

40108875 | 2 28.0 +1.0 00 dFS -14.08
+037
+051 -05966

W7524 7.2
7.2

A059575

$\Delta M = 0.22$

			59.30	237	Hutchinson
1830.07	202 ⁰	1.19			
1890.85	221	1.42			
1905.10	224	1.44			
1914.44	229	1.41			
1922.20	228	1.40			
1925.59	229	1.44			
42.11	232	1.33	3 v	0.00	
49.74	235	1.47			
56.26	234	1.42			
57.18	235.1	1.46			Pg.

~~22-992 174 98 5 +051-059 -14.0 -010 -2.4 -275~~

006 -001 -051 010 -019 -246 -138 +13.7 +1.7 02

+12.7 -9.5 -14.9 022

-17.3 -0.7 -16.5

+12.8 -10.6 -16.1

-15.7 -1.2 -16.9

+12.5 -14.7 -20.7 015

-21.5 -2.8 -19.1

+12.5 -18.8 -25.3 012

-27.3 -4.7 -19.1

+12.3 -16.7 -22.8 135

-24.2 -3.6 -18.6

AD8576

108977

17048

7525

-0022±4.7
-0026

12 28.0 +03 47

8" (9.6

1.372 1900.7 +3 47 3.11 1894.8

$\frac{108}{480}$

1.396

$\frac{19}{415}$

44836

$\frac{16.552}{1.388}$

$\frac{352}{342}$

3.60 1924.6

$\frac{1.21}{432}$

$\frac{408}{30.1}$

44836

16.552

$\frac{352}{342}$

$\frac{1.21}{432}$

21.31 1926.90

$\frac{17.70}{3.61}$

$\frac{3.51}{4.09}$

$\frac{4.09}{3.84}$

68 III

17.4 967 -4.86

(9.6 9.55 +1.2)

