+37.30242 13 11.4 +37 06 44

13 15 45.8 +36 35.99

0.350 196

-083 -288

+23: dyn

10.5 - 12

McL-AL +08: -32:

-103

196

1.65

+23

69

```
10 REM ** MENU **
20 CLS
30 PRINT "1. ADD"
40 PRINT "2. DELETE"
50 PRINT "3. SEARCH"
60 PRINT "4. EXIT"
70 INPUT "ENTER YOUR CHOICE: ", CH
80 IF CH = 1 THEN GOTO 100
90 IF CH = 2 THEN GOTO 200
100 REM ** ADD **
110 INPUT "ENTER NAME: ", NAME$
120 INPUT "ENTER AGE: ", AGE
130 INPUT "ENTER ADDRESS: ", ADDR$
140 PRINT "RECORD ADDED"
150 GOTO 70
200 REM ** DELETE **
210 INPUT "ENTER NAME TO DELETE: ", NAME$
220 PRINT "RECORD DELETED"
230 GOTO 70
```

R.A.	:	13.250
DEC.	:	36.600
PM. R.A.	:	-103.000
PM. DEC.	:	196.000
DISTANCE	:	1.650
MODULUS	:	21
RAD. VEL.	:	23.000

q1 (U)	:	-0.805
q2 (U)	:	0.593
q3 (U)	:	0.012
dU	:	866.667
U	:	18.808

q1 (V)	:	0.585
q2 (V)	:	0.790
q3 (V)	:	0.186
dV	:	504.393
V	:	15.052

q1 (W)	:	-0.100
q2 (W)	:	-0.156
q3 (W)	:	0.983
dW	:	-105.985
W	:	20.333

(8)

7915 13 16.8 +85 01 dF7 +11.3

18022

FN5 [illegible]

-189.9 +017.9 7.28 +0.50 +0.02 2 B

41.0 / 3.1

+0.1

-.133 -.096

-.1018 ±.17 -.096 ±1.7

-1253 -117

46.512 1900.9 +85 0 54.22 1896.0

5.00 5.18

51.512 54.40

9554 9734 1403

0587 2293 0147

45.578 53.50 1544.64

41 15

46.023 53.68

-5.489 -5.72

+35.2436 — 13 (13) — 12.8 (14.9) — +35 54 (+35, 40) — 46

Y 3047 — 13 17.2 19.6 — +35 24.05 -9.6 -7.4 (1) -2.9 of 3W dM1 -2.6 (5)

AOS8861 40

9 } 17.5" binary
10 }

126 M(4)
45 Y/k(6)
116 S(7)

A 9.52 +1.47 +1.18 (3)
8.41 +0.815 (2)

W7918

Yerkes Spand meas. nightly - McCormick rel. parallax is mean for 2 components

BC18029

R 12.09 +1.59 +1.08 (3)
10.50 +1.08 (2)

9.5 M2.

Cm18-1719 — +383 -757

364 -755 AC183

+0.341 -0.770

Ca mine

-7.0

1896.51 i20 17.30 3A

18

+0312 -774

383 -770

70

ADS8841 17''

+0331 ±6.0
+0310
+0317

−750 ±5.5
−756

18024 13 17.2 +0335 23 9.8 dm1 −2.96

7918

−752

14.165 1899.3 +35 22 58.75 1896.6

14.165
−1.678
12.487

4.38
9.050
13.43

.332
.398
.342
.356
.35
.3

4.22
9.058
13.278

.232
.246
.257
194

550
275
~~212~~
788

254

58.29

19.325
14
341

52.42
−3.3
52.05

16.4
−58.88
22.582
14
22.68
22.60

42.19
40.94

70.0
53.78
16.22
43
16.65
16
16.8

1928.0

13941
14.70

1921.4

94
247
28.1

~~19.70~~
20.24
3
19.70
21.24

+48.2108 13 13,5 +48 3.3 142

13 15,5 +48 18

13 17,68.8 +48 3.08 42

AD58862 P=50±
Δm=0.5

W7420 HD115453 43048.1
Baig, JD 32,52 82M(8)

1.0 10 cW +13c. 2w

dm2

69
+140 -26 AC143

2nd Hm 25 +141 -015 53 -20 8.7112+84

+168 -012

+143 MR +8.0

1TT -N

P=48.85
a=1.465
Δm=0.8

+0.150 -0.018

+140 -2

826
788
7,10
78
6,10
22

142.000*

+29°.2405 kk 509 13 16.8
W 7453 13 18.9
AB: 9.5, 9.7 binary (Yale) 13 21:31 15.4
ADS 8887, d=0.7", Δm=0.2 -38.7 (16) 4ppm
GC 18119 (3M(7))
HD 116495 301 AB
Y 3061
Ci 18.1730 -0.476 +0.244
234

-0.454

* Spectrum is composite. MV. Whil. observers give MO for brighter + K6 for fainter comp.

