pSu
141992

GC21311
W9137

43590
+21°28'24

15 49.1 +21 08 SNS -61.7a

B-v
4.62 +1.43- Hardy

-62.6L(5)
-56.6B(3)
-64.0v(1)

F5III R

W(-0.1) -622 (2)

±1.7 ±1.3
-055 +011 GC

+49 -37 -28 .010
+43 -31 -33 .015

9A(20)
2M(4)
12±6

-841 -541 360 933 -055 +011 -61.7 004 -22 .047

-046 003 030 -002 -205 156 -57.6 +31 +48 | +3 +70 -16 0075

-0034±1.7 +011±13

-0037 +009

+55 -43 -20

4.038 1902.1 +21 7 34.77 1896.5

187 -59

4,225 36.18

4.107 36.40 1433.3

+13 -7

120 36.33

099 36.95 1539.33

4.070 -126 34.2 -21

8 36.77 2.63

078 36.3

36.55 39.9

+.37

-0020±3 9 -007±2.6
-0013 -010

142282 15 49.9 +53 03 65 A2 -9.41

65 8.8 dF5 -16C

2324

9140 51.215 1894.5 +53 3 21.55 1885.7

AD59816

111
326

11.94
39.335
51.275
300
306

547
274
-052

(40.3)

51.220
+21
241

51.323

+45
22.00

51.8 1924.8

30.72
08
21.62
70
21.13
57
21.76 1944.72
-34
21.42
21.50
-.50

4952
34.8
99.1

CW

~~SF~~ Sw 15 50.7 +06 14

-015 +012 Clubs

15.850
6.200
-15.000
12.000
10.300
1259
0.000

-0.409
0.564
-0.717
61.011
76.808

0.657
0.727
0.198
-5.061
-6.371

-0.633
0.390
0.668
66.960
84.297

−0025 ± 2.6 ⊥051 ± 1.9
−0028 +056

