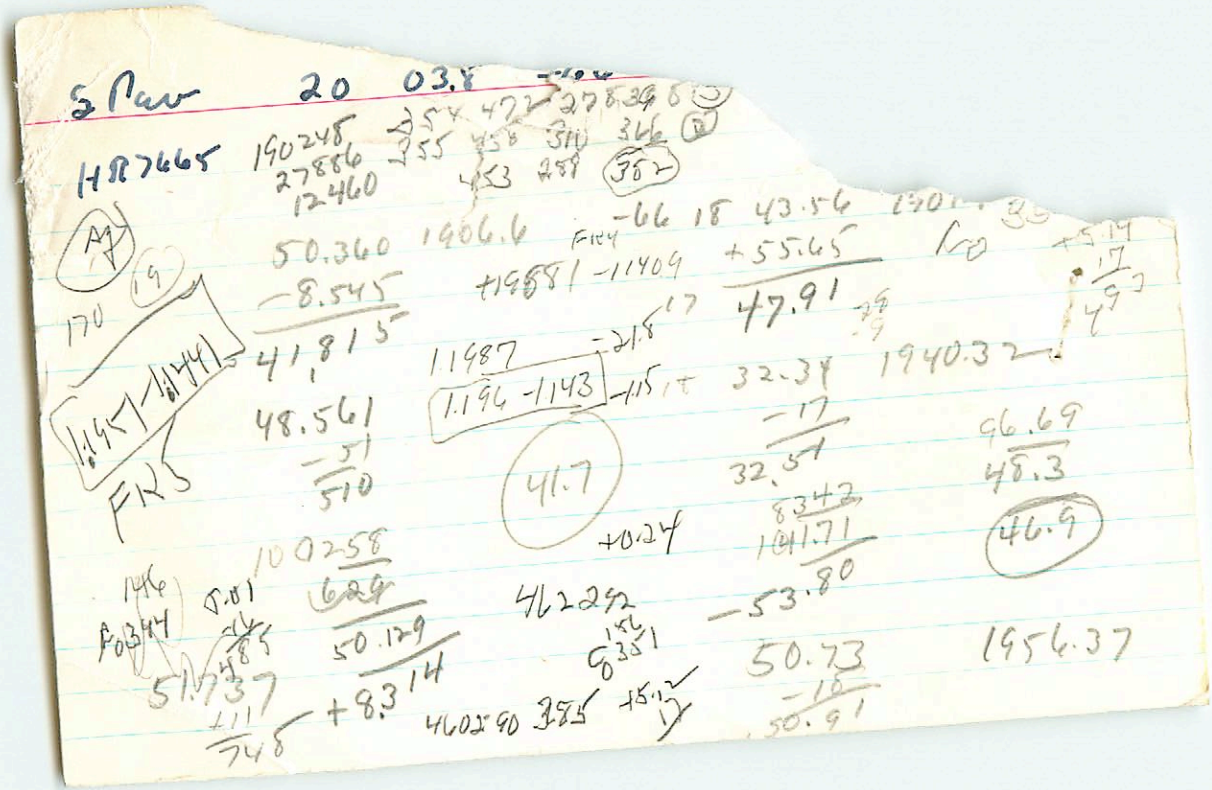


-2.179

-1.145 -21.8 +1049 +20.0

2.203 7.206 -4.6 +7.5 0.2

+6.4 +43.5 +9.9

43.5 -9.0 -8.1

10.1 55.5 +5.5 0.15

-52.4 -16.0 -15.1

38.3 4.6

3.1 -14.5 7.4

-5.6 -7.1 4.6

1.0 48.8 2.6

4.8 -24.9 4.1

-8.7 -9.0 2.6

30

190240.000*
20.000*
3.000*
-66.000*
-19.000*
1.196*
-1.143*
-1.150*
5.000
-21.000
5.361
-0.730
47.47

191069
CC1193
W12494
Y4778
-1605509

20 05.7 -15 52 dG4 -0.58 W13

8.11 +0.67 +0.22 G5 R

δ=-01

8.12 922 212 354 (4)
8.12 417 221 345 (1)
414 214
349

Not new Op

+166 -408 Y → Re
173 -388 Cap

+17 -413 Cu
+167 -411 →
7 1

-3 -64 -55 .025

+168±M -412 ±
+173±8 -376±5
-388

306
Co3231 +466
310

0109-354
157-352

563
-352
342 -0.5

A8 Y(8)
S-C(6)

