

8988

~~115946~~  
115946

23 274 +87 01 F0 III -1098

221525

191 180 1.0003

32680

4074 +020

5200 -017 1.854

1061  
1063 +4

080 020

1244

1083 1018

8190 OR  
~~8190~~ 9948  
-5808 1018  
0144

1592

1602 -0714

18 144

2040

-1049

1517

5.32

35.642  
910 9948 } 0858 0801  
5908 1817 } 0028 1030

317 0513  
~~262-0218~~  
2611 0701

318

9950

082

8008

0084

|             |       |             |       |
|-------------|-------|-------------|-------|
| R.A. :      | 23.41 | R.A. :      | 23.45 |
| DEC. :      | 87.01 | DEC. :      | 87.00 |
| PM. R.A. :  | 0.00  | PM. R.A. :  | 0.00  |
| PM. DEC. :  | 0.01  | PM. DEC. :  | 0.00  |
| DISTANCE :  | 0.01  | DISTANCE :  | 0.000 |
| MODULUS :   | 10    | MODULUS :   | 10    |
| RAD. VEL. : | 0.00  | RAD. VEL. : | 0.000 |

|          |     |          |       |
|----------|-----|----------|-------|
| q1 (U) : | 0.8 | q1 (U) : | 0.873 |
| q2 (U) : | 0.0 | q2 (U) : | 0.084 |
| q3 (U) : | 0.4 | q3 (U) : | 0.480 |
| dU :     | 0.0 | dU :     | 0.000 |
| U :      | 0.0 | U :      | 0.000 |

|          |        |
|----------|--------|
| q1 (V) : | -0.375 |
| q2 (V) : | -0.513 |
| q3 (V) : | 0.772  |
| dV :     | 0.000  |
| V :      | 0.000  |

|          |        |
|----------|--------|
| q1 (V) : | -0.375 |
| q2 (V) : | -0.513 |
| q3 (V) : | 0.772  |
| dV :     | 0.000  |
| V :      | 0.000  |

|          |        |
|----------|--------|
| q1 (W) : | -0.311 |
| q2 (W) : | 0.855  |
| q3 (W) : | 0.416  |
| dW :     | 0.000  |
| W :      | 0.000  |

|          |        |
|----------|--------|
| q1 (W) : | -0.311 |
| q2 (W) : | 0.855  |
| q3 (W) : | 0.416  |
| dW :     | 0.000  |
| W :      | 0.000  |

PAS 91, 685 115407

p=226d -46

~~8791 220318 1901 669 11.26 -0.5 0.54~~ 23 20.2 +20 23 89.5 12

~~10014-012~~  
020-014

~~-014 143 1058 2.844~~

~~139 1061~~  
~~274~~  
~~1337~~ -0.6 5  
12

sp3 well  
8.8  
-8.7

23.20  
+20.55  
+23.5  
12  
6.4  
17.0 26.9  
20.5 27.0  
20.6 27.2 6.10 2  
+20

2078 550

9448 8537  
-3278 -5207  
8.7227  
8603

±25 ±24

10.889994 +0011 -016 15.53 96.9

$\frac{-56}{933}$  +0011 -010  $\frac{85}{16.3}$

10.909  
-9  
900

16.03 59.97  
-25  
 $\frac{15.78}{15.1}$

+0011 -011  
+00142 -0076

+0195

$\frac{10.912}{-8}$   $\frac{15.81}{-19}$   $\frac{70.35}{15.62}$

10.912  
-8  
904

Comments:

Observer:

Date: / /

STAR

TIME

23.830  
 20.550  
 23.500  
 -12.000  
 6.400  
 191  
 -8.200  
 0.871  
 0.483  
 0.089  
 0.275  
 11.203  
 -0.100  
 0.400  
 0.200  
 0.683  
 -19.300  
 -0.307  
 0.219  
 -0.600  
 -26.050  
 -9.205

