

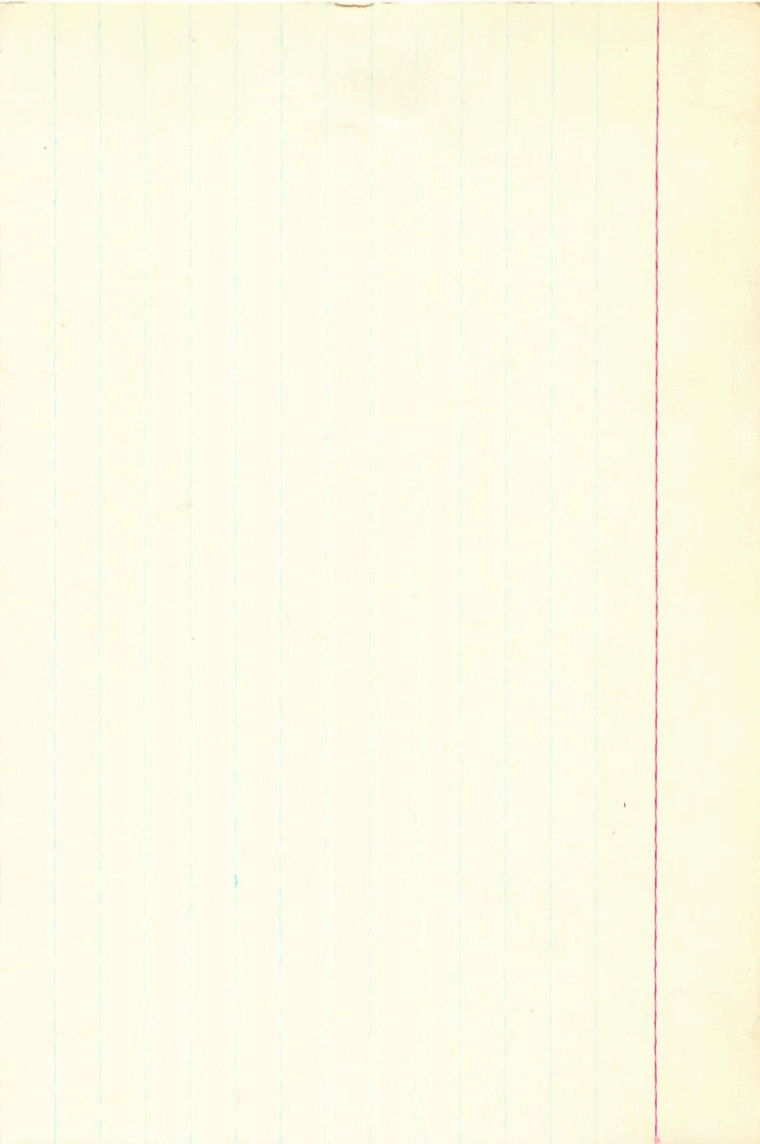
917)

196081 20 32.9 -26.57 ESTE -26.330.8

7.19 +41

Century

+00.0716 +0.22
1000-1052



5000
7871 196150

28659

12881

20 33.0 +14 30

463^M +0.15 A3^{1/2}

+0027³⁷ +010⁴⁰ N30

+0029±1.6 +015±15.6 → N30

-25.0 a

+042 +012 G

+040 +010 N

-785 619 250 565 +041 +011 -25.0 003 -6 052 ✓
032. 002 025 002 142 125 -24.2 -15 +19 029

-10 +23 -4
+17 -18 +3

POW
195961

20 33.4 -61 42 5.0 FG + 8.0a

28668

12884
10/10/10

+0089" -061" N30
+0090 ± 3.9 -062 ± 3.3 0c → N30

+00108 -072 ~~PA~~ 20.55

30²
16⁶
3¹¹

~~+00885 -0685~~

-61.7
+120

+00587

-61

400

3.15
1.54

[+057 -072]

120
-72
400
+80

16

9

R.A. : 20.550
DEC. : -61.700
R.A. : 120.000
DEC. : -72.000
DISTANCE : 4.000
MODULUS : 63
VEL. : 8.000

1 (U) : 0.593
2 (U) : -0.338
3 (U) : -0.731
dU : 275.146
U : 11.512

1 (V) : 0.108
2 (V) : 0.933
3 (V) : -0.343
dV : -289.243
V : -20.996

1 (W) : -0.798
2 (W) : -0.124
3 (W) : -0.590
dW : -172.693
W : -15.614

13 Cap

196348

28694

12896

6.78 + 1265 + 123

6.11 + 049

578

506

1.94

0.95

547

516

50

121

20 34.6

33.061

-222

32,839

8.977

24.046

23.025

23.33

32.989

32.983

986

33.019

-222

+0042±2.3
+0038
-038

-15

1897.1

+0040 -038

+0048 -0372.FIN

+0694

+070 -040

39.8

19 6.9

-15

2.06

16.60

29.99

10.50

19.49

1.18

18.31

18.33

17.98

18.60

+222

912 + 18.56

18.66

2.06

16.60

29.99

10.50

19.49

1.18

18.31

18.18

17.98

18.60

+222

376

36.9

41.2

18.60

19.106

+222

196348.000*

20.000*

34.600*

-15.000*

-19.000*

0.070*

-0.040*

6.950*

191 245.471

18.500

0.142

-0.745

+13 21.039

-0.135

0.439

-17 -24.969

-0.328

-0.502

-72 -89.866

A

70 April
196321
28684
12889

$+0002 \pm 1.5$ -002 ± 1.7
 $+0005$ -021
20 34.1 -2 43 5.2 gms -9.6a
9.5(1)

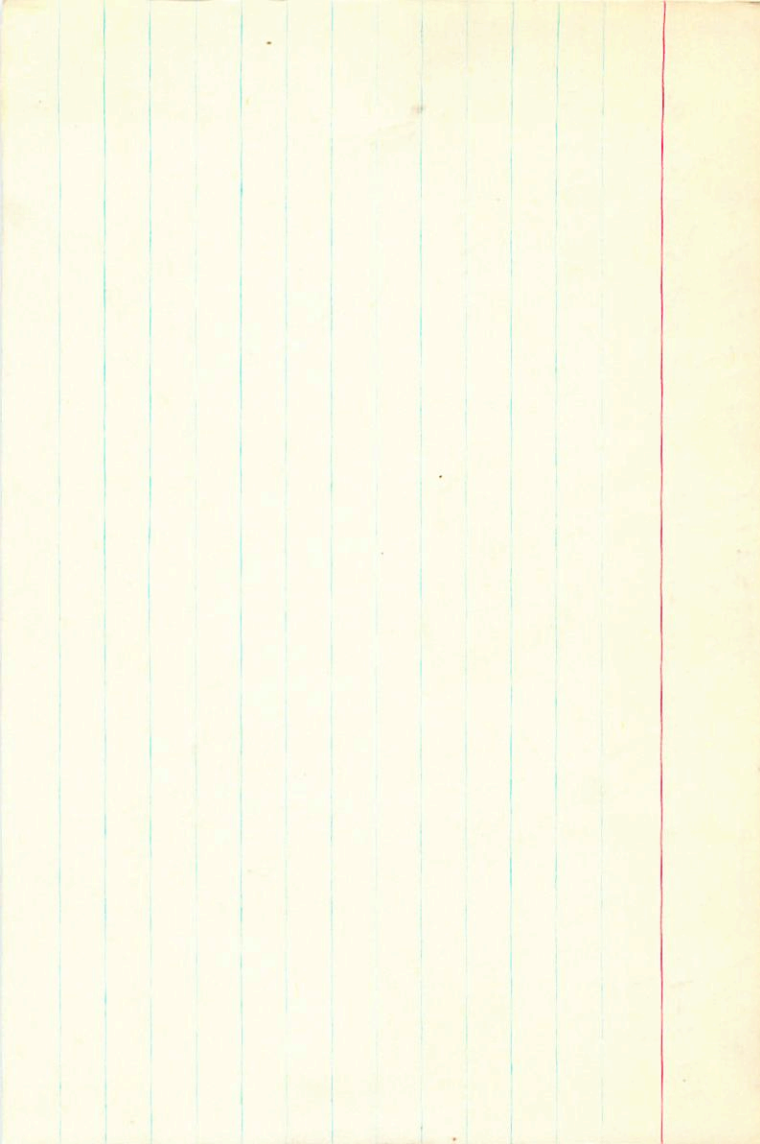
7.398 1901.5 -2 43 27.25 1898.6
-010
388 +.10
27.18