1887.36	299	0.62	2 HO	1918			2A
1894.88	312	0.64	5 HO	1920			5 A
1896.48	315	0.80	3 A	1945.33	30	0.65	3 vB
1900.35	321	0.74	8 Deo	1956.44	48	0.66	8 vB
			3 A	1958.27	48	0.77	3 B
1905							


-0.011
0.124
4.585
58
72

+5° 2767

+3094.1

33 M(8)

+25 days

13 13 270 29.4 31.8 47.5

+7.0 ±1.5

Wolf 1487 +.13 −.16

+0.144

+0.141 −0.117

−5 −6 +5

+0.143 −0.124

+0.136 −0.1184

μ, R

+238 −127 (6)

+135 −161

9.57 +1.38 +121 (1)

9.06 +0.68 (3)

+136 −125 +4.0 −1.5

19.055
~~37.300~~
38.7

73

48.000*

13.000*
31.800*
4.000*
56.000*
0.136*
-0.125*
1.150*
16.982
9.000

-0.807
-0.359

-16.938

-0.063
-0.213

-2.979

-0.333
0.909

2.515

43

-3169 -67

-342 ±11 -66 ±8 CR

65574 -33587 -70.68 -32.93 1.31 CR

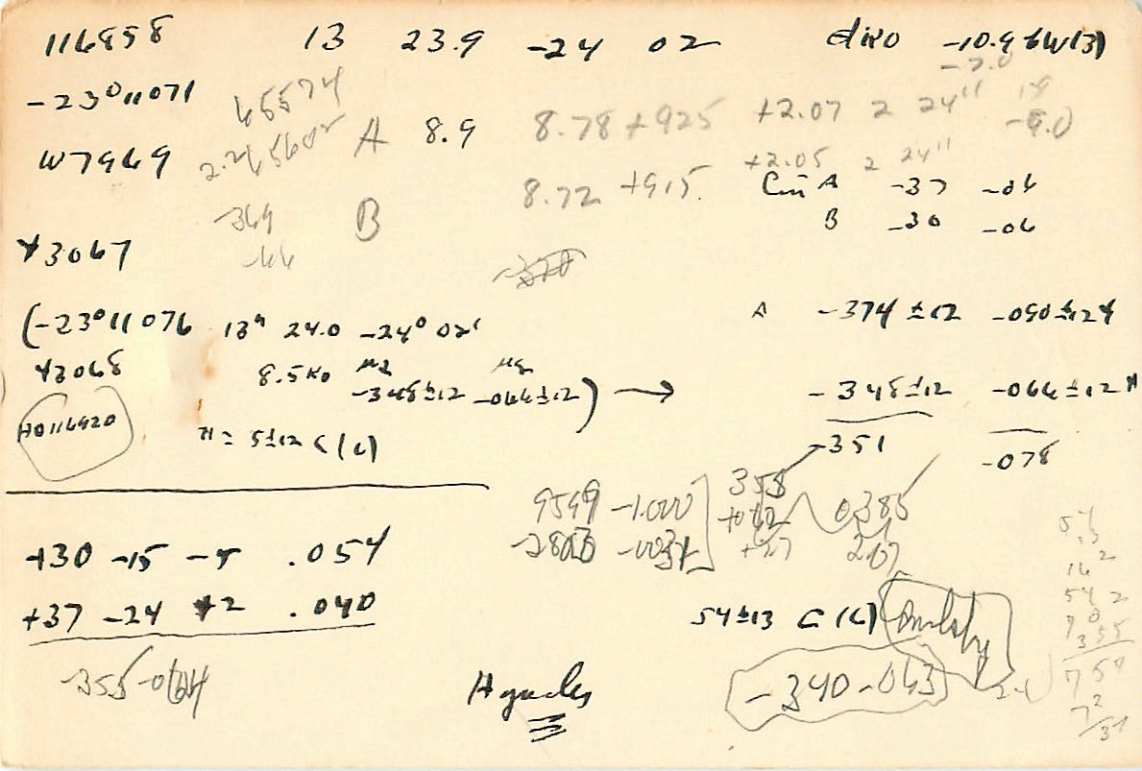
65607 -33728 -61.08 34.35 106

-351

-327 -063 CR

9427 -9588 | 3381 3548 6588

-2706 -3705


116858
13 23.9 -24 02
dR0 -10.9 W(3)
-23°11071
W7469
A 8.9
8.78 +925 +2.07 2 24"
8.72 +915
+2.05 2 24"
CmA -37 -04
B -36 -06
#3067
(-23°11076 13h 24.0 -24° 02'
#3068
8.5 K0
-348±12 -066±12)
#0116420
A -374±12 -050±24
-348±12 -066±12
-351
-078
+30 -15 -5 .054
+37 -24 #2 .040
-355 -064
54±13 C (C)
-340 -043

5-12 13 25.8 -2 06 -42.6

9"

11.30 1.57

12.75 1.70

10.05 1.12

12.21 1.34

173 -450

13.4

-2.1

173

-450

0.0

-42.6

74

5.40-01 -01071 +0371 PRS -0106 +037 (π)

5085 13 26.6 +6.0 13 A1

117376

18226

9454 - 9565 ok
-0358 2906

0880
-0035
-4.0
