

C-167-53 13 39.2 +25 22 755.7 (9)

325 207°

1413 0.97

-148-240

-164

-250

+6.15

755.7

R.A. : 15.650  
DEC. : 25.400  
R.A. : -164.000  
DEC. : -290.000  
TANCE : 6.150  
DULUS : 170  
VEL. : 55.700

1 (U) : -0.449  
2 (U) : 0.759  
3 (U) : -0.471  
dU : -728.159  
U : -149.914

q1 (V) : 0.662  
q2 (V) : 0.637  
q3 (V) : 0.395  
dV : % -1340.483  
V : -205.661

q1 (W) : -0.600  
q2 (W) : 0.135  
q3 (W) : 0.789  
dW : 235.689  
W : 83.956

103

103

140140385

15 40.2

+29 47

G2V

+30°26'95"

8.54 + 0.70 + 0.10 (2)

5.60

(-44.8)

-36

-116

-10

-41

-72

+19

" " " " " "  
-0.087 -0.158

Carrying

-00 51 -161

1000-161

8.56 428 187 308 (1)

-74

161

3.20

44.8

564

- 73

= 109

- 18

387

- 9

59

- 28

4

104



R.A. : 15.650  
DEC. : 29.800  
R.A. : -76.000  
DEC. : -161.000  
STANCE : 3.200  
MODULUS : 44  
VEL. : -44.800

q1 (U) : -0.449  
q2 (U) : 0.793  
q3 (U) : -0.412  
dU : -464.827  
U : -1.845

q1 (V) : 0.662  
q2 (V) : 0.605  
q3 (V) : 0.442  
dV : -668.497  
V : -49.001

q1 (W) : -0.600  
q2 (W) : 0.074  
q3 (W) : 0.797  
dW : 130.994  
W : -29.975

104

140283

15 40.4

-10 46

+709 (19)

5.6  
1%

(Slid)

-0757 -300 Country  
-1.115 -300

723 323 050 344 23 ✓  
-171.18

24 380 033 284 256 0776 -317 G-L  
071 379 033 290 256 0761 -210 New (2)

724 363 43 256 07685 -313

719 363 059 -6768 -311

-1.131' -171.1

-1.13 / -308 2.15

7.26 +0.47 -0.23 (2)

7.22 +0.49 -0.19 J

7.27 +0.48 -0.14 Sandage

7.25 +0.48 -0.19 (5)

7.00 +0.225 (5)

