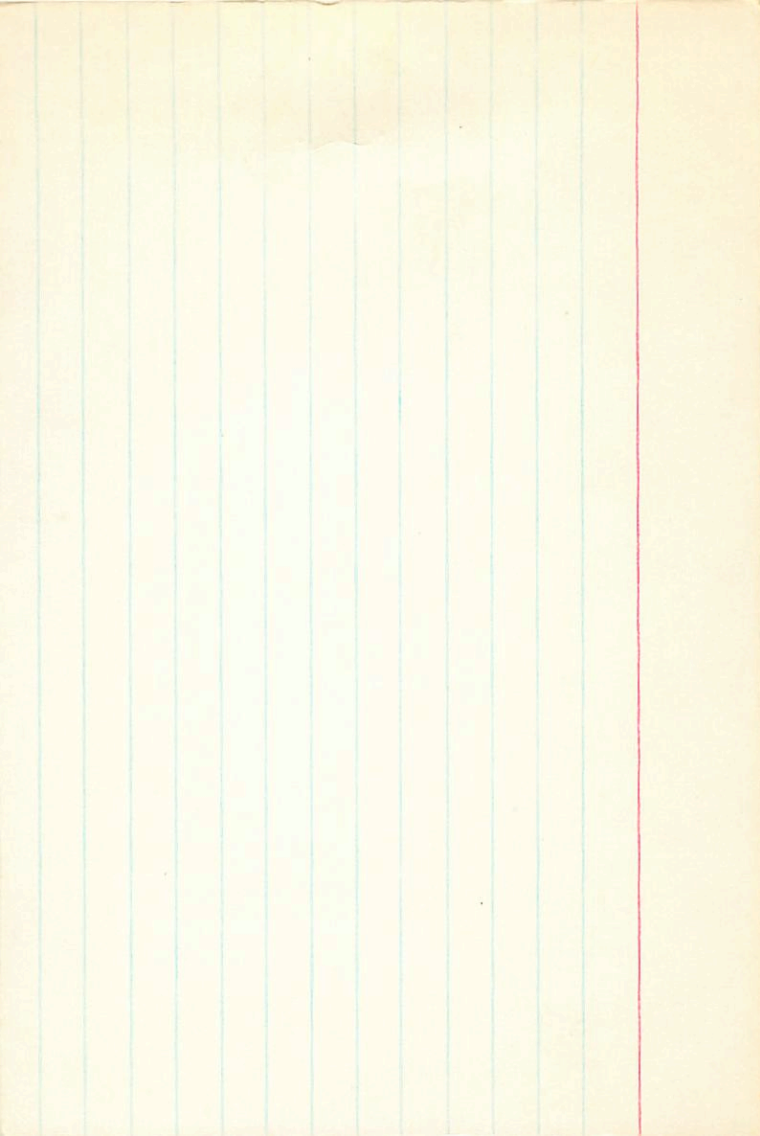
7.42 +0.47 -0.04 C

.329 .125 .337 2637 4417

207 151

225 274

-34 90



+20.87
HP 167A

+10.83 $\frac{9.22}{4.2}$

150 I 26

-18.1 $\frac{3.5}{-17.3}$

3640

5.26

17.329 96.2

+001822.2 -003 = 18

+0020

-027

+0020

-031

57.56

940

GL 274

8.57

$\frac{9}{232}$

$\frac{1.85}{53.41}$

$B = 0.25$

17.381

64.05

57.75

$\frac{-11}{370}$

$\frac{-29}{57.46}$

$P_{2/4} = 0.00$

370

57.46

0020 -030

00226 -0268

0.6

+21.15

17.321

$\frac{38.25}{316}$

52.19

0316

35

$\frac{-5}{316}$

$\frac{-16}{52.02}$

$\frac{633-031}{}$

-31

5.3

17.3

M

TOP

10/2

0.600
21.150
35.000
-31.000
5.300
114.52
-17.300

0.852
0.378
0.364
76.235
2.464

+0.6

-0.522
0.544
0.557

$$\begin{array}{r} -0094 \pm 10.0 \\ -0089 \\ \hline \end{array}$$

$$-103 \pm 8.0$$

$$-102$$

$$F8E + 17.3 \pm 0.86 (12)$$

$$-41 \quad 56$$

$$00 \quad 37.4$$

$$3737$$

$$8.48 + 0.54$$

$$786$$

