148246

6.7 +1.61 +1.51 (8)
5.4 +1.08

5.5 +1.00

5.72
1.31
8
3.
4.2

~~2442252~~

2442187 6.70 +1.61 +1.86

~~29~~ 2225 6.65 1.625 1.78

2241 6.73 +1.62 +1.82

2245 6.73 +1.605 +1.80

2247 6.76 +1.605 +1.78

2250 6.74 1.62 1.81

2252 6.72 +1.64 +1.82

2253 ~~6.73~~ +1.60 +1.78

6.72 +1.61 +1.81

2226 5.47 +1.00

U746 Her

148296 16 24.4 +11 06 7.0 gM4 -30 2

GL 2125

W 9464 Eggen PASP 1971 83, 423

6.6 - 6.7 +1.63 +1.88 (2)

5.3 - 5.5 +1.01 (5)

-290	632	-718
632	640	352
-715	352	600

+0412	-1198
-0899	-1306
+1021	-0667

-0786	-31.4	-10.6
-2207	-883	-55.0
+0354	+14.2	-4.0

7218
-10.7
-18.2

-0016 ±7.8 -036 ±6.5
-0824 -054

21.582 1910.4 -055 9.37 1507.4
-045
074 -0022 1.53
.656 0024 10.90

-0022 -045

21.589 -0020 -046 9.51 1534.5
0 +6
+12 -0020 -040 -6
.5.99 -030-040 9.45
-1.45
-57

21.597 62.41 8.65
541 38
827

21.515 69.91 8.66
9 38
524 8.28

	16.400	
	11.100	
	-32.000	148296.000*
	-37.000	
6.7	8.000	16.000*
220	398	24.400*
	-30.300	11.000*
		6.000*
	-0.294	-0.021*
	0.633	-0.039*
	-0.716	8.000*
	-67.330	398.107
+7	-5.109	-30.300
		-0.088
	0.633	-0.717
	0.350	-13.314
	-215.281	-0.191
-58	-96.322	0.351
	-0.716	-86.499
	0.351	
	0.604	0.007
		0.603
	-0.342	-15.662

R.A. :	16.400
DEC. :	11.100
M. R.A. :	-30.000
M. DEC. :	-38.000
ISTANCE :	8.300
MODULUS :	457
D. VEL. :	-30.300
q1 (U) :	-0.294
q2 (U) :	0.633
q3 (U) :	-0.716
dU :	-73.064
U :	-11.701
q1 (V) :	0.633
q2 (V) :	0.690
q3 (V) :	0.350
dV :	-212.661
V :	-107.822
q1 (W) :	-0.716
q2 (W) :	0.351
q3 (W) :	0.604
dW :	36.771
W :	-1.486

+0007±6.7 -0.40±4.8 3w
-0022 -031
149956 Van 16 34.7 +36 04 7.4 gm3 -52.06
22343
9554
43.516 1907.6 +36 8 25.09 1503.5
Lumin +40 -030 -013 -026 Lumby 1.85 5.76 +85
-0010 -038 .480 26.94 5.38 8.0
-033 49.37 20.4 29.7 1926.1 28.2
54.085 4.02 24.4
-012 43.455 10 440 25.68 92
-009 -031 4.2 46.5 -046 26.09 26.10
5.7 4 -20 -76
+41
7.3 Van 7.07 +1.59 +1.88 (2) 26.40
8.5 43.41 10 5.50 +1.00 (2) 26.3 1430.3
420 55 125 -3.4
1.2 6.4 25.9 C

149956.000*

16.000*
34.700*
36.000*
8.000*
-0.008*
-0.031*
8.500*

398 501.187
-52.000

-0.120
-0.391

-28 -39.937

-0.091
0.633

-69 -78.611

0.016
0.668

-25 -26.724

151061 var 1L 42.6 -3 00 7.2 gm/cc -8 C

-0006 -018 ±5.0 +5 Celsius

-015

-0090

-008-014

8.1

-0023 -004

427

177

2.5

505

Cubby

TOT 1.57

19

4.7

1.85

2.75

5.4

8.1

2442197	6.64	+1.75	+1.555
2225	7.01	+1.80	+1.67
2241	7.05	+1.80	+1.65
2245	6.97	+1.79	+1.685
2250	6.88	+1.80	+1.66
2252	6.88	+1.785	+1.64
2253	6.86	+1.785	+1.65
2255	6.83	+1.80	—
2257	6.83	+1.78	+1.66
2272	7.08	+1.75	+1.485

