KG
11365
800

1937phae.proj..801E

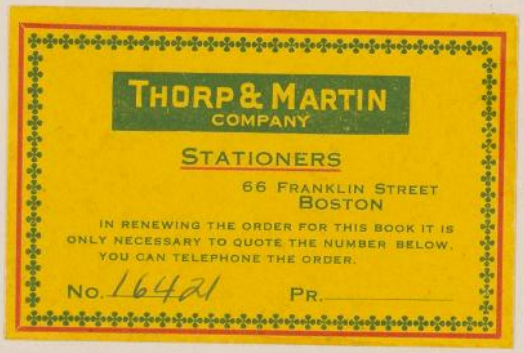
GALVANOMETER
BOOK I.

To go with Reference Book I.

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Emberson

"G.C.T." = U.S.

Time is given in hours from Greenwich mean noon
except that from page 32 thru 66 12 hours must be
added as noted.

Time given to nearest minute

For pages 8 thru 68 time is starting times of 1 set & record
set separately.
After page 68 time is starting time of record set.

Thru page 47 the unit is a mm on the scale.
After page 47 " " " tenth of a mm.

First & record set both start on upper junction. thru page 73.
Starting on page 74, all ten settings are made at 15 second
intervals without a pause.

For resistance, see pp 108, 112, 132.

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1937phae.proj..801E

147.9 36.5 22.0 — 62.0 49.6 — 109.5 114.0 124.5 — 149.6 162. 311.6 — 128. 136.8 64.8

122.0 36.5 147.9 — 134.80 116.0 — 155.8 135.5 20.3 — 132.4

No. 1 filter — depressions

291.6 284.5

227.8 222.5

δ Cas.

a 109.5 128.0 114.0 136.8 124.5 (16.4)

b 51 And KO 3.77 mis

7 | 122.0 149.6 136.5 162.0 147.9 (20.3)

5s | 47 h Cep 5.7 M8

220.0 225.2 220.4 228.9 226.2 (4.7)

longer period 290.0 294.0 282.0 289.2 279.0 (7.1)

TES reading

RL recording

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1937phae.proj..80.IE

2

Nov 21–22, 1937

Trial No.	(No Field) Time G.C.T.	~~Faint~~ Period ~~Obs't~~	Reflections	min. 1	3	4	5
a	14:40	5-7 sec	137.0	Lines			
b	16 4:50-56	5-7 sec	293.0	17.0	288.0	18.0	287.0
c	17 5:05-11		234.0	231.2	229.6	227.0	226.0
	~~15-25~~		~~238.7~~	~~234.8~~	~~229.5~~	~~219.0~~	~~213.8~~
	~~17~~ 17/25		218.1	220.1	225.9	221.4	220.6
d	18 6: 10-15		239.0	239.3	251.0	248.2	257.5
e	18 6:25-30		351.0	112.0	350.0	94.0	335.0
f	18 6:41-45		256.0	240.8	260.8	241.2	258.5
g	19 7:08-13		207.8	199.0	211.8	203.8	215.2
h	19 7:25-28		210.7	216.0	222.0	224.2	227.5
i	19 7:41-44		206.0	180.0	193.5	167.0	182.0
j	20 8:15-819		190.0	164.2	177.0	146.0	156.5
k	20 8:~~40~~ -44		176.2	156.8	156.8	140.8	149.3
l	20 8:~~15~~ 53		227.0	232.2	238.0	235.0	234.0

TES reading and recording

a
2
3
4
5
6
2
3

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1937phae.proj...801E

up last

wrong star?

mirror up

turned until 40 s.

30 sec

11

=(2.1512)

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1937phae.proj..80xE

Monday, Nov. 22-23 1937

Sereal No.	Time	SCT	1	2	3	4	5
a	19:20	25	29.31	23.49	26.71	20.61	24.61
b	19:26	31	24.11	18.91	23.91	18.61	23.39
c	28:10	14	27.23	21.87	25.60	20.59	24.87
d							
	Hard	Jones					

RL

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Rh recording
first two readings uncertain) period?
(8^{s} period)

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1937phae.proj..80.tif

~~No~~ ~~Start~~ finish Wed. Dec 1– 2, 1937

No	GCT		d_1	d_2	d_3	d_4	d_5
~~1~~	~~1:27~~		~~28.63~~	~~38.09~~	~~43.49~~		
a	13:44	48	17.59	23.68	31.61	39.09	(43.50,?)
b	17:55	05	21.32	33.53	25.69	35.48	27.52
c	20:40	45	1.0 12	210.1	119.1	241.2	148.3
d	24:24	30	405.9	404.8	370.8	361.2	331.6
	~~d: 43~~		~~151.2~~				
e	26:45	50	7:84	13.16	5.74	114.0	464.4

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1937phae.proj..801E

d_1	d_2	d_3	d_4	d_5	G. Period
					6^s
[redacted]					6^s
28.02	36.58	28.54	36.66	28.89	5^s
157.8	280.3	188.1	315.4	221.8	7^s
311.9	309.0	284.2	289.1	262.9	
38.7	87.2	38.0	81.8	30.4	

RL

Reading taken 30^s after setting star on β Lyrae. Then about 5^s pause before next

345.1 − 248.4 = 96.7

366.2 − 284.8 = 81.4

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1937phae.proj..80.1E

Starting time

1st set 2nd set

Thursday

No	G. C. T.		d_1	d_2	d_3	d_4	d_5
a	17 5:22	25	177.1	272.3	179.0	273.2	178.9
	17						
b	5 //:46	50	65.9	288.1	74.0	298.8	85.9
c	18 6:02	05	252.8	270.9	252.3	271.7	250.7
d	18 6:50	52	344.1	347.9	342.8	347.5	342.8
e	19 7:05	07	178.2	397.0	182.1	143.4	187.2
f	19 7:21	23	282.8	354.1	299.4	368.9	313.2
g	19 7:52	53	192.3	225.2	194.6	229.6	203.5
h	20 8:01	03	148.9	358.3	146.1	358.8	146.9
i	20 8:11	12	246.1	310.0	252.9	316.1	260.4
j	21 8:27	29	257.7	323.8	270.0	335.4	284.3
k	21 8:39	41	184.9	376.4	177.1	369.2	171.0
l	22 10:07	09	137.8	328.8	145.1	334.6	152.7
m	22 10:16	18	273.3	332.4	275.1	337.9	278.2
n	22 10:25	27	314.4	331.3	313.5	329.6	312.8

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1937phae.proj...801E

~~Jan~~ Dec 9-10, 1937

d_1	d_2	d_3	d_4	d_5	Period records	
175.2	268.8	175.0	267.8	174.9	5	1st 5 at 15^s interval 2nd " 10 "
134.9	361.0	144.2	371.5	155.2	7	reading every 15^s
252.5	270.8	250.2	269.0	251.3	—	" "
342.5	345.7	342.0	347.1	343.8	—	—
192.8	442.7	198.8	449.7	204.3	—	—
334.6	402.9	348.6	419.1	363.9	—	—
215.2	252.7	224.9	262.4	235.1	—	—
147.8	355.3	152.1	363.4	154.4	—	—
272.1	340.0	285.8	353.2	300.2	—	—
308.0	376.9	324.4	395.8	343.9	—	—
164.7	357.7	162.8	358.3	163.9	—	—
170.1	367.1	180.3	372.9	189.5	—	—
289.1	353.4	296.8	364.0	304.9	—	—
312.6	330.1	315.9	337.1	322.8	—	—

RL

five readings taken consecutively without change, every 15^s. This method of reading is used in following pages, until further notice.

temp 15° F at 5:30 AM

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1937phae.proj..80TE

Saturday

Starting Time - G.C.T. First Set

No	1st set	2nd set	d_1	d_2	d_3	d_4	d_5
a	18 : ~~21~~ ~~16~~		751.1	759.2	756.7	765.7	763.9
b	18 : 33	35	206.7	209.2	199.1	201.0	191.1
c	18 :						
d	17 : 13	15	87.3	103.9	87.1	104.2	85.9
e	17 : 23	25	75.2	106.7	73.8	105.9	73.9
f	~~17~~ 5 : 47	50	17.2	69.0	18.3	69.2	17.6
g	18 : 01	03	46.6	57.9	45.0	56.9	46.2
h	18 : 29	31	-10.0	-01.3	-09.4	00.2	-05.2
i	19 : 47	49	294.4	299.4	297.8	301.9	300.0
j	19 : 56	58	311.1	366.2	312.8	362.9	312.9
k	20 : 03	05	342.2	358.1	345.9	359.9	345.3
l	20 : 12	14	237.2	423.2	232.8	422.7	227.8
m	20 : 17		236.2				
n	~~21~~ 9 : 30	32	113.1	291.3	115.5	294.0	118.1
o	21 : 35	37	38.2	242.9	41.2	243.2	47.9
p	21 : 46	47	148.7	213.8	151.4	215.9	154.4
q	21 : ~~54~~	56	193.8	210.1	194.7	212.3	194.2
r	22 : 17	20	130.7	136.9	129.3	140.2	131.7
s	22 : 23	25	172.1	183.8	177.9	188.0	188.1 ?
t	22 : 48	50	72.9	75.0	75.0	79.4	77.8
u	22 : 58	60	74.3	14.10	76.2	14.19	7.68

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1937phae.proj...801E

Rec. 11-12, 1937

Second Set

d_1	d_2	d_3	d_4	d_5	Period (seconds)	
					7	
					—	charge focus
175.2	177.3	166.6	171.4	159.8	—	
85.4	103.9	85.9	103.7	85.3	—	
70.6	102.0	70.0	101.7	68.8	—	
18.3	69.4	17.9	70.5	19.8	—	
42.0	55.4	54.2	56.3	45.6	—	temp = 13° F
−02.3	+10.2	+03.1	+13.9	+07.2	—	
302.1	305.9	304.0	309.0	307.8	7.6	" = 12° F
315.0	369.8	316.4	3708	318.2	—	
345.4	359.1	345.5	362.5	349.2	—	
219.8	411.3	218.8	407.2	212.5	—	
117.9	298.6	121.8	301.9	128.7	8	
48.0	253.2	53.3	257.1	55.1	—	
156.2	220.9	158.6	224.1	161.1	—	
194.9	211.2	193.8	213.1	197.2	—	
147.9	158.8	153.0	164.4	157.8	—	
193.9	203.8	198.1	209.8	201.5	—	
82.7	89.2	87.2	91.0	90.2	—	
7.64	142.6	77.8	144.2	80.9	—	" = 10° F

RL

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1937phae.proj..80E

	G.C.T Starting First Set	Searched	d_1	d_2	d_3	d_4	d_5
a	14:08	01	129.7	170.9	129.4	172.8	130.2
b	14:16		144.9				
c	14:17	19	145.1	152.8	145.7	153.7	147.2
d	14:35	37	128.0	144.3	125.7	141.4	123.2
e	14:45	48	101.4	126.2	100.7	124.2	99.2
f	14:54	56	73.7	118.2	74.8	119.6	76.2
g	15:13	15	76.8	81.2	72.9	83.9	80.9
h i	15:30	32	52.3	95.3	50.9	93.9	50.4
j	14:46	48	44.2	85.9	44.8	85.1	45.1
k	17:02	04	25.9	92.2	26.9	91.8	31.6
l	17:12	14	67.9	82.7	62.5	85.3	68.3
m	17:16	18	93.8	89.9	75.0	91.8	75.9
n	19:53	54	03.9	13.2	06.0	15.4	07.8
o	20:01	03	01.3	X36.9	00.1	86.1	-01.2
	Zero point (leads discrimator) has shifted from 350						
p	20:34	36	246.8	296.0	247.9	295.8	248.8
q	20:43	45	210.8	373.8	211.3	373.8	210.2
r	21:08	09	295.4	303.8	296.9	305.8	297.8
s	21:41	43	297.9	299.4	299.1	300.3	300.3
t	22:02	04	310.2	320.0	311.5	321.4	313.5
u	22:18	20	230.3	376.2	225.8	373.3	227.1
v	22:49	51	288.8	336.1	288.2	337.2	289.8

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1937phae.proj..801E

Monday Dec 13-14, 1937

d_1	d_2	d_3	d_4	d_5	Period Leads	
130.3	173.8	132.7	174.1	132.9	6.5	missed reading
148.0	156.2	150.2	158.3	152.3	—	
119.9	137.4	119.8	136.9	119.4	—	Temp 11°F
93.3	116.9	91.7	115.0	88.9	—	
76.2	120.3	77.0	121.9	78.6	—	
84.2	91.2	89.9	94.8	95.2	—	
48.3	90.3	47.2	91.3	48.8	—	
45.2	86.3	45.9	87.0	48.1	—	11°F
30.1	96.9	33.2	97.3	34.2	—	
69.0	88.9	71.6	88.3	83.4	—	
78.7	95.6	81.7	98.8	81.3	—	
04.2	17.0	08.4	16.9	09.7	—	10°F
-04.5	30.9	-05.9	29.1	-05.8	—	
to 65	from ab to 0.	Period now		7.5 s		
251.3	301.8	254.7	303.2	257.0	6.3	
209.3	370.7	210.0	372.7	210.3	—	
300.2	309.4	301.9	312.3	304.0	—	
302.9	304.6	304.7	316.3	306.0	—	
315.8	326.0	316.8	328.8	319.1		
225.2	369.2	227.0	369.8	231.2		
290.7	337.4	290.7	338.2	291.7	—	11°F

RL reading taken at intervals of 15s, as on P. 8

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1937phae.proj..80.1E

	E.C.T. Starting times		d_1	d_2	d_3	d_4	d_5
a	14:22	24	109.1	212.0	110.7	215.4	114.8
b	14:40	42	152.9	157.4	150.7	155.1	149.1
c	14:46	47	173.2	179.4	176.1	182.6	179.4
d	14:53	55	160.6	265.7	159.9	254.6	158.2
e	15:06	08	106.6	112.0	100.2	105.8	95.2
f	15:18	20	59.2	71.8	56.3	69.8	54.8
g	15:25	27	66.8	69.3	67.4	64.8	68.1
h	15:33	35	90.2	97.4	90.1	98.2	90.4
i	15:40	42	103.6	112.1	105.0	112.4	105.5
j	15:49	50	82.2	182.9	82.9	182.7	83.7
k	16:02	03	137.4	140.0	136.2	138.6	135.9
l	16:07	09	150.4	152.4	150.9	153.2	152.2
m	16:58	00	120.3	123.4	121.2	125.1	123.0
n	17:06	07	160.5	164.9	161.3	165.0	162.1
o	17:14	16	162.1	171.2	162.0	170.8	162.6
p	17:25	27	151.8	156.3	150.2	154.8	149.0
q	17:59	01	99.5	102.4	100.4	103.8	101.5
r	18:07	08	85.9	170.3	89.0	171.2	90.8
s	18:13		176.8	187.4	176.2	187.2	175.0

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1937phae.proj..80JE

~~Wednesday, Dec. 15-16, 1937~~
Monday, Jan. 3-4, 1938

d_1	d_2	d_3	d_4	d_5	Period
122.0	225.7	125.4	231.6	124.2	6.5
149.3	155.3	150.4	156.6	151.2	—
187.2	194.8	192.7	200.4	198.2	—
158.6	263.6	159.2	263.5	161.1	—
86.8	94.2	83.3	89.2	80.2	—
53.6	66.8	53.5	67.0	53.2	—
69.7	72.6	70.8	74.1	73.2	—
92.1	100.0	92.4	100.9	94.4	—
108.2	117.8	110.3	119.4	112.6	—
84.7	184.9	85.8	186.4	88.4	—
136.0	139.4	137.2	141.0	138.4	—
154.1	156.8	156.0	158.9	158.1	—
127.0	130.9	129.0	133.1	132.1	—
163.2	167.4	165.0	168.8	166.2	—
~~164.0~~	173.2	164.8	174.0	165.0	—
147.8	152.8	146.9	152.8	147.7	—
105.1	108.2	106.8	110.7	109.6	—
95.7	180.2	102.7	186.2	108.1	—
173.8	186.5	173.8	186.5	174.8	—

RL

temp = 74° F

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1937phae.proj..80.1E

	G.C.T. Starting Times		d_1	d_2	d_3	d_4	d_5
a	15:56	58	24.8	127.3	28.0	130.9	31.3
b	16:04	06	121.3	127.5	121.2	127.2	121.8
c	16:12	13	117.9	130.6	112.3	126.1	107.2
d	16:18	19	76.8	80.0	74.2	76.8	73.2
e	16:22	24	74.9	78.1	75.0	78.2	74.8
f	16:30	31	88.3	91.2	88.4	92.0	89.1
g	16:35	37	108.4	111.1	110.6	112.5	112.0
h	16:41	43	130.2	135.1	131.0	134.6	131.0
i	16:51	53	117.2	116.9	110.3	114.9	108.3
j	16:57	59	111.1	137.2	111.2	137.2	111.0
k	17:04	06	111.0	119.1	109.0	118.2	108.3
l	17:28	30	66.9	69.7	67.2	70.2	67.8
m	17:48	50	34.6	134.3	33.9	135.1	34.3
n	17:55	57	111.7	114.8	111.0	114.4	110.5
o	18:01	03	101.0	115.3	99.8	113.8	98.8
p	21:58	00	34.1	67.6	39.3	75.0	46.2
q	22:31	33	45.8	45.3	48.0	49.0	57.8
r	22:35	37	107.9	112.3	120.5	126.2	134.3
s	22:59	02	3.2	18.0	13.2	28.2	22.2
t	23:04	06	92.7	109.8	101.7	119.6	111.2
u	23:11	13	195.2	227.3	187.4	221.3	183.2

s, 1st set past it in 5 min intervals, 2nd set at 30°

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1937phae.proj...801E

Wednesday, January 5-6, 1938

d_1	d_2	d_3	d_4	d_5	Period	Temp
37.0	141.4	42.0	146.2	47.2	7.3	28° F
123.0	130.4	125.2	131.3	128.2	—	
98.8	112.7	94.5	108.9	91.4	—	
71.0	73.9	71.0	74.3	71.2	—	
74.7	77.9	74.3	78.1	75.0	—	
90.6	94.0	92.3	95.7	94.7	—	
116.0	118.2	118.2	120.9	121.0	—	
131.2	135.8	131.6	136.0	133.2	—	
108.0	113.2	107.0	112.9	107.4	—	
110.2	136.8	110.2	137.2	110.5	—	28
107.3	116.2	106.9	116.7	107.2	—	
72.4	76.2	75.1	79.1	78.1	—	
37.0	136.9	40.0	141.5	42.5	—	
111.1	113.9	111.0	113.8	110.6	—	27°
98.1	111.7	96.9	111.4	96.9	—	
59.4	96.6	68.1	104.7	76.0	8	22°
64.3	72.2	77.6	82.3	88.3	—	
151.7	157.2	165.4	171.1	179.4	—	
54.7	71.3	66.0	83.0	75.9	—	
121.6	139.3	129.8	148.0	138.8	—	
179.8	214.3	177.4	213.2	176.4	—	22

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1937phae.proj..80E

	G.C.T. Starting time		d_1	d_2	d_3	d_4	d_5		
a	12: 47	43	179.2	195.9	180.6	198.8	185.2	94.1	9
b	12: 50	52	222.9	237.2	218.0	234.2	217.3	97.8	
c	12: 56	58	235.4	266.7	229.0	260.2	234.2	183.5	17
d	13: 02	03	199.4	227.6	196.4	225.7	195.2	177.9	17
e	13: 07	09	199.0	204.6	195.5	202.8	192.8	47.6	4
f	13: 12	13	199.3	213.0	195.0	209.5	192.2	94.5	9
g	13: 19	20	114.1	122.2	103.6	113.3	98.1	(79.9)	(7
	during g the		telephone	was out of	order.	Intervals uncertain.			
h	13: 55	57	145.3	159.6	150.0	164.1	155.8	68.9	6
i	14: 01	02	164.8	334.6	171.4	340.8	179.4	995.0	10
j	14: 25	27	187.1	195.1	190.6	200.5	200.6	30.2	
k	14: 36	38	272.1	275.5	271.4	276.3	274.0	20.4	2
l	14: 43	45	210.9	371.8	212.5	369.2	212.0	952.2	9
m	14: 49	51	291.1	296.5	281.0	285.9	269.3	63.8	4