12±6

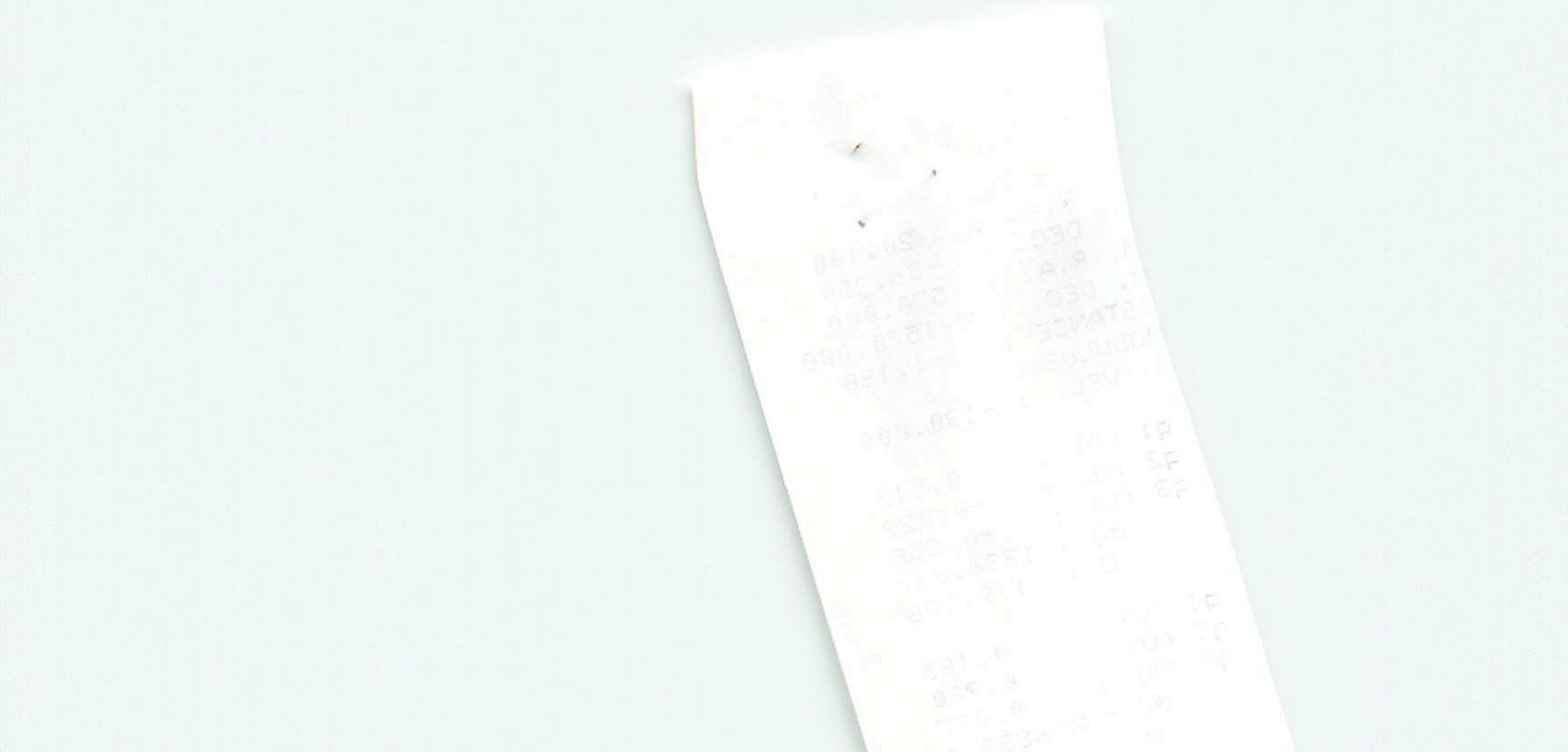
1414.08 30 07.5 −36 1/4 −130
7703

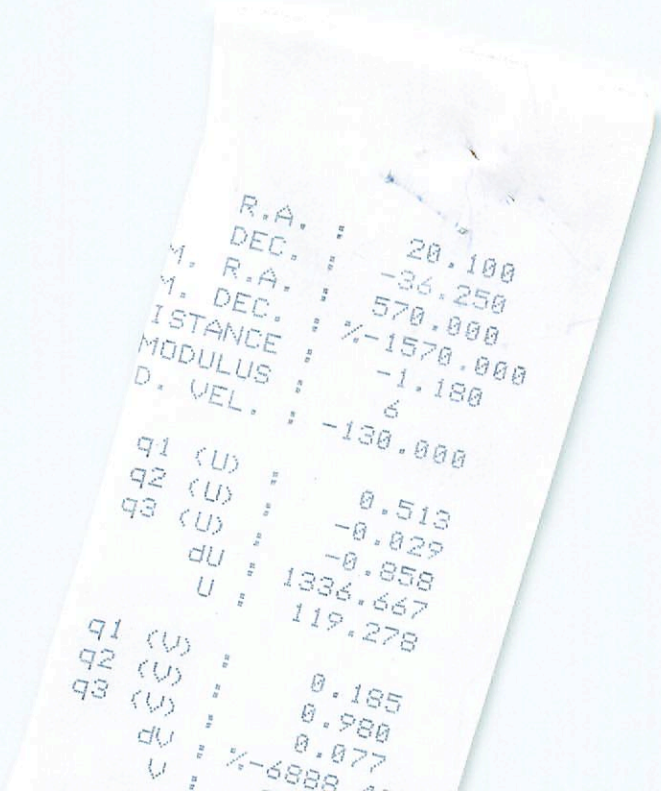
~~574 526 328~~
530 514 ~~358~~ 261 (4)
529 509 345 254 (3)
~~533 506~~ 257

−224
P 0.255 d 6.15 33

0.38 W −1570
460 −1570

570
−1576
−1118
−136




R.A. : 20.100
DEC. : -36.250
M. R.A. : 570.000
M. DEC. : %-1570.000
ISTANCE : -1.180
MODULUS : 6
D. VEL. : -130.000
q1 (U) : 0.513
q2 (U) : -0.029
q3 (U) : -0.858
dU : 1336.667
U : 119.278
q1 (V) : 0.185
q2 (V) : 0.980
q3 (V) : 0.077
dV : %-6888
V :

ξ Cap

191862   20   09.6   −12   46   5.9   dFC   +22.68

28036

12557

11.705   1894.4   −12   32   32.59   1894.9

.039   +93

.744   31.66

+0136 31 −200 32 N30 31.66   +135 −195

+0134±1.8 −193±1.9 C L → N30

Cal Mag

198−195

200

−195

1.57

+22.6

151862 20 9.6 −12 46 F8V

HR7715

G124035

5.85 +47 −0.065 2Eq

2(3) 6ap

.306 .144 .383 2.645 (3)

1.82

5.52 3018 137

[m1] 190 +38

[c1] 288

−22r 3395 +33

M0 389 33

41.3

2.50 −11.6 −10.0 −45.3

+200 −648 +147

8 5 4
6 1 9
5 4 1
2 7 3
3 9 1

67

