

+25° 4674

1 8.7

+24 33

369

1 13.951.8

+25 3.11

w733  
cc90

<sup>ST</sup>  
10.09 + 1.36 + 1.24 12

-30 c 2w drs

Li 20.90 +0.34 -0.11

14

10.06 MO + 8.3

+413 -0.65

+0.340 -0.110

456  
-65  
-295  
180

10.09 + 1.36 + 1.24 Rowd  
10.07 9.16 + 0.615 (2)

CC90 1 13.9 +25 04 10.3 drs -30c

733 10.06 +1.46

+34 -11 C20-90

+9.1

-39.5

+17.0

26

0807

1 15.11 15 4/6

212 6/15

-88

241

1.25

-15.75

+301

-455

214

-7.9

2.

(618)

(229)

9.74 0.599 0.434 0.344

58

1.250  
-15.750  
301.000  
-455.000  
2.640  
34  
-8.800  
  
0.805  
0.559  
0.200  
-99.785  
-5.124  
  
-0.585  
0.804  
0.108  
-2537.030  
-86.518  
  
0.100  
0.203  
-0.974  
-300.848  
-1.577

27

370

1 11.7 +38 12

1 17 6.0 +38 41.98

10.6 MO +8.5

+57° 9646

1 11.7

+56 34

371

1 17.436.0

+57 3.96

W 764

R0009

27M(17)

+226 2W  
d126

Ci 20.96 -0.39 +0.46

10.2 MO +7.2  
+0.027

4274

-0.390 +0.460

10.40 9.52 +0.585 (2)



1.200 : R.A.  
 25.050 : DEC.  
 450.000 : PM. R.A.  
 -25.000 : PM. DEC.  
 1.000 : DISTANCE  
 23 : MODULUS  
 -29.200 : RAD. VEL.

0.000 : p1 (U)  
 0.297 : p2 (U)  
 0.207 : p3 (U)  
 1493.329 : q1  
 19.027 : u

*Handwritten notes:*  
 100  
 100

-0.281 : p1 (V)  
 0.235 : p2 (V)  
 0.214 : p3 (V)  
 N-1301.9 : q1  
 -48.150 : v

0.000 : p1 (W)  
 0.291 : p2 (W)  
 -0.205 : p3 (W)  
 -29.254 : q1  
 19.209 : w

*Handwritten mark:*  
 S



R.A. : 1.200  
DEC. : 25.050  
PM. R.A. : 456.000  
PM. DEC. : -65.000  
DISTANCE : 1.800  
MODULUS : 23  
RAD. VEL. : -29.900

0617  
105  
q1 (U) : 0.809  
q2 (U) : 0.297  
q3 (U) : 0.507  
dU : 1493.329  
U : 19,057

q1 (V) : -0.581  
q2 (V) : 0.535  
q3 (V) : 0.614  
dV : %-1301.6  
V : -48.170

26  
q1 (W) : 0.089  
q2 (W) : 0.791  
q3 (W) : -0.605  
dW : -69.524  
W : 16.509

+37°3862

1 12.1

+37 34

372

1 17 29.5

+38 3.96

the C-AC +0.037 - 0.023

10.3 K8 + 7.3

7924 1 17.8 +76 26 7.3 d10 -22.78 3W

+75058

766

-038 -047 G-P

-027 -028 G'(4)

827708 4746 370 402 5.71

8389 1 20.5 -13 14 410 130.6 f w(3)

130249 20311

4283 7.89 +0.91 +2.85/c 295(2) Nuc beam  
L0546 11.014 401 7.90 +0.91 (0.78) 295(1) 18"

W787

+42 -25 -23 -0.50 2k 1.75

+51 -33 -22 -0.40 509

+476 f(1) -0.32 5/6 Y  
+443 ±10 -0.23 ±5 Corp

+0318 -0 2k (comb) 2.53 +24 386 9794  
464-026 9.78 540 516 464

031

477  
-26  
2.16  
+206

16.8  
516

845  
401

4552 C(17)

$342$   $940$   $-228$   $974$   $400$   $-027$   $+30.6$   $005$   $-7$   $-104$   
 $-163$   
 $-163$   $-002$   $447$   $432$   $006$   $-772$   $2007$   $+288$   $+28$   $+10$   $-123$   
 $-796$   $2.108$   $+12$   $+52$   $-10$   $05$