49.340
18108
7.448
17
1431
24
405

35.2
404
+016

7.422
14
403

39.40 1933.19
995
2945
110
28.35
30
28.05 73 43
36.7
38.1
28.29 1940.24
36
27.93 27.94
-.81



$$+0014 \pm 5.9 \quad -007 \pm 4.6$$

$$196346 \quad 20 \quad 34.2 \quad +02 \quad 19 \quad 7.6 \quad 969 \quad -4898$$
$$28687$$

$$12892 \quad 11.062 \quad 1900.9 \quad +2. \quad 19 \quad 15.32 \quad 1896.3.$$

$$\begin{array}{r} 11.062 \\ -069 \\ \hline 10.993 \\ 11.060 \\ \hline 8 \\ \hline 068 \end{array} \quad 092$$

$$\begin{array}{r} 11.011 \\ \hline 13 \\ \hline 024 \\ \hline \end{array} \quad \begin{array}{r} 046 \\ \hline \hline \hline \end{array}$$

$$+053$$

$$\begin{array}{r} 31 \\ \hline 15.63 \end{array}$$

$$15.97 \quad 1932.9$$

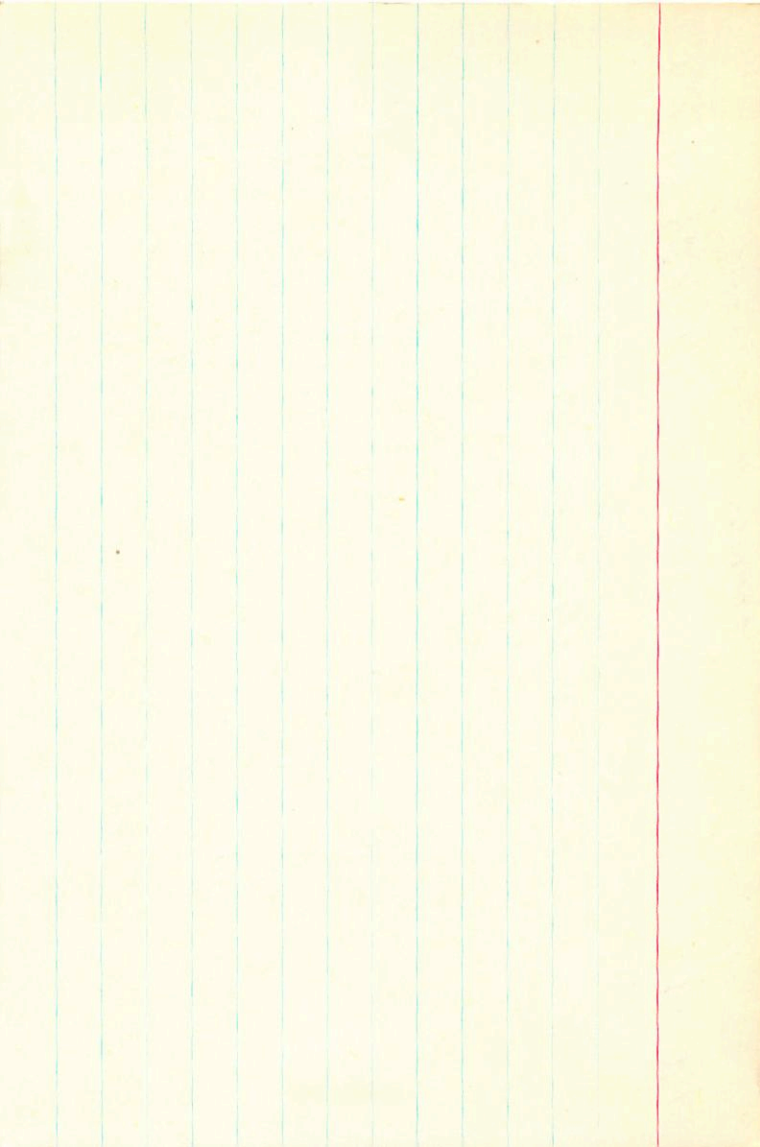
$$\begin{array}{r} 19 \\ \hline 16.16 \end{array}$$

$$15.68 \quad 1936.59$$

$$+6$$

$$15.74$$

$$\begin{array}{r} 15.95 \\ \hline +.32 \end{array}$$



196524
1290220
AOS 14073

35.2 +14 25

-22.9 a

pm

0354

+106 -03414

+0072⁶⁵ -03564N30

-541 Dubind

7882

+0073 ± 1.0 -031 ± 1.0 GC → N30

$\Delta m = 1.02$

1160

111

+0074 -03564N30

126

1170

6816 8027
-7317 5514

6156

~779 627 249 549 +106-034 -22.9 -005-6 -156

083-006066-005 417 284 -22.2 -14 +17 0354

-2+25-10

+17-20-7

L. Del
 196544
 20 35.4 +11 12 5.4 A2 -39a
 +002452.7 -007522 - Sp. B. P. = 11.0
 +0021 -006

28711

A2V

12906

25.549 1901.6 +11 12 7.05 1599.3

$$\frac{-116}{433}$$

$$\frac{35}{7.40}$$

25.479

7.28 1933.1

$$\frac{487}{1012}$$

$$\frac{14}{7.472}$$

$$\frac{7384}{36.9}$$

25.535

6.89 1940.74

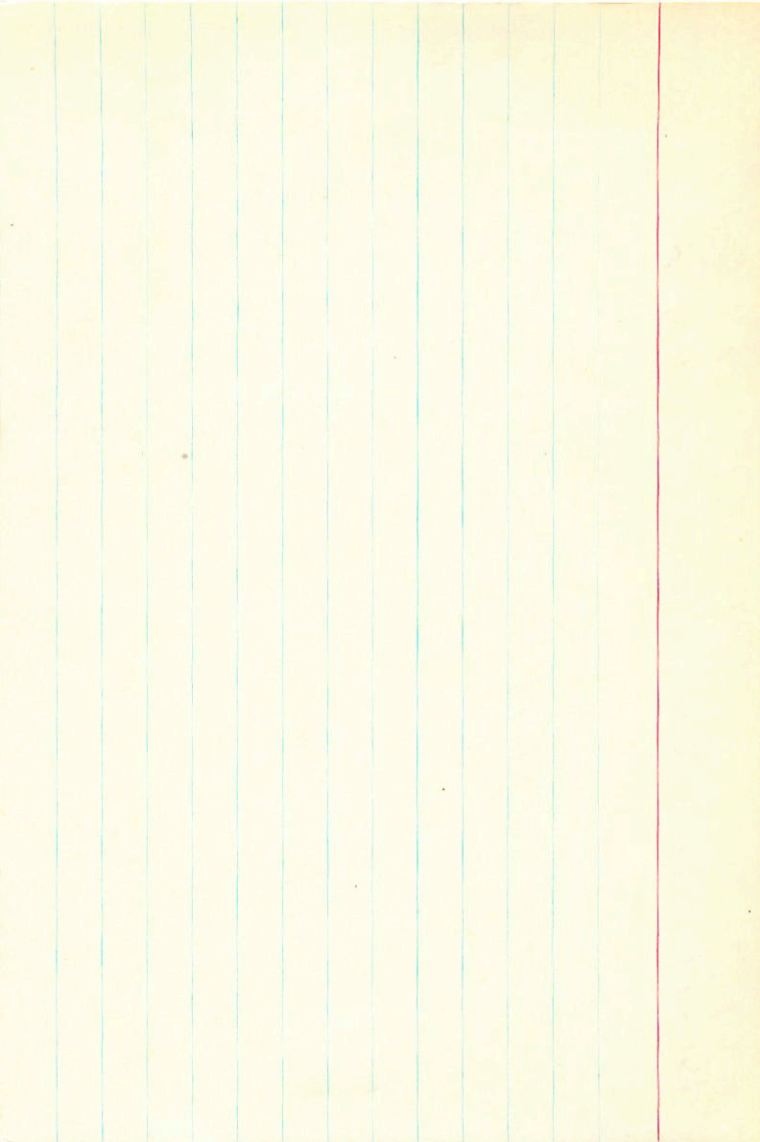
$$\frac{-10}{575}$$

$$\frac{+7}{6.96}$$

$$\frac{37.6}{37.6}$$

$$\frac{506}{+073}$$

$$\frac{7.19}{-21}$$



BOS103735

-0039 ±23 -033 ±2.0
-0028 -038

196629 20 35.5 +31 21 6.4 dA5m +1.16

28715

12910 30694 1895.1 +31 20 47.77 1890.0

214
910

1.98
49.75

30.785
778

47.79 1940.52

1597
798

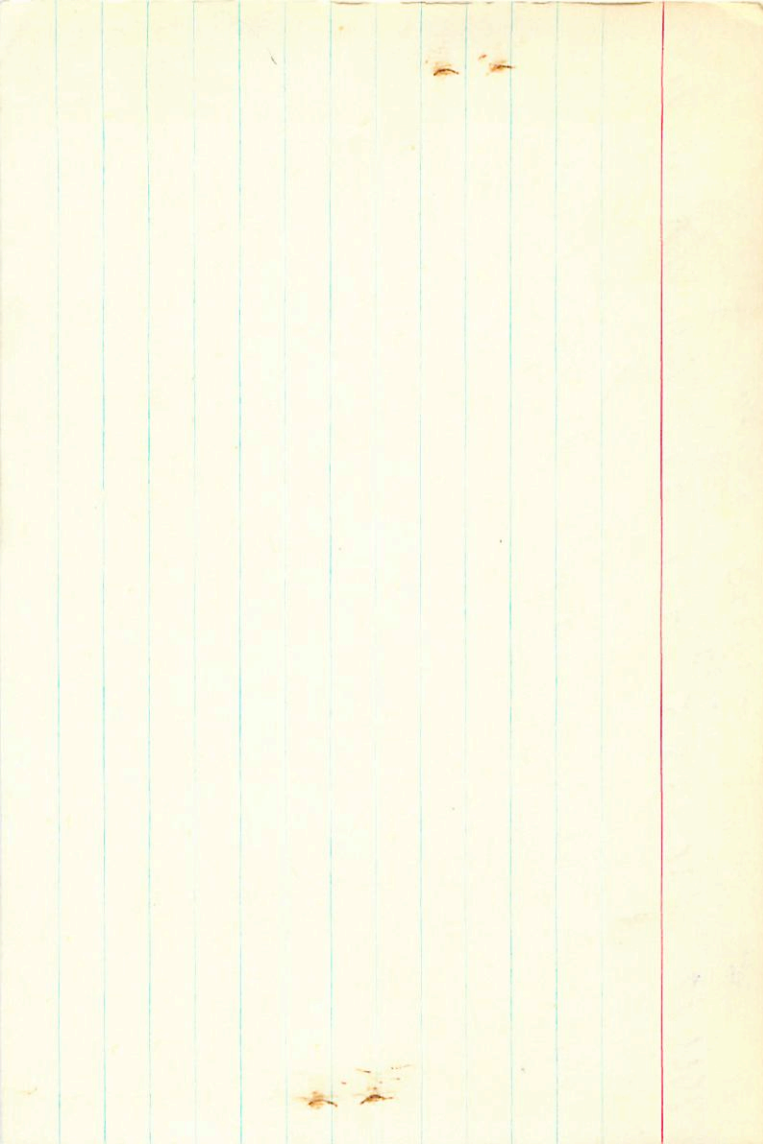
77.77 632

432
30.819
819

48.8 1929.7 702
35.7

45.1

-25
10.555
48.14
-1.59



7888

20

35.5

+25

08

6.04 140 100

9.5.78

1006-044

120

+3

1004 = 1004

3
1
4

3
1
4

18

7588.000*

20.000*

35.500*

38.000*

8.000*

0.004*

-0.041*

5.000*

100.000

-36.500

-0.139

-0.200

+0010±5.9 +098±5.0
+0028
+033

+0.0025
+0.005

35.0 20 35.0
06.3 gmb-66.28

28720

12911

$$\begin{array}{r} 37.745 \\ -0.45 \\ \hline 37.295 \end{array}$$

$$\begin{array}{r} 19049 \\ +18 \\ \hline 19067 \end{array}$$

$$\begin{array}{r} 32.07 \\ +0.5 \\ \hline 32.57 \end{array}$$

$$\begin{array}{r} +086 +067 \text{ BL} \\ +033 +067 \\ \hline +119 \end{array}$$

$$\begin{array}{r} 28.02 \\ \hline 28.02 \end{array}$$

$$\begin{array}{r} 37.798 \\ 0 \\ \hline 37.798 \end{array}$$

$$\begin{array}{r} 28.84 \\ +2.1 \\ \hline 30.94 \end{array}$$

$$\begin{array}{r} 29.05 \\ \hline 29.05 \end{array}$$

$$\begin{array}{r} 37.780 \\ 0 \\ \hline 37.780 \end{array}$$

$$\begin{array}{r} 31.5 \\ +1.58 \\ \hline 33.08 \end{array}$$

$$\begin{array}{r} 28.77 \\ +1.4 \\ \hline 30.17 \end{array}$$

$$\begin{array}{r} 792 \\ 0 \\ \hline 792 \end{array}$$

$$\begin{array}{r} 28.77 \\ +1.4 \\ \hline 30.17 \end{array}$$

$$\begin{array}{r} 790 \\ \hline 790 \end{array}$$

$$\begin{array}{r} 28.91 \\ +1.4 \\ \hline 30.31 \end{array}$$

$$\begin{array}{r} +090 \\ 598 \ 657 -458 \\ 102 \ 504 \ 657 \\ -794 \ 500 -234 \\ \hline 4109 +2024 \\ +0172 -11553 \\ -1336 +1725 \\ \hline 3033 \\ 1725 \\ 0390 \end{array}$$