$$-41 \quad 55 \quad 58.69 \quad 1896.9$$

$$21.260 \quad 1500.4$$

$$\begin{array}{r} 53, \quad 22 \\ \hline 5.47 \end{array}$$

$$\begin{array}{r} 466 \\ \hline 726 \end{array}$$

$$\begin{array}{r} 8246 \\ \hline 41.2 \\ \hline 44.3 \end{array}$$

$$11.12 \quad 1927.60$$

$$\textcircled{40.6}$$

$$\begin{array}{r} 729 \\ \hline 364 \\ \hline -36 \end{array}$$

$$9.474$$

$$12.082$$

$$\begin{array}{r} 536 \\ \hline 21.666 \end{array}$$

$$\begin{array}{r} 496 \\ \hline 1.443 \end{array}$$

$$1.423$$

$$21.309$$

$$\begin{array}{r} -33 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 1543 \\ \hline 57.72 \\ \hline -4.50 \end{array}$$

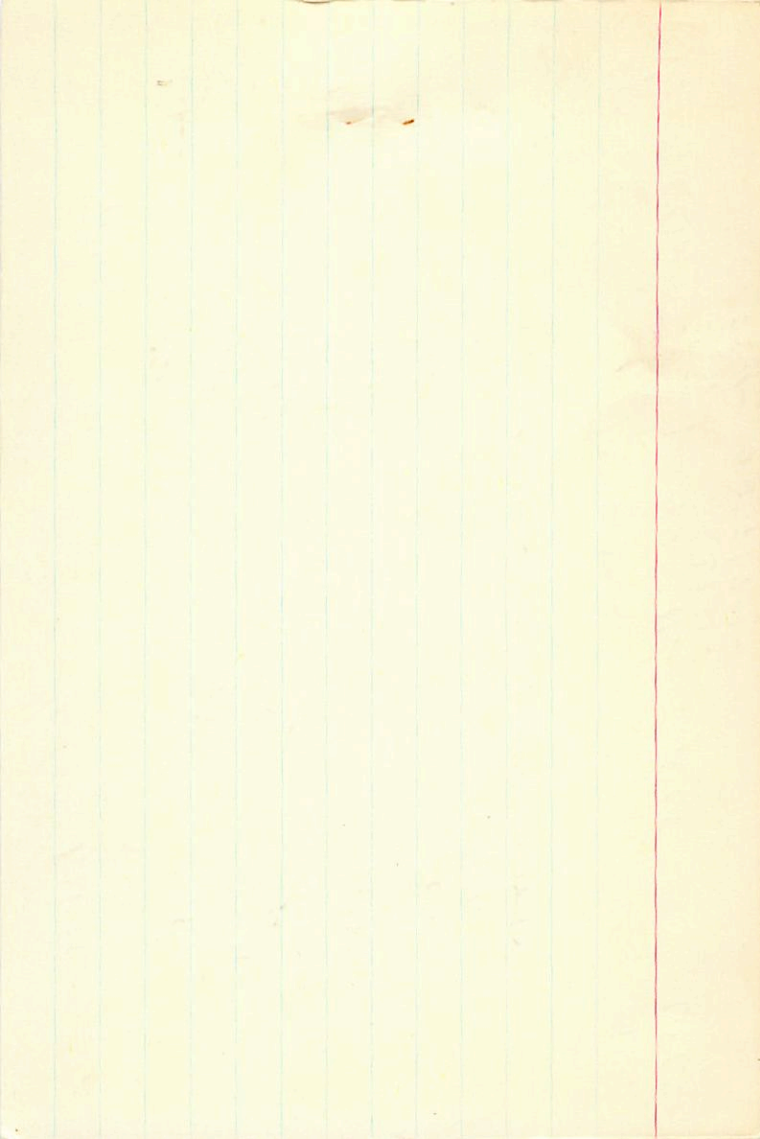
$$66$$

$$\begin{array}{r} 56.14 \\ \hline -221 \\ \hline 55.9 \end{array}$$

$$59.43 \quad 1954.84$$

$$-9$$

$$-9.52$$



$$D_m = 2.15 \cdot 16'' \cdot 8.6 \text{ dF} - 1.2$$

$$3743 \quad 0 \quad 37.7 \quad +23 \quad 47 \quad (7.2 \text{ dAS} - 3.0 \text{ f})$$