$+13$   $+50$   $-9$   $052$   
 $+41$   $-21$   $-24$

$+42$   $-25$   $-23$   
 $+17$   $+47$   $-9$   
 $+39$   $-21$   $-24$   
 $+40$   $-22$   
 $+15$   $+44$   $-9$   
 $+36$   $-19$   $-24$   
 $+38$   $-19$   $-24$

$055$   
 $5$   
 $53$   
 $06$   
 $28$   
 $058$

12

AD. VEL. : 30:000  
 MODULUS :  
 DISTANCE :  
 M. DEC. :  
 M. R. A. :  
 DEC. :  
 R. A. :

P1 (U) : 0.798  
 P2 (U) : 0.834  
 P3 (U) : 0.244  
 P4 (U) : 0.701  
 P5 (U) : 0.078

P1 (U) : 0.798  
 P2 (U) : 0.834  
 P3 (U) : 0.128  
 P4 (U) : 0.140  
 P5 (U) : 0.030

P1 (U) : 0.174  
 P2 (U) : 0.240  
 P3 (U) : 0.021  
 P4 (U) : 0.145  
 P5 (U) : 0.030

5

R.A. : 1.350  
DEC. : -13.250  
M. R.A. : 477.000  
M. DEC. : -26.000  
DISTANCE : 2.160  
MODULUS : 27  
AD. VEL. : 30.600

q1 (U) : 0.796  
q2 (U) : 0.554  
q3 (U) : 0.244  
dU : 1682.701  
U : 52.978

q1 (V) : -0.593  
q2 (V) : 0.795  
q3 (V) : 0.128  
dV : % -1403.149  
V : -34.036

q1 (W) : 0.124  
q2 (W) : 0.246  
q3 (W) : -0.961  
dW : 241.547  
W : -22.883

+42° 294

1 16.2

+42 25

373

1

21 43.4

+42 54.76

meC-AC -0.047 to 0.100

10.1:K8 +7.7



+12° 1723-47

1 16.8

+12

6

374

1

21 49.3

+12

35.74

$\text{Inc-AC} - 0.074 - 0.140$

10.4: 190 + 8.3

293 324 268  
-280 433 / 22.4 -28 06

+79.2 50.3 1 R.

H05638

1761 (319) (20)

8.81 482 189 393 8.29 + 0.70 - cup

40246 -304 66  
+5  
+6249 -303 → 4031

68C(6)

28  
85  
05

2-M 300 398pa

793 +400 +180  
+798 -081  
-592 -606 ~ 991  
+130

+12382 -8617  
-9290 -11161  
+2030 +0086

+3765 +15.0 +7.9  
-2,0757 -82.6 -6.4  
+2116 +8.4 -78.5

+22.9  
-89.0  
-70.1

old

6-3 E (rec) ?  
? ? ?

8638 1 22.4 -28 06

m(I)  $\pi$ (ret) ?  
+4.2  
 $\frac{7.86}{3.68}$   
0.0185  $\leftarrow$

8.33 + 0.685 + 0.13 (2)  
8.12 + 0.255 (3)

$$\Delta(B-V) = +0.15$$
$$\Delta(M-B) = +0.35$$

Graph

68C(6)

7.92  
7.15  
2.075  
+3  
+3

Comp 280

6.13  
6.88  
5.88

6.54  
6.49

1.4  
-28.1

+79.2 +0.330 -0.303

+301  
-307

+0.333

2.6  
+74.1

+336-307



29

1.400  
-28.100  
381.000  
-307.600  
2.600  
33  
79.200

u

3630

0.791  
0.603  
0.103  
381.836  
20.827  
-0.597  
0.797  
-0.087  
-2111.542  
-76.833

0.135  
-0.007  
-0.991  
225.844  
-70.994

29

8553 ( 22.2 +18 15 414 +8.58 4(13)  
 GC1702 501 350 353  
 W800 9.0 350 446  
 4289 501 350 446  
 633-8b  
 H71102

