

S ≥ Pnc 23 10.8 +02 24 8.0-1.7

3.566

+104095

+85000

24913

about 1/2 of AS 81, 2.50 1906

225 + 84 652 + 0.50

+120000  
~~120000~~

8 = +8.7

(4)

RIB F P Z

Calculation

+005 10304

~~-011 10000~~

$m_{avg} = 1.34$

-006 1039 6.4

+3 0 → 2004

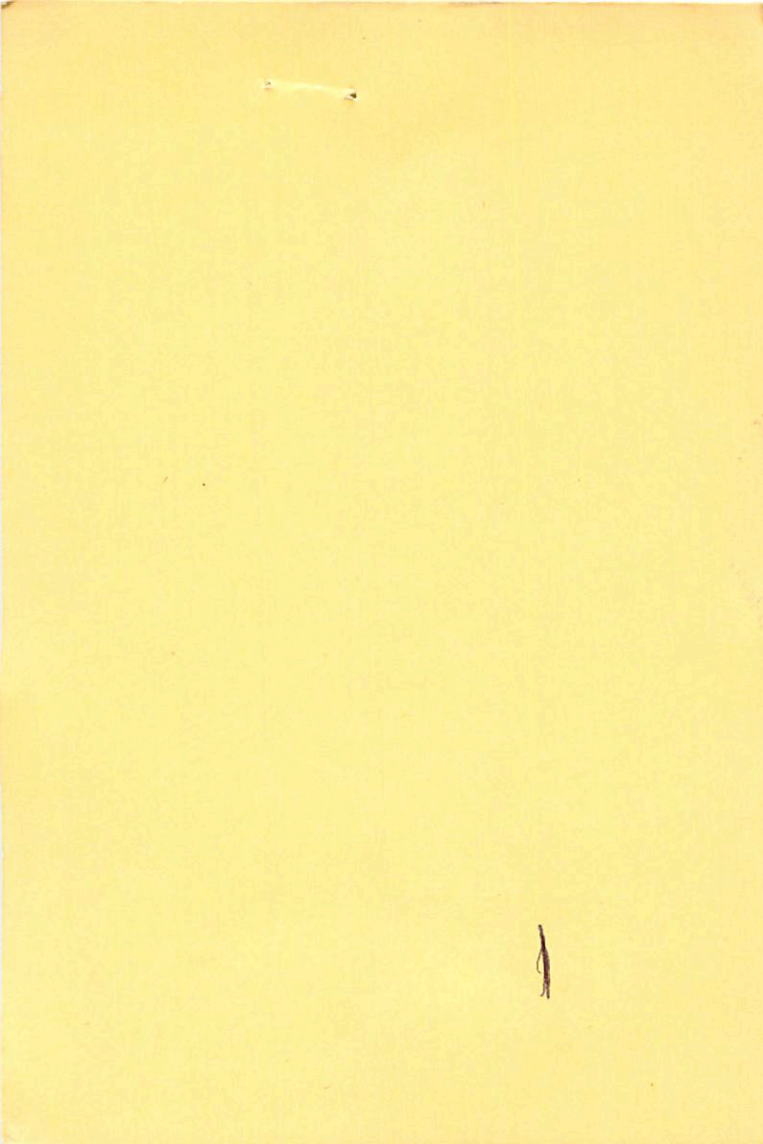
$N \neq n = 5.6 R0 m = 11.9 @$

1.4

F + 2.1

+2 -4 → Dec.

-001 035





23.200  
2.400  
-1.000  
35.000  
4.000  
63  
8.800

3.15  
107

0.868  
0.400  
-0.096  
76.845  
4.000

+7

-0.336  
0.720  
0.606  
121.021  
12.971

118

-0.365  
0.494

A0516603

219139

32331

14567

408833

23 10.9

55.390

~~0.56~~  
446

55.429

439

55.412

10  
430

-0.01155.7

+0003

+10

1899.3

+10 47 33.91

-29  
33.62

33.79 1934.2

33.88

37.7

~~4012~~

33.69 1939.84

+7

33.76

33.82

+20

+00663.2

+006

48 5.9 905 +16.4

+18.19

1905.7002

+123.17

+16.5

7409

37.0

35.9



219150

23 8.6

+1

89

217

+104040

23

11.1

+1

56

1950

603235

23

12

40

+2

06

+228

+229

921328

ASCP

-008+046 AG-23

~~+22+034~~ Y

+002+638 Y

+2 +3

+004+041 → 02

7.702

1895

town

1044

50.35

1895

2



219310 ✓

23

12.1

+23

50

6.5

N1 -26.86

+008044.6  
+0080  
+00834.2  
+8

40

32355 ✓

14575 ✓

8.304

1897.4

+23

49

48.61

1894.2

8839

$\frac{-421}{9.883}$

33.6

$\frac{-45}{48.16}$

8.190

$\frac{48.38}{17}$

1934.1

$\frac{8.118}{3}$   
 $\frac{8.152}{2}$   
 $\frac{305}{2}$   
+269

$\frac{48.53}{17}$

48.43

1927.58

$\frac{48.35}{48.45}$   
+29

120  
 $\frac{31.0}{36.8}$

125  
+15

3

R.A. : 23.200  
DEC. : 23.820  
PM. R.A. : 122.000  
PM. DEC. : 12.000  
DISTANCE : 2.200  
MODULUS : 120  
RAD. VEL. : -24.800

d1 (U) : 0.898  
d2 (U) : 0.482  
d3 (U) : 0.882  
q1 : 204.242  
U : 21.120

d1 (V) : -0.338  
d2 (V) : 0.448  
d3 (V) : 0.828  
q1 : -121.321  
V : -41.228

d1 (W) : 0.212  
d2 (W) : -0.322  
d3 (W) : 0.212

R.A. : 23.200  
DEC. : 23.850  
PM. R.A. : 125.000  
PM. DEC. : 15.000  
DISTANCE : 5.500  
MODULUS : 126  
RAD. VEL. : -26.800

q1 (U) : 0.868  
q2 (U) : 0.489  
q3 (U) : 0.089  
dU : 504.942  
U : 61.170

q1 (V) : -0.338  
q2 (V) : 0.448  
q3 (V) : 0.828  
dV : -151.321  
V : -41.228

3  
q1 (W) : -0.365  
q2 (W) : 0.745  
q3 (W) :