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1937phae.proj..801E

Sunday Jan 9-10, 1938

		D_1	D_2	D_3	D_4	D_5	Barrid	Temp
97.8	101.5	191.7	213.6	201.5	223.7	212.0	8	RL 18°
97.2	96.5	221.0	240.8	227.4	247.3	235.5	—	
192.3	201.1	221.8	255.2	221.3	256.1	223.3	—	
178.0	178.0	193.7	223.2	192.8	222.8	193.5	—	
46.6	45.5	192.0	200.3	193.0	202.2	196.0	—	
97.6	100.6	192.2	208.0	189.8	206.2	189.0	—	
(71.2)	(67.4)	101.2	93.1)	105.0	90.7	103.2	—	
						Readjusting barometer		
69.4	70.0	161.9	178.4	172.2	192.2	186.8	8	19°
1023.6	1052.3	183.9	174.3	193.8	364.8	204.8	—	
30.1	30.0	214.2	224.8	229.4	247.2	249.4	—	17°
22.6	24.9	280.2	288.3	284.8	293.2	294.8	—	
953.8	955.5	210.2	374.3	218.1	378.4	223.0	—	
48.8	53.7	264.0	271.0	208.8	266.1	256.0	—	17
				5				

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1937phae.proj..001E

	G.C.T. Starting	Times	d_1	d_2	d_3	d_4	d_5
a	18:21	24	37.6	189.4	38.9	192.1	42.6
b	18:28	29	168.2	182.0	175.1	187.3	181.7
c	18:34	36	244.5	261.2	244.0	260.5	246.5
d	18:41	42	246.6	250.7	244.0	249.0	242.1
e	18:46	48	245.0	248.9	245.6	248.0	243.2
f	18:53	54	242.7	253.6	243.0	254.8	244.0
g	18:58	00	270.7	317.2	276.0	323.2	280.0
h	19:04	06	330.4	347.5	330.0	346.1	329.6
i	19:11	12	321.2	332.0	320.0	329.4	319.1
j	19:17	18	310.1	326.8	308.0	327.8	315.0
k	19:23	25	291.2	297.3	284.9	290.4	280.6
l	19:50	52	122.7	124.2	124.4	126.5	127.3
m	19:58	00	176.0	183.8	176.2	184.5	176.6
n	20:03	05	133.4	769.8	136.3	271.5	135.8
o	20:10	11	212.5	218.0	212.2	218.6	213.0
p	20:15	17	235.1	239.3	236.8	243.8	241.4
q	20:21	22	276.7	282.8	274.0	281.7	273.0
r	20:27	28	259.9	270.2	260.1	271.1	260.9
s	20:32	33	274.0	318.0	275.9	321.0	279.2
t	21:36	37	233.4	277.0	235.2	280.2	238.0
u	21:42	43	266.6	278.1	265.0	272.3	259.9
v	21:52	53	227.6	231.3	225.0	230.1	222.9
w	22:29	30	218.1	221.2	220.0	223.9	223.0
x	22:35	36	253.7	273.0	256.5	276.3	259.4
y	22:42	43	293.6	309.2	294.9	310.0	294.4
z	22:54	56	247.3	251.7	244.2	250.0	244.3

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1937phae.proj..80E

Monday, ~~Dec~~ Jan 10-11, 1937 8

d_1	d_2	d_3	d_4	d_5	Period	Temp
39.8	195.3	47.0	201.0	52.3	8.0	14
185.4	207.3	197.3	210.3	205.6	— RL	
246.0	262.4	248.0	265.0	250.5	—	
242.5	247.5	241.0	246.7	240.6	—	
242.8	247.0	243.8	247.0	242.2	—	
246.0	261.0	252.6	265.9	256.0	—	
282.7	329.6	287.9	336.8	296.0	—	
330.0	346.6	330.8	348.2	332.2	—	
318.3	328.8	316.5	326.9	318.1	—	
307.4	327.8	310.2	327.5	310.5	—	13
276.9	282.8	271.2	279.3	269.1	—	
129.8	132.2	133.5	136.7	138.2	—	
178.2	185.9	179.2	188.3	181.9	—	
135.7	273.1	140.0	272.0	143.2	—	12
214.0	220.2	216.1	222.9	218.1	—	
242.3	251.5	249.5	256.0	255.4	—	
271.6	278.3	271.8	277.3	268.6	—	
262.5	275.0	265.3	278.5	270.1	—	
280.0	325.5	283.8	328.9	286.6	—	11
239.0	283.4	242.7	287.4	247.9	—	10
257.4	267.0	255.3	266.4	253.5	—	
220.8	227.0	220.8	227.3	221.9	—	
226.3	230.3	230.3	234.4	235.0	—	
262.7	283.0	268.0	289.0	273.4	—	10
295.7	311.0	296.8	312.3	299.0	—	
247.0	255.0	250.3	258.3	253.8	—	

Period above reads 8.0

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1937phae.proj..80.1E

	G.C.T. Starting Times		d_1	d_2	d_3	d_4	d_5
aa	23h: 03	05	246.3	255.3	241.4	255.0	240.9
ab	23h: 09	10	273.9	285.9	279.3	290.1	282.3
ac	23h: 15	16	295.0	312.1	293.2	309.8	291.0
ad	23h: 21	22	265.0	304.9	256.2	295.3	246.3
ae	23h: 26	28	189.8	195.9	180.0	187.0	172.9
af	23h: 32	33	143.2	147.8	139.8	142.8	135.1
ag	23h: 37	38	115.0	115.3	112.1	115.3	113.2
ah	23h: 42	44	135.4	143.6	137.7	145.4	140.4
ai	23h: 49	50	146.8	156.7	145.6	155.8	145.3
aj	23h: 54	55	138.0	156.5	137.1	155.2	136.9
ak	23h: 59	01	144.5	160.2	145.1	161.0	145.9

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1937phae.proj..801E

Monday Jan ~~Dec~~ 10-11, 1938 continues

d_1	d_2	d_3	d_4	d_5	Period	Temp
244.0	256.3	246.1	261.3	252.7	—	
284.0	296.0	289.4	298.5	292.6	—	
288.9	310.3	293.7	313.2	298.4	—	
238.9	278.2	229.7	267.9	218.1	—	
168.3	176.4	163.8	171.9	159.6	—	
133.0	136.2	129.6	133.2	125.4	—	
113.8	117.4	114.9	120.2	119.2	—	
141.8	149.3	144.0	151.8	146.6	—	
144.0	154.2	144.0	154.1	143.0	—	
136.7	155.1	136.2	155.0	138.0	—	
146.3	161.8	146.7	162.9	149.0	—	1 P F

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1937phae.proj..80E

	G.C.T. Starting time		d_1	d_2	d_3	d_4	d_5
a	14:38	39	27.2	220.8	37.9	232.2	48.7
b	14:48	49	214.0	226.5	211.7	225.0	218.2
c	14:53	55	195.1	224.2	193.2	222.0	189.8
d	14:59	00	193.7	207.1	191.8	206.8	190.8
e	15:04	05	199.8	208.2	197.3	205.8	195.7
f	15:09	10	190.4	193.5	188.0	191.9	186.7
g	15:15	16	181.0	195.3	179.4	193.2	178.0
h	15:20	21	156.9	182.8	151.3	176.9	145.1
i	15:25	26	118.3	123.3	115.4	120.6	114.0
j	15:30	31	112.9	124.7	112.1	123.3	110.8
k	15:35	37	133.3	225.7	37.3	230.7	43.8
l	15:41	42	73.9	92.8	76.3	96.3	80.1
m	15:48	49	90.3	99.3	94.2	102.3	99.0
m	15:53	54	182.0	190.6	187.8	197.8	195.0
o	15:58	00	257.0	262.9	253.4	265.0	259.8
p	16:05	06	261.1	266.0	247.8	256.1	239.9
q	16:10	12	182.1	228.9	175.0	219.7	168.2
b	16:21	22	48.9	66.3	46.2	61.7	41.9

Off scale. readjusted galvos.

s	16:39	40	33.1	183.2:	38.8	182.7	44.6
t	16:47	48	182.0	182.3	175.1	176.4	170.0
u	16:54	55	126.9	134.8	120.0	127.3	113.9
v	16:59	00	78.9	100.2	78.2	99.1	77.1
w	17:04	06	30.4	178.0	34.8	187.8	45.8
x	19:48	49	215.0	349.7	218.6	350.2	220.8
y	19:55	56	327.2	337.9	330.4	342.6	336.3
z	20:00	02	376.8	417.1	377.9	418.0	379.2

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1937phae.proj..801E

Tuesday. Jan. 11-12 1938

d_1	d_2	d_3	d_4	d_5	Per.	Temp
65.5	261.5	81.1	278.8	96.9	8	13°7
205.7	220.2	205.2	220.6	206.0	—	
187.3	219.7	187.2	218.2	186.1	—	
191.0	206.2	191.3	207.7	193.0	—	
193.9	203.7	192.7	202.3	192.3	—	
186.3	191.4	186.4	191.9	187.2	—	
176.3	191.3	176.0	190.2	176.2	—	
141.9	169.2	136.8	163.6	132.3	—	
112.0	118.2	111.3	119.2	113.0	—	
111.9	123.2	112.3	124.3	113.1	—	
43.8	237.2	52.8	244.9	56.7	—	
81.0	100.1	87.6	101.4	85.9	—	
103.9	115.3	113.6	130.3	127.8	—	
198.8	209.2	208.0	219.8	220.1	—	12°
261.7	275.6	270.1	284.0	279.3	—	
236.9	247.0	236.9	247.3	236.0	—	
165.1	211.2	159.2	208.9	155.7	—	
40.8	59.5	39.3	57.2	41.1	—	
new period						
45.6	188.2	62.2	201.8	71.1	7.7	12°
166.8	168.9	163.3	165.3	160.8	—	
109.9	118.7	105.3	114.2	101.3	—	
76.2	99.0	76.4	98.5	77.8	—	
50.2	205.2	65.3	223.5	84.0	—	
223.0	357.1	227.6	362.8	233.3	—	
343.1	357.2	352.7	367.2	362.3	—	
381.0	422.9	387.0	426.9: spot very faint.	390.9	—	10

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1937phae.proj..80ME

	G.C.T. Starting time		d_1	d_2	d_3	d_4	d_5
aa	20 : 15	16	248.8	287.6	245.9	284.9	243.5
ab	20 : 24	26	255.1	262.6	257.2	265.3	267.0
ac	20 : 47	48	168.0	175.0	167.9	176.5	172.1
ad	20 : 53	54	253.8	267.5	260.3	276.3	269.5
ae	21 : 03	04	251.7	252.2	245.7	248.4	244.0
af	21 : 12	14	248.8	260.5	248.2	259.6	250.0
ag	21 : 15	16	292.2	302.0	301.2	310.1	307.4
ah	21 : 20	21	359.2	364.0	359.2	367.9	361.3
ai	21 : 28	29	240.5	252.8	227.0	238.4	213.9
aj	21 : 43		35.6	41.9	38.1	46.2	45.3
ak	21 : 46		89.6	100.2	97.2	106.8	105.8
al	21 : 52	53	127.0	134.8	130.0	138.9	132.9
am	21 : 58	59	145.3	160.6	145.8	162.9	149.6
an	22 : 05	06	170.2	207.6	162.0	199.6	153.7
ao	22 : 10	11	101.5	107.2	93.2	98.3	84.1
ap	22 : 16	18	28.6	31.6	22.9	27.3	20.6
aq	22 : 22	24	19.2	24.0	23.1	28.2	27.1
ar	22 : 49	50	175.4	182.4	177.0	185.3	180.4
as	22 : 55	56	225.1	235.4	226.9	235.6	227.1
at	23 : 00	01	210.7	248.6	207.6	247.2	207.4
au	23 : 06	07	227.1	242.7	231.9	248.6	238.9

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1937phae.proj..80TE

Tuesday Jan 11-12, 1938

	d_1	d_2	d_3	d_4	d_5	Per	Temp
	242.8	284.1	243.7	285.0	244.3	—	10
	281.4	293.2	292.6	305.8	306.5	—	10
	176.6	187.9	185.3	198.0	198.1	—	
	273.9	289.7	283.1	299.1	294.1	—	
	243.0	247.2	247.2	252.9	252.8	—	
	252.2	266.9	258.0	274.2	268.4	—	
	313.1	323.2	322.9	334.3	333.9	—	
	362.6	368.0	363.8	371.7	368.2	—	
	208.0	224.9	202.7	218.4	195.9	—	
	50.9	62.2	63.2				8°
k	132.4	143.3	137.4	149.0	143.1	—	
l	152.9	171.2	159.3	181.7	172.1	—	
m	146.8	184.4	139.1	178.0	133.6	—	
n	78.0	84.2	70.2	76.3	62.3	—	
o	18.6	22.6	16.4	20.0	14.6	—	
p	31.9	39.1	40.1	47.3	49.3	—	
q	187.2	191.3	188.3	197.6	195.6	—	7°
r	226.1	235.3	227.0	236.1	227.0	—	
s	206.1	245.2	205.8	243.9	204.1	—	
t	243.7	262.1	254.0	274.0	266.2	—	

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1937phae.proj..80NE

	G.C.T. Starting Times		d_1	d_2	d_3	d_4	d_5
a	13 :55	56	94.5	223.9	97.8	226.7	101.1
b	14 :00	01	181.4	202.0	183.0	202.8	183.0
c	14 :07	08	186.9	194.1	187.6	192.7	184.4
d	14 :17	13	174.8	176.4	171.8	174.6	170.4
e	14 :18	19	153.2	170.0	152.2	168.8	152.0
f	14 :47	48	73.4	201.5	73.6	202.8	73.7
g	15 :03	05	↖	128.2 ↖	129.8 ↖	129.7 ↖	131.4 ↖ 130.3
h	15 :07	08	143.1	145.3	146.4	150.1	150.2
i	15 :13	15	170.1	177.4	168.0	175.9	165.8
j	15 :19	21	↖	146.9 ↖	151.1 ↖	146.8	152.2 147.3
k	15 :41						
l	15 :46	47	119.3	128.0	120.6	130.5	123.6
m	15 :56	57	165.3	177.9	163.1	175.9	162.0
n	16 :01	02	112.3	236.1	111.6	236.5	112.3
o	16 :06	08	158.2	160.5	150.3	152.0	141.9
p	16 :17	13	85.1	85.0	79.2	79.3	74.3
q	16 :18	19	56.5	72.2	56.4	72.0	57.5
r	16 :25	26	70.0	88.3	70.1	90.2	71.3
s	16 :30	31	97.5	182.4	98.3	184.0	101.1
t	16 :35	36	71.1	196.0	75.0	199.3	77.8
u	16 :40	41	166.6	180.7	168.3	182.1	170.9
v	16 :46	47	168.3	174.2	165.0	170.3	160.1
w	16 :52	54	130.6	135.2	127.9	133.0	126.0
x	16 :57	58	140.0	147.4	146.3	150.0	145.1
y	17 :03	04	161.4	170.4	161.7	171.2	162.0
z	17 :08	09	149.1	181.4	145.6	180.3	143.3

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1937phae.proj..BOAE

Saturday, January 15-16, 1938

d_1	d_2	d_3	d_4	d_5	Per	Temp
101.7	231.6	106.9	234.7	110.2	7.0 sec	16° F
183.8	205.2	185.5	207.8	187.1		
183.1	188.1	181.2	187.2	179.6		
169.2	171.1	167.9	170.2	165.5		
150.7	166.9	150.4	166.8	150.1		
72.6	207.3	76.2	204.6	79.2		
130.6	132.4	133.9	135.8	136.3		
152.1	155.2	156.6	159.7	160.9		17°
162.2	170.7	160.1	168.9	158.4		
148.2	158.0	149.3	155.4	152.3		
						11°
125.2	136.1	131.0	142.1	137.4		
161.8	176.2	163.8	176.3	164.4		
109.9	232.8	112.4	234.8	113.2		
137.2	140.1	130.2	132.9	123.3		
72.4	74.0	69.2	69.3	65.4		
57.6	74.3	59.2	75.3	60.9		
71.3	90.8	73.2	92.8	76.1		
102.8	108.8	105.2	111.9	110.1		
78.6	205.1	84.2	210.3	89.2		
170.7	184.0	171.3	185.7	173.2		
157.4	163.2	153.9	160.2	150.8		11°
125.2	130.9	125.2	131.2	125.4		
145.3	150.3	147.1	153.6	150.3	153.6	
161.2	169.8	160.5	170.0	161.2		
141.3	175.2	138.9	173.3	138.1		

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1937phae.proj..80nE

	G.C. Starting Time		d_1	d_2	d_3	d_4	d_5
aa	19 7:54	56	32.1	141.2	35.8	140.6	33.6
ab	20 8:01	03	90.0	100.2	90.2	99.4	88.7
ac	20 8:08	09	80.1	88.1	80.1	88.2	81.0
ad	20 8:13	14	85.1	119.3	87.3	121.8	89.8
ae	20 8:19	21	111.9	117.2	113.2	119.4	114.2

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1937phae.proj...8

Saturday Jan 15-16, 1938

d_1	d_2	d_3	d_4	d_5	Per	Temp
32.0	139.4	34.8	142.0	35.1	—	
87.7	97.2	87.0	96.6	86.0		
81.0	90.2	82.7	91.3	84.3		
89.9	124.4	91.9	126.5	93.7		
116.9	124.2	120.1	127.1	124.3		

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1937phae.proj..80.1E

	G.C.T. Starting Time Add 12 hours		d_1	d_2	d_3	d_4	d_5
a	2:06	07	186.9	318.4	193.3	323.3	193.3
b	2:11	12	354.0	225.4	226.8	355.3	230.2
c	2:18	20	291.2	297.6	288.7	294.0	285.3
d	2:21	22	276.1	281.9	273.8	280.3	273.2
e	2:28	30	255.9	258.0	254.7	257.0	251.8
f	2:31	32	247.7	251.2	248.2	251.4	248.6
g	2:38	40	258.3	275.4	260.1	277.0	262.4
h	2:41	42	268.2	286.1	270.7	288.0	273.3
i	2:48	49	288.7	298.3	286.6	298.6	288.7
j	2:51	52	289.1	300.1	290.6	301.7	292.0
k	2:56	58	289.9	310.9	288.9	310.0	290.3
l	2:59	60	293.0	313.8	294.0	317.2	297.8
m	3:05	06	317.8	323.8	320.0	324.4	320.2
n	3:08	09	327.0	334.4	330.0	335.4	332.1
o	3:14	15	334.0	342.0	332.9	341.9	333.1
p	3:17	18	332.9	341.9	333.5	342.4	333.8
q	3:22	23	272.4	396.8	272.1	397.9	269.2
r	3:25	26	259.8	386.9	256.9	382.6	256.6
s	3:57	58	181.1	312.7	186.6	318.5	190.3
t	4:00	01	214.0	347.2	221.7	353.7	230.3
u	4:06	07	339.0	344.0	335.9	340.1	332.2
v	4:09	10	320.9	325.4	318.0	321.8	314.4
w	4:15	17	286.2	288.0	283.9	285.9	281.8
x	4:18	20	274.9	277.0	273.8	275.4	272.0
y	4:24	26	260.3	268.9	259.0	267.2	257.2
z	4:27	28	250.1	258.6	248.8	257.0	247.4

See variation page 37 on G.C.T.

