

COMET *e* 1904 (BORRELLY).*

[From RITCHIE'S Circular, No. 137, of January 3.]

A message via Harvard College Observatory from Kiel, received on December 30, announces the discovery of a comet by BORRELLY at Marseilles, on December 28. A second position, by HAMMOND, came the following day through the courtesy of Admiral CHESTER, Director of the U.S. Naval Observatory, which was distributed to American astronomers, and later the same day, the Königsberg position, by COHEN, was received from Kiel. Admiral CHESTER has also telegraphed the hereunder given Elements and Ephemeris, computed at the Observatory by Messrs. MORGAN and LAMSON, from observations of Dec. 30, 31 and Jan. 1.

These positions are given below.

Gr. M.T. 1904	R.A.			Decl.			Observer
	h	m	s	°	'	"	
Dec. 29.365	1	13	40.	-10	-	-	Marseilles
30.6620	1	15	14.2	-8	56	24	Hammond
31.2085	1	15	56.5	-8	29	59	Cohen
31.5926	1	16	26.1	-8	11	6	Seares

ELEMENTS.

$$T = 1905 \text{ Jan. } 13.47 \text{ Greenw. M.T.}$$

$$\left. \begin{array}{l} \omega = 349^{\circ} 59' \\ \Omega = 72^{\circ} 57' \\ i = 32^{\circ} 47' \end{array} \right\} \text{Mean Eq. } 1904.0$$

$$q = 1.4899$$

EPHEMERIS.

Gr. Midnight 1905	R.A.			Decl.		Light
	h	m	s	°	'	
Jan. 5	1	23	12	-4	9	0.97
	9	1	29	-0	54	
	13	1	35	+2	18	
	17	1	42	+5	25	0.87

Light, Dec. 29=1.

* From Supplement to No. 570.

ORBIT OF COMET *a* 1904 (GIACOBINI).*

[From RITCHIE'S Circular, No. 137, of January 3.]

The orbit of GIACOBINI'S comet, which was circulated by telegraph to American astronomers, having run out, and the comet being exceedingly faint, the following Elements and Ephemeris are here published. They have been kindly communicated by Admiral COLBY M. CHESTER, having been computed by Messrs. