

21535
 15 59.5 -01567 38095 -091=46

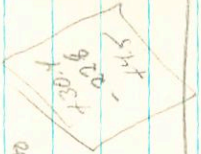
P2 27.125 1503.5 11.48 1898.2 736 73

711
 836 -0
 1471
 6.77 -0152 -51
 -01485 -068

-0139 -082
 -0137 -076
 → N30

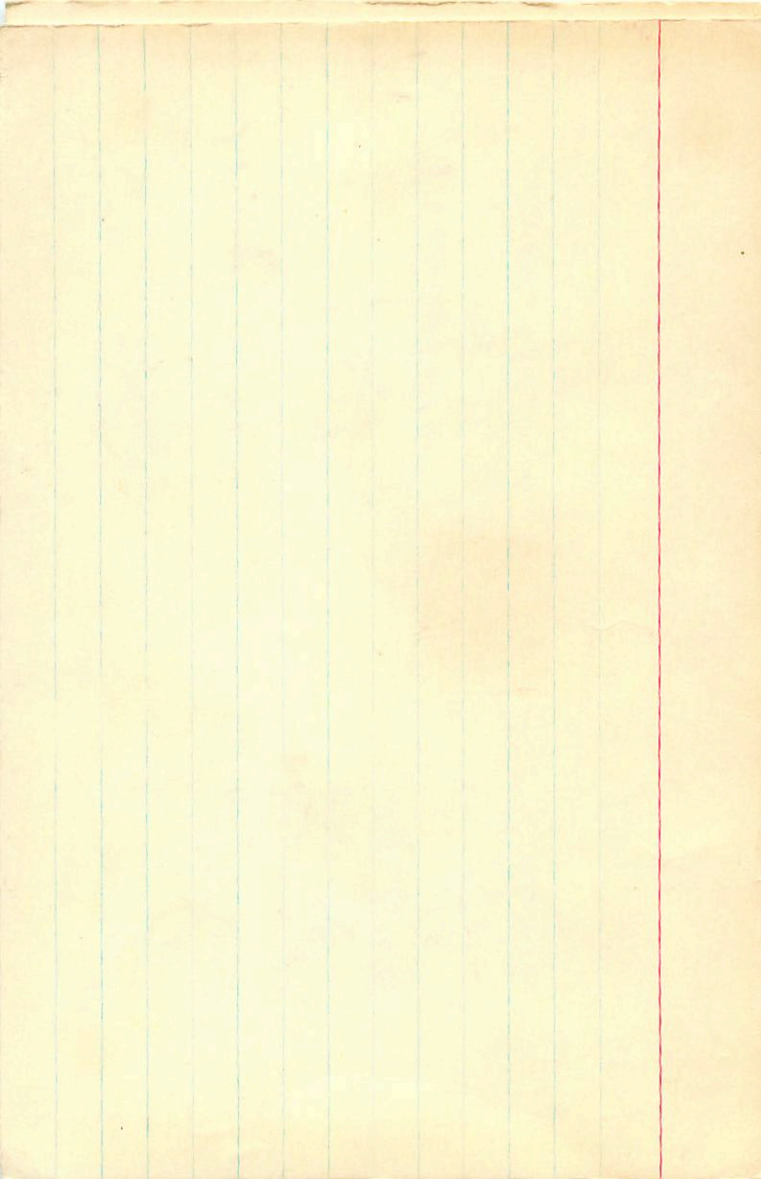
27.313 10.10 19410.00
 -27
 286 -111
 -550

123
 111
 120



-111 -079 - 3.57

11989 +1520	30.5 pm	22.2 pm
-3430 -1447	+3509 +10.8 +10.8	+21.6 +22.1
+3450 -2809	-5377 -16.6 +17.2	-9.4 -9.8
	+1047 +2.0 +10.9	+2.9 +3.0