o vel

8 888 - 5-2 44

5.64

PM 3.3

4  
Kor  
5.005

1

7442  
6091

8299  
45580  
0336  
0354

R.A. : 8.650  
DEC. : -52.750  
R.A. : 0.000  
DEC. : 0.000  
ANCE : 0.000  
JLUS : 10  
JEL. : 0.000

(U) : -0.610  
(U) : 0.793  
(U) : -0.005  
dU : 0.000  
U : 0.000

(V) : -0.091  
(V) : -0.076  
(V) : -0.993  
dV : 0.000  
V : 0.000

(W) : 0.788  
(W) : 0.605  
(W) : -0.118  
dW : 0.000  
W : 0.000

$\frac{14803}{14803}$   
 14803  
 Si 210 3 340 -17 35

1100

22470

110  
117

$\frac{257}{1196}$   
 $\frac{1024}{1196}$   
 PRS  
 1400  
 1335  
 1469

-169

135 475 2717  
 $\frac{1414}{228}$  489 2247  
 $\frac{978}{1080}$

+10191

AD

10023

10023

Redundant

14120

5983

8720

8019

5837

+147



1100.000\*

3.000\*

34.000\*

-17.000\*

-38.000\*

0.030\*

-0.010\*

6.450\*

59

151.5

194.984

19.700

0.034

0.560 85

+16

17.600

-0.127

-0.291 44

-25

-30.512

0.072

-0.776

+2

-1.232

6248

73

14 481

-37

580000

-020

N'sW

63011

-589 078 103

2-614

736

4761

6241

6252 E/W

850 076 113

-30 28.687  
-17 670

8896

4871

0258  
48.97  
-0034

-6011-0292

(059) (12) 218

28794 1003

4918

-0505-0242

2 P.L. 72  
44.03

678

4935

0240  
-1033  
0057

-0104

(6247)

1055 176  
49.20

-4 686

02

-0116-0256

9446

-2491

W.M  
26.15

-0110-0243

-3282

-9631

-0021

-0009

-0014

-027

-026

-020

-0212020

-030418

W

$$\begin{array}{r}
 86609 \\
 50 \\
 \hline
 659 \\
 +4 \\
 \hline
 602
 \end{array}$$

$$\begin{array}{r}
 43 \\
 -0009 \\
 \hline
 0010
 \end{array}$$

$$\begin{array}{r}
 -0071 \pm 0.1 \\
 -0009 \\
 \hline
 -0010
 \end{array}$$

$$\begin{array}{r}
 -0.28 \pm 23 \\
 3.62 \\
 1.46 \\
 \hline
 2.16
 \end{array}$$

$$\begin{array}{r}
 977 \\
 -022 \\
 \hline
 -083 \\
 -0036
 \end{array}$$

$$\begin{array}{r}
 17.595 \\
 +4 \\
 \hline
 102
 \end{array}$$

$$\begin{array}{r}
 2.16 \\
 -17 \\
 \hline
 3.72
 \end{array}$$

$$\begin{array}{r}
 526064 \\
 -17 \\
 \hline
 525947
 \end{array}$$

$$\begin{array}{r}
 89.18
 \end{array}$$

$$\begin{array}{r}
 2.36 \\
 -16 \\
 \hline
 3.52
 \end{array}$$

$$\begin{array}{r}
 -026 \\
 -0010 -0245 \\
 -00078 -0233 \\
 -00092
 \end{array}$$

$$\begin{array}{r}
 525947 \\
 +4 \\
 \hline
 599
 \end{array}$$

$$\begin{array}{r}
 1279 \\
 1550 \\
 \hline
 3.60
 \end{array}$$

$$\begin{array}{r}
 -17 \\
 \hline
 3.97
 \end{array}$$

$$\begin{array}{r}
 -00092 \\
 -0104 -0230
 \end{array}$$

Observer:

Date: / - /

|     |             |          |      |
|-----|-------------|----------|------|
|     | R.A. :      | 16.800   |      |
|     | DEC. :      | -38.000  |      |
| ST. | PM. R.A. :  | -13.000  | TIME |
|     | PM. DEC. :  | -23.000  |      |
|     | DISTANCE :  | 6.000    |      |
|     | MODULUS :   | 158      |      |
|     | RAD. VEL. : | 0.000    |      |
|     | q1 (U) :    | -0.206   |      |
|     | q2 (U) :    | -0.143   |      |
|     | q3 (U) :    | -0.968   |      |
|     | dU :        | 25.563   |      |
|     | U :         | 4.052    |      |
|     | q1 (V) :    | 0.608    |      |
|     | q2 (V) :    | 0.757    |      |
|     | q3 (V) :    | -0.241   |      |
|     | dV :        | -112.006 |      |
|     | V :         | -17.752  |      |
|     | q1 (W) :    | -0.767   |      |
|     | q2 (W) :    | 0.638    |      |
|     | q3 (W) :    | 0.069    |      |
|     | dW :        | -32.316  |      |
|     | W :         | -5.122   |      |