+0290 ± 9.0 +082 ± 7.3

-5.8 ± 0.7

219249

23

12.2

-57 00

7.97 + 69

650 CP(4)

32358

13.840

1903.8

-57 0

12.08

1899.3

1340

12.500

4.16

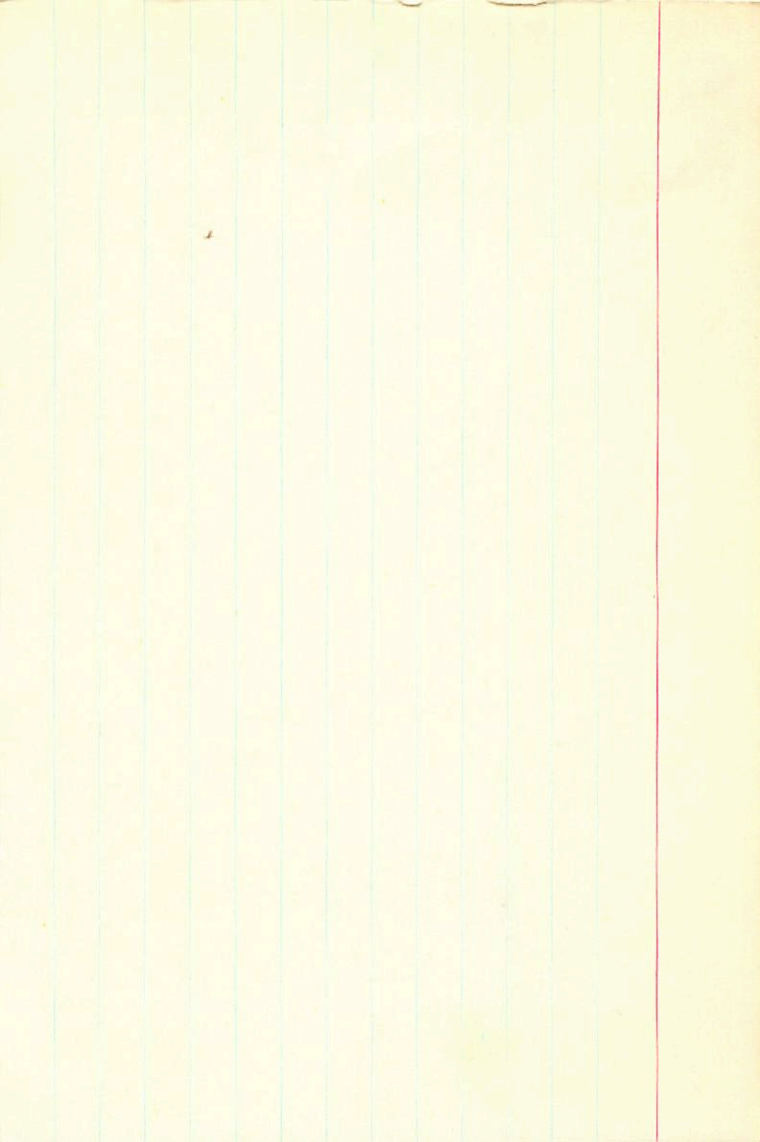
16.24

13.80  
44  
751

11.2 1946.8  
60  
11.80

+318  
6  
7312

+095 CP  
7  
7088 → 64



2

-13.298  
87.592  
-0.794  
0.487  
-0.365

30.130  
134.509  
0.600  
0.725  
-0.328

8.325  
111.107  
-0.100  
0.407  
0.368

27.800  
100.100  
5.000  
41.000  
4.000  
1.000  
20.000

2



W14580

23 12.7 -14 18 7.6 269 +9.00

-1406479

40214364

7.96 +1.10 +1.00

7.25

0.70

5

+0.0029

"

+0.010

Cups  
Number

Cost.

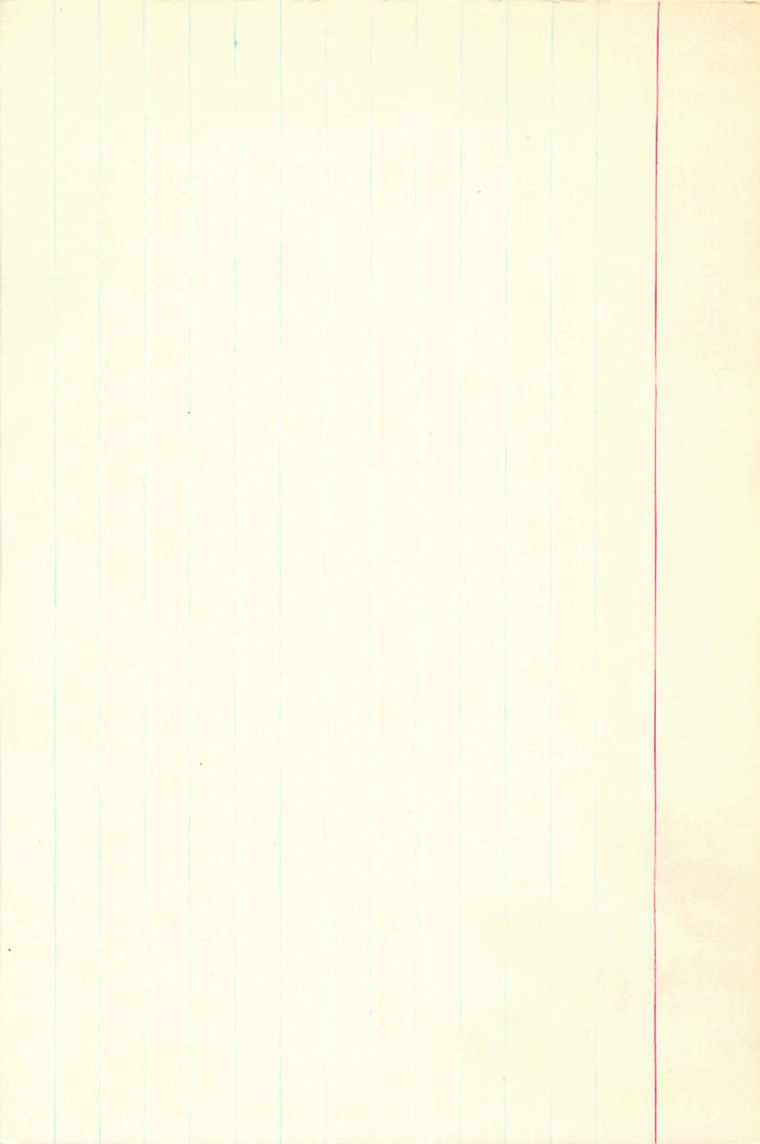
219485 23 12.8 +73 58 5.7 A0-2.88

32364

14581

+0091 47 +016 37 N30

+0107 ± 26 +010 ± 23 66 ~~7~~N30



ca(4)

140219436

23 13.3 -29 32

17.2519

8.3570.10 +1.95 A1E

17.2519

005

010 -006 00

-202 579 -636 772 +014 -026 117.2 1004-10.9 -032  
003 001 014 004 0 077 +13.3 +13.0 -2.7 005