142531 15 51.1 +55 58 5.9 gC8 −29.7 8

21345

9156 6.590 1893.7 +55 58 25.26 18543

141
731

−2.84
22.42

3.469
38.910
6.600
33
6.636
639

6.563
27
58

12.26
613
−118

41.9

520 K26.4
28.28
23.72
55
27
24.213
24.14

25.28 1144.88
−34
24.94
24.54
+2.12

7128
35.6
41.3

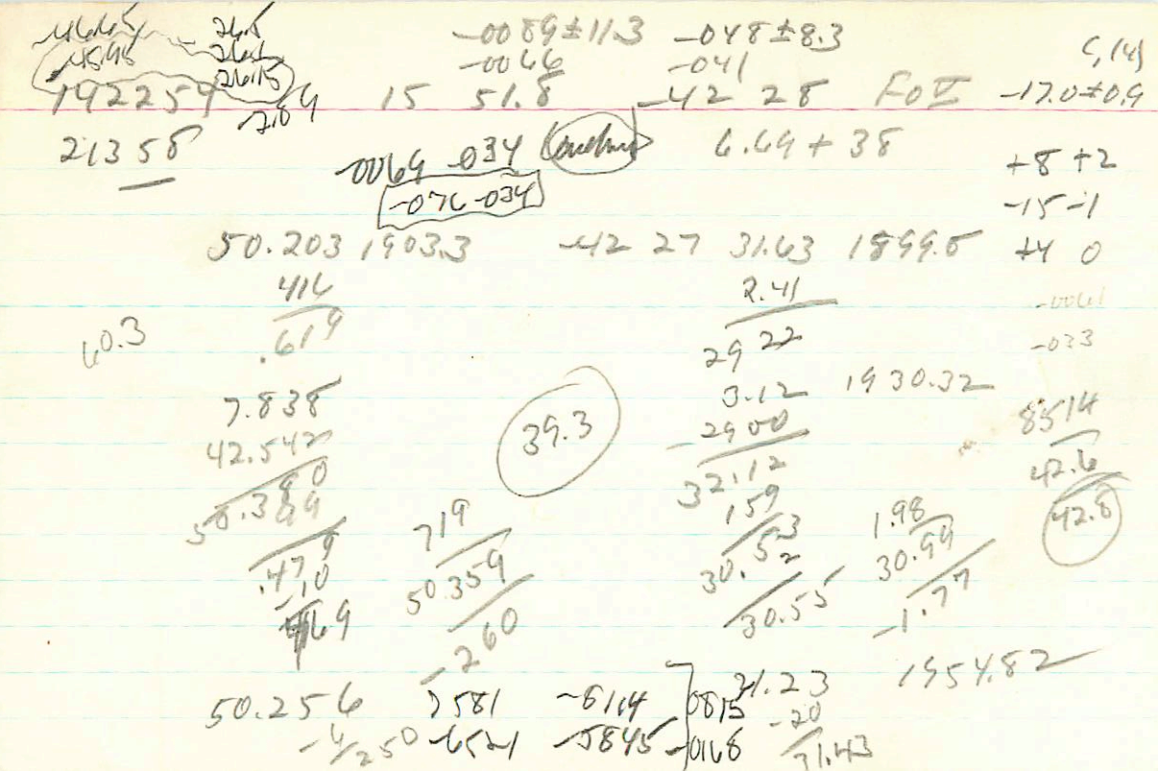
AN Ser 15 +12 +13 67 −47

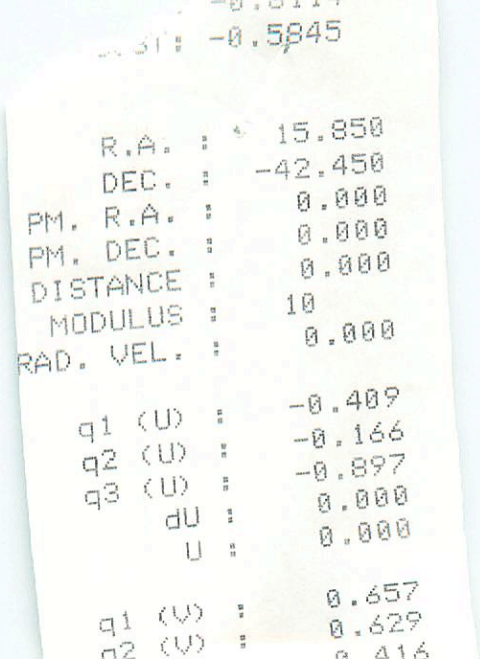
−006 012

−6
−12
1045
−47

```
R.A.  :    15.850
DEC.  :    13.100
R.A.  :    -6.000
DEC.  :   -12.000
ANCE  :    10.450
ULUS  : 1230
VEL.  :   -47.000

 (U)  :    -0.409
 (U)  :     0.646
 (U)  :    -0.644
  dU  :   -25.434
   U  :    -1.016

 (V)  :     0.657
 (V)  :     0.698
 (V)  :     0.284
  dV  :   -57.929
   V  :   -84.599

 (W)  :    -0.633
 (W)  :     0.307
 (W)  :     0.710
  dW  :     0.068
   W  :   -33.305
```

2^2 2^2




-0.5845
R.A. : 15.850
DEC. : -42.450
PM. R.A. : 0.000
PM. DEC. : 0.000
DISTANCE : 0.000
MODULUS : 10
RAD. VEL. : 0.000
q1 (U) : -0.409
q2 (U) : -0.166
q3 (U) : -0.897
dU : 0.000
U : 0.000
q1 (V) : 0.657
q2 (V) : 0.629

9166

$\beta = 0.43$

AT Set 15 53.3 +08 08 -20 d w(1)

55 (3)