$$365 \quad m \cdot 16'' \quad 70024 \pm 5.7 \quad +008 \pm 4.3 \quad +003$$

$$66793 \quad +0028 \quad -005 \quad +002$$

$$A05562 \quad +0027 \quad +0028$$

$$0 \quad 37 \quad 40.841 \quad 1897.2 \quad +23 \quad 46 \quad 46.37 \quad 1893.1$$

$$\frac{127}{.714}$$

$$-46 \quad 45.97$$

$$46.45$$

$$40.940$$

$$\frac{935}{935}$$

$$46.14$$

$$79.01$$

$$40.941$$

$$+00375 +002$$

$$.839$$

$$+0030 +0055$$

$$40.904$$

$$\frac{934}{934}$$

$$46.14$$

$$58.01$$

$$40.776$$

$$+0012$$

$$.807$$

$$+0041 +001$$

$$40.776$$

$$\frac{934}{934}$$

$$46.14$$

$$33.8$$

$$16.15$$

$$+0012$$

$$.807$$

$$45$$

$$45.82$$

$$\frac{936}{936}$$

$$46.14$$

$$33.8$$

$$16.15$$

$$45$$

$$.807$$

$$48$$

$$45.76$$

$$\frac{937}{937}$$

$$46.14$$

$$37.9$$

$$16.15$$

$$48$$

$$.807$$

$$49$$

$$45.71$$

$$\frac{938}{938}$$

$$46.14$$

$$37.9$$

$$16.15$$

$$49$$

$$-20$$

$$46.14$$

$$37.9$$

$$16.15$$

$$49$$

$$6.9$$

55

R.A. :
DEC. :
PM. R.A. :
PM. DEC. :
DISTANCE :
MODULUS :
RAD. VEL. :
-3.000

p1 (U) :
p2 (U) :
p3 (U) :
q1 :
U :
89.184
187.898

p1 (V) :
p2 (V) :
p3 (V) :
q1 :
U :
-92.417
186.8
8.213
-8.255

R.A. :
DEC. : 0.600
PM. R.A. : 23.800
PM. DEC. : 45.000
DISTANCE : 1.000
MODULUS : 6.900
RAD. VEL. : 240
-3.000

q1 (U) :
q2 (U) : 0.852
q3 (U) : 0.361
dU : 0.381
U : 167.896
39.134

q1 (V) :
q2 (V) : -0.522
q3 (V) : 0.513
dV : 0.681
V : -99.417

-10036

3726 00 37.7 +26 24 8.0 dF4

791

88,126

W363

+0093 -60666

-153 -20 Y
-14 0

Sanctuary

0124 -019

172 -019

+139 -20 → 0.2

+126 -6 00

+132 -13
0 +2

193

-79

400

-16

56

R.A. 10.000
 DEC. 10.000
 PM. R.A. 10.000
 FM. DEC. 10.000
 DISTANCE 10.000
 MODULES 10.000
 RAD. VE. 10.000

PL (1) 10.000
 PL (2) 10.000

R.A.	:	0.600
DEC.	:	26.400
PM. R.A.	:	193.000
PM. DEC.	:	-19.000
DISTANCE	:	4.000
MODULUS	:	63
RAD. VEL.	:	-10.000

q1 (U)	:	0.852
q2 (U)	:	0.343
	:	0.397

2 Las
3712

NO II-III(7)

2.5 140

37.7 +56 16 967 -3.8a

364 FRA

+0062 -029 N30

-4.7 (6)

GC792

+0056 ± 0.6 -028 ± 0.6 GC cont N30

-3.5 (20)