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1937phae.proj..80JE

Tuesday, Jan 18-19, 1938

d_1	d_2	d_3	d_4	d_5	Per	Temp
196.0	330.1	202.5	330.4	205.4	7.0 galvo. Lat readjusted since last time	
233.1	362.8	235.2	365.4	239.8		
284.2	289.2	282.3	288.0	280.0		
250.2	252.3	250.1	252.5	248.8		
248.3	251.9	248.7	252.1	249.2	RL	
263.8	280.1	264.9	282.0	265.8		
274.4	290.8	275.9	293.4	277.8		
289.0	298.9	288.6	299.0	288.3		
292.1	302.8	292.0	301.9	293.6		
289.3	310.4	291.7	313.0	293.6		
298.2	320.8	301.2	324.7	305.4		
321.4	327.9	322.6	328.6	323.9		
333.2	340.4	336.1	342.9	338.7		
332.4	341.0	332.9	341.3	333.4		
333.9	342.9	334.6	343.3	335.3		
268.3	393.2	266.1	392.7	262.3		
252.2	379.0	250.2	375.8	248.3		
193.7	326.7	198.7	331.5	205.3	[-3°]	
233.3	367.4	243.4	376.1	250.2		
330.1	333.9	327.0	331.8	323.4		
312.3	318.0	310.0	313.4	305.9		
280.4	283.0	279.0	281.2	276.8		
270.7	273.6	270.3	272.6	270.0		
250.2	264.3	252.6	261.7	251.9		
246.5	256.5	246.7	255.9	246.4		

See note Jan. 37

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1937phae.proj..80.tif

 10 to 12 hours

	G.C.T. Starting Time		d_1	d_2	d_3	d_4	d_5
aa	4:32	33	242.7	262.6	242.4	261.8	242.8
ab	4:35	36	250.1	270.4	252.3	272.0	253.2
ac	4:40	41	279.0	283.0	281.1	286.9	283.9
ad	4:43	44	294.8	300.3	297.2	303.7	301.2
ae	5:26	27	303.7	304.8	304.8	306.7	306.2
af	5:32	33	252.8	377.2	255.0	377.8	252.4
ag	5:35	36	255.3	379.9	256.5	382.9	258.3
ah	5:41	42	330.3	338.6	328.8	336.8	326.9
ai	5:43	45	319.3	327.7	318.0	326.5	317.3
aj	5:48	50	303.0	320.8	302.0	318.9	300.4
ak	5:51	53	295.1	311.6	293.7	310.1	292.6
al	5:57	58	297.1	300.5	296.9	300.2	296.2
am	6:00	01	295.4	299.5	295.5	299.7	296.7
an	6:06	07	298.3	306.0	298.9	306.7	300.4
ao	6:09	10	310.3	319.2	313.3	321.2	315.1
ap	6:14	16	270.1	393.7	270.2	393.8	271.2
aq	6:17	18	272.1	396.9	274.0	397.0	277.0
ar	6:22	23	340.2	353.1	342.0	354.0	341.8
as	6:25	26	347.0	361.3	350.2	365.0	353.6
at	6:32	33	371.9	380.4	370.8	378.7	369.8
au	6:35	36	368.7	378.0	369.0	377.8	368.3
av	6:46	41	355.5	391.9	355.0	391.0	355.0
aw	6:42	44	356.2	392.9	357.4	393.8	358.0
ax	8:34	35	393.6	406.2	397.2	408.3	399.7

~~[illegible]~~

See note top 37 on G.C.T.

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1937phae.proj..80xE

Tuesday, Jan. 18-19, 1938

d_1	d_2	d_3	d_4	d_5	Per	Temp
244.0	263.7	244.9	265.1	247.1	—	
255.1	275.0	257.0	278.4	260.2		RL
285.3	290.6	287.8	294.2	291.3		
303.8	311.3	308.4	314.6	311.7		
307.3	308.7	309.6	311.6	312.8		
251.8	377.0	253.6	378.7	255.9		
259.7	387.7	261.9	388.6	265.8		
325.4	332.7	323.5	331.0	321.4		
316.0	324.0	315.1	323.0	313.9		
298.8	315.8	297.0	314.8	295.7		
291.4	309.6	291.0	310.0	291.3		
295.5	299.2	295.3	298.8	295.2		
297.0	301.9	298.2	302.7	299.6		
302.4	311.3	305.4	315.2	308.6		
315.7	325.7	319.8	328.7	322.1		
270.2	392.4	270.9	394.3	273.0		
275.4	398.1	276.7	401.3	278.0		
342.1	355.0	344.6	357.6	345.8		
355.1	369.2	358.0	372.3	361.3		
369.0	377.8	368.8	378.0	369.6		
368.3	377.7	368.3	378.0	368.7		
354.3	390.4	355.4	390.9	355.4		
358.0	394.0	358.4	395.0	360.2		
401.8	414.2	405.7	418.8	410.4		

See note page 37

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1937phae.proj..80RE

36 Add 12 hours

	G.C. Starting Time		d_1	d_2	d_3	d_4	d_5
24	9:16	18	115.5	127.1	114.8	126.0	115.1
a1	9:19	20	120.5	132.3	123.2	136.0	126.5
a	9:24	25	140.6	189.4	145.3	192.8	147.4
b	9:27	28	160.9	209.1	163.1	210.1	164.8
c	10:13	15	210.0	212.0	209.4	212.2	209.8
d	10:16	18	216.2	219.4	218.8	222.0	220.6
e	10:30	31	220.0	231.1	221.0	233.0	222.5
f	10:33	34	238.6	252.5	243.1	257.4	248.3
g	10:38	39	266.8	313.0	270.6	315.9	272.0
h	10:41	42	286.9	333.8	290.1	335.0	292.4

Saturation E.C.T.

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1937phae.proj..001E

Tuesday Jan 18-19, 1938

d_1	d_2	d_3	d_4	d_5	Per Temp
114.4	126.1	115.1	127.0	117.3	T.4 new
129.4	143.2	134.5	149.0	138.6	galv. formed
150.1	198.1	153.2	201.4	156.9	RL
165.0	211.5	166.6	213.1	167.9	
210.5	213.9	211.7	214.7	212.8	
222.7	225.8	224.8	227.4	226.4	
223.4	236.1	226.4	239.5	230.4	
251.1	265.7	257.3	272.7	264.0	
277.3	324.6	281.0	327.3	284.0	
291.0	336.1	292.0	338.9	293.9	

Watch set 6 minutes slow due to mistake in sign of chronometer error.
Add 6 minutes to G.C.T. for all readings on this night

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1937phae.proj..80NE

G. C.T. 1800 12 hours

	Starting times		d_1	d_2	d_3	d_4	d_5
a	2: 03	04	249.8	354.2	253.9	359.2	260.1
b	2:10	11	356.3	365.0	356.9	365.4	358.2
c	2: 19	20	365.9	375.0	360.1	375.0	366.5
d	2: 25	26	371.9	377.0	371.0	375.9	370.0
e	2: 31	32	366.0	368.1	364.9	366.9	363.1
f	2: 36	38	353.0	366.7	357.2	366.2	351.8
g	2: 42	43	351.8	359.2	350.3	357.4	348.0
h	2: 48	49	332.1	347.8	329.9	345.3	328.0
i	2: 54	55	331.9	335.0	331.3	336.0	332.8
j	~~2~~ 3:00	01	335.1	341.8	335.0	342.7	335.7
k	3: 05	06	290.8	393.8	288.8	392.1	287.0
l	3:11	12	333.0	343.0	331.8	342.6	332.0
m	3:20	22	339.1	346.4	341.3	349.9	344.9
n	3: 25	27	378.4	400.2	373.6	400.3	375.1
o			ab.	eagle	wheron	upper	junction (Capella)
p	5: 32	32	135.8	240.0	138.4	241.9	139.0
q	5:38	39	203.7	219.2	204.0	219.4	205.3
r	5:43	44	224.7	228.0	224.8	228.4	225.2
s	5! 49	50	217.8	227.0	216.1	227.0	215.1
t	5:56	57	198.9	205.8	197.1	205.2	197.7
u	6:01	02	203.5	233.7	203.4	234.9	204.7
v	6:07	09	206.3	210.8	201.9	207.4	198.2
w	6:13	14	175.1	178.1	171.9	175.2	168.9
x	6:17	19	163.3	165.9	161.1	164.2	160.1
y	6:23	24	159.9	163.2	158.3	162.7	157.7
z	6:28		160.3	166.7	159.9	166.4	160.3

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1937phae.proj..00??

Thursday, Jan. 20-21, 1938

δ_1	δ_2	δ_3	δ_4	δ_5	Period	Temp
267.9	366.0	268.0	373.6	274.7	6.9	
359.2	368.5	360.3	370.0	362.3		24
366.5	376.0	367.8	376.4	368.7		
370.0	374.7	369.9	374.9	369.2	RL	
363.0	365.3	362.0	364.7	361.3		
351.8	366.4	352.0	366.2	352.0		26
347.8	355.6	346.8	354.1	345.6		
327.1	342.9	326.0	341.8	325.1		
333.2	338.2	334.4	340.1	336.2		25
336.0	343.6	337.0	344.3	338.7		
286.2	290.3	285.5	290.0	285.3		
332.8	343.8	333.4	345.2	335.1		
348.2	357.6	353.9	363.5	360.2		
376.6	406.2	382.3	410.8	387.6		24
	ready galvan.					~~24~~
138.3	242.8	141.3	244.9	143.7	7.0	25
206.0	221.2	208.6	224.0	211.3		
226.0	229.1	226.8	230.1	227.4		
214.8	225.1	213.6	223.8	213.3		
198.8	208.0	202.1	212.3	205.8		
205.1	237.8	207.1	238.9	209.2		
195.8	201.5	192.8	199.0	190.4		24
167.2	171.9	166.8	171.3	165.3		
160.3	164.3	161.3	166.1	163.4		
158.6	163.0	159.2	165.8	161.5		
161.4	168.5	163.7	171.7	165.2		

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1937phae.proj..80.tif

 A2012 hour

	G.C.T. Starting time		d_1	d_2	d_3	d_4	d_5
aa	6:34	35	166.7	169.3	165.6	169.9	166.2
ab	6:40	41	159.3	181.6	157.4	181.9	159.2
ac	6:45	46	198.3	207.9	194.1	203.6	190.6
ad	6:52	53	159.8	166.1	154.8	162.0	153.2
ae	6:57	58	136.0	166.2	134.0	164.6	133.1
af	7:03	04	137.1	144.0	134.7	143.4	136.0
ag	7:09	10	153.6	160.1	148.3	156.7	147.0
ah	7:18	19	91.9	104.2	88.2	99.3	85.0
ai	7:24	25	86.2	114.8	80.3	109.3	75.3
aj	7:29	30	49.7	57.6	47.9	56.2	47.4
ak	7:51	52	40.1	151.1	50.3	155.2	53.0

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1937phae.proj..80TE

Thursday ~~Tuesday~~, Jan 20-21, 1938

	d_1	d_2	d_3	d_4	d_5	Rem.	Temp
16	8.0	173.3	170.6	176.3	174.2	—	
	162.1	190.3	170.6	199.0	179.3		
	189.0	200.2	187.3	198.3	187.3		24
	153.0	161.7	152.9	163.1	155.6		
	130.2	164.7	134.3	169.2	139.4		
	138.3	149.7	144.4	157.7	152.9		
	146.9	156.0	146.8	157.8	150.0		
	85.3	100.3	89.2	105.3	95.0		
	73.1	102.0	68.1	96.9	63.8		
	48.5	57.3	50.1	60.7	55.2		22
	neodymium yttrium						
	55.5	168.8	65.9	171.0	70.3	7.3	

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1937phae.proj..80ff

42 Add 12 hours

	G.C.T. Starting Time	d_1	d_2	d_3	d_4	d_5
a	3 : 31	47,5	274,2	49,3	275,2	53,9
b	3 : 46	15,7,9	170,9	157,0	170,3	155,3
c	3 : 55	25,9	253,5	27,5	252,2	27,9

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1937phae.proj..0043

Friday Jan. 28-29, 1938 M.S.

d_1	d_2	d_3	d_4	d_5	Period	Temp
54,2	278,8	56,0	279,6	56,2	8^	15°
154,2	167,5	153,3	166,2	151,8		
26,3	253,9	26,2	252,9	25,2		

MS recording

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1937phae.proj..80

	G.C.T. Starting time		d_1	d_2	d_3	d_4	d_5
a	1:37	38	71.2	253.7	78.3	256.1	72.2
b	1:43	44	165.8	175.7	168.0	178.2	169.8

Add 12 hours

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1937phae.proj..0045

Tuesday, Feb 1-2, 1938

d_1	d_2	d_3	d_4	d_5	Period	Temp.
71.6	253.0	75.2	253.7	74.6	6.55	16°
169.8	179.6	170.8	178.6	170.6		

RL

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1937phae.proj..80TE

Add 12 hours

	G.C.T. Start	Time	d_1	d_2	d_3	d_4	d_5
a	7:42	47	126.6	208.1	126.7	209.1	126.9
b	5:22	23	71.3	184.8	69.8	187.7	69.8
c	5:32	33	125.2	132.9	126.9	132.6	126.8
d	5:38	39	101.8	133.9	102.0	134.8	102.8
e	5:48	49	96.3	105.2	95.2	104.4	93.3
f	5:54	55	81.9	123.0	81.6	122.3	81.4
g	6:01	02	88.7	93.0	90.8	97.9	93.2
h	6:12	13	10.1 :	29.0	7.2 :	28.2	6.7 :
i	6:19	20	70.0 :	104.8	71.3 :	105.0	70.8 :
j	6:24	25	81.7	87.8	81.3	87.4	80.8
k	6:32	33	35.7	150.9	40.7 :	152.0	40.9
l	8:47	48	137.8	144.3	138.0	145.2	139.8
m	8:52	53	118.6	152.1	122.4	157.1 :	125.8
n	9:36	37	154.5	170.0	151.0	168.3	149.3
o	10:00	01	99.0 :	134.2	101.4 :	138.9	103.6
p	10:05	06	106.4 :	120.0	112.2	124.4 :	116.2 :
q	10:13	14	116.2	128.0	114.0	127.2	113.3
r	10:20	21	63.6 :	115.3 :	65.2 : :	114.0	64.8 : :
s	10:25	26	70.0 : :	77.9	69.6 : :	77.2	68.2 : :

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1937phae.proj...0047

Friday, Feb. 4-5, 1938 — RL

d_0	d_1	d_3	d_4	d_5	period	temp
119.6	210.3	121.9	209.1	119.2	6.8	34
69.1	185.2	69.9	185.0	68.8		30
125.6	131.7	124.8	130.2	122.7		
102.9	134.6	102.5	132.9	100.8		
93.7	102.9	92.6	102.3	93.0		
81.0	121.0	80.9	120.2	82.6		
93.6	99.9	94.0	98.9	94.8		
4.8:	23.9	2.3:	20.9	−2.1 ::		
68.7:	105.4	75.6	108.8	72.6:		
81.1	86.4	79.9	85.4	79.3		
41.8	151.8	41.2	151.7	40.3		
139.3	143.9	135.6	140.6	133.3		26
177.2	161.2:	128.6	164.0:	130.3		
147.9	~~141.9~~	164.0	145.6	162.6	144.0	
	103.2	141.9	103.9	138.0	100.4:	27
	118.9	129.7	119.4	130.0	118.0	
111.0	~~120.7~~	126.2	110.9	125.3:	107.0:	
	65.8:	115.8	64.6::	111.3	60.8	
	68.6::	74.6	66.6::	72.1	64.9::	

at and after h a : indicate a reading in which spot was distanted by cellophane window. Same before but were so distanted, but not marked

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1937phae.proj..80NE

A 0012 hours

	G.C.T. Starting Time		d_1	d_2	d_3	d_4	d_5
a	8 09	10	7 86	9 24	7 25	87 8	669
b	8 17	18	508	1157	469	1223	572
c	8 38	09	1463	1602	1507	1648	1523
d	8 46	47	1503	1776	1552	1834	1550
e	8: 53	54	1218	2084	1287	2163	1350
f	9: 01	02	1586	1702	1588	1720	1589
g	9: 07	08	1336	1644	1408	1652	1403
h	9:15	16	1402	1552	1471	1598	1447
i	9:21	22	1102	1351	1149	1451	1202

drifting of star made many of readings difficult

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1937phae.proj...80.tif

Thursday, Feb. 10-11, 1938 RL

d_1	d_2	d_3	d_4	d_5	Par.	Lap
651	758	57.2	754	598	6.8	12°
587	1299	577	1291	582		
1512	1597	1496	1579	1442		
1584	1839	1570	1834	1522		
1334	2182	1328	2159	1340		
1568	1673	1534	1635	1500		
1374	1632	1345	1603	1317		
1417	1533	1389	1472	1340		9°
1206	138.4	115.9	1352	1112		

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1937phae.proj..80

50 A2812 loans

	G.C.T. Standard time		d_1	d_2	d_3	d_4	d_5	
a	1: 10	12	336	2109	361	2147	386	1060.2
b	1: 17	18	989	1172	1085	1252	1151	82.2
c	1: 24	25	1245	1386	1239	1390	1228	90.4
d	1: 31	32	849	1163	866	1164	869	
e	1: 36	37	523	641	597	732	686	
f	1: 47	45	−13	1780	+19	1789	+13	
g	2: 06		601	324??	662	3108	716	
h	2: 08	09	556	2902	446	2812	424	
i	2: 21	22	1941	2190	1974	2159	1937	
j	2: 26	27	1189	1894	1344	2094	1511	
k	2: 33	34	1784	2079	1911	2089	1892	
l	2: 39	41	1628	1958	1681	2041	1754	
m	2: 49	50	653	3226	729	3156	702	
n	2: 54	55	1548	2017	1691	2142	1814	
o	3: 00	01	2118	2230	2140	2263	2170	
p	3: 05	06	2081	2280	2124	2301	2118	
q	3: 11	12	610	3108	753	3226	861	
r	3: 34	35	851	3X284	906	3313	936	
s	3: 39	40	1790	2146	1889	2279	1973	
t	3: 47	48	2450	2560	2432	2540	2382	
u	3: 55	56	2128	2249	2114	2240	2148	
v	4: 20	21	2451	2538	2504	2599	2546	
w	4: 26	27	2459	2573	2538	2625	2632	
x	4: 31	32	2758	2898	2791	2932	2810	
y	4: 37	38	2521	2632	2578	2673	2607	
z	4: 44	45	1701	3801	1657	3829	1672	

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1937phae.proj...80.tif

Wednesday, Feb 16-17, 1938 RL

	d_1	d_2	d_3	d_4	d_5	Per.	Temp
1056.0	310	2039	242	1937	132	6.2	20
80.6	1164	1298	1159	1270	1126		19
80.4	1253	1379	1246	1357	1203		
	833	1087	771	1059	721		18
	717	814	715	800	691		
	+07	1760	−05:	1760	−32:		19
						new per	
						6.74	
	377	2782	354	2774	348		
	1904	2080	1838	1982	1736		16
	1543	2192	1506	2100	1441		
	1919	2160	1970	2177	1934		
	1614	1920	1610	1942	1636		
	680	3080	646	2988	572		16
	1880	2330	1980	2405	2039		
	2178	2273	2179	2278	2169		
	2066	2218	2015	2153	1953		
	906	3337	948	3361	977		
	940	3313	928	3267	851		15
	1997	2302	1997	2283	1956		
	2367	2489	2370	2541	2458		
	2138	2244	2118	2197	2051		
	2561	2629	2535	2578	2473		14
	2665	[illegible]	2717	2819	2758		
	2807	2906	2748	2828	2649		
	2640	2737	2683	2802	2750		
	1671	3751	1632	3669	1512		

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1937phae.proj..80ME

52 Aug 12 hours

	G.C.T Starting times		d_1	d_2	d_3	d_4	d_5
a	8:23	24	3021	3198	3027	3240	3126
b	8:30	31	2651	3320	2707	3372	2770
c	8:39	40	3040	3254	3071	3278	3075
d	8:45	46	2663	3042	2737	3142	2832
e	8:56	57	2794	3178	2788	3174	2768
f	9:00	01	2461	2802	2403	2741	2368
g	9:08	09	2342	3139	2335	3129	2340
h	9:14	15	2535	2704	2627	2788	2693
i	9:20	21	2558	2841	2630	2917	2666
j	9:26	27	2338	2530	2519	2741	2668
k	9:35	36	2748	2847	2260	2887	2280
l	9:41	42	1734	1982	1858	2121	2001

Galvan Zero Point: 33 (4 feet) when set at zero
41 when disconnected at close

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1937phae.proj...80.tif

Wed Feb 16-17, 1938

	d_1	d_2	d_3	d_4	d_5	Per	Temp
a	3139	3368	3171	3340	3135	—	14
b	2798	3458	2837	3498	2893	—	
c	3061	3238	3031	3216	2993		
d	2851	3210	2867	3201	2820		
e	2773	3143	2717	3052	2618		
f	2356	2701	2358	2727	2370		
g	2357	3130	2333	3098	2337		12
h	2708	2819	2676	2786	2638		
i	2654	2890	2581	2780	2479		
j	2678	2777	2617	2714	2534		
k	2252	2820	2160	2730	2052		
l	2083	2301	2118	2298	2110		14

period (7.4)

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1937phae.proj..80

54 12 hours
G.C.T.

	Starting Times		d_1	d_2	d_3	d_4	d_5
a	1:17	18	860	3326	948	3402	1009
b	1:26	27	2429	2637	2490	2685	2509
c	1:31	32	1952	2608	2040	2688	2081
d	1:39	40	2086	2287	2139	2326	2145
e	1:45	46	→	2087-2413-2160-		2493	2189
f	2:09	10	892	3261	918	3320	957
g	2:16	17	2047	2445	2098	2524	2137
h	2:21	22	2067	2210	2141	2302	2268
i	2:26	27	2121	2310	2160	2333	2177
j	2:30	31	720	3108	782	3152	811
k	2:35	37	1888	2201	1939	2251	1970
l	2:41	42	1930	2121	2031	2202	2075
m	2:46	47	2032	2163	2061	2162	2039
n	2:51	52	1677	1790	1749	1862	1805
o	2:56	57	1702	1852	1818	1982	1902
p	3:01	02	1755	1930	1861	2029	1950
q	3:06	07	1974	2109	2070	2172	2080
r	3:13	14	1789	2074	1862	2110	1870
s	3:20	21	1378	2114	1537	2206	1594
t	3:25	26	1548	1835	1664	1948	1740
u	3:32	33	749	3098	836	3178	883
v	3:38	39	1559	2011	1690	2119	1791
w	3:42	43	1724	1894	1857	2031	1972
x	3:47	48	1464	1725	1636	1888	1771
y	3:52	53	142	2508	262	2641	358
z	3:57		1329	1702	1471	1821	1590

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1937phae.proj...80

Sunday, Feb 20-21, 1938 RL

	d_1	d_3	d_3	d_4	d_5	Perr	Temp
a	1012	3426	981	3332	880	6.6	29
b	2506	2657	2472	2632	2417		
c	2080	2719	2090	2691	2069		
d	2119	2294	2116	2300	2098		
e	2163	2447	2126	2350	1994		
f	938	3313	927	3280	892		
g	2153	2529	2132	2510	2133		26
h	2260	2359	2242	2331	2204		
i	2199	2382	2212	2362	2153		
j	808	3173	859	3230	911		
k	1948	2207	1882	2147	1828		
l	2102	2233	2121	2243	2114		
m	2009	2100	1930	2027	1861		26
n	1848	1938	1866	1927	1857		
o	1934	2050	1970	2052	1941		
p	1978	2103	1954	2077	1912		
q	2071	2154	2028	2075	1951		
r	1809	2058	1760	1912	1609		
s	1610	2260	1604	2200	1519		
t	1751	1930	1713	1910	1680		
u	863	3121	779	3050	693		
v	1809	2188	1814	2176	1760		25
w	2002	2108	1993	2063	1913		
x	1779	1920	1740	1896	1696		
y	396	2736	413	2746	443		
z	1622	1916	1653	1939	1638		

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1937phae.proj..80TE

56 Add 12 hours

G.C.T.

	Starting Time		d_1	d_2	d_3	d_4	d_5
aa	5: 25	26	1591	3758	1602	3812	1584
ab	5: 30	31	1811	2151	1989	2357	2181
ac	5: 36	37	2409	2687	2568	2793	2652
ad	5: 40	41	1978	2588	1940	2584	1944
ae	5:45	46	1903	2087	1920	2121	1933
af	5:50	51	1523	1790	1620	1887	1694
ag	5:56	57	1981	2010	1993	2012	2012
ah	6:02	03	1738	2101	1823	2180	1879
ai	6:07	08	1818	2043	1881	2132	1948
aj	6:11	12	1970	2029	1969	2062	2024
ak	6:15	16	1741	1862	1848	1979	1940
al	6:21	22	1877	2204	1930	2258	1970
am	6:27	28	1820	2210	1942	2322	2031
an	6:34	35	1512	2321	1532	2320	1532
ao	6:38	40	1641	1810	1719	1895	1815
ap	6:44	46	1831	2151	1929	2194	1968
aq	6:50	51	1851	1967	1878	2001	1940
ar	6:56	57	1838	2094	1883	2120	1917
as	7:04	05	1872	2487	1812	2413	1782
at	7:09	10	1830	2061	1902	2138	1972
au	7:44	45	2254	2389	2273	2391	2296
av	7:56	57	2361	2352	2318	2310	2278
aw	8:						
ax	8:26	27	2367	2415	2330	2393	2298
ay	8:34	35	1863	2502	1892	2543	1891
az	8:340	41	1928	2149	2004	2183	2028

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1937phae.proj..80.tif

Wednesday, Feb. 20-21, 1938 RL

	d_1	d_2	d_3	d_4	d_5	Per	Temp
aa	1552	3764	1523	3628	1374	—	20
ab	2272	2580	2372	2631	2389		
ac	2677	2870	2661	2859	2647		
ad	1882	2501	1865	2504	1903		
ae	1929	2131	1910	2090	1859		
af	1758	2034	1851	2103	1902		
ag	2024	2041	2038	2042	2024		
ah	1898	2239	1890	2204	1840		
ai	1943	2148	1942	2170	1952		
aj	2018	2084	1967	2009	1921		
ak	1955	2020	1961	2013	1942		22
al	1943	2221	1894	2124	1790		
am	2082	2472	2131	2473	2089		
an	1502	2319	1533	2328	1495		20
ao	1867	1985	1864	1970	1828		
ap	1952	2146	1872	2100	1831		
aq	1972	2038	1961	2054	1973		
ar	1932	2161	1938	2176	1925		
as	1782	2401	1772	2388	1714		18
at	1969	2210	2041	2221	2000		
au	2308	2427	2307	2408	2266		16
av	2231	2219	2186	2198	2154		
aw							18
ax	2256	2270	2154	2202	2105	(bad Lick.)	16
ay	1896	2503	1870	2477	1829		
az	2037	2218	2036	2237	2039		

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1937phae.proj..80TE

58 A 0012 hours

G.C.T.

	Starting Times		d_1	d_2	d_3	d_4	d_5
ba	9:17	18	2136	2357	2181	2408	2200
bb	9:22	23	1452	2172	1658	2325	1732
bc	9:29	30	1938	2367	1951	2404	2013
bd	9:34	35	1462	1621	1630	1789	1794
be	9:40	41	1595	1740	1663	1810	1708
bf	9:46	47	1482	1822	1516	1880	1574
bg	9:53	54	1321	1433	1307	1397	1282
bh	9:58	59	1212	1497	1302	1577	1354
bi	10:03	04	1537	1671	1589	1710	1639 1639
bj	10:09	10	1602	1923	1690	1941	1687
bk	10:14	15	1731	2056	1358	2207	1448
bl	10:21	22	1458	2110	1542	2173	1577
bm	10:27	28	1417	1657	1489	1692	1519

Galvan. Z.P. (leads disconnected) ~~about~~ ~~four~~ at 28 cms at clare. Probably just this at beginning.

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1937phae.proj..80.tif

Wednesday, Feb. 20-21, 1938 RL

	d_1	d_2	d_3	d_4	d_5	Per.	Temp
ba	2152	2307	2088	2232	2009	—	
bb	1717	2372	1741	2378	1751		
bc	1989	2406	1935	2297	1792		16
bd	1862	1978	1916	1979	1881		
be	1682	1784	1663	1775	1643		
bf	1590	1907	1563	1868	1500		
bg	1298	1433	1292	1398	1270		
bh	1341	1602	1329	1562	1318		
bi	1620	1752	1633	1734	1620		
bj	1654	1889	1588	1831	1550		
bk	1480	2257	1454	2198	1337		15
bl	1557	2193	1519	2098	1476		
bm	1528	1709	1481	1638	1396		

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1937phae.proj..80TE

60 Add 12 hours G.C.T.

	Starting Times		d_1	d_2	d_3	d_4	d_5
a	1:55	56	972	3098	1017	3103	1008
			Solarometer	Zero	point at	31 at	start
b	2:00	01	1972	2331	2000	2349	2006
c	2:04	05	2094	2195	2123	2227	2163
d	2:08	09	1697	2521	1732	2609	1824
e	2:13	14	2041	2200	2052	2227	2083
f	2:18	19	974	3148	1020	3174	1042
g	2:25	26	1983	2228	2070	2292	2116
h	2:29	30	1088	1773	1206	1828	1261
i	2:35	36	1622	1922	1810	1951	1773
j	2:40	41	1311	1634	1379	1669	1420
k	2:46	47	1682	1941	1772	1933	1769
l	2:49	50	1188	1283	1245	1331	1300
m	2:53	54	1282	1404	1332	1438	1352
n	2:58	59	1040	1712	1153	1800	1209
o	3:02	03	984	1239	1078	1330	1150
p	3:10	11	381	2588	540	2721	640
q	3:14	15	1684	1820	1659	1782	1607
r	3:18	19	1020	1429	1066	1489	1129
s	3:24	25	1372	1469	1470	1560	1560
t	3:29	30	1440	1776	1483	1832	1533
u	3:33	34	1703	1790	1718	1798	1733
v	3:38	39	1661	1757	1683	1779	1713
w	3:45	46	1756	2047	1817	2101	1848
x	3:49	50	1772	1868	1848	1957	1899
y	3:53	54	1662	1818	1710	1882	1793
z	3:58	59	791	2882	809	2881	819

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1937phae.proj..801E

Saturday, Feb. 26, 1938 RL

	d_1	d_2	d_3	d_4	d_5	Per.	Temp
a	1008	3101	988	3087	967	7.0	25
b	2012	2359	2005	2339	1982		
c	2170	2256	2160	2228	2139		
d	1870	2642	1813	2628	1810		
e	2101	2262	2103	2267	2109		
f	1026	3186	1030	3152	980		
g	2076	2239	1984	2128	1869		25
h	1310	1934	1342	1891	1317		
i	1766	1918	1683	1834	1589		
j	1461	1762	1498	1835	1544		
k	1765	1933	1679	1850	1528		
l	1312	1389	1341	1370	1283		
m	1307	1347	1279	1323	1262		
n	1181	1758	1116	1724	1087		
o	1153	1346	1123	1289	1045		
p	627	2745	658	2780	658		
q	1568	1675	1480	1563	1366		25
r	1151	1572	1205	1623	1254		
s	1589	1647	1610	1664	1634		
t	1564	1893	1600	1932	1620		
u	1727	1822	1767	1853	1770		
v	1731	1831	1778	1887	1816		
w	1850	2119	1843	2086	1800		24
x	1897	1952	1858	1893	1785		
y	1862	2023	1918	2057	1929		
z	808	2898	813	2882	786		24

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1937phae.proj..80NE

62 1.0012 hours

	G.C.T. Starting time		d_1	d_2	d_3	d_4	d_5
aa	4:19	-21	781	2840	835	2857	837
ab	4:24	25	1701	1938	1719	1965	1738
ac	4:28	29	1668	1799	1688	1873	1747
ad	4:34	35	1784	1931	1820	1957	1831
ae	4:39	40	1780	1881	1789	1901	1806
af	4:43	44	1672	1751	1690	1771	1711
ag	4:49	50	1688	1797	1742	1833	1768
ah	4:53	54	1503	1630	1552	1697	1608
ai	4:58	59	1656	1740	1701	1797	1734
aj	5:03	04	1687	1880	1723	1910	1711
ak	5:08	09	516	1163	673	1288	752
al	5:13	14	1150	1412	1293	1539	1404
am	5:19	20	813	1214	988	1355	1081
an	5:23	24	704	974	821	1053	876

disconnected galvanometer from thermocouple

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1937phae.proj..box

Saturday, Feb. 26, 1938 cont. RL

	d_1	d_2	d_3	d_4	d_5	Per.	Temp.
a	813	2832	810	2834	798	—	23
b	1745	1979	1742	1979	1740		
c	1831	1983	1880	2004	1893		
d	1819	1942	1802	1909	1774		
e	1802	1902	1801	1890	1777		
f	1709	1771	1690	1748	1668		
g	1751	1811	1707	1740	1626		
h	1640	1771	1668	1786	1669		
i	1747	1801	1728	1780	1703		
j	1659	1772	1521	1532	1252		
k	819	1454	877	1449	854		
l	1413	1572	1359	1472	1226		23
m	1100	1420	1078	1367	1022		
n	869	1040	798	951	718		23

Selvan. Zero Pt at 27½ with dome in same position as at start

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1937phae.proj..80NE

64 Add 12 hours for b and below

Monday

	G.C.T. starting time		d_1	d_2	d_3 Balmer Z.	d_4 P about	d_5 28.0
a	12: 59	01	1286	2001	1288	1984	1281
b	1: 03	04	1242	2637	1233	2620	1227
c	1: 06	08	2508	1819	2509	1815	2504
d	1: 13	14	1801	1898	1805	1900	1809
e	1: 20	21	1798	1900	1793	1898	1764
f	1: 27	28	1411	1820	1474	1862	1482
g	1: 40	41	1549	1627	1534	1647	1547
h	1: 46	47	1245	1424	1269	1452	1300
i	1: 53	54	1487	1628	1563	1691	1610
j	1: 58	59	1214	1756	1223	1760	1251
k	2: 03	04	668	2038	691	2050	706
l	2: 33	34	743	2073	738	2052	719
m	2: 40	41	1473	1571	1492	1589	1506
n	2: 44	45	1327	1528	1359	1568	1393
o	2 48	49	1453	1494	1457	1502	1467
p	2: 55		1469	1532	1519	1603	1569
q							

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1937phae.proj...0015

March 7-8, 1938 RL

	d_1	d_2	d_3			Per	Tempo
					~~7.6~~	7.6	34
a	1277	1980	1274	1969	1264	half left finger	
b	1213	2602	1202	2587	1182	middle finger	
c	2517	1824	2518	1836	2530	half left finger	
d	1808	1891	1790	1872	1767		
e	1719	1788	1656	1704	1538		
f	1440	1804	1397	1726	1309		
g	1519	1593	1470	1518	1378		32
h	1273	1393	1194	1324	1103		
i	1620	1718	1616	1708	1597		
j	1271	1805	1271	1798	1256		
k	698	2042	692	2034	672		32
l	702	2029	706	2018	694		30
m	1509	1602	1505	1591	1493		
n	1407	1600	1413	1605	1414		
o	1488	1533	1490	1531	1487		
p	1575	1630	1580	1619	1559		32
q							

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1937phae.proj..80NE

All 12 images just i & below

	GC Transit Times		d_1 galvan.	d_2 Z.P. =	33.8	d_4	d_5
a	12:20	21	1789	3334	1783	3327	1756
b	12:26	27	2318	2997	2378	3063	2439
c	12:31	32	2395	2547	2439	2581	2467
d	12:35	37	2351	2628	2380	2638	2388
e	12:41	43	2468	2572	2514	2614	2557
f	12:47	48	2517	2601	2522	2612	2533
g	12:52	53	2481	2567	2508	2584	2533
h	12:56	58	2340	2379	2359	2408	2380
i	1:01	03	1423	3348	1488	3398	1523
j	1:06	07	2323	2625	2332	2624	2338
k	1:12	13	2383	2513	2412	2536	2430
l	1:16	17	1448	2996	1484	3052	1522
m	1:21	22	2241	2466	2268	2493	2290
n							
o	1:32	33	2302	2409	2300	2410	2283
p	1:37	38	1754	2169	1800	2236	1862
q	1:42	43	1868	2039	1990	2189	2130
r	1:47	48	1851	2077	1951	2208	2057
s	1:52	53	2154	2269	2218	2322	2252
t	1:58	59	1821	2030	1938	2172	1994
u	2:04	06	1947	2073	1998	2116	2030
v	2:09	11	1719	1873	1775	1939	1835
w	2:15	16	1432	2181	1585	2338	1717
x	2:20	21	1777	2658	1801	2663	1802
y	2:25	27	2092	2173	2114	2198	2129
z	2:30	31	2040	2103	2061	2131	2086

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1937phae.proj...8048

Tuesday, March 8-9, 1938 RL

	d_1	d_2	d_3	d_4	d_5	Par	Tang
							32
a	1727	3272	1703	3727	1680		
b	2439	3090	2402	3052	2372		
c	2472	2629	2479	2605	2458		
d	2387	2649	2388	2654	2393		
e	2569	2631	2550	2621	2539		
f	2536	2615	2542	2636	2564		
g	2538	2606	2512	2577	2479		
h	2386	2430	2407	2446	2419		
i	1520	3444	1557	3472	1568		
j	2348	2649	2357	2650	2347		
k	2438	2543	2424	2521	2378		
l	1517	3051	1488	3038	1493		
m	2290	2502	2292	2507	2294		30
n							
o	2262	2368	2229	2323	2182		
p	1892	2296	1867	2253	1878		
q	2187	2343	2196	2302	2144		
r	2090	2290	2059	2223	2001		
s	2257	2316	2197	2241	2103		
t	2024	2172	2031	2208	2048		
u	2031	2133	2016	2102	1975		28
v	1847	1972	1822	1940	1773		
w	1752	2459	1789	2482	1819		
x	1791	2651	1773	2631	1754		
y	2133	2209	2138	2210	2134		
z	2089	2154	2102	2167	2108		

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1937phae.proj..80NE

	G.C.T. Starting times		d_1	d_2	d_3	d_4	d_5
aa	14:37	38	2143	2283	2148	2291	2148
ab	14:43	44	2250	2322	2278	2351	2296
ac	14:49	50	2230	2423	2279	2453	2298
ad	14:57	58	963	3590:	943	3562	947
ae	15:10	11	2227	2418	2269	2461	2312
af	15:15	16	2017	2452	2038	2473	2057
ag	15:20	21	2262	2433	2266	2441	2300
ah	15:25	26	2070	2277	2109	2286	2091
ai	15:30	31	1457	2918	1503	2971	1543
aj	15:39	40	2243	2337	2222	2301	2180
ak	15:44	45	1831	2119	1857	2143	1880
al	15:49	50	1838	2249	1935:	2310	1943
am	15:53	54	1521	1830	1512	1870	1577
an	15:56	57	1789	1848	1713	1817	1689
ao	16:03	04	2000	2133	2031	2164	2031
ap	16:08	09	1765	1938	1831	2006	1907
aq	16:12	14	1709	1861	1740	1909	1768
ar	16:17	18	1719	1823	1798	1919	1880
as	16:26	27	1848	1989	1880	2002	1880
at	16:31	33	1656	1893	1734	1960	1773
au	16:37	38	1669	1793	1762	1892	1833
av					Galvan Z.P at 28.3		
aw							
ax							
ay							
az							