1894.8

$\frac{1.21}{432}$

3.60 1924.6

$\frac{1.21}{432}$

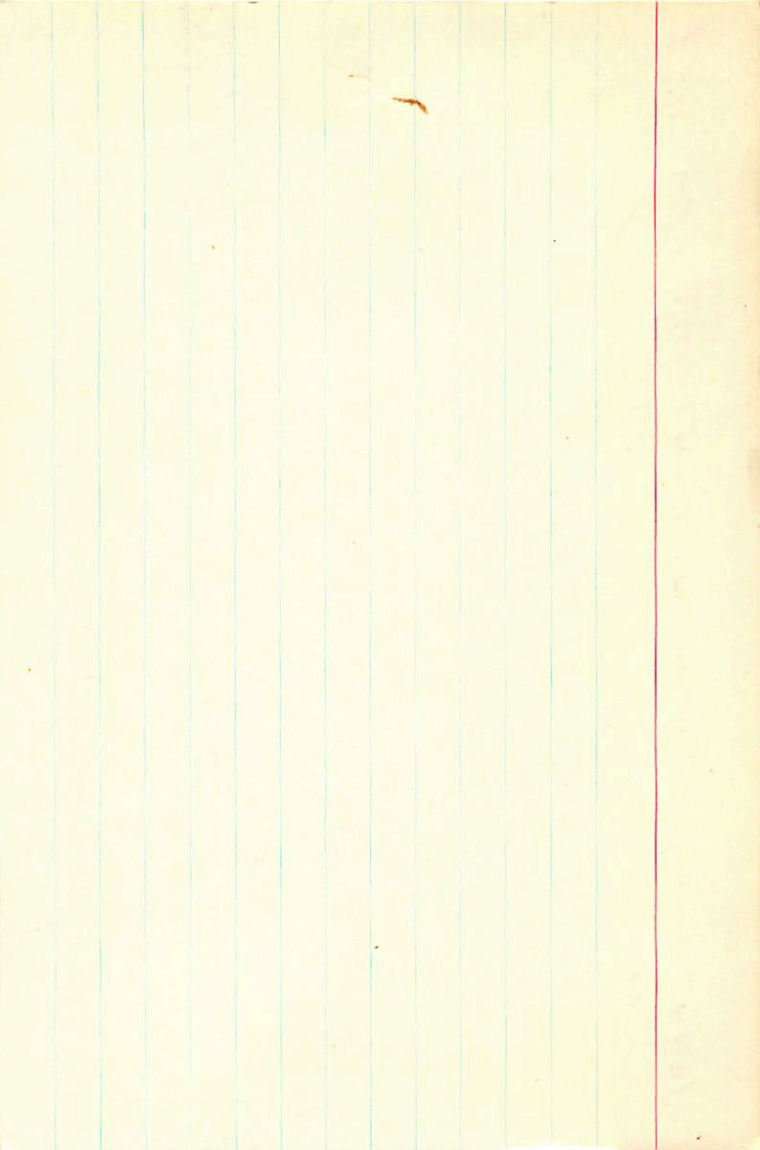
41.5

$\frac{20.8}{36.0}$

$\frac{36.0}{36.0}$

$\frac{3.51}{4.09}$

$\frac{4.09}{3.84}$



108910 12 28.3 -3 47 7.1 9 NY +84.36

17050 6.88 +1.43 +1.64 NYH

7527 35
-0036 +006 N30

-0048 +002 +2.7 6.05 +0.59

567
487

+3
-0049 -0001 114

267
747

-0733
-077 -004

24
-00404 +0095 7U NU

8485 -993 0605
-0705 112F 0103
20

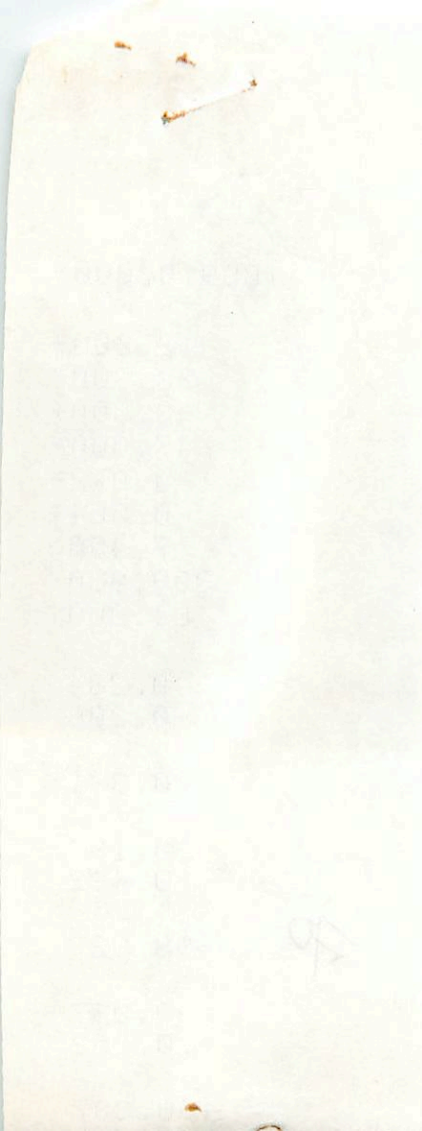
-00401 +0119

-00406 +0124

-0611

-059 +017





108910.000*

12.000*

28.300*

-3.000*

-47.000*

-0.072*

-0.004*

7.450*

309.030

04.300

0.284

-0.206

70.391

-0.187

-0.482

-98.327

-0.037

0.052

00.337

70

4770

12 25.8

+7

53

6.00

125

-17.26

-030 +003 G-C

+Y

+007

3
3

/

71

-2805 26088 / -269 2635 0700
-2605 26.36 50(1%)
AY -145

109005 12 29.0 -10 45

AD05 1585

911 -12

1.2 2904
9.0 380

1515 2843 648 500 11

197 187 515 2753

-050 -0160

-0.0038 -0.001 230
-0.0039 -0.008 60
-0.0035 -0.005

Low Low

415-107

956 9156
5747-550
2469
6850 9200

-126-552-157982 -050-011 -1002.0 -052

-006 0050-002 -019 237 -1 +1 0

-2.43-9

0055

27

RD. NET : 0.000
 MODIFIES : 10
 DISTANCE : 0.000
 M. DEC. : 0.000
 M. R.A. : 0.000
 DEC. : -10.000
 R.A. : 15.200

d3 (M) : 0.000
 d5 (M) : 0.000
 d1 (M) : -0.025
 ON : 0.000

d3 (M) : 0.000
 d5 (M) : 0.000
 d1 (M) : 0.021
 ON : 0.000

d3 (M) : 0.000
 d5 (M) : 0.018
 d1 (M) : 0.074
 ON : 0.000

R.A. : 12.500
DEC. : -10.800
M. R.A. : 0.000
M. DEC. : 0.000
DISTANCE : 0.000
MODULUS : 10
AD. VEL. : 0.000

q1 (U) : -0.857
q2 (U) : 0.441
q3 (U) : -0.268
dU : 0.000
U : 0.000

q1 (V) : 0.511
q2 (V) : 0.651
q3 (V) : -0.562
dV : 0.000
V : 0.000

72
q1 (W) : 0.074
q2 (W) : 0.618
q3 (W) : 0.783
dW : 0.000
W : 0.000

40109030 12 29.1 +26 09 App +7.38
+2602359 792 +02 +03

-034 -010 Y

-1 -1

-035 -013
-1 +4

-3.6 = 019 N30

50

20000

-854	+508	+64	+1467	-0218	+1250	+25.0	+1.5	+25.5
+505	+861	-64	-0802	-0370	-1232	-24.6	-1.5	-25.1
+97	+23	+996	-0148	-0210	-0158	-2.0	+7.2	+4.2

5.96 75h 207867 2803 +42-③
12 287 630 -63 13 AT III

HRV771
108970
E 036

-0067 -005
-00689 +001

-2.2-9

~~058 top 2~~
~~058 top 1~~

-0466
-043 +005

9936 -9946 0437
-0038
-0880 0380
-395

ppd
to 10

4492 34
402
5.804
57020
4224 4841
4873
40127 2914 3126
24748 -17.46
4894
4.875
4.230
5.103
123

0075
672

0046
101406

57020 464
0
-83
48.53

9936 -9996
1128 0280

123

4894
-84
4894

+1.28

+26° 2359

7.92 + 0.2 + 0.4
+ 1.0

+7.5

12 29.1 +26 09

8.2

109030

143(3)