W(+6.8) +274(2)  
 +222(2)  
 +77.0 ⑤  
 +555 ±5 -187 ±6 Y  
 +9  
 178 → GC  
 -169 ±7 GC  
 +554 -169 GC  
 "0387  
 +0389 ±7  
 +0381

+43 -55 -18 .040  
 +35 -45 -17 .050  
 1.24  
 +18.25  
 588  
 -179  
 275  
 +71.9  
 206  
 535  
 -184

C 206  
 +552 -178 Y →  
 548 -189 GC  
 550 -193  
 552 -171  
 556 -179 AG-3  
 +554 -178  
 +556 -179  
 .042 ±12 4(17)  
 28 51M  
 6586C





2 ml and

+0389±6.7  
+0388

-109±7.3  
-206

8553 | 22.2

+18 15 9.0 dN4 +8.56

800

1702

10.382 1907.0

+18 14 33.82 1907.7

$$\begin{array}{r} -1.673 \\ \hline 8.709 \end{array}$$

27.6

$$\begin{array}{r} 1520 \\ 9.700 \\ \hline 1.051 \end{array}$$

$$\begin{array}{r} 7.15 \\ \hline 40.97 \end{array}$$

34.6

9.969

34.23 1939.93 26.9

9.54

28.6

$$\begin{array}{r} 19 \\ \hline 34.42 \end{array}$$

9.543

$$\begin{array}{r} 4880 \\ 20 \\ \hline 9.395 \end{array}$$

1929.3

$$\begin{array}{r} 47.2 \\ 50.25 \\ \hline 37.85 \end{array}$$

$$\begin{array}{r} 1925.3 \\ 165.23 \\ \hline 32.6 \end{array}$$

$$\begin{array}{r} 36.6 \\ -13 \\ \hline 36.47 \end{array}$$

$$\begin{array}{r} 142 \\ 35.71 \\ \hline 5.86 \end{array}$$

$$\begin{array}{r} 26.37 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 1089 \\ 35.53 \\ \hline 37. \end{array}$$

24.9







~~11~~: 4000  
18: 2500  
585: 0000  
-189: 0000  
2,750 *to 407*  
35  
7,900

0,791  
0,342  
0,500  
0,367  
1775,040  
67,040

-0,597

+12° 1723 - 192

1 17.8

+11 22

375

20.3

1 22.8 48.8

37

+11 51.70

5.0  
0.5

6.30

5.74

-39.2 12ppm

3.25

1.210

195

1350

Wof 65 -0.10 -0.27

9.2: K8 + 7.4

-0.166 -0.220

222 -146

170 210



57



375.000\*

1.000\*

22.800\*

11.000\*

52.000\*

-0.195\*

-0.210\*

3.250\*

44.668

-35.000

-1.128

0.463

-66.570

375 1 22.8 +11 52

U4:

9.2: 10.26 +106 +96 ①

-38.9

968 0.295 ①

968 0.395



3501  
2212  
528  
050  
178

8987  
 1983 Oct  
 26.3 + 21.25 = 47.55  
 193.555  
 -188  
 5.55

60090  
 7.9  
 7.73 + 95 + 67.3A  
 W(16.4) out  
 0.50

19.623 1899.5 + 21.28 2.48 1898.6  
 17.962  
 0325 -190  
 0323 -154  
 9.92  
 12.40  
 4559 -193 60  
 464 -189 71

19.107  
 5.75 14314 + 460 -150  
 31.7  
 622  
 31.2  
 32.6

792 548 484 210  
 40 157  
 230 7  
 410  
 461-157  
 6.68 142.7.91  
 -4  
 6.64  
 17.55  
 6.28  
 -6.12  
 1579(1.0)  
 2000(1.4)  
 3325

368 930 367 930 +460 -190 +44.0 -070 +16 -539  
-169 026 428 -065 -493 2.151 +40.9 +38 +15