Comments:

11' 11" 2 Sep B OK

4053  
~~(3.78)~~ 189 078 103 2021 224 -2.96

351 190 076 103 2118 219 -3.06

Published  
HI 87, 230 1974  
New Survey 1380  
Mudley gain 11.5' MD

Schmidberg D Plan  
960 2572 } 0267 216

Darford f  
200-9113 } 0044 216

Fleming H-C  
990 2399 } 0044 216

-4072 -5405 }  
IC 23 91  
1711  
5105



2  
Miles

HR6252

151955

3.56-21-86 C

2.620 36

2.0

050076 103 2608  
49 121

(62514)  
(12511)

-00089

+ 16

-0298 1544

+1.3±0.6

20092 -0244 PK

PK6-0244

-60078

31

-6226

13

18098 -0258

-8.54 21.60  
3.49 120

-008.6

-1.2

-0116

-0185

-0127

2.97

-12.92 -23.52  
-6.31 0.86

96.50 -25.75 1033  
-21.84 -96.63 10024

-010 -021

-24  
2.11 miles

14 45.1

193 216  
163 204  
116 192

1188 2203  
0215 620

44  
-20

9758 -3892 1044  
-2459 -9232 -0004

|           |          |                  |
|-----------|----------|------------------|
| 6252.000* | 16.800   |                  |
|           | -37.900  |                  |
| 19.000*   | -16.000  |                  |
| 49.100*   | -29.700  |                  |
| -37.000*  | 6.850    | lls              |
| -56.000*  | 234      | <del>27/24</del> |
| -0.018*   | 1.300    |                  |
| -0.021*   |          |                  |
| 7.000*    | -0.206   |                  |
| 251.189   | -0.141   |                  |
| 1.300     | -0.968   |                  |
|           | 32.183   |                  |
| -0.014    | 6.286    |                  |
| -0.885    |          |                  |
|           | 0.608    |                  |
| -4.706    | 0.757    |                  |
|           | -0.240   |                  |
| -0.108    | -142.956 |                  |
| 0.036     | -33.824  |                  |
|           |          |                  |
| -27.017   | -0.767   |                  |
|           | 0.638    |                  |
| 0.019     | 0.070    |                  |
| -0.464    | -43.904  |                  |
|           | -10.201  |                  |
| 4.068     |          |                  |

6247 151840 22677 16 48.5 -38 83 81.52

6252 151885 22691 16 490 -37 56 82.72

disc  $3.80 - 20 - 86 C$

disc  $3.75 - 20 - 86 C$

disc  $3.75 - 20 - 86 C$

disc  $3.56 - 21 - 86 C$

disc  $3.56 - 21 - 86 C$

disc  $3.56 - 21 - 86 C$

disc  $3.56 - 21 - 86 C$

disc  $3.56 - 21 - 86 C$

disc  $3.56 - 21 - 86 C$

$E = +5$   
 $5 = 2.5$   
 $5 = 2.5$

$v_0 = 2.85$   
 $M = 2.1 - 2.5$   
 $90$

$\frac{124}{25}$

$2.625$

$+121$

$2.620$

$241$

$v_0 = 3.4051$

$-3.35$

$6.75$

$+1.3$

$-0.13 - 0.27$

$-80$   
 $-0.116$

$+1.3$

$-3.35$   
 $6.75$



+0.5

6247.000\*

017.17  
-020.5  
22

16.000\*

48.500\*

-38.000\*

0.000\*

-0.013\*

-0.027\*

6.750\*

63  
183

223.872

1.300

0.031

-0.968

20  
-16 -28  
-14 -32  
24 +4

5.654

52  
-0.134

-0.240

-25 -30.391

136  
-0.034

0.068

-6 -7.569

Observer: / - /

Date: / - /

|          |         |
|----------|---------|
| 16.800   | 16.800  |
| -38.000  | -38.000 |
| STAIR    | 20.000  |
| 24.000   | 24.000  |
| TIME     | 33.000  |
| 6.000    | 6.000   |
| 158      | 174     |
| 0.500    | 0.500   |
| 0.206    | 0.206   |
| -0.143   | -0.143  |
| -0.968   | -0.968  |
| 34.332   | 34.332  |
| 5.482    | 5.482   |
| 0.608    | 0.608   |
| 0.757    | 0.757   |
| 0.241    | -0.241  |
| -145.831 | -25.463 |
| -0.767   | -0.767  |
| 0.638    | 0.638   |
| 0.069    | 0.069   |
| -27.384  | -4.724  |
| -4.886   | -31.047 |
|          | -4.886  |

