

KG
11366
v.681

*Equator Point Corrections
and
Flexure Constants
1878*

Charles W. Sever, University Bookstore, Cambridge.

The values of the Horizontal flexure were derived from the formula given in H. C. O. Annals X, p. xxi - $H_f = \frac{R'_{eq} - R_{eq}}{\sin^2 z - \sin^2 z'}$,

The $R_{eq} \sin z$ and $R_{eq} + R_f$ of the fundamental stars were arranged under each date of observation. From these, those marked with a red dash were selected and copied at the right of the page, and the H_f derived by the above formula.

The separate values of H_f for each date were then collected, grouped and a curve drawn from which the adopted values for H_f given at the head of each date were taken.

$R_f = H_f \sin z$ was then obtained, subtracted from $R_{eq} + R_f$ and the value of R_{eq} derived.

R.A.	sin z	Reg+R _f	-R _f	Reg	Differenz sin z	Reg+R _f	Differenz sin z
Jan. 1							
L m		440	+1.45				
0 34	-23	+5 20.7	" -3	+5 20.4	10		
0 42	-26	20.6	" -4	20.2	12		
1 48	+38	19.6	+1.6	20.2	30		
2 26	-50	20.2	" -7	19.5	38		
2 36	-11	18.4	-2	18.2	40		
2 42	-23	17.7	-3	[17.4] ✓	43		
3 5	-57	20.5	-8	17.7	360		
4 29	+44	21.9	+7	21.6 ✓	73		
4 54	+03	20.9	+0	20.9	82		
1 14	-72	21.3	-1.0	20.3	19		
				+5 19.84			
				20.11			

Jan. 5		Kfl + 1.40													
- 0	26	-34	+ 5	17.5	-1.5	+ 5	17.0	5							
1	39	+56		18.9	+1.8		16.7	25	+56	5	13.9	-34	5	17.5	
- 1	48	+38		17.9	+1.5		18.4	30	.38		17.9	.50		19.9	
- 2	26	-50		19.9	-1.7		19.2	38	47		18.1	.57		19.0	
2	36	-11		17.2	-1.2		17.0	40			19.6	.72		18.6	
2	42	-23		16.9	-1.3		16.6	43	.03		20.2	.87		19.0	
3	5	-57		19.0	-1.5		18.2	360	+47	5	17.30	-53	5	18.82	
3	16	-12		17.8	-1.2		17.6	52				.72		18.65	
- 4	16	+47		18.1	+1.7		18.8	71	1.00		+ 1.45				
4	49	+17		19.6	+1.0		19.8	79	+32	5	18.34	-87	5	18.13	
4	54	+03		20.2	+1.0		20.2	82			+1.45				
- 1	14	-72		18.6	-1.0		17.6	19							
							+5	18.09							

Jan. 7		Nfc		+ 1.40							
- 1	39	+ .56	5	20.0	+ .8	+ 5	20.8	25			
- 1	48	+ .38		21.8	+ .5		22.3	30	+ .56	5	22.6
- 2	26	- .50		22.6	- .7		21.9	38	.38		21.8
- 2	36	- .11		20.6	- .2		20.4	40			.72
- 2	42	- .23		19.3	- .3		19.0	43	+ .47	5	20.90
											- .61
- 1	14	- .72		24.0	- .40		23.6	19	1.08		+ 2.40
						+ 5	21.23				+ 2.22

12

Typ. +1.38

 $+1.38$

5	23	-0.24	5	19.8	-0.7	+5	19.1	92
5	30	+0.69		19.7	+1.0		20.7	97
5	49	+0.57		20.2	+0.8		21.0	102
6	31	+0.44		20.3	+0.6		20.9	107
6	36	+0.29		19.8	+0.4		20.2	109
7	13	+0.34		20.9	+0.5		21.4	115
-6	42	-0.71		21.8	-1.0		20.8	111
-18	11	-0.78		21.5	-1.1		20.4	236

+5	20.56
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+69	5	19.7
.57		20.2
.44		20.3
+57	5	20.07
1.25		+0.96
		+0.77

- .54	5	19.8
.71		21.8
.78		21.5
- .68	5	21.03

Jan. 13

$$K_{Fe} + 1.38$$
 $+1.38$

1	39	+56	5	19.8	+ .8	+5	20.6	25
1	48	+38		20.9	+ .5		21.4	30
1	53	-49		21.4	- .7		20.7	31
2	2	+14		21.5	+ .2		21.7	34
2	26	-50		20.5	- .7		19.8	38
2	36	-11		19.1	- .2		18.9	40
3	5	-57		20.6	- .8		19.8	360

+5	20.41
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$\begin{array}{r} +.56 \\ .38 \\ \hline \end{array}$	$\begin{array}{r} 5 \quad 19.8 \\ 20.9 \end{array}$
$\begin{array}{r} +.47 \\ .99 \\ \hline \end{array}$	$\begin{array}{r} 5 \quad 20.35 \\ + 0.48 \\ + 0.48 \end{array}$

-49	5	21.4
.50		20.5
.57		20.6
-52	5	20.83

Jan. 14

Age + 1.37

 $+1.37$

3 16	-12	5 19.8	-12	+5 19.6	52
4 16	+47	20.1	+6	20.7	71
4 29	+45	20.2	+7	20.9	73
4 49	+17	20.2	+12	20.4	79
4 54	+03	20.2	+10	20.2	82
5 8	-06	18.4	-1	18.3	80
5 19	+25	19.0	+3	17.8	96
5 23	-52	18.6	-7	17.9	92

+5 19.66

$+47$	5	20.1
$.49$		20.2
$+48$	5	20.15
1.02		-1.55
		-1.52

-54	5	18.6
-54	5	18.61

Jan. 16

4pc +1.36

- 1 39	+56	5 17.7	+8	+5 [18.5] 25
- 1 53	-49	~~22.6~~ 22.8	-7	22.8 31
- 2 26	-50	21.8	-7	21.1 38
- 2 36	-11	20.0	-1	19.9 40
- 2 42	-23	19.9	-3	19.6 43
- 3 16	-12	20.8	-2	20.6 52
- 4 16	+47	20.1	+6	20.7 71
- 4 29	+49	20.6	+7	21.3 73
- 4 49	+17	20.9	+2	21.1 79
- 4 54	+03	21.6	+0	21.6 82

+56 5 17.7
 .47 20.1
 .49 20.6

-49 5 23.6
 .50 21.8
 .72 22.3

+51 5 19.47

-57 5 22.57

1.08 +3.10

+2.87

- 1 14	-72	22.3	-10	21.3 19
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+5 20.7
 93

Jan. 19

4pc +1.34

- 1 39	+56	5 20.3	+8	+5 21.1 25
- 1 53	-49	21.0	-7	20.3 31
- 2 2	+14	20.3	+2	20.5 34
- 2 26	-50	20.7	-7	20.0 38
- 2 36	-11	19.6	-1	19.5 40
- 2 42	-23	18.5	-3	18.2 43
- 3 16	-12	20.1	-2	19.9 52
- 1 14	-72	21.6	-10	20.6 19

+56 5 20.3

-49 5 21.0
 .50 20.7
 .72 21.6

+56 5 20.30

-57 5 21.10

1.13 +0.80

+0.71

+5 20.01

Jan. 22

4pc +1.32

- 1 39	+56	5 20.3	+7	+5 21.0 25
- 1 48	+38	21.9	+5	22.4 30
- 1 53	-49	20.9	-6	20.3 31
- 2 2	+14	20.9	+2	21.1 34
- 3 5	-57	21.5	-8	20.7 360
- 1 14	-72	21.2	-10	20.2 19

1
 +56 5 20.3
 .38 21.9

-49 5 20.9
 .57 21.5
 .72 21.2

+47 5 21.10

-59 5 21.20

1.06 +0.10

+0.09

+5 20.95

8pbm. 23

$$H_e + 1.32$$
 $+ 1.32$ [illegible]

+5	20.60
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Jan. 24

 $\Delta_{\text{fe}} + 1.32$ $+1.32$ [illegible]

+5 22.21

Jan. 28

ΔH_f° +1.29

+1.29

[illegible] $+5 \quad 20.9^\circ$

Jan. 29

Nfl +1.27

- 2 26	-50	5 23.9	-6	+5 23.3	38
2 36	-11	21.1	-1	21.0	40
2 42	-23	20.6	-3	20.3	43
- 2 56	+63	19.7	+8	20.5	47
- 3 5	-57	23.9	-7	23.2	360
- 4 16	+47	21.8	+6	22.4	71
4 49	+17	22.2	+2	22.4	79
4 54	+03	22.5	+0	22.5	82
5 8	-06	22.0	-1	21.9	86
- 5 23	-54	23.7	-7	23.0	92
- 5 30	+69	21.2	+9	22.1	97

+5 22.05

+63	5 19.7	-50	5 23.9
47	21.8	.57	23.9
.69	21.2	.54	23.7
+60	5 20.90	-54	5 23.83
1.14	+2.93		
	+2.57		

Jan. 30

Nfl +1.27

2 42	-23	5 21.5	-3	+5 21.2	43
3 0	+03	21.5	+0	21.5	50
- 3 5	-57	23.8	-7	23.1	360
3 34	-09	21.6	-1	21.5	57
- 4 16	+47	22.3	+6	22.9	71
- 4 29	+49	22.6	+6	23.2	73
4 54	+03	23.0	+0	23.0	82
5 19	+25	22.1	+3	22.4	90
- 5 23	-54	24.5	-7	23.8	92
- 5 49	+57	21.6	+7	22.3	102

+5 22.56

+47	5 22.3	-57	5 23.8
.49	22.6	.54	24.5
.57	21.6	.78	24.3
+51	5 22.17	-63	5 24.20
1.14	+2.03		
	+1.78		

Feb. 2

Nfl +1.25

3 0	+03	5 21.5	+0	+5 21.5	50
- 3 5	-57	21.8	-7	21.1	360
3 34	-09	21.4	-1	21.3	57
- 4 16	+47	21.7	+6	22.3	71
- 4 29	+49	21.7	+6	22.3	73
4 49	+17	22.8	+3	23.0	79
- 5 49	+57	19.1	+7	19.8	102
- 18 11	-78	23.4	-10	22.4	256

+5 21.71

+47	5 21.7	-57	5 21.8
.49	21.7	.78	23.4
.57	19.1		
+51	5 20.83	-67	5 22.60
1.18	+1.77		
	+1.50		

Pl. 3

45

 $+1.23$ [illegible]

Feb. 4

Иде

 $+ 1.23$ [illegible]

GA.5

My

 $+1.22$ [illegible]