-015 ±3 -016 ±2 Tarlow

142661 -0060 ± 2.9 -070 ± 2.2
-0060 -0072
142661 21399 15 53.3 -02 01 dF7 -38.08
9167 dR8 -41.18
ADS5842 -35.5 ✓
6" 7.0
8.1

dy:0.022 14.051 1889.9 -2 1 7.87 1884 -090 -070 GC
361
1.882
1.355
17.752
19.132
.169
1.53
123
-289
47.8
14.099
-.094

+4.45
3.42
42.39 1933.53
25.57
7.96
1.22
6.74
1405 1338
36.7
6.65 50.3
7.34 1438.85
-6
7.40
7.02
-3.60

107 15 25 +17 −9 407 1.59

142640 15 53.7 −14 15 dFH

AR5927

QC21391

6.31 +0.495 +0.03 2555

C2

.313 .165 .515 2.654 (J) 4,5,2,17

314.

[m_J] 221 +12

[C_I] 452 +110/12 +2.5

+0.0224 −0.631 G2 13.0

+0.325 −0.407 +23

+033 −058

25P. ~~P3~~

−396 280 −875	−0638	−0796	−1434	+1.6	+5.2
655 754 −058	+1056	−2144	−1088	−2.4	+0.3
−644 594 482	−1038	−1684	−2727	−4.7	−2.9

-6c

+00242	-06652c
− 18	+34
+18	+35
+0024	-069 →
+034	

2's

5927.000*

13.000*
53.400*
-14.000*
-15.000*
3.033*
-0.058*
3.800*
57.544
-6.000

-8.139
-3.873

-2.754

-0.104
-3.062

-5.627

-8.254
3.483

-13.112

24

+16 20 36 17 +26

5931 15 53.4 +18 46 . BF III

142763 6.26 -10 -45 +06 18

-1647 4677 9 -125 036

-020 089 622 2.704

083 626

170

796 6.15

-0008 -023

-00068 -0185 -41.0 154 +197

-5

-15

-0096 74 72,223 6.N

135 -1.30

-007 +016 (Quer) 41 7.45

-0011 ±4.3 -023 ±3.2

25.395 1897.7 -0004 56.05 1892.5

-0026 -022

058 1.32

.453 57.37

+0024

-0007 -023

-00057 -0175

25422 56.58 1933.2

+076 -10

25.438 56.48

-015 .89

=0081

-005 -015

56.32 1939.2

±5

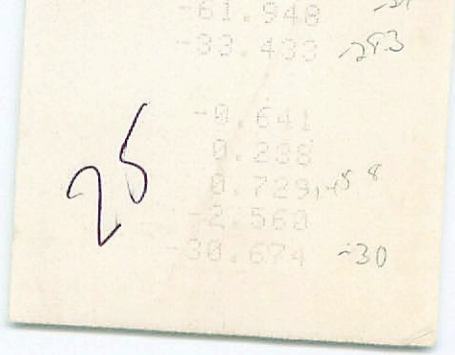
56.37

25.424

±14

424

25


-61.948
-33.433 -33
-0.641
0.238
0.729,45 9
-2.560
-30.674 -30
25

+0021 ± 9.0 +002 ± 8.7

14864 15 54.5 -06 09 7.0 A3m -24.86

21416

9181 28.717 1894.3 -6 9 10.69 1894.8

-117

,600

8.734

19.845

25582

30

2

619

-

603

-11

10.80

48.47

23.45

1935.04

11.92

12

7

10.6

+9

10.58

-0028±6.7 -023±4.8

142919 15 56.0 -53 53 6.4 BGm -38.06

21450 ~~4.44~~

9191 1.217 18993 -53 52 46.22 1891.0

142 +1.36

1.359 44.86

-0038 ± 4.8 -013 ± 4.2

-0033 -027

143009 15 56.1 −41 36 5.1 R8 −27.08

21451

9192

4.99 +0.99

5.411 1910.6 −41 36 9.30 1907.6

150

5.561

5.490

−25

.465

437

−124

37.3

+55

875

9.51 1940.16

−11

9.62

1965

9.82

−107

95.82

47.9

40.3

05.411

−2

409

09.85

−75

10.03

1955.66

CL Dia

14346 15 56.6 +54 53 5.0 45m -1716

21467

9195 -0179 56 +111 51 N30

-0182 ±1.5 +109 ±1.5 GC → N30

9360 -6346

-3688 5728

9260 -6286

3652 +7054

19±6 A(28)