171 2  
142  
-1134  
ACW  
3.00  
170.9

.996 469 047 +0.83 961

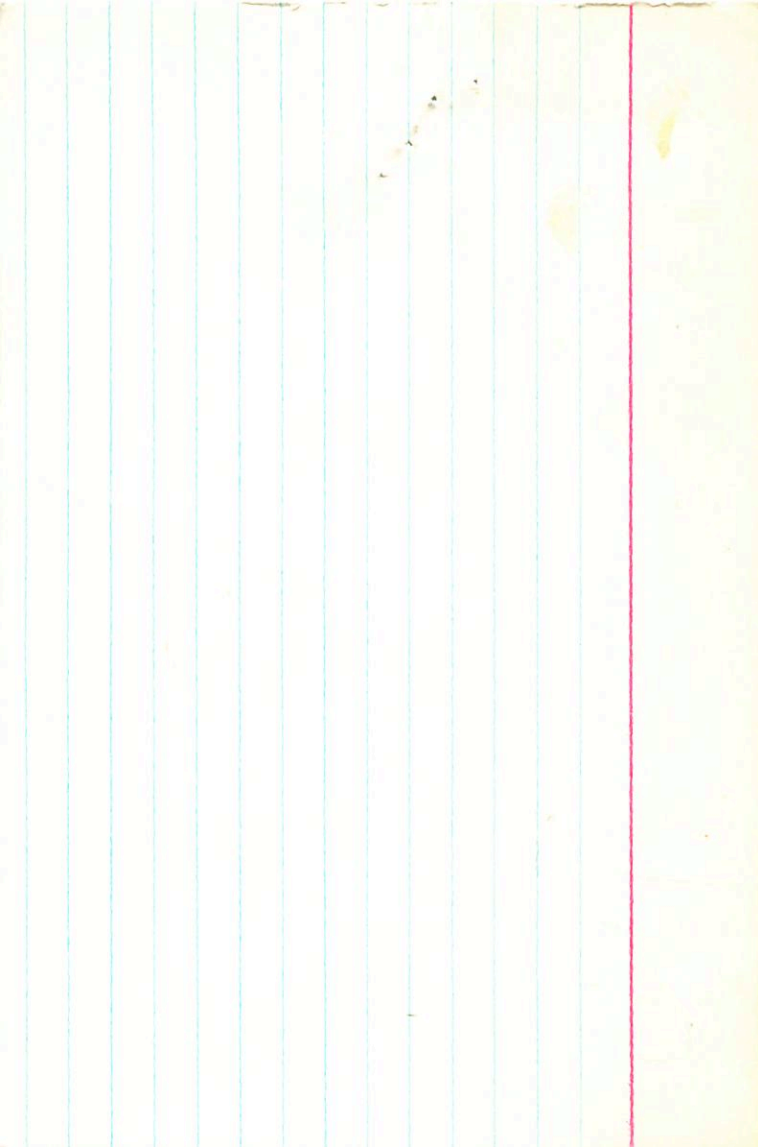
059

(059)

049 359 642283

+2.06  
107 / 4.13

7.13  
282





-172.24C  
-137.2515

Var?

S = +0.25

140253  
21124  
9069

15 40.4 -10 84 AdA5P -171.18

7.27 +0.4F -0.14 Subura

S = .13 7.24 +0.4F -0.10 R

7.23 +0.85 295

-1.145 -3206C

.031  
11M(12)  
494(8)  
316(17)

7.20 +0.51 -0.12

-1.140 -315.14  
1.5 x 15 = 22.5

7.16 +4.95 1.463 Egg

7.27 +4.8 -14 5mm

7.20 +4.8 -10 42R

7.26 +5.1 -23 19" Egg

7.24 +4.9 -16 S =

9069

SP

7.20 +5.1 (1.45) F3 VI Eye

-6777 E8.3 -32046.9  
-0762 -313

-522-570 -18795 -1.140-315 -171 0.59 +32 -1.464

-937 048 650 -034 -4225 3.307 -168 +96 +138 03

22491 1405.1 -10 46 18.03 1503.2

-46 +248 -14  
+207 -145 -7

+15.30  
2.73

-11 +221 -4

04

3499  
251970

(32.5)

24.24 193449

491-107-28

1.737

22441.  
73421.920 237.04  
35

24.62  
14.16

380  
1.24

75.89

50.408  
23.739

19.52  
55.08

1441.40

37.9

(34.7)

22.506  
940  
23.470

14.60  
14.20

3720

13.00

23.314  
119  
23.470

14.64

-2.506

-10.87

22

R.A. : 15.250  
DEC. : 10.750  
PM. R.A. : 113.000  
PM. DEC. : 000.000  
DISTANCE : 8.000  
MODULUS : 40  
RAD. VEL. : 170.000

d1 km : 10.410  
d2 " : 0.330  
d3 " : -0.020  
d4 " : 100.000  
d5 " : 21.010

d1 km : 0.000  
d2 km : 0.000  
d3 km : 0.000  
d4 km : 0.000  
d5 km : 0.000

R.A. : 15.650  
DEC. : -10.750  
PM. R.A. : % -1134.000  
PM. DEC. : -300.000  
DISTANCE : 3.000  
MODULUS : 40  
RAD. VEL. : -170.900

q1 (U) : -0.449  
q2 (U) : 0.335  
q3 (U) : -0.828  
dU : 1894.879  
U : 217.010

q1 (V) : 0.662  
q2 (V) : 0.747  
q3 (V) : -0.057  
dV : % -4559.812  
V : -171.795



-42.725  
1035  
140690

650

15

43.3 - 0.1073 = 43.1927  
808 - 0.52573 = 807.47427  
-0.110 - 0.67 = -0.78

-0090 ± 130

-077 ± 130

0.5 - 0.163 = 0.337

6.5 IR

9, (4)

$\Delta m = 0.2$   
mp

17.757  
436

1901.6  
-110 - 165 = -275  
-43

8.10 ± 0.4

Carlshemp  
2003 183

~~000~~

18.193

46.92

1967.0

35.7345

8.67

40.5

42.462

38.25

755

17.807

59.72

753

+15.6

-44.58

1928.55

608

9.63

44.30

817

100

1.55

986

17.617

2074.24

42.75

44.93

6.609

42.75

44.93

1555.62

46.93

1555.62

-28

17.13

18000

103  
: 0.557  
MP : 2350.878  
W : -1



106

12.780  
-43.100  
-122.000  
-122.000  
2.000  
TANCE : 100  
DULUS : 20.200  
LUEL :