6.4
16 00.3 -25 44

9.15 -35.0 W

443287

HR 5969

4.80 +1.27 c

-0.22 -0.46 c

-0.65 -0.40 ✓

-0.65 -0.35 2

-0.67 -0.40

4.570
10
18.987

2.16

19.203

3.1k

19.081

-2.2

19.059

-0.52 2.5

-0.53

-0.48 -0.40

-0.52 -0.46 1.43

37.30

-0.51 -0.40

-0.42

-0.495 -0.381

37.60

0726

0727

0728

0729

0730

0731

0732

0733

0734

0735

0736

0737

0738

HR 5969

376
352
376

376

376 + 0.46

376

6.22

15.906

+ 1
907

3723 81

3723 81

3723 81

3723 81

3723 81

3723 81

3723 81

3723 81

3723 81

3723 81

3723 81

1339 - 9212
2774 + 3890
-289

$\rho_c = -35.3$
 $\rho_{nd} = 4.85$

70.2

39.39
-57
39.7

-864-500 -434 501 -067-040-35.0 017+17 -171

-058 015 033 005 -237 255 -85.1 +18 +30 013

0 +47 +4

+43-17-4

014

+1 +46 +5

+42-17-4

015

+2 +45 +6

+43-16-4

143787 16 00.3 -25 44 5.1 9185 -39.00

21556 4.97 +1.25 +2.32 2^m 24^m +0.88118

9221 35 30

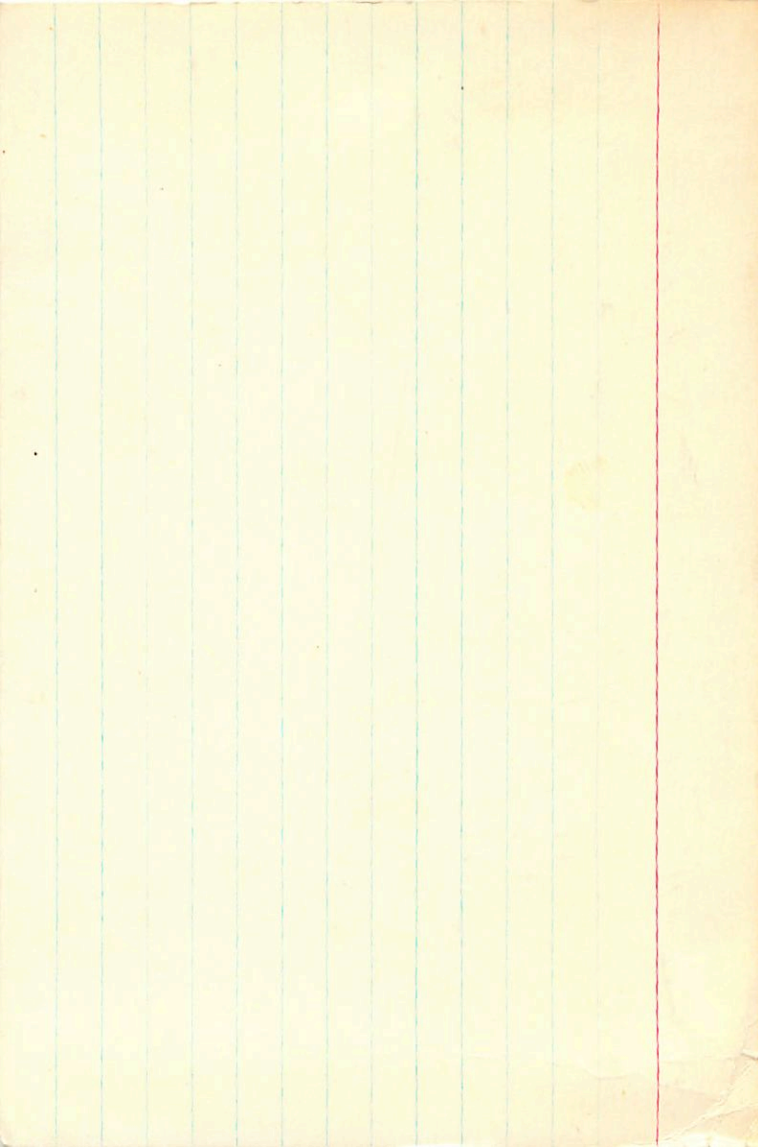
0048 -040

-0050 ± 2.5 -04 ± 2.66 ± 0.30

6342. 9209

= 1735 - 13899

1750 138 1000 My



-0011573 -005 ± 0.1
-0015 -025

143992 16 00.6 +22 23 6.9 A3 -35.08

21564

9223

36.360 1901.0 +22 22 35.12 1799.6

$\frac{054}{414}$

$\frac{125}{35,37}$

36.353
 $\frac{9}{362}$

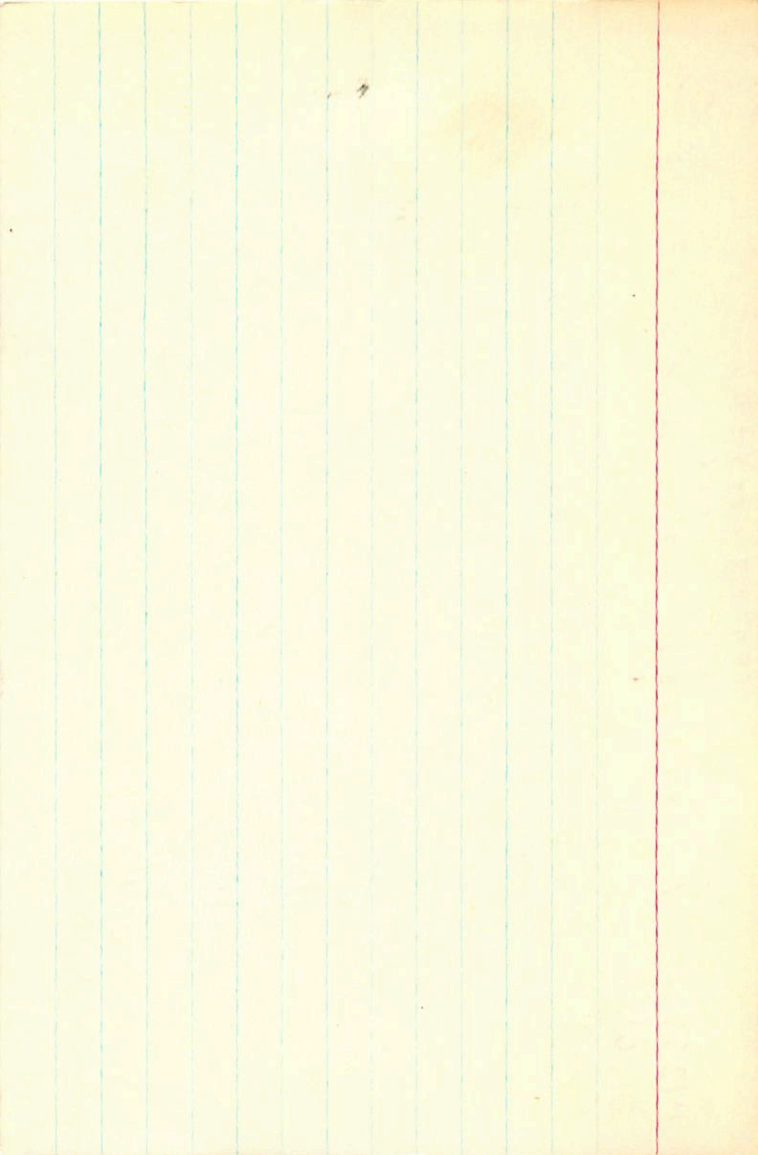
3464 1934.4

36.366
 $\frac{+9}{372}$
 $\frac{365}{-046}$

$\frac{34.59}{-5}$