58  
174/158

148703

16

2811

-34 85 ✓

6

6143

90911

-060

069

133

2641

1051

145

11.57-18.54  
08070.80

242

702391

B 043

-230 MW

405 V0

7763

-4415

9522

-3334

6213

-6303

-8424

2428

-9428

0417

V0 3-96

MV -230

-205 14.6

-160.8 21.3

-174.5 20.78

-170.25 20.95

-171.55 20.19

6.26

|         |   |       |   |
|---------|---|-------|---|
| 16.450  | : | R.A.  | : |
| -34.600 | : | DEC.  | : |
| 0.000   | : | R.A.  | : |
| 0.000   | : | DEC.  | : |
| 0.000   | : | DANCE | : |
| 10      | : | ULUS  | : |
| 0.000   | : | VEL.  | : |
| -0.283  | : | (U)   | : |
| -0.072  | : | (U)   | : |
| -0.956  | : | (U)   | : |
| 0.000   | : | PU    | : |
| 0.000   | : | U     | : |
| 0.630   | : | (V)   | : |
| 0.737   | : | (V)   | : |
| -0.242  | : | (V)   | : |
| 0.000   | : | PU    | : |
| 0.000   | : | V     | : |
| -0.723  | : | (M)   | : |
| 0.672   | : | (M)   | : |
| 0.163   | : | (M)   | : |
| 0.000   | : | MP    | : |
| 0.000   | : | M     | : |