231
197

192031 20 10.6 -15 35 dbs +22.6 bw(3)

CC1197
W12574
CC2637
Y4798
-15-05584
1352M2911

8.66 +0.72 +0.16 GSR
Σ=.13

867 455 221 213 (4) -35 -26 Ca

-780
CJ193 +5.08 LV +5.70

-350±14 -272±10 Y

-220 -272 (subtly)
-318 -272

-74 -55 +30 .022
-55 -38 +20 .030

-330
-272
2.97
+0.15

36 Y (10)
11 O(4)
39 C(17)
26±7

ثابت کنید $\sum_{k=0}^{n} \binom{n}{k} = 2^n$

$$(1+x)^n = \sum_{k=0}^{n} \binom{n}{k} x^k$$

$$x = 1 \Rightarrow 2^n = \sum_{k=0}^{n} \binom{n}{k}$$

$$\binom{n}{k} = \frac{n!}{k!(n-k)!}$$

$$\binom{n}{k} = \binom{n}{n-k}$$

$$\binom{n}{k} + \binom{n}{k+1} = \binom{n+1}{k+1}$$

$$\binom{n}{k} = \frac{n}{k} \binom{n-1}{k-1}$$

$$\binom{n}{k} = \frac{n-k+1}{k} \binom{n}{k-1}$$

$$\binom{n}{k} = \frac{n}{n-k} \binom{n-1}{k}$$

$$\binom{n}{k} = \frac{n-k+1}{n} \binom{n}{k-1}$$

$$\binom{n}{k} = \frac{n}{n-k} \binom{n-1}{k}$$

$$\binom{n}{k} = \frac{n-k+1}{n} \binom{n}{k-1}$$

44798

192031 20 10.6 −15 35 8.6 dB8 +22.68

CC1197 8.64 +72 +16 B8 ☆ R

12574

−15 05 58 84

17hr M2 9" 32 4 (10) 15 D (4) 41 C (7)