Feb. 6		Mfe		+ 1.20											
- 4	16	+ .47	5	20.8	+ .6	+ 5	21.4	71							
4	49	+ .14		20.6	+ .2		20.8	74							
4	54	+ .03		21.4	+ 0		21.4	82	+ .47	5	20.8		- .54	5	20.9
5	28	- .06		20.4	- .1		20.3	86	.69		20.5		.45		21.4
5	23	- .54		20.9	- .6		20.3	92	.57		20.0		.78		20.6
5	30	+ .69		20.5	+ .8		21.3	97	.44		20.2				
5	49	+ .57		20.0	+ .7		20.7	102							
6	5	- .45		21.4	- .5		20.9	353	+ .54	5	20.37		- .59	5	20.97
6	31	+ .44		20.2	+ .5		20.7	107							
6	36	+ .29		21.7	+ .3		22.0	109	1.13		+ 0.60				
											+ 0.53				
- 18	11	- .78		20.6	- .9		19.7	256							
							+ 5	20.86							

Feb. 7		Apr 119											
- 4 16	+47	4	6.7	+ .6	+ 4	73	71	+47	4	6.7	- .45	4	6.6
4 29	+46		6.9	+ .6		75	73			6.9	.71		6.6
4 54	+63		7.9	+ .0		79	82			5.2	.78		5.8
- 5 49	+57		5.2	+ .7		59	102			6.1			
- 6 5	-45		6.6	- .5		6.1	383						
- 6 31	+44		6.1	+ .5		6.6	107	+49	4	6.23	- .65	4	6.33
6 36	+29		7.3	+ .3		7.6	109						
7 13	+34		6.4	+ .4		6.8	115	1.14		+ 0.10			
- 6 42	-71		6.6	- .8		5.8	111			+ 0.09			
- 18 11	-78		5.8	- .9		4.9	256						
					+4	6.64							

Feb. 11		Mpc		+1.14										
3	34	-0.9	4	6.8	-0.1	+4	6.7	57						
-	4	16		7.6	+0.5		8.1	71	+47	4	7.6	-0.54	4	7.4
-	4	29		8.1	+0.6		8.8	73	.49		8.1	.71		8.6
-	4	49		7.9	+0.3		8.1	79	.57		6.1	.78		7.5
-	5	19		6.9	+0.3		7.2	90	.44		6.7			
-	5	23		7.4	-0.6		6.8	92						
-	5	49		6.1	+0.6		6.7	102	+49	4	7.12	-0.68	4	7.83
-	6	31		6.7	+0.5		7.2	107						
-	6	36		6.9	+0.3		7.2	109	1.17		+0.71			
-	7	13		6.9	+0.4		7.3	115			+0.61			
-	6	42		8.6	-0.8		7.8	111						
-	18	11		7.5	-0.9		6.6	256						
						+4	7.37							

Feb. 13									
Npc +1.10									
- 13	+34	4	7.6	+ .4	+4	8.0	115		
- 33	+60		7.0	+ .7		7.7	120	+60	4 7.0
- 7 38	+24		6.9	+ .3		7.2	122		-71 4 7.8
									.75 9.0
- 6 42	-71		7.8	- .8		7.0	111	+60	4 7.00
- 19 46	-75		9.0	- .8		8.2	284		-73 4 8.40
					+4	7.62		+1.33	+1.40
									+1.05

Feb. 14									
Npc +1.10									
- 2 56	+63	4	6.8	+ .7	+4	7.5	47	+63	4 6.8
- 3 0	+03		9.1	+ .0		9.1	50		-71 4 9.3
- 3 34	-09		6.2	- .1		6.1	57		.78 8.6
- 4 16	+47		7.3	+ .5		7.8	71		
- 4 29	+44		7.0	+ .5		7.5	73		
- 5 49	+57		7.5	+ .6		8.5	102		
- 6 31	+44		7.1	+ .5		7.6	107	+52	4 6.62
- 6 36	+29		8.1	+ .3		8.4	109		-74 4 8.95
- 7 13	+34		8.4	+ .4		8.8	115		
								1.26	+ 2.33
- 6 42	-71		9.3	- .8		8.5	116		+ 1.85
- 18 11	-78		8.6	- .9		7.7	256		
					+4	7.75			

Feb. 16									
Npc +1.09									
- 4 16	+47	4	6.6	+ .5	+4	7.1	71	+47	4 6.6
- 4 29	+49		7.3	+ .5		7.5	73		-54 4 7.1
- 4 49	+17		7.3	+ .2		7.5	79		.78 8.2
- 4 54	+03		6.8	+ .0		6.8	82		
- 5 8	-06		6.7	- .1		6.6	86	+48	4 6.95
- 5 19	+25		6.5	+ .3		6.8	90		-66 4 7.65
- 5 23	-34		7.1	- .6		6.5	92		
- 18 11	-78		8.2	- .9		7.3	256	1.14	+ 0.70
					+4	7.05			+ 0.61

Ph. 26

Age +.94

[illegible]

Art. 27

 $\text{Age} + .92$ [illegible]

Feb. 28

4fe +.91

[illegible]

Mar. 4

Kfe +.86

 $+ .86$ [illegible]

Mar. 5

Age +.84

 $+84$ [illegible]

Mar. 6

$$H_f + .83$$

+ .83

[illegible]

Mar. 16

He + .73

- 18	31	+ .44	4	8.8	+ .3	+ 4	9.1	107
- 6	36	+ .29		9.8	+ .2		10.0	109
- 7	18	- .44		9.0	- .3		8.7	116
- 7	38	+ .24		8.7	+ .2		8.9	122
- 8	20	- .33		8.9	- .2		8.7	125
- 8	40	+ .58		7.7	+ .4		8.1	128
- 8	35	- .09		8.5	- .1		8.4	133
- 6	42	- .71		10.2	- .5		9.7	211
- 18	11	- .78		10.1	- .6		9.5	256
- 19	46	- .75		10.7	- .5		10.2	294
						+ 4	9.13	

+44 .58	4	8.8 7.7	-44 32 71 78 75	4	9.0 8.9 10.2 10.1 10.7
+51 1.11	4	8.25 +1.53 +1.38	-60	4	9.78

+4 9.13

Mar. 19

Me +.72

- 6	31	+ .44	4	10.6	+ .3	+ 4	10.9	107
- 6	36	+ .29		11.5	+ .2		11.7	109
- 7	18	- .44		10.1	- .3		9.8	116
- 7	38	+ .24		10.2	+ .2		10.4	122
- 8	20	- .32		9.9	- .2		9.7	125
- 8	40	+ .58		9.3	+ .4		9.7	128
- 8	53	- .09		10.0	- .1		9.9	133
- 6	42	- .71		11.1	- .5		10.6	111
- 18	11	- .78		10.0	- .6		9.4	256
- 19	46	- .75		10.9	- .5		10.4	282
						+ 4	10.25	

+ .44	4	10.6	- .44	4	10.1
.58		9.3	.32		9.9
			.71		11.1
			.78		10.0
			.75		10.9
+ .51	4	9.95	- .60	4	10.40
1.11		+ 0.45			
		+ 0.41			

 $+4 \quad 10.25$

Mar. 20

$\Delta f_e + .72$

- 7	13	+34	4	10.8	+ .2	+4	11.0	115
- 7	18	-44		11.1	- .3		10.8	116
- 7	33	+60		10.0	+ .4		10.4	120
- 7	38	+24		10.8	+ .2		11.0	122
- 8	10	+54		10.7	+ .4		11.1	123
- 6	42	-71		12.2	- .5		11.7	111
- 19	46	-75		12.4	- .5		11.9	286
						+4	11.3	

$+34$ $.60$ $.54$	4	10.8 10.0 10.7	-44 $.71$ $.75$	4	11.1 12.2 12.4
$+49$ 1.12	4	10.50 $+ 1.40$ $+ 1.25$	$-.63$	4	11.90

+4	11.13
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Mar. 21

Use +.71

- 6	31	+44	4	10.8	+3	+4	11.1	107											
- 6	36	+29		12.2	+2		12.4	109	+44	4	10.8								
- 8	10	+54		11.1	+4		11.5	123	.54		11.1								
- 8	20	-32		11.0	-2		10.8	125	.58		10.5								
- 8	40	+58		10.5	+4		10.9	128											
- 8	55	-09		10.8	-1		10.7	133											
									+52	4	10.80								
- 6	42	-71		11.9	-5		11.4	111											
- 18	11	-78		10.6	-5		10.1	256	1.16		+0.57								
- 19	46	-75		11.6	-5		11.1	284											
							+4	11.11			+0.49								

Mar. 26

Age + 70

-	7	38	+ .24	4	11.6	+ .2	+ 4	11.8	122									
-	8	10	+ .54		10.3	+ .4		10.7	123	+ .54	4	10.3			- .32	4	10.5	
-	8	20	- .32		10.5	- .2		10.3	125	.58		9.8			.64		10.5	
-	8	40	+ .58		9.8	+ .4		10.2	128	.31		12.1			.75		11.4	
-	9	20	- .44		10.5	- .4		10.1	137									
-	9	39	+ .31		12.1	+ .2		12.3	142	+ .48	4	10.73			- .57	4	10.80	
-	19	46	- .75		11.4	- .5		10.9	284	1.05		+ 0.07						
							+ 4	10.90				+ 0.07						

Mar. 30

K_{Fe} + .68

- 7	33	+1.0	4	10.5	+4	4	10.9	120											
- 7	38	+2.4		10.5	+1		10.6	122		+60	4	10.5							
- 8	10	+5.4		9.1	+4		9.5	123		.54		9.1							
- 10	2	+1.5		11.3	+3		11.6	146		.50		11.3							
- 10	16	+1.0		10.9	+0		10.9	149											
- 10	25	-3.6		11.1	-4		10.7	150		+55	4	10.30							
- 10	54	-2.5		9.8	-2		9.6	153											
										7.20		+1.20							
- 19	46	-7.5		11.9	-5		11.4	284											
							+4	10.65				+1.00							

Mar. 31

Afe

+.68

- 1 33	+ .60	4 11.3	+ .4	+4 11.7	120								
- 1 58	+ .24	11.7	+ .2	11.9	122	+ .60	4 11.3		- .32	4 11.0			
- 8 10	+ .54	9.5	+ .4	9.9	123	.54	8.5		.56	10.9			
- 8 20	- .32	11.0	- .2	10.8	125	.50	10.4		.75	12.3			
- 10 2	+ .50	10.4	+ .3	10.7	146								
- 10 15	+ .00	9.6	+ .0	9.6	149	+ .55	4 10.07		- .54	4 11.40			
- 10 25	- .56	10.9	- .4	10.5	150								
- 10 34	- .25	10.2	- .2	10.0	153	1.09	+ 1.33						
- 11 8	+ .36	10.7	+ .2	10.9	156		+ 1.22						
- 19 46	- .75	12.3	- .5	11.8	284								
				+4 10.68									

Apr. 2

Afe

+.68

- 8 40	+ .58	4 10.4	+ .4	+4 10.8	128								
- 8 55	- .09	10.4	- .1	10.3	133	+ .58	4 10.4		- .64	4 11.0			
- 9 20	- .64	11.0	- .4	10.6	137	.50	10.5		.56	11.8			
- 9 39	+ .31	11.8	+ .2	12.0	142								
- 9 42	- .30	11.5	- .2	11.3	143	+ .54	4 10.45		- .60	4 11.40			
- 10 2	+ .50	10.5	+ .3	10.8	146								
- 10 15	+ .00	11.5	+ .0	11.5	149	1.14	+ 0.95						
- 10 25	- .56	11.8	- .4	11.4	150		+ 0.83						
				+4 11.09									