5960

FIRS

-1540 +1109

-153 +110 -12.2 2.75

-1766 +1117 W31

-1767 +1121

-1524 ~~+1163~~ +1163 +1144

-1526

-1549 +1114

254 3.47

-01824 +1080 I=184

-1573

-1532 +1103

1946 +10

0454

100.0-	
7144.653	
5225.00	
1231.00-	
6496.00-	
4527.22-	
6729.8886-	
2889.0	
2813.0	
4590.0	
596.42	
3916.1972	
5558.0	
6926.00	
6886.0-	
8002.71-	
5631.32	
0000.0111	
0000.9992-	
0006.455	
0566.15	

-0021±17.0 -095±17.0
-0013 -035

143138 15 57.1 -47 45 G6 III -20.6±0.6 $C_2(5)$

21485 8.70 +6.41

~~15~~ 5 6.215 1904.7 -47 44 5 8.16 1904.7
095 4.30
6.310 53.86

6.258 55.37 1555.42
-15 -14
.243 55.51

5
-0018 11 -014 CP

w(4)

143393 15 57.1 +28 34 gK3 +12.8β

GC21484
W9198
+28°2748

7.10 +1.13 +1.07 K2III R

w(+0.4)

+020 ±6 -051 ±7 GC
+036 ±5 -058 ±5 4
+026 -055

-72 -12 -16 .004

m

+91-44-2827 4567 8910 1112-1314

+1-212-555-0147 (555) 867-5309

+44 20 7946 0958

+81-3-3456-7890

+49 30 1234 5678

+33 1 42 68 53 00

+86 10 6552 7890

+61 2 9374 4000

+7 495 123 45 67

+55 11 3456 7890

+27 21 405 1234

+82 2 1234 5678

+52 55 1234 5678

+39 06 6982 1000

+34 91 123 45 67

+31 20 794 1234

+46 8 123 456 78

+41 44 668 18 00

+65 6789 0123

+971 4 123 4567

+966 11 234 5678

+90 212 345 67 89

+48 22 123 45 67

+353 1 234 5678

+64 9 375 2000

+63 2 8123 4567

+66 2 123 4567

+60 3 2161 2000

+234 1 270 0000

+254 20 271 7000

+20 2 2794 1000

+54 11 4114 8000

+56 2 2354 5000

+57 1 746 5000

+51 1 625 5000

+380 44 123 4567

+420 221 111 111

+36 1 234 5678

+40 21 123 4567

+30 210 123 4567

+358 9 123 4567

+47 22 12 34 56

+45 33 12 34 56

+32 2 123 45 67

+43 1 234 5678

+351 21 123 4567

+1-787-555-0199

+1-868-555-0123

+1-876-555-0147

+1-242-555-0123

+1-246-555-0147

+1-441-555-0123

+1-345-555-0147

+1-284-555-0123

+1-340-555-0147

+1-671-555-0123

+1-670-555-0147

+1-684-555-0123

+1-649-555-0147

+1-664-555-0123

+1-758-555-0147

+1-784-555-0123

+1-721-555-0147

+1-869-555-0123

+1-473-555-0147

+1-809-555-0123

+1-829-555-0147

+1-849-555-0123

+1-264-555-0147

+1-268-555-0123

+1-767-555-0147

+1-441-555-0123

+1-345-555-0147

+1-284-555-0123

+1-340-555-0147

+1-671-555-0123

+1-670-555-0147

+1-684-555-0123

+1-649-555-0147

+1-664-555-0123

+1-758-555-0147

+1-784-555-0123

+1-721-555-0147

+1-869-555-0123

+1-473-555-0147

+1-809-555-0123

+1-829-555-0147

+1-849-555-0123

+1-264-555-0147

+1-268-555-0123

+1-767-555-0147

+65°1092 4m

143665 15 57.2 +65 32 9.1 dBS -5C

SB(29)