$$\begin{array}{r} 300 \\ +91.0 \\ +51.8 \\ +11.6 \\ \hline 453.4 \end{array}$$

$$\begin{array}{r} +30.3 \\ -56.7 \\ \hline -26.4 \end{array}$$

$$\begin{array}{r} 14330 \\ 278 \\ \hline 14608 \end{array}$$

$$\begin{array}{r} 36.4 \\ \hline 36.4 \end{array}$$

$$\begin{array}{r} 27.7 \\ \hline 27.7 \end{array}$$

314

+33447

2662

596 657 -461 +0932 +2086

105 506 856 +0164 +1607

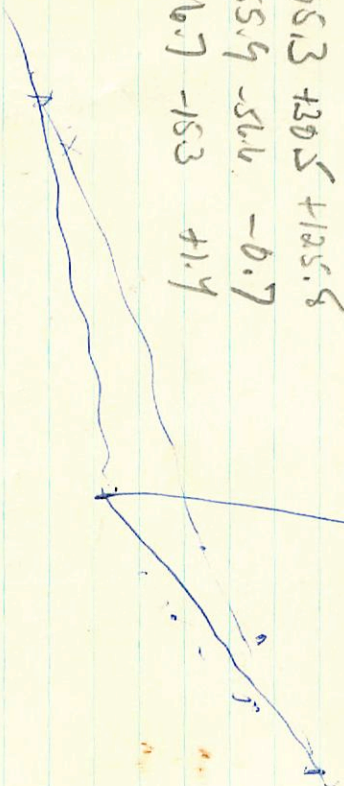
-746 559 -232 -1245 +1775

+2018 +95.3 +305 +125.8

+1771 +55.9 -566 -0.7

+6530 +16.7 -153 +1.9

9961



196673

Aug 140th

• 33.8

01

w/2915

8^m 3¹¹ 20

35.7

+33 12

7.1 No. 642 -27

+3203883

-25.494 254②

6628724

6.98 +1.12 +0.94 4 20°

+0014 ± 5.7 +011 ± 3.5

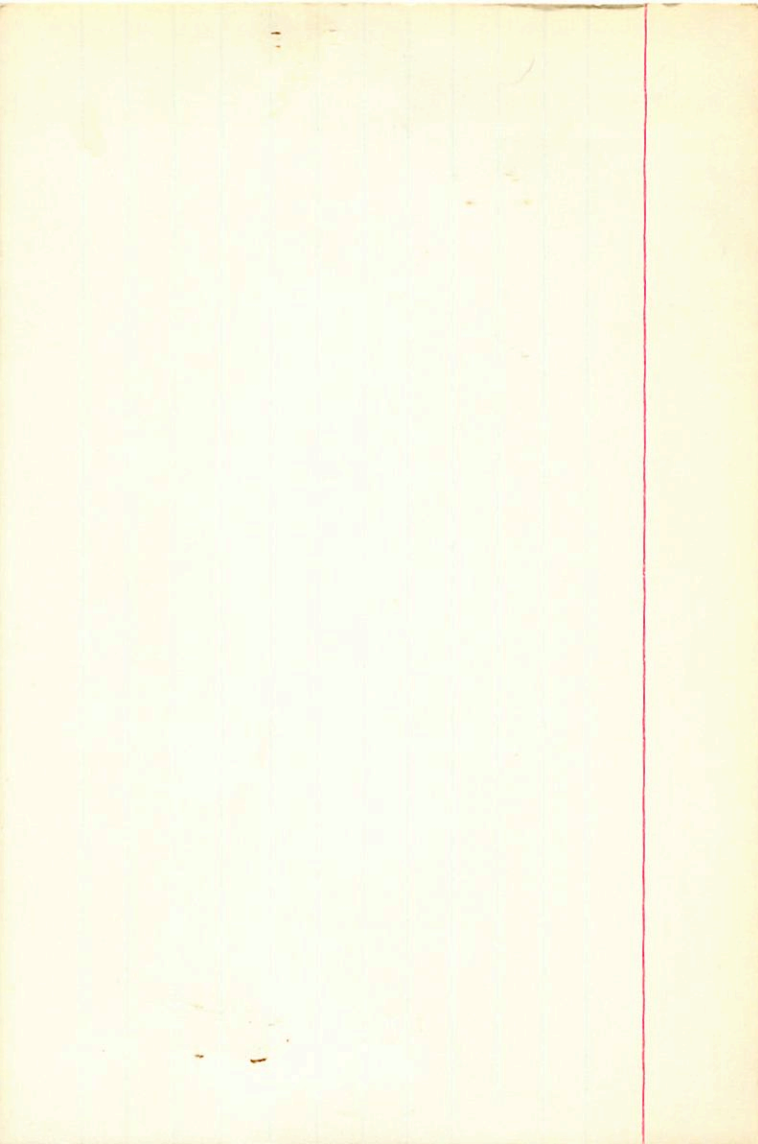
44.613 1403.0

-1 +4 27.24 1888.4

+0018 +015

+022

88
177
174
174
174



196673

20

35.7

+33 12

NO-13a 2- -270

AD514078

7.4-8.1
3'

6.98 +1.12 +0.93 4 20"

+0018 +015 GC →

+022

P=4000 d

2.54

1

sp

19



196673.000*

20.000*

35.700*

33.000*

12.000*

0.022*

0.015*

5.000*

100.000

-27.000

0.116

-0.268

18.858

BU Del 20 38-6 +18 06

E=+05

ARRIVE

6.18 +1.52

66.26 +036⁶ +067⁶ LB

~~-1.32~~
+034

+3

9.61 +034
+2 90

5.8 3.6

+1.52 +1.54

+1.10 may

365 201
1605

327
307
120
157

6.9

3.5 1.55
20 1.35
1.15
1.50

39
64

6.9

BU Del 6.15 +138 -10.57 -5.5 +126 -1 +1 +33 -66.2 6

HR7886 3.9 +142 7.5 +30 +18 +5 +67 MUII -14

20





6.000*

20.000*

15.000*

10.000*

371 155 522-2624 +0385 ±7.1 -1515457
 112 308 448 +0447 -161
 20 358 -75 32084 -141 6-12 -12.5 ± 0.5 (4)

196067
 28727 6.02 +6.2 6.52 -11.2 ± 1.0 (5)

7.1 } 7.20 393 179 635 2626 +037 +2.208
 7.6 } 7 299 589 140

28727 50.120 1897.4 -75 31 34.70 1898.6

-2.04
48.076
 9.27
25.43

51.187 +0 44.16 1927.67 206
 59.145 0452-155 20.00 -75 30
50.332 34.526 6.55
 49.483 30.174 1.57
 48.73 3.8