Apr. 3

Afe

+.67

- 8 40	+ .58	4 9.8	+ .4	+4 10.2	128								
- 8 55	- .09	9.6	- .1	9.5	133	+ .58	4 9.8		- .64	4 10.9			
- 9 20	- .64	10.9	- .4	10.5	137	.31	11.4		.30	11.3			
- 9 39	+ .31	11.4	+ .2	11.6	142				.75	9.0			
- 9 42	- .30	11.3	- .2	11.1	143								
- 10 15	+ .00	10.2	+ .0	10.2	149	+ .44	4 10.60		- .56	4 10.40			
- 19 46	- .75	9.0	- .5	8.5	284	1.00	- 0.20						
				+4 10.23			- 0.20						

Apr. 8

Apr. 8 +.66

- 8 40	+ .58	4 10.5	+ .4	+ 4 10.9	128
8 55	-.09	10.1	-.1	10.0	133
- 9 20	-.64	10.8	-.4	10.4	137
9 42	-.30	10.4	-.2	10.5	143
- 10 2	+ .50	10.6	+ .3	10.9	146
10 15	+ .00	11.3	+ .0	11.3	149
- 10 25	-.56	11.0	-.4	10.6	150
10 46	+ .13	11.5	+ .1	11.6	152
					+ 4 10.78

+ .58	4 10.5	-.64	4 10.8
.50	10.6	.56	11.0
+ .54	4 10.55	-.60	4 10.90
1.14	+ 0.35		
	+ 0.31		

Apr. 13

Apr. 13 +.66

9 39	+ .31	4 11.0	+ .2	+ 4 11.2	142
- 9 42	-.30	10.4	-.2	10.2	143
- 10 2	+ .50	10.14	+ .3	10.7	146
10 15	+ .00	10.5	+ .0	10.5	149
- 10 25	-.56	11.0	-.4	10.6	150
10 54	-.25	10.3	-.2	10.1	153
- 11 8	+ .36	10.5	+ .2	10.7	156
					+ 4 10.57

+ .50	4 10.4	-.30	4 10.4
+ .36	10.5	.56	11.0
+ .43	4 10.45	-.43	4 10.70
0.86	+ 0.25		
	+ 0.29		

Apr. 14

Apr. 14 +.66

- 9 20	-.64	4 10.5	-.4	+ 4 10.1	137
- 9 39	+ .31	10.5	+ .2	10.7	142
- 9 42	-.30	11.0	-.2	10.8	143
- 10 2	+ .50	10.3	+ .3	10.6	146
10 15	+ .00	10.4	+ .0	10.4	149
- 10 25	-.56	11.3	-.4	10.9	150
10 46	+ .13	12.0	+ .1	12.1	152
					+ 4 10.80

+ .81	4 10.5	-.64	4 10.5
.50	10.3	.30	11.0
		.56	11.3
+ .40	4 10.40	-.50	4 10.93
0.90	+ 0.53		
	+ 0.59		

Apr. 16

Hfe +.65

10 15	+00	4 11.0	+0	+4 11.0	149
10 25	-56	11.9	-4	11.5	150
10 46	+13	12.2	+1	12.3	152
				+4 11.60	

Apr. 17

Hfe +.65

-10 25	-56	4 11.7	-4	+4 11.3	150				
-11 8	+36	10.0	+2	10.2	156	+36	4 10.0	-56	4 11.7
-11 24	-46	11.6	-3	11.3	162	.45	11.1	.46	11.6
-11 43	+45	11.1	+3	11.4	164	+67	10.2	.59	11.3
-12 6	-59	11.3	-4	10.9	168				
-12 14	+67	10.2	+4	10.6	170	+49	4 10.43	-54	4 11.53
				+4 10.95		1.03	+1.10		
							+1.26		

May 1

Hfe +.65

-12 28	-47	4 10.2	-3	+4 9.9	171				
-12 49	-24	10.2	-2	10.0	173	+51	4 10.0	-47	4 10.2
-12 56	+51	10.0	+3	10.3	176	40	11.1	24	10.2
13 19	-23	11.5	-1	11.4	178			75	11.6
13 43	-13	9.9	-1	9.8	181				
-13 49	+40	11.1	+3	11.4	182	+45	4 10.55	-49	4 10.67
-1 14	-75	11.6	-5	11.1	19	0.94	+0.12		
				+4 10.56			+0.13		

May 2

Wfc	+ .66
-----	-------

[illegible]
$$+4 \quad 10.92$$

May 4

Age +.66

11 8	+ .36	4	12.5	+ .2	+ 4	12.7	156
11 24	-.46		~~13.7~~	-.3		~~12.9~~	162
11 40	-.11		12.4	-.1		12.3	163
11 43	+.45		11.9	+ .3		12.2	164

+4	12.52
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May 5

Apr. +.66

-12	28	-47	4	12.1	-3	+4	11.8	171									
-12	49	-24		11.2	-2		11.0	173	+51	4	11.5	-47	4	12.1			
-12	56	+51		11.5	+3		11.8	176	.40		12.4	.75		12.0			
-13	43	-13		11.2	-1		11.1	181									
-13	49	+40		12.4	+3		12.7	182	+45	4	11.95	-69	4	12.05			
-1	14	-75		12.0	-5		11.5	19	1.06	+0.10							

 $+4 \quad 11.65$ $+ 0.09$

May 6

Mpl +.66

10 54	-25	4 11.5	-2	+4 11.3	153	+67	4 9.8	-59	4 13.2
11 8	+36	11.4	+2	11.6	156	.51	11.2	.47	12.1
12 6	-59	13.2	-4	12.8	168			.75	12.8
12 14	+67	9.8	+4	10.2	170				
12 28	-47	12.1	-3	11.8	171	+59	4 10.50	-60	4 12.39
12 49	-24	9.9	-2	9.7	173				.90
12 56	+51	11.2	+3	11.5	176	1.19	+2.20		
13 43	-13	11.3	-1	11.2			+1.85		
-1 14	-75	12.8	-.5	12.3	19				
				+4 11.38					

May 7

Mpl +.66

11 8	+36	4 11.9	+2	+4 12.1	156	+45	4 11.0	-46	4 12.57
11 24	-46	12.7	-3	12.4	162	.57	11.0	.59	13.0
11 40	-11	11.3	-1	11.2	163	.40	11.3	.47	11.9
11 43	+45	11.0	+3	11.3	164		12.6	.75	13.2
12 6	-59	13.0	-4	12.6	168				
12 28	-47	11.9	-3	11.6	171				
12 56	+51	11.3	+3	11.6	176	+45	4 11.63	-57	4 13.60
13 49	+40	12.6	+3	12.9	182				12.70
14 1	-38	12.8	-3	12.5	184	1.02	+1.07		
-1 14	-75	13.2	-.5	12.7	19		+1.05		
				+4 12.09					

May 8

Mpl +.66

10 54	-25	4 12.3	-2	+4 12.1	153	+45	4 11.0	-59	4 12.7
11 8	+36	11.9	+2	12.1	156	.67	10.7	.47	12.3
11 40	-11	12.6	-1	12.5	163	.51	10.2	.75	13.6
11 43	+45	11.0	+3	11.3	164				
12 6	-59	12.7	-4	12.3	168				
12 14	+67	10.7	+4	11.1	170	+54	4 10.63	-60	4 12.53
12 28	-47	12.3	-3	12.0	171				.87
12 49	-24	10.8	-2	10.6	173	1.14	+2.24		
12 56	+51	10.2	+3	10.5	176		+1.96		
-1 14	-75	13.6	-.5	13.1	19				
				+4 11.76					

June 3

 $\text{Hfe} + .68$ [illegible]
$$+ 4 \quad 12.69$$

June 4

$$\Delta f_l + .68$$
[illegible]
$$+4 \quad 13.48$$

June 5

$$N_{FE} + .68$$

- 12 28	- .47	4 13.14	- .3	+ 4 13.1	✓ 171							
12 49	-.24	11.5	- .2	11.3	✓ 173	+ .51	4 12.2		- .47	4 13.4		
- 12 06	+ .57	12.2	+ .3	12.5	176	.38	12.5		.38	13.7		
- 14 1	- .38	13.7	- .3	13.4	182				.53	12.9		
- 14 10	+ .38	12.5	+ .3	12.8	187				.75	14.0		
14 21	-.17	12.5	- .1	12.4	190							
- 14 51	-.53	12.9	- .4	12.5	198	+ .44	4 12.35		-.53	4 13.50		
15 11	+ .15	14.5	+ .1	14.6	201	.97	+ 1.15					
- 1 144	-.75	14.0	- .5	13.5	19							

$$+4 \quad \cancel{13.01} \\ 12.90$$

Hyf +.68

June 9

Age +.69

June 13

Age +.70

13 19	- .23	4 - 9.4	- .2	+ 4	9.2	178							
13 43	- .13	9.0	- .1		8.9	181	+ .40	4' 11.0	- .38	4	10.4		
- 13 49	+ .40	11.0	+ .3		11.3	✓ 182	.38	9.9	.75		9.1		
- 14 1	- .38	10.4	- .3		10.1	184							
- 14 10	+ .38	9.9	+ .3		10.2	187	+ .39	4 10.45	- .56	4	9.75		
- 1 14	- .75	9.1	- .5		8.6	19	.95	- 0.70					
				+ 4	9.72			- 0.74					

June 19

Hfl	+ .73
-----	-------

[illegible]

June 20

4fe +.73

$\begin{matrix} 13 & 43 \\ -13 & 49 \end{matrix}$	$\begin{matrix} -.13 \\ +40 \end{matrix}$	$\begin{matrix} 4 \\ 10.4 \end{matrix}$	$\begin{matrix} -.1 \\ +.3 \end{matrix}$	$+4$	$\begin{matrix} 8.8 \\ 10.7 \end{matrix}$	$\begin{matrix} 181 \\ 182 \end{matrix}$	$\begin{matrix} .40 \\ .38 \end{matrix}$	$\begin{matrix} 4 \\ 10.4 \\ 10.0 \end{matrix}$	$\begin{matrix} -.38 \\ .53 \end{matrix}$	$\begin{matrix} 4 \\ 10.3 \\ 10.7 \end{matrix}$
$\begin{matrix} 14 & 1 \\ -14 & 10 \end{matrix}$	$\begin{matrix} -.38 \\ +.38 \end{matrix}$	$\begin{matrix} 10.3 \\ 10.0 \end{matrix}$	$\begin{matrix} -.3 \\ +.3 \end{matrix}$		$\begin{matrix} 10.1 \\ 10.3 \end{matrix}$	$\begin{matrix} 184 \\ 187 \end{matrix}$	$\begin{matrix} .61 \\ .61 \end{matrix}$	$\begin{matrix} 9.1 \\ 9.1 \end{matrix}$	$\begin{matrix} .58 \\ .58 \end{matrix}$	$\begin{matrix} 10.5 \\ 10.5 \end{matrix}$
$\begin{matrix} 14 & 51 \\ -14 & 51 \end{matrix}$	$\begin{matrix} -.53 \\ -.53 \end{matrix}$	$\begin{matrix} 10.7 \\ 10.7 \end{matrix}$	$\begin{matrix} -.4 \\ -.4 \end{matrix}$		$\begin{matrix} 10.3 \\ 10.3 \end{matrix}$	$\begin{matrix} 188 \\ 188 \end{matrix}$			$\begin{matrix} .75 \\ .75 \end{matrix}$	$\begin{matrix} 10.7 \\ 10.7 \end{matrix}$
$\begin{matrix} 15 & 11 \\ 15 & 30 \end{matrix}$	$\begin{matrix} +.15 \\ +.26 \end{matrix}$	$\begin{matrix} 10.9 \\ 9.4 \end{matrix}$	$\begin{matrix} +.1 \\ +.2 \end{matrix}$		$\begin{matrix} 11.0 \\ 9.6 \end{matrix}$	$\begin{matrix} 201 \\ 209 \end{matrix}$	$\begin{matrix} .46 \\ .46 \end{matrix}$	$\begin{matrix} 4 \\ 9.83 \end{matrix}$	$\begin{matrix} -.56 \\ -.56 \end{matrix}$	$\begin{matrix} 4 \\ 10.55 \end{matrix}$
$\begin{matrix} 15 & 45 \\ -15 & 48 \end{matrix}$	$\begin{matrix} +.61 \\ -.58 \end{matrix}$	$\begin{matrix} 9.1 \\ 10.5 \end{matrix}$	$\begin{matrix} +.4 \\ -.4 \end{matrix}$		$\begin{matrix} 9.5 \\ 10.1 \end{matrix}$	$\begin{matrix} 216 \\ 217 \end{matrix}$	$\begin{matrix} 1.02 \\ 1.02 \end{matrix}$	$\begin{matrix} +0.72 \\ +0.72 \end{matrix}$		
$-1 \quad 14$	$-.75$	10.7	$-.5$		10.2	19		$+0.71$		
				$+4$	10.05					

June 24

Age +.76

[illegible]

June 25

Nfc +.77

13 49	+40	4	10.0	+.3	+4	10.3	182
14 10	+38		9.3	+.3		9.6	187
14 21	-17		9.3	-.1		9.2	190
14 51	-53		9.5	-.4		9.1	198
15 11	+15		10.0	+.1		10.1	201
15 38	+58		8.0	+.4		8.4	212
15 45	+61		8.7	+.5		9.2	216
15 48	-58		10.7	-.4		10.3	217
15 53	+26		9.5	+.2		9.7	219
16 5	-05		10.4	-.0		10.4	221
16 16	-07		9.3	-.1		9.2	224
16 22	-33		9.0	-.3		8.7	226
					+4	9.52	

+58	4	8.0	-.53	4	9.5
.61		8.7	.58		10.7
+59	4	8.35	-.55	4	10.10
1.14		+1.75			
		+1.54			

June 26

Nfc +.78

13 49	+40	4	10.4	+.3	+4	10.7	182
14 1	-38		9.2	-.3		8.9	184
14 10	+38		10.1	+.3		10.4	187
14 51	-53		9.5	-.4		9.1	198
15 11	+15		10.4	+.1		10.5	201
15 21	-50		10.2	-.4		9.8	203
15 45	+61		8.1	+.5		8.6	216
15 48	-58		10.2	-.5		9.7	217
16 16	-07		9.7	-.1		9.6	224
16 22	-33		9.1	-.3		8.8	226
16 25	+35		9.7	+.3		10.0	228
					+4	9.65	

+40	4	10.4	-.53	4	9.5
.61		8.1	.50		10.2
			.58		10.2
+50	4	9.25	-.54	4	9.97
1.04		+0.72			
		+0.69			

July 1

Nfc +.81

14 51	-53	4	12.4	-.4	+4	12.0	198
15 11	+15		12.8	+.1		12.9	201
15 21	-50		12.3	-.4		11.9	203
15 38	+58		10.5	+.5		11.0	212
15 45	+61		11.7	+.5		12.2	216
15 48	-58		12.8	-.5		12.3	217
15 53	+26		11.8	+.2		12.0	219
16 16	-07		11.3	-.1		11.2	224
					+4	11.94	

+58	4	10.5	-.53	4	12.4
.61		11.7	.58		12.8
+59	4	11.10	-.55	4	12.60
1.14		+1.50			
		+1.32			

July 2

Age +.82

-15	48	-58	4	12.7	-5	+4	12.2	217
15	53	+26		12.5	+2		12.7	219
16	5	-05		13.3	-0		13.3	221
16	16	-07		12.2	-1		12.1	224
-16	25	+35		12.4	+3		12.7	228
-16	59	-64		13.0	-5		12.5	235
-17	9	+47		11.6	+4		12.0	237
						+4	12.50	

$+ .35$	4	12.4
$\underline{47}$		11.6
$+ .41$	4	12.00
1.02		+ 0.85
		+ 0.83

-58	4	12.7
.64		13.0
-61	4	12.85

July 3

$\mu_{\text{Fe}} + .84$

-14	57	-53	4	12.5	-.4	+4	12.1	198
15	11	+15		13.5	+.1		13.6	201
15	21	-.58		13.1	-.4		12.7	203
-15	38	+58		11.5	+.5		12.0	212
-15	45	+.61		12.3	+.5		12.8	216
-15	48	-.58		13.5	-.5		13.0	217
15	63	+26		12.6	+.2		12.8	219
16	25	+25		13.0	+.3		13.3	228
-17	9	+.47		12.2	+.4		12.6	237
						+4	12.77	

$\begin{array}{r} +.58 \\ .61 \\ \hline .47 \end{array}$	$\begin{array}{r} 4 \quad 11.5 \\ 12.3 \\ \hline 12.2 \end{array}$
$\begin{array}{r} +.55 \\ 1.09 \end{array}$	$\begin{array}{r} 4 \quad 12.00 \\ + 1.03 \\ \hline + 0.94 \end{array}$

-53	4	12.5
.50		13.1
.58		13.5
-54	4	13.03

July 7

 $\Delta \mu$ +.58

15	11	+15	4	13.7	+1	+4	13.8	201
-	15	21	-50	13.4	-4		13.0	203
	15	30	+26	12.5	+2		12.7	209
-	15	45	+61	12.7	+15		13.2	216
-	15	53	-58	12.9	-5		12.4	217
	15	53	+26	12.9	+2		13.1	219
	16	5	-15	14.3	-0		14.3	221
-	16	25	+35	13.1	+3		13.4	228
						+4	13.28 ⁴	

$+ .61$	$4 \quad 12.7$
$+ .35$	13.1
$+ .48$	$4 \quad 12.90$
1.02	$+ 0.25$
	$+ 0.25$

-50	4	13.4
.58		12.9
-54	4	13.15

Age +.89

 $+ .89$

-15	21	-50	4	13.7	-4	+4	13.3	203											
-15	30	+26		12.4	+2		12.6	209		+58	4	13.2		-50	4	13.7			
-15	38	+58		13.2	+5		13.7	212		.61		13.4		58		13.9			
-15	45	+61		13.4	+5		13.9	216		.47		13.2							
-15	48	-58		13.9	-5		13.4	219											
-15	53	+26		13.4	+2		13.6	219		+55	4	13.27		-54	4	13.80			
-16	25	+35		13.9	+3		14.2	228											
-17	9	+47		13.2	+4		13.6	237		1.09		+0.53							
						+4	13.54					+0.49							

July 9

Nett +.90

[illegible]

July 10

$\mu_c + .91$

[illegible]

July 13

Hyd + 1.01

[illegible]

July 23

$$H_f + 1.02$$
[illegible]

July 24

Age + 1.02

[illegible]

July 28

4fl +1.03

- 17 9	+47	4 11.6	+ .5	+ 4 12.1	237
- 17 29	+49	11.6	+ .5	12.1	241
17 36	-.06	12.9	-.1	12.8	244
17 53	-.16	12.2	-.2	12.0	252
- 18 18	+35	12.1	+ .4	12.5	258
18 33	+06	12.8	+ .1	12.9	260
- 18 11	-.70	13.5	-.7	12.8	256
				+4 12.46	

+47	4 11.6	-.70	4 13.5
.49	11.6		
.35	12.1		
+44	4 11.77	-.70	4 13.50
1.14	+ 1.73		
	+1.52		

July 31

4fl +1.03

16 59	+64	4 12.8	-.7	+ 4 12.1	235
17 29	+49	11.4	+ .5	11.9	241
17 36	-.06	11.5	-.1	11.4	244
17 53	-.16	11.4	-.2	11.2	252
				+4 11.65	

Aug. 12

4fl +1.03

- 17 9	+47	4 10.1	+ .5	+ 4 10.6	237
17 36	-.06	11.0	-.1	10.9	244
17 53	-.16	10.8	-.2	10.6	252
- 18 18	+35	10.1	+ .4	10.5	258
18 33	+06	10.8	+ .1	10.9	260
- 18 11	-.70	12.6	-.7	11.9	256
				+4 10.90	

+47	4 10.1	-.70	4 12.12.6
.35	10.1		
+41	4 10.10	-.70	4 12.60
1.11	+ 2.50		
	+2.25 rej.		

Aug. 13

Hfe +1.03

18 18	+35	4	10.2	+4	10.6	258
18 33	+06		11.9	+1	12.0	260
19 14	-19		11.5	-2	11.3	272
19 26	+25		11.2	+3	11.5	275
18 11	-70		11.1	-7	10.4	256
				+4	11.16	

Aug. 14

Hfe +1.03

-16 39	-64	4	11.7	-7	+4	11.0	235				
-17 29	+49		11.4	+5		11.9	241	+49	4	11.4	
18 33	+06		12.6	+1		12.7	260	.53		11.5	-64 4 11.7
19 14	-19		10.6	-2		10.4	272				70 11.3
19 26	+25		10.1	+3		10.4	275	+51	4	11.45	-67 4 11.50
-19 40	+53		11.5	+5		12.0	277				
-18 11	-70		11.3	-7		10.6	256	1.18		+0.05	
					+4	11.29				+0.04	

Aug. 18

Hfe +1.02

-17 29	+49	4	11.2	+5	+4	11.7	241				
17 36	-06		11.7	-1		11.6	244	+49	4	11.2	
17 33	-16		11.3	-2		11.1	252	.53		8.7	-70 4 12.4
18 46	+16		12.6	+2		12.8	264	.56		8.7	
19 14	-19		10.2	-2		10.0	272				
-19 40	+53		8.7	+5		9.2	277	+53	4	9.20	
-19 45	+56		8.7	+6		9.3	280			.53	-70 4 12.40
-18 11	-70		12.4	-7		11.7	256	1.23		+2.87	
					+4	10.92				+2.33	