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1937phae.proj...80.tif

Tuesday, March 8-9, 1938 RL

	d_1	d_2	d_3	d_4	d_5	Per	Temp
a	2143	2282	2138	2272	2119	—	27
b	2298	2350	2282	2343	2270		
c	2298	2450	2279	2420	2250		
d	978	3607	985	3609	974		
e	2311	2476	2302	2463	2296		
f	2066	2510	2091	2514	2090		
g	2278	2437	2254	2400	2201		
h	2068	2236	2047	2242	2070		
i	1525	2951	1498	2930	1477		
j	2154	2228	2091	2159	2036		
k	1918	2212	1956	2238	1961		
l	1920	2286	1880	2234	1822		
m	1603	1981	1677	2037	1716		
n	1672	1780	1663	1800	1629		
o	2013	2102	1968	2067	1923		
p	1931	2070	1939	2059	1907		
q	1763	1895	1743	1872	1693		
r	1909	1974	1914	1979	1913		
s	1863	1961	1804	1878	1717		25
t	1783	1969	1738	1904	1667		
u	1863	1940	1832	1898	1780		

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1937phae.proj..80.tif

	G.C.T Starting Time	d_1	d_2	d_3	d_4	d_5
				Halvas. Z.P at		28.5
a	12:~~50~~ 51	1294	2583	1308	2570	1275
b	12:57	1153	2742	1180	2758	1198
c	13:02	1874	2116	1874	2120	1878
d	13:07	1834	1912	1833	1933	1845
e	13:11	1758	1810	1772	1827	1792
f	13:16	1751	1923	1764	1943	1787
g	13:21	1827	1908	1849:	1918	1844
h	13:30	1832	1933	1843	1933	1820
i	13:34	1620	1708	1652	1733	1660
j	13:40	1618	1863	1666	1897	1697
k	13:46	1723	1857	1782	1892	1792
l	13:50	1230	1569	1261	1622	1305
m	13:57	1670	1730	1676	1749	1686
n	14:04	1344	1968	1472	2087	1590
o	14:10	1146	2394	1153	2393	1137
p	14:1	887	2354	904	} wind shaking tube	
q		937				
r	14:18	972	2439	992	2457	1006
s	14:24	1658	1806	1682	1838	1689
t	14:30	1694	1782	1717	1796	1735
u	14:35	1676	1820	1707	1842	1738:
v	14:40	1739	1863	1752	1880	1770
w	14:46	3982	1829	3998	1839	3994
x	14:53	780	2759:	791	2739	787
y	14:59	1381	2060	1396	2078	1411
z	15:06	1657	1791	1653	1782	1638

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1937phae.proj...801E

Wednesday, March ~~8~~ 9-10 1938 RL

	d_1	d_2	d_3	d_4	d_5	Per	°Temp 32
a	1242	2517	1236	2492	1203	6.0	
b	1192	2778	1203	2784	1206		
c	1884	2120	1875	2107	1860		
d	1849	1926	1843:	1924:	1832		
e	1800	1854	1807	1860	1828		
f	1791	1962	1801	1968:	1792		
g	1842	1907	1829	1891	1808		
h	1793	1872	1740:	1817	1691		
i	1667	1749	1673	1773	1683		
j	1709	1938	1713	1923	1702		
k	1762	1829	1688	1733	1581		
l	1334	1682	1357	1690	1359		
m	1663	1717	1650	1709	1630		28
n	1647	2237	1692	2270	1709		
o	1114	2347	1093	2288	1022		
p							
q							
r	1007	2462	1024	2477	1018		
s	1683	1823	1687	1837	1702		
t	1737	1819	1734	1812	1728		
u	1743	1872	1747	1868:	1747		
v	1789	1913	1801	1920	1801		
w	4001	1858	4008	1829	3969	half	lower pict
x	816	2702	782	2703	764		
y	1410	2087	1408	2069:	1397		
z	1641	1777	1643	1768	1625		

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1937phae.proj..80ME

	G.C.T Starting Times	d_1	d_2	d_3	d_4	d_5
aa	15: 12	1077	2259	1093	2278	1100
ab	15: 18	1471	1820	1500	1851	1523
ac	15: 23	1616	1740	1615	1749	1622
ad	15: 32	1693	1752	1713	1767	1723
ae	15: 36	1599	1713	1612	1728	1630
af	15: 41	1663	1707	1667	1716	1678
ag	15: 46	1590	1653	1609	1673	1623
ah	15: 50	1327	1869	1332	1899	1359
ai	15: 55	1427	1551	1473	1597	1507
aj	16: 00	1312	1444	1407	1532	1451
ak	16: 05	1303	1556	1342	1602	1387
al	16: 09	1157	1263	1150	1288	1193
am	16: 13	1378	1279	1406	1317	1448
an	16: 18	1268	1392	1325	1468	1401
ao	16: 23	993	1176	1109	1286	1211
ap	16: 27	1132	1179	1128	1200	1160
aq	16: 32	1302	1240	1301	1237	1292
ar	16: 37	1273	1371	1319	1398	1338

Saturn Z. P at 23.3

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1937phae.proj...801E

Wednesday, March 9-10, 1938 RL

	d_1	d_2	d_3	d_4	d_5	Per.	Temp
a	1097	2260	1077	2231	1048	—	
b	1518	1860	1512	1836	1493		27
c	1632	1759	1627	1748	1609		
d	1720	1777	1722	1757	1701		
e	1648	1762	1658	1761	1657		
f	1692	1739	1687	1729	1678		
g	1637	1696	1641	1718	1649		
h	1368	1904	1354	1882	1327		
i	1496	1573	1460	1537	1414		
j	1433	1516	1428	1513	1423		
k	1404	1646	1417	1642	1403	full defln	
l	1213	1360	1251	1379	1247	half " upper j	
m	1474	1369	1489	1380	1487	" " lower j	
n	1393	1476	1358	1418	1269		
o	1252	1378	1268	1400	1276	full defln	
p	1196	1289	1257	1329	1261	half " upper "	
q	1269	1201	1240	1187	1246	" " lower "	
r	1336	1397	1266	1282	1146		26

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1937phae.proj..80.tif

Tuesday

	G.C.T	d_1	d_2	d_3	d_4	d_5
				Galvon	$\Sigma, P =$	30
a	13:50	2092	7924	2118	2949	7130
b	13:54	2638	3113	2701	3177	2752
c	13:59	1828	2218	1836	2257	1870
d	14:02	2682	2311	2648	2329	2653
e	14:06	1873	2598	1843	2663	1858
f	14:12	2381	2476	2412	2489	2421
g	14:16	2988	2994	2941	2977	2939
h	14:21	2963	3126	3039	3179	3086
i	14:25	1908	2163	1945	2201	1963
j	14:28	1762	1867	1748	1879	1782
k	14:31	2072	1959	2090	1980	2090
l	14:36	1873	1990	1953	2059	1993
m	14:40	2862	2893	2862	2893	2863
n	14:46	3007	3093	3061	3121	3059
o	14:49	1937	2053	1943	2061	1947
p	15:01	2183	2218	2145	2189	2118
q	15:05	2621	2668	2669	2723	2731
r	15:10	2918	2971	2996	3052	3071
s	15:16	1978	2020	2004	2049	2025
t	15:23	2058	2177	2096	2200	2126
u	15:28	3061	3116	3077	3119	3061
v	15:33	2898	2998	3001	3097	3093
~~w~~	~~15:~~	Galvon reset.		New $\Sigma . P = 28$		
W	15:51	1682	1822	1732	1877	1762
X	15:55	2272	2303	2279	2407	2382
Y	16:00	2579	3320	2788	3526	2973
Z	16:04	869	1960	911	1997	953

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1937phae.proj..801E

March 15-16, 1938

Period =	d_1	d_2 6.8	d_3 rec	d_4	d_5		Temp
a	2947	2108	2919	2067	2858		32
b	3219	2798	3259	2827	3271		
c	2296	1902	2319	1919	2337	½Δ, upper just	
d	2358	2757	2392	2769	2377	" lower "	
e	2669	1887	2641	1852	2637		
f	2486	2404	2464	2353	2392		
g	2973	2927	2941	2889	2905		
h	3201	3081	3178	3056	3162		
i	2187	1946	2163	1888	2103		
j	1923	1817	1953	1828	1955	½Δ upper j	
k	1959	2078	1971	2089	1969	" lower "	
l	2073	2003	2079	1990	2048		
m	2901	2863	2892	2850	2871		29
n	3104	3038	3057	3012	3045		
o	2052	1926	2026	1880	1980		
p	2152	2077	2101	2011	2027		
q	2779	2766	2799	2773	2808		
r	3118	3119	3136	3116	3114		
s	2050	2003	1992	1929	1930		
t	2224	2139	2230	2126	2219		
u	3092	3021	3043	2968	2991		
v	3180	3142	3198	3146	3183		
w	Period row		7.2				
W	1872	1701	1776	1562	1605		30
x	2513	2482	2587	2556	2663		
y	3679	3082	3747	3100	3727		
z	2023	947	2006	918	1908		

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1937phae.proj..80NE

Tuesday, March

		d_1	d_2	d_3	d_4		
aa	16: 10	1409	1542	1552	1700	1683	
ab	16: 13	3047	3027	2967	2982	2941	
ac	16: 19	3324	3417	3435	3528	3527	
ad	16: 22	1173	1203	1018	1161	1070	
ae	16: 28	992	1162	1111	1270	1189	
af	16: 31	2780	2847	2820	2901	2863	
ag	16: 35	2678	2890	2761	2980	2822	
ah	16: 39	743	1058	692	1045	691	
ai	16: 49	1158	1193	1130	1159	1152	
aj	16: 53	2406	2398	2400	2413	2421	
ak	16: 59	2919	3015	3052	3126	3132	
al	17: 03	928	972	906	980	919	
am	17: 13	→	1442	1550	1454	1520	1385
an	17: 16	2703	2709	2731	2762	2703	
ao	17: 23	2953	2996	3007	3035	3073	
ap	17: 27	949	991	909	970	912	
aq	17: 32	780	1009	916	1141	1027	
ar	17: 35	2540	2602	2510	2599	2508	
as	17: 42	3121	3230	3202	3290	3229	
at	17: 46	996	1132	993	1177	1051	
au	17: 53	1173	1574	1176	1573	1177	
av	17: 57	2283	2478	2321	2509	2323	
aw	19: 44	1928	2106	1948	2109	1938	
ax	19: 48	2179	2160	2057	2137	2052	
ay	20: 21	2568	2577	2590	2604	2600	
az	20: 24	1538	1537	1523	1548	1542	

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1937phae.proj..801E

15-16, 1938 Al 77

	d_1	d_2	d_3	d_4	d_5	Temp.
aa	1769	1689	1779	1595	1593	29
b	2980	2949	2977	2931	2951	
c	3573	3534	3551	3482	3479	
d	1151	1060	1133	1036	1092	
e	1298	1184	1267	1175	1180	
f	2929	2883	2940	2887	2930	
g	3027	2863	3060	2890	3077	
h	1057	720	1065	717	1033	
i	1193	1149	1148	1058	1068	
j	2434	2449	2458	2459	2461	
k	3182	3168	3193	3154	3178	
l	1003	931	985	939	1010	
m	1430	1251	1265	1093	1172	
n	2140	2090	2137	2089	2149	
o	3049	3012	3009	2970	2958	
p	984	903	968	883	941	
q	1218	1032	1181	982	1110	
r	2602	2519	2622	2559	2668	
s	3267	3164	3168	3046	3057	
t	1178	1040	1218	1076	1196	
u	1540	1119	1484	1033	1384	28
v	2490	2297	2461	2262	2423	28
w	2079	1901	2055	1856	1988	25
x	2143	2079	2191	2176	2228	
y	2600	2588	2563	2537	2503	
z	1571	1569	1598	1602	1624	25

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1937phae.proj..8011

Tuesday March 15-16

	G.C.T	d_1	d_2	d_3	d_4	d_5
a	20: 31	1870	2168	1907	2201	1928
b	20 35	2428	2580	2434	2592	2447
c	20 41	2649	2728	2693	2769	2728
d	20 45	1369	1435	1301	1379	1259
e	20 50	1272	1638	1419	1760	1481
f	20 54	2261	2401	2253	2391	2259

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1937phae.proj..8015

1938 RL

	d_1	d_2	d_3	d_4	d_5
b a	2202	1920	2183	1961	2150
b	2612	2468	2606	2451	2590
c	2778	2710	2731	2638	2639
d	1344	1277	1313	1231	1352
e	1820	1500	1810	1467	1739
f	2412	2278	2438	2290	2421

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1937phae.proj..80[illegible]

	G.C.T. Start Time	d_1	d_2	d_3	d_4	d_5
	Galvan.	Zero Point at		29.0	Period	6.8
a	13:36	2051	2730	2122	2818	2178
b	13:41	2588	2652	2637	2691	2658
c	13:49	2885	2930	2912	2951	2911
d	13:53	2508	2688	2512	2688	2517
		Galvan Z.P. at			30.5	at 13:55
		heated quartz tube				
		Galvan Z.P. at		29.8	at	15:45
e	15:49	1563	1948	1551	1924	1524
f	15:54	1503	1612	1562	1674	1631
		Galvan Z.P. at		29.3	at	15:57

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1937phae.proj..801e

Sunday, March 27-28, 1938 RL

	d_1	d_2	d_3	d_4	d_5	Temp
a	2871	2207	2863	2211	2878	37
b	2662	2603	2594	2514	2518	
c	2928	2868	2869	2797	2807	
d	2701	2531	2699	2521	2664	
						36
e	1888	1479	1837	1427	1787	
f	1717	1651	1732	1667	1736	33

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1937phae.proj..80[illegible]

Friday

	G.C.T.	d_1	d_2	d_3	d_4	d_5
	Galvan. Z.P. at 28.0					
a	16:45	1637	1988	1665	2029	1691
b	16: 50	1827	1938	1887	1970	1901
c	16:55	1701	1846	1725	1880	1759
d	17:01	1188	1682	1232	1710	1239
e	17 07	1521	1659	1557	1672	1537
f	17 : 13	1318	1395	1380	1431	1391
g	17 20	1179	1587	1159	1560	1119
h	17 30	1574	1581	1573	1561	1562
i	18 27	1909	2243	1908	2246	1896
j	18 31	1866	1958	1909	1993	1934
k	18 39	2109	2158	2124	2169	2112
l	18 44	1733	1824	1778	1871	1821
m	18 50	1847	1853	1889	1900	1923
m	18 56	1763	1827	1801	1848	1791
o	19 20	1036	1081	998	1057	988
p	19 44	1537	1618	1571	1630	1572

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1937phae.proj..001

~~April 1-2~~, 1938
April 3-4,

	d_1	d_2	d_3	d_4	d_5	Temp
Period = 7.2 seconds						
a	2059	1716	2058	1703	2037	31
b	1978	1903	1970	1881	1933	
c	1893	1739	1852	1682	1783	
d	1703	1224	1681	1198	1648	
e	1620	146	1526	1358	1421	
f	1404	1339	1351	1295	1299	
g	1500	1051	1409	979	1342	
h	1571	1533	1509	1471	1455	
i	2216	1875	2203	1868	2180	
j	2019	1958	2028	1952	2021	
k	2138	2070	2069	1989	1989	28
l	1901	1821	1883	1792	1849	
m	1901	1909	1887	1870	1839	
n	1838	1788	1840	1781	1822	
o	1057	988	1049	989	1057	
p	1622	1528	1579	1516	1557	

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1937phae.proj..80[illegible]

	G.C.T.	d_1	d_2	d_3	d_4	d_5	
		Period = 8.0 de.					
a	14 : 44	1108	1268	1107	1259	1079	
b	14 : 50	1041	1685	1131	1762	1193	
c	14 53	1112	1343	1060	1332	1058	
d	14 56	1297	1537	1235	1469	1202	
e	14 59	1278	1319	1284	1333	1294	4.1 4.0 3.9
f	15 07	1279	1580	1277	1578	1264	
g	15 13	470	1194	563	1308	648	
h	15 19	857	1078	909	1148	982.	
i	15 33	1160	1186	1133	1178	1121	
j	15 39	1063	1209	1128	1279	1183	
k	15 44	1248	1343	1270	1361	1277	
l	15 49	1221	1273	1228	1298	1240	
m	15 59	1318	1379	1310	1370	1301	
n	16 04	972	1379	989	1401	1002	
o	16 09	1162	1339	1198	1389	1231	
p	16 14	576	1451	900	1475	925	
q	16 22	1271	1372	1269	1371	1242	
r	16 27	868	1031	898	1067	929	
s	16 34	1093	1160	1139	1190	1170	
t	16 39	812	1095	858	1136	892	
u	16 44	770	976	820	1021	838	
v	16 52	1038	1128	1072	1170	1070	
w	16 58	321	972	324	972	341	
x	17 04	449	797	562	873	601	
y	17 12	833	927	752	948	747	
~~z~~	~~17 16~~	~~650~~	~~602~~				
z'	17 17	830	970:	982	680::	589	

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1937phae.proj..801E

Monday, April 4-5, 1938 RL

Galaxy.	d_1	d_2	d_3	d_4	d_5	Temp
	2. P about 28.0					
a	1239	1081	1282	1134	1308	36
b	1792	1212	1806	1721	1787	
c	1352	1072	1338	1067	1322	½Δ upper just
d	1460	1201	1482	1233	1510	" lower "
e	1332	1286	1309	1269	1307	
f	1487	1153	1380	1063	1254	
g	1419	728	1407	650	1329	32
h	1200	1029	1252	1040	1237	
i	1173	1124	1168	1121	1159	
j	1328	1233	1367	1266	1385	32
k	1364	1278	1362	1275	1354	
l	1310	1251	1306	1249	1307	
m	1358	1283	1338	1259	1312	
n	1412	1007	1407	1002	1413	
o	1401	1240	1400	1228	1380	
p	1483	918	1472	888	1438	
q	1350	1219	1293	1154	1272	
r	1095	941	1099	938	1078	
s	1202	1156	1187	1129	1157	
t	1142	879	1127	827	1058	
u	1002	798	950	727	864	
v	1102	989	1019	873	889	
w	961	293	930	274	909	
x	889	587	870	599	877	
y	901	735:	889	728:	854	30
z						
zz	640	980::	1042	835	635	

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1937phae.proj..80TE

	G.C.T	d_1	d_2	d_3	d_4	d_5	
aa	18: 52	1309	1440	1298	1433	1289	
ab	18: 59	1057	1593	1057	1601	1048	
ac	19 10	1130	1170	1138	1174	1111	
ad	19 15	569	1352	650	1432	712	
ae	19 19	620	977	671	990	637	
af	19 22	1036	1368	1030	1359	1019	
ag	19 27	899	941	923	958	940	2.8 3.0 2.9
ah	19 34	893	1032	913	1052	941	
ai	19 39	652	900	698	930	728	
aj	19 44	698	829	750	859	757	
ak	19 49	402	652	481	738	542	
al	19 55	211	918	286	970	783	
am	20 04	639	1177	631	1180	630	
an	20 07	1701	1737	1720	1778	1766	+3.1 +2.6 2.8
ao	20 12	1371	1378	1389	1410	1416	+0.2 +0.3 +0.5
ap	20 15	509	519	496	512	468	+2.4 2.4 +2.5
aq	20 17	402	393	391	398	397	+0.1 +0.2
ar	20 29	476	591	477	580	471	
as	20 35	520	641	556	683	588	
at	20 42	471	848	450	879	459	
au	20 53	498	932	518	958	513	
av	21 07	531	620	512	607	527	
aw	21 17	602	743	618	744	598	
ax	21 25	638	799	626	783	613	
ay	21 29	462	635	513	660	513	
az	21 35	226	912	267	968	289	
azz	21 44	1818	1810	1807	1804	1803	-0.2 -0.4 -0.3

