

E3-89

06 44 30 -47 12

7.51

-190

-1134

7.49 -1135 -174

2.56 -1145 17 May 79	-1144 7.48 9 Jan 81	7.49 -1181 19 Apr 81	-1145 7.51 17 Jan 83
7.46 -1132 19 Dec 79	-1138 7.46 28 Jan 81	7.52 -1136 5 Oct 81	-1157 7.47 13 Jan 83
7.48 -1123 20 "	-1134 7.47 31 Jan 81	7.49 -1.138 20 Oct 81	-1130 7.56 17 Jan 83
7.50 -1131 22 Jan 80	-1129 7.52 14 " "	7.48 -1.140 30 Nov 81	-1139 7.49 13 Jan 83
7.49 -1130 23 "	-1134 7.50 10 Mar 81	7.50 -1.139 27 Jan 81	-1136 7.50 31 Jan 83
7.53 -1129 24 " "	-1138 7.47 11 " "	7.49 -1.142 28 " "	-1134 7.50 15 Jan 83
7.50 -1138 20 Nov 80	-1133 7.48 1 Apr 81	7.51 -1137 12 Jan 81	-1134 7.49 17 Mar 83
7.53 -1138 21 "	-1136 7.48 21 Apr 81	7.51 -1.139 13 " "	-1132 7.49 8 Oct 81
7.49 -1139 22 "	-1132 7.44 10 " "	7.50 -1.148 20 Oct 81	-1137 7.51 24 Apr 81
7.47 -1132 6 Dec 80	-1.136 7.49 11 " "	7.50 -	
7.48 -1132 7 " "	-1131 7.51 14 " "	7.48 -1.136 26 Oct 81	
7.46 -1151 5 Jan 81	-1136 7.49 14 Apr 81	7.50 -1146 19 Oct 81	

101065	11	36	40	-46	36	8.8	85
100570	11	33	10	-46	51	9.3	89 II
101192	11	37	05	-48	0.5	9.8	85 III
102075	11	43	40	-46	01	9.9	40 IV
102232	11	44	40	-45	35	5.2	86 III

off
off

M 71 - See
M.N. 182 P 61

268
26.4

0° 2489

12 49

27

-00

37

7.61 - 208

+658

7.59 - 210
-209212 15 July 79
213 17 July 79

7.60 - 213 10 Aug 79 -217 251 17 Mar 83

7.59 - 209 20 Aug 79

7.58 - 211 14 Aug 79 -200 7.65 21 Aug 79

7.60 - 216 15 June 79

7.59 - 213 18 Aug 79 -217 2.59 24 Aug 79

7.59 - 209 17 June 79

7.60 - 209 19 July 81

7.62 - 209 21 June 79

7.56 - 207 16 July 81

7.57 - 210 20 July 79

7.59 - 214 17 July 79

7.52 - 212 21 " "

7.59 - 208 15 July 79

7.64 - 207 10 July 80

7.57 - 213 19 July 81

7.63 - 208 11 July "

7.66 - 181 20 Aug 79

7.60 - 211 12 July "

7.60 - 201 19 Mar 79

7.56 - 211 14 July 81

7.55 - 201 13 Jan 83

7.59 - 212 10 Mar 79

7.60 - 209 17 Jan 83

7.58 - 230 11 " "

7.54 - 214 30 Aug 83

~~1985~~

1984

1986.10

01 05 48.0 -47

1 22 21 30.0 8.52

8.56 0.24 22.4

8.59 0.22 22.4

1.5

1.5

2.7

1195

15

18

15

-7

37

410

40

9.26

71.075

+310

+242

9.25	+295	15 Aug 79	+294	9.28	18 Aug 79
9.29	+268	20 Aug 79	+290	9.31	19 Aug 79
9.27	+276	15 Aug 79	+286	9.29	16 Aug 79
9.28	+243	17 Aug 79	+291	9.27	17 Aug 79
9.23	+306	20 Aug 79	+295	9.31	18 Aug 79
9.34	+302	21 Aug 79	+295	9.27	19 Aug 79
9.26	+286	19 Aug 79	+292	9.33	15 Aug 79
9.27	+295	19 " "	+287	9.28	29 Aug 79
9.26	+280	20 " "			
9.30	+293	10 Aug 80			
9.29	+289	11 " "			
9.28	+288	12 " "			
9.30	+283	19 Aug 80			

219482 219482
23 23
14.0 14.0
-0.30 ± 3.1
0.0 ± 0.3 C(14)