ADS 561

052.7-031.8 F12K

14m 18" F12K

+052.7-031.8

9.5
-3.2
1.5
-3.5

1287 930 355

57

R.A. : 0.400
DEC. : 29.250
R.A. : 25.000
DEC. : -32.000
STANCE : 1.500
MODULUS : 20
VEL. : -3.500

d1 (W) : 0.825
d2 (W) : 0.100
d3 (U) : 0.818
d4 : 127.847
U : 2.146

d1 (V) : -0.522
d2 (U) : 0.000
d3 (V) : 0.820
d4 : -140.610
U : -2.788

d1 (W) : -0.020
d2 (W) : 0.000
d3 (W) : 0.000

R.A. : 0.600
DEC. : 56.250
. R.A. : 95.000
. DEC. : -32.000
STANCE : 1.500
MODULUS : 20
. VEL. : -3.500

q1 (U) : 0.852
q2 (U) : 0.100
q3 (U) : 0.515
dU : 197.847
U : 2.146

q1 (V) : -0.522
q2 (V) : 0.868
q3 (V) : 0.850
dV : -140.813
V : -5.786

q1 (W) : -0.050
q2 (W) : 0.993
q3 (W) : -0.117

54

+30094
+0116±6.5 -019±7.7
+90 -46

3790 0 38.2 +30 50 8.2 dEY +14C 2L

805

371 11.546 1909.0 +30 50 29.65 1904.3

-476
100
+0115 +040
Carlsberg
87
30.52

148040

11.29
-286
29.5 1929.7
-155
29.3

2

3790 0 39.2 +30 50 d=4 x14 z

8.2

+150 +019+50?

?