2226	5.05	+1.505
2242	5.04	+1.53
2253	5.12	+1.57

151061.000*

16.000*
42.600*
-3.000*
0.000*
-0.008*
-0.014*
8.100*
398 416.869
-8.000

-0.021
-0.870

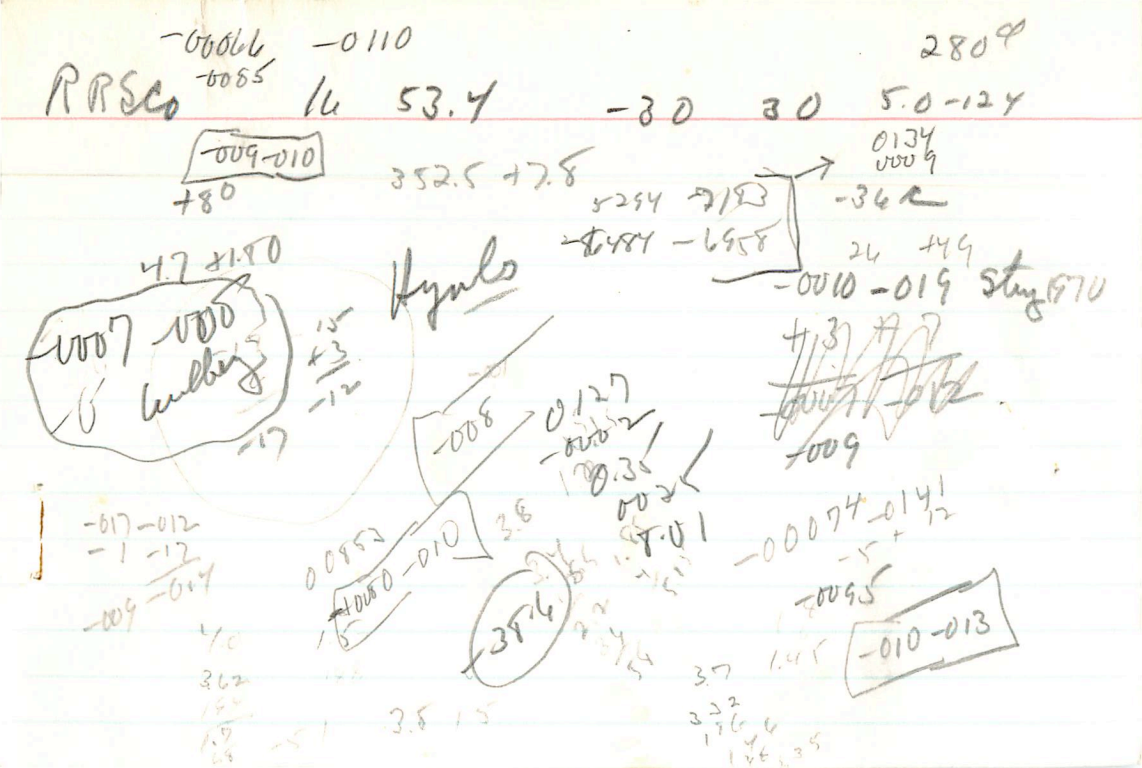
-1 -1.603

-0.074
0.222

-31 -32.435

-0.003
0.440

-5 -4.957


RRSc
Hyalo
Sting GTU

```
                0.000*

               16.000*
               53.400*
              -30.000*
              -30.000*
               -0.017*
               -0.013*
                7.000*
231           251.189
              -36.000

                0.016
               -0.982

---
+34            39.380

               -0.093
               -0.120

-17           -18.838

                0.028
                0.135

+1             2.055
```

```
                0.000*

               16.000*
               53.400*
              -30.000*
              -30.000*
               -0.010*
               -0.013*
 7.2            7.000*
277           251.189
              -36.000

                0.010
               -0.982

+38            37.851

               -0.077
               -0.128

-168          -14.767

               -0.001
                0.136

-5            -5.155
```

IC680 17 172 +2 11 →6116

Vdd7

V 2113 Cyh

R-E 1152

+0007 +023 Cmlby

+003 -024 Y
-5 -3

156966 17 17.4 +27 20 gm2 ~~K5-8.9~~ +72.7±2.0(4) (13)
+65.