+25 +58 -1 05

+53 -13 -23

+22 +87 -5 03

+72 -34 -37

$P=11d$   
Dm Muro

75

+14° 229

1 23.1

+14 50

376

1 28.2/10.4

+15 19.43

W 857

-32 A 2W

uncC 18.12 +0.375 -0.042

+380 -0.65

10.6 K8 +7.2

+0.017

+0.380 -0.063

10.66 9.92 10.47 (2)

+77.742    1    22.0    +77    20    92

875    /    30    23.6    +77    49.40

-6d2w

Sp. B. J-M

Ymuv -070 +090

10.5MO+7:

+65° 559

1 24.1

+65 13

377

1 30 41.4

+65 42.34

Green. Act. - 0.173 + 0.027

10.8 MO + 7.7

YPPK  
318  
9407

5243 → 0  
-360  
30.9

227  
768 41

-262  
-32.9

64884

423

6.53

+0.68

+0.24

662 R

7318

6.53

+69

S = -0.1

+23 A

+68003

-46

-4

0

.051

-370

-369

+123

+120

GAE

-30.5 (w(3))

365 (10) 110

66

66

66

386 522 932 363 -320 +122 -30.5 114 -28 +205  
+143 -044 -341 105 150 -1.824 -11.1 -10 -4  
6 -48 -23 0415  
-53 +2 +2



+42° 65-198

1 27.1

+41 18

378

1 32 40.9

+41 47.20

McCAC +0.125° -0.190

10.95 MO +7.7

04/10/11

+1° 299

1 32.8

+1 7

380

1 37 41.1

+1 85.90

Inc C-AC +0.146 -0.025

10.0 K8 +7.3

+16° 188

1 34.1

+16 20

382

1 39 13.3

+16 48.82

E.B. lex. -0.190 -0.050

10.28 K8 +6.9

11-  
886

110-5821

232  
1021-013 K+C  
+ .244 + 0.16 CR

232  
232  
448  
448  
448

9.33 448 201 512

(448) (344) 448

448  
448

+ .244 + 0.12

(448)

9.24 + 0.70 (1.80)