+13.0 +11.5 -15.3

+4.1 -10.3 -20.3

H0219497  
+3304674

44  
23 13.6 +34.25

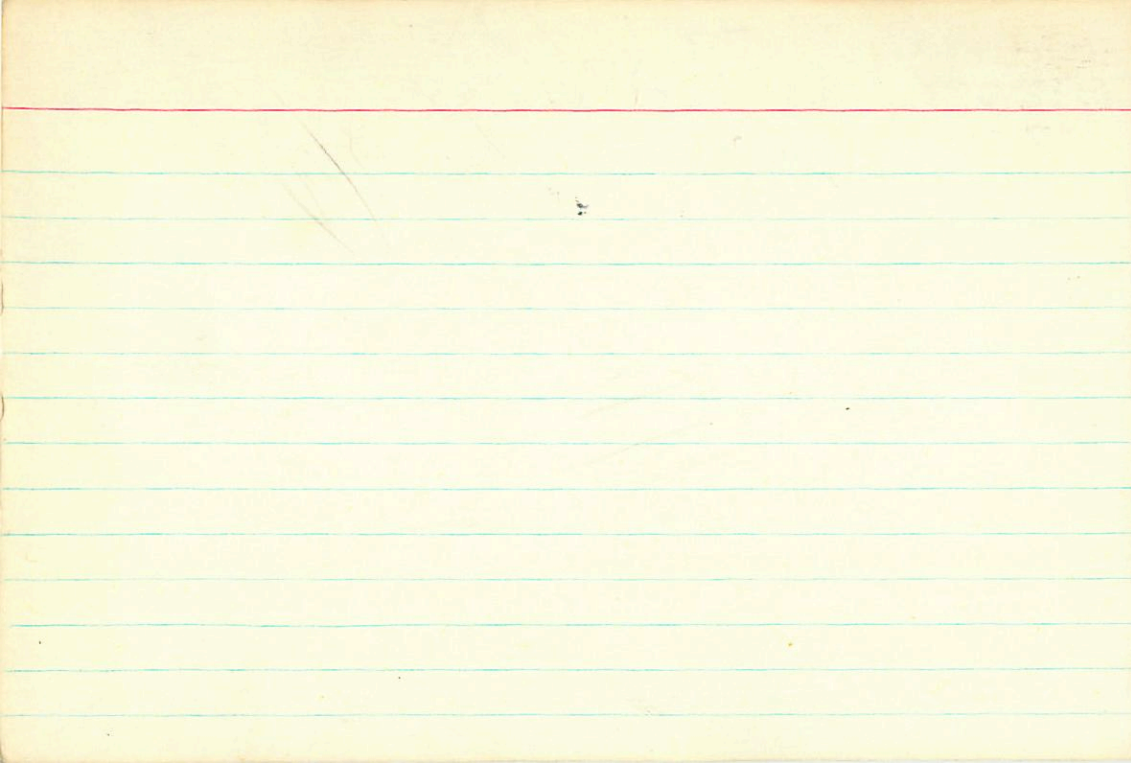
20 +56.24

F014

P.O

-015- +004 Gm

-0012 +00459 Gm 25



219542

23

14.0

-01

52

d64

-16.58<sup>w(3)</sup>

GC 22395

7.64

+0.66

+1.65<sup>?2</sup>

Σ 55 (2) Mc. Cl.

W 14584

7.59

+0.65

+1.75 story

POS 16642 8.35<sup>4</sup>  
90

$\Delta m = 0.24$

+27 -15

+6 .030

+175 ± 5

+029 ± 3

G.C.

+41 -18

+3 .020

Π 1 017

9545

9941

2982

1083



-188 980 0 / 1175 + 0.29 - 16.5 0 0 137

035 0 + 170 0 164805 - 16.5 - 16 + 3 0.2

$$-8 + 43 + 7$$

$$-9 + 35 + 5 \quad 0.25$$

$$\boxed{+32 - 17 + 4}$$

$$-7 + 44 + 7 \quad 14.5$$

$$+41 - 17 + 2$$

-205917

219542

32395

14594

ANSI 6642

8.3-9.0 5"

+0117±4.6  
+104

23 140 -1 52- 8.3 064-16.58

0.624 1902.4 -1 51 33.28 1892.9

$\frac{557}{.067}$

$\frac{-1.66}{34.94}$

43.507  
 $\frac{17.058}{0.566}$   
~~559~~  
-16  
543

42.49 1934.81  
 $\frac{10.50}{31.99}$

~~31.94~~

~~31.73~~

$\frac{31.42}{31.82}$

0.3408  
 $\frac{1}{352}$

34.8 1929.8  
 $\frac{-10.68}{1919.12}$

Handwritten circled text, possibly "Handwritten" or similar.

769 1490 -121  
-346 +764 +545  
-359 1432 -930

+7229 +0640  
-2878 +1051  
-2945 +0594

+7889 +27.4 12.0  
-1827 -6.3 -9.0  
-2351 -8.2 -13.7

40.8 m.

+32.2 +2 +34  
-7.4 -9 -16.4  
-9.4 -13.7 -23.3

+29.4 +40.7  
-15.3 -18  
-21.9 -25

219509 23 14.2 -67 11 8.69 +1.06 2.20 NSE

23 (10)  
+6.20 ± 0.5

32400

+61 1st

$\Delta m = 0$  11  
71 13.570 1905.0

+0586 ± 122 -390 ± 15.0 0.0

86760/60/257

8.69 +1.06 2.20 NSE +574 (9)  
9.00 +1.14 2.22 NSE +678 (12)  
61.0 (10)

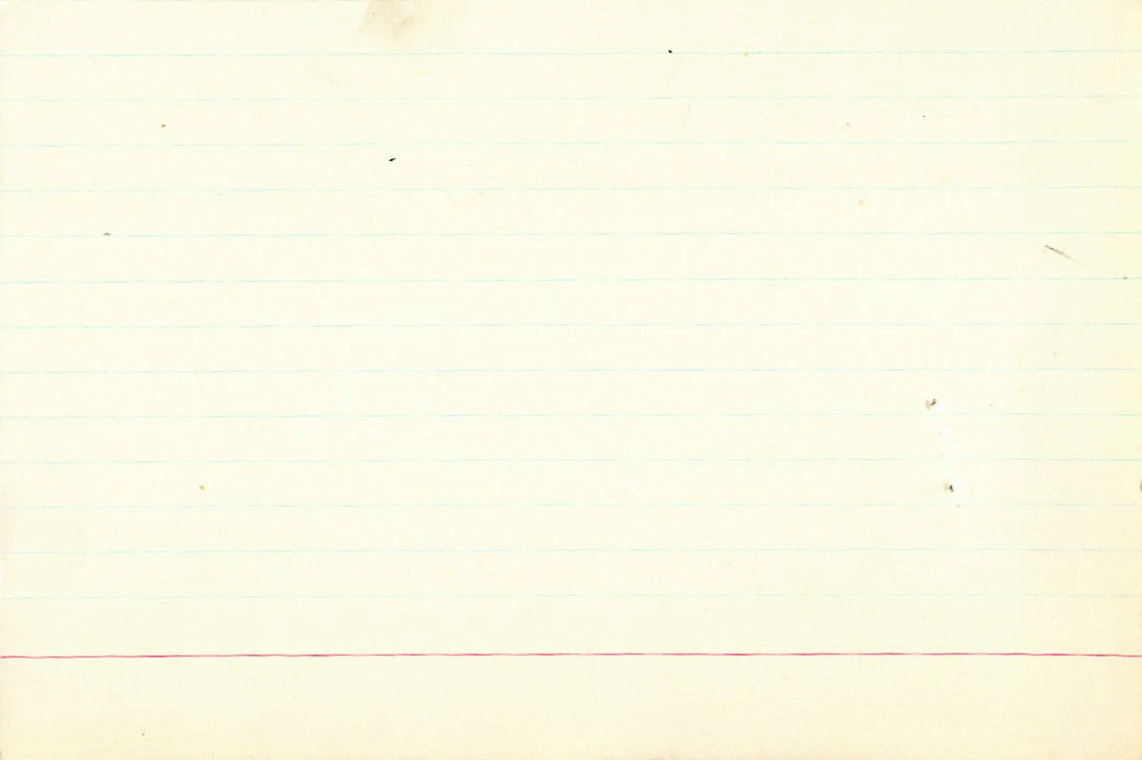
" 0603 +357 ± 8 -399 ± 5 } CR  
+350 ± 10 -406 ± 5  
+351 -403