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1937phae.proj..801E

Monday April 4-5, 1938 RL

	D_1	D_2	D_3	D_4	D_5	Temp
aa	1420	1269	1402	1253	1387	28
ab	1590	1041	1580	1021	1558	
ac	1146	1079	1103	1013	1028	½Δ upper junct
ad	1477	726	1453	720	1448	
ae	1003	651	997	638	993	½Δ upper junct
af	1364	1029	1357	999	1313	" lower "
ag	996	963	999	961	981	
ah	1061	928	1042	889	998	
ai	940	702	891	638	817	
aj	847	736	807	678	733	
ak	781	555	758	517	693	29
al	966	249	881	157	801	
am	1140	557	1078	492	998	½S lower junct
an	1307	1290	1337	1332	1367	
ao	1409	1410	1408	1399	1412	
ap	472	431	437	407	473	
aq	398	403	409	420	432	
ar	582	453	550	423	519	
as	711	587	689	578	670	
at	877	453	884	458	816	
au	909	442	830	358	738	
av	601	495	583	459	530	29
aw	710	550	688	551	655	
ax	796	591	760	593	728	
ay	671	508	672	504	667	
az	951	263	913	227	870	
azz	1789	1778	1756	1754	1742	

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1937phae.proj..80NE

	G.C.T.	d_1	d_2	d_3	d_4	d_5
		Galvan Z.P. = 29				
a	16 : 26	1493	2019	1490	2003	1443
b	16 29	1175	1352	1044	1787	986
c	16 32	1121	1343	1083	1379	1078
d	16 38	1207	1364	1275	1411	1288
e	16 42	1053	1301	1172	1449	1324
f	16 48	610	1277	576	1244	562
g	16 53	702	882	718	879	702
h	16 58	657	738	712	773	736
i	17 03	648	832	674	841	652
j	17 10	308	1263	303	1251	294
k	17 46	1252	1541	1218	1477	1152
l	17 55	983	1068	953	1047	959
m	18 04	963	1006	968	1018	977
n	18 11	868	939	888	964	898
o	18 16	610	1113	651	1150	667
p	18 23	352	1291	353	1303	331

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1937phae.proj...001E

Thursday April 7-8 1938 RL

Temp 76

Period = ~~7~~ 7.8 sec.

	d_1	d_2	d_3	d_4	d_5	
a	1943	1387	1868	1297	1762	
b	1239	948	1210	926	1182	½ upper j.
c	1332	1098	1352	1118	1360	" lower j.
d	1398	1253	1347	1186	1274	
e	1557	1383	1601	1411	1621	
f	1233	524	1168	453	1094	
g	865	674	830	636	799	
h	779	719	764	702	747	
i	801	623	780	592	738	
j	1236	301	1225	262	1175	
k	1437	1123	1398	1096	1377	
l	1070	959	1048	923	984	
m	1030	978	990	907	908	828/838
n	974	903	972	902	953	
o	1147	639	1131	600	1093	
p	1292	333	1258	259	1109	

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1937phae.proj..80

	G.C.T		d_1	d_2	d_3	d_4	d_5
			Galvan. Z. P = 31.0			Period = 8.1 sec.	
a	13:	16	832	2964	832	2982	809
b	13	20	1333	1529	1432	1618	1530
c	13	23	1503	1521	1492	1540	1527
d	13	27	3036	3094	3154	3207	3254
e	13	31	3492	3498	3511	3522	3528
f	13	44	1236	1423	1240	1441	1245
g	13	49	659	1318	756	1434	862
h	2		933	1559	939	1561	928
i	3		773	1367	707	1286	648
j	4		503	1093	482	1079	468
k	5		396	948	390	1017	432
l	6		571	1192	617	1228	639
m	7		676	1263	643	1271	589
n	8		433	994	363	933	309
o	9		728	787	197	768	178
p	10		207	806	261	891	333
q	11		453	1072	498	1123	517
r	12		412	1008	398	990	385
s	13	14: 21	133	663	307	608	407
t		14: 24	478	578	526	613	631
u			754	786	768	802	761
v			689	703	631	660	603
w			551	593	570	617	561
x	14:	35	543	578	546	609	577
y	14:	39	2622	2643	2669	2684	2683
z			2694	2678	2658	2637	2626

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1937phae.proj..801E

Sunday April 10-11, 1938 RL

	d_1	d_2	d_3	d_4	d_5	Temp
a	2930	707	2763	564	2592	30
b	1704	1519	1643	1489	1622	
c	1537	1528	1541	1471	1464	
d	3288	3320	3342	3375	3396	
e	3518	3509	3500	3489	3474	
f	1439	1221	1374	1138	1278	
g	1521	912	1536	972	1552	
h	1524	893	1498	848	1433	
i	1228	576	1158	534	1117	
j	1053	459	1041	428	1012	
k	1032	456	1103	538	1153	
l	1241	651	1257	653	1269	
m	1169	553	1178	507	1071	
n	879	272	833	238	804	
o	776	183	782	194	762	
p	914	357	974	407	1017	
q	1109	487	1054	437	1023	
r	957	348	892	342	772	
s	625	47	640	46	653	
t	718	731	797	761	808	
u	807	751	792	727	743	
v	619	512	557	519	578	
w	568	539	579	540	557	
x	620	587	612	572	594	
y	2702	2709	2721	2720	2712	
z	2617	2609	2598	2583	2599	29

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1937phae.proj..80ff

	G.C.T.		d_1	d_2	d_3	d_4	d_5
aa	14:	50	802	996	772	977	746
ab	15	01	623	1273	673	1297	642
ac	15	04	717	727	740	739	752
ad	15	06	897	901	900	917	929
ae	15	09	999	1027	1003	1033	1009
af	15	14	2172	2168	2166	2163	2163
ag	15	17	2156	2152	2151	2152	2158
ah	15	20	2271	2278	2231	2240	2241
ai	15	23	2312	2313	2309	2310	2307
aj	15	25	2298	2292	2321	2330	2338
ak	16	45	2060	2084	2124	2152	2168
al	16	48	904	834	823	760	764
am	16	51	468	403	403	383	418
an	16	54	1752	1757	1794	1783	1819
			with plug, Z.P. is 23.0 for an				
ao	17	20	1911	1928	1932	1942	1932
ap	17	25	1717	1734	1741	1762	1762
aq	17	41	2156	2160	2158	2161	2159
ar	17	46	1959	1980	1998	2017	2029
			with slit open & tunnel on, Z.P = 11.0				
			19				
as	18	07	1952	1928	1954	1933	1957
at	20	33	3082	3819	2953	3645	2781
au	20	39	1679	1972	1653	1937	1538
av	20	44	633	1404	671	1411	635

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1937phae.proj...8013

Sunday, April 10-11, 1938 RL

	d_1	d_2	d_3	d_4	d_5		Temp
aa	937	672	855	641	813		29
ab	1251	586	1190	537	1188	}	
ac	773	797	824	852	872	}	
ad	940	951	954	959	966		
ae	1087	1100	1019	988	1100		
af	2163	2165	2161	2157	2159		
ag	2160	2177	2190	2201	2210	}	
ah	2242	2246	2240	2239	2248	}	
ai	2305	2302	2302	2301	2300	}	
aj	2342	2348	2353	2350	2354	}	
							16: 44: 05
ak	2183	2197	2202	2207	2198		
al	713	714	659	643	582		16: 48 : 13
am	412	463	471	530	531		16: 53: 32
an	1783	1804	1764	1765	1738		16: 59: 41
							17: 03: 31
ao	1925	1908	1894	1869	1845		17: 01: 38 [26°
ap	1788	1781	1799	1792	1800		17: 18: 15
aq	2167	2169	2167	2162	2159		17: 25: 41
ar	2058	2073	2089	2088	2087		

with mirror cover 30° open, Z.P. = 19.8, the closing shutter Z.P. = 20.8
with " " closed, Z.P. = 11.0

as	1918	1931	1893	1891	1837	
at	3475	2602	3252	2451	3091	
au	1824	1441	1652	1281	1498	
av	1329	518	1172	353	980	23

Galvan. Z. P. = 18.1 (Leads disconnected)

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1937phae.proj..80[illegible]

Tests of Galvanometer, closed circuit, couples in box

April 13 3PM EST

Gal. P = $10^{s}.5$ unit 0.1 mm

a EST. 3:10	3387	3387	3404	3412	3430	3440
	3508	3520	3533	3542	3551	3563
	3657	3667	3673	3681	3698	3707
	3780	3782	3797	3806	3816	3822
	3883	3888	3900	3910	3917	3928
	3970	3973	3979	3985	3991	3995
	4050	4051	4058	4064	4073	4076
	4113	4118	4128	4128	4133	4135

b Gal P = $10^{s}.0$ 3:27 - Heater on (set +1° to 20°C of room), closed

906	918	928	925	920 on at +10 off at +25	940
1000	1020	1021	1029	1026	1014
1108	1080	1049	1023	1000	981

(4:14 - set thermostat +4°) If thermostat is turned to close

c) 1 mm, to the left on "make", to right on "break".

630	440 on +10	320 off +11	150	on 0.0	-040 off +10

d) Gal disconnected P = $10^{s}.0$ Thermostat set several degrees

3480	3550	3590	3600 on 0	3620 off +18	3690
3790	3750 on +54	3700	3700 off +12	3730	3700
3670 on 23	3630	3650 off 20	3700	3690	3665

No evidence of effect of heater on terminals.

sunset. Heater on - jumps left 1-2 mm; heater off, [illegible]

shut off by thermostat or by plug over it wall.

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1937phae.proj...8015

3443	3460	3472	3476	3491	3492	Taken at 15s
3572	3588	8602	3616	3628	3644	intervals
3721	3732	3741	3748	3758	3767	
3833	3840	3850	3861	3863	3876	
3934	3940	3942	3953	3960	3965	
4008	4012	4022	4030	4035	4039	
4080	4082	4088	4100	4110	4110	
4139	4150	4157	4160	4163	4169	No heater.

circuit	Room Temp	19°C	at rest reserve			
972	986	987	986	980	965 on+3s off+22s	Taken at 30s intervals
1000 on+10	1000 off+20	1100	1133	1140	1122	spot jumps at make by about 1 mm. (4 thumbs) Not, then at, reported.
967	949	950 +20 on	932 +10 off			

circuit + plug is pulled out + pushed in, gal. spot jumps about + Taken at 30s intervals

warm.

3700	3690 on+8	3690	3760 off 17	3820	3810	30s intervals
3670 on 0	3680	3748 off 11	3780	3760	3720	Jumps left on "make" + thermostat jumps ~~right~~ on "break"

Rapid deflection to left at sun set; returns after jumps 1-2 mm right. Same whether current is made +

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1937phae.proj..80NE

Saturn Z. P. about 2850

a	18	31	1374	1409	1428	1442	1467	-33 -39
b	18	41	2883	2949	3037	3091	3152	+52 +05
c	18	47	3387	3463	3499	3530	3529	
d	18	48	3370	3340	3278	3241	3186	+12
e	18	54	1407	1502	1583	1678	1691	
f	18	56	1576	1470	1423	1401	1427	-28 +02
g	19	05	3480	3365	3294	3244	3199	
h	19	07	3231	3132	3054	3019	3038	

	couple	in box	heads on	Heat carried on			
i	20	10	2146	2141	2137	2128	2112
k	20	14	2172	2173	2168	2159	2142
l			2298	2264	2438	2540	2628
m			3002	3043	3053	3052	3041

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1937phae.proj...8013

Friday ~~Saturday~~; April 15-16, 1938 RL

Temp 46

Period about 10.5 Hours

a	1481	1472	1452	1384	1330
b	3177	3152	3112	3098	3077
c	3550	3538	3543	3474	3419
d	3170	3117	3102	3081	3106
e	1700	1653	1674	1641	1660
f	1448	1492	1552	1623	1683
g	3187	3189	3213	3288	3325
h	3108	3202	3318	3334	3293

Baboon Bar

L	2110	2118	2130	2127	2137	mirror image
R	2153	2161	2194	2217	2246	reading between L & R
	2680	2742	2818	2900	2948	
	3012	2998	3000	3007	2983	

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1937phae.proj..80[illegible]

Saloon. Ref 8.4 Thermo-control off.

a	13	35	3038	3039	3033	3032	8034
b		40	1524	1571	1564	1632	1619
c		43	1648	1601	1563	1533	1532
d		46	2423	2528	2540	2622	2617
e			2472	2453	2364	2338	2276
f			2029	2034	1983	1979	1933
g		54	2001	1983	1968	1959	1954
h			2307	2380	2445	2492	
i	14	01	2570	2583	2569	2589	2578
j			2551	2559	2542	2552	2528
k			2449	2452	2428	2433	2404
l	14	09	~~2307~~ 2290	2293	2292	2290	2279

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1937phae.proj...8013

Saturday, April 16-17, 1938 RL

Temp 47

Salon. 2 P. ~~about 3150~~

a	3031	3032	3034	3030	3029	
b	1698	1672	1702	1673	1706	
c	1517	1532	1550	1571	1597	
d	2652	2602	2604	2543	2546	
e	2253	2183	2178	2111	2103	
f	1960	1947	1970	1972	2002	
g	1977	2017	2078	2139	2218	
h	2533	2562	2573	2584	2601	2610
i	2593	2580	2590	2577	2579	
j	2527	2500	2509	2470	2474	
k	2415	2388	2388	2352	2360	
l	2281	2282	2283	2290	2290	

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1937phae.proj..80[illegible]

Tests April 18 17 mdg

Breathing test ~~after~~ on obs 15 seconds / breathing on K-C-Cox, neph not; etc.

4:10 EST (PM)

breathing	a.	2330	2357	2385	2418	2438
no breathing	b.	2340	2235	2235	2239	2250
breathing	c.	2350	2352	2360	2369	2364
	~~d~~	after 15 sec, hand on; eye not present on				
	d	1985	2000 on	2033	2170	2340
	~~e~~	Mouth protected with cardboard both				
	e	2320 in zero, eye to	2330	2331	2343	2343
same	f	2192	2194	2192	2192	2195
		at zero, cardboard over eye piece, 15 secs obs				
	g	2135	2137	2136	2140	2142
same (h)	ds. grounded	2162	2165	2161	2167	2163
		Motion, plug, shield over face, looking into eye				
	~~k~~	2452	2450	2445	2442	2439
	~~g~~	Motion, plug, no shield over face, looking into eye piece				
	j	2380	2392	2412	2430	2436
		Breathing for 150 sec, obs 150, etc. plug in,				
5:20 PM	k	2550	2595	2550	2594	2527
		No plug, covered all around, Motion, no more				
	l	2535	2490	2520	2480	2495
same	m	2338	2312	2330	2308	2320
		No plug, covered all around, motion, more top				
5:40	n	2285	2292	2287	2292	2290

1. Tested grounding of galvanometer through copper tube (inner)
2. The mouse-protecting braid in galvanometer house is brought up. This is trivial, and can easily be corrected.

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P = 7^{5}

	2432	2430	2422	2412	2391
	2256	2269	2275	2283	2293
	2350	2328	2290	2255	2215
	2530	2670	2685	2640	2520

through as though guided, no motion. (Nose & lower is covered)

	2345	2340	2338	2332	2330
	2202	2195	2198	2193	2189
obs. maybe	2145	2145	2152	2152	2159
	2165	2167	2168	2171	2172
piece	(usual value)				
ó	2438	2438	2433	2426	2421
	→				
	2433	2413	2395	2362	2330

no motion

Trap	2460	2473			
l	↓	↓	2443	2448	2415
m	2310	2318	2304	2316	2302
	→				
n	2290	2282	2287	2275	2279

5420

ø braid to telescope; passes current & light 110V lamps; OK. not now grounded, ø can cause a deflection if a charge is

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1937phae.proj..80[illegible]

Salvon Z.P = 1960 just before comet

a	2609	2638	2667	2682	2690
b	2577	2540	2504	2464	2418
c	2208	2190	2172	2148	2131

Salvon Z.P = 2060 on

a, b, & c are blank runs on the sky, with the new light (shield) in place.
No appreciable disturbance of the Z.P. occurred when the

Old Nom Trap: - not in place (& should not be used again)
G. Period: ~ 7s.0
Motion: Yes

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1937phae.proj..801E

Tuesday, April 26-27, 1938 RHE RL

Leads.

					δ Δ
7691	7680	2663	7638	7609	−2.1 +0.6 } −0.75
7372	7330	2289	2259.	2230	−0.3 −2.0 } −1.15
7102	2072	2040	2007	1982	−1.9 +0.8 } −0.55

disarranging
No heat on in galvan. box.
instrument was rumfor South (Tailpeios)

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1937phae.proj..80[illegible]

Thursday May 5-6

	G.C.T		d_1	d_2	d_3	d_4	d_5
			Solar Z. P. = 2950			Period = 6 s	
a	15	15	3409	3432	3440	3437	3429
b	15	23	2859	2838	2876	2821	2830
c	15	31	2783	2758	2735	2712	2695
d	15	35	2669	2670	2664	2678	2682
e	15	42	2857	2713	2859	2712	2855

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1937phae.proj..0015

1938 RL

Heater Temp
15:11 60

	d_1	d_2	d_3	d_4	d_5
a	3417	3396	3374	3350	3324
b	2850	2859	2898	2923	2946
c	2682	2680	2669	2665	2656
d	2687	2686	2690	2707	2703
e	2718	2864	2723	2864	2723

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1937phae.proj..80TE

106 5/26/38 TES + RWE

1) Open circuit — new cover on galvanometer, heater, etc.

1383 - 1387 - 1379 - 1369 - 1362 - 1359 - 1348 - 1345 - 1338 - 1330
1221 - 1213 - 1209 - 1199 - 1198 - 1191 - 1180 - 1178 - 1170 - 1162 1160 - 1152 - 1145 - 1142
1045 1048 1038 - 1033 1031 1023 1020 1018 1017 1012 1003 - 1000 987 - 987

2) Turned up heater to 4° warmer at "4:15". Heater on for 2m. When
1166 - 1164 1158 - 1157 1171 1188 1185 1176 1128 1114 1110 1172 1141 1112

3) Reading every 15s. Heater plugged in for 5s every 30s
Schedule: at 15 sec intervals, read. at 1 sec

0	15	30			
730	740	740	739	745	748

Deflections:
1) 6Δ = 1.0, -1.0, -.6, -3.6, +.3, -.2, +.8; 2.5, -1.2, -2.8, 1.0, 0, -.8, +.9; 6Δ = 0.0, -2.1, .05, -.85;
3) 6Δ = -.7; .4; 6Δ = -.3; Δ = -.05

5/27/38 TES, RWE } found gal with same 10s period at center of

1) No heater. Reading every 15s.

2673 - 2670 2667 - 2660 2652 -0.6 2648 - 2640
2590 - 2580 2578 - 2571 2565 +1.3 2559 - 2552 2547 - 2540 2539 +1.4 2533 - 2528
2487 - 2484 2479 - 2477 2473 -0.5 2472 - 2468 2469 - 2464 2463 +1.2 2461 - 2459

2) Heater on (set 3° warm) at 1:58. ↑ 2:01 ↓

2448 - 2449
2441 - 2441 2438 2441 2433 -2.2 2437 2433 2432 2430 2426 +0.1 2425 - 2419
2398 - 2392 2391 2383 2382 +1.7 2380 2378 2375 2369 2369 +0.7 2366 - 2362

3) Set heater 6° warm ↑ 2:16 ↓

(m)	2203	2200	2198	2198 -0.6	2193	2190	2187	2188	2190 0.1	2188	2185	2182	2180
	2160	2160	2159	2155 -1.7	2145	2142	2143	2137 -1.6	2135	2130	2130	2120	2119

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Reading each 20 s. Ten sec. period. ↑ - heater on ↓ " off

1320 - 1312 - 1300 - 1292 - 1283 - 1279 - 1265 - 1259 - 1243 - 1242, - 1233 - 1228 -
(↑ on +10° ↓ off +10°) (3° later) ↑ 8s
1123 - 1118 1110 - 1102 1092 - 1086 (1079) 1078 1069 1061 1051 1049
989 - 983 980 - 978 976 - 971 967 - 961 956 - 954 949 947

It turned off, started taking reading every 20°.
↑ 5s ↓ 2°
1070 1060 1048 1039 1028 1015 1020

& 40 sec, plug in; at 15 & 75 on heating current; heaters
750 752 758 760 760

-2.0, .50, .05; $\sqrt{\overline{\Delta^2}}$ from 10 = 0.193 mm.