−350 ± 14 −272 ± 10 Y

→ +1

−357 −271 → GL

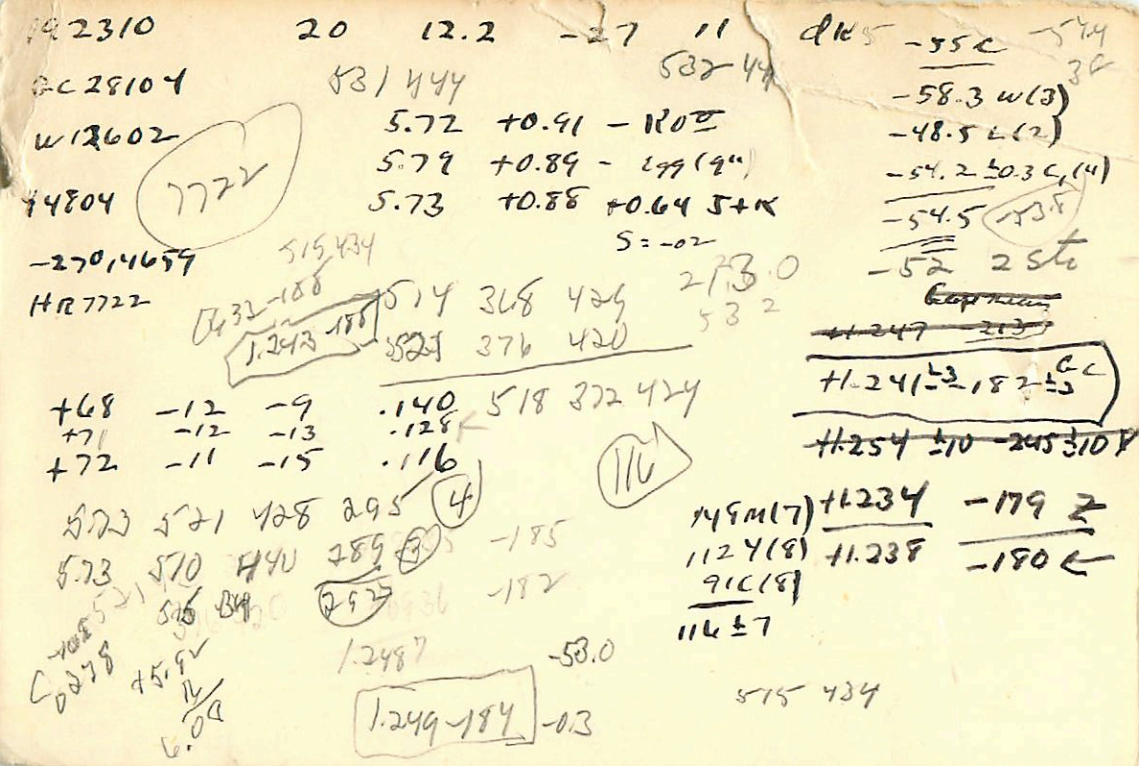
−339 ± 11 −231 ± 5 CR

```
A.  :    20.150
C.  :   -15.600
A.  :  -330.000
C.  :  -272.000
CE  :     2.970
US  :    39
L.  :    21.500

U)  :     0.522
U)  :     0.277
U)  :    -0.807
dU  : %-1143.927
 U  :   -62.256

V)  :     0.176
V)  :     0.890
V)  :     0.420
dV  : %-1413.605
 V  :   -46.478

W)  :    -0.834
W)  :     0.362
W)  :    -0.416
dW  :   790.710
 W  :    22.098
```



+0930 ± 2.6 -182 ± 2.9
+0937 -188

10.397 1900.1 -27 11 1.91 1901.0 69

4.641
5.756

8.92
52.99

37.074
31.312
8.386
-35
351
-13
338
3

8.434
+3.178

33.9

29.70 1927.04
30.38
59.32
59.70
59.92
59.30
59.42
0.15 1938.92 -6.19
2
0.13

59.16
-6.19

37.206
31.312
8.518
483
466

9.346
-16
348
3

33.109
36.501
4.410
-8
-20
582

1929.04
24.49
29.95
59.54
59.40
58.14

49.52 1940.94
48.84
0.68 ±2 = 4/0.52

34.0
33.0

-0232 ± 4.4 -207 ± 3.5 Sr
-238 -212

193216 20 15.5 +50 08 8.2
28207 8.15 456 807 317 (2)

12668 28.384 1857.7 +50 07 33.57
1.214 11.76
29.598 45.33

28.420 39.1 34.13 1546.96 735
418 31 36.8
45.31 13 60 82 33.8 43.0
43.63 680 -224 -210 59.4 426.7 1241
28.94 3 918 37.95 36.20
539 -350 37 64 -9.13
947 -210 35.49 10 38.59
260 -246 -212 Y
-33 0 +1
-211