IL 239

5.46-17-53

3440

8

38.0

-53

15

852

74071

00

-079  
<sup>2329</sup>

116

419

2.693

42  
92

435

5.45

115.0  
440

~~104~~  
654  
619

~~1.423~~

-025 + 608

~~685~~  
705



-20 -17.712

-0.126  
-0.071

+13 -13.071

0.008  
-0.992

+26 23.832

0.102  
-0.010

<sup>15.0</sup>  
~~0.000~~  
234.423

6.850\*  
0.000\*  
-0.025\*  
-15.000\*  
-53.000\*  
38.000\*  
8.000\*

241- 257  
905

3440.000\*

SpB outlit ASP 73, 410 5.14-15-57 403

3442 8 38.5 -52 52 BY 12

74146 IL 2001

<sup>294</sup>  
-098 131 412 2.692

102 433 5.0

204  
636

+12.0

-017 + 014 + 12.0

-165  
6.65

3442.000\*

8.000\*

38.500\*

-52.000\*

-52.000\*

-0.017\*

0.019\*

6.650\*

245

213.796

17.000

0.120

-0.005

25.696

0.000

-0.993

-14 -13.816

-0.009

-0.120

-3.412



BSH

3467

8 41.0 -52 56 84 H

74560

4.98 + 6.67 + 0.4 =

5.5  
Apr 76 " qm"

11997

BC AP 5.54 -16 -55 cm = 2  
0.5

LC 2391  
H074552

4.50 - 18 - 66

-078 + 195 + 226 = 2.674

x 3<sup>4</sup> HDS

82  
~~109~~

1/1  
1/1  
1/1

326  
164  
190

4.65  
1.55  
6.50

4

3467.000\*

3467.000\* 3467.000\*

8.000\*

8.000\*

8.000\*

41.000\*

41.000\*

41.000\*

-52.000\*

-52.000\*

-52.000\*

-56.000\*

-56.000\*

-56.000\*

-0.019\*

-0.019\*

-0.019\*

0.019\*

0.015\*

0.022\*

7.100\*

7.100\*

7.100\*

263.027

263.027

263.027

21.600

~~21.600~~

21.600

19.0

0.126

0.111

0.138

-0.010

-0.010

-0.010

33.021

+25 +29

29.089

35.970

0.001

0.002

-0.001

-0.993

-0.993

-0.993

-21.321

-18.3 -20.924

-21.618

-0.016

-0.027

-0.007

-0.116

-0.116

-0.116

-6.626

-8 -9

-9.667

-4.344

no work

Y304

4.5  
1.4  
1.5  
1.9  
2.6

0 42.7

-54 00 416 88 15-5

HR202

1.2  
1.9

6.15 + 0.53 (-0.01) c

PL 202

2.6

.354 .170 456 2.649 2 42, 12.7

[m, J

253

278

1144

163 + 41.64 + 5.0  
+ 62.30 + 100.2

[G, J

385

199

2.00 + 20.9 - 20.2 - 13.7

+ 988 - 597 - 35

4339

12.6

+ 239 + 100.2

1787  
430

12.90

3.45

138

-32

-71

4304.000\*

0.000\*

42.700\*

- 54.000\*

0.000\*

0.239\*

0.002\*

3.550\*

2.3 5/3

48.978

14.400

0.962

-0.257

+16

43.408

-0.598

-0.867

-36

-34.547

-0.002

-0.894

-14.435

Handwritten notes on the right side of the page, including a large diagonal slash and various scribbles:

~~26~~ 80  
 30  
 52  
 20  
 0  
 50  
 20  
 20

202 588

+12 +2

HD 4304

00 42.7 -53 59 F8 IV-V +14.4 (4)

FD 1108

6.15 +0.53 (1.64)

GL 902

|      |      |        |      |
|------|------|--------|------|
| 9990 | 8916 | } 2474 |      |
| 0458 | 1297 |        | -023 |
|      |      |        | -5.2 |

42.202 1902.3 +0284

+0242 ± 7.5

-009 ± 5.9

+013  
18.84 1896.6

1.154

+0263

+48

+0275 +004

18.36

+0281 +008 sky 41.048

+0242

+02487

33.298

30.97 1927.37

+0249 +004

8460

12.90

41.788  
- 3  
-----  
785  
- 26  
-----  
759  
+ 711

2.2

18.07  
- 10  
-----  
18.17

- 06

18.23

+ .43

127-  
-13.986  
-40.442  
-0.894  
-0.447  
-0.027

191-  
-22.157  
-613.200  
-0.366  
0.763  
-0.533

198A  
23.972  
1005.794  
-0.259  
0.466  
0.846

14.400  
2.200  
4.000  
423.000  
-54.000  
0.700  
W  
L  
S  
2344

205      00 43.4    444 34      B5.5 III p

6.02-06

-014    113 291 2.766

107 985

214

-1.0    E(4y) 10000 999

f 026-007 CV       $m_V = -0.4$

f 027-004 F144       $V_0 = 5.55$

f 028-008 F144 + 6000       $\overline{C.35}$



205.000\*

0.000\*

43.400\*

44.000\*

34.000\*

0.028\*

-0.008\*

6.350\*

186.209

-1.000

0.105

0.503

19.076

-0.081

0.807

-15.798

-0.039

-0.309

-6.940



6658  
1304  
649  
1  
05.1  
40151.24  
-057.16  
-0866  
41  
+8.56

viam

Buy (6.25)  
3396  
5.82  
-054  
7143 -05.7

(329)

8.009  
-947  
1887.3

401524

3.44

18888

9999  
2091 -0442  
11617.062  
25.532

40.2  
164

34.1

1927.5

28.0  
34.8

buy  
3348  
6.73  
1613

173  
3.11

35.1  
168

35.0  
22.73

9.241

3348  
7.494

40150 - 958  
10151 - 854

34.1  
35.48

1625.6  
1666

247

684

251

164 - 060

34.1  
35.48

1666

3.57

280 940 691 723 1163-057 +8.5 -039 +6-194

-046 011 156-037 -043 791 +6.1 +6+2

+4 +42 -4 02

$\boxed{+34-19-12}$

015

+3+55-7

+05-28-14

.019

$\boxed{+36-21-12}$

503 828 276 1046 2865  $\left( E = -045 \right)$

H059M

1

11.0

+TP

45

-10.06

H0286

6.48 10.09

+071 -0246

+504

+2211 -021 N30

-0214

705

1473

~~0983~~

52476 -633

working

OT00

0910

117

0121

451

9712

9334

-17

0129

1445

0235

0235

0230

0240

0240

0245

0159 -133

-2078 -3576

028 -033

-42

0235  
0235  
0230  
0240  
0240  
0245

305-952 1 0 +071-022 -10.0 -022 -10 0

-021007 070-020 0 365 0 0 0

0 +36 -10 01

$\boxed{+27-24-11}$

0 +46 -10 005

$\boxed{+35-25-12}$

0 +18 -10 02

$\boxed{+11-16-5}$

0 +24 -10 018

$\boxed{+16-18-9}$

0 +25 -10 013

$\boxed{+20-20-10}$