R.A. :  
DEC. :  
R.A. :  
DEC. :  
TANCE :  
DULUS :  
LUEL :

R.A.	:	15.700
DEC.	:	-43.100
R.A.	:	-155.000
DEC.	:	-153.000
STANCE	:	5.000
DULUS	:	100
UEL.	:	60.500



-54818

-0006±5.0 -12.4±3.2  
+0003 -12.2

141353 860 15 45.9 +13 57 6.1 9.12 -5371

21245 177412

440 1.28

9107 53.366 1915.2 +13 56 33.81 1909.5

1245 1552256 <sup>0.21</sup> / 387

+5.02  
38.83

1976 1079 25 <sup>17</sup> / 53.368

36.37 19343

254 <sup>17</sup> / 53.368

-0007  
+002-116 -53.7  
0.8

887 1055114 385

35.84 1940.43

741 1201 <sup>20</sup> / 401

-21  
35.63

393  
+106

74.73  
37.4

27.9

-340

525

858 58

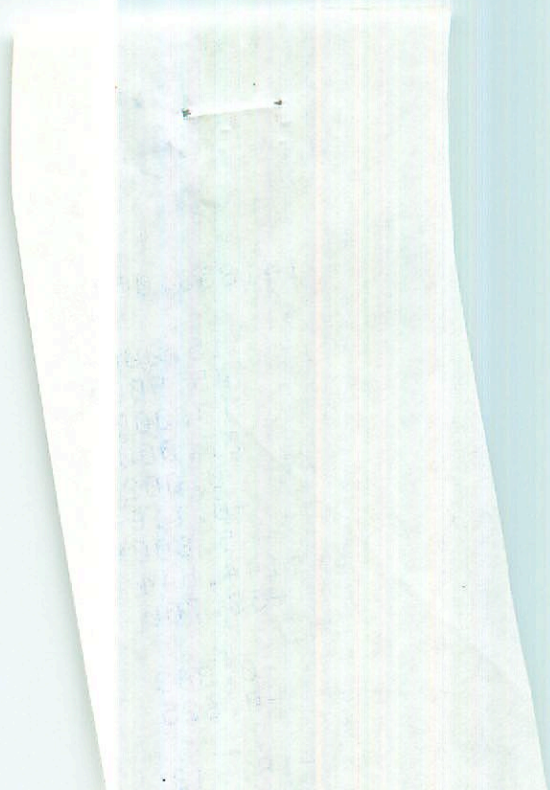
107

7.0

57.8

110

81.1



141353.000\*

15.000\*

45.900\*

13.000\*

57.000\*

0.002\*

-0.116\*

5.800\*

144.544

-53.700

-0.363

-0.625

-18.943

7.15 6.5

142373

15

.32 256

21340

50.9

+42

35

4.6

DEF

252

9153

4.60

+0.56

+0.01

F9E -55.26

5055

+0398<sup>34</sup>

+627<sup>40</sup>

F9E

+0394<sup>13</sup>

N30

F9E

+634<sup>14</sup>

AL

F9E

shy

+0295

<sup>23</sup>

+0628

FR4

F9E

+437

4.42

F9E

1441 +630

-552

F9E

1.5

1.5

F9E

1.5

F9E

F9E

F9E

F9E

F9E

F9E

F9E

F9E

F9E

F9E

F9E

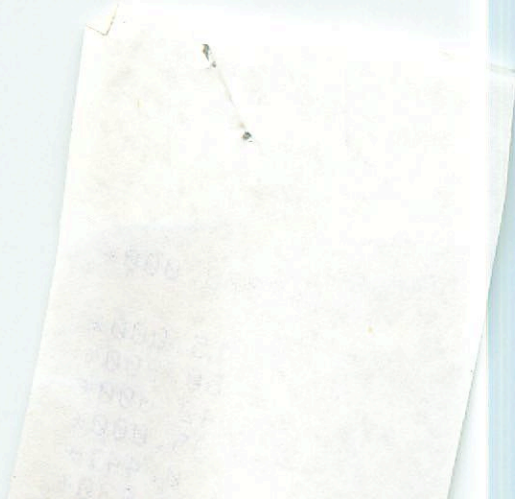
F9E

F9E



-63.270

108



142373.000\*

15.000\*

50.900\*

42.000\*

35.000\*

0.441\*

1.200\*



14233

15 50.9 +42 35

F90

HR5914

4.62 +57 005

GL21340

1(\*)/Luro 211

4501 ~~382~~ 142 ~~382~~ 139 3257 (325) (11)