166 986 506 803 1150 1019 114 010 77 076

-025-002-148 010-166 692 112.1 112.2

+1 +48 +12 015

+48 -13 -3

+4 +37 +11

02

+38 -6 -4

5.4

32 And 0 38.4 +39 11

6-8-11

9.65 -5.16

-4.40
-4.20

-0012 ± 2.6 -004 ± 1.8

✓5.16

HR175

-014 -007 GC

3817
374

38 24.045
075
1.120

+34 11 4.27 1997.2

+21
4.48

GC812

37 2.85
21.182
38 24.035
24.012
1.115

1928.2

2 49.55
8 14.58
11 4.08
3.88
4.00

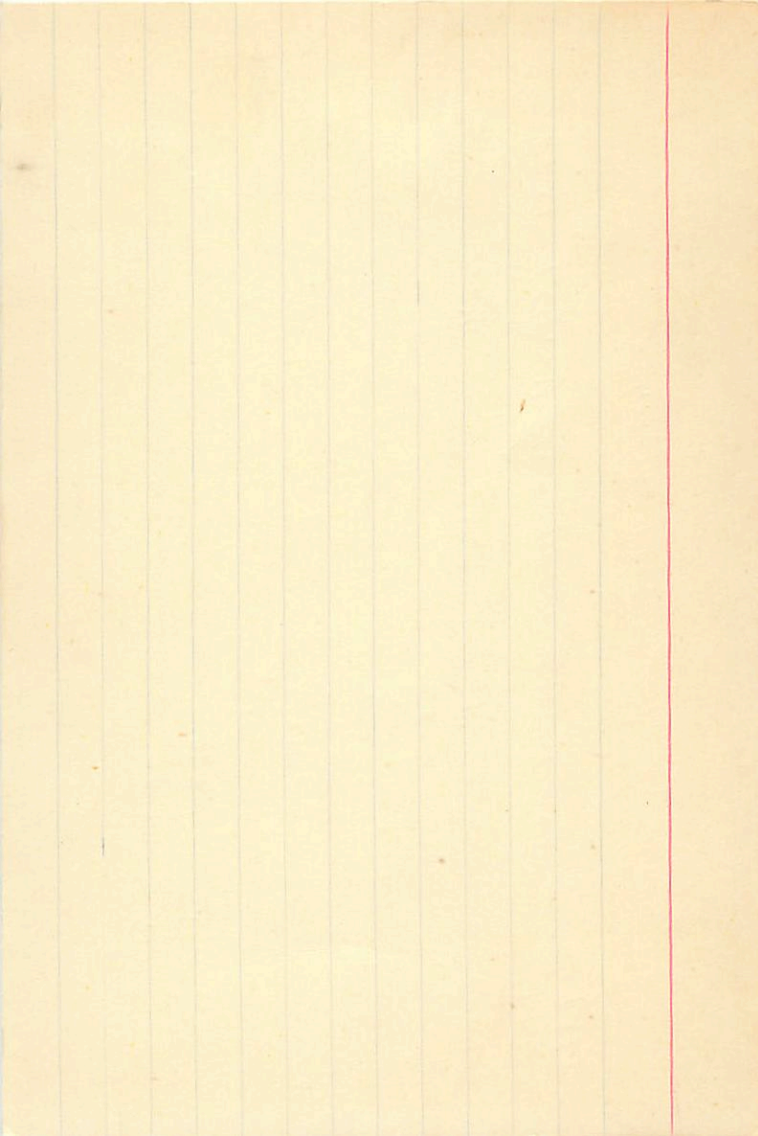
Significant

-004 N30

-0013

-002 GC Cor. E N30

-0013



3861 0 38.6 +9 0.5 6.5 F6 -18.558

-0091±4.2
-0090 -097

375

66817 0 38 36.609 1902.0 +9 4 56.42 1897.8

437
 $\frac{37.046}{437}$
3- 138

6m, 50
4 57.84
+9
1933.7

$\frac{57.93}{6.9}$

1926.84
30m3
32.5

28.3

37 19.114

17.672

36.786

627

816

807

.791
-.255

56 43.93

4 14.50

4 58.43

-26

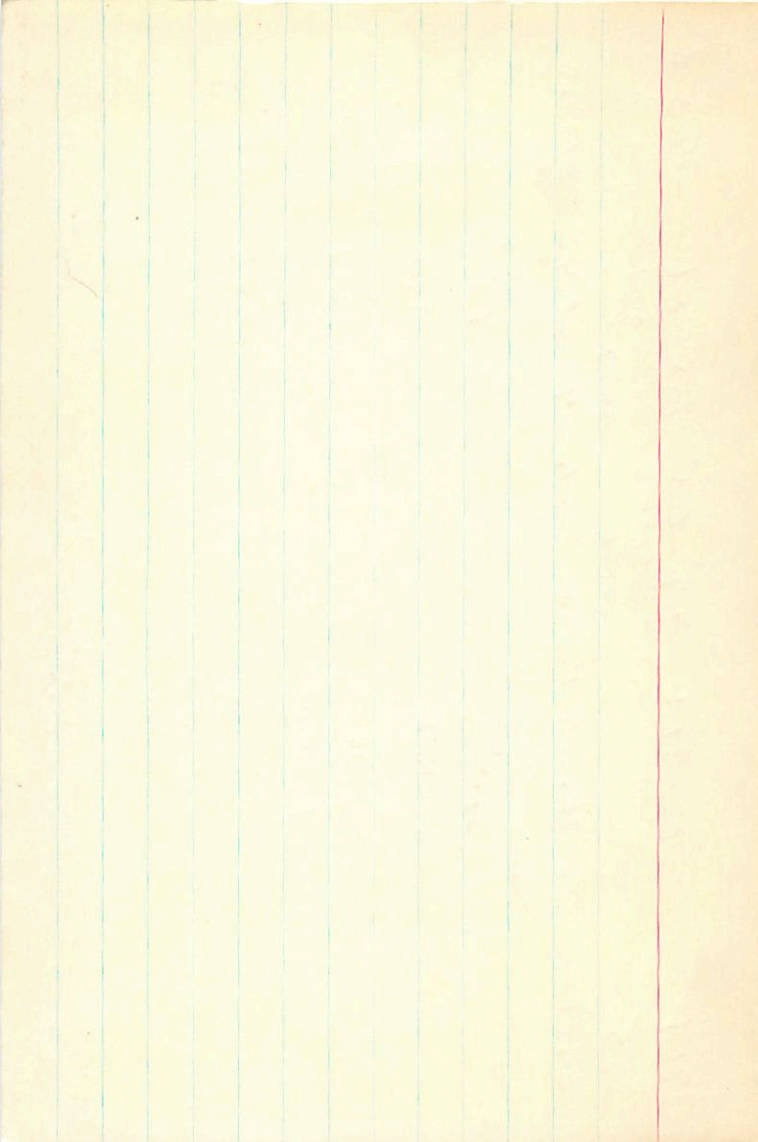
58.17

+32

58.23

58.23

- 3.15



151

0 33.6 -23 08

3324

6.05 +0.30+0.06 case

719

(+163 +261 +708) - Eggs

~~605 168 211 789~~ 2.770 0,10,10,14,7 (2)