GC23413 6.70 +1.65 +1.94 M1III R

W10005

-002-026 Y
+4 -24 pc ±7.5
+002 -02~~5~~
+004 -021
+006 -020 thy + comb

+003 -024 Y
-5 -2
+0011 -023 ~~Y~~
8h5

-004 -036 pc
+002±5 -026±5 Y
-003 -030

~~-85 +5 +7 .0025~~

-79 +16 +13 .003

yes but data not good enough

5.62+8.25 5.76 +0.87 (2) 6.84 5.51+1.91+ (3)

1

-0003 ± 10.0 -035 ± 83
+0007 -023

459 889

24.151 1903.1 +27 20 2.33 1901.5
017 1.70 ~~1.70~~
.168 4.03
+0003 -024 ±7.5
24.183 3.70 1928.44
-3 -20
180 3.50
187 263
+019
5874
24.48 3.6 1930.3 29.4
14 -31 27.9
494 3.29
3.40
-63

156966.000*

17.000*
17.400*
27.000*
20.000*
0.008*
-0.020*
8.050*
407.380
65.000

-0.082
-0.551

-69.304

-0.026
0.654

31.975

-0.055
0.518

11.388

+0018±12.2 −075±5.0 M III D

15556 17 34.4 +27 36 GM4 −36.0 4000

23872

10171 22.451 1913.2 +27 35 50.73 15053

−066 / 385

3.05 / 5-3.78

6.37: +1.585 +1765 (4) 347

5.08 +1.055 (2) 13² 3

470 / 13² / 3 / 5 +3 / 76

−3 / 344

−0003 −064

Looking

52.39 28.44

−20 / 5-2.19

+004 −073 ±?

−5 −2

7.65

−007±7 −078±5 Reify

0 +2

−004 −076 ± 4.5

−002 −077

+001 −072 ←

```
159968.000*

    17.000*
    34.400*
    27.000*
    36.000*
     0.001*
    -0.072*
     7.650*
   338.844
  -36.000

    -0.285
    -0.551

  -76.627

    -0.161
     0.693

  -79.349

    -0.098
     0.465

  -50.035
```

IG Her 18 18.7 57 +17 58

+1703520

+0013 +034 8.45

+0015 +045 Hmm

+021

8.15

-88

+0010 +032 Int

0 | +5 +037 0

+0014 +037

8.35

8.2

+ 19 +43

+00119 +0263

+17 +14

+017 + 31 +020 +036

4.94 1.64 205

4.56

211

24 5

57 820

4.97 1.64 207

4.6

213

24 3 633

0.000*

10.000*
15.700*
17.004*
58.000*
0.029*
0.026*
9.208*
436.516
-68.004

0.136
-0.675

118.776

0.139
0.689

0.082

-0.015
0.264

-29.951

18 32.4 −15 15 −24.8 5

171854 18 83 84 −15 18 2.2 gm 5

(B) (R)

6.82: +177 +1.205 (5)

5.05 +1.395 (3)

4.79 1.205

4.41

2.73

4.9/5

7 6

b/min

+0021 −014 ±5.0

+00243 −0020 ±3.0 7C

−00014 +0030

+00229 −0017 FINY (7C)