380, 158, 323 (4) SPC 2601 (6)

105

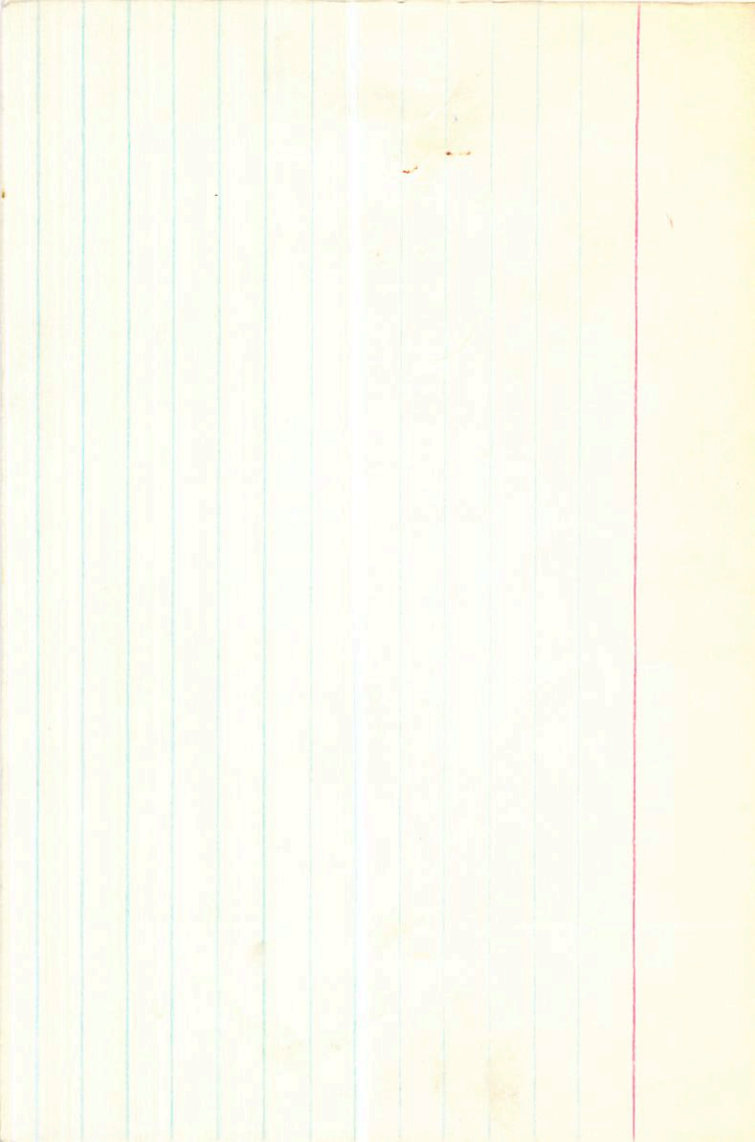
02+

[m] 220 +57

[L] 247 1.30 +45.7 +17.9 -7/1

+1777 +2778 -1570

-11 80 112 132



016-75

18 51.9

-4 08

-117.7 (8)

362 204°

1149 0.94

-351 088

-352

88

3.7

-117.7

109

R.A. : 15.85  
 DEC. : -4.15  
 R.A. : -323.00  
 DEC. : 88.00  
 STANDE : 3.788  
 MODULUS : 55  
 VEL. : -117.700

P1 (U) : -7.408  
 P2 (U) : 0.432  
 P3 (U) : -8.807  
 U1 : 888.258  
 U : 143.143

P1 (U) : 0.457  
 P2 (U) : 0.751  
 P3 (U) : 0.294  
 U1 : -788.037  
 U : -50.008





109

R.A. : 15.850  
DEC. : -4.150  
1. R.A. : -352.000  
1. DEC. : 88.000  
DISTANCE : 3.700  
MODULUS : 55  
2. VEL. : -117.700

q1 (U) : -0.409  
q2 (U) : 0.426  
q3 (U) : -0.807  
dU : 858.528  
U : 142.143

q1 (V) : 0.657  
q2 (V) : 0.751  
q3 (V) : 0.864  
dV : -780.027  
V : -50.368

~~SECRET~~

~~SECRET~~

498461

571196

✓ 5 576 9275 51

5275

76/7 12

780

0011-00-1100-

400-602

16  
-4  
50  
8.34  
34

840 44 801 579  
-009 2

1-087 574 064

0.587  
: 1264.003  
W : 0.33

110





-133-29

28-81

0-449

0-101

-0-888

M

MP

CM

CM

CM

03

02

01

M

00

5

141864

15 5216 -574 29

PLS (w)