5.19

5.40-01-03 2595 et al

000	164	1014	2.894	et al
002	158	1.027	2.913	JG
001	161	1023	2.906	

(9)

1618
322
1023
1345
1847

-001 = 2
-005 = 2

-0798 +0371

7606
3771
4446
-1.6

+1.3
4.2

9956 - 9403 0887
0744 0314 3403 0073

13.4
+6.0.2
-1.6
+33
4.4
-1.5

-0744

0782 +033

-01134
-0132
-0180

+0316
+9
+0285

T183

+11°25'76 13 27.5" +10 39 +17c

+19w(7)
+12mc0(2)

W8008

M 3079

Boro490

9.02 +1.49 - mum

9.04 +1.51 +1.26 MIN M+5

9.09 +1.54 - Cgg (.2") +1.02 -1.04 Li

+1.120 -1.080 Tit.

E004

-56 -10 -2 .121

-72 -11 -10 .100

+1.177 McR

.121 ±11 m/s)

2nd

+75°510 13 31.9 +75 16 10.4 dk5-35c

8038

+75°510 −418 +039 GP
−421 ±3 +044±6 GR

+75° 511 −427 −013 GP
−425±2 −016±1 GR

+0.3077

13
12 .2 28.0 +0 19 42
30.4 +0 3
12 32.9 51.9 -0 12.42

13 n

+0025 +182 Rad SA105

854
803
66 45
1

+10 Dyn

MCC-AC +018 +191

9.7 110

+0.018 +0.191

10.26 +1.45 +1.02 (1)
9.32 +0.68 (2)

118258 13 33.7 −55 54 GCT −340 ±0.5 (3)(5)

7.97 + 85 − 1.85

~~10.85'~~

10.83''

S

−0107 −090 −059 ±7 CP

− 2 − 1

−0109 −060

+ 13 + 11

−0096 −049

−.081

721 $13^h 33^m.7$ $-55^\circ 54'$

HD 118258 +7.97 +0.85 +1.85 G6 V

−.774 −.067 −.629
+.609 +.191 −.770
−.172 +.979 +.107

+48.7135 13 358 +48 23

kl570 G177-46 AB × AD58580 6m=00 2.7
G177-45 6

9.76 1.38 883 0.205

1443 1.14 12.45 1.24 ⓒ 112"

-211 -11-

7570 9851 227
1634 -1719

+46°.189 13 33.4 +45 56 305

13 37 23.3 +45 27.11

-65.2 (18)

-65.2 (21)