HR9843 14543
5.67 10.49
+170 -0.30 6.4

Stog 146
+0249
+0248 -0.29
+0248 -0.27
+02512 -0.29

58.192 15083
-62 16 26.88 15056

-1017
2325 1.33 1299

57.173
884 25.55 → 129-028

58.053
1.820 26.65 1940.52

40.4
70.15
27.05 26.44 38
574.2

57.963 6351
58.776
58.776
26.80 48.7
43.1

58.416 +1.001
26.84 1956.50

-28
368
26.59

215482 03 140 -62 16 P8E

HR8813

GL32253

562 + 51 - 3 2343

230 + 11

331 170.316 2614 24425

335

250 - 15

670 + 163 - 42 - 54

+ 750 - 420 - 247

23.250

-62.250

394.000

-28.000

1.550

20

0.000

0.869

0.133

-0.477

718.922

14.579

-0.346

0.852

-0.393

-405.954

-0.289

-0.354

-0.506

-0.706

-232.839

-4.754

Mr 1980

140

79

4.5

3 Pay
215648

+0156 ± 1.6 -495 ± 1.4
+0154 -493
44.2 +11 55 4.3 df3 -5.3a

31778
14308 (866)

22

11.570 1896.4 +11 54 57.06 18944

A0516261

-836
10.734

+0155 -49464 27.52
+0158 -4915 24.58

47
11.7M
12"

11.288
14
302

+232 -53
+234 -496 165

5.41 1933.3
15
5.56

47 22

11.403 348
-9 654
394

39.9

2.18 1939.32
13 262
2.31 36.3

787
3.94
- 20.64 41.9

215648.000*

22.000*

44.200*

11.000*

55.000*

0.234*

-0.496*

1.650*

21.380

-5.300

-0.279

-0.115

-5.363

-1.711

0.753

-40.561

-1.937

-0.648

-37.987

215648

433
224

22 442 +1155

F7E

W630 412.5

1119665

419 +50 -25

6631778

412
13.35
0.85

116 560

46(3)109

102

:330 +147 .407 (16) 50C2.626

31 30 125 #1.0
+01550 -04940 GC +

(1) 41+

[9M] 207 134

+01580 -04915
790 23.20 +.2318

446
1239 1230

-5.02

[5N] 341 133
+1.7

1.60 -5.5 -35.6 -36.9

-240 -1003 -1529

2665.000*

22.000*

44.200*

11.000*

55.000*

3.239*

-3.496*

3.850*

14.791

-5.300

-3.259

-3.115

-3.225

-1.717

3.753

-23.384

-1.948

-3.648

-23.382

Handwritten notes and calculations on lined paper. A diagonal line is drawn across the page. To the right of the line, there are several numbers: 237, 575, 996, 1499, 1659, 1333, 1746, 23, 1, 3, 4, 6, 9, 6. The numbers 237, 575, and 996 are stacked vertically and underlined. The numbers 1499, 1659, 1333, 1746, 23, 1, 3, 4, 6, 9, 6 are scattered around the diagonal line.

177319

18 Y24 +10 or -210

+103675

-009 0 AGNY

~~1009~~ -016 Y

+089

207129

21 45.0 -47 33 G2E

HP8323

GL30516

5.57 461 +7 C

511

.377 .155 .364 2.600 @ 9.5, 110
372

263 +13

289 +14

+27

869 +1.31 4147 e 155E

D590

+13.3-216 +8.2

H001-1476-311

96508

758 1008 948 -350

+11552

949711

15 33.8 -85 57

976

40,13564

b=2u

0.584 1000in

Check 1000

85501

-0.50

-1001 -056

P. N. M. M. M.

7.58 +1.35 +0.50

Aluminum

1.33

7.8 2.000

119

110588

101

-0022 -058 YC
-0024 -055
-026

4017

316 1.111
1.112 1.111
-56
8-b

413 -126 902

-0548 10324

-0219

-116

+107.3

270 963 011

-0358 -2510

-2868

-116

-1.3

870 239 431

+1155 -0623

+0532

-30

-51.3

R.A. : 19.550
 DEC. : -39.850
 PM. R.A. : -1.000
 PM. DEC. : -56.000
 DISTANCE : 8.000
 MODULUS : 398
 RAD. VEL. : 102.000

q1 (U) : 0.406
 q2 (U) : -0.126
 q3 (U) : -0.905
 PU : 31.878
 U : -79.636
 q1 (U) : 0.275
 q2 (U) : 0.961
 q3 (U) : -0.010
 PU : -256.197
 U : -103.027
 q1 (M) : -0.872
 q2 (M) : 0.245
 q3 (M) : -0.425
 PM : -61.798
 M : -67.946

0.27
 105
 11

R.A. : 19.550
 DEC. : -39.850
 R.A. : 1.420
 DEC. : -51.120
 DISTANCE : 8.850
 MODULUS : 589
 VEL. : 102.000
 (U) : 0.406
 (U) : -0.126
 (U) : -0.905
 PU : 32.547
 U : -73.162
 (V) : 0.275
 (V) : 0.961
 (V) : -0.010
 PV : -231.537
 V : -137.373
 (M) : -0.872
 (M) : 0.245
 (M) : -0.425
 PM : -63.811
 M : -80.918