70

A.	:	20.250
C.	:	50.150
A.	:	-350.000
C.	:	-210.000
NCE	:	2.600
US	:	33
EL.	:	-33.000
(U)	:	0.541
(U)	:	0.838
(U)	:	-0.070
dU	:	%-1409.196
U	:	-44.355
(V)	:	0.159
(V)	:	-0.021
(V)	:	0.987
dV	:	-149.133
V	:	-37.509
(W)	:	-0.826
(W)	:	0.545
(W)	:	0.145
dW	:	335.943
W	:	6.345

70

192886 20 15.7 -47 44 FLE -30.8

FS1049 6.12 0.306 163 425 2.456

GC28213

+0221 -222

+0154 ± 8.7 -186 ± 6.1

.673 +158 -158

+0180 -188

+4 +4

+0184 -184

.185

+184 -186

42.609 1864

-981

41.628

+0206 +0217 -195

10.70

1892.5 +188

+184 187

54797

47.56

42.3

35.5

31.4

1940.46 1930.70

36.42

4.04

3.94

3.7

1107 Ky F65

792886 20 15.7 -47 44 dF6

HIP7749

GC28213 3. 6.12 +46 -1 C 305 160

-09 +3.71 10 2.98 159

C0 414 361 .308 .160 .430 2.68 3 7,10,2

[my] 213 +17 316

[C] 371 29/46 3.5 7790 6270 -6780 7378 07315 2.27 24.3M.

+0189 = +191 -185 -30.8

+543 -183 -820	+4916 +1605	+6521	+43.6	+25.2
+158 +981 -115	+1430 -8602	-7172	-14.8	+3.5
-825 +067 -561	-7464 -0586	-8057	-5.5	+17.3

7783 +0786±3.0 +298±3.0
+0796 +296
193664 20 17.0 +66 42 6.1 d61 -4.76

28252
12695 -3.1 (19)

2.124 1886.4 +66 41 33.69 1885.5

-4.999 (Mn) -19.22
57.125 2.543 14.47
5.52 386 1435 0793 296
371 32.13 1944.87 470796
66±5 1.736 43 11 1186 296
.779 32.02 322 1.02 -.15
4 654 755
5.92 286 187 315 2593 (4)
C0 714 327 +4774 16 593 279 176 330 (5)
591 371 177

WG30

153307 20 18.0 -50 08 C2 II-II

HPT766

GC28291 6.28 +55 -2 25 99

108

.365 .167 .324 2.619 ② 1,12,23,5

[m] 233 +32 128 626 363 148 349 2441 ④

-26 627 364 145 356 ③ -254 +3.84

[C,] 251 173 627 364 145 356 C₀ 308 42 2

22.25m. -30 -33 -33 364 4.

6.26 86 148 348 1428 -0366 = -3

+18.

-239

80m.

-652

+13

+550	-213	-808	-9177	+2413	-6764	-33.8	-14.5
+151	+976	-155	-2519	-1.1057	-1.3576	-43.5	-2.8
-822	+036	-569	+1.3715	-0408	+1.3307	+29.7	-10.2

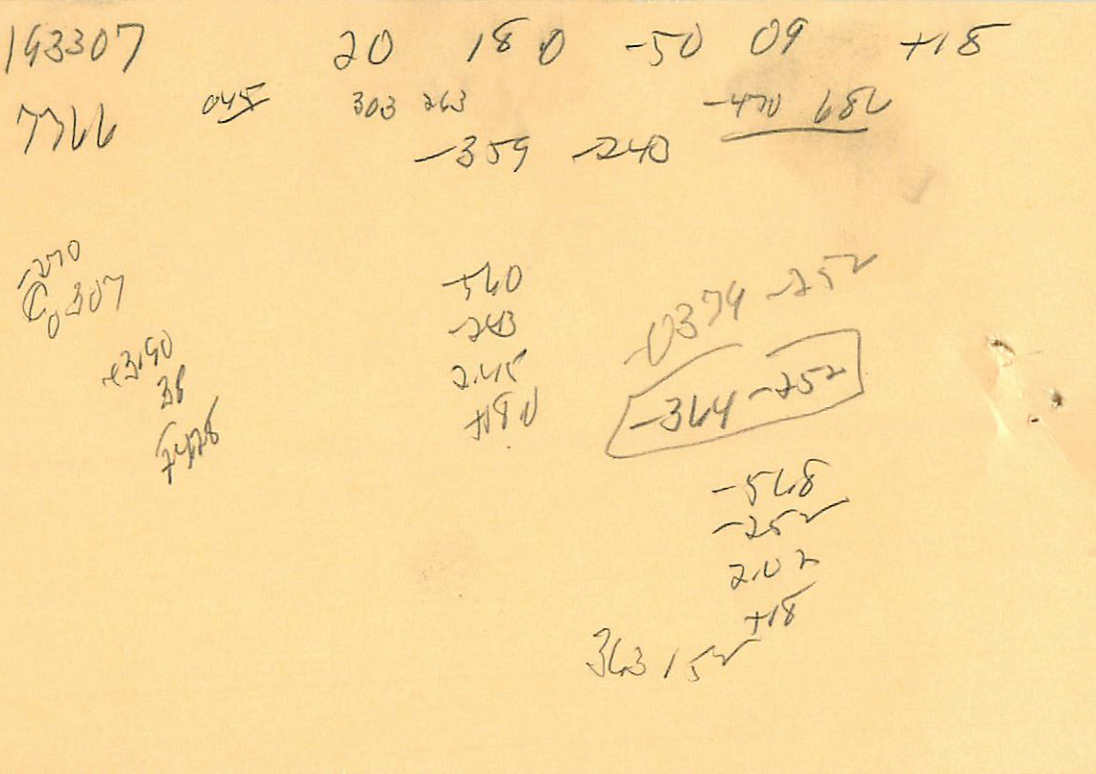
R.A. : 20.300
DEC. : 66.700
R.A. : 1185.000
DEC. : 296.000
TANCE : 1.020
DULUS : 16
VEL. : -3.500