9480 5708
 2883 -8211
 2225
 0450
 +8.73
 0244
 3.06

162
 114-151

-12

(-14.1)

40442

4044377.1
40464

46576.4
447

456

51.722 1896.7

75 31 18.34 1894.1

-2.361

49.361

9.12

52.589

27.48 1922.67

59.100

56.24
3633

51.684

11.00
16.48

50.843

88.209
77
128

2.50
3.96
13.18
14.06

1441

2

29 11.5
-0.793
-0.272
-0.546
-414.135
-17,284

53 11.5
0.100
0.825
-0.556
-536.946
-24,230

101 11.5
0.691
-0.495
-0.627
835.629
55.614

525 11.2
28,600
-75,500
650,000
-157,000
3,800
58
-12,000

CHECKSUM ERROR

72

μ out

196051

20 35.9

-76

22 FSTW

-36 ± 2

c₁(7)

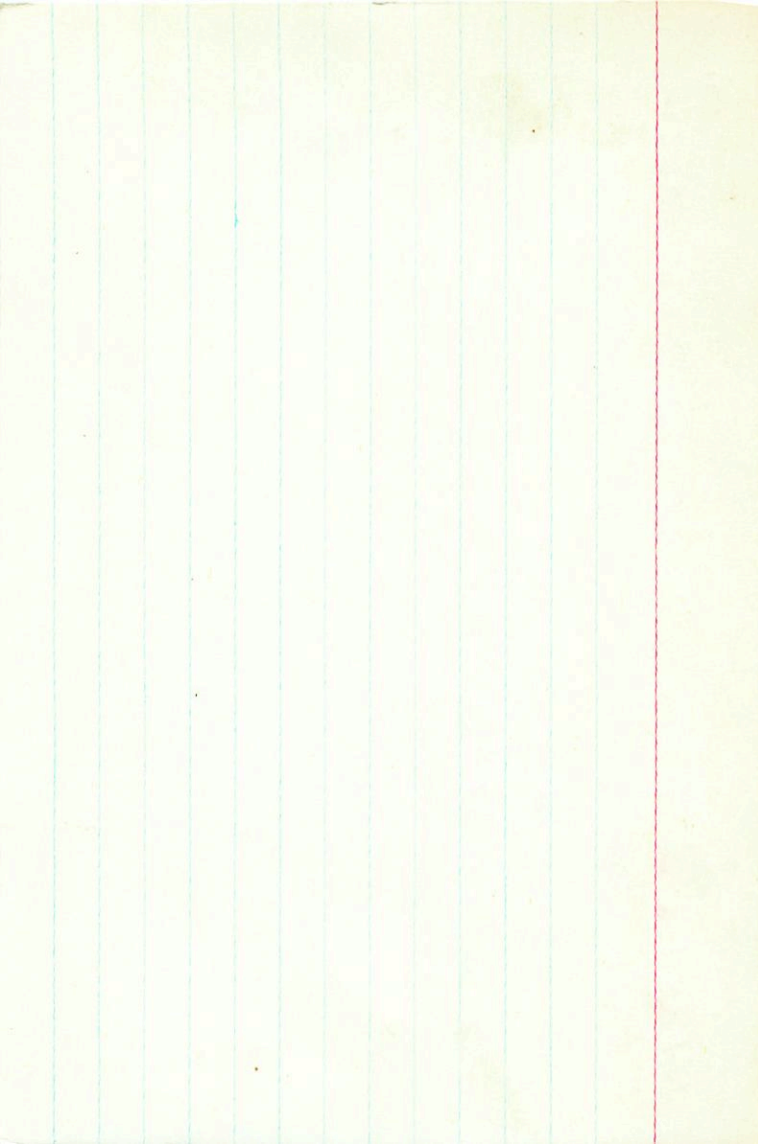
28731

6.00 ± 45

2.17
2.14
4.9

+0577" -007" N30

+0581 ± 3.3 -009 ± 2.9



3 Apr

194878 20 35.9 -40 43 F84

H07875

GC28730 5.10 +53 -02 295 -

136 A

[m] 219

134 +34

350 146

368 2.644

512 353 144

376

278,8,2

H 515 254 136

372

[5] 284

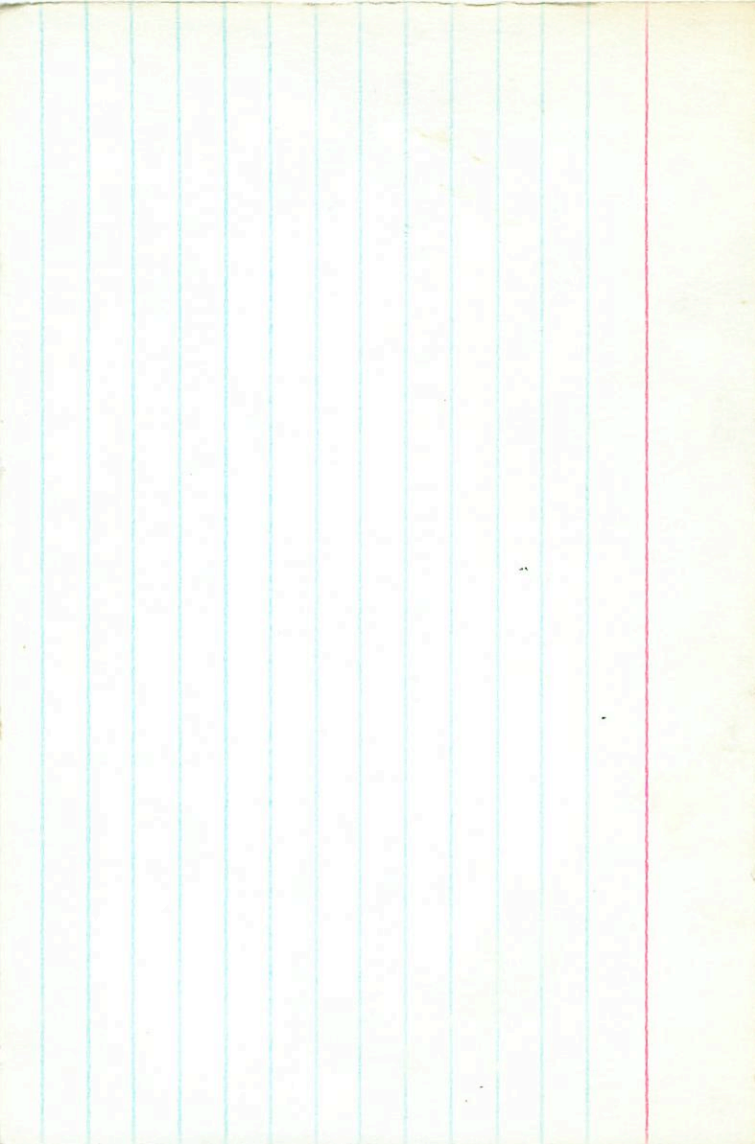