-034 -010 X

-1 -3

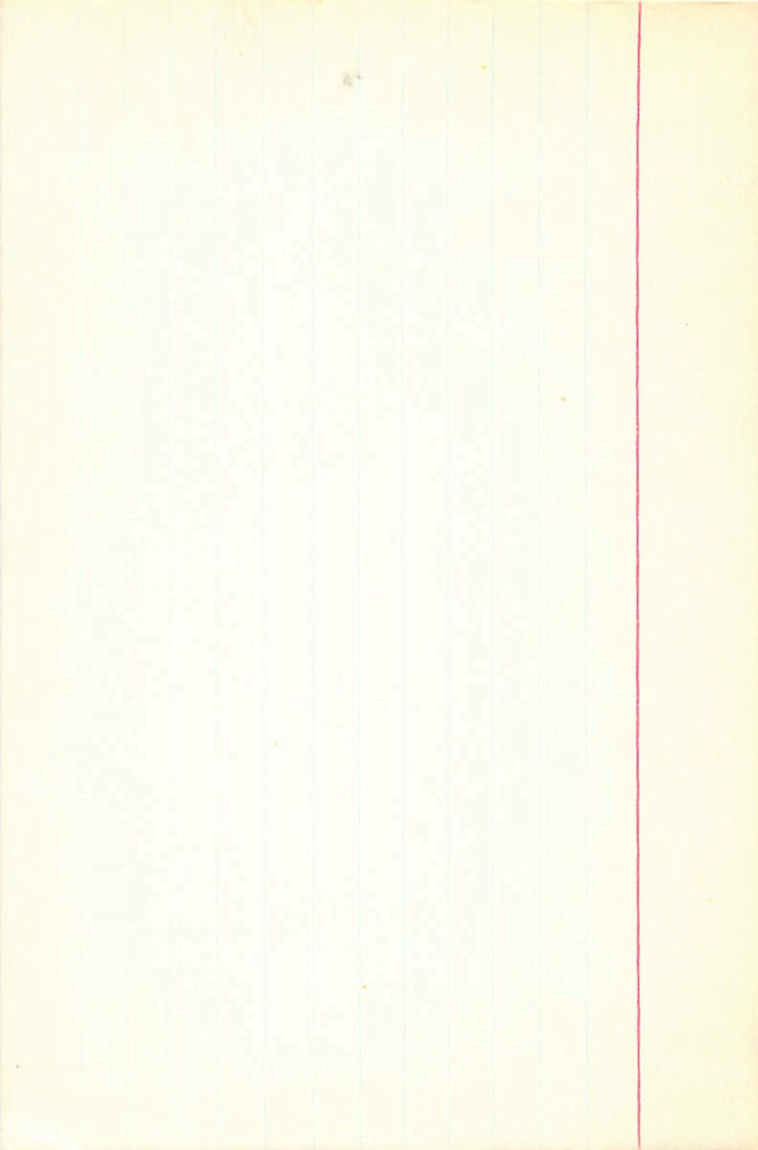
-035 -013 *cc*

0 +3

-010

790 +019 +192 1.036 +25 ± 3 (2) sub

792 +010 187 1.046 +7.5 ± 1



105970

12075

.40

32
30
2.42
1.20

4769

12 29.1

-72

43

+5

+0114 ± 7.5 -037 ± 7.5

7.076

95.1

+0092

-018

31.12

56.6

592

+0095

-033

1.98

6.484

29.19

7.107

69.89

40
147

30.22
-22
44

36.646

29.76

29.622

12.45

844

7583

030

6.268

17.48

4658

6519

404

3033

+22

6.672

30.11

112

-15

5.984

30.26

+00935 -028

+00905 -0145

0269 -012

0246 0340

+0324

032-008

425

8.85 - 0.2 + 0.5
+ 0.6

8.85 - 0.2 + 0.5
+ 0.6

-19.3

f2202483

12

242

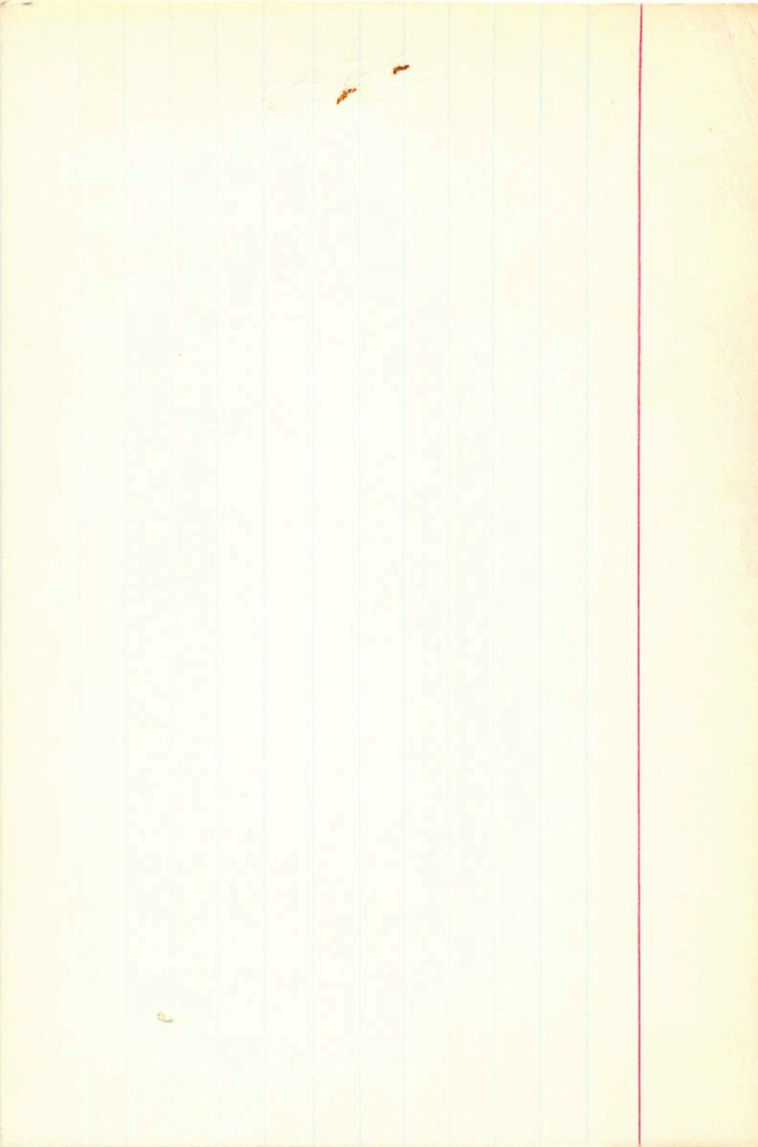
+22 24

-0.51 - 0.10 kg

550601

1999

-0.51 - 0.15 cc
+ 4



109017 12 29.2 -31 38 NOB -11.0 4C

FD716

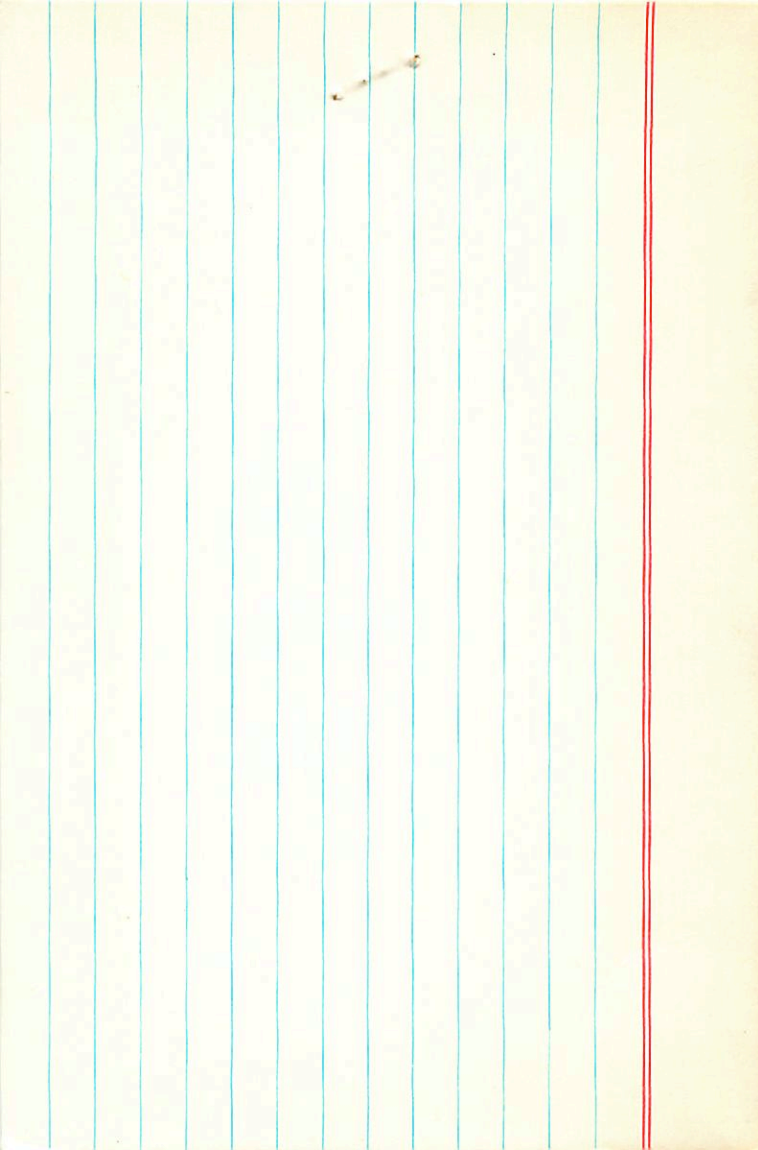
8.23 + 0.88 (1.89)

8.5 } 0.6
10.1 }

-031 + 023
- 3

-031 + 020
+ 5 + 3

-020 + 023



716

 $12^h 29^m .2$ $-31^{\circ} 38'$

H) 109017

+8.23

+0.88

+1.89

K0 V

- .857	+ .319	- .405
+ .509	+ .408	- .758
+ .077	+ .856	+ .512

23



12.500
-31.600
-32.000
23.000
2.000
25
000

3.80-16 (1.27)