11 (U) : 0.550
12 (U) : 0.817
13 (U) : 0.175
dU : 2367.255
U : 37.254

11 (V) : 0.151
2 (V) : -0.303
3 (V) : 0.941
dV : -89.189
V : -4.720

(W) : -0.822
(W) : 0.491
(W) : 0.290
dW : %-1127.0...

R.A. : 20.300
DEC. : -50.150
R.A. : -568.000
DEC. : -252.000


163307
20 180 -50 09 +18
7766
045
303 243
-470 682
-359 -240
-270
C 307
+3190
38
7926
+540
-243
2.415
+190
-0374 -252
-364 -252
-568
-252
2.02
+18
363 152

-0374±6.1 -254±4.7 $G_3(4)$

193307 20 18.1 -50 09 $G2\frac{1}{2}-\frac{1}{2}$ +16.4±0.4

~~HR~~ 28291 6.26 +55 1.63 +19.455A

~~HR~~ 3.633 1911.0 -5-0 9 20.37 1908.1 +18.0

435 145 364 (A) 406 (?) 1.459 8.10

5.092 12,127

+4.8 441 Stony 1968

-0357" -241" M30

-0364±6.1 -248±4.7GL ≠M30

-0376 -245

+10 +6

-0366 -239

-352

193307 -359

+0195 -243

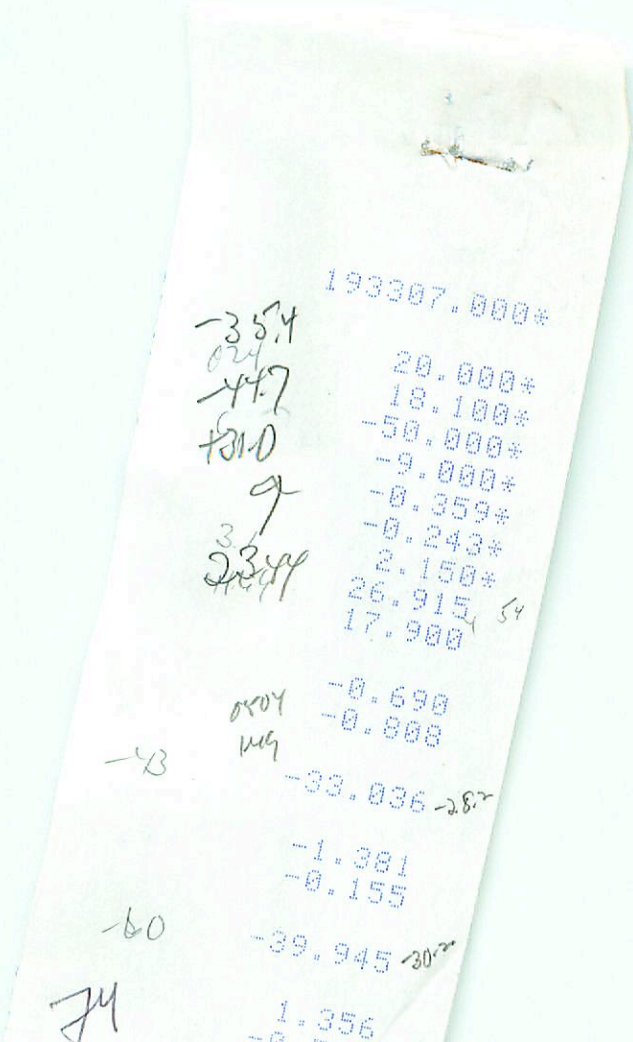
120 +17.9

-0.6 -0376 -245 stny

-0371.5 -2405

-357 +17.9

-359 -243 2.15


193307.000*
20.000*
18.100*
-50.000*
-9.000*
-0.359*
-0.243*
2.150*
26.915
17.900
-0.690
-0.808
-33.036
-1.381
-0.155
-39.945
1.356