Aug. 20

$\mu_{Fe} + 1.02$

+ 1.02

[illegible] $+4 \quad 10.22$

Aug. 22

$$\text{Hf} + 1.01$$

He + 1.01

17 36	- .06	4 10.2	- .1	+4 10.1	244								
17 53	- .16	9.9	- .2	9.7	252	+53	4 8.4	- .70	4 11.0				
18 46	+ .16	11.6	+ .2	11.8	266	.56	7.5	.73	12.0				
- 19 40	+ .53	8.4	+ .5	8.9	277								
- 19 45	+ .56	7.5	+ .6	8.1	280	+ .55	4 7.95	- .71	4' 11.50				
- 18 11	- .70	11.0	- .7	10.3	256	1.26	+ 3.55						
- 19 46	- .73	12.0	- .7	11.3	284		+ 2.82						
				+4 10.03									

 $+4 \quad 10.03$

Aug 25

$\Delta f_c + 1.00$

Net	+1.00
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[illegible]
$$+ 4 \quad 10.489$$

Aug. 26

Nfl + 1.00

17 36	-06	4	10.5	-.1	+4	10.4	2441												
18 33	+06		11.3	+.1		11.4	260	+53	4	10.8	-.77	4	10.8						
19 3	+11		11.9	+.1		12.0	494	.56		9.9	.73		10.8						
19 14	-19		10.1	-.2		9.9	272												
19 26	+25		12.3	+.3		12.6	275	+55	4	10.35	-.75	4	10.50						
19 40	+53		10.8	+.5		11.3	277												
19 45	+36		9.9	+.6		10.5	280	1.30		+ 0.45									
20 10	-07		11.2	-.1		11.1	288			+ 0.35									
- 6 42	-77		10.8	-.8		10.0	111												
- 19 46	-73		10.8	-.7		10.1	284												
						+4	10.93												

Aug. 27

Nfl + .99

17 29	+49	4	11.1	+.5	+4	11.6	241												
17 36	-06		12.8	-.1		12.7	244	+49	4	11.1	-.77	4	11.0						
18 3	+23		10.7	+.2		10.9	255	.71		9.9	.70		12.5						
18 15	+71		9.9	+.7		10.6	257												
19 3	+11		11.1	+.1		11.2	494	+60	4	10.50	-.73	4	11.75						
19 14	-19		10.0	-.2		9.8	272												
19 26	+25		11.2	+.2		11.4	275	1.33		+ 1.25									
- 6 42	-77		11.0	-.8		10.2	111			+ 0.94									
- 18 11	-70		12.5	-.7		11.8	256												
						+4	11.13												

Aug. 29

Nfl + .98

17 53	-16	4	9.6	-.2	+4	9.4	252												
18 3	+23		10.7	+.2		10.9	255	+23	4	10.7	-.77	4	12.2						
18 33	+06		10.5	+.1		10.6	260	.25		9.3	.70		11.8						
19 3	+11		11.3	+.1		11.4	494				.73		10.6						
19 14	-19		10.1	-.2		9.9	272												
19 26	+25		9.3	+.2		9.5	275	+24	4	10.00	-.73	4	11.53						
20 10	-07		10.7	-.1		10.6	288												
- 6 42	-77		12.2	-.8		11.4	111	.97		+ 1.53									
- 18 11	-70		11.8	-.7		11.1	256			+ 1.58									
- 19 46	-73		10.6	-.7		9.9	284												
						+4	10.47												

Aug. 31

Age +.97

19 26	+25	4 10.2	+2	+4 10.4	275
- 19 40	+53	11.2	+5	11.7	277
- 19 45	+56	9.6	+5	10.1	260
20 10	-.07	10.8	-.1	10.7	288

+53	4 11.2	-.73	4 12.6
.56	9.6		

+55	4 10.40	-.73	4 12.60
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- 19 46	-.73	12.6	-.7	11.9	284
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+4 10.96

1.28 + 2.20

+ 1.72

Sept. 1

Age +.96

18 33	+06	4 11.4	+1	+4 11.5	260
19 3	+11	12.0	+1	12.1	494
19 14	-.14	9.6	-.2	9.4	272
19 26	+25	10.8	+2	11.0	275
- 19 40	+53	10.9	+5	11.4	277
- 19 45	+56	10.0	+5	10.5	280

+53	4 10.9	-.70	4 10.5
.56	10.0		

+55	4 10.45	-.70	4 10.50
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- 18 11	-.70	10.5	-.7	9.8	256
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+4 10.81

1.25 + 0.05

+ 0.04

Sept. 2

Age +.95

19 3	+11	4 11.3	+1	+4 11.4	494
19 14	-.19	9.6	-.2	9.4	272
19 26	+25	9.6	+2	9.8	275
20 10	-.07	10.9	-.1	10.8	288
20 37	-.04	11.7	-.0	11.7	294
20 53	+03	11.3	+0	11.3	300

6 42	-.77	11.2	-.7	10.5	111
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+4 10.70

Sept. 6 J. F. M. Hfl +.92

17 29	+49	4	9.9	+5	+4	10.4	241
18 18	+35		8.3	+3		8.6	258
18 33	+06		9.3	+1		9.4	260
18 11	-70		10.9	-6		10.3	256
					+4	9.68	

Sept. 7 J. F. M. Hfl +.91

18 18	+35	4	10.3	+3	+4	10.6	258
18 33	+06		9.2	+1		9.3	260
18 46	+16		12.2	+1		12.3	264
18 11	-70		11.8	-6		11.2	256
					+4	10.85	

Sept. 8 J. F. M. Hfl +.90

17 29	+49	4	9.4	+4	+4	9.8	241
18 18	+35		9.3	+3		10.1	258
18 33	+06		8.4	+1		8.5	260
18 46	+16		9.4	+1		9.5	264
18 11	-70		11.3	-6		10.7	256
					+4	9.72	

Sept. 9

Mpc +.58

19 3	+11	4 10.6	+1	+4 10.7	494
19 14	-19	10.0	-2	9.8	272
-19 26	+25	9.7	+2	9.9	275
-20 32	+47	10.3	+4	10.7	290
-20 37	-64	10.8	-0	10.8	294
20 53	+03	11.3	+0	11.3	300
21 8	+22	9.9	+2	10.1	303
21 10	+09	9.6	+1	9.7	305
-21 27	-46	10.3	-4	9.9	308
-19 46	-73	9.2	-6	8.6	284
				+4 10.15	

+47	4 10.30	-46	4 10.30
.25	9.7	-73	9.2
+36	4 10.00	-60	4 9.75
.96	-0.25		
	-0.26		

Sept. 10

Mpc +.58

18 3	+23	4 10.0	+2	+4 10.2	255
-18 15	+70	9.6	+6	10.2	257
19 3	+11	11.3	+1	11.4	494
-6 42	-77	11.9	-7	11.2	111
-18 11	-70	11.7	-6	11.1	256
				+4 10.82	

+71	4 9.6	-77	4 11.9
		.70	11.7
+71	4 9.60	-73	4 11.80
1.44	+2.20		
	+1.53		

Sept. 12

Mpc +.58

17 53	-16	4 8.9	-1	+4 8.8	252
-18 3	+23	9.1	+2	9.3	255
-18 15	+70	9.6	+6	10.2	257
18 18	+35	9.4	+3	9.7	258
19 26	+25	9.5	+2	9.7	255
-19 45	+56	9.2	+5	9.7	280
20 53	+03	10.0	+0	10.0	300
-6 42	-77	9.1	-7	8.4	111
-18 11	-70	10.2	-6	9.6	256
				+4 9.49	

+71	4 9.6	-77	4 9.1
.56	9.2	.70	10.2
+63	4 9.40	-74	4 9.65
1.37	+0.25		
	+0.18		

Sept. 14

Mpl +.84

17 53	-16	4	9.4	-.1	+4	9.3	252
18 3	+23		9.2	+.2		9.4	255
-18 15	+70		9.0	+.6		9.6	257
18 18	+35		9.7	+.3		10.0	258
19 14	-19		10.6	-.2		10.4	272
19 26	+25		9.4	+.2		9.6	275
-19 45	+56		8.2	+.5		8.7	280
20 32	+47		9.5	+.4		9.9	292
20 37	-.04		10.8	-.0		10.8	294
20 53	+03		10.7	+.0		10.7	300
21 8	+22		9.0	+.2		9.2	303
21 10	+09		10.7	+.1		10.8	305
-6 42	-.77		10.7	-.6		10.1	111
-18 11	-.70		10.7	-.6		10.1	256
					+4	9.90	

+71 4 9.0
.56 8.2
+63 4 8.60
1.37 +2.10
+1.53

-.77 4 10.7
.70 10.7
-.74 4 10.70

Sept. 15

Mpl +.52

17 53	-16	4	9.9	-.1	+4	9.8	252
18 3	+23		10.9	+.2		11.1	255
-18 15	+70		9.9	+.6		10.5	257
18 18	+35		10.7	+.3		11.0	258
19 14	-19		10.0	-.2		9.8	272
19 26	+25		9.9	+.2		10.1	275
-19 40	+53		10.0	+.4		10.4	277
-19 45	+56		8.6	+.5		9.1	280
20 53	+03		10.5	+.0		10.5	300
-6 42	-.77		12.5	-.6		11.9	111
-18 11	-.70		11.4	-.6		10.8	256
					+4	10.45	

+71 4 9.9
.53 10.0
.56 8.6
+60 4 9.50
1.33 +2.45
+1.84

-.77 4 12.5
.70 11.4
-.73 4 11.95

Sept. 16

Mpl +.80

18 3	+23	4	10.1	+.2	+4	10.3	255
-18 15	+70		9.7	+.6		10.3	257
18 18	+35		9.4	+.3		9.7	258
18 46	+16		10.3	+.1		10.4	264
19 14	-19		9.4	-.2		9.2	272
19 26	+25		9.2	+.2		9.4	275
-19 40	+53		9.9	+.4		10.3	277
-19 45	+56		9.0	+.4		9.4	280
20 32	+47		8.1	+.4		8.5	292
-6 42	-.77		10.9	-.6		10.3	111
-18 11	-.70		11.0	-.6		10.4	256
					+4	9.84	

+71 4 9.7
.53 9.9
.56 9.0
+60 4 9.53
1.34 +1.42
+1.06

-.77 4 10.9
.70 11.0
-.74 4 10.95

Sept 17

$\frac{1}{2} \text{Hf} + .80$	
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[illegible]

Sept. 18

Def +.78

[illegible]

Sept. 19

Style +.77

[illegible]

8phase Sept. 22

Hfl +.73

[illegible]

Sept. 23

Age +.72

19	3	+11	10.7	+1	+4	10.8	1194						
19	45	+36	9.4	+4		9.8	280	+56	4	9.4	-46	4	9.1
20	10	-07	9.3	-1		9.2	285	.47		9.3	.77		10.0
20	32	+47	9.3	+3		9.6	292				.73		11.8
20	37	-04	11.6	-0		11.6	294	+51	4	9.35			
20	53	+03	10.3	+0		10.3	300	+51	4	9.35	-65	4	10.30
21	8	+22	9.1	+2		9.3	303						
21	10	+09	10.6	+1		10.7	305	1.16		+0.95			
21	27	-46	9.1	-3		8.8	308			+0.82			
-6	42	-77	10.0	-6		9.4	111						
-19	46	-73	11.8	-5		11.3	284						
					+4	10.07							