+2 422
452

109026

12 24.5 -71 51 B5TR

2 mm FRI

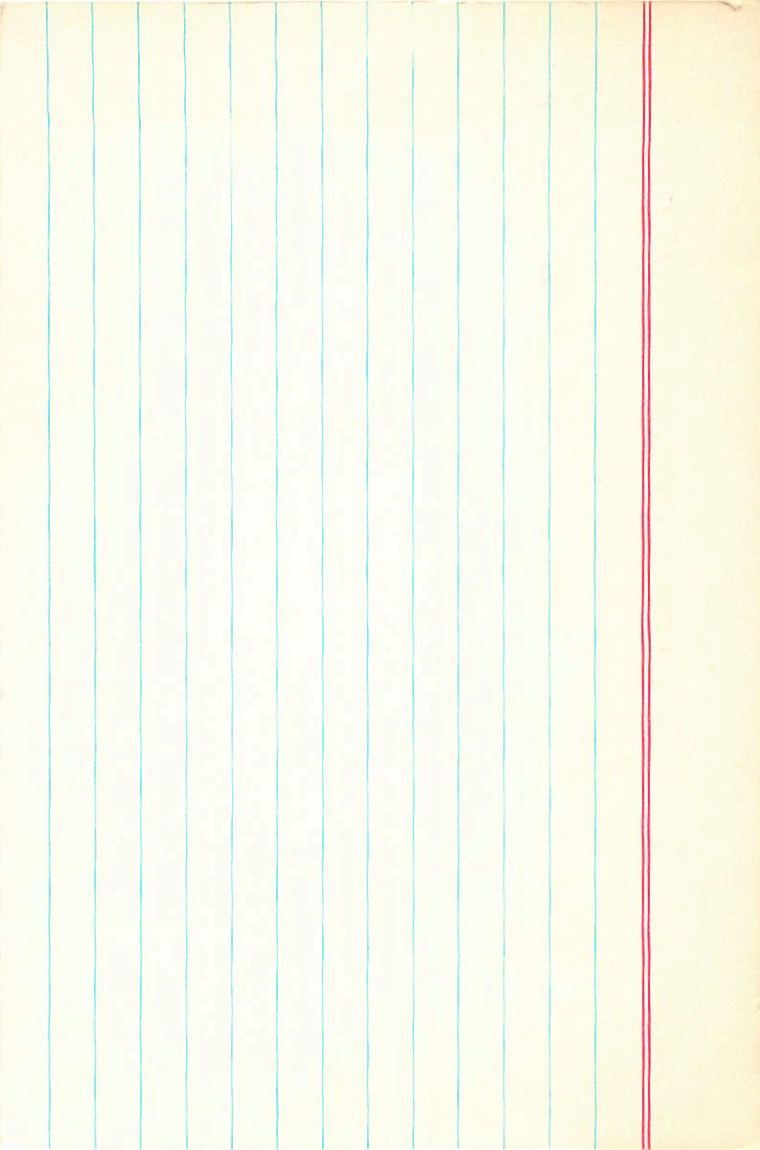
714232

1000-515R

-0103	-010	N30
-008	-000	BU
-0100	<u>-008</u>	

-046

84



50

W 7547

12 228 -39 50 AdI=6 -402 Md(2)

-3907674

~~10.90 + 0.50 + 1.69~~ Egg 1

10.90 + 0.50 + 1.63 also (2)

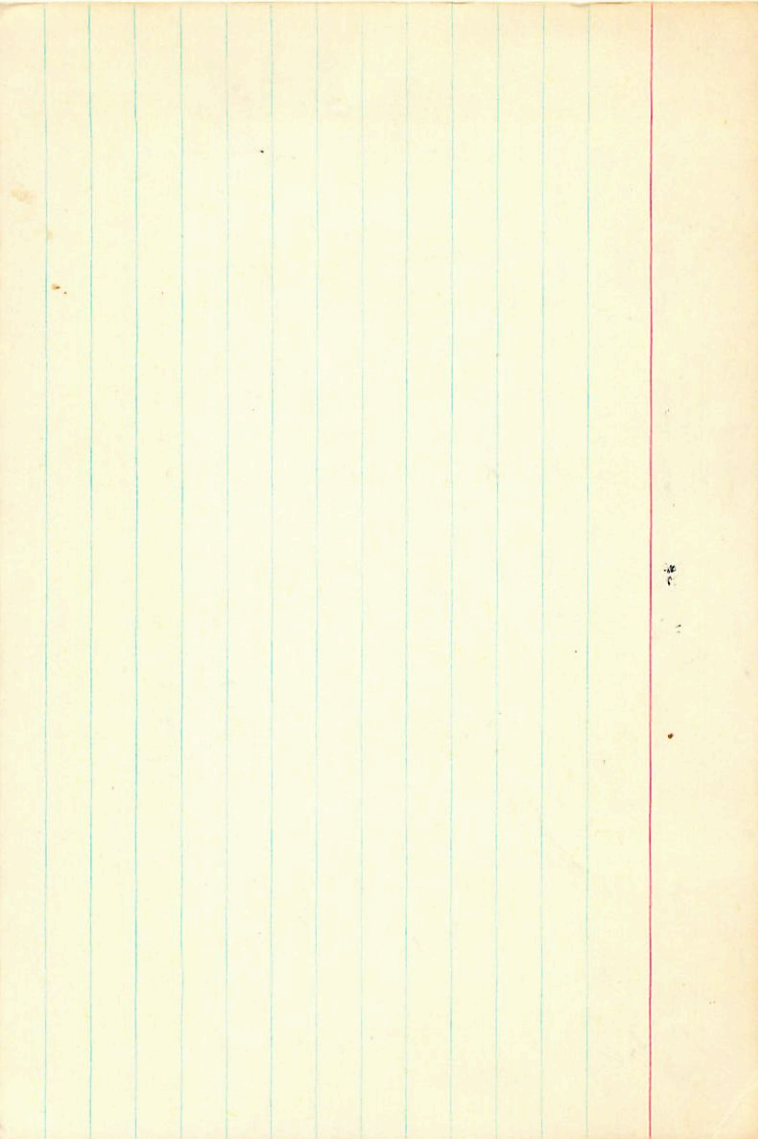
~~S = 1.5402~~ $S = 0.015 \times 15 = .02$

10.84 + 0.52 0.00 2 74''

S = 0.05

.0085

Stacy?



40.5

5.19 + 0.8 + 1.4

5.2

12 21.8 + 36 23

1260234

1.7

-0012 -020

-0012 -016

43.139 15025 -0012 32.25

057
196
-0012 -014 33.07

107546

16910

1848.8

496

-016-014

48.157
+ 9
166

32.47

193550

156
- 40
116

32.42

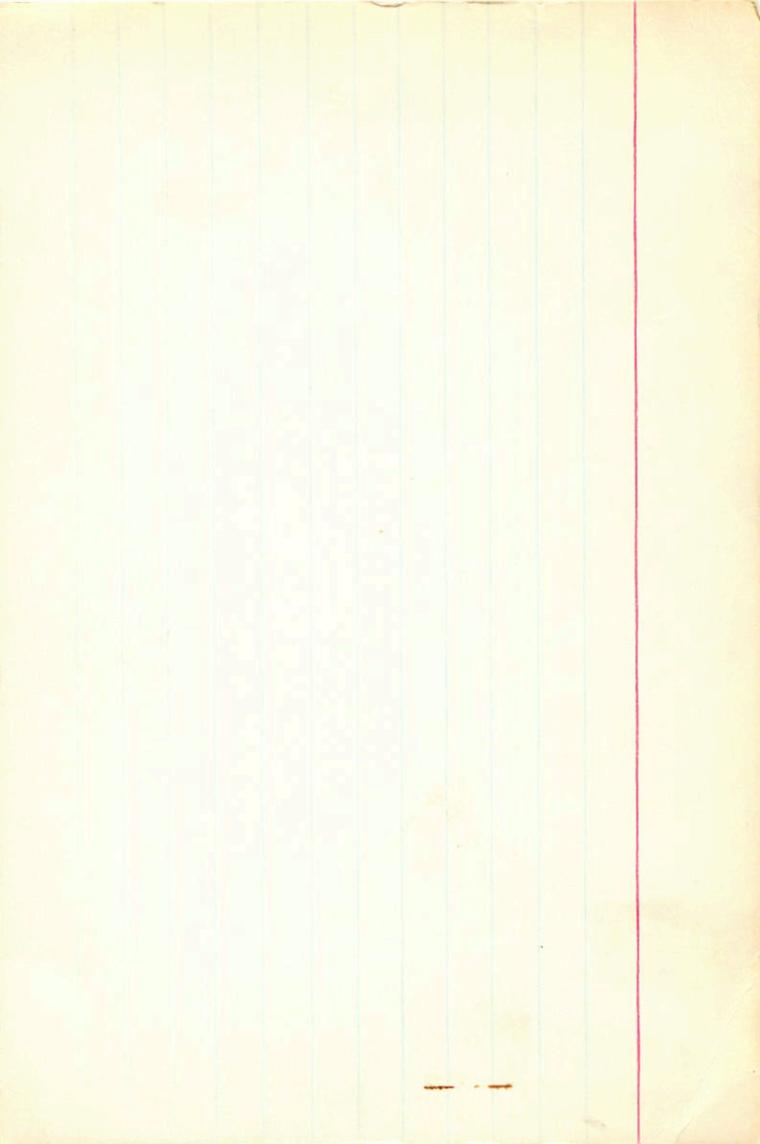
1.62
3555

32.30
- 77 32.13
+ 6

32.19

48.135
- 10
145

1936.12



Bow - 2
14

4786 12 31.7⁹² -23 07
1.135
1.155
732
42-45 91-92
1.162
C.m
65 111
100

109379

245 +0.89 +0.60 C

2.36 +0.30 25

203 +6

8823 1098
100006 -10006 -9940

+0.00006 -0.0579 F124
44

+114
+0008

+0027-0595

(3)