-043 + 409 ABR

E.B.Lev. -0.04. +0.39

M0

10.5 M2 : +11.1

-57

+390

50

171

A.	:	13.660
C.	:	46.445
A.	:	-57.000
C.	:	378.000
CE	:	8.000
US	:	10
L.	:	-67.100
U)	:	-0.770
U)	:	0.635
U)	:	0.064
UB	:	1316.828
U	:	8.893
V)	:	0.612
V)	:	0.706
V)	:	0.356
VB	:	1172.145
V	:	-11.948
W)	:	-0.181
W)	:	-0.313
W)	:	0.932
WB	:	-544.792
W	:	-68.813

```
A.  :     13.600
C.  :     46.450
A.  :    -57.000
C.  :    390.000
CE  :      0.000
US  :     10
L.  :    -67.100

U)  :     -0.770
U)  :      0.635
U)  :      0.064
dU  :   1316.820
 U  :      8.893

V)  :      0.612
V)  :      0.706
V)  :      0.356
dV  :   1192.145
 V  :    -11.948

W)  :     -0.181
W)  :     -0.313
W)  :      0.932
dW  :   -544.792
 W  :    -68.013
```

76

V44 13 35.7 +35 55 58.7 M2 1964

9.14 8.18 +0.64 26 June 64 60"
8.95 8.04 +0.66 July 1 64 60"

9.08 +1.40 +1.15 29 June 64 60"
9.07 +1.40 +1.14 30 " " "
9.05 +1.40 +1.18 31 March 64 60"

9.07 +1.40 1.16 (3)

ሰላም ለእናንተ ይሁን

ከሁሉ በላይ ጌታ ኢየሱስ ክርስቶስ ይመስገን

ዘመድኩን በቀለ

-3.3508 13 32.60 -3 28 146

Y 3121
HD 118926

13 37 31.2 -3 56.91 +4.0

Bl 5211

+41 dly

94m (8)
426 (7)

= 2326

C 20-794 -.36 +.46

835
75

9.7 mo +7.7

-0.348 MR

-0.343 +0.484 C

-0.345 +0.480

-350 +500 G(2)

-345 +485

+220
1.25

146.000*

13.000*
37.500*
-3.000*
-57.000*
-0.345*
0.485*
1.250*
17.783
~~21.000~~
+4.0

2.297
-0.454

+3.0 28.603

0.663
-0.314

+0.5 3.317

1.498
0.834

+3.0 49.161

+36.2393 13 30.9 +36 28 49

13 33.0 +36 14

13 35.29 +35 58.97

+3116.1 101 M(7) 319.53 -58.56 91.72 17

+16.8 (1) -16.4 15.5

9.04 +1.41 +1.16 (3)

8.11 +0.65 (2)

8549 8924 3116 3016 0.715 1036 -08 13.7

-519 -454

773 685 6 5

8.7M2

EB Lu +340 -061

+0.313 MR

+300 -020 (4M2) +330 -75 -13.0 0.3 3283 08A

+0.332 -0.060

+331 -076

+338 -090 (-6)

335 -083

49.000*

13.000*
35.200*
35.000*
59.000*
0.330*
-0.075*
0.300*

521.2AB

~~4TTAB~~

HR5148

11/12/24

13 38.4 +52 46

-0133 +054 (combined)

176 6054

9434

1144

-5471 / 1382

3210 0154

+15°.2620 — 13ʰ 38.4 — +15 41 — 308

Y 3135 — 13 00.7 — +15 26

W 8123 — 13 43.010 — +15 12.42

A0 1/4850

8.47 +1.44 +1.11 MK R!

225 M(5)
152 YK (5)
198 ST (3)
188 A (20) / 202±4

+15,26 5W
dm2

B.C. 18602 +1.778 -1.457

8.5 M2 +11.1
+0".193

1227 -1444 Cambry

+1.763 -1450

1755 1406

1.774 -1444

7.41 +85 K

0840
1444
-1.4 K
+15.2

308 13 43.2 ±15 10

±15°26'20

8.46 ±1.44 ±1.11 ① ±0.853 ③

±15.4

3720
1175
760
3760

9165

+1228 ±4.5 −1.457 ±4.5
+1210 −1.458

119850 13 43.2 +15 10 8.5 dm2 +15.26

18602

8123

+15026.20

11.825 1890.2 +15 9 42.35 1888.6

−7.345

4.482

29.46

1.81

10.591

15

.606

56.33 1940.25

56.33

47.1 1526.7

32.08

19.48

60

08

20 1

20.09

9.34

13

323

19929

9940

5.506

56.45

12.858

8.9 8

91

939

43

8.876

19482

9.741

5.259

45.5

43.3

1930

10.9

−36

0.54

3.44

68.37

19.21

7.10

×42

38.21

−36.51

20.5

−35.2

47.1

33.2

44.9

3.21

3.80

74

R.A.	:	13.700
DEC.	:	15.450
M. R.A.	:	1840.000
M. DEC.	:	%-1444.000
ISTANCE	:	-1.450
MODULUS	:	5
AD. VEL.	:	15.200

q1 (U)	:	-0.759
q2 (U)	:	0.582
q3 (U)	:	-0.292
dU	:	%-10365.010
U	:	-57.591

q1 (V)	:	0.619
q2 (V)	:	0.785
q3 (V)	:	-0.043
dV	:	-169.441
V	:	-1.529

q1 (W)	:	-0.203
q2 (W)	:	0.213
q3 (W)	:	0.956
dW	:	%-3170.872
W	:	-1.738

-0329±3.5 -094±2.6 -20.1
-0331 -096 7.5 div -20.58
8.2 div -21.78

AOS9031 13 46.8 +27 14 -20.58

120476
18670
81556

Δm=0.44 .0811

-440 -095 H

47.431 1892.7 +27 13 43.60 1888.5

7.04

1.885 5.78
49.316 49.38

47.797 44.72 1938.4

48.07 45.5 1930.2
1.4 -20
68.4 45.22
15861 994
47.940 44.97
-1.376 -4.41

411.6

68 34.3
45.8

HD 120476
GC 18670

46.8 14 A=087 +30 −6 −9
−20 (5)
13 ~~44.6~~ +27 ~~29~~ 1.502 −20.7 (6)
+22.8
+180 Bad 51

Δm=0.49

205 +1.12 +1.04 (1) 079 s −.0330 −.091
6.41 +0.425 (3) π_pa .087 ρ = −21.1

Strand A.5.60, 42, 1555

m₂ = m₁ (Yerkes Strand, D. A 560 44 1955
Sproul 80 m (7)
Vienna Observ. A.J. 74, 241, 1969 64 Hb (16)
Warren 98 S (20)
92 (43)

ρ	as	W.
155.71	2.42	Rabe A N. 231, 121, 1927 Photovisual
1550	2.423	Strand A 560, 42, 1955 Photo

ρ² = 2.4133 ×10⁴ q³/ρ² = 5.854 ×10⁻⁴ m₁ = m₂ = 0.45 Sproul −.35
q³ = 14.7252 m₁, m₂ = 0.890 0.60
π³ = .6587 ×10⁻³ 1.19
.455

$+5^0 2767$

$\Psi 3099.1$
33 m(s)

$+25$ deg

13_{13} $27.0_{29.4}$ $+5_{+5}$ 25_{10}
13 31.8 47.5 +4 55.77

48
$\frac{1}{2}$

mar
$+7.0 \pm 1.5$ ocw

$+9.1$ ocw
$+20$ (2) ocw

808
777
66

9.2 mo

Wolf 1487 +.13 −.16

+0.144 μ R

+0.141 −0.117 Y
−5 −6
+5

+0.143 −0.124 Hip3
+0.136 −0.1184

+238 −127 GL1
+135 +141 L

9.97 +1.38 +121 (1)
9.06 +0.68 (3)

+136 −125 +40 / 1.15

+29°.2405 5D9 13 16.8 8.90 1.23 1.24 B04 0.59 (2) 061 Wenk 301
W 7453 13 18.9 21.315.4 +29 45.9 +29 29.24
AB: 9.5, 9.7 binary (Yale)
ADS 8887, d=0.7, Δm=0.2 -38.7 (16) 4ppm
GC 18119 (3M(7))
HD 116495 301 AB
Y 3061
Ci 18.1730 -0.476 +0.244
234

-0.454 +0.246 -373 1.4

-38.765W
dmO
-387 (16)
8.5 MO +9.8
+0.065

775
695
770
763

* Spectrum is composite. MW. Uhl. observes give MO for brighter + K6 for fainter comp.

1887.36	299	0.62	2 HO	1918			2A
1894.88	312	0.64	5 HO	1920			5A
1896.48	315	0.80	3A				
1900.35	321	0.74	8 Doo	1945.33	30	0.65	3 VB
1905			3A	1956.99	48	0.66	8 VB
				1958.27	48	0.77	3 B