30.4

3478 1928.38
 $\frac{-23}{34,55}$
 $\frac{34,57}{-1.80}$
62.78
31.4
31.8



-0004 ± 2.5 -04152.4
+004 -046

144204 16 00.8 +53 03 4.29 125 -6.80

21569

9225 48.785 1894.9 +53 3 14.09 1896.4

022
807

10.56

38.233

48.785

8220

8225

809

1000

+1002

48.783

105

504

48.780

149

79

44.9

2.510

10.122

14.78

62

15.740

-146

15.2

14.63

-349

14.2

14.50

1927.0

1129.22

39.5

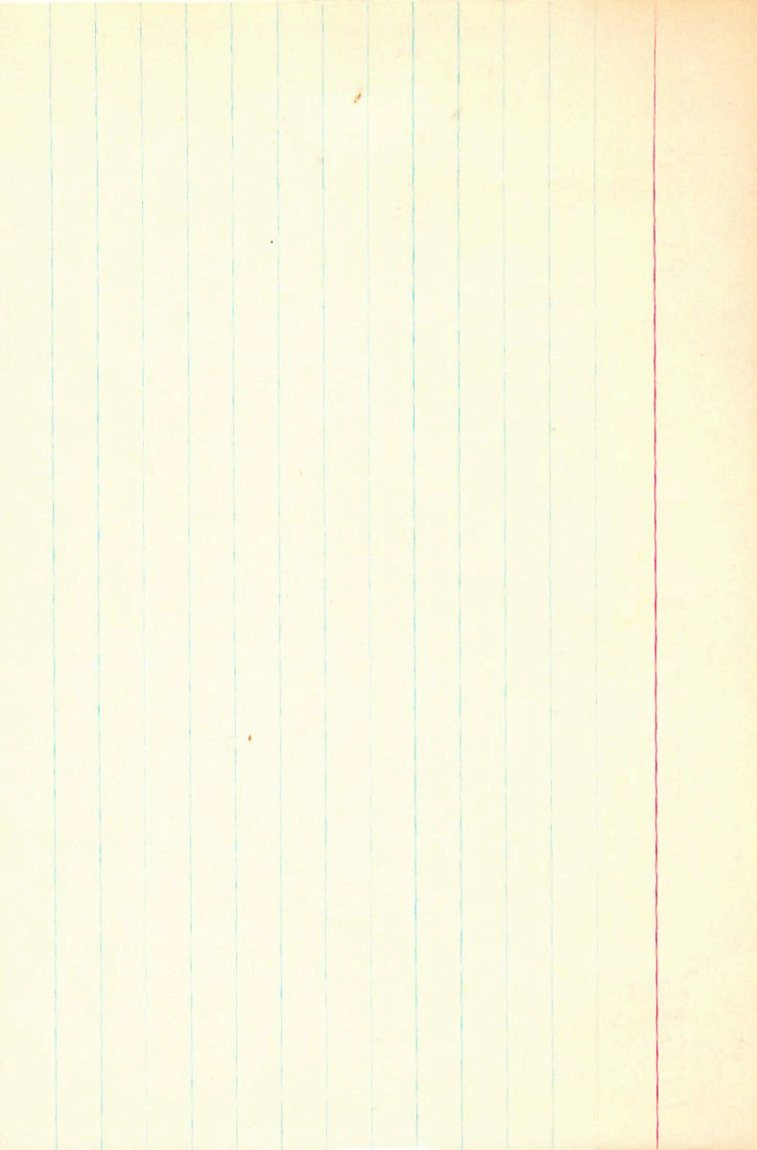
43.4

14.25

-2.01

1947.29

-214.29



VHER

HR5982

W9229

76 4-5

16 01.2

+46.10

B9p +2.78

4.60 + -0.02

+054 -06760

+050 -066A

+052 -066

953

PR5 SMP

+04661

058.5 -058.7

+052 -0630 → N30

+051 -065 FR3 → N30

+052 -064

74

112

-378 +904 -200

+652 +414 +635

~~+657~~ +110 +744

-0932 -2742

+1607 -1256

-1620 +0334

9710

-2430

7535

6575

0827

-0058

+0484

+052.5 -063.5

-33

160

+462

#76

-63.5

5.25

+3.5

-27.6 -0.5

+2.7 +1.7

-12.9 +2.0

-866-880 722 632 -4052 -066+2.7 -048+1.9-215
045-042-026024 099-322 +1.9 -1.0 -1.6

+5.9 -33.5 -20.0

-35.2 +4.4 -11.5

+5.6 -23.1 -12.6 0.15

-25.7 +3.5 -7.0

01

F 6110

1.59

25/100 Hz mm 16 01.2 496 11

5482 4.76 71-32 5 44.4

144206

-032 104 954 2.753 2

0.4

+25
+in

q

94

~~188~~

2158

+6

948

-032 104 954 2.753 2

10515 -064

-31 110 954 2.760 36a

10511 -0634

Sif (9)