+00019 -0624
+00001 0555

0535
+0032
-0.41

+00006
+00025-0551

0110
359

585
555
1140
-9.5

00

-1.0

106

74

27

74

4786.000*

12.000*

31.700*

-23.000*

-7.000*

0.002*

-0.054*

3.000*

53.7

39.811

-7.800

-0.163

-0.362

-3

-1.288

-0.128

-0.684

-1

0.256

-0.197

0.634

-15

-12.771

M 6/11/11

710-13

Bo Mms
109372

12 31.9 -67 29 ±4

-0019-020 Gu
80V4
-0023-0145 F144

16
-016-011

(Signature)

-0132
-013-010

-856	018	-516	+0649	-0009	+0640	-0132
511	-112	-852	-0388	+0058	-0320	
674	943	-087	-0086	-0518	-0574	

(Signature)
6.75

+10.3 form
3.62 +1.40

Bo 3014 4.9

109026	3015	-9.3	3.88	-165	-615	85V	+02	485
109468	3016	-6.3	2.70	-205	-82	03V	+03	405
110020	3018	-3.6	6.25	-05	-19	86	+04	567

Bo Mms 6.1 +176 +145 -1.5 +14 -7 -12 "16? 80 ± E=+08

109372 3.75 +16.2 6.7 -0.52p -0.88p -0.09p "m 6 -5°

314
108
567
473
80 ±

52.126 14007

-0730
-003679.0
-016780
-025
33.50 1896.9

177

57.353

5 84
52.16
-0033 -015
+ 5 +7
-0025 -011

24.474 1424.61

36.58 1530.01

22.438

14.70

576.915

53.02

44.520
+ 18
986

53.26
- 34
19.92

FS

57.128

52.16 1947.4

57.128

53.39



109372.000*

12.000*

31.900*

17.000*

931

12

321

-31 36

+55.7/4k₃

109422

5035

42899

33
6(6)

891

+0.72 (1.81)

655

562

+755

3.30

28

"

-146 -181 GP

-118 -197 GP

~~194~~

-132 -189

RZ Com 12 32.4 +23 37 -12.0

70008 - 0008
+011

6.3
182M

-854	518	014	-0445	-0196	-0641	-11.6	+0.2
515	851	-090	+0268	-0321	-0583	-1.0	+1.1
064	070	955	+0033	-0020	+0007	0	-11.9