345 132

1.90 465 -47 -2 +0430 -21.5

+18 -24 -9

-568

1100



00514056
196531
28733

+0079 ± 106
+0084
-28
36
-014 ± 12.2
+021
F8V
-32.6 ± 08
9(14)
7.94 + 53

0.555 1903.9 -28 36 9.50 1905.0
-364
191

29.344
31.102
0.446

59
15050

24.060
36.413
0.473
-9
-20
444

33.7

949
474
+283

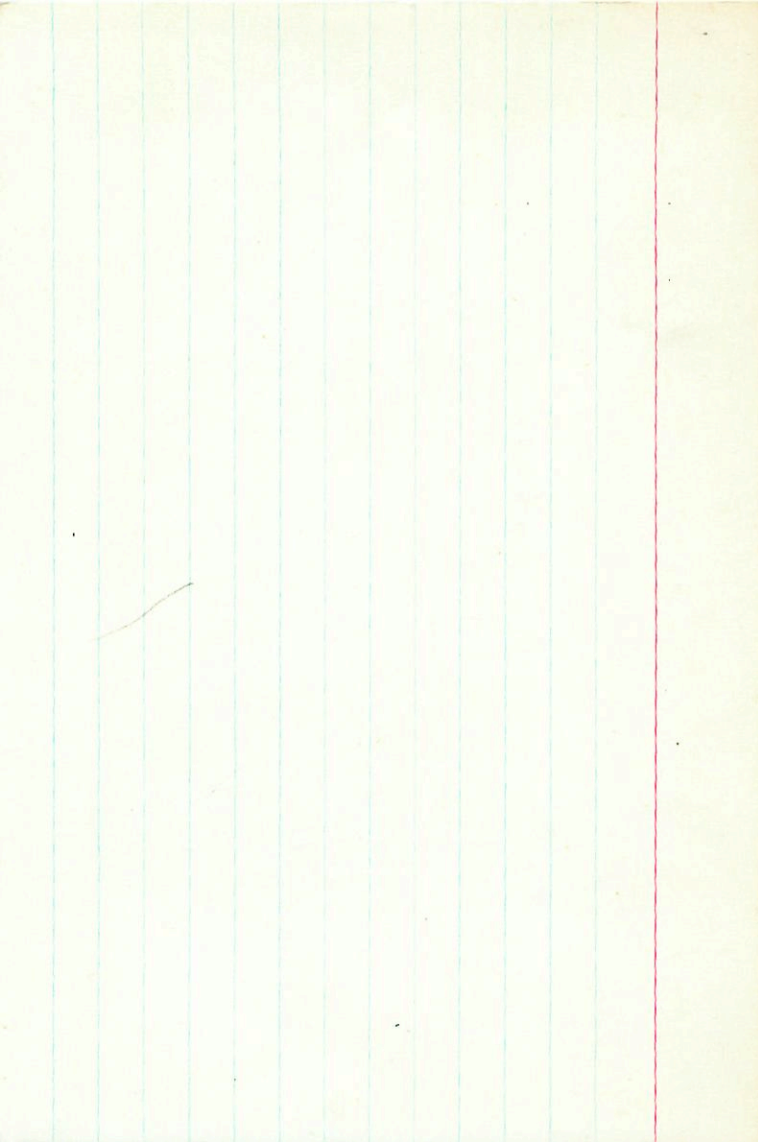
.63
8.87
22.40 1933.96
12.80

9.60
128
8.32
1.4
8.36

8.17
+1.70

13.85 194119
5.77
8.120 / 7.98

7515
37.60
32.6

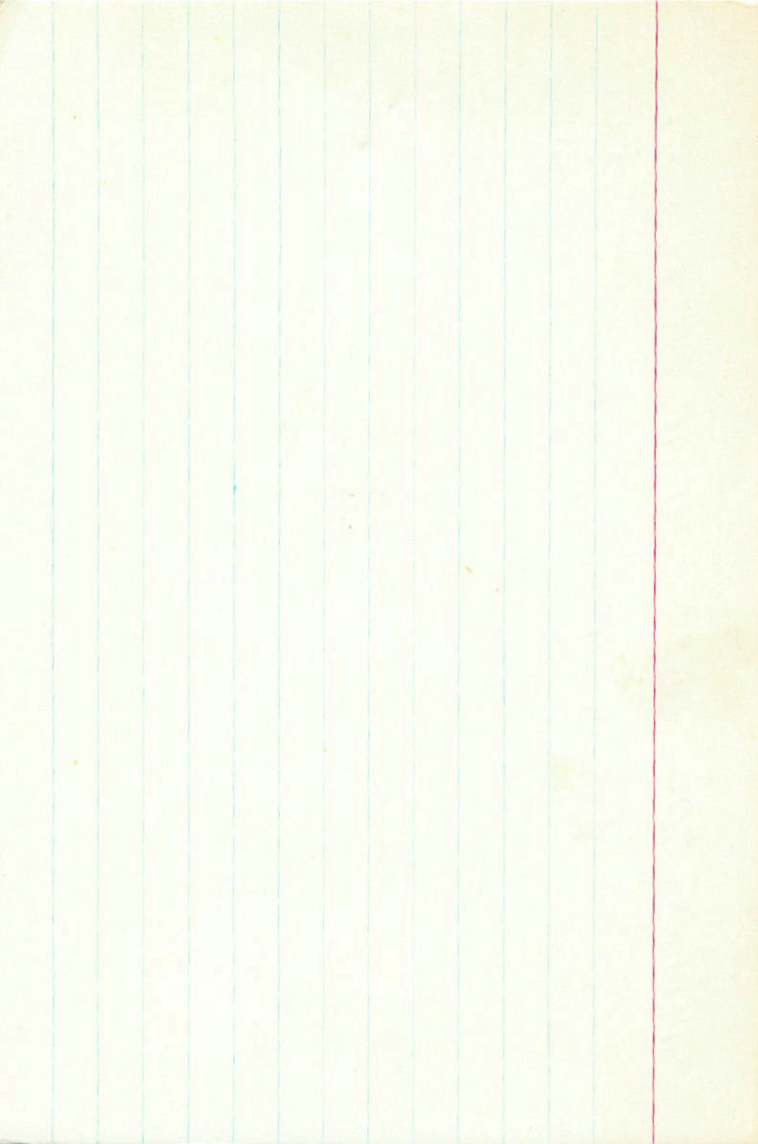


-41014155 20 36.6 -41 10 8.6 FO 0 ± 7

2 skewing

8.82 70.29 (1.60) 2 meter

408 (4) 0 m



K del

196755 (754⁰)

W2930 (35⁰)

FC28765 (B)

F4912 (19⁰)

7904600 (4602⁰)

+60	-34	-6	.030
+57	-29	-8	.038
+48	-35	-6	.050

20	36.7	+09	55	-52.0 a
5.04	+0.72	-	599 (12")	-52.62 (15)
5.02	+0.74	+0.19	C-5-IV R	-52.98 (15)
		s = .13		-50.46 (10)
				-53.45 (11)

B 8.55 +0.92 - 699 (12") B -52.98 W (13)