Sept. 25

Age +.70

[illegible]

Sept. 28

Oflc. +.67

19 3	+11	4 10.8	+1	+4 10.9	294
- 19 40	+53	10.7	+4	11.1	277
20 10	-07	10.2	-0	10.2	266
20 32	+47	10.5	+3	10.8	292
21 8	+22	10.2	+1	10.3	303
21 10	+09	11.4	+1	11.5	305
- 21 27	-46	10.1	-3	9.8	308
- 21 38	+55	11.4	+4	11.8	309
- 22 0	+69	11.2	+5	11.7	311
- 19 46	-73	12.8	-5	12.3	284
				+4 11.04	

+53
.55
69
+59
1.18
+0.35
+0.30

-46
.73
-59
4 10.1
12.8
4 11.45

Sept 30

Oflc. +.65

20 10	-07	4 10.2	-0	+4 10.2	288
- 20 32	+47	10.2	+3	10.5	292
20 37	-04	11.1	-0	11.1	294
21 8	+22	10.2	+1	10.3	303
21 10	+09	10.8	+1	10.9	305
- 21 27	-46	11.0	-3	10.7	308
- 21 38	+55	9.0	+4	9.4	309
- 22 00	+69	10.1	+4	10.5	311
- 19 46	-73	12.1	-5	11.6	284
				+4 10.58	

+47
.55
69
+57
1.16
+1.78
+1.53

-46
.73
-59
4 11.0
12.1
4 11.55

Oct. 1

Oflc. +.65

20 10	-07	4 11.0	-0	+4 11.0	288
- 20 32	+47	10.2	+3	10.5	292
20 37	-04	11.1	-0	11.1	294
20 53	+03	10.3	+0	10.3	300
21 8	+22	10.1	+1	10.2	303
21 10	+09	10.6	+1	10.7	305
- 21 27	-46	10.3	-3	10.0	308
- 21 38	+55	10.3	+4	10.7	309
22 37	+22	10.0	+1	10.1	322
22 41	+33	10.6	+2	10.8	323
- 22 45	-39	10.0	-3	9.7	325
				+4 10.46	

+47
.55
+51
.93
-0.10
-0.12

-46
.39
-42
4 10.3
10.0
4 10.15

Oct. 2

Mfe +.64

10 10	-.07	4	11.1	-.0	+4	11.1	288												
20 32	+.47		10.9	+.3		11.2	292		+.47	4	10.9		-.46	4	10.1				
20 37	-.04		11.6	-.0		11.6	294		.55		10.4		.73		10.3				
20 53	+.03		11.4	+.0		11.4	300												
21 8	+.22		10.2	+.1		10.3	303		+.51	4	10.65		-.59	4	10.20				
21 10	+.09		11.8	+.1		11.9	305												
21 27	-.46		10.1	-.3		9.8	308		1.10		-0.45								
21 38	+.55		10.4	+.4		10.8	309				-0.41								
19 46	-.73		10.3	-.5		9.8	284												
						+4	10.88												

Oct. 3

Mfe +.63

20 10	-.07	4	11.2	-.0	+4	11.2	288												
20 32	+.47		11.5	+.3		11.8	292		+.47	4	11.5		-.46	4	10.9				
20 37	-.04		11.8	-.0		11.8	294		.55		10.1		.73		10.7				
20 53	+.03		11.4	+.0		11.4	300		.70		10.4								
21 8	+.22		10.3	+.1		10.4	303												
21 10	+.09		11.7	+.1		11.8	305		+.57	4	10.67		-.59	4	10.80				
21 27	-.46		10.9	-.3		10.6	308												
21 38	+.55		10.1	+.3		10.4	309		1.16		+0.13								
22 15	+.70		10.4	+.4		10.8	317				+0.11								
19 46	-.73		10.7	-.5		10.2	284												
						+4	11.04												

Oct. 8

Mfe +.61

20 10	-.07	4	9.9	-.0	+4	9.9	288												
20 32	+.47		11.2	+.3		11.5	292												
20 37	-.04		11.4	-.0		11.4	294												
19 46	-.73		10.8	-.4		10.4	284												
						+4	10.80												

Oct. 10

Hfe +.61

20	10	-.07	4	10.8	-.0	+4	10.8	288
20	37	-.04		11.2	-.0		11.2	294
20	53	+.03		10.8	+.0		10.8	300
21	8	+.22		9.5	+.1		9.6	303
21	10	+.09		11.0	+.1		11.1	305
-21	27	-.46		10.3	-.3		10.0	308
-21	38	+.55		10.6	+.3		10.9	309
-22	15	+.70		9.7	+.4		10.1	317
-22	45	-.39		10.0	-.2		9.8	325

+4 10.48

+.55
+.704 10.6
9.7-.46
.394 10.3
10.0

+.62

4 10.15

-.42

4 10.15

1.04

0.00

0.00

Oct. 14

Hfe +.61

20	10	-.07	4	12.4	-.0	+4	12.4	288
20	37	-.04		12.7	-.0		12.7	294
20	53	+.03		12.3	+.0		12.3	300
21	8	+.22		11.4	+.1		11.5	303
21	10	+.09		11.4	+.1		11.5	305
-21	27	-.46		11.9	-.3		11.6	308
-21	38	+.55		11.2	+.3		11.5	309
-22	15	+.70		10.9	+.4		11.3	317
-22	45	-.39		11.3	-.2		11.1	325

+4 11.68

+.55
.704 11.2
10.9-.46
.734 11.9
11.3

+.62

4 11.05

-.59

4 11.60

1.21

+0.55

+0.45

Oct. 15

Hfe +.61

21	8	+.22	4	11.7	+.1	+4	11.8	303
21	10	+.09		11.7	+.1		11.8	305
-21	27	-.46		11.9	-.3		11.6	308
-21	38	+.55		10.8	+.3		11.1	309
-22	15	+.70		11.2	+.4		11.6	317
-22	45	-.39		11.3	-.2		11.1	325
-22	59	+.47		11.6	+.3		11.9	329

+4 11.56

+.55
.70
.474 10.8
11.2
11.6-.46
.394 11.9
11.3

+.57

4 11.20

-.42

4 11.60

.99

+0.40

+0.40

Age +.61

 $+ .61$
$$+4 \quad 10.96$$

Oct. 21	J. F. M.	Hfe	+ .63
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Use +.63

 $+ .63$

+4	11.35
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Oct. 22	J. F. M.	Age	+ .64
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Acc +.64

 $+ .64$ $+4$ ~~9.28~~

Oct. 29

Mfe +.69

31 8	+22	4	10.4	+2	+4	10.6	303
21 10	+09		11.2	+1		11.3	305
-22 15	+70		9.4	+5		9.9	317
22 37	+22		10.0	+2		10.2	322
-22 45	-39		10.8	-3		10.5	325
-23 11	+64		9.7	+4		10.1	330
23 32	-06		10.4	-0		10.4	331
-23 34	-57		11.8	-4		11.4	334
0 2	+24		10.3	+2		10.5	1
					+4	10.54	

+70	4	9.4	-39	4	10.8
.64		9.7	.57		11.8
+67	4	9.55	-48	4	11.30
1.15	+1.75				
	+1.52				

Nov. 2

Mfe +.74

-19 45	+56	4	10.6	+4	+4	11.0	280
21 27	-46		10.7	-3		10.4	308
-22 8	+69		10.9	+5		10.4	311
-22 15	+70		10.1	+5		10.6	317
22 37	+22		11.2	+2		11.4	322
0 2	+24		10.9	+2		11.1	1
-0 7	+47		10.5	+3		10.8	3
-19 46	-73		10.2	-5		9.7	284
					+4	10.78	

+56	4	10.6	-46	4	10.7
.69		10.2	.73		10.2
.70		10.1			
.47		10.5			
+63	4	10.35	-59	4	10.45
.60					
1.19	+0.10				
	+0.08				

Nov. 3

Mfe +.75

-19 45	+56	4	11.4	+4	+4	11.8	280
-21 27	-46		12.3	-3		12.0	308
21 38	+55		10.5	+4		10.9	309
-22 0	+69		9.9	+5		10.4	311
-22 15	+70		10.4	+5		10.9	317
22 41	+33		12.0	+2		12.2	323
-22 59	+47		12.1	+4		12.3	329
0 2	+24		12.0	+2		12.2	1
-0 7	+47		11.1	+4		11.5	3
-19 46	-73		11.9	-5		11.4	284
					+4	11.58	

+56	4	11.4	-46	4	12.3
.55		10.5	-73		11.9
.69		9.1			
.70		10.4			
.47		12.1			
.47		11.1			
+57	4	10.77	-0.59	4	12.10
1.16	+1.33				
	+1.15				

Age +.75

[illegible]

Age +.77

[illegible] $\text{Age} + .79$

20	10	-07	4	10.7	-1	+4	10.6	288
21	8	+22		11.0	+2		11.2	303
21	10	+09		12.3	+1		12.4	305
21	27	-46		12.6	-4		12.2	308
22	2	+69		11.0	+5		11.5	311
22	37	+22		11.1	+2		11.3	322
0	12	+24		10.5	+2		10.7	1
0	26	-34		11.5	-3		11.4	5
0	34	-23		10.9	-2		10.7	10
0	42	-26		11.1	-2		10.9	12
						+4	11.29	

Nov. 10

July +.84

[illegible]

Nov. 12

Diff. +.57

22	37	+ 22	4	11.3	+ .2	+ 4	11.5	322
22	41	+ 33		11.2	+ .3		11.5	323
23	34	- 57		10.7	- .5		10.2	334
0	2	+ 24		10.4	+ .2		10.6	1
5	7	+ 47		11.4	+ .4		11.8	3
						+ 4	11.12	

Nov. 13

NYC +.89

[illegible]

Nov. 14

 $\mu_c + .91$ [illegible]

Apr. 23

$\Delta_{\text{H}_2\text{O}} + 1.05$

[illegible]

Nov. 24

 $\Delta f_e + 1.06$ [illegible]

Nov. 26

Hfe +1.10

22 37	+22	4 10.1	+2	+4 10.3	322
22 41	+33	10.2	+4	10.6	323
22 45	-39	11.0	-4	10.6	325
22 59	+47	10.2	+5	10.7	329
0 26	-34	12.1	-4	11.7	5
0 34	-23	10.4	-3	10.1	10
0 42	-26	11.0	-3	10.7	12
1 3	+13	12.0	+1	12.1	16
1 18	-30	12.2	-3	11.9	20
1 39	+56	11.0	+6	11.6	25
1 48	+38	11.9	+4	12.3	30
1 14	-72	13.1	-8	12.3	19
					+4 11.24

+47	4 10.2	-39	4 11.0
.56	11.0	.72	13.1
+51	4 10.60	-55	4 12.05
1.06	+1.45		
	+1.37		