762

-32 105 761 30000

24

22

950

-32 106 754 2.755

10530

100 764

2153

10515-061

200 944

28

5982.000*

16.000*

1.200*

46.000*

11.000*

0.057*

-0.061*

5.400*

120.226

4.400

-0.363

-0.199

-35 38 42 -44.517

0.058

0.639

48 +9 +9 9.730

27 -0.147
0.743

-10 -12⁻¹³ -14.368

5.2
-46
+9
-13

933 1028^{112.1}

16.000

46.200

76.000

-63.500

5.250

112

3.500

-0.378

0.904

-0.197

-366.551

-41.818

0.652

0.412

0.637

38.626

6.563

-0.657

-0.112

0.745

-130.050

-11.983

28

144046

16 013 +05 07

G-9 III

W9230

6.08 +0.96 +0.695 (3) -42.5 (4)

5.58 +0.32 (2)

-139.2

.011 +43.2 -16.8 -12.7
4.75 +1 -1 +2

143796 602958 ? 12 012 -5-4 12 234 MSW

-26.1

715 + 185 + 517
5-9 + 1125

134
1023

571 1025

555
517
128
3
41/40

538
130
4
425

55
118
129
4
9/0

1746

-5.369

-0.052

-0.017

13.435

-0.537

-0.001

22.764

-0.842

0.002

-26.100

398.107

8.000*

-0.003*

0.002*

-12.000*

-56.000*

1.200*

1002-003

457

-113 -135 -99

46

143928

16 0.13 -37 44 FY 12-D

-6.2

FD1222

5.90 +0.40 (1.57) -0

GC21584

13^m 40"