250

F0830

10513

1

35.5

45

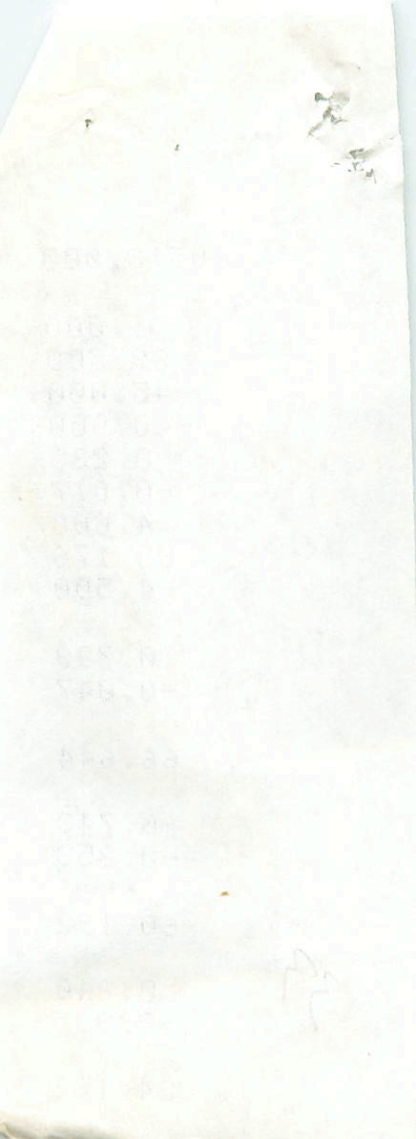
65E

45

Always NO

102

33



10513.000\*

1.000\*

39.500\*

-45.000\*

-40.000\*

0.235\*

-0.017\*

4.600\*

83.176

-4.500

0.799

-0.047

66.644

-0.743

-0.353

-60.192

33

0.240

-0.935

24.182

10853

AM 74

8275

AM

1 44.0 + 12 10

+0019 -074

+028-074

037

28  
-74

AM  
AM

53-27 7854

43-37 135

221 1st  
+ 216 2nd  
218

800 405

9448	-7701
0301	6659
AM	AM
AM	AM



31

R.A. : 1.750  
DEC. : 12.150  
R.A. : 28.000  
DEC. : -74.000  
DISTANCE : 2.140  
MODULUS : 27  
VEL. : 21.800

q1 (U) : 0.753  
q2 (U) : 0.379  
q3 (U) : 0.538  
dU : -35.159  
U : 10.784

q1 (V) : -0.622  
q2 (V) : 0.677  
q3 (V) : 0.394  
dV : -318.082  
V : 0.068

q1 (W) : 0.215  
q2 (W) : 0.631  
q3 (W) : -0.745  
dW : -193.534  
W : -21.432

W

~~1016 144 VVR~~  
~~10.030 - 0.078~~

+ 1  
 + 0.035  
 + 0.181  
 + 3  
 - 3  
 10.038 - 0.084

10.016 - 0.080  
 10.027 - 0.075  
 10.034 - 0.066  
 10.038 - 0.066  
 10.041 - 0.066  
 10.044 - 0.066