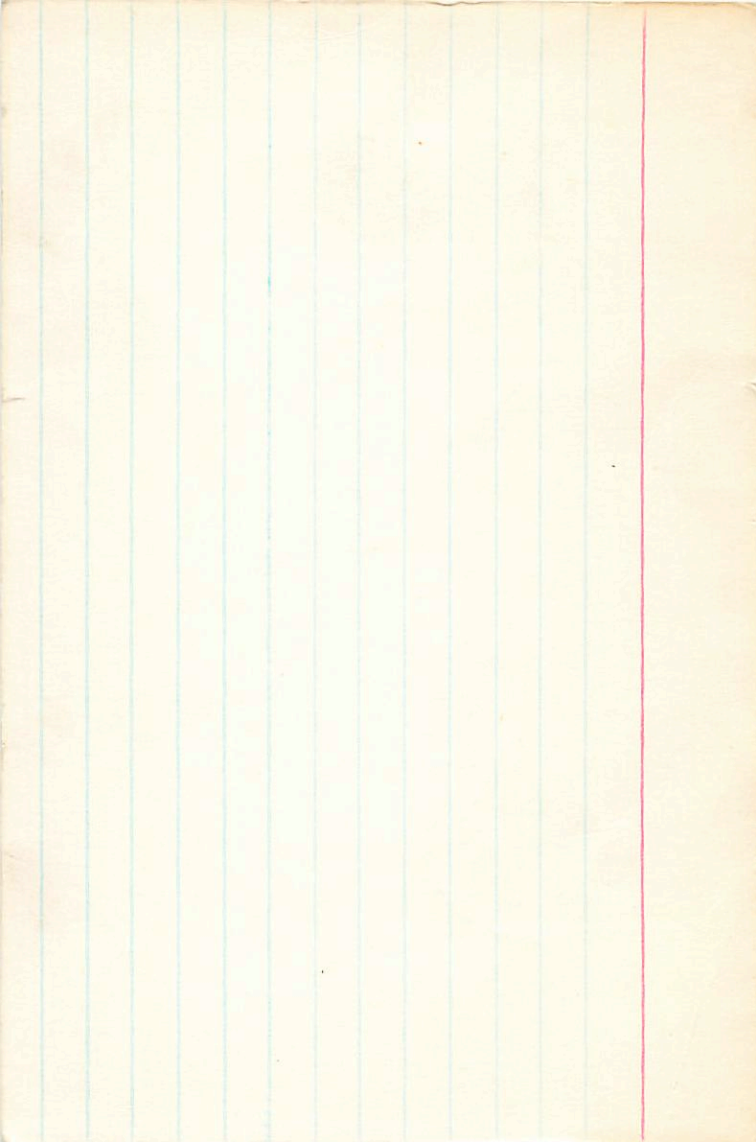
169 219 733 2.783 724

Bud 51

+13.5 b

6.04 082 1120-409 +2.40

(+12 1st trunk)