-116 ± 9.5 -133 -122 ± 9.5 -094

18.326 19000 -0110 31.76 1899.5

580
18.906
-0113 -0115 -125 6.16 25.60

-0106 -0115

19.55 1928.74

39.413
39.1258
18.534
542

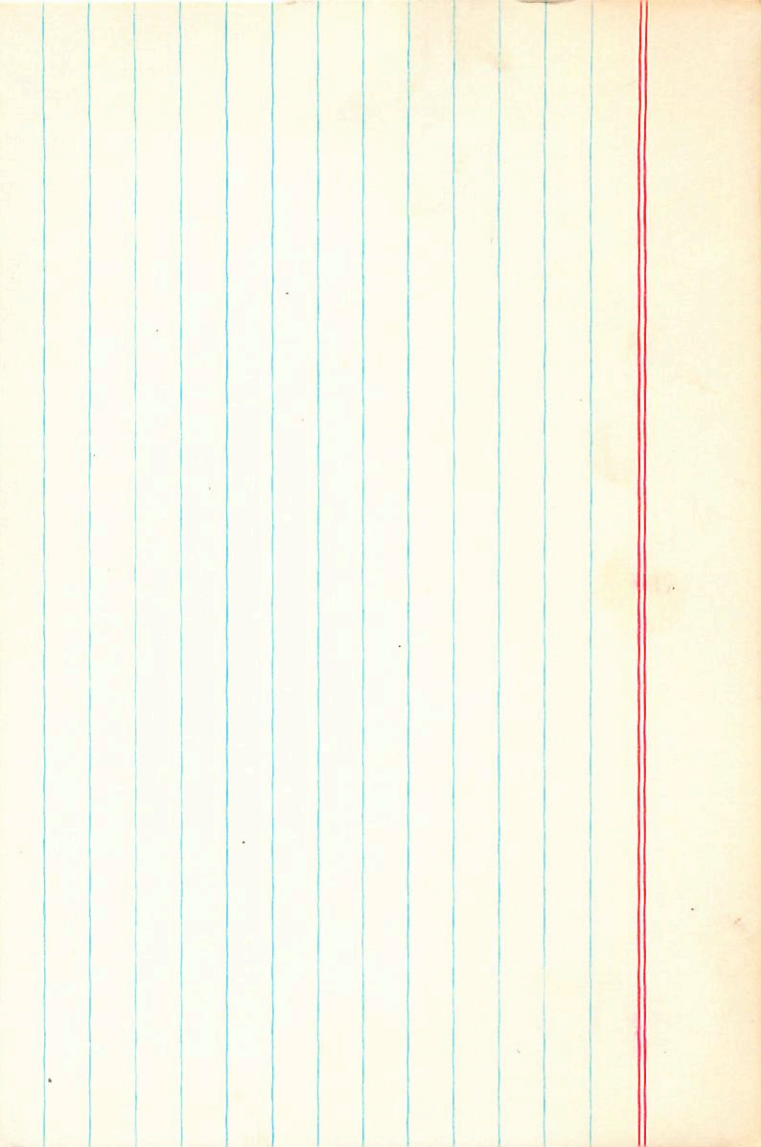
11.20
30.75
30.69

551
355

28.9 1935.6

18.53
20
560

6
88.96



Sp. B. P =

144208 16 01.5 +36 46 5.8 dF9+A0 -0.9a

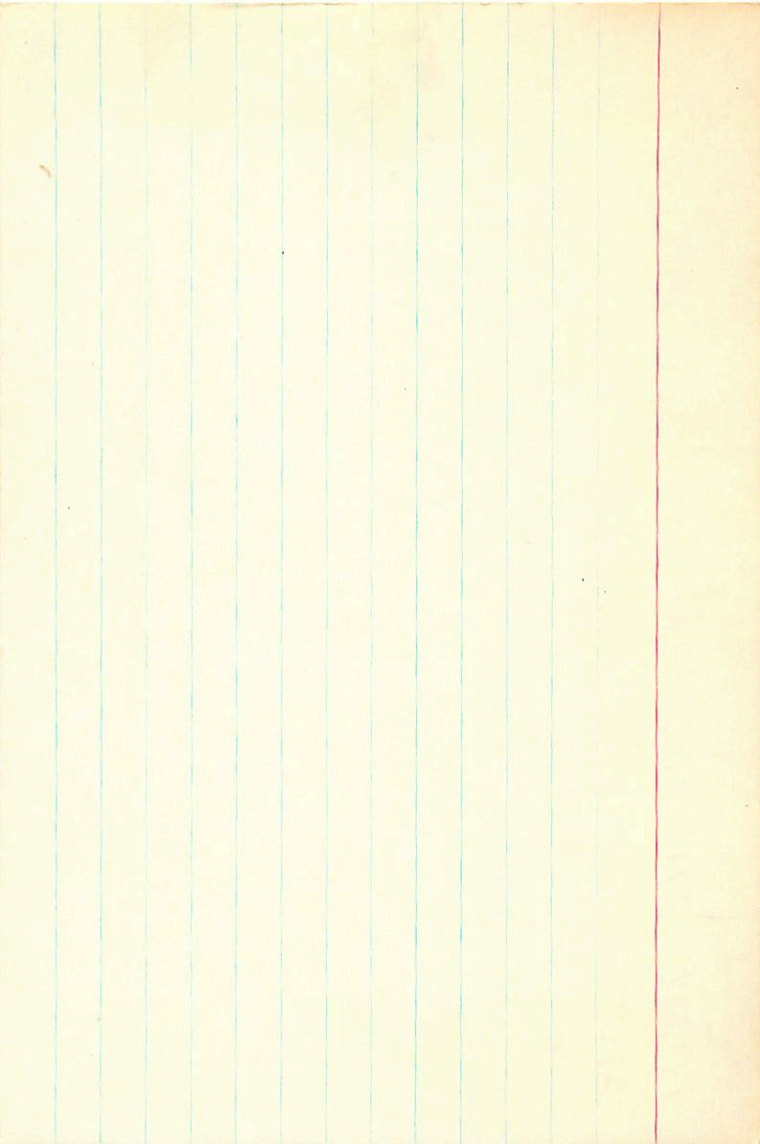
21590

9234

-0002¹⁸ -011²³ N30

+0004±3.0 -020±2.1 GC → N30

1.7 Obs.



RZ Sec
144018

-23012676
9237

15 01.6 -23 58 8.02

24
-174C
gm_{1/2}

LP(160)

1003 -120

031

-373 +120 -920
+650 +741 -168
-661 +661 +354

-0683 -43.1 +1253 +82.2
-4215 -266.0 + 29.2 -236.8
-3760 -237.3 -61.6 -298.9

144542 16 02.2 +59 33 6.2 Ma -4.68

21604

+8.00

9242

23
-0039 -034²⁶ N30

-0037247 -023±4.366 → N30

8
14
9

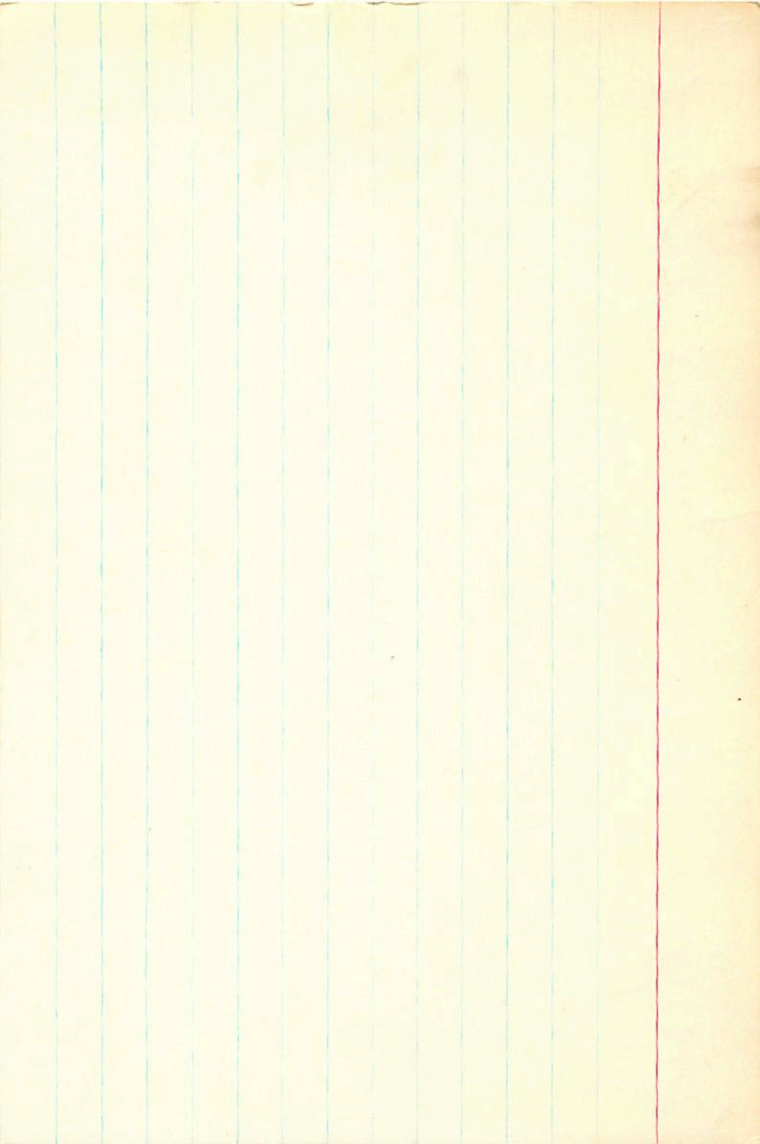
6.69 +1.57 +1.91

775

398 +0.455 -0.65

775

-322



982

16

02.5

-32 43

-264 (4) @ 5

144179

AB

859

7.74 +82 (1.90) RO II

init

759

85

890

7 3638

42 (17)