25.511 VV  
 +11.231

10.31.028

~~10.31.028~~

8.91 8.27 + 0.405 ②  
 8.88 + 0.41 ①

8.8 - 8.8 + 7.3

155  
 10.30 - 0.078  
 10.30 - 0.078

tail 2.5mm

+11 4.1  
 +12 9.54

1 38.9  
 1 41.39  
 1 44.0

383

35

+29.4398

1 48.5 +29 06

94

1 53 55.2 +29 33.92

MC-46-139 +061

10.7 MD +8.0

642 -2246 -240 Gantry -353 -208 Y

11664 1 54.7 -10 29 85 -6.8 556

62337 218.1 213-240 6.42 +0.82 +0.48 5 85

62336 10.5 -330 '55 6.39 +92 - 602 -0.228

4990 4990 500 -0.84 -0.255 ± 6.3 -0.226 ± 5.1

2804 42.973 1494.4 -0.251 57.01 1898.3

240 1.240 63 -0.253 -0.231 11.68

644 589 92.87 44.2 2.580

643 804 244 29.559 1933.71 14.42 1933.93 -1144 -0.211

43406 13.848 63440 20.42 53.53

401 43.409 53.53 48.21 1

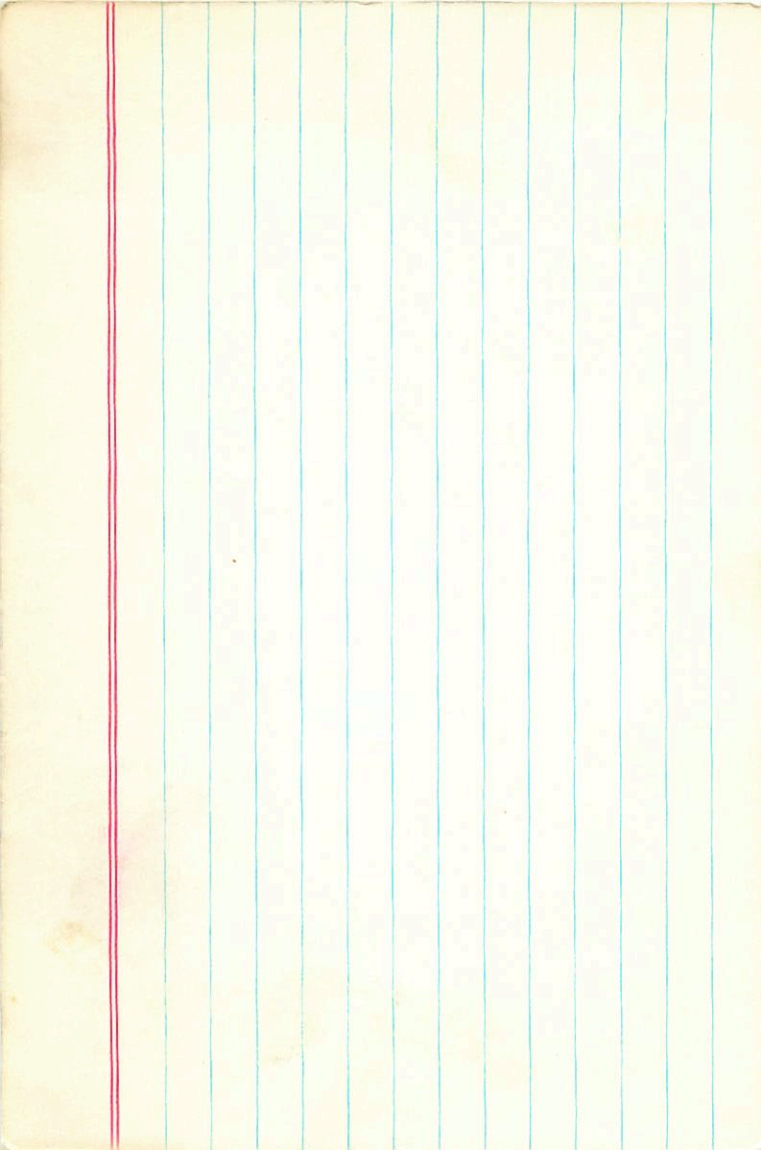
53440 24 53.53 48.21

9494.1 = 7996.1 2435 -160.5

43.401

-0.254 53.

-0.3 1.75 0.1193





-60°167

749 310  
1 54.9

-60 25

8.60 138

LT 11042

12058

(040)

429 4165 L  
449 + 186 Cage

Cages

9960 9816  
0640 3581  
486  
#3

8.59 679 559 260 400  
713 (124)

(963) (124)

~~1000~~ 5

0508

1.47

8.59

8.00

10408

760

Value of PE in eggs in 1974 ASP

Li invariant

76,697

~~110~~  
110



21159-16

T2 Bri

01 574

0.1

+12 50

-31 58 61

12.31 183

B.1

1.724 P.1

10.55 43  
1.39

9.16

9.18

#1085 1.777 2650 .225

10.41 1.45

1.113

1.750 2.6 2.13

1.100

1.763

1.8

9.690

8.410

~~5.357~~

2.072

~~-2.170~~

~~-5.410~~

~~-8.413~~

0.73

1.128

-1.763

1.700

3.1.0

9.690

5.327

2.078

0.1423

~~-2.169~~

~~-8.413~~



30

33.4 :  
 MP : X-3254  
 (M) : 0.55  
 (M) : 0.93  
 (M) : 0.39  
 U : -25.25  
 UP : X-8788  
 (U) : 0.35  
 (U) : 0.95  
 (U) : 0.93  
 U : -14.41  
 UP : 24.087  
 (U) : 0.28  
 (U) : 0.39  
 (U) : 0.55

Red

Gift

Gift

000.10 :  
 MODULUS : 2  
 DISTANCE : -1.500  
 PW, DEC : X-1230  
 PW, A.P, MP : 1130.000  
 DEC : 15.20  
 A.P : 1

2/2

95

R.A. : 1.950  
DEC. : 12.850  
PM. R.A. : 1128.000  
PM. DEC. : % -1763.00  
DISTANCE : -1.700  
MODULUS : 5  
RAD. VEL. : -31.000

q1 (U) : <sup>0.43</sup> 0.729  
q2 (U) : ~~1.10~~ 0.364  
q3 (U) : 0.580  
dU : 760.447  
U : -14.513

<sup>-14.0</sup>  
q1 (V) : -0.634  
q2 (V) : 0.679  
q3 (V) : 0.370  
dV : % -8979.6  
V : -52.521

<sup>5.8</sup>  
q1 (W) : 0.260  
q2 (W) : 0.637  
q3 (W) : -0.725  
dW : % -3974.2  
W : <sup>4.322</sup>

+12° 269

1 54.0

+12° 20

384

1 59 5.7

+12 47.56

Mu<sup>CC-AC</sup> -0.163 -0.140

10.7: K8 +7.4

-6° 2360-60

1 57.2

-5° 35

385

2 0 58.0

-5 7.58

Avcc-AC +0.078 -0.187

11.2: M +7.7