-26.1123

8.98 444 861 -574

811 0

9111 0.67

0.49 609

210  
9

8.98 444 861 -574

600  
301

159

III



.A. : 15.900  
EC. : -76.500  
.A. : 210.000  
EC. : 9.000  
NCE : 6.000  
LUS : 158  
EL. : 311.000

(U) : -0.399  
(U) : -0.645  
(U) : -0.652  
dU : -120.197  
U : -221.844

(V) : 0.655  
(V) : 0.297  
(V) : -0.694  
dV : 164.966  
V : -189.838



02.09.20

15 558 +02 12

10.82 0420 0889 0.276 2.570

142-948

~~142-948~~

143-948

15 50.1

50.1 41

65 III/10

420

480

1000

1000

1000-1000

1000

420

470

614 213

805

343



~~553~~  
640  
731  
-55  
-24


102

P.A. : 15.950  
DEC. : -53.700  
R.A. : -60.000  
DEC. : -66.000  
STANCE : 5.000  
MODULUS : 100  
VEL. : 2.000

q1 (U) : -0.389  
q2 (U) : -0.346  
q3 (U) : -0.854  
dU : 173.629  
U : 15.655

q1 (V) : 0.654  
q2 (V) : 0.550  
q3 (V) : -0.520  
dV : -282.028  
V : -29.243

q1 (W) : -0.649  
q2 (W) : 0.760  
q3 (W) : -0.012  
dW : -128.570  
W : -12.882



W9231 14 01.3 +66 56 dG7e -137.68 <sup>10.3</sup>

+670922  
-017 +004 GP 9.44 +48 -65 <sup>11.001 13</sup> R

<sup>1/20</sup>  
<sup>17/5</sup>  
-001 -012 G' <sup>19</sup>

39 |

-378	+916	+137	+0271	+0260	+0531	+26.6	-18.9	+7.7
+652	+159	+742	-0467	+0045	-0422	-21.1	-102.1	-123.2
-657	-370	+657	-0470	-0105	-0575	-28.7	-90.4	-119.1

0.12a 3-78 3540 174 760 2625 Sp.B. P = 381  
144284 16 00.9<sup>2</sup> + 58 42 4.1 dF7 -8.5a  
21572

9227 80 +337 74 N30  
NR5956 -0414 ± 0.8 +337 ± 0.8 EC → RM30  
333

-04168 +3362 F124  
705

-3258 8.5 4639 3.84 4015 35  
-3206 +3384 1.4 0.458  
4070

-19.6 9510 7431 9471 -6116 4070  
-3091 7400 -3209 7873 0416 +35  
-3232 -317.6 335.1 0511 1416  
-3190 +3406

1/13

144284.000\*

16.000\*

0.900\*

58.000\*

42.000\*

-0.321\*

0.338\*

1.400\*

19.055

-8.500

2.056

0.002

25.01

39.157

-13.02

-0.571

11.0

0.712

-16.941

0.573

0.702

113

4.949

1.50  
1.50

402-288-983-482

10/10

144284

16 0.9 + 58 42

F 8 10 - 2

HR5546

4.03 + 52 + 10 J

GC21522

SB 3.1

+9.5

1360

11V2 134 8V2 + 280

32.50  
42

252 68 1.4

36V 2154 13362 F104  
1.354 .174 .460 SPC 26348 Cat.

[M] 238 + 17

321 + 1336

-8.52

[C] 389 108

+39.0 -16.8 +5 -0914

-8.5

118

+21 -1 +1 +337

+2.6

Abw HR 390

0.0 282  
0.43



6252

522

10504

12504

3125104

3

114

25.1

~~124~~

+2

-17.19

28

+242



5785.000\*

15.000\*

3.900\*

53.000\*

42.000\*

-3.321\*

3.338\*

1.650\*

21.380

500

1.75

AG Inc.