-11
0
-12

W7573

12

32.6

+70

18

5.2 +3.4 Orbit
942 +4.76

HD109551

023⁷⁰
474

715
1490

-033 -00564 →
-0064

1422
1422

15642

-854 342 390

+1490 -0081

+1409 +12.6 +1.8

515 653 554

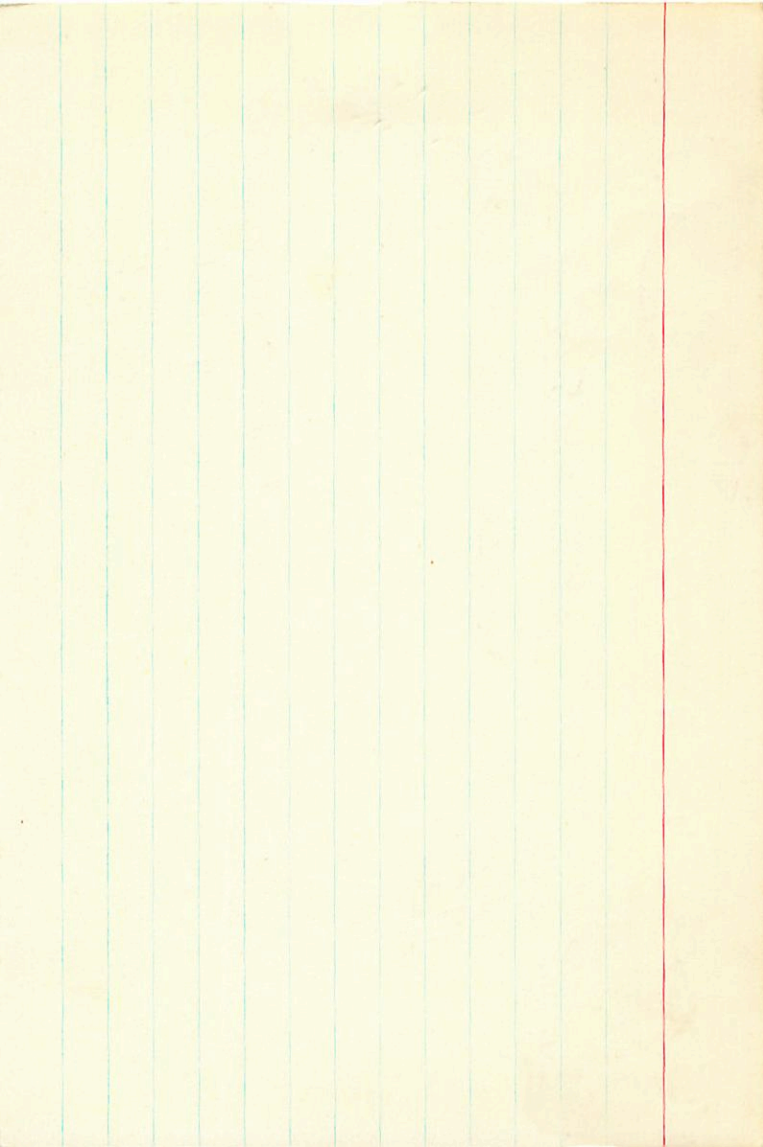
-0850 -0154

-1004 -9.0 +2.6

044 -674 735

-0100 +0159

+0059 +0.6 +3.4



109492 12 32.6-61 34 64 IV 6.0 C4

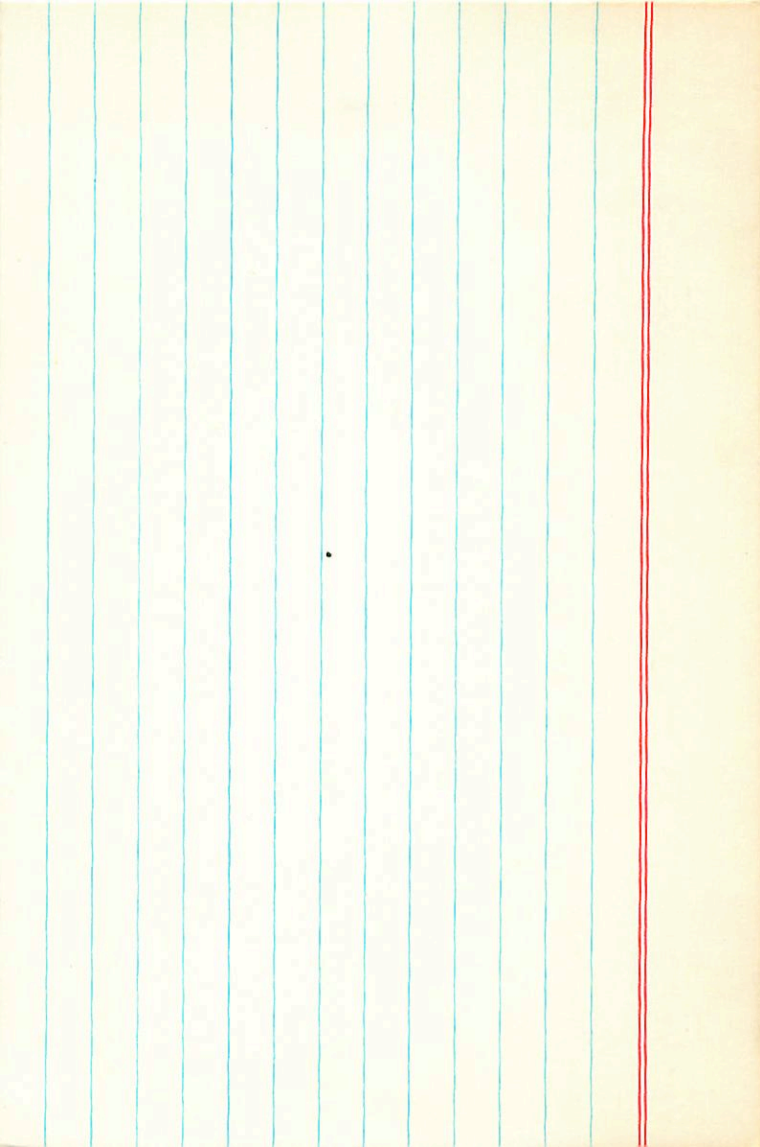
FD932

6.22 + 74 (1.82)

GU17149

-0023 ± 6.9

37.521 1902.3



109628 17169

12 334 +11 41 d60 +23R W(5)
+17.68 W(3)

W7578(90)

8.43 +0.60 +0.04 G-2E R

A058606 $\sigma_m = 0.25$

S = 0.9

+120282

75
915
350
368

+65 -76 +6 .015

⁺⁴
-301 -090 ⁺³ G-C

~~W~~ +700,69

-0205 ± 4.2

-090 ± 3.0

26.924 1898.2 +11 40 52.44 1891.1
1.062

27.986

5.30

57.74

200.

~~200.~~ 11

7-30-06 -06
+0.1
12 33.4

-9.0
29 58
-133
20
2
2

+44 00

-0022 -024
-0019 -029

-0011 -023

+40° 2551

109615

6017144

22.068
053
22.121

19015
-0017 -025
0 47
1.14

32.81
33.95

1900.6

22.04
22
062

-0017 -024
33.95

33.3
-20
33.10

1930.2

-1 ± 3 @ 506

730-627 + 150 + 1044

-9 ± 2 @ 1000

730-027 + 150 + 1044

peny

-055

-019

-85

1930.2

-113

22.015

-017 -024

-126

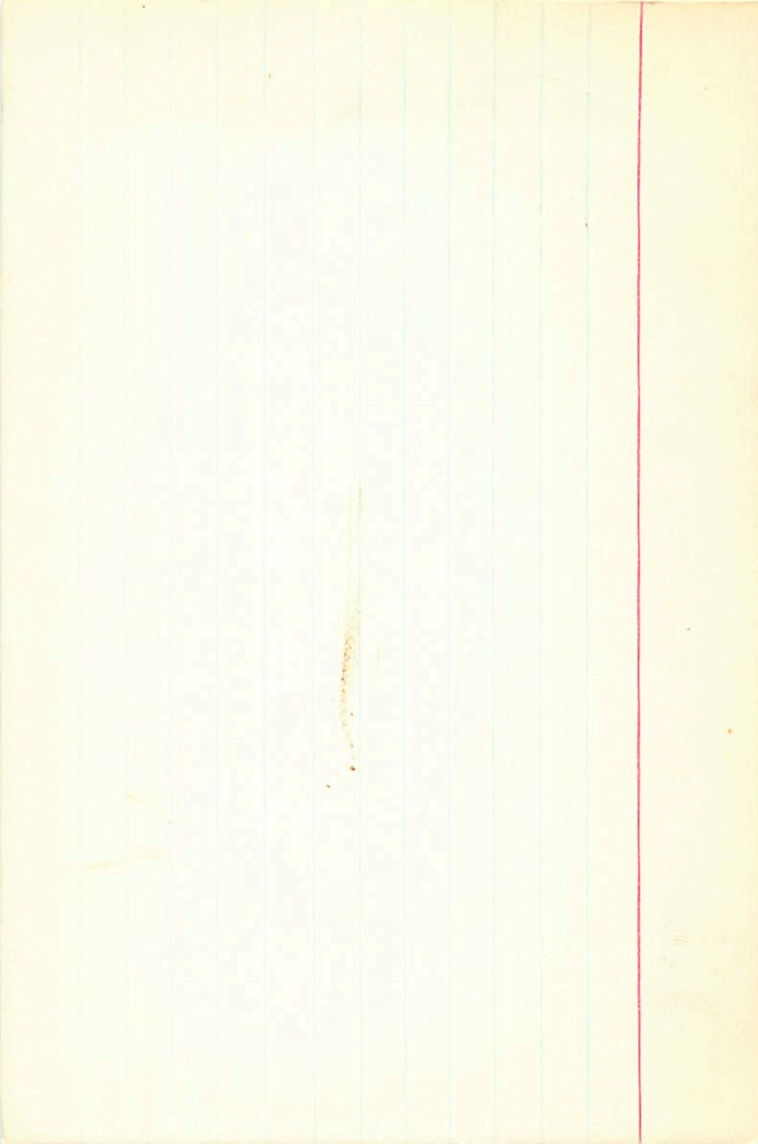
1952.33

-2008

32.69

32.78

1952.33



+12.2492

109625

12 33.4 +11 41

d60 +230 W(5)
d60 +17.68 W(3)

06070

8.43 +0.60 +0.0762E

$\sigma_m = 0.00$

$\delta = 0.9$

-301 -050 60

8.42 401 154 296 (1)

385 166

0.690

227

205

224
222

-145-559 202 929 -300 -050 +15 -015 +4 -417

-044-003 +257 +015 -255 +1.882 -17 -3 022

-3 +54 -7

-15 -29 -11

26 -10 -7

-2 +410 -5

-13 28 -5

23 -9 -5

-30 +68 -15

+44 +57 +9

-27 +40 -11

+33 -42 +11

025

Julius Sent MN 184, 888

109585

1233.4 -20 14 AS

404797

607165

6.21 +0.335 +0.035 2.535

6.21 +218 166 726 2.701 (1)