C2141

9201

40 G(s)

17 ②

+175±1 -171±2 GR

+171 -165 GP

+0.114±0.30 −0.52±13.0
+ 9 −.020

143234 15 57.6 −45 13 AOU −13 ±3 $C_2(5)$

21498 8.64 +25

36.492 1905.5 −45 13 18.01 1905.1
−.007 2.33
.185 15.68

36.239 16.43 1956.16
−.10 −.15
.529 16.54

+0006 ±38 −061 ± 3.2
+0018 −055

143584 15 57.7 +50 01 5.9 dA8 +4.06

21499

9206 39.014 1895.13 +50 121.12 1892.5

−033
38.981

+009 −054
+009

3.51
24.73

−0165 −2335 −2500
0278 −0957 −0679
−0277 +0426 +0151

46.8

56.52
42.495
39.015
14
.034
034

113
.056
+075

40.7

38.7 1926.6
16.32
22.38
66
23.06
11
91
22.

463

−11.7 −0.5
−3.2 +2.6
+0.7 +3.0

7193
360.
43.5

−122
−0.0
13.7

39.056
14
.075

−387 912 −134
652 374 658
−650 −167 741

2832
2464

21.97 1945.33
−25
21.72

22.32
−2.41

+24

143221 15 58.5 -62 58 7.27 +1.65 185 +15.9

-003 -001 ±6
- 2 - 10
+11 +6
+006 -005

3/2 6.2

HD133024 1.5 58.9 +47 28 AOp

HR5597

-10.4 δ

-011 +016 QL

-3 1

-014 +020 → N30

200F

-356	+413	-134	+0256 +0866	+1132	+22.3 -1.4	= +21
+653	+873	+659	-0433 +0354	-0079	-1.4 -6.9	-8
-651	-167	+740	+0432 -0158	+0274	+5.4 -7.7	-2

#5 R_2 $\rho = 0.47$

4R Her 15 59 +47 04 -335 ℓ w(ℓ)

W 4213 11.0 vvi mod. -350 (L)

$\Delta S = 6$

-060±4 +011±4 Rem

-051±7 +000±5 Katz

+1 -8

-2 +1

-1

-060±6 +011±6

-051±7 0±7

-056±5 +007±5 VS

373

-٥٢٤ ٢٧٩ ٢٢٥ ٥٥٥ -٢٢٤ ٥٥٦ +٥٥٦ ٢٤٦ ٢٢٦ ٢٥٧ -٥٥٤ ٩٧٤-

-٥٥٤ ٥٥٦ ٥٢٢٤٥٥٥ -٢٢٤٠٢ + ١١٤ ٢٤٦٧ ١٥٥

-٩٤٩٧ -٢٢٤ ٢٤٦٧ ٢٢٤٠٢ + ١١٤ ٢٤٦٧ ١٥٥

[١٤ - ٥٤٥ - ٤٢٤]

-١٤٤ ٢٤٦٧ -٢٢٤ ٢٢٤٠٢ ٥٥٥

-١٢٢ ٢٤٦٧ -٢٢٤

٢٥٢ -٤٤٩ -٤٦

-١٤٤ ٢٤٦٧ -٢٢٤ ٢٢٤٠٢ ٥٥٥

[٢٤٦٧ -٢٥٢ -١٤٤]

-١٢٢ ٢٤٦٧ -٢٢٤

٢٥٢ -٤٤٩ -٤٦

LOB −0024 ±2.5 −015 ±2.0 −203 Obs*
143807 15 59.4 +29 59 4.9 40 −19.3 a
−0034 ✓ −016

21534
9215 4.91 −08 −18 Aoa-πp

26.325 1904.2 +29 5-9 2304 1901.4

110 .23
.435 23.77

−0026 −010 b≈π/20
−0036 −014 ≈
−31 −12

26.309 23.24 1940.67
4 −22
313 23.02

26.248 100 M 23.13 1957.68
+016 26.250 .185 −23
−008 22.86

−58R	+754	−304	+1048	−0606	+0440	+4.4	+5.9	+10-3 −.91
+444	+657	+353	−1200	−0530	−1730	−17.3	−6.6	−24.1
−444	− 3	+885	+0839	0	+0839	+8.4	+17.1	−9.