	-319	-179 CR
	-357	-231 CP

-358 -217 Y + U

-358.5	-215
--------	------

6657	-8720
5435	-4896

418
+0.12
+0.85
0.0651
0.43

6.81
7.5
7.64

119
11

un
7.8-9.5 MV

RR her 16 02.8 +50 38 -46

+0003 -057 New mri

+0001 -045 y
0 0

4.86 19148 T0002 -051
110 - 2 +4

0000 -047

194729

3.30
-22
3.08
1.88

0000 ± 8.2

50.671 1911.5 -057
-003 ± 4.1

316 ps.

druck
Ba II lin

+5002251

50643

19

662

0009

0003

-370 920 -131
650 356 664
-663 -142 730

-2050 -60 +6 = -54
-0793 -24 -31 = -55
+0361 +10 -33 = -23

~~Galaxies~~ by ~~NQD~~ ~~numbers~~

5 Nov 16 02.9 -45 02 / Jan -15.58

5980

4.78 +0.225

028

144197

4.72 +0.23 +1.60 24" S +004
19020 +001

+050 F
+022 G-C

216150
9250

56.894 1905.7 -45 2 22.00
-004 +002

+003 N30
+025

890

23.04

56.872

21.78 1938.96

94.60

(41.6)

1744

-10

47.3

56.907

21.64

1955.64

897

-15

(44.6)

2179

+1.21

21.83

-872 -484 -207 207 000 +000 -15.5 -021 +11 089

0 -018 0 010 -047 -085 → 140 +5 +10 026

$$\begin{array}{r} +7 -13 +15 \\ \hline -5 +14 +15 \end{array}$$

028

$$\begin{array}{r} -7 -13 +15 \\ \hline -5 +14 +15 \end{array}$$

$$+3 +7 +15$$

$$+13 +9 +4$$

+680861
21618

16

-0457 ± 7.8 + 140 ± 11.3

-434
03.1

+68 + 133
10

9.6 dG8 + 27.26

3W

9253

5.041 1904.9 + 68 39 38.10 1908.9

2.056

7.097

-5.75

32.35

-221 + 131 GP

5.95

50

6.000

1097

434

254)

1016

860

762

980

25.4

19

35.21

214)

2860

214

520

642

780

1930.3

133

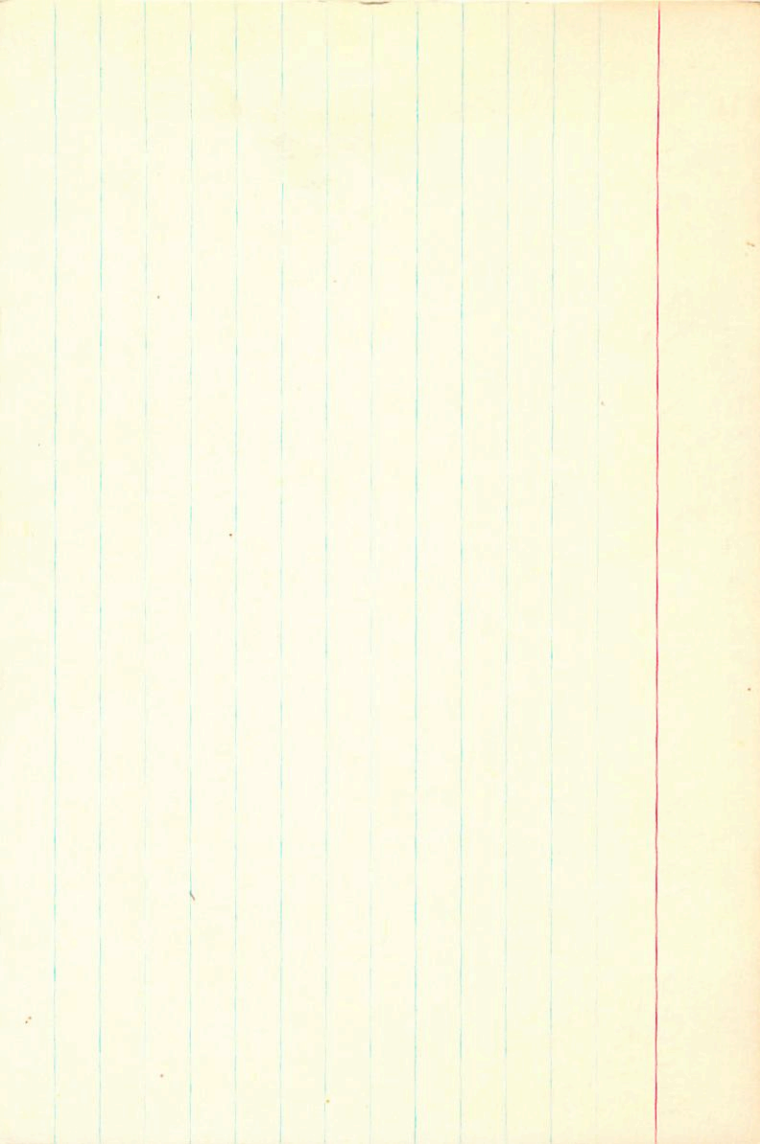
-0008 ± 12.2 -008 ± 12.2 Sp. B. P =
144426 1903.2 +08 14 C.1 A2 -20.5a