+0216⁵⁵ +017⁵⁰ N30
 +0212 ± 16 +018 ± 1.460 → 470

	+316	+016	
A	+313 ± 2	+015 ± 1	GC
	+319	+017	N30
B	+309 ± 5	+024 ± 5	GC
	+344 ± 8	+016 ± 7	Y
A		B	

1544 (4)	
174 (16)	6M (6)
20M (15)	2044 (14)
347 (10)	—
2225	13 ± 10

11 Sep
7896

⊗ ⊗

20 36.7 + 9 55

65 IV

W₂₅₀

156755

102211 10207

28756

5.04 + 0.70 + 0.235 4 102206 10194

435
31
183
275
+1.8

4.68 + 0.235 2 F

3260

328 1017

528

8.53 + 0.91 + 0.66 4 E

2.3

5.27

8.07 + 0.31 3 E

333

Previous
11-5-1994

625
195

17 3.2

-52.0

22

194

0.543
0.588
0.601

03 (U)
P1 (U)

RAD. VEL. :
MODULUS :
DISTANCE :
PM. DEC. :
PM. R.A. :
DEC. :
R.A. :
-22.000
48
3.200
17.000
333.000
2.200
20.000

R.A.	:	20.600
DEC.	:	9.900
PM. R.A.	:	333.000
PM. DEC.	:	17.000
DISTANCE	:	3.200
MODULUS	:	44.6
RAD. VEL.	:	-52.000

q1 (U)	:	0.601
q2 (U)	:	0.586
	:	-0.543

+2603943

20 36.9

+26 31

CTV +3.9

-009 +015 Rdy

-012 +012 -962

-006 07

-004 -003 Y 960

-012 +012 R →

-010⁵ +004⁵

-006 +007 → 3h4

-001 -001 AG03

-003⁵ +003

000 000

-001 -001 AG03

23

16. 1
501. 1
500. 3

125. 1
*000. 1
*000. 2
*000. 3
*000. 4
*000. 5
*000. 6
*000. 7
*000. 8
*000. 9

000. 1
100. 1

100. 1
200. 1
300. 1

100. 1

100. 1
200. 1
300. 1



-0.109

-0.150

-18.895

26.394*

20.000*

36.800*

26.000*

31.000*

0.000*

0.000*

5.000*

100.000

3.900

-0.000

-0.351

-1.371

0.000

0.923

3.601

0.000

-0.155

-0.603

23

1052

20 36.8

-52 52

-42.9(4) 65

196877

847(10)

832(10)

686(7)

80±6

44924

8.83 +1.31 (2.30) R7E

8.62 +6.13 R

+ 84

-1071 CR



24

1 Apr

1111111

196758

20 36.9 +00 19 5.4 969 -42.78

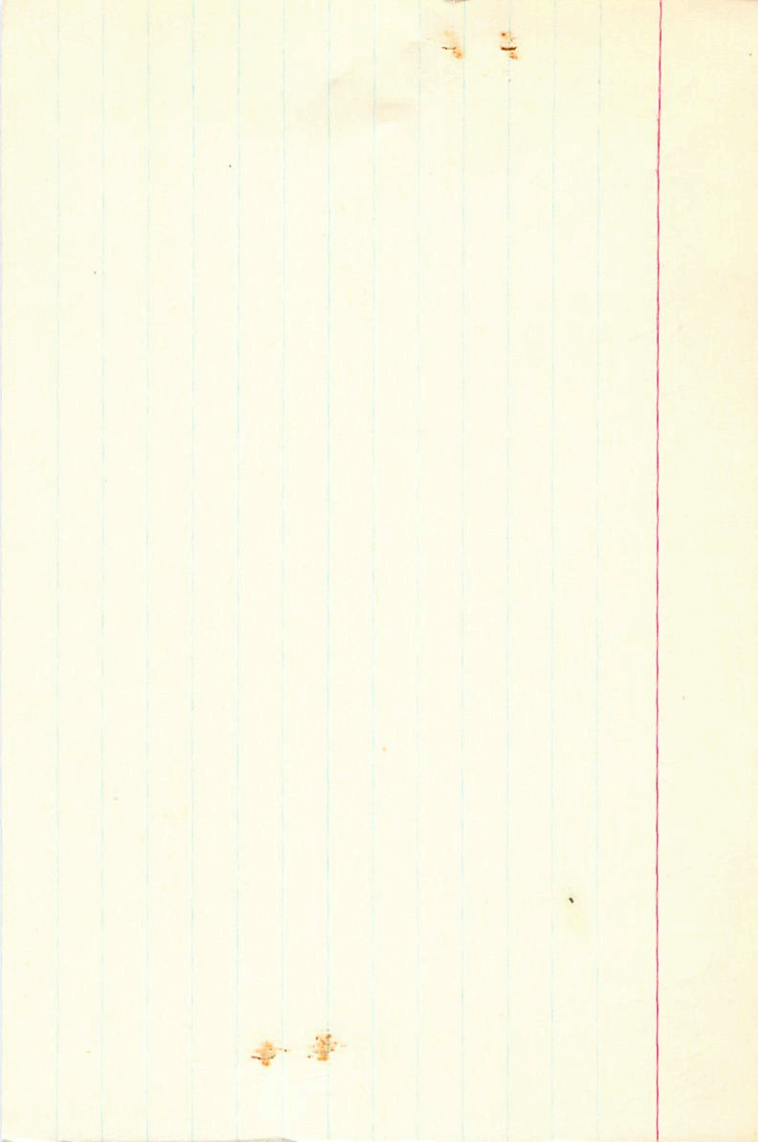
28761

12933

+0062²³ -013²² N30
+0066±2.1 -012±1.566 → N30

A0514106

421 (10)