110 psc

						1000 m		
-378	+813	+442	+0727	-0463	+0254	+2.8	+8.5	+11.3
+652	+573	+497	-1249	-0326	-1562	-17.2	-9.6	-26.8
-657	+100	+747	+1256	-0057	+11.89	+13.1	-14.4	-1.3

1.54
1.30

L L B Hg 15 59.4 +20 00 Pub

5971 -22 132 895 2826 3a -21.9

143907 -23 115 927 2 warm

-020 132 872 2814 a

+19
14

126 876 2799

252

1128

+47 ±2.5

-00 29 +13 -0170 GC +

-00 270

-0123 +22

4.95

35
-0360

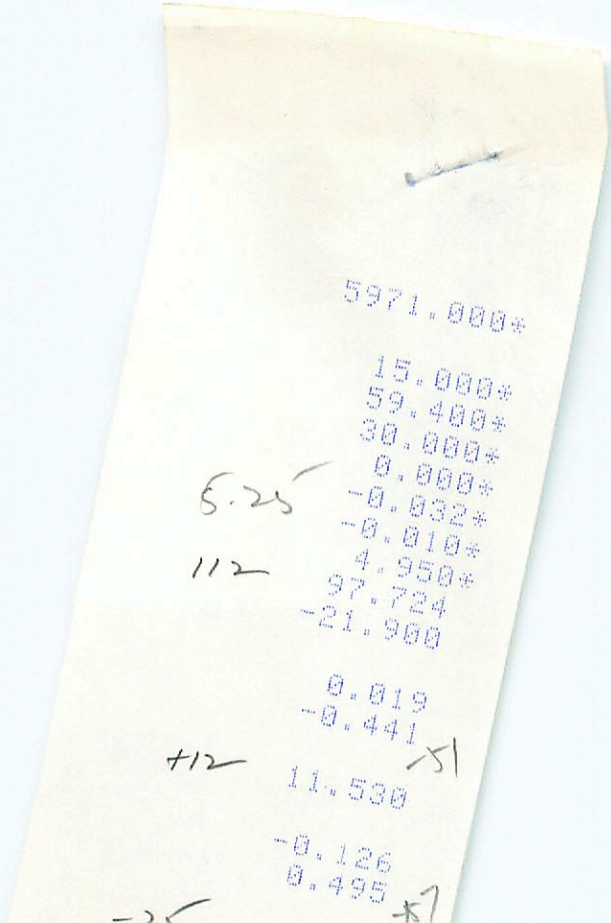
-132 -010

-022 127 895 2.820

121 899 2402

252

1147


5971.000*
15.000*
59.400*
30.000*
0.000*
-0.032*
-0.010*
4.950*
97.724
-21.900
0.019
-0.441
11.530
-0.126
0.495
5.25
112
+12
-51
+7

5965 1K 55.5 -2.9 002-013 +4.6

148614 33.263 7.5 T00 26 + 5.0 52.08 +3.8 (2)

A059846 -110 +0031 -021 +4.5 (8)

33.153 +0027 +91

+0030 51.17

33.342 7030 51.68 0030

+3 -37 0032.0 -010

347 52.00 +0028 -015

33.013 64.45 51.1 00280 +0310 -010

+1 -0 00700 +0393 +034 -006 0380

314 52.04 040 0116

8324 8781 +7.6

5542 -4785 0120

33.24 $0.58 51.36 +040-007 0385

-10 -25

251 51.11 595

(T10.V)