Nov. 30

Hfe +1.16

22 0	+69	4 10.7	+8	+4 11.5	311
22 15	+70	10.7	+8	11.5	317
23 11	+64	8.7	+7	9.4	330
23 34	-57	11.9	-7	11.2	334
0 7	+17	10.9	+5	11.4	3
0 26	-34	11.7	-4	11.3	5
0 34	-23	11.0	-3	10.7	10
0 42	-26	11.8	-3	11.5	12
1 18	-30	10.9	-3	10.6	20
1 31	-10	11.1	-1	11.0	23
1 14	-72	13.1	-8	12.3	19
					+4 11.13

+69	4 10.7	-57	4 11.9
.70	10.7	.72	13.1
.64	8.7		
.47	10.9		
+62	4 10.25	-65	4 12.50
1.27	+2.25		
	+1.77		

Dec. 1

Hfe +1.17

22 37	+22	4 11.8	+3	+4 12.1	322
22 41	+33	11.0	+4	11.4	323
22 59	+47	11.5	+5	12.0	329
23 11	+64	9.6	+7	10.3	330
0 26	-34	11.8	-4	11.4	5
0 34	-23	11.2	-3	10.9	10
0 42	-26	12.0	-3	11.7	12
1 18	-30	11.8	-4	11.4	20
1 31	-10	11.2	-1	11.1	23
1 14	-72	13.7	-8	12.9	19
					+4 11.52

+47	4 11.5	-34	4 11.8
.64	9.6	.72	13.7
+55	4 10.50	-53	4 12.75
	.55		
1.08	+2.20		
	+2.04		

Dec. 11

Hfe +1.30

- 0 7	+ .47	4	10.0	+ .6	+4	10.6
- 0 26	- .34		10.9	- .4		10.5
0 42	- .26		10.6	- .3		10.3
1 3	+ .13		10.6	+ .2		10.8
- 1 25	+ .46		9.8	+ .6		10.4
- 1 14	- .72		11.0	- .9		10.1
					+4	10.45

+ .47	4	10.0	- .34	4	10.9
.46		9.8	.72		11.0
+ .46	4	9.90	- .53	4	10.95
.99		+ 1.05			
		+ 1.06			

Dec. 12

Hfe +1.31

22 37	+ .22	4	9.6	+ .3	+4	9.9	322
22 41	+ .63		10.5	+ .4		10.9	323
- 22 59	+ .47		9.3	+ .6		9.9	329
- 0 4	+ .47		9.6	+ .6		10.2	3
0 34	- .23		9.4	- .3		9.1	10
- 1 25	+ .46		9.7	+ .6		10.3	22
- 1 14	- .72		11.1	- .9		10.2	19
					+4	10.07	

+ .47	4	9.3	- .72	4	11.1
.47		9.6			
.46		9.7			
+ .47	4	9.53	- .72	4	11.10
1.19		+ 1.57			
		+ 1.32			

Dec. 14

Hfe +1.33

22 37	+ .22	4	9.8	+ .3	+4	10.1	322
22 41	+ .63		10.4	+ .4		10.8	323
- 22 59	+ .47		11.5	+ .6		12.1	329
0 34	- .23		10.1	- .3		9.8	10
0 42	- .26		11.1	- .9		10.8	12
1 3	+ .13		10.2	+ .2		10.4	16
1 18	- .30		11.1	- .4		10.7	20
- 1 25	+ .46		9.6	+ .6		10.2	22
- 1 39	+ .56		8.9	+ .7		9.6	25
- 1 14	- .72		11.8	- 1.0		10.8	19
					+4	10.53	

+ .47	4	11.5	- .72	4	11.8
.46		9.6			
.56		8.9			
+ .50	4	10.88	- .72	4	11.80
1.22		+ 1.80			
		+ 1.48			

Dec. 16

Hfe +134

22 41	+33	4	11.4	+4	11.8	323
-22 59	+47		10.3	+6	10.9	329
-23 34	-57		10.9	-8	10.1	334
0 34	-23		10.7	-3	10.4	10
0 42	-26		12.0	-3	11.7	12
1 18	-30		11.4	-4	11.0	20
-1 39	+56		9.8	+8	10.6	25
1 48	+38		10.3	+5	10.8	30
-1 53	-49		11.2	-7	10.5	31
2 2	+14		11.0	+2	11.2	34
2 36	-11		9.3	-1	9.2	40
-1 14	-72		11.8	-10	10.8	19

+4 10.75

+47 4 10.3
.56 9.8-57 4 10.9
.49 11.2
.72 11.8

+51 4 10.05

-59 4 11.30

110 +1.25

+1.14

Dec. 17

Hfe +1.35

22 59	+47	4	11.0	+6	11.6	329
0 2	+24		11.0	+3	11.3	1
0 7	+47		10.2	+6	10.8	3
0 34	-23		11.0	-3	10.7	10

+4 11.10

Dec. 18

Hfe +1.36

-22 59	+47	4	10.4	+6	11.0	329
-23 34	-57		9.5	-8	8.7	334
-0 7	+47		9.9	+6	10.5	3
1 18	-30		11.4	-4	11.0	20
1 48	+38		10.3	+5	10.8	30
2 2	+14		10.9	+2	11.1	34
-2 26	-50		10.5	-7	9.8	38
2 36	-11		9.6	-1	9.5	40
2 42	-23		9.4	-3	9.1	43
-2 56	+63		9.0	+9	9.9	47
-1 14	-72		12.2	-10	11.2	19

+4 10.24

+47 4 10.4
.47 9.9
.63 9.0-57 4 9.5
.60 10.5
.72 11.2

+52 4 9.77

-60 4 12.20
10.78

1.12 +2.36

+2.17
+0.86

Dec. 19

H_e +1.36

- 23	11	+ .64	4	10.3	+ .9	+ 4	11.2	330
0	34	- .23		10.0	- .3		9.7	10
0	42	- .26		11.4	- .4		11.0	12
1	3	+ .13		11.1	+ .2		11.3	16
1	18	- .30		10.9	- .4		10.5	20
- 1	39	+ .56		10.2	+ .8		11.0	25
1	48	+ .38		11.0	+ .5		11.5	30
- 1	53	- .49		12.0	- .7		11.3	31
2	36	- .11		10.1	- .1		10.0	40
2	42	- .23		9.5	- .3		9.2	63
- 2	56	+ .63		9.0	+ .9		9.9	47
- 1	14	- .72		11.1	- .10	✓	10.1	19
						+4	10.56	

+ .64	4	10.3	- .49	4	12.0
.56		10.2	.72		11.1
.63		9.0			
+ .61	4	9.83	- .60	4	11.55
1.21		+ 1.72			
		+ 1.42			

Dec. 23

H_e +1.39

- 0	7	+ .47	4	8.7	+ .7	+ 4	9.4	3
1	3	+ .13		10.8	+ .2		11.0	16
- 1	39	+ .56		9.0	+ .8		9.8	25
1	48	+ .38		10.3	+ .5		10.8	30
- 1	53	- .49		11.6	- .7		10.9	31
?	3	+ .05		13.2	+ .1		13.2	64
- 4	16	+ .47		11.2	+ .7		11.9	71
- 4	29	+ .49		8.7	+ .7		9.4	73
4	49	+ .17		11.0	+ .2		11.2	79
- 1	14	- .72		12.1	- .10		11.1	19
						+4	10.78	
							.61	

+ .47	4	8.7	- .49	4	11.6
.56		9.0	.72		12.1
.47		11.2			
.49		8.7			
+ .50	4	9.40	- .60	4	11.85
1.10		+ 2.45			
		+ 2.23			

Dec. 24

H_e +1.39

- 0	7	+ .47	4	9.1	+ .7	+ 4	9.8	3
1	18	- .30		9.9	- .4		9.5	20
- 1	25	+ .46		8.7	+ .6		9.3	22
- 1	14	- .72		11.2	- .10		10.2	19
						+4	9.70	

+ .47	4	9.1	- .72	4	11.2
.46		8.7			
+ .46	4	8.90	- .72	4	11.20
1.18		+ 2.30			
		+ 1.95			

Dec. 25

H₂ +1.40

0	7	+47	4	10.1	+7	+4	10.8	3
0	26	-34		10.3	-5		9.8	5
0	34	-23		9.1	-3		8.8	10
0	42	-26		10.0	-4		9.6	12
1	3	+13		10.4	+2		10.6	16
1	18	-30		10.3	-4		9.9	20
1	25	+46		8.9	+6		9.5	22
1	14	-72		11.7	-10		10.7	19
							+4	9.96

1								
+47	4	10.1						
.46		8.9						
+46	4	9.50						
.99		+1.50						
		+1.51						

-34	4	10.3
.72		11.7
-53	4	11.00

Dec. 26

H₂ +1.40

0	34	-23	4	9.0	-3	+4	8.7	10
0	42	-26		9.5	-4		9.1	12
1	3	+13		9.7	+2		9.9	16
1	25	+46		8.7	+6		9.3	22
1	31	-10		9.7	-1		9.6	23
4	16	+47		10.2	+7		10.9	71
4	49	+17		10.6	+2		10.8	79
4	54	+03		10.9	+0		10.9	82
1	14	-72		10.0	-10		9.0	19
							+4	9.80

+46	4	8.7
.47		10.2
+46	4	9.45
1.18		+0.55
		+0.47

-72	4	10.0
-72	4	10.00

Dec. 30

H₂ +1.42

1	31	-10	4	8.7	-1	+4	8.6	23
1	14	-72		10.3	-10		9.3	19
							+4	8.95

1878
Dec 31

Hfe +1.42

1	3	+13	4	10.7	+2	+4	10.9	16
1	31	-10		9.3	-1		9.2	23
1	48	+38		10.0	+5		10.5	30
2	2	+14		10.6	+2		10.8	34
3	34	-0.9		9.5	-1		9.4	37
3	50	+0.5		11.1	+1		11.2	64
5	19	+25		10.4	+4		10.8	90
1	14	-72		10.3	-10		9.3	19
							+4	10.26

1879
Jan 5

Hfe +1.42

-2	56	+63	4	9.1	+9	+4	10.0	47
3	0	+03		10.5	+0		10.5	50
-3	5	-57		10.4	-8		9.6	360
3	34	-0.9		8.9	-1		8.8	57
3	50	+0.5		11.8	+1		11.9	64
5	19	+25		10.4	+4		10.8	90
-1	14	-72		10.3	-10		9.3	19
							+4	10.13

+63	4	9.1	-57	4	10.4
			.72		10.3
+63	4	9.10	-64	4	10.35
127		+1.25			
		+0.98			

Jan 6

Hfe +1.42

1	3	+13	+4	11.7	+2	+4	11.9	16
2	26	-50		12.2	-7		11.5	38
2	36	-11		10.5	-2		10.3	40
2	56	+63		9.5	+9		10.4	47
3	0	+03		11.0	+0		11.0	50
							+4	11.02