6.20 215 172 716 2.706 (2) ^{211, 11, 5}

211 +5

673

12.55

-20.25

+13

-25

405

12

²⁰⁰
211 175 714 2.716

205 677

¹¹¹
229 235 501 318

20

105510

12 32.6

+18 40

~~1212~~

-2 r

HP 0741

Calculus

2 yam

2.10 95 190 116

+0009 57.8 - 04427.1

505 190 116

FUR 2044 62

+0008 -042 pay

+011

+012 -035

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277

12.550

-26.250

13.000

-38.000

4.050

65

-2.000

-0.054

0.387

-0.347

-119.149

-6.999

0.516

0.552

-0.655

-69.602

-3.185

0.062

0.738

0.672

-129.401

-9.698

76

109590 12 33.4 -4202 F2V $\bar{1}$ +25.07C

1501193

7.97 + 0.44 (1.55)

6617167

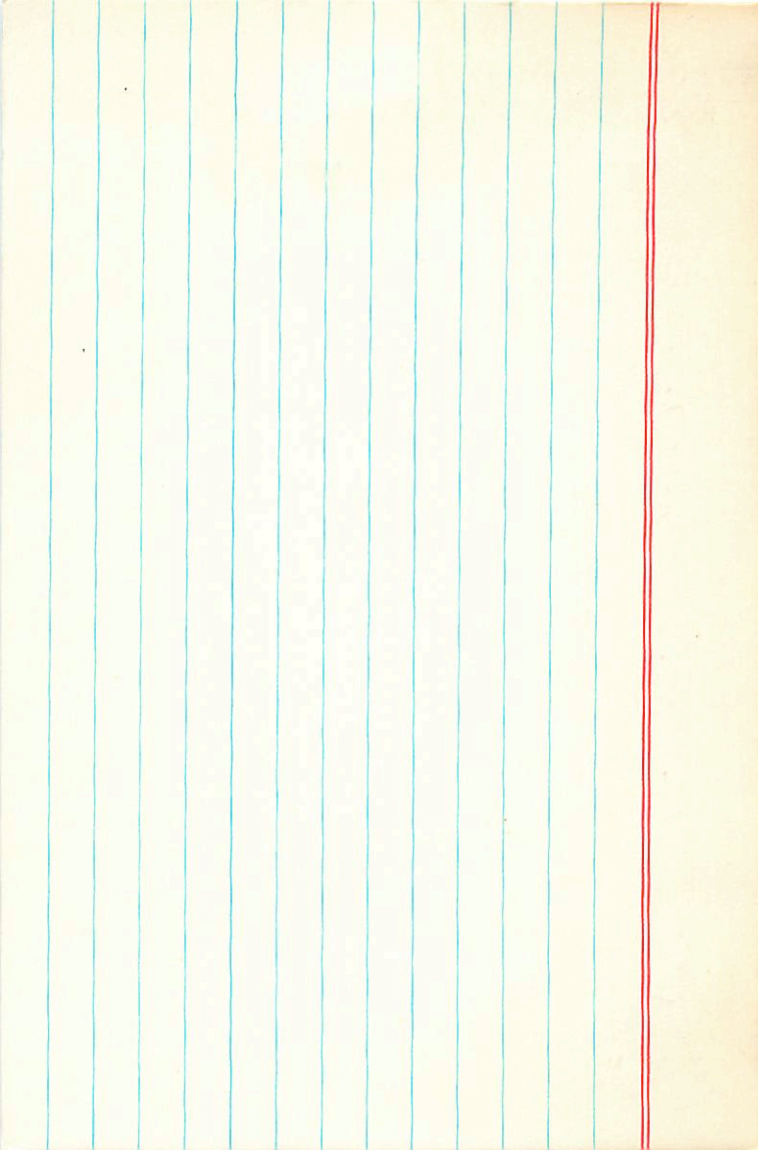
$\delta = +10$

-0100 \pm 15.0 +031 \pm 15.0

23.010 1903.7

5.47 1903.7

1



AD58605
109654

-0020 ± 6.9 -037 ± 4.1
+0002
33.5 +56 -027

12 33.5 +56 51 8.0 911 -30.18

17172
7580

30.140 1408.7 +54 51 (2.84) 898.5

$\frac{083}{1223}$

$\frac{1.90}{14.74}$

10^m 20^m

20.795
9.588

29.6 1926.3

(30.7)

30.374
-1.074

$\frac{16.12}{13.48}$

13.42

2.27
2.81

$\frac{13.68}{-10}$
13.58

-1.12

30.454
-4
30.192
+0006
2.79
+0006

13.85 15446.1

11.810

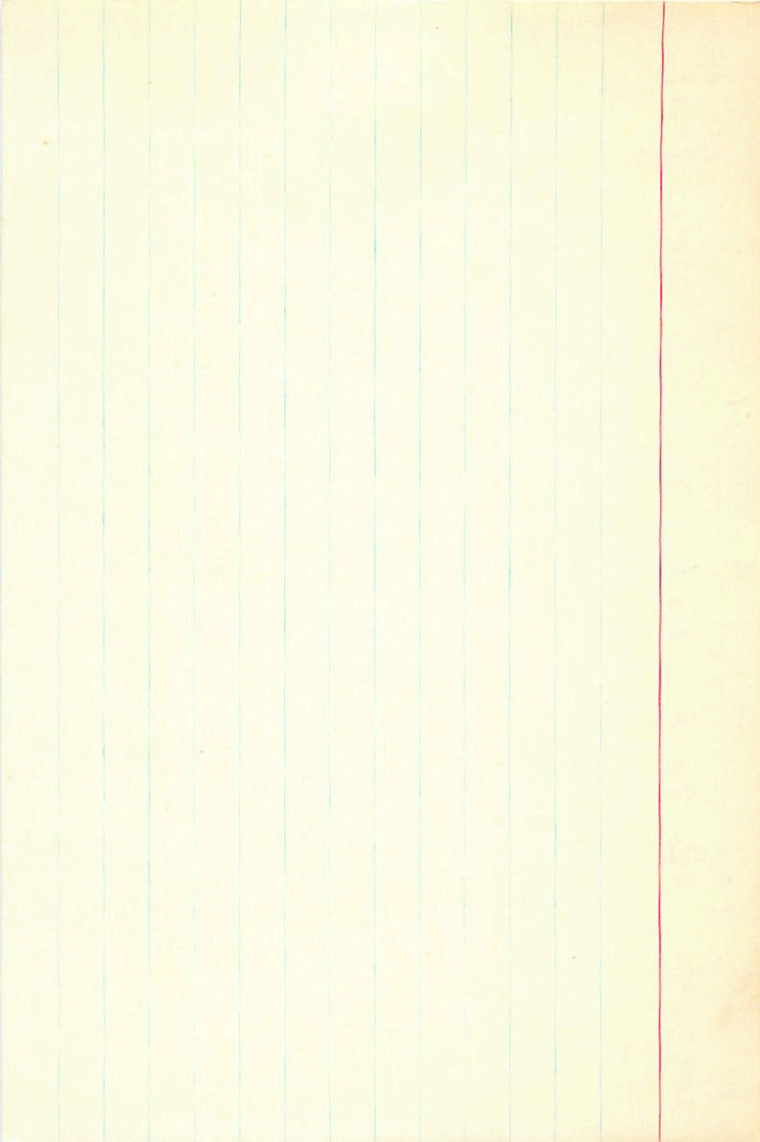
39.4

30.212
2.4

13.6 1947.19

(40.9)