+0045-006 (early)

154012 (T0 -6) 20 20.5 +14 23 F5

HR7753

GL2343

+0052 -008

+0054.5 -0045

+008 -007

L/C 326 158 .074 261 (10) 2.624

.338 162 .342 (2) SBC 2.626

223 +23 6.5 20.5 324 152 (3rd) (3) Mt

274 -23 +14.4 +15 -7 1.7

-126 GL374 +14.4 +7.61

+3.7

25M

555 637 -534	+2026 -0211	+1815	+3.4	-1.1
145 558 817	+0530 -0185	+0345	+2.4	+1.6
-84 532 -217	-2585 -0126	-3165	-5.3	-0.4

+004 +2c
-017
+0051 -003 ±4.6
+0049 ±5.2

32.341 1892.7 +0056 23.53 1889.7
-281 18
.060 23.71

+0053 -010
0 +3
32.241 +0053 -007
+7 968
+077
32.287 22.93 1923.4
+227 +02
22.95
-76

32.395 (5-7.6) 23.24
-5 24
390 23.50

1 63501 20 20.6 −21 81 −1718 (17)

8.66 383 094 221 (719) (3) 8.63 +0.545 −0.13 (2)

8.66 381 504 217 (4) 8.48 +0.20 (3)

381 118

−820

Co 20 ✓

+447 ✓

87

9

8.2

−1750 6

41 19

+563 −1020 Hyd

+552 −1045 Cap Ref.

+564 −1066 Yale

+562 −1.065 Meridian + new

+560 −1050

3

Calculate

0342 −1055

547 −1055

6 Examples

588

−1055

3.37

1718

HV

W 12730 20 20.6 -21 31 ad60 -176G -174.6±0.31C +71.0 WIS)

GC HO 28350 8.2 8.64 +55 1.53 2 mchn -175 Md(1)

HO 193901 -173 (4)

-210 5703

+563 -1.020 HY

+552±10 -1.044±5 CR

+560±12 -1.073±12 GC

+564±13 -1.066±10 Y

~~+52- -1.050~~

+555 -1.057

42 M(8)

38 Y(12)

23 C(7)

35±6

-819 574 -347 530 +555 -1.057 -172 386 63 -4.640

454 316 319 222 1.100 3.000 -160 -92 +130 03

-55 +230 -92
+155 -300 -33 04
-65 +205 -53
+151 -164 0

-5 203 -43
-77 103 -69
48 -36 -43

-6 190 -25
-32 -92 -40
57 -33 -25

```
R.A.  :      20.350
DEC.  :     -21.500
. R.A.  :   588.000
. DEC.  : %-1055.000
STANCE  :     3.370
10DULUS :    47
D. VEL. :  -171.800

q1 (U)  :      0.558
q2 (U)  :      0.203
q3 (U)  :     -0.804
     dU :    433.700
      U :    158.667

q1 (V)  :      0.142
q2 (V)  :      0.932
q3 (V)  :      0.334
     dV : %-4290.149
      V :   -259.881

q1 (W)  :     -0.817
q2 (W)  :      0.301
q3 (W)  :     -0.491
     dW : %-3624.678
      W :    -86.682
```

194585 20 238 +04 18

-247.7 (17)

-320

4.264

+4.24

81

+5.04

8.35 344 91 264 (6)

8.31 346 89

x6085-554 Carlsbad

176-554

125

-554

328

-247.7

```
R.A.  :    20.400
DEC.  :     9.300
R.A.  :   128.000
DEC.  :  -554.000
TANCE :     3.280
DULUS :    45
VEL.  :  -247.700

1 (U) :     0.567
2 (U) :     0.585
3 (U) :    -0.580
   dU : %-1196.389
    U :    89.432

q1 (V) :     0.134
q2 (V) :     0.629
       :     0.766
```

1944/40 20 24.6 -31 01

$C_0$306

6.63 436 236 BCV

662 440 274 301 (1)