21622
9255

12.494 1906.6 +8 13 49.97 1907.0

-0007 +008 } pt h. 50

-370	589	-718	+0175	+0223	+0398	+6.3	+14.7
650	716	253	-0308	+0271	-0037		-5.2
-663	373	648	+0314	+0141	+0455		-13.3



35.43 - 31.80 33.55
410

5990 16 033 - 6 00 6.40 + 103 70.50

12 m, 10 s

-50.1255

$$\begin{array}{r} 19.903 \\ 085 \\ \hline 19.903 \end{array}$$

$$\begin{array}{r} 12.1 \\ 100 \\ 100 \\ \hline 12.1 \end{array}$$

$$\begin{array}{r} 100 \\ 100 \\ 100 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 19.25 \\ 19.25 \\ \hline 19.25 \end{array}$$

-31.80

$$\begin{array}{r} 49.016 \\ 31.857 \\ \hline 19.96 \end{array}$$

$$\begin{array}{r} 19.974 \\ 19.974 \\ \hline 19.974 \end{array}$$

19.89

$$\begin{array}{r} 20.09 \\ 20.09 \\ \hline 20.09 \end{array}$$

$$\begin{array}{r} 41.17 \\ 39.09 \\ \hline 41.17 \end{array}$$

$$\begin{array}{r} 595 \\ 595 \\ \hline 595 \end{array}$$

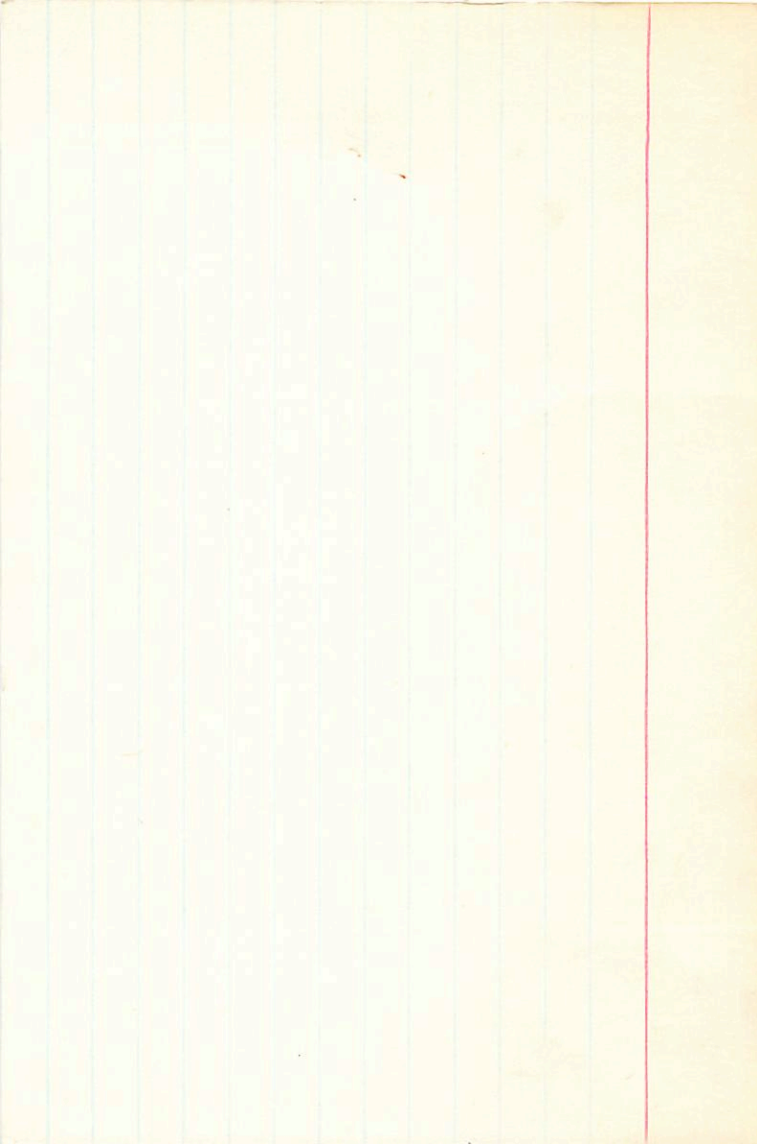
$$\begin{array}{r} 70.71 \\ 70.71 \\ \hline 70.71 \end{array}$$