+00284 −0022

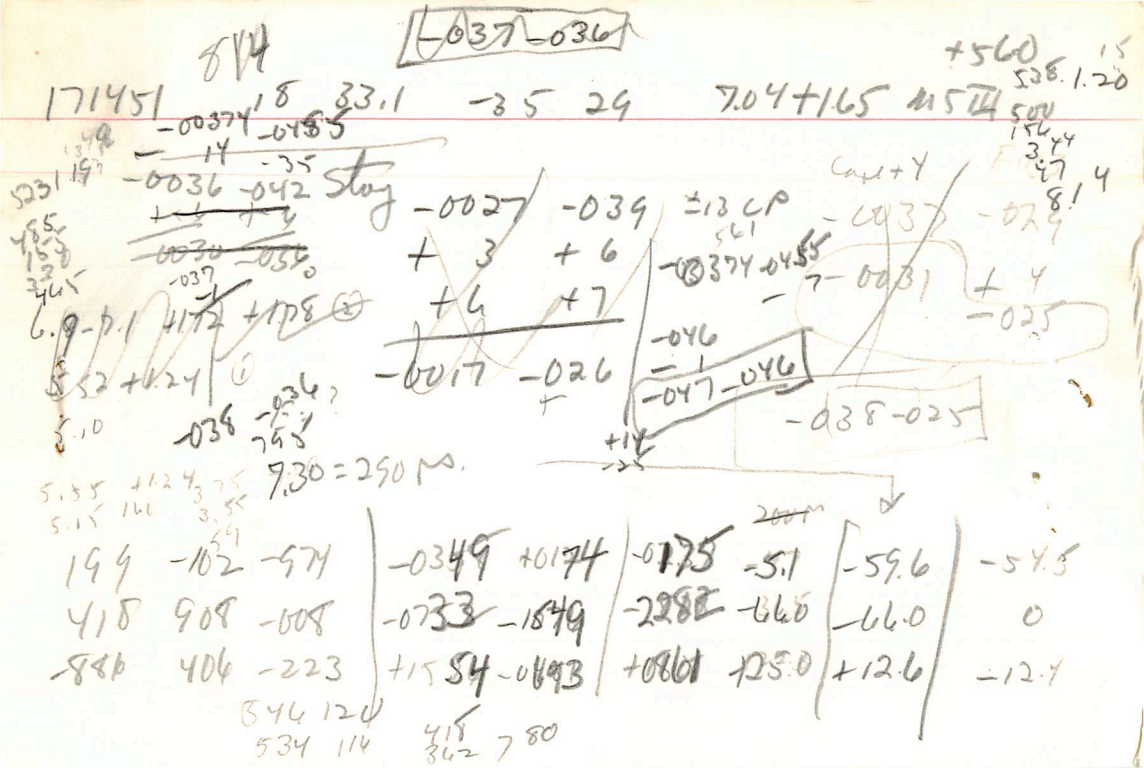
+0337 +034 +0018

171394.000*	-171394.000*
	18.000*
18.000*	32.400*
32.400*	-19.000*
-19.000*	-19.000*
-19.000*	0.034*
0.034*	-0.001*
0.003*	7.650*
7.000*	338.844
251.189	-24.300
-24.300	
	0.030
0.033	-0.966
-0.966	
	33.543
31.768	
	0.064
0.081	0.240
0.240	
	15.940
14.466	
	-0.145
-0.136	-0.092
-0.092	
	-46.865
-31.993	

(7145)
V3077 Sgr

18 335 35 24 +56

R = 0.95



1451.000*

10.000*
33.100*
-35.000*
-29.000*
-0.047*
-0.046*
0.150*
426.580
56.000

-0.021
-0.976

-63.412

-0.292
-0.012

-125.110

0.100
-0.217

93.010

171911 18 33.4 +51 44 gm4

GL 2404

6.67 +1.58 +1.63 (2)

-86.5

" -0.048 " -0.024

-0.046 -0.024

5h5

-46 -116 +29

-15 -9 +16

Arcturus = −0054 ±5.1 −085 ±5.0 −027 −031

171911 18 33.4 +51 44 6.7 gM4 −86.5 8

25404

11054

−0048 −0042 1.058 6205 29.86 −30 29.56 +6.5

21.121 1900.3 +5.11 44 2400 1888

(65.67) +268 .389 +1.565 11.635

21107 −25 120 57.58

29.49 −30 29.19

+1.79 −0045 −028 79 −00475 −0237

30. 15.2 1926.6 −0441 +11.42 −040 −024

46.34 34.418 21.258 +1 259 +4 263

40.0

3.4 +100 13

5.00

B−V 1.207 1.21

Del 1.266 1.27

Any −087 21.165 +15 180

450

21.182 −25 187 210 −179

−24 7.5 −86.1

1647.34

29.65 −29 29.36

30.22 −30 30.22

29.92 −25 29.67

29.75 −1.04

1946.82

40.3

41.5

-0049 -024 4 holes
BC

-00515 -025

-0478

-043-025

		171911.000*
R.A.	18.550	18.000*
DEC.	51.750	33.400*
I. R.A.	-65.000	51.000*
I. DEC.	-24.000	44.000*
STANCE	7.500	-0.043*
IODULUS	316	-0.025*
). VEL.	-86.500	7.900*
		380.189
		-86.500
q1 (U)	0.192	
q2 (U)	0.970	-0.154
q3 (U)	-0.149	-0.149
dU	-146.893	
U	-33.559	-45.750
q1 (V)	0.423	-0.093
q2 (V)	0.055	0.905
q3 (V)	0.904	
dV	-86.994	-113.464
V	-105.743	
q1 (W)	-0.886	0.152
q2 (W)	0.236	0.399
q3 (W)	0.400	
dW	142.054	23.444
W	10.343	