+12.86

7504 . 20 02 . 6092 5.71 14.5 ~~11~~ 112 ~~11~~

630
~~227~~
403
~~14~~
586-05860

25



7904.000*

20.000*

36.900*

30.000*

9.000*

-0.037*

-0.054*

5.000*

100.000

12.800

-0.294

-0.305

-33.345

-0.097

0.945

2.400

-0.015

-0.117

25

29 75.2

20 370

+21 88

70

-728 686

607 217

7903

618 756

19622

~~-0610~~

609 -08 -12

618 756

1001 1001

117 1017

112 1020

117 1017

117 1017

112 1020

112 1020

112 1020

224

224

224

1.244

1.244

1.244

20.6

20.6

20.6

+21.6

+21.6

+21.6

+33.5

+33.5

+33.5

1801

1801

1801

7956

7956

7956

-7381

-7381

-7381

2341

2341

2341

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

1001 1001

57.235
-0.55
1.83

10010.7.1
10022
+0018

10014.7.1
10023
+1200
23.90
76
55.7

1.83

10017

23.14

10024

57.290
+0.22
-0.003
57.287

10017 +0.2-1
10020 +0.24

24.30
-0.6
19.70

+0.28

-0.2
24.22

+0.31 +0.21

57.243

24.05
-0.4
19.28

+0.602

24.01

57.241

2





13
A

13
A

20.600
21.600
33.500
21.000
6.800
229
-31.500

0.601
0.684
-0.413
156.837
48.952

0.100
0.449
0.888
59.417
-14.354

-0.793
0.5-

0.880
-25 -24.050
-0.060
-0.205
76
-2.361



26

1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000

+0010 ± 7.1
+0022
+034

196821 20 37.0 +21 38 5.9 A0 -30

28766 79 75.2

A0011 82

12936 57.238 18943 +21 38 23.90 18957 84.1

-7275
-056
182

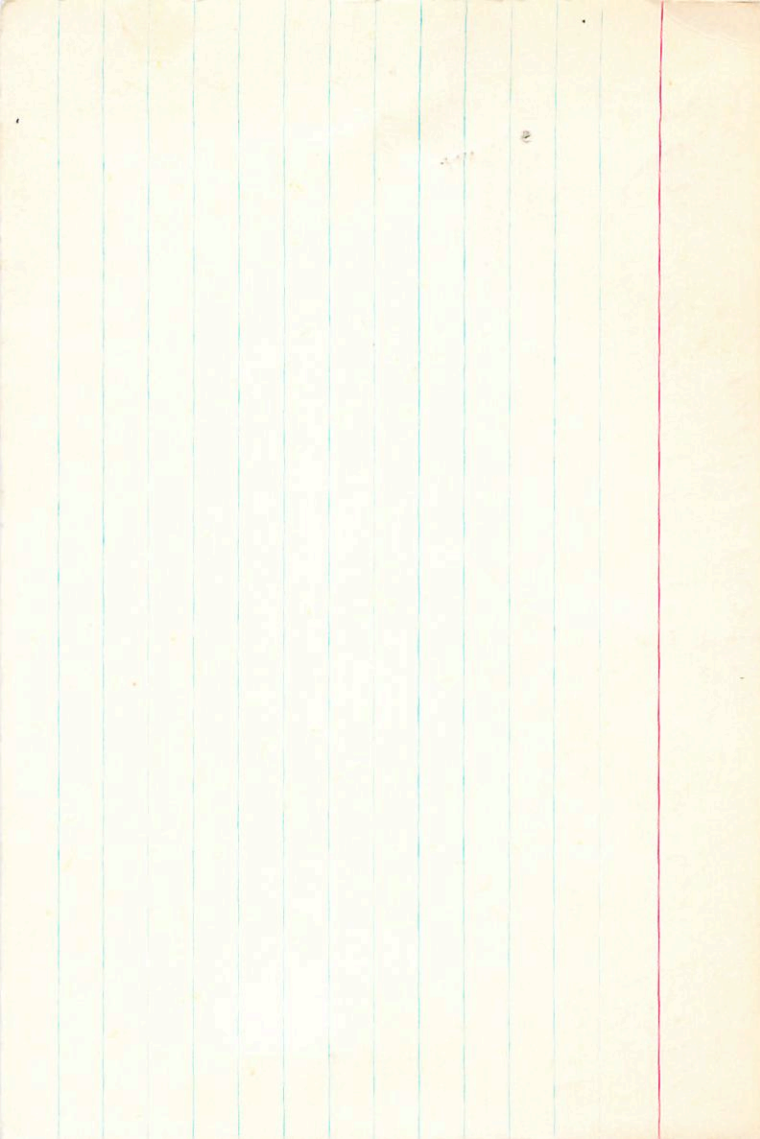
6861 57.281 0 26 23.79 1933.9

6177 57.243
+2
245

24.05 1928.72

0823 263
245

-0026 +081
24.01 62.62
23.99 81.3
+1.85 35.6



196227 20 37.1 -76 43 GIV $+21.1 \pm 0.9$ ⁽²¹⁴⁾

7.66 + 59

+051 -133 $\gamma \rightarrow$



7893
196737

20 37.2

+0022±38 +036±4.1
+0031 +040

-33 37 5.5 122 44.28

28776

12940

11.908 1906.9

-33 36 36.72 1907.1

$\frac{117}{.792}$

-1.54
~~38.26~~

↳
Wh
Very

11.978
-37

36.98 1941.55

+9

947

9998

+2.5

36.89

49.5

(-12.6)

36.56

113

(42.4)

MV

+1.70

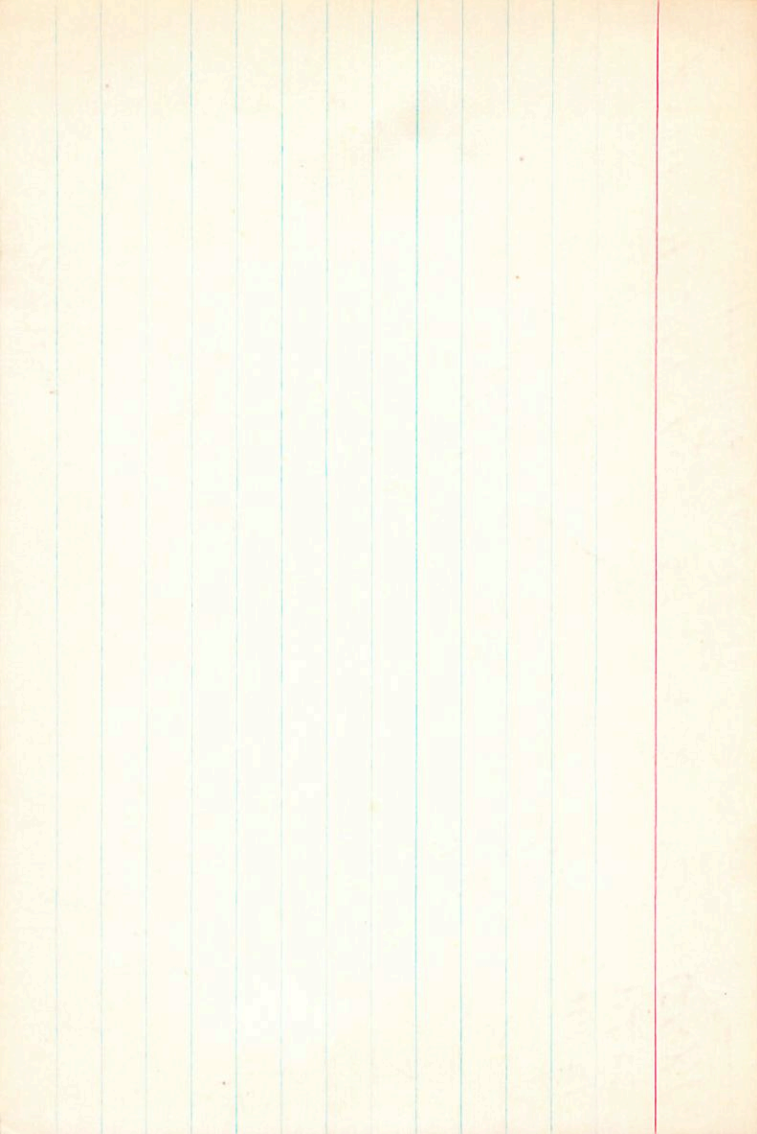
11.913

36.19

1957.53

-3
910

-5
36.24



196882

1051423 0.2 = 16
9"

GC287E1

W12944

Y4925

T2104307

20 37.3 +21 33 GKY -111C W(15)

P.49 +0.84 +0.60 R315R

$\delta = .12$

W(10.8)

near

+84 -81 +21 .003

+020 +012 GC

+01455 +02855-4

.017 .020

A+013

B+003

McR

13 F10A(10)

20.858 19008

$\frac{-069}{789}$

20.831

833

$\frac{421}{+032}$

(283)

20.81

809

+0014 ±5.4

+0011

+012 ±33

+022

+21 32 36.82 1890.5

$\frac{-71}{36.11}$

37.20 1928.72

37.16

37.0 1929.6

$\frac{-27}{36.76}$

38.1

(38.6)

36.56

+85