-0011 ± 9.3 -018 ± 8.0

GL 30160 21 29 54.395 1903.9 448 21 48.64 1901.6
H0215116

-0017 ± 3.6 -020 ± 3.6

30168 20 28.628 1895.2 13 19.88 1894.5
205210 ~~6~~ ~~57~~

34.60
~~54.640~~
~~28.640~~
21
.91

6 42.9
~~6 37.0~~
13 19.90
2014 1926.5

-0025 ± 12.2 -020 ± 10.6

30187 31 21.215 1908.1 + 4 51.92 1906.0
205331

11030y ^{2.52}
118119
118113

-014872.0 -01572.0
-01497 -016 011
12 01491 ^{18.6} 357.7 -45 41 40

-2.57 -5.0
7.9 case

Rem

2.16 -0.02 0.00 Acid

-166 -0156

W 70119

11030y
11262
7619

44898 15047 -48 41 762 15000

-174 -013N
-190 -006F

3.1

897

+75

-150 -011

-011 146 146 2.907

45,795 -186 -007 +75
-145 -006 6.87

R = 2.305

45 (103)

45.117

-10

7.54 1934.91

9526

167 (17)

101

40824

429

-15

7.64

47.6

0144

6.177

7.33

9905

1404

7.63

47.6 0144

1965

11

41952

-843

0157

-0158

-0.76

1828
0080 951
+ 08.45

-01 916

44.826

-225

01917

-00910

-5.10

7.13

1555.29

183 -005

44.826

-225

01917

-00910

-5.10

7.13

1555.29

Σ mean = 1408

-168-956 ~251440 -190-011-2.5 008 +4 -033 ✓
-032.001187-008 -114 191 -3.3 +3 +1 02

-3 +46 +4
[+42-18-8]

021

2773
-6.0
2.5
0.5

-2 +42 +4

[39-17-3]

+40 -18 -3 0205

9840
-9444
0186
0170
+000 ✓
183

1161
0

q1 (M) : 0.039
 q2 (M) : 0.970
 q3 (M) : 0.240
 MP : -56.581
 : -3.728

q1 (V) : 0.527
 q2 (V) : 0.184
 q3 (V) : -0.830
 DV : -461.777
 V : -16.425
 26.5
 108
 3.0

q1 (U) : -0.849
 q2 (U) : 0.158
 q3 (U) : -0.504
 DU : 732.592
 U : 35.246

R.A. : 12.650
 DEC. : -48.700
 R.A. : -277.300
 DEC. : -5.000
 STANCE : 3.250
 DDULUS : 45
 VEL. : -5.000



+68 = 14

130055 14 48.9 -27 02 40

024:115 1.280 2.891
Stem +
Division
+62
+64 6.8
+622 2
+50 3 1/2 von
8.11 +0.08 +0.10

STO 1800
1/2 1/2 1/2 1/2
+62
+50 2 von?

913
-205 -083 Yale (ca)
-220 -082 formen (Bv)

pat

2.890

1/2
1/2
1/2

-26010505

PH 43.9 -27 02 8.6a

462.4

8.10 + 0.04 + ~~1.15~~ 15"

(1.50) 24"

6.00
462.2 28

5LG
Halo A star
Hos. Branch?
M₂+2

-206 ± 8 -090 ± 8

-205 -088

+2 +6

-203 -77

-220 -082 Low

+2 +6

-218 -076

13 61 45

14 43.9

-27

02

88

W

41.0 -26 50

37.2
150

523
57
Cody
462.2
255
+62.40

1-2 m

a1

Neon

8.12 + 10.08 + 0.05 = 4.85

+50.0 cm
+57

.070 .103

1.276 3

Neon

8.12 + 10.08 + 0.05 = 4.85

076 .127

1.295 2

He

8.10 0.08 + 1.50 2 m
Lum 595

.074

-0.208 -0.076 Y

-0.168 -0.093

192 1241 0

130095.000*

1435

14.000*

43.900*

-27.000*

-2.000*

-0.212*

-0.082*

6.000*

7 1/2 5.0
30 100
3206

158.489

62.500

0.561

-0.775

+121 +132

48

44

40.829

(20)

-0.911

-0.407

-300 -317

-116

73

-169.535

0.132

0.484

57

+71

+43

57.67

~~57.933~~

6029

17

58.10 + 33

618 2011

10013-025 Down

1016016

Bill ~~10013-025~~ 146 0459 03.0

10013

10

25

151

46

7221

9.1.11

Σ400

R.A. : 1.050
DEC. : 23.600
R.A. : 20.000
DEC. : -25.000
STANCE : 7.510
ODULUS : 318
VEL. : -96.000

q1 (U) : 0.822
q2 (U) : 0.322
q3 (U) : 0.470
dU : 33.182
U : -34.555

q1 (V) : -0.567 8-11
q2 (V) : 0.541 29
q3 (V) : 0.621 -114
dV : -113.427 216
V : -95.616

q1 (W) : 0.054
q2 (W) : 0.776
q3 (W) : -0.628
dW : -87.305
W : 32.533

U_g