-4502 C5

V1542 Sgr 19 2603 -16 00

+0020±3.6 +003±3.8

17.816 1900.1 3,22 1899.5

+00128 -0,0007
- 13 +0029
+00115 +0022
+ ~~+020~~ 30 +0005
+00145 +0027 20 m2
+021

↓ 128 330 p.

344 243 -907	+0342 +0034	+0376	+56	+40.8
322 877 357	+0320 +0124	+0944 (337)	-1	-16.0
-882 415 -224	-0878 +0059	-0819 (2459)	-17	+9.9

+00 18 ± 4.2 +00 2 ± 4.4

180953 19 16.3 −16 00 7.2 N −45a

26630

11765

17.815 1891.8 −16 0 3.18 1892.4

−10 −12

805 330

45.65 1828.36

40.80

51.856

25920

17.776

−18

.758

−14

744

741

−04

36.9

51.861

25920

17.781

−18

3.3

17.763

.24

53.9

4.85

1.48

3.37

3.028

3.0

337

−.07

44

28.7

36.3

429.06

45.82

40.80

5.02

5.148

3.0 .11 3.65

-68 C 3L

1813L 19 17.7 -10 39 7.3 gm 5

7.10 +155 +1.345

83

-68C

+00167 -004 turbin

+00184 -003

+0124

+013 -004

2443187	7.06 ±1.56 ±1.36	2242	5.32 ±1.42
2225	7.13 ±1.545 ±1.23	2248	5.35 ±1.42
2241	7.10 ±1.575 ±1.35	2251	5.32 ±1.39
2245	7.11 ±1.56 ±1.36		
2250	7.03 ±1.60 ±1.33		
2252	7.01 ±1.59 ±1.385		
2253	7.02 ±1.595 ±1.375		
2255	7.05 ±1.575 ±1.34		
2257	7.07 ±1.57 ±1.355		
2272	7.07 ±1.56 ±1.34		
2313	6.98 ±1.57 ±1.385		

101312.000*

19.000*
17.700*
-10.000*
-39.000*
0.013*
-0.004*
8.300*
457.088
-68.000

0.016
-0.876

66.712

0.003
0.441

-28.391

-0.062
-0.194

-15.359

				E	m-M
183565	6.04	+0.02 -38	B8 pe	+18	6.1
184279	6.84	+003 -82	B0.5 III	+25	10:

E = 20

4.20 +1.47

3.72
1.82
1.9
1.1
7.0

```
-0.874
 0.473
-0.114
-81.861
-34.737

19.500
 5.350
 3.000
-31.000
 7.000
   251
-55.000

 0.396
 0.554
-0.732
-75.833
21.223

 0.283
 0.685
 0.671
-96.645
-61.204

-0.874
 0.473
-0.114
-81.861
-14.272
```

(2)

```
19.500
 5.350
 3.000
-31.000
 8.500
   501
-55.000

 0.396
 0.554
-0.732
-75.833
 2.265

 0.283
 0.685
 0.671
-96.645
-85.365
```

(9)

-0018 -028 stay

81 34

-00149 -0246

RR Sgr 19 52.8 -29 20 +85.2

-29° 16'46

-0018 -028 stay

+5 +5

-0013 -023 -3

-017 -194 -0195

-020-027

470	058	880	-0379 -0063	-0442	-84.7	+74.8
222	958	180	-0179 -1044	-1223	-10.0	+18.3
-854	280	-448	+0688 -0305	+0383	-296	-38.1

19

114

E=108

RR Lyr 6.0 +1.51 +1.0 -3.0 -85 -10 -30 -17 +850 334d

4.35 +1.35 6.95 -4 -12 +4 -23 -26°

0.000*

19.000*
52.800*
-29.000*
-20.000*
-0.020*
-0.027*
7.000*
251.189
85.000

-0.052
-0.880

-87.949

-0.144
0.184

-20.399

0.045
-0.438

-25.969

51

-50.5

-25

-24