---

scale. Put on new copper tube over glass support tube. $\sqrt{\overline{\Delta^2}} = 0.096$

						$\overline{6\Delta}$	Δ
2638	2634	2626 +0.2	2622 - 2616	2608 - 2600	2598 +0.8	-0.4	-0.06
						-0.25	-0.04
2520 - 2515	2508 -0.4		2505 - 2500	2497 - 2493	2492 +0.9	+0.9	+0.15
						+0.7	+0.12
2458 - 2453	2452 +0.6					+0.3	+0.05

							$\overline{6\Delta}$	Δ
2445 - 2445	2448 0.0		2446 - 2442	2445 - 2444	2442 +0.8	(mixed reading)	-0.4	-0.07
							-1.15	-0.19
2418 - 2415	2417 +1.8		2410 - 2408	2402 - 2399	2399 +0.1		+0.85	+0.14
							+0.5	+0.08
2361 - 2362	2359 0.0		2353 - 2352	2349 - 2349	2348 -0.1	$\sqrt{\overline{\Delta^2}} = 0.116$	+0.05	+0.01

						$\overline{6\Delta}$	Δ
-1.3				-2.0		-0.35	-0.06
2185	2179	2178 2180 2172		2170	2165	+0.35	+.06
+1.4				-0.3		-0.05	-.01
2108	2100	2099 2098 2096		2087	2081	+0.85	+.14

$\sqrt{\overline{\Delta^2}} = 0.082$

$\sqrt[14]{\overline{\Delta^2}} = 0.10$

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1937phae.proj..80108

	G C.T.		①	②	③	④	⑤	
	Galvan. Z. P. = 2450					Period = 7^s		
a	16	58	3087	3099	3121	3102	3132	
b	17	09	3133	3059	3137	3058	3130	3049

Gal. Z.P = 2300 Period 7^s (same as on 6/1-2)

a	16	43	3197	3102	3183	3102	3172	3080
b	16	51	3132	2869	3109	2840	3092	

A. Testing coil 2.6×10^{-9} amps (Sensitivity) period

6^s	
6.8	101 mm
7.0	108 mm
6.6	
@ 6.6	104.5 mm

B (Resistance)
1. line + couples 100 Ω ±1/2
2. line alone 12 ± 1
(+ couples 88 Ω)

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1937phae.proj..8011

Wednesday, June 1-2, 1938 RL

Temp 56

	①	②	③	④	⑤	
a	3122	3150	3124	3143	3122	113
b	3128	3057	3132	3059	3136	450

Thursday, June 2-3, 1938 ~~RL~~

a	3152	3070	3132	3058	3129	
b	2831	3087	2828	3079	2829	

June 4 Tenth goal.

0.12. (should be 105 from Camb. Calibration (1940)) (distance ~ 1 mile)

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1937phae.proj..801E

	G.C.T		(1)	(2)	(3)	(4)	(5)	
	Saloon Z.P. = 2550					Period = 7^s		
	no deflection							
	Salw. Z.P. about ~~100~~ 270					Period 7.9^s		
a	18	57	2231	1838	2148	1758	2~~9~~71	~~1678~~
b	19	03	1382	1278	1343	1221	1282	
c	19	06	943	932	921	913	904	
d	19	22	1221	1176	1206	1150	1181	
e	19	29	1203	1002	1206	991	1182	
f	19	33	920	913	907	898	899	
g	19	39	1031	956	1018	929	983	
h	19	45	1119	677	1132	679	1129	
k	19	50	931	838	918	823	903	
j	19	55	937	602	934	598	932	
~~k~~	19	58	662	660	658	653	649	
l	20	03	643	667	693	721	743	

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1937phae.proj..801

Wednesday, June 8-9, 1938 RL

	①	②	③	④	⑤	Temp
a						58
		~~1979~~	1590	~~1889~~		
a	1678	1979	1590	1889	1502	
b	1159	1218	1086	1148	1025	
c	896	881	874	867	859	
d	1119	1138	1080	1097	1036	
e	970	1153	943	1129	903	
f	898	893	893	894	898	
g	889	939	850	900	807	
h	681	1119	671	1112	657	
i	803	882	778	856	744	
j	587	919	551	889	543	
k	648	637	637	629	627	
l	764	792	818	842	857	

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1937phae.proj..80112

GCT (1) (2) (3) (4) (5)

Gain 2. P. 2340 Period 7.s3

a	2:15	2358	2350	No deflection		
		6.8 sec period				
b	4:03	2295	2350	2299	2353	2308
c	4:12	2318	2438	2380	2503	2448
d	4:28	2622	2708	2640	2729	2670
e	4:38	2562	2844	2579	2858	2596
				2P 3480		

7.s0

line resistance 101 Ω

line to copper shield tube ∞ Ω (bridge) (>100,000)

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1937phae.proj...8013

Thursday June 9-10 1937 TES 113

TES & RITE

Temps

(1)	(2)	(3)	(4)	(5)	
					62
2362	2310	2369	2318	2378	60
2572	2520	2649	2590	2708	
2749	2688	2765	2710	2780	
2888	2633	2909	2652	2929	60

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1937phae.proj..80114

	G.C.T.		1	2	3	4	5
	Saturn · 2.P.			= 2850		Perihe	75
a	14	38	1378	1440	1419	1502	1498
b	14	44	1552	1773	1566	1797	1589
c	14	49	1732	1827	1748	1852	1771
d	15	05	1720	1809	1734	1827	1753
e	15	11	1668	1964	1682	1983	1715
f	16	18	2098	2400	2117	2415	2132
g	16	23	2463	2469	2487	2497	2510
h	16	28	2470	2554	2489	2584	2530
i	16	32	2693	2709	2687	2714	2692
j	16	36	2739	2731	2726	2714	2709
k	17	07	1901	2203	1937	2256	2007
l	17	10	2568	2587	2601	2610	2619
m	17	16	2462	2453	2448	2442	2440
n	17	23	2090	2468	2091	2469	2107
o	17	31	2281	2382	2293	2409	2328
p	17	36	2498	2647	2473	2631	2479
q	17	40	2662	2660	2663	2663	2664
r	17	46	2281	2324	2263	2321	2276
s	17	50	2379	2380	2381	2380	2383
t	17	57	2105	2396	2129	2432	2176
u	18	01	2510	2512	2517	2536	2552
v	18	07	2519	2488	2507	2475	2507
w	19	24	2323	2598	2338	2629	2387
x	19	29	2457	2836	2427	2820	2423
y	19	34	2431	2790	2429	2800	2448
z	19	39	2772	2782	2743	2769	2754

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1937phae.proj..8015

Monday, June 13-14, 1938 RL

Temp

	1	2	3	4	5
a	1592	1583	1667	1643	1718
b	1827	1621	1858	1650	1888
c	1878	1797	1899	1817	1918
d	1840	1773	1856	1773	1862
e	2020	1741	2052	1778	2084
f	2436	2156	2458	2173	2476
g	2519	2529	2533	2547	2548
h	2631	2578	2680	2621	2721
i	2723	2706	2736	2719	2750
j	2706	2700	2698	2699	2690
k	2340	2100	2438	2193	2527
l	2630	2633	2637	2639	2641
m	2447	2448	2447	2451	2450
n	2493	2128	2524	2176	2582
o	2452	2393	2520	2458	2596
p	2640	2491	2662	2519	2686
q	2658	2658	2649	2648	2638
r	2336	2292	2358	2311	2373
s	2382	2390	2396	2398	2400
t	2484	2224	2537	2271	2573
u	2574	2600	2623	2652	2669
v	2489	2530	2513	2558	2543
w	2690	2452	2759	2519	2812
x	2829	2433	2834	2437	2846
y	2827	2491	2883	2553	2958
z	2792	2780	2812	2790	2828

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1937phae.proj..80116

	GCT		1	2	3	4	5
aa	19	45	2505	2578	2470	2547	2442
ab	19	50	2209	2334	2177	2309	2163
ac	19	55	2273	2309	2251	2294	2239
ad	20	00	2210	2247	2190	2235	2189
ae	20	05	2202	2261	2194	2260	2200
af	20	10	2232	2384	2260	2478	2324
ag	20	15	2563	2590	2501	2529	2447
ah	20	19	2310	2301	2288	2269	2254
ai	20	24	1888	1853	1827	1798	1777

Galvan Z. P = 2980

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1937phae.proj...0013

Monday, June 13-14, 1938 RL

	1	2	3	4	5
aa	2523	2418	2513	2416	2512
ab	2311	2179	2340	2210	2373
ac	2292	2243	2294	2247	2301
ad	2248	2207	2270	2231	2297
ae	2269	2210	2283	2224	2302
af	2500	2409	2596	2511	2694
ag	2479	2402	2440	2368	2409
ah	2239	2227	2207	2203	2183
ai	1750	1732	1712	1699	1681

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1937phae.proj..80118

	GCT		1	2	3	4	5
			Salvan Z.P. = 2960			Period 75	
a	14	38	1259	1332	1293	1363	1333
b	14	43	1278	1490	1246	1455	1203
c	14	48	1047	1093	1038	1083	1038
d	14	52	1082	1194	1121	1237	1173
e	14	57	1567	1663	1598	1694	1635
f	15	02	1702	2002	1683	1989	1667
g	15	07	1707	1732	1708	1734	1711
h	15	11	1682	1769	1682	1772	1684
i	15	16	1719	1742	1719	1743	1721
j	15	22	1671	1762	1690	1780	1712
k	15	27	1709	2022	1719	2032	1731
l	15	33	1692	2172	1688	2178	1702
m	15	39	1811	2212	1829	2229	1831
n	15	45	1801	1827	1773	1799	1759
o	15	48	1742	1742	1751	1743	1748
p	15	~~53~~ 55	1621	1623	1630	1641	1649
q	16	02	1462	1557	1448	1543	1439
r	16	07	1347	1502	1331	1500	1332
s	16	12	1190	1501	1187	1499	1181
t	16	17	1332	1333	1333	1341	1346
u	16	20	1339	1329	1333	1329	1330
v	16	26	1249	1338	1260	1349	1280
w	16	29	1427	1424	1438	1439	1452
x	16	33	1482	1486	1488	1484	1483
y	16	36	1489	1488	1489	1481	1488
z	16	39	1468	1460	1461	1453	1452

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1937phae.proj...0013

Tuesday, June 14-15, 1938 RL

	1	2	3	4	5	
(Galvo. not adjusted since previous night)						
a	1397	1368	1433	1394	1458	59
b	1410	1167	1379	1128	1339	
c	1088	1041	1088	1041	1092	
d	1301	1237	1370	1312	1442	
e	1742	1687	1793	1739	1849	
f	1963	1639	1950	1623	1934	
g	1748	1720	1757	1727	1762	
h	1773	1685	1777	1691	1781	
i	1746	1732	1751	1729	1757	
j	1804	1740	1837	1768	1860	
k	2046	1752	2069	1780	2101	
l	2201	1720	2229	1744	2239	
m	2233	1833	2229	1831	2227	
n	1783	1752	1787	1759	1792	
o	1749	1752	1751	1752	1747	
p	1657	1669	1682	1692	1701	20 sec interval
q	1537	1433	1540	1439	~~1537~~ 1547	
r	1507	1340	1511	1347	1523	
s	1494	1178	1490	1172	1489	58
t	1348	1343	1345	1349	1348	20 sec intervals
u	1320	1323	1318	1320	1314	
v	1371	1301	1392	1321	1412	
w	1452	1461	1461	1471	1472	
x	1483	1481	1488	1488	1488	20s intervals
y	1479	1474	1470	1467	1464	
z	1445	1442	1432	1432	1421	

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1937phae.proj..80HE

	J.D. Obr.		(1)	(2)	(3)	(4)	(5)
	Salvan.		Z. P =	3190		Period	= 8^s
a	15	20	1262	1317	1262	1304	1253
b	15	24	1132	1368	1152	1387	1163
c	15	28	1411	1467	1425	1483	1453
d	15	33	1558	1660	1577	1678	1592
e	15	37	1773	1803	1768	1801	1770
f	15	42	1703	1785	1710	1782	1694
g	15	48	1592	1918	1616	1931	1629
h	15	53	1802	1841	1812	1849	1832
L	15	57	1914	2014	1954	2059	1990
j	~~15~~ 16	04	2137	2168	2163	2213	2208
k	16	09	2282	2371	2301	2381	2313
l	16	13	2223	2509	2213	2511	2209
m	16	18	2153	2612	2179	2648	2230
n	16	25	2430	2460	2472	2528	2552
o	16	33	2189	2553	2159	2531	2139
p	16	37	2222	2251	2223	2268	2253
q	16	42	2340	2439	2341	2439	2352
r	16	47	2332	2473	2318	2472	2328
s	16	52	2383	2420	2352	2398	2345
t	16	58	2232	2281	2231	2287	2247
u	~~16~~ 17	05	2198	2258	2198	2261	2213
v	17	15	1881	1893	1862	1880	1851
W	17	18	1790	1791	1796	1798	1802
X	17	22	1810	1814	1820	1823	1821
y	17	27	1840	1880	1879	1908	1902
z	17	37	1581	1640	1579	1640	1574

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1937phae.proj...8013

Sunday, June 19-20, 1938 (RL)

Temp 62

	(1)	(2)	(3)	(4)	(5)	
a	1298	1244	1294	1248	1293	
b	1390	1178	1409	1199	1443	
c	1515	1483	1548	1512	1573	
d	1698	1623	1730	1643	1751	
e	1798	1773	1808	1784	1821	
f	1772	1688	1766	1688	1768	
g	1936	1640	1953	1647	1963	
h	1876	1860	1903	1891	1940	
i	2091	2020	2122	2046	2151	
j	2258	2253	2289	2285	2324	
k	2404	2336	2421	2352	2433	
l	2514	2230	2526	2240	2534	
m	2708	2291	2763	2337	2803	
n	2627	2659	2729	2762	2829	
o	2518	2123	2502	2108	2499	
p	2303	2301	2353	2348	2402	
q	2457	2378	2483	2408	2513	
r	2492	2353	2528	2382	2557	
s	2398	2340	2393	2347	2406	
t	2309	2266	2332	2289	2347	
u	2292	2241	2320	2273	2342	
v	1868	1840	1858	1827	1842	
w	1809	1812	1809	1811	1811	
x	1870	1823	1819	1821	1819	} 20^s intervals
y	1948	1941	1983	1981	2022	
z	1637	1572	1638	1572	1638	

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1937phae.proj..801E

	J.D.		1	2	3	4	5
aa	18	50	1861	2152	1889	2181	1915
ab	18	59	2072	2153	2080	2158	2089
ac	19	04	2118	2139	2121	2142	2122
ad	19	09	2080	2157	2078	2158	2082
ae	19	13	1955	2239	1946	2237	1948
af	19	19	1840	2281	1841	2303	1874
ag	19	23	2026	2398	2007	2390	1997
ah	19	26	2023	2401	2009	2407	2038
ai	19	37	2043	2077	2033	2068	2029
aj	19	40	2039	2033	2032	2026	2018
ak	19	45	1912	1939	1897	1927	1890
al	19	50	1827	1859	1830	1870	1842
am	19	54	1878	1914	1886	1922	1893
an	~~19~~ 20	04	1557	1661	1580	1706	1621
ao	20	08	1686	1830	1651	1793	1613
ap	20	13	1511	1568	1532	1588	1550
aq	20	20	1610	1687	1632	1731	1679
ar	20	25	1808	1968	1820	1989	1851
as	20	29	1936	1987	1918	1989	1933

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1937phae.proj...801

Sunday, June 19-20, 1938 RL

	1	2	3	4	5	Temp
aa	2201	1932	2223	1961	2253	60
ab	2173	2111	2191	2117	2203	
ac	2157	2133	2154	2133	2160	
ad	2160	2082	2161	2084	2162	
ae	2239	1957	2247	1959	2250	
af	2337	1978	2391	1982	2462	
ag	2387	2007	2398	2027	2416	
ah	2454	2081	2480	2098	2497	20^s intens.
ai	2068	2029	2063	2040	2072	
aj	2017	2002	1998	1983	1979	
ak	1920	1882	1921	1878	1923	20^s intens
al	1883	1859	1901	1868	1902	
am	1928	1902	1941	1928	1965	
an	1752	1673	1801	1722	1843	
ao	1769	1583	1739	1560	1708	
ap	1619	1579	1642	1608	1674	
aq	1789	1743	1837	1788	1877	
ar	2073	1881	2051	1912	2073	
as	2010	1952	2027	1972	2039	

Solvan 2.P = 2330 61

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1937phae.proj..80.tif

Gal period 8.5 0 . Zero point 2830

	JD		1	2	3	4	5
a	13	15	1538	1595	1558	1617	1577
b	13	23	1429	1651	1428	1658	1446
c	13	28	1514	1586	1513	1589	1520
d	13		1343	1395	1382	1490	
e	14	19	1070	1141	1118	1187	1169
f	14	24	1341	1399	1351	1414	1377
g	14	30	1453	1566	1488	1609	1540
h	14	35	1680	1707	1672	1712	1691
i	14	45	1633	1702	1658	1734	1698
j	14	50	1906	1930	1929	1959	1962
k	14	54	2080	2078	2081	2088	2090
l	15	053	1708	1998	1709	2015	1728
m	15	07	1851	1870	1837	1876	1858
n	15	12	1759	1844	1767	1858	1782
o	15	18	1867	1879	1860	1883	1871
p	15	24	1633	1709	1620	1707	1630
q	15	30	1370	1838	1372	1855	1397
r	15	38	1589	1625	1601	1648	1635
s	15	44	1509	1658	1501	1666	1524
t	15	52	1486	1529	1470	1522	1469
u	16	04	1160	1208	1167	1212	1191
v	16	12	1208	1267	1225	1286	1241
w	16	17	1190	1285	1202	1308	1219
x	16	23	1155	1182	1151	1176	1155
y	16	36	850	1152	841	1157	850
z	16	42	1075	1116	1095	1139	1113

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1937phae.proj...801E

Monday, June 20-21, 1938 – RMK

	1	2	3	4	5	Temp
a	1644	1603	1670	1629	1693	72
b	1675	1460	1700	1484	1712	
c	1590	1512	1584	1507	1581	
e	1226	1219	1288	1270	1341	
f	1440	1411	1472	1448	1526	
g	1659	1587	1708	1642	1764	
h	1732	1706	1740	1720	1761	
i	1782	1744	1828	1787	1864	
j	1984	1991	2021	2023	2052	
k	2093	2106	2111	2119	2126	
l	2037	1756	2069	1787	2104	
m	1900	1890	1940	1930	1984	
n	1888	1816	1919	1860	1960	
o	1909	1900	1938	1926	1962	
p	1720	1654	1749	1683	1779	
q	1880	1436	1918	1458	1950	
r	1685	1674	1730	1716	1778	
s	1704	1563	1751	1619	1806	
t	1529	1470	1531	1476	1532	
u	1254	1230	1293	1271	1327	Gal. spot caught times jumped 1cm or more to left
v	1301	1268	1323	1290	1340	
w	1311	1228	1325	1236	1335	
x	1184	*1160	1203	*1182	1218	*Gal spot jumped to left about 1 cm
y	1162	861	1180	875	1194	
z	1161	1148	1197	1180	1231	

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1937phae.proj..801E

#	J.D.		1	2	3	4	5
aa	17	55	1516	1553	1492	1572	1549
ab	17	59	1653	1662	1666	1672	1678

Spot jumped about 1 cm. to left after nearly every

Solvino readjusted & reheated. Period = 7.6

ac	19	55	1196	1331	1277	1372	1269
ad	20	01	1471	1837	1507	1879	1553

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1937phae.proj..8015

Monday, June 20-21, 1938 PL

	1	2	3	4	5	Temp
aa	1590	1573	1613	1589	1632	66
ab	1680	1680:	1696	1700	1702	

reading.