357 -410 644 1.6  
359 -414

+339 -408 } CP  
+352 -407  
375 -417  
+62.3  
+66.4  
+64.4

7679 4618  
6406 -8870

+363 -410  
+13 +2  
+373 -408



794

23<sup>v</sup> 14.<sup>m</sup>2

-67° 11'

HD 219509

+8.69 +1.06 +2.20 K5 V+0.373 -0.418<sup>0</sup> 21.7  $\mu$ .
$$\begin{array}{r} 62.3 \\ 66.4 \\ \hline +64.4 \end{array}$$

+ .869	+ .088	- .487	15364	-1702 <sup>+</sup>	13662	+29.6	-31.3	+1.7
- .344	+ .816	- .464	<del>0.6082</del>	-1578	21563	-47.4	-29.9	-773
- .357	- .571	- .739	0.6372	+1.1042	+4730	+10.2	-17.4	-374





72



23.250  
-67.200  
923.000  
-414.000  
1.300  
18  
64.400

←0.6  
132

0.869  
0.891  
-0.486  
1294.847  
-7.754

-1.

-0.346  
0.815  
-0.465  
-2185.249  
-09.717

-55

-0.354  
-0.572  
-0.700  
-0.800  
-0.711  
-0.128

-41

4

-205920

+0168 ± 7.5

-093 ± 7.1

+0163

-080

219657

23

15.0

-01

48

8.2

dg4 -47.31

32420

14603

2.628

1997.6

-1

47

3258

1897.1

8-10 1"

-880

4.39

ADSI6649

1.948

33.19

36.0

1929.81

2.288

-18

272

35.82

A

M

+262

-086

Mcz

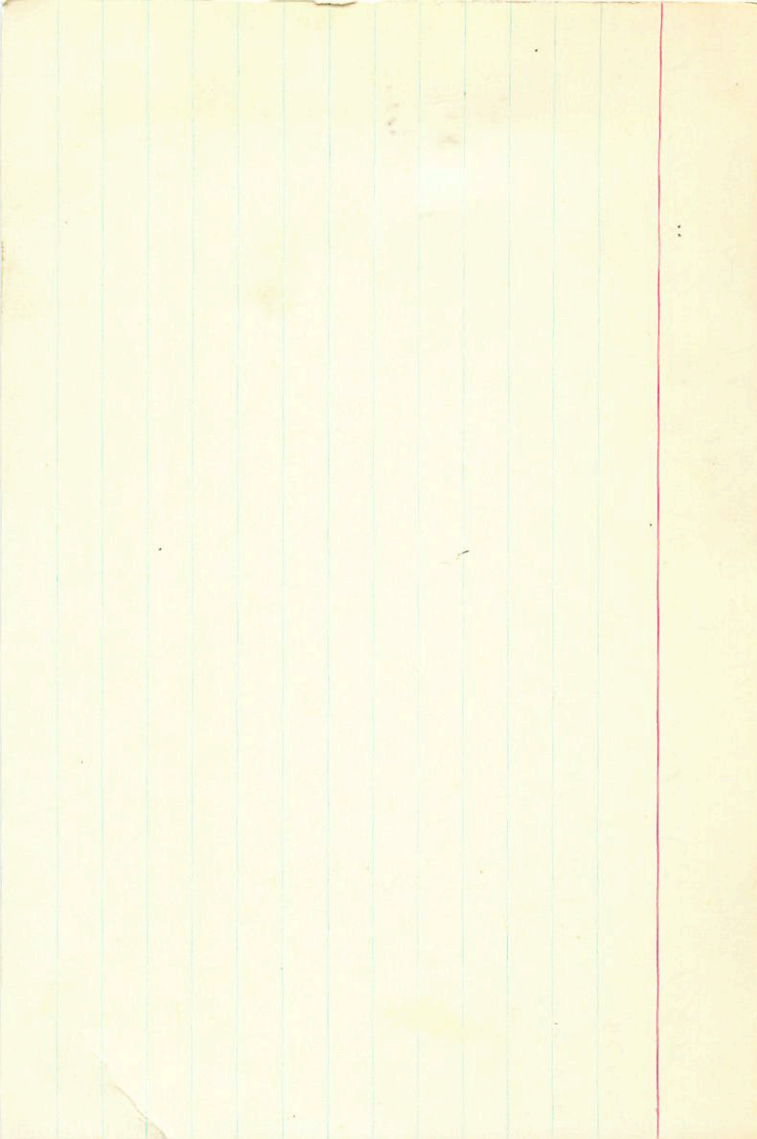
+5

-1

257

087

960



8 Amy

HRP660

32432

+480391

23 15.4 +78 115 9M2-8.00

279 9 5 6 5  
276 66

470 +1.60 H +03Y+009 GC

I R-I  
49 273 915

+030 +019 GC →

(16) +0037 +007 +002

DAD 3 +2  
615 +004 +005 32  
+000 32

+000 6 link  
+000 5 link

9280  
+040 +018

+0836  
9540  
-1092  
9546  
2475  
-4.75  
0043  
0043  
-50 6.86

869 397 -264

-346 061 -936

-357 915 -191

+1232 -10208

-0491 +0032

-0504 -0476

+1440 +216

-0459 -6.9

-0980 -147

23

-7.5

-1.4

25.125

984

+0034  
+0039  
+009

30.46 87.6

~~216~~  
~~346~~  
0

+0036 ✓

24.90  
52

24.910

+00350 +0126

0376

+00246 +006

040 +005

25.172

66.48

+13  
185

30.81  
-17  
14  
30.64

5.58 + 0.44 (1.60)

25A.