16 • 01.3 +66 56

-137.6

"

-0.15 +0.006

9.44 +0.88 -0.68 : Roman

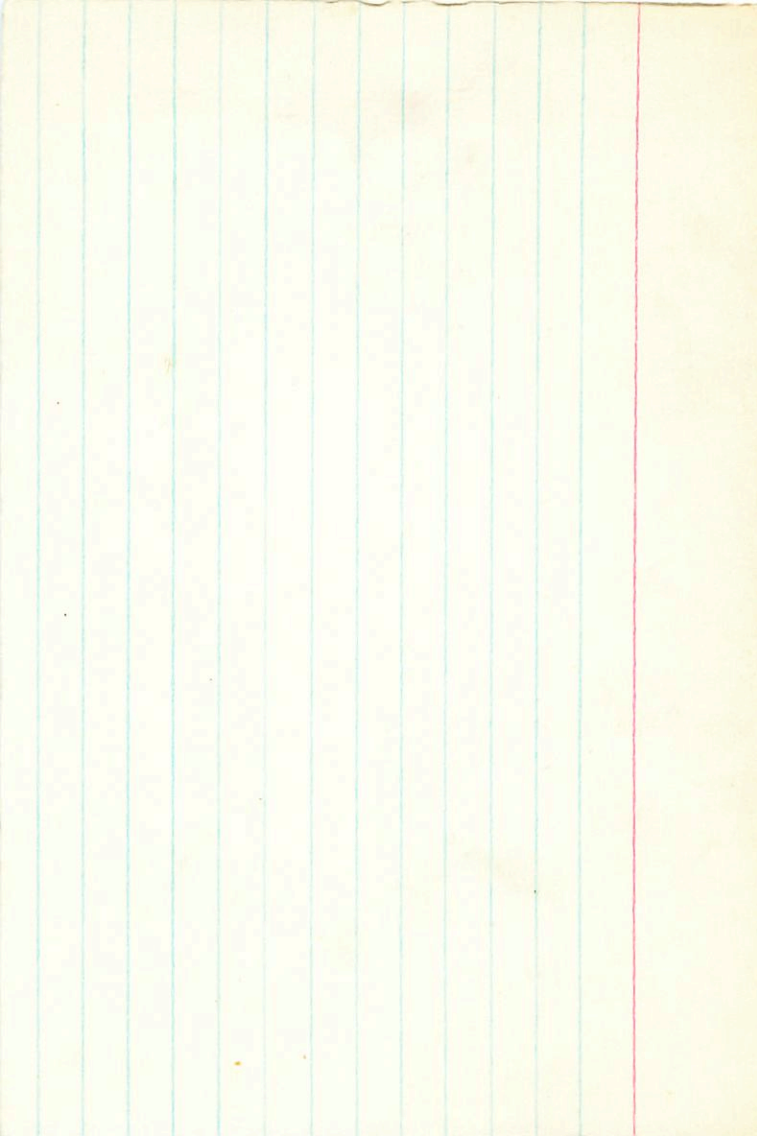
~~9.50~~  
9.81 +1.35 +0.29 29 June 1964