Solar z. P. = 2180

ac	1414	1311	1458	1351	1493
ad	1926	1603	1989	1658	2042

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1937phae.proj..80[illegible]

	J.D.		1	2	3	4	5
	Solvay		Z. P. = 3430			Period = 9.9^s	
a	13	23	488	527	478	492	459
b	13	41	433	608	443	628	462
c	13	46	609	671	610	673	613
d	14	07	783	836	819	858	827
e	14	05	970	1020	1002	1051	1035
f	14	11	1438	1509	1443	1514	1448
g	14	16	1580	1579	1523	1530	1488
h	14	22	1364	1432	1371	1444	1386
i	14	27	1590	1841	1579	1831	1593
j	14	33	1802	1898	1809	1903	1813
k	14	38	1710	1739	1721	1763	1748
l	14	44	1690	1762	1709	1789	1733
m	14	51	1733	1754	1739	1763	1754
n	14	56	1757	1812	1751	1827	1773
o	15	00	1842	2092	1852	2118	1892
p	15	06	1867	2227	1840	2211	1834
q	15	11	1818	2139	1811	2127	1811
r	15	16	1903	1971	1890	1913	1881
s	15	22	1781	1848	1753	1810	1709
t	15	26	1559	1668	1527	1651	1528
u	15	32	1599	1632	1590	1633	1603
v	15	40	1619	1708	1651	1742	1691
w	15	46	2032	2059	2018	2063	2034
x	15	51	2141	2191	2162	2227	2206
y	15	56	2479	2480	2427	2433	2407
z	16	01	2183	2183	2157	2157	2119

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1937phae.proj...0013

Tuesday, June 21-22, 1938 RL

Tey 75

	1	2	3	4	5		
Temp. central rat on.							
a	504	477	519	496	542		
b	633	482	669	512	701		
c	670	606	660	608	679		
d	863	829	873	850	909		
e	~~1093~~	1103	1169	1159	1234	1234	
f	1530	1473	1577	1527	1638		
g	1503	1461	1478	1439	1457		
h	1471	1433	1528	1492	1572		
i	1841	1606	1878	1647	1919		
j	1907	1821	1922	1842	1933		
k	1798	1773	1819	1809	1850		
l	1820	1769	1859	1808	1901		
m	1776	1762	1789	1786	1819		
n	1860	1810	1902	1852	1931		
o	2157	1932	2197	1973	2227		
p	2204	1837	2218	1841	2221		
q	2129	1813	2137	1821	~~2173~~ → or 2137 ??		
r	~~1915~~	~~1899~~	1927	1956	1941	1969	1947
s	1768	1673	1741	1652	1718		
t	1671	1551	1703	1593	1738		
u	1653	1611	1668	1639	1702		
v	1773	1732	1833	1791	1894		
w	2088	2068	2126	2112	2172		
x	2285	2277	2351	2342	2418		
y	2427	2411	2427	2403	2431		
z	2126	2082	2090	2041	2041		

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1937phae.proj..80[illegible]

	JD		1	2	3	4	5
aa	16	45	1935	2017	1948	2041	1992
ab	16	50	2213	2303	2264	2368	2338
ac	16	55	2415	2683	2438	2727	2467
ad	17	00	2432	2459	2427	2463	2450
ae	17	06	2527	2558	2516	2548	2513
af	17	10	2512	2489	2462	2434	2414
ag	17	16	2127	2149	2103	2142	2110
ah	17	20	2050	2089	2032	2083	2028
ai	17	37	1617	1687	1653	1721	1698
aj	17	42	1912	1970	1963	2038	2036
ak	17	45	2423	2443	2462	2487	2509
al	17	48	2612	2658	2625	2674	2643
am	17	54	2672	2739	2631	2707	2601
an	17	57	2563	2548	2521	2508	2492
ao	18	02	2270	2348	2293	2397	2357
ap	18	08	2573	2862	2601	2904	2648
aq	18	13	2356	2757	2284	2708	2247
ar	18	18	~~2287~~	~~2269~~	~~2258~~	~~2251~~	~~2270~~ *
			2187	2169	2154	2143	2129
as	18	25	1829	2252	1798	2232	1789
at	18	30	1848	2229	1883	2273	1930
au	18	37	2047	2158	2089	2218	2170
av	18	42	2670	2823	2651	2820	2654
aw	18	47	2467	2500	2432	2473	2412
ax	18	52	2238	2253	2172	2207	2152
ay	18	58	2098	2157	2081	2152	2092
az	19	03	1991	2108	1941	2078	1941

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1937phae.proj..0013

Tuesday June 21-22, 1938 RL

Temp 68

	1	2	3	4	5	
aa	2085	2042	2143	2089	2179	
ab	2421	2382	2473	2425	2518	
ac	2751	2483	2762	2493	2758	
ad	2482	2469	2507	2497	2538	
ae	2552	2522	2569	2548	2600	
af	2390	2372	2348	2328	2311	
ag	2148	2120	2158	2119	2157	
ah	2087	2029	2079	2028	2068	
ai	1767	1736	1813	1791	1859	
aj	2114	2127	2203	2208	2280	
ak	2532	2553	2576	2587	2603	
al	2693	2668	2719	2702	2771	20^s interval
am	2682	2578	2648	2543	2630	
an	2467	2453	2439	2425	2420	
ao	2462	2433	2542	2513	2624	
ap	(2629)	2673	2972	2717	3002	
aq	2667	2208	2642	2202	2641	* joined scale.
ar	2248	2242	2233	2213	2202	
~~as~~						
as	2233	1797	2257	1830	2288	20^s intervals
at	2328	1971	2351	2002	2378	
au	2374	2281	2442	2422	2591	
av	2822	2669	2839	2681	2844	
aw	2452	2406	2460	2419	2477	
ax	2203	2158	2229	2193	2261	
ay	2171	2112	2197	2151	2224	
az	2091	1977	2148	2029	2195	

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1937phae.proj..80132

	J.D.		1	2	3	4	5
Ba	19	12	1808	1871	1825	1900	1857
Bb	19	18	1917	1937	1935	1964	1965
Be	19	21	2122	2128	2138	2140	2152
Bd	19	24	2128	2152	2151	2183	2198
Be	19	30	2161	2209	2146	2189	2147
Bf	19	33	2180	2180	2170	2167	2157
Bg	19	37	1982	2034	1988	2048	2011
Bh	19	44	1923	2067	1898	2053	1890
Bi	19	46	1994	1992	1996	1990	1987
Bj	19	50	1848	2003	1848	2009	1848

Galvan 2. P. = 3200

Friday June 24 1938

1. Resistance: Inner copper tube to ground, 500,000 Ω.

2. Spiral resistance felt: a piece 2 x 3.5 x 4.5 cm.

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1937phae.proj..0013

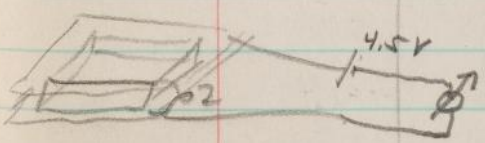
Tuesday, June 21-22, 1938 RL

	1	2	3	4	5	Temp
a a	1922	1869	1931	1880	1932	64
b b	1998	2001	2033	2031	2056	
c c	2154	2157	2153	2160	2159	
d d	2244	2263	2319	2333	2381	20^S intervals
e e	2198	2152	2203	2152	2208	
f f	2139	2121	2108	2092	2078	
g g	2081	2053	2137	2102	2174	20^S intervals
h h	2039	1883	2048	1889	2053	
i i	1980	1977	1977	1978	1980	
j j	2002	1831	1992	1830	2008	20^S intervals

64

---

2. TES, RDE [1.5 volt, 200 mm at 20 cm (= 1000 mm/meter) for galv. @ 2.7×10^{-9} ma/mm. Current = 2.7×10^{-6} amp; $R = \frac{1.5}{2.7} \times 10^6 \sim 500{,}000\ \Omega$]



[18 cm at 85 cm; = 210 mm/meter
$210 \times 2.7 \times 10^{-9} \sim 5.4 \times 10^{-7}$ amp.
$\frac{4.5}{5.4} \times 10^7 = 8 \times 10^6\ \Omega$. $\frac{R \times 2\text{ cm}}{3.5 \times 4.5\text{ cm}^2} = 8 \times 10^6\ \Omega$
$\therefore R = \frac{8 \times 10^6 \times 3.5 \times 4.5}{2}$ ohm cm.
$= 6.4 \times 10^7$ ohm cm.]

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1937phae.proj..801C

Zero pt. = 3407 $t = 61$ F. Period = $9^{s}.6$

No.	J.D.	1	2	3	4	5
a	15 12	1945	2106	1932	2099	1922
b	15 20	2080	2157	2138	2224	2215
c	15 27	2702	2762	2760	2832	2832
d	15 33	3021	3092	3065	3137	3113
e	15 39	2799	2764	2698	2670	2614
f	15 45	1868	1889	1829	1863	1800
g	15 51	1797	1812	1808	1828	1820
h	15 57	1801	1969	1823	2011	1877
i	16 06	2070	2311	2093	2346	2126
j	16 20	2203	2251	2239	2304	2293
k	16 28	1828	1850	1786	1824	1772
l	16 35	1803	1867	1850	1914	1902
m	18 13	2130	1972	2150	2004	2195
n	18 18	2329	2320	2348	2341	2370
o	18 25	2382	2328	2384	2328	2384
p	18 31	2352	2312	2372	2341	2400
q	18 35	2528	2361	2552	2396	2579
r	18 51	2089	1858	2157	1922	2219
s	18 56	2578	2335	2579	2339	2583
t	19 01	2556	2528	2540	2515	2535
u	19 06	2541	2417	2489	2368	2454
v	19 12	2213	2173	2205	2172	2210
w	19 24	2933	2915	2943	2930	2962
x	19 31	3191	3050	3192	3069	3214
y	19 35	3378	3244	3397	3262	3419
z	19 42	3385	3200	3349	3178	3338

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1937phae.proj..901E

Wednesday, June 29-30, 1838 - R.H.

No	1	2	3	4	5	
						Every 15^s
a	2090	1920	2095	1928	2203	$t = 61°F$
b	2311	2302	2394	2389	2480	time is 8^s
c	2910	2912	2983	2987	3055	after reading for
d	3190	3175	3242	3226	3300	no. 5 = 7^s before
e	2592	2533	2507	2458	2435	reading for no 1.
f	1845	1797	1842	1792	1845	2nd set.
g	1843	1840	1863	1855	1870	
h	2060	1913	2101	1962	2162	
i	2382	2168	2418	2196	2454	$t = 59°F$
j	2352	2348	2402	2392	2442	
k	1810	1776	1829	1784	1840	
l	1975	1966	2039	2028	2103	
m	2042	2236	2087	2272	2127	$t = 54°F$
n	2368	2398	2397	2419	2414	
o	2347	2400	2367	2420	2369	
p	2370	2428	2392	2449	2414	
q	2420	2614	2458	2652	2494	
r	1993	2198	2060	2372	2140	
s	2350	2600	2374	2629	2407	
t	2522	2550	2539	2564	2553	
u	2343	2425	2313	2398	2289	
v	2189	2246	2221	2270	2251	Zero Pt. 2680
w	2950	2982	2981	3015	3013	Zero Pt 3250
x	3082	3220	3117	3279	3165	Period = 6.8
y	3281	3438	3306	3462	3331	
z	3173	3345	3185	3354	3192	

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1937phae.proj..80136

Zero Pt = 3106 Period = $7^{s}.8$

No	J. D.		1	2	3	4	5
a	15	42	2813	2835	2806	2837	2808
b	15	47	2951	2950	2919	2920	2890
c	16	01	2309	2368	2334	2396	2366
d	16	04	2300	2407	2329	2442	2368
e	17	26	2361	2459	2372	2477	2391
f	17	30	2729	2782	2743	2796	2750
g	17	36	2666	2778	2695	2800	2725
h	17	39	2629	2796	2659	2823	2683
i	17	45	2519	2485	2444	2412	2387
j	17	52	1939	2047	1928	2032	1910
k	17	55	2247	2303	2272	2323	2280
l	18	01	2286	2308	2319	2339	2355
m	18	04	2392	2418	2415	2439	2440
n	18	12	2366	2392	2384	2418	2413
o	18	16	2794	2818	2813	2841	2840
p	18	23	2823	2839	2826	2844	2836
q	18	27	2711	2737	2717	2748	2730
r	18	34	2561	2608	2552	2600	2549
s	18	38	2792	2823	2800	2830	2809
t	18	44	2752	2757	2739	2751	2742
u	18	48	2495	2518	2497	2515	2498
v	18	53	2416	2426	2410	2424	2415
w	18	57	2666	2675	2669	2682	2679
x	19	05	2438	2468	2431	2463	2425
y	19	09	2198	2255	2203	2258	2208
z	19	12	2245	2239	2241	2236	2238

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1937phae.proj...0015

Wednesday, July 6-7, 1938 R.H.

No	1	2	3	4	5	Temp. time as on page 134-5
a	2838	2808	2841	2813	2838	63°
b	2890	2857	2859	2830	2831	filter.
c	2428	2398	2466	2435	2501	filter
d	2470	2400	2497	2434	2517	
e	2500	2418	2523	2439	2541	
f	2800	2759	2808	2763	2812	filter 61°
g	2833	2759	2879	2800	2919	
h	2849	2713	2877	2732	2893	
i	2363	2334	2308	2280	2258	(wrong star?)
j	2036	1917	2049	1932	2060	
k	2328	2286	2329	2280	2326	filter.
l	2387	2406	2435	2455	2487	filter
m	2462	2461	2483	2481	2503	60°
n	2449	2447	2483	2488	2520	
o	2859	2858	2877	2869	2890	filter
p	2856	2850	2877	2873	2899	
q	2767	2749	2785	2769	2793	filter
r	2596	2556	2599	2549	2600	
s	2840	2823	2853	2833	2868	filter
t	2752	2739	2752	2740	2750	filter
u	2518	2498	2517	2498	2521	
v	2430	2417	2431	2421	2434	filter
w	2688	2680	2692	2682	2698	
x	2463	2428	2468	2436	2470	filter
y	2262	2207	2263	2209	2263	
z	2233	2229	2226	2220	2219	blank run

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1937phae.proj..801E

ℓ/o	J. D.		1	2	3	4	5
aa	19	18	2136	2168	2140	2179	2162
ab	19	22	2572	2603	2592	2619	2603
ac	19	27	2452	2439	2417	2408	2380
ad	19	30	2027	2033	2021	2026	2009
ae	19	36	1939	2061	1949	2069	1960
af	19	39	2313	2372	2336	2396	2359
ag	19	45	2584	2686	2603	2712	2645
ah	19	49	2621	2778	2639	2797	2658

Gal. zero point 2570

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1937phae.proj...0015

Wednesday, July 6-7, 1938 R.H.

	1	2	3	4	5	Temp.
aa	2209	2196	2248	2235	2283	60°
ab	2630	2614	2641	2625	2650	filter
ac	2370	2348	2332	2311	2299	filter
ad	2019	2002	2015	2005	2018	
ae	2088	1982	2109	2000	2034	
af	2425	2398	2467	2441	2513	filter
ag	2755	2682	2797	2729	2848	filter 59
ah	2818	2678	2833	2699	2856	

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1937phae.proj..80140

No.	J.D.		1	2	3	4	5
			Zero pt. = 3222		Period = $8^{s}.0$		
a	17	03	1661	1746	1708	1796	1760
b	17	09	2018	2145	2063	2190	2111
c	17	15	2523	2627	2545	2648	2565
d	17	20	2748	2748	2728	2733	2719
e	17	37	2414	2429	2420	2440	2434
f	17	43		2549	2563	2558	2571
g	17	51	2641	2655	2639	2657	2648
h	17	54	2714	2720	2721	2723	2729
i	17	59	2718	2728	2714	2733	2716
j	18	04	2702	2703	2677	2674	2649
k	18	08	2618 ⟵ 20 ⟶	2615	2610	2600	2597
l	18	11	2511	2518	2500	2512	2496
m	18	17	2479	2513	2470	2500	2463
n	18	23	2460	2481	2459	2490	2478
o	18	28	2635	2641	2630	2631	2614
p	18	33	2475	2546	2450	2534	2450
q	18	37	2521	2627	2522	2631	2531
r	18	42	2611	2649	2558	2600	2517
s	18	46	2374	2374	2339	2345	2321
t	18	54	2249	2268	2278	2303	2314
u	18	57	2499	2518	2531	2551	2564
v	19	02	2701	2722	2726	2749	2758
w	19	09	2794	2811	2780	2798	2779
x	19	13	2828	2829	2827	2821	2819
y	19	16	2770	2792	2769	2782	2758
z	19	21	2729	2728	2715	2712	2702

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1937phae.proj...0013

Sunday, July 10–11, 1938 R.H.

No.	1	2	3	4	5	Temp.
						67
a	1858	1823	1907	1865	1940	
b	2247	2168	2308	2237	2376	
c	2667	2589	2698	2620	2728	
d	2723	2712	2712	2701	2702	
e	2459	2458	2483	2478	2511	
f	2569	2592	2597	2625	2631	2680
g	2667	2660	2672	2673	2698	variable
h	2731	2734	2732	2736	2735	blank run
i	2737	2722	2743	2729	2752	20^s interval
j	2659	2632	2646	2620	2632	20^s "
k	2583	2580	2570	2565	2558	15^s " blank run
l	2505	2495	2502	2498	2512	
m	2506	2468	2509	2472	2518	
n	2506	2499	2547	2531	2565	
o	2619	2611	2620	2621	2630	
p	2540	2461	2558	2479	2576	
q	2640	2538	2660	2558	2687	
r	2554	2481	2530	2449	2491	
s	2327	2295	2300	2272	2279	
t	2347	2361	2395	2404	2441	
u	2577	2586	2601	2614	2626	blank run
v	2786	2797	2822	2828	2868	20^s interval
w	2803	2784	2810	2796	2830	20^s "
x	2811	2808	2809	2807	2801	15^s " blank run
y	2779	2752	2776	2752	2781	
z	2707	2706	2713	2712	2728	

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1937phae.proj..801E

No.	J.D.		1	2	3	4	5	
aa	19	35	2366	2419	2364	2428	2375	
ab	19	39	2467	2477	2484	2501	2513	
ac	19	43	2548	2610	2552	2618	2559	
ad	19	49	2684	2690	2672	2673	2650	3→4 >25⁵?
ae	19	53	2642	2638	2635	2632	2628	
af	19	56	2594	2601	2601	2584	2603	missed reading 2→3
ag	20	03	2588	2648	2578	2649	2590	
ah	20	08	2599	2688	2599	2698	2601	
ai	20	13	2702	2778	2679	2757	2659	

Gal. zero point 2890

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1937phae.proj...001E

Sunday, July 10-11, 1938 RH

No.	1	2	3	4	5	Temp
aa	2439	2378	2452	2403	2422	66
ab	2529	2532	2540	2548	2552	blank sum.
ac	2627	2573	2645	2598	2672	20^s interval -
ad	2658	2641	2653	2640	2649	20^s "
ae	2623	2621	2618	2614	2610	15^s " blank sum
af	2586	2606	2591	2609	2600	
ag	2658	2598	2663	2617	2678	
ah	2705	2623	2727	2647	2750	
	2738	2643	2717	2628	2711	

66° F

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1937phae.proj..80U

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