$$\begin{array}{r} 19.86 \\ 19.86 \\ \hline 19.86 \end{array}$$

$$\begin{array}{r} 19.71 \\ 19.71 \\ \hline 19.71 \end{array}$$

$$\begin{array}{r} 19.11 \\ 19.11 \\ \hline 19.11 \end{array}$$

$$\begin{array}{r} 476 \\ 476 \\ \hline 476 \end{array}$$



144585 16.04.3 -13 56 $G-4 \sqrt{E} - E$ -15.9 4C

FD984 $G-30 + 0.66 (1.80)$ 152②

GC21653 $-0.174 \pm 44 + 0.18 \pm 3.9$ 17.32-1898.2

15.868 1901.4

ZC $-0.174 + 0.12 -$
 $-2 + 4$
 $+2 + 3$
 $-0.76 + 0.19 \rightarrow$
1055

52.168

$-0.178 + 0.16$
8100
 $-2.59 + 0.19 -15.9$
 $-258 + 0.21 1.3$

30

144585.000*

16.000*

4.300*

-13.000*

-56.000*

-0.258*

0.021*

3.1 1.300*

41.7 18.197

-15.900

0.472

-0.889

137

22.731

-0.718

-0.028

-29

-12.600

1429 669 140 MF +0029 = 1.5 -045 = 1.5

144605 14 04.5 +0027 -20 44 44 44 44 -0.5/l 922-5.42a

21659 MB 64

9264 28.095 1901.9 -20 44 6.5/1400.5

11

599 -139

140 30
+00280 -0450

+0.21

4.70

11 990

27.959

-0444

2.82

1928.20

109

0.158
27.815

+039 -042

4.85

503

27.973

156

7.41

149

157 306

28.018

34.2

6.12

6.50

108.22
36.1

244

28.073

+093

6.14

193.04

241

-10
28.073

457 306

6.17

194.94
+045-445

244

52.444
25.146
25.146
2.24

04.47
04.20
04.20
04.20
22/6.72

194.94
+045-445

04
245
245

R.A. :	16.050
DEC. :	-20.750
. R.A. :	47.900
. DEC. :	-45.000
STANCE :	6.470
ODULUS :	197
. VEL. :	-5.400
q1 (U) :	-0.368
	0.171

43502774

w(3)

16 04.7 134 47 040 48.2 8

W20968

W9265

Y3665

10.45 + 1.25 Eggs (12")

w(18.3)

?

+26 -58
lim

-55 -15 -25 .030

1265 -570

-72 -10 -15 .040

-65 -10 -16 .045

47867)

20210)

3544

no

-876-482 571 821 +.26 -57 +F.2 -825 +5 -2217
-225 -285 -125 157 336 -1.843 H6.7 -3 -6

+10-25-71025

-100-17-32

7 Nov
143546

28539

9217

+0026 = 5.1
+0036
+0000

15 59.5 -49 06 7.7 04 -0.31

4.66 +0.92

31673 1910.5

-103
570

-49 5 31.77 19040

0

31.37 1940.58

31.707

-24
683 1407
704

37.3

-27
31.64

31.53 1955.04

31742 +134

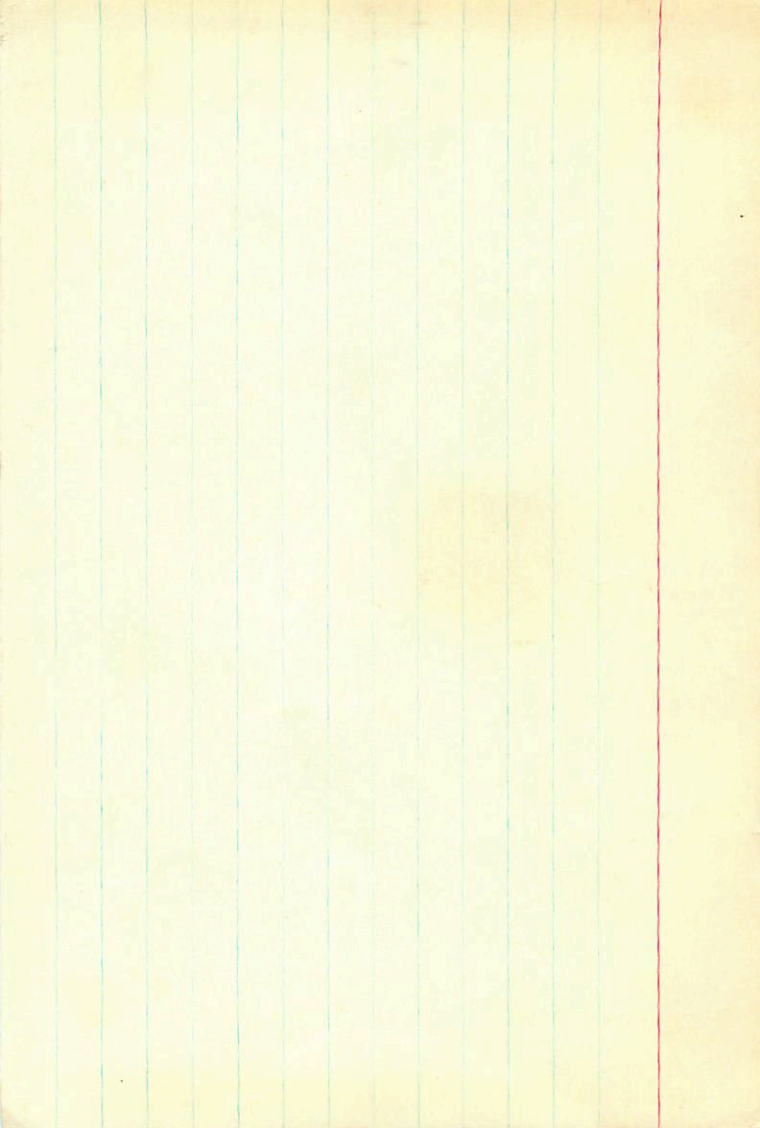
38
724

-13
31.66
31.62

95.62
47.8

43.8

+1.12



143796 16 0.2 -54 12 7.34 MS III
602455 ?
-26.1

7.19 + 1.89 + 1.95 (2)
5.47 + 1.125 (2)

134
10.35

6.55
5.17
12.8
4.9
4.4
9.0

5.55
5.17
12.8
3.9
7.1
4.0

5.71 1.025
5.38
13.4
4.0
4.25

17469 1502.8

1454 1897.3

52

0005 490 -011 769
+0285

-0005
-3
-002 49 999

-0008
+0005

-011

-0005
-0005

-0105

10005 -0055 914 -002

10002
-32

1002-003