ELEMENTS OF COMET 1906 VII.

By ELEANOR A. LAMSON.

This comet was discovered by THIELE at Copenhagen, Denmark, on November 10, 1906. Elements were computed from observations, November 10 at Copenhagen and November 12 and 15 at Washington. OPPOLZER'S method as given in Bahnbestimmung der Kometen und Planeten was used in the computation.

The observations are as follows:

Date.	Place.	Greenwich Mean Time.	Apparent α .	Apparent δ .	Red. to 1906.0	
					α	δ
1906		h m s	h m s	° ' "	s	"
Nov. 10	Copenhagen.....	12 12 40	9 15 21.3	+12 16 50	-1.9	+12
12	Washington.....	20 23 16	9 25 33.1	+15 4 4	-1.8	+12
15	Washington.....	21 36 2	9 39 47.4	+18 55 51	-1.8	+12

Elements.

$T = 1906$, November 21.2972, Greenwich Mean Time.

$$\begin{array}{l} \omega = 8 \ 43 \ 2 \\ \Omega = 84 \ 56 \ 14 \\ i = 56 \ 32 \ 39 \\ q = 1.2146 \end{array} \left. \vphantom{\begin{array}{l} \omega \\ \Omega \\ i \\ q \end{array}} \right\} 1906.0$$

Elements were also computed from later observations at Washington, as follows:

Date.	Washington Mean Time.	Apparent α .	Apparent δ .	Log $p d$.		Red. to 1906.0	
				α	δ	α	δ
1906	h m s	h m s	° ' "			s	"
Nov. 15	16 27 46	9 39 47.36	+18 55 50.5	9.284 _n	0.500	-1.78	+12.5
29	15 57 18	11 2 18.44	+38 6 31.3	9.553 _n	9.995	-1.73	+13.2
Dec. 18	15 30 56	13 35 49.53	+55 40 30.1	9.863 _n	9.803	-1.03	+10.2

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Elements. $T = 1906$, November 21.30030, Greenwich Mean Time.

° ' ''		° ' ''
$\omega = 8 \ 43 \ 1.5$		$\omega = 8 \ 43 \ 2.1$
$\Omega = 84 \ 56 \ 59.8$	} 1906.0	$\Omega = 84 \ 57 \ 49.7$
$i = 56 \ 34 \ 15.7$		$i = 56 \ 34 \ 15.7$
$q = 1.21480$		

The residuals (O-C) for the middle place are, $\cos \beta \Delta\lambda = +2''.3$ and $\Delta\beta = -2''.3$.

Heliocentric Coordinates 1906.0

	° ' ''
$x = r [9.744903] \sin$	(179 36 14.5 + v)
$y = r [9.981382] \sin$	(116 11 22.1 + v)
$z = r [9.944165] \sin$	(35 30 47.3 + v)

Heliocentric Coordinates 1907.0

	° ' ''
$x = r [9.744881] \sin$	(179 37 44.2 + v)
$y = r [9.981408] \sin$	(116 11 46.2 + v)
$z = r [9.944144] \sin$	(35 30 54.6 + v)