438 252

$C_0$306 -0004 521 Leulay

101 15m

-012-521

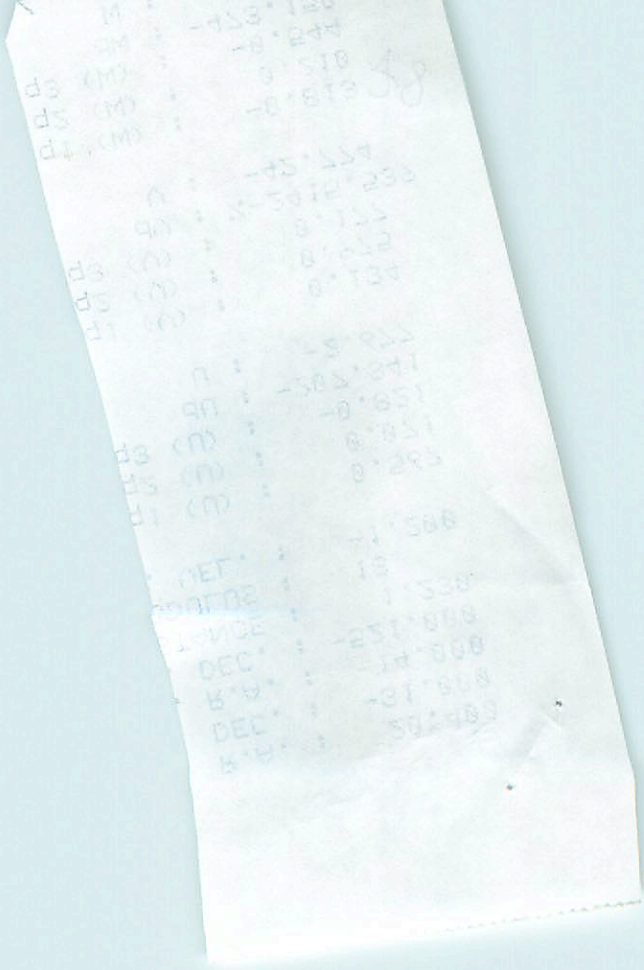
-14

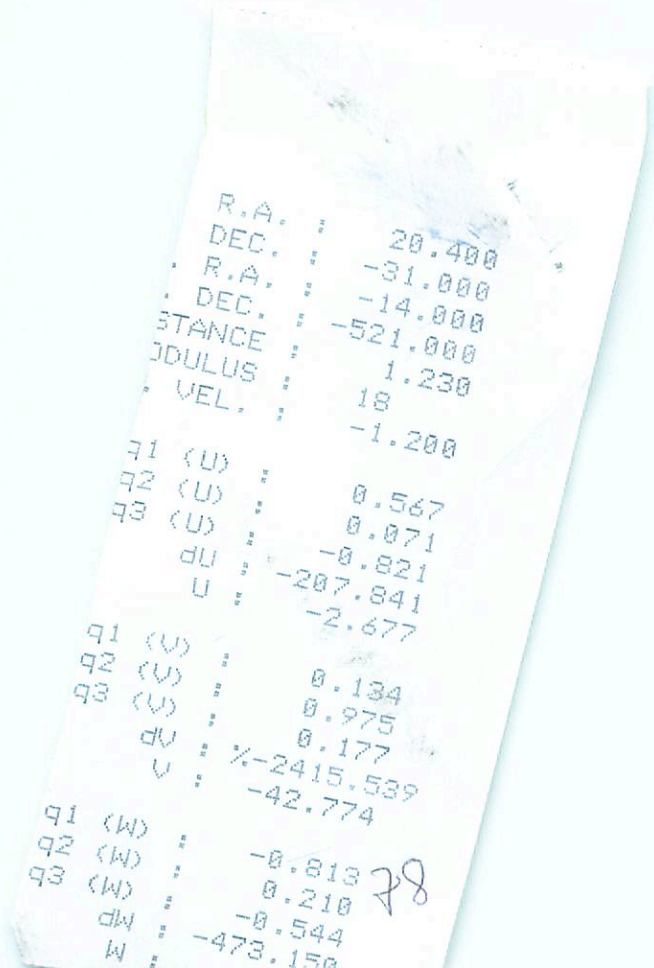
-521

173

-12

78




R.A. : 20.400
DEC. : -31.000
. R.A. : -14.000
. DEC. : -521.000
STANCE : 1.230
ODULUS : 18
. VEL. : -1.200
q1 (U) : 0.567
q2 (U) : 0.071
q3 (U) : -0.821
dU : -207.841
U : -2.677
q1 (V) : 0.134
q2 (V) : 0.975
q3 (V) : 0.177
dV : %-2415.539
V : -42.774
q1 (W) : -0.813
q2 (W) : 0.210
q3 (W) : -0.544
dW : -473.150
W :