219693

23 15.4 -41 06 F0 +28.6

1288  
130-126

+0115 ±4.5 -127 ±3.8 GC

+9  
+1  
+0124  
-126

2325

41.1

+1.140  
+01139 -1219

172

154

+0111 -124 Sdy 1968

192

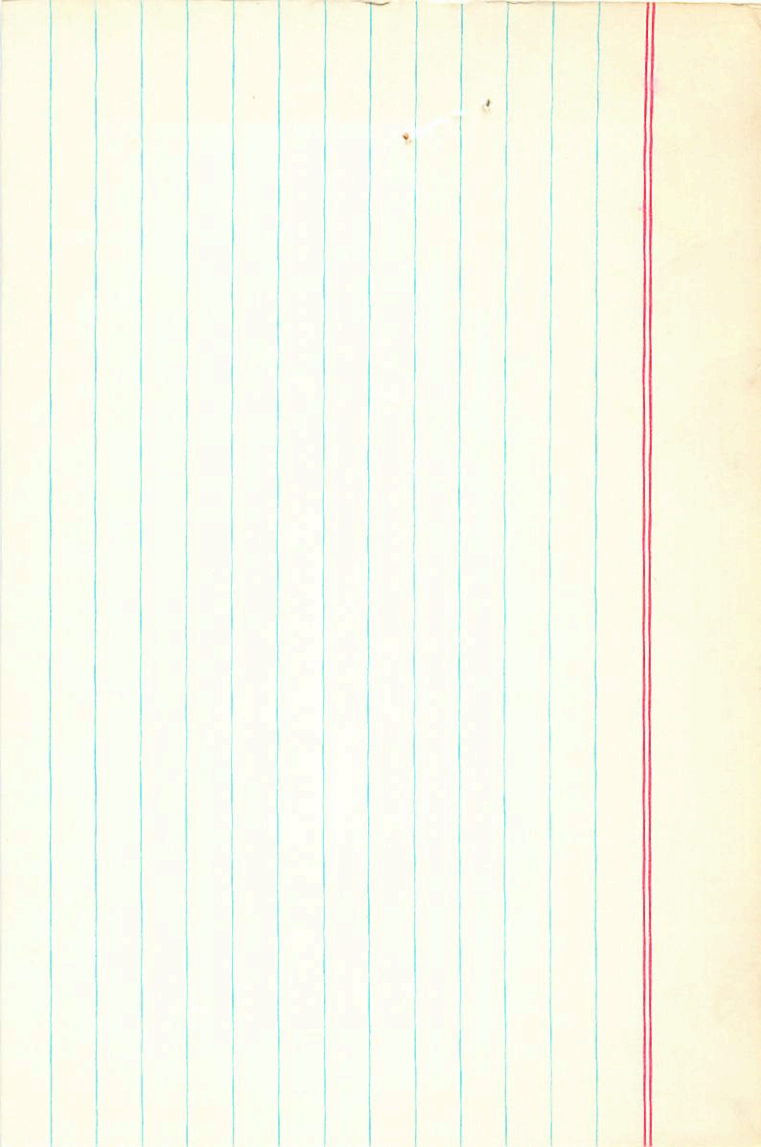
+9 +2

202

~~+0120~~ ~~122~~

192

.136



219693 23 154 -41 06 dif6

HR9859

CC32431

5.50445 -4 2595

158

960

278 .145.502 2.6582

444

8511  
1,158

869	247	-396	5602	-1717	3885	-3.4	-11.3	+0120 = 136
-344	936	-060	-2230	-543	-7643	-17.0	-1.7	+25.6
-353	-189	-916	-2276	1093	-1193	286	-242	-122



D  
11  
19  
1900  
209

JA

R.A. :  
DEC. : 28.250  
-41.100  
R.A. : 175.000  
DEC. : -150.000  
DISTANCE : 3.250  
MODULE : 34  
AD. VEL. : 28.000

P1 (U) :  
P2 (U) : 0.000  
P3 (U) : 0.000  
QU : -0.000  
U : 0.000

P1 (U) :  
P2 (U) : -0.000  
P3 (U) : 0.000  
QU : -0.000  
U : -0.000

P1 (U) :  
P2 (U) : 0.000

R.A. : 23.250  
DEC. : -41.100  
PM. R.A. : 172.000  
PM. DEC. : -126.000  
DISTANCE : 2.650  
MODULUS : 34  
RD. VEL. : 28.600

q1 (U) : 0.869  
q2 (U) : 0.296  
q3 (U) : -0.397  
dU : 357.352  
U : 0.764

q1 (V) : -0.346  
q2 (V) : 0.937  
q3 (V) : -0.059  
dV : -771.636  
V : -27.837

q1 (W) :  
q2 (W) :

219738

23

15.6

+15

20

8.2

1FF-52.38

300

+1409967

14613

-062-58

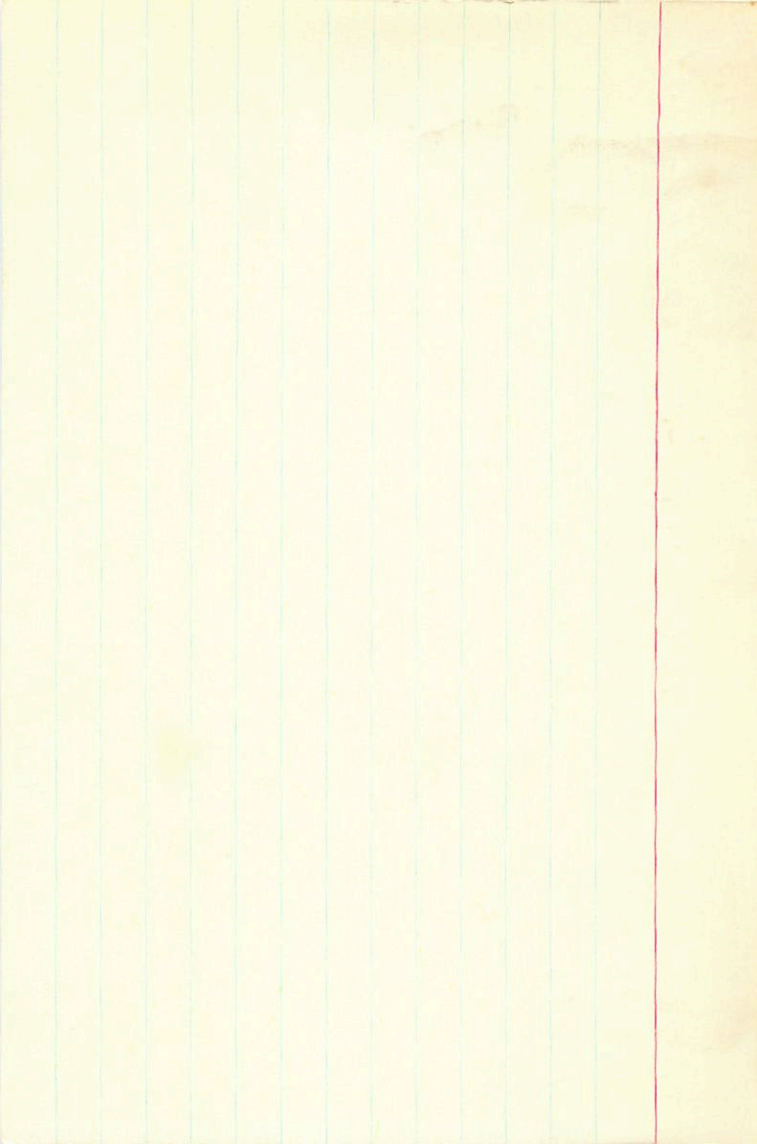
3

-005-

+4

-003

-007-6



0 cep  
8872

219416

95 '0

23 16.6 +67 50 120 III

m  
7.5 3.5

4.76 +0.84 +0.44 25

4.45 -0.31 23

4.44 +0.32 14

4.44 -0.315

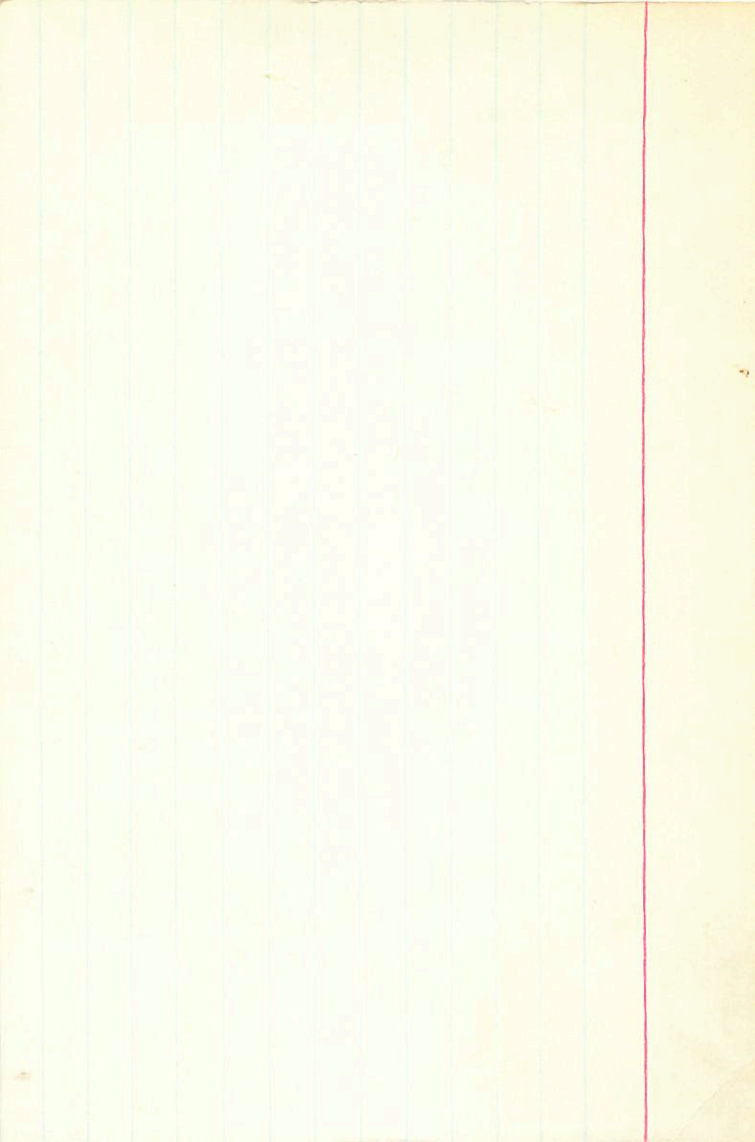
1 9.23

18.51

18.13

±1.0

+60945 +0155 N304



ocep  
219916 23 16.4 +67 50 4.9 967 -18.26

32463

14624

+009762 +01965130

FGF

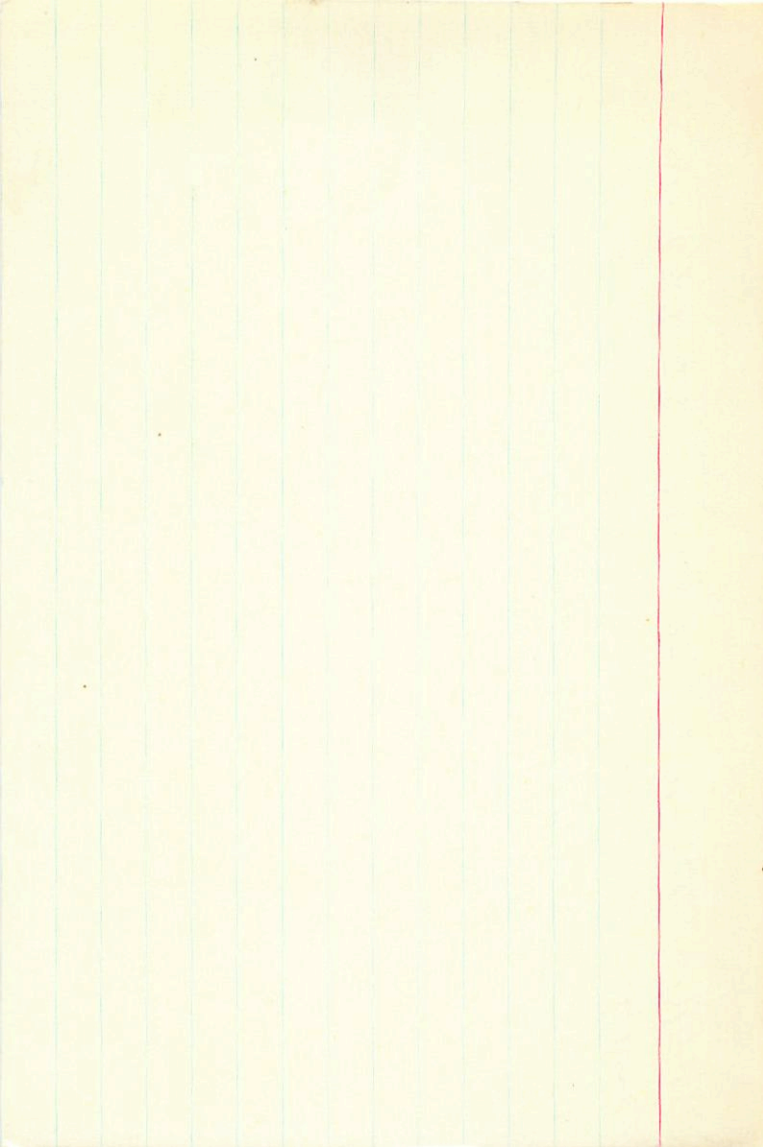
11051666

+0092314 +020311 GC → 130

0112232

3''