-3
3.45



+320 2260
8.88 -04 -07
+0.3
12 340 +32 28

-11.0

+010

-015-Runy

109691

-99.19 28p

+010

-020 62

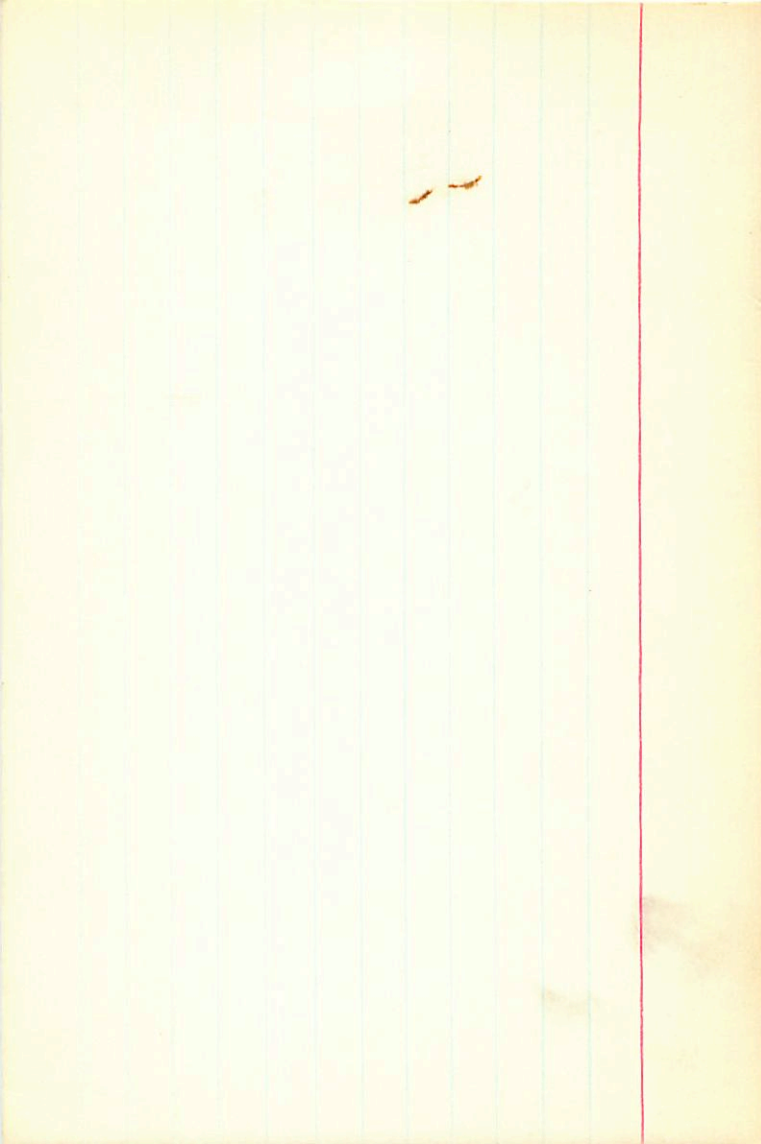
+4

+010

-016

8.88 -004 +130 1045 +12 ± 1 ③ sub

8.88 -026 +154 1.042 -11 ± 3 ③ Runy



G 59-27

12 342 +27 45

-123.1 End

+2802137

10.91 +42 -24 15

→ 40.8

118.66 top

W01/430

445

6.20

559 222

$$.084 \cdot \mu_2$$

12.6

start

$$\mu_2^2 = .0464$$

-242

are

$$\mu_2 = 1.214$$

are site

6.5

$$\mu_1 = 1.95$$

1331

195 -214



1004
1004

1

59

22

1329

0.252	:	PS (U)	:	
-0.822	:	RAD. VEL (U)	:	
-133.100	:	MODULUS	:	
200	:	DISTANCE	:	
6.200	:	PM. DEC.	:	
-200.000	:	PM. R.A.	:	
-242.000	:	DEC.	:	
27.750	:	R.A.	:	
13.500	:		:	

R.A.	:	12.600
DEC.	:	27.750
PM. R.A.	:	-242.000
PM. DEC.	:	-200.000
DISTANCE	:	6.500
MODULUS	:	200
RAD. VEL (U)	:	-123.100
92 (U)	:	-0.852
	:	0.522

256m
109742

12 34.5 +17 22 5.8 gms -7.68

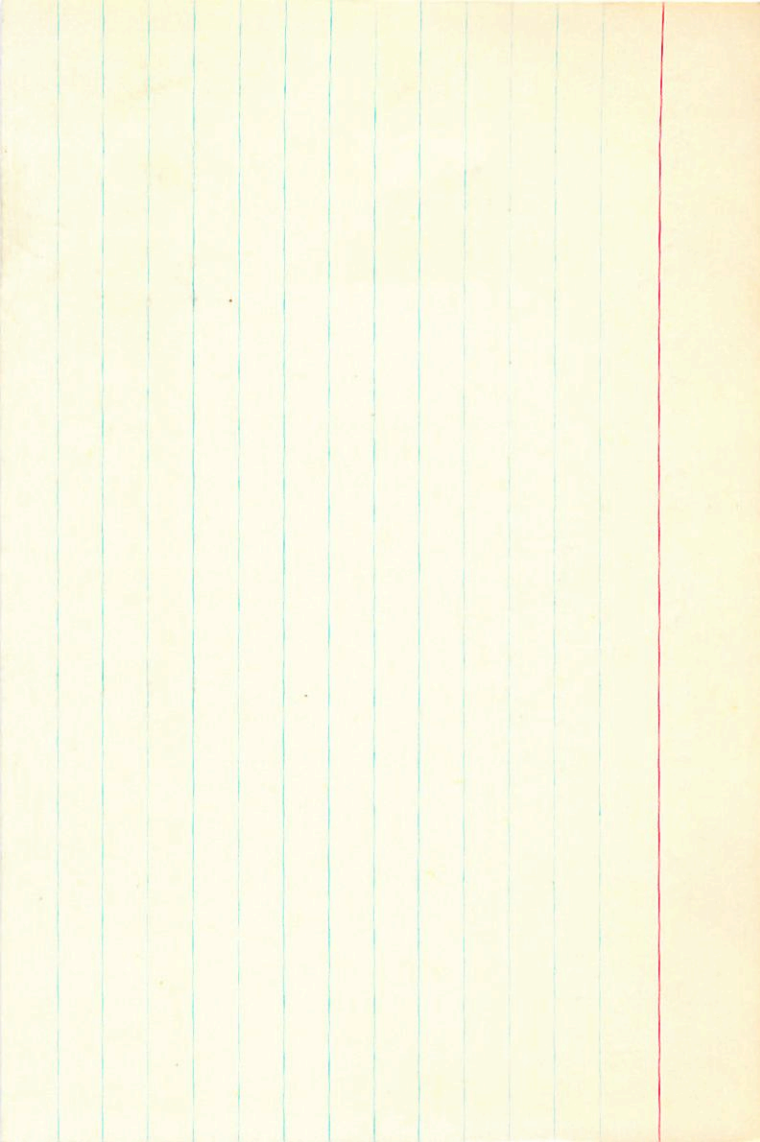
17183

7587

³⁴
-0075-024 N30

-6027 ± 2.6 -020 ± 2.2 Gc → M10

!



8.58 + 27 + 11 - 20.3
2.3

+330 2857
12 34.6 +33 18 8.8

12.5 (17) New

.0047 + 0.12 6ms

-0050 000 F13

-0048 +006

+3

" -060 +009

AG11-2

8.58 1465 +218 242
+280 1065

+30 ± 7 (3) Swg

8.58 +163 +221 809 -20 ± 1 (4) long