3861

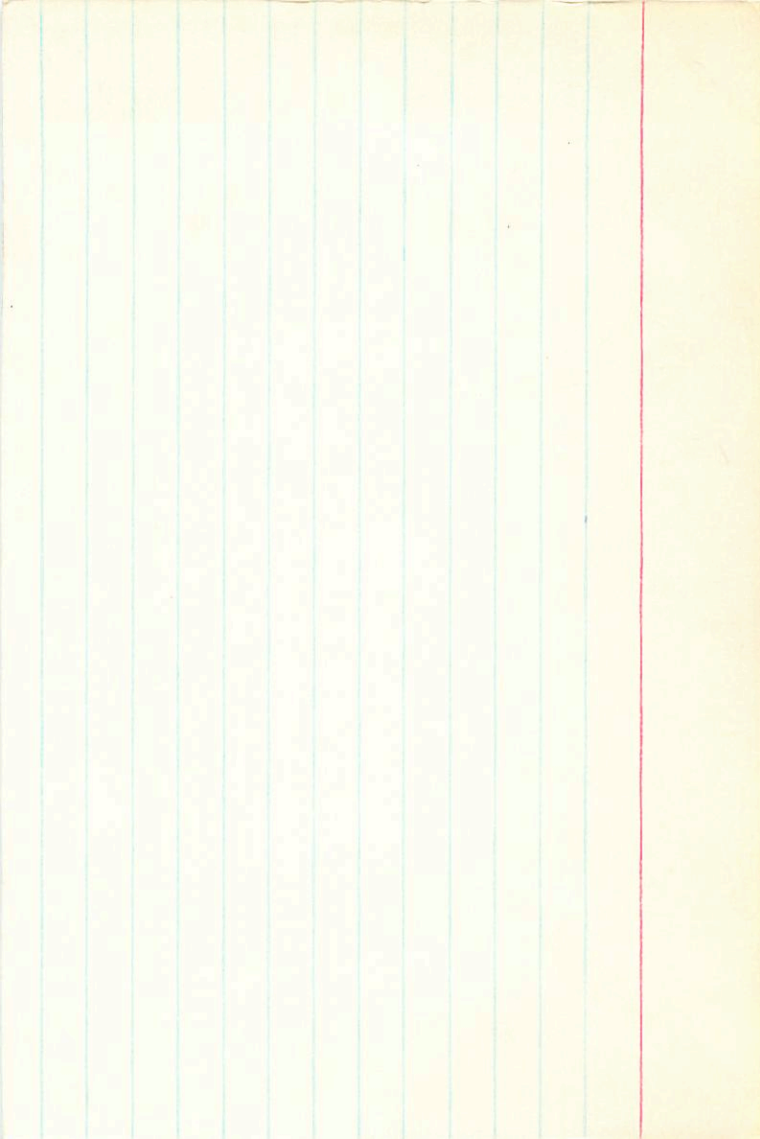
VD 38.4 + 905

6.55 + 0.49 + 0.01 389

1327 173 409 2.628 ② 377,1

[mm] 234

[g] 344



HR128

0 38.9 +24 21

Am -14.68

3883

(+007322.7
-021724) Ac 5.50 70.235

+100 -02161

377

0 38 5-6.530 14043 +24 21 18.27 1898.9

(017)

66522

334
196

1.07
74.34

+007322.7 -021724
+0086 -020

38 24.771
31.737

18 1.13 1943.90
3 0.63
21 18.22

56.096
5.54

135
77
-0.17

18.50
18.48

56.382

(30.7)

18.77

71

1935.0

.459

+263

18.60
-1.74

(36.1)

0 1 412 511 +150 -021 -14.6 -009 -6 -050 ✓

0 0 100 -009 -043 475 -133 -13 0 017 ✓

-16 +28 -11

+19 -29 +4

-15 +25 -11

019

+16 -25 +4

PM	1	WB	100
PM	2	WB	100
PM	3	WB	100
PM	4	WB	100
PM	5	WB	100
PM	6	WB	100
PM	7	WB	100
PM	8	WB	100
PM	9	WB	100
PM	10	WB	100
PM	11	WB	100
PM	12	WB	100

PM	1	WB	100
PM	2	WB	100
PM	3	WB	100
PM	4	WB	100
PM	5	WB	100
PM	6	WB	100
PM	7	WB	100
PM	8	WB	100
PM	9	WB	100
PM	10	WB	100
PM	11	WB	100
PM	12	WB	100

PM	1	WB	100
PM	2	WB	100
PM	3	WB	100
PM	4	WB	100
PM	5	WB	100
PM	6	WB	100
PM	7	WB	100
PM	8	WB	100
PM	9	WB	100
PM	10	WB	100
PM	11	WB	100
PM	12	WB	100

PM	1	WB	100
PM	2	WB	100
PM	3	WB	100
PM	4	WB	100
PM	5	WB	100
PM	6	WB	100
PM	7	WB	100
PM	8	WB	100
PM	9	WB	100
PM	10	WB	100
PM	11	WB	100
PM	12	WB	100

R.A. :
DEC. : 0.600
PM. R.A. : 5.750
PM. DEC. : 120.000
DISTANCE : -91.000
MODULUS : 4.520
RAD. VEL. : 80
30.000

q1 (U) :
q2 (U) : 0.852
q3 (U) : 0.461
dU : 0.250
U : 283.155
30.204

q1 (V) :
q2 (V) : -0.522
q3 (V) : 0.699
dV : 0.489
V : -596.918
-33.192

q1 (W) :
q2 (W) : -0.050
q3 (W) : 0.547
dW : -0.836
W : -264.298
-46.263

3291 0 33.6 +44 22- 7.3 B8 -9.1.8

332 +0025±5.2 +001±3.9 GC
+0026 -004

R671K

0 33 36.456 1903.4 +44 21 50.11 1859.3
-116
340

32 14.92
1 21.080
33 36.300
112
419
403
+063

13 33.8 1927.9
8 16.18
21 49.98
-24
49.74
+21
49.95
-11
28.6