879

Jan 20

H₀ + 1.50

2	56	+ .63	+ 4	10.3	+ .9	+ 4	11.2	47
3	0	+ .03		12.7	+ .0		12.7	50
3	5	- .57		11.8	- .9		10.9	360
3	16	- .12		11.9	- .2		11.7	52
3	34	- .09		10.4	- .1		10.3	57
3	50	+ .05		12.1	+ .1		12.2	64

+ 4 11.50

Jan 22

H₀ + 1.50

4	49	+ .16	+ 4	11.5	+ .2	+ 4	11.7	79
4	54	+ .03		11.5	+ .0		11.5	82
5	19	+ .24		10.7	+ .4		11.1	90
5	23	- .54		9.9	- .8		9.1	92

+ 4 10.85

Jan 23

H₀ + 1.50

3	0	+ .03	+ 4	9.6	+ 0	+ 4	9.6	50
3	5	- .57		10.4	- .9		9.5	360
3	16	- .12		8.5	- .2		8.3	52
3	34	- .09		9.6	- .1		9.5	57
3	50	+ .05		11.3	+ .1		11.4	64
5	8	- .06		10.7	- .1		10.6	86

+ 4 9.82

1879

Jan 25

H₂ + 151

2	56	+ .63	+ 4	9.7	+ 1.0	+ 4	10.7	47
3	0	+ .03		11.3	+ .0		11.3	50
3	5	- .57		11.2	- .9		10.3	36.0
3	16	- .12		8.7	- .2		8.5	52
3	34	- .09		10.1	- .1		10.0	57
3	50	+ .05		11.2	+ .1		11.3	64
3	59	- .68		10.3	- 1.0		9.3	68
							+ 4	10.20

Jan 26

H₂ + 151

2	56	+ .63	+ 4	13.2	+ 1.0	+ 4	14.2	47
3	0	+ .03		14.0	+ .0		14.0	50
3	5	- .57		14.7	- .9		13.8	36.0
3	16	- .12		11.4	- .2		11.2	52
3	34	- .09		11.9	- .1		11.8	57
3	50	+ .05		13.2	+ .1		13.3	64
3	59	- .68		14.4	- 1.0		13.4	68
							+ 4	13.10

Summary - *Apf.*

1878.

Jan. 1	+4.40
5	+1.45
7	+2.22
12	+0.77
13	+0.48
14	[-1.52]
16	+2.87
19	+0.71
22	+0.09
23	[+3.68]
24	+2.28
28	+2.38
29	+2.57
30	+1.78
	+1.50

Feb. 2	+1.50
3	+1.00
4	+2.06
5	+1.47
6	+0.53
7	+0.09
11	+0.61
13	+1.05
14	+1.85
16	+0.61
18	+1.11
19	+0.98
24	+0.92
26	+0.60
27	+0.08
28	+0.23

Mar. 4	+1.42
5	+0.62
6	+0.07
16	+1.38
19	+0.41
20	+1.25
21	+0.49
26	+0.07
30	+1.00
31	+1.22

Apr. 2	+0.83
3	-0.20
8	+0.31
13	+0.29
14	+0.59
16	-
18	+1.06

May 1	+0.13
2	+0.05
4	-
5	+0.09
6	+1.85
7	+1.05
8	+1.96

June 3	+0.52
4	+0.72
5	+1.19
6	+0.77
9	+0.28
13	-0.74
19	+0.51
20	+0.71
24	+0.79
28	+1.54
26	+0.69

July 1	+1.32
2	+0.83
3	+0.94
7	+0.25
8	+0.49
9	-0.05
10	+1.43
13	+1.50
15	+2.18
16	+0.83
22	+1.06
23	+0.96
24	+0.08
28	+1.52
31	-

Aug. 12	[+2.25]
13	-
14	+0.04
18	[+2.33]
20	+0.91
22	+2.82
25	+0.81
26	+0.35
27	+0.94
29	+1.58
31	+1.72

Sept. 1	+0.04
2	-
6	-
7	-
8	-
9	-0.26
10	+1.53
12	+0.18
14	+1.53
15	+1.84
16	+1.06
17	+0.94
18	+1.04
19	+0.52
22	[+2.03]
23	+0.82
25	+1.98
28	+0.30
30	+1.53

Oct. 1	-0.12
2	-0.41
3	+0.11
8	0.00
10	0.00
14	+0.45
15	+0.40
16	+0.22
21	-0.82
22	[+4.83]
29	+1.52

Nov. 2	+0.08
3	+1.15
4	+1.11
5	+0.94
6	-
10	0.00
12	-
13	+0.81
14	+1.09
23	-0.35
24	+0.33
26	+1.37
30	+0.77

Dec. 1	11
6	+2.04
7	+1.80
7	+1.45
8	+2.06
11	+1.06
12	+1.32
14	+1.48
16	+1.14
17	-
18	+2.7086
19	+1.42
23	+2.23
24	+1.95
25	+1.51
26	+0.47
30	-
31	-

1879.
Jan. 5 +0.98

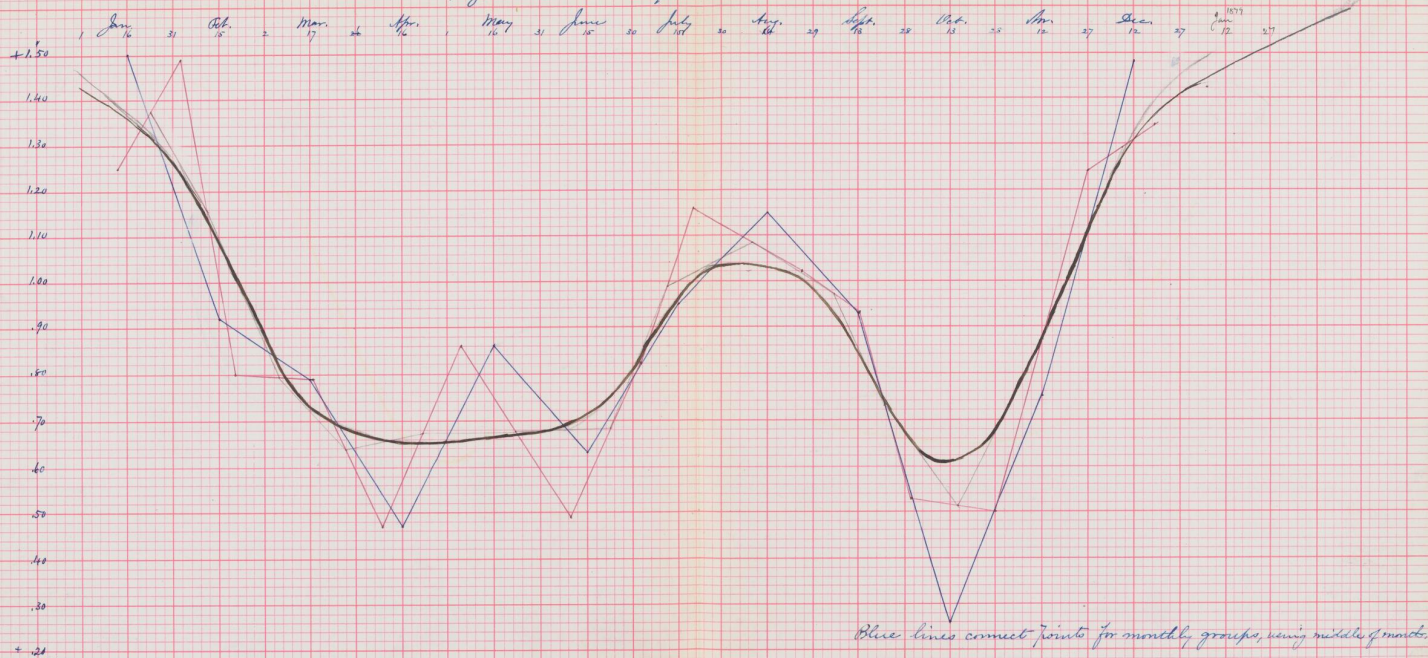
Mean by months.

Jan.	+1.50
Feb.	+ .92
Mar.	+ .79
Apr.	+ .47
May	+ .86
June	+ .63
July	+ .8995
Aug.	+ 1.15
Sept.	+ .93
Oct.	+ .26
Nov.	+ .75
Dec.	+ 1.48

Mean by groups
of about 10 dates

Jan. 17	+ 1.25
Feb. 12	1.49
20	.80
Mar. 18	.79
Apr. 9	.47
May 5	.86
June 10	.49
July 2	.82
20	1.16
Aug. 25	1.02
Sept. 14	.8993
Oct. 0	.46.53
28	.50
Nov. 27	1.24
Dec. 19	+ 1.34

Horizontal Pressure - 1973



Blue lines connect points for monthly groups, using middle of month.

Red lines connect points for 10-date groups, using mean of dates.

Curve in black is adopted curve, drawn from 10-date groups.

Values taken from
preceding curve.

No. I. 1878

Jan. 1	+1.45	June 6	+0.68	Oct. 10	+0.61
5	1.40	9	.69	14	.61
7	1.40	13	.70	15	.61
12	1.38	19	.73	16	.61
13	1.38	20	.73	21	.63
14	1.37	24	.76	22	.64
16	1.36	25	.77	29	.69
19	1.34	26	.78	Nov. 2	.74
22	1.32	1	.81	3	.75
23	1.32	2	.82	4	.75
24	1.32	3	.84	5	.77
28	1.29	7	.88	6	.79
29	1.27	8	.89	10	.84
30	1.27	9	.90	12	.87
Oct. 2	1.25	10	.91	13	.89
3	1.23	13	.94	14	.91
4	1.23	15	.96	23	1.05
5	1.22	16	.97	24	1.06
6	1.20	22	1.01	26	1.10
7	1.19	23	1.02	30	1.16
11	1.14	24	1.02	Dec. 1	1.17
13	1.10	28	1.03	6	1.24
14	1.10	31	1.03	7	1.25
16	1.09	12	1.03	8	1.27
18	1.04	13	1.03	11	1.30
19	1.03	14	1.03	12	1.31
24	.97	18	1.02	14	1.33
26	.94	20	1.02	16	1.34
27	.92	22	1.01	17	1.35
28	.91	25	1.00	18	1.36
Mar. 4	.86	26	1.00	19	1.36
5	.84	27	.99	23	1.39
6	.83	29	.98	24	1.39
16	.73	31	.97	25	1.40
19	.72	1	.96	26	1.40
20	.72	2	.95	30	1.42
21	.71	6	.92	Jan. 30	1.42
26	.70	7	.91	5	+1.42
30	.68	8	.90	6	+1.42
31	.68	9	.88	20	1.50
Apr. 2	.68	10	.88	22	1.50
3	.67	12	.85	23	1.50
8	.66	14	.84	25	1.51
13	.66	15	.82	26	1.51
14	.66	16	.80		
16	.65	17	.80		
18	.65	18	.78		
May 1	.65	19	.77		
2	.66	22	.73		
4	.66	23	.72		
5	.66	25	.70		
6	.66	28	.67		
7	.66	30	.65		
8	.66	Oct. 1	.65		
June 3	.68	2	.64		
4	.68	3	.63		
5	+0.68	8	+0.61		