9.73 8.81 +0.55 27 June 64

9.50

-2 -116 -107

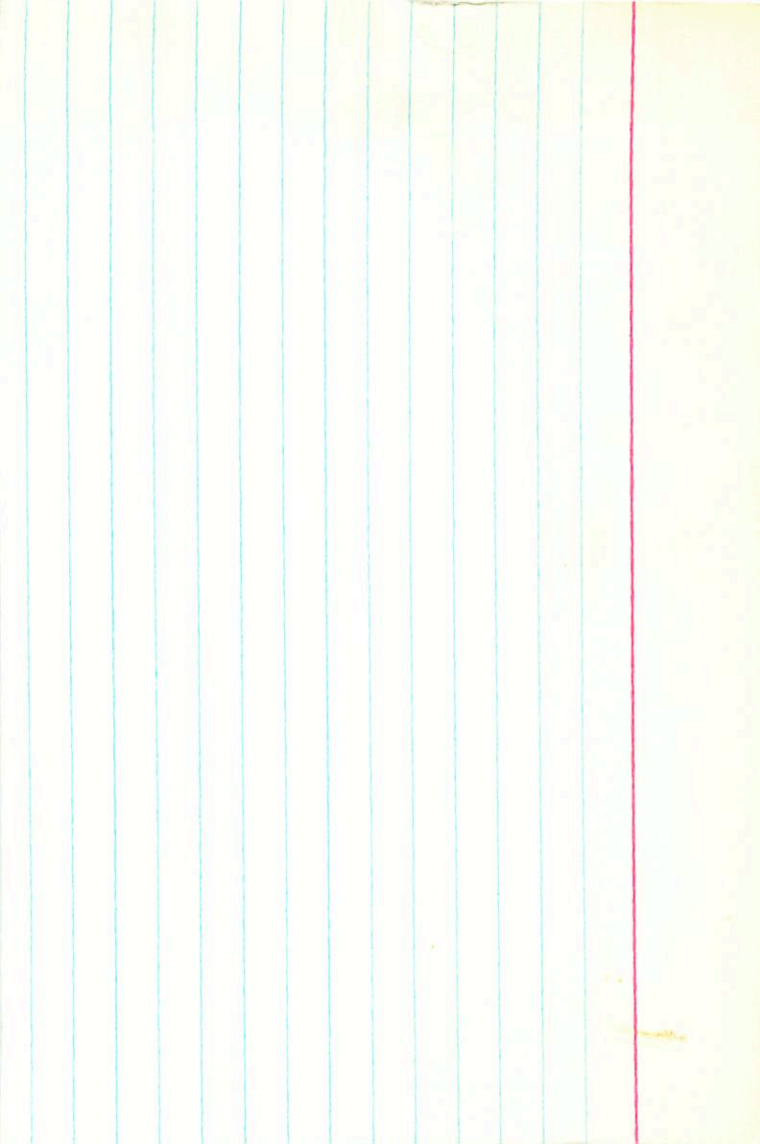
+35 -4 -6



AGDA  
+670922

16 01.3 +66 56

125





144822 16 04.7 +38 46 d115- +242.60

GC 21663

W9267

X3654

+3502450

8.60 +0.96 +0.71 N3FR

S=05

-61	+4	+2	.050
-76	+1	-3	.0395

+239 -546 ±7 GC

+365 R

S3A(No)  
62 1/2 (M)

56±7

143

+0204573 -54656.9

-10197

-547

-876-482 627 779 +239 -546 424.0-342 +15-204

209-300-115 165 205-1.966 +18.7-9-K

41.891 1904.2 +38 46 21.97 1904.1

934

2504

-4-67-37

0385

~~42825~~

40.959

47.03

**-76 0 -3**

48.04

53.302

93.5

38.6

1925.2

3.32

335.45

33.1

1930.2

23.6

41.3910

407.303

335.45

33.1

1930.2

41.45

173

36.41

32

20

42.9

34.21

32

3 499

3 499

-12.53

144889

16

05.2

+21

57

9K5

1566846

GC21678

64276

6.14 +1.37 +1.51 1K47R

-61 -15 +40 005  
-53 -4 +40 007

29 340 -510 -  
KF SF

A-57980- 5F810-

page 55.04

$$\begin{array}{r} -0011 \neq 5.1 \\ -0015 \end{array}$$

$$\begin{array}{r} -0048 \neq 3.9 \\ -050 \end{array}$$

$$12.074 \quad 1896.4$$

+21

5.7

18.89

1893.7

$$\begin{array}{r} 059 \\ \hline \end{array}$$

$$\begin{array}{r} 133 \\ \hline \end{array}$$

$$12.082$$

$$\begin{array}{r} 091 \\ \hline \end{array}$$

$$\begin{array}{r} 080 \\ \hline \end{array}$$

$$-053$$

34.8

$$12.059$$

$$+9$$

$$\begin{array}{r} 068 \\ \hline \end{array}$$

$$\begin{array}{r} 2.70 \\ \hline \end{array}$$

$$\begin{array}{r} 22.59 \\ \hline \end{array}$$

$$20.72$$

$$-5$$

1834.5

$$\begin{array}{r} 20.67 \\ \hline \end{array}$$

$$20.43$$

1828.4

$$-23$$

$$\begin{array}{r} 20.70 \\ \hline \end{array}$$

$$\begin{array}{r} 12.9 \\ \hline \end{array}$$

$$\begin{array}{r} 31.4 \\ \hline \end{array}$$

$$\begin{array}{r} 20.68 \\ \hline \end{array}$$

$$\begin{array}{r} 37.7 \\ \hline \end{array}$$

$$-1.91$$