LICK OBSERVATORY BULLETIN

NUMBER 139

SECOND ELEMENTS AND EPHEMERIS OF COMET *c* 1908 (MOREHOUSE).

From the following observations by Aitken,

1908 Gr. M.T.	Comet's Apparent		
	α	δ	
Sept. 3.84212	3 ^h 18 ^m 13 ^s .91	+67° 29' 35".1	
11.99736	2 33 21.11	+72 17 36.3	
18.6915	1 13 21.0	+75 43 30	

the last of which was communicated by telegraph, a second set of elements and an ephemeris have been derived:

ELEMENTS.

$T = 1908$ December 25.8090 Gr. M.T.
 $\omega = 171^\circ 31' 09''$
 $\Omega = 103 \ 04 \ 45$
 $i = 140 \ 10 \ 14$
 $q = 0.945540$

O-C	I	III
$\cos \delta \Delta \alpha$	0"	0"
$\Delta \delta$	+2	0

As these elements differ considerably from the preliminary elements (Bulletin No. 138), computed with one day intervals, the observation by Fox used in the first orbit, and noted at that time as probably approximate, was suspected to have a large residual. Comparison of this observation with this second set of elements shows residuals of 2^s in right ascension, and 0.1 in declination. These are sufficiently large to account for the difference between the two orbits.

CONSTANTS FOR THE EQUATOR 1908.0.

$$\begin{aligned} x &= r [9.892938] \sin (154^\circ 41' 14'' + v) \\ y &= r [9.953594] \sin (267 \ 37 \ 17 + v) \\ z &= r [9.882333] \sin (202 \ 04 \ 32 + v) \end{aligned}$$

EPHEMERIS FOR GREENWICH MEAN MIDNIGHT.

	1908	True α		True δ		Log Δ	Br.
Sept.	27.5	22 ^h 16 ^m 49 ^s .1		+74° 59' 40"		0.0791	2.95
Oct.	1.5	21 09 49.8		71 28 10			
	5.5	20 24 02.3		66 22 33		0.0370	
	9.5	19 54 00.8		60 13 47			
	13.5	34 07.2		53 27 22		0.0160	4.92
	17.5	20 38.4		46 24 54			
	21.5	11 19.3		39 25 00		0.0213	
Oct.	25.5	19 04 47.6		32 42 22			
Nov.	2.5	18 56 56.1		20 43 30		0.0684	5.38
	10.5	53 03.2	+10	55 15			
Nov.	26.5	50 32.1	— 3	22 55		0.1938	
Dec.	12.5	50 11.0	13	25 45			
Dec.	28.5	18 49 54.8	—21	33 54		0.2839	3.84

Brightness September 3 = 1.00.

A part of the check computation was performed by Miss Sarah Morgan.

S. EINARSSON,
W. F. MEYER.

BERKELEY ASTRONOMICAL DEPARTMENT,
September 22, 1908.