7000  
220009 23 17.5 705 06 5.2 910 738.46

32491

14639

① 10.9 11

+0049 27 -046 28 1130

1117

10025007 -057+18 66 51130

1251

474

+0050 -050

6150  
1230

116

2378

F 11  
0 10  
1 10

3575

3525

3518

870 450 -052

+3030 -1160

4870 +16.0 -2.0

-352 652 630

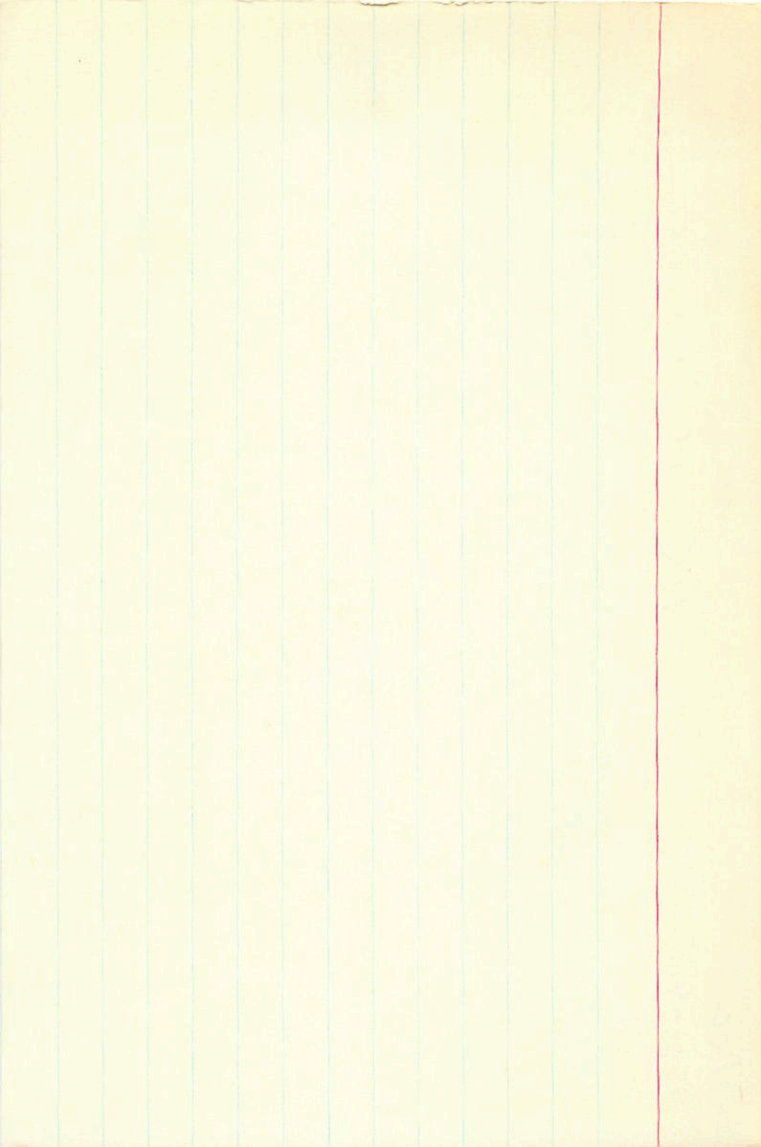
-1251 -1640

-2891 -27.5 +240

345 530 545

+2314 -1220

1000. -247



780826

+0738 ± 4.2  
+086 ± 3.7  
+081

220140 23 17.8 +28 44 7.7 d100 -16.8 B

32493

+205 +083

14641

50.584 1898.8 +78 43 43.81 1896.1

3.779  
46,805

4.64  
35.17

39.0

50.061 96996  
77 49.44  
1.38 49.44  
93

43.48 1946.88  
-17  
43.31

768  
38.4

48.82 2.2  
3.8 +2.1  
+ 85  
7.5-4+865+09

41.8 1929.9

+18

-15  
41.65

496  
42.48  
+3.31

42.3

TUDAK-084 APM

220002

23 18.0

-50 35

-19.2 (3) V<sub>W</sub>

+11.5-4C

(043-084)

Egg 40"

Am

6.3 } 0.5" = 14022003  
8.3 }

AC 8.90 +0.64 +0.125 (2)

AB 6.08 +0.

+035 -071 9065

4223

5967 } 0942  
4180 } 0062

C 8.29 16.8 211° G# 10

(5034)

invr.

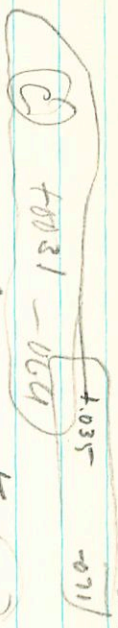
87

+8703	+235	-432	+1443	-0791	+0652	+6.5 -5.0	+1.5	+0.5
-3535	610	-2.5	-0585	-3062	-3647	-06.5 -2.5	-39.0	-33
-343	-340	-875	-0564	-1144	-1713	-17.1 -10.0	-27.1	-24.2

15 d. 765- 1597.2

+0024 = 6.4 -0.25 = 5.1  
+ 13 = 19.3  
+ 0037 = 26.7  
46.46 1591.1

Spun



+0035 -077 sty (4.5)

9874

23 18.1 - 4 11 G-5

-19  
Mittwoch

6.16 + 107 + 58 Lager

-0080 - 049 ZC

-1  
-0081 - 048

+ 2  
-0079 - 049

-115

5





7877.000\*

23.000\*

18.100\*

-6.000\*

-11.000\*

-0.118\*

-0.049\*

5.500\*

125.893

-1.900

-0.596

-0.144

-74.778

0.011

275  
6

DES

23 18.5 +37 58

220117

1418885

602510

5.80 + 450 32932

12 Rand

.296 1120 .489 (2) 502

2.663 (3)

273 +2

430  $\frac{53}{+55}$

~~127~~

+32 2-70

+10.5 -12.5 -12.7

-367 -276 -489

MSB 2007

MSB 2007

MSB 2007

12 And

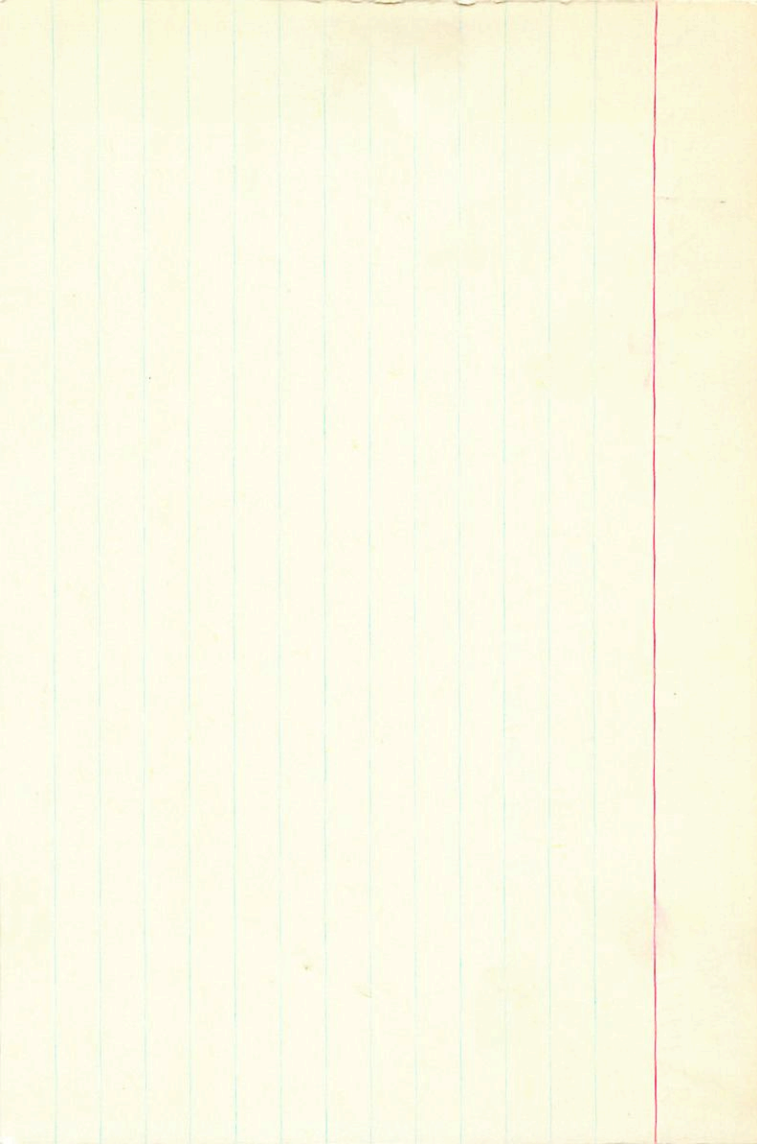
220117 23 18.5 +37 55 5.8 dFS -8.76

32510

14651

+0105<sup>us</sup> -060<sup>us</sup> N30

+0096±24 -063±2.16c → N30



220/27

23 18.9

49 4576

20/5

~~20/18~~

10.15.14

2215-27923

2323

PPM

49.78

North

P.S 313

205-292

333

202-292

286

Can top

313

850

292

476

6.50

474.0

~~0058~~

617

~~47.4~~  
+63.3

-289

-509

7



d1 (M) : 100.000  
 d2 (M) : 100.000  
 d3 (M) : 100.000  
 d4 (M) : 100.000

d1 (M) : 100.000  
 d2 (M) : 100.000  
 d3 (M) : 100.000  
 d4 (M) : 100.000

d1 (M) : 100.000  
 d2 (M) : 100.000  
 d3 (M) : 100.000  
 d4 (M) : 100.000

BALANCE : 100.000  
 DEBIT : 100.000  
 CREDIT : 100.000

FINANCE	-292.000
DDULUS	6.500
VEL.	200
q1 (U)	74.000
q2 (U)	0.870
q3 (U)	0.241
DU	-0.429
U	500.333
q1 (U)	68.064
q2 (U)	-0.353
q3 (U)	0.914
DU	-0.202
%	-1602.756
U	-334.757
q1 (M)	-0.343
q2 (M)	-0.328
q3 (M)	-0.880
MP	124.227
M	-40.352

220127

-50° 13953 23 18.9 -49 46 11.1 60

+5450

1012 460 653 ~499

10.15 +0.66 -0.05 741

+71.9 ± 3.7

4.4

2.4  $\frac{16}{89}$

10.20 473 105 314

115 +30

+0223 -279 CR

~~1023 +279~~

~~~~~

+0216 -274 CR

220167 2.3 18.9 +60 12 KIB<sup>F</sup>

-65 d0611

G632514

-76 A F (9)

+7.4

+5902703

-73 (8)  
-45 (3)

-06755 - 00657 CC

750000

-128 584 868 487 -067 -006 -26.0 -005 -66 -014 ✓

-012 -001 -044 -005 -033 -317 -328 -37 +7

$\frac{-40 -25 -67}{-56 -58 +5}$  01

$\frac{-39 -9 -67}{-42 -65 +4}$  02

45208873  
RT Und

23 189

+T2 Y1

860+814

-002 -007 AG-23

-001 -011

RT Amd 23 08.9 +52 45 9.0 v G01121 +20.08

14555

$$\begin{array}{r} +0.012 \\ -4 \\ \hline +0.016 \\ +0.031 \\ \hline -0.031 \end{array}$$

P=0.629

N.C.

A 9.08 +0.51

Jordan A.S. 60.422  
1855

B 10.89 +0.80

L-2840

+866 +390 +312

-333 -014 +99

-372 +921 -118

+0.328 -0.573

-0.176 +0.021

-0.141 -1353

-0.245

-0.105

-1464

-2.4

-1.0

-14.9

+4 +602

+18 +18.9

-17 -2.4

10V V

8



10' 010  
15' 011  
20' 012  
25' 013  
30' 014  
35' 015  
40' 016  
45' 017  
50' 018  
55' 019  
60' 020  
65' 021  
70' 022  
75' 023  
80' 024  
85' 025  
90' 026  
95' 027  
100' 028  
105' 029  
110' 030  
115' 031  
120' 032  
125' 033  
130' 034  
135' 035  
140' 036  
145' 037  
150' 038  
155' 039  
160' 040  
165' 041  
170' 042  
175' 043  
180' 044  
185' 045  
190' 046  
195' 047  
200' 048  
205' 049  
210' 050  
215' 051  
220' 052  
225' 053  
230' 054  
235' 055  
240' 056  
245' 057  
250' 058  
255' 059  
260' 060  
265' 061  
270' 062  
275' 063  
280' 064  
285' 065  
290' 066  
295' 067  
300' 068  
305' 069  
310' 070  
315' 071  
320' 072  
325' 073  
330' 074  
335' 075  
340' 076  
345' 077  
350' 078  
355' 079  
360' 080  
365' 081  
370' 082  
375' 083  
380' 084  
385' 085  
390' 086  
395' 087  
400' 088  
405' 089  
410' 090  
415' 091  
420' 092  
425' 093  
430' 094  
435' 095  
440' 096  
445' 097  
450' 098  
455' 099  
460' 100  
465' 101  
470' 102  
475' 103  
480' 104  
485' 105  
490' 106  
495' 107  
500' 108  
505' 109  
510' 110  
515' 111  
520' 112  
525' 113  
530' 114  
535' 115  
540' 116  
545' 117  
550' 118  
555' 119  
560' 120  
565' 121  
570' 122  
575' 123  
580' 124  
585' 125  
590' 126  
595' 127  
600' 128  
605' 129  
610' 130  
615' 131  
620' 132  
625' 133  
630' 134  
635' 135  
640' 136  
645' 137  
650' 138  
655' 139  
660' 140  
665' 141  
670' 142  
675' 143  
680' 144  
685' 145  
690' 146  
695' 147  
700' 148  
705' 149  
710' 150  
715' 151  
720' 152  
725' 153  
730' 154  
735' 155  
740' 156  
745' 157  
750' 158  
755' 159  
760' 160  
765' 161  
770' 162  
775' 163  
780' 164  
785' 165  
790' 166  
795' 167  
800' 168  
805' 169  
810' 170  
815' 171  
820' 172  
825' 173  
830' 174  
835' 175  
840' 176  
845' 177  
850' 178  
855' 179  
860' 180  
865' 181  
870' 182  
875' 183  
880' 184  
885' 185  
890' 186  
895' 187  
900' 188  
905' 189  
910' 190  
915' 191  
920' 192  
925' 193  
930' 194  
935' 195  
940' 196  
945' 197  
950' 198  
955' 199  
960' 200  
965' 201  
970' 202  
975' 203  
980' 204  
985' 205  
990' 206  
995' 207  
1000' 208

2

1 6. 618  
 1 42. 040  
 1 0. 121  
 1 0. 919  
 1 0. 375  
 1 9. 450  
 1 3. 750  
 1 0. 944  
 1 0. 011  
 1 0. 330  
 1 2. 745  
 1 34. 113  
 0. 000  
 0. 394  
 0. 866  
 20. 000  
 100. 100  
 5. 000  
 11. 000  
 1. 2. 000  
 0. 750  
 23. 150

8

220172 23 193 -10 02 +12.6 f

-100000

E = +0.0

254 E (1.7) + 1005

7.72 -098 82 133 106 2.6 22

[53] [153] [259]

-010 -011 ± 10 Y

$M_V = -3.0$

$V_0 = 7.7$

$\frac{10.7}{10.7}$

~~-0005 -005 work~~

~~-00053 -0045 W<sub>00</sub>~~

-000047

-0211 76

-008

-00057

-0200 60

[ -0006-0009 ]

-0205

-603

-00069

[ 5005-005 ]

11

9



220172.000\*

23.000\*

19.300\*

-10.000\*

-2.000\*

-0.005\*

-0.025\*

10.700\*

1380.384

12.600

-0.075

-0.171

-106.018

-0.090

0.426