ELEMENTS OF (637) [1907 YE].

By ARTHUR SNOW.

This asteroid was discovered by METCALF at Taunton, Mass., on March 11, 1907. Elements were computed from three observations made at Washington, using the method given by WATSON in his Theoretical Astronomy.

The observations are as follows:

Date.	Washington Mean Time.	Apparent α .	Apparent δ .	Log $p\Delta$.		Red. to 1907.0	
				α	δ	α	δ
1907	h m s	h m s	° ' "			s	"
Mar. 20	13 52 21	11 40 17.31	+2 8 40.5	9.368	0.722	+0.27	-1.3
Apr. 9	10 4 22	11 27 21.78	+3 29 26.0	8.452 _n	0.705	+0.16	-0.3
16	11 7 13	11 24 14.43	+3 48 35.9	9.193	0.704	+0.12	-0.1

Elements.

Epoch: 1907, April 9.5, Greenwich Mean Time.

$$\begin{array}{rcl}
 M = 8 \ 19 \ 59.3 & & \\
 \omega = 172 \ 25 \ 38.1 & & \\
 \Omega = 357 \ 33 \ 18.3 & \left. \begin{array}{l} \\ \\ \end{array} \right\} 1907.0 & \begin{array}{rcl} \omega = 172 \ 25 \ 44.1 \\ \Omega = 357 \ 34 \ 2.6 \\ i = 0 \ 20 \ 7.2 \end{array} \\
 i = 0 \ 20 \ 6.7 & & \\
 \varphi = 7 \ 22 \ 8.8 & & \\
 \mu = 625''.5773 & & \\
 \log a = 0.502484 & &
 \end{array}$$

The observations at Washington give the following corrections to the ephemeris:

Date.	O-C	
	α	δ
1907	s	"
Mar. 20	-0.03	+0.2
Apr. 9	+0.03	-0.3
16	-0.04	+0.3

ORBITS OF ASTEROIDS.

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An ephemeris for 1908 was computed from the above elements.

Heliocentric Coordinates 1908.0

$$\begin{aligned} x &= r [0.000000] \sin (259^\circ 59' 46.8'' + v) \\ y &= r [9.961447] \sin (169^\circ 59' 24.3'' + v) \\ z &= r [9.605657] \sin (170^\circ 1' 43.1'' + v) \end{aligned}$$

Ephemeris for 1908.

Greenwich Mean Time.	Apparent α .	Apparent δ .	Log d .
1908	h m s	° ' "	
May 27.5	18 14 53.86	-23 52 58.9	0.347829
31.5	18 12 12.20	23 54 9.1	0.344096
June 4.5	18 9 16.10	23 55 9.1	0.341138
8.5	18 6 8.45	23 55 55.2	0.339002
12.5	18 2 52.24	23 56 24.6	0.337722
16.5	17 59 30.47	23 56 34.6	0.337323
20.5	17 56 6.22	23 56 24.0	0.337823
24.5	17 52 42.77	23 55 53.4	0.339217
28.5	17 49 23.46	23 55 3.7	0.341501
July 2.5	17 46 11.52	23 53 56.3	0.344650
6.5	17 43 10.01	23 52 35.3	0.348618
10.5	17 40 21.69	-23 51 4.4	0.353356

Opposition June 20, 1908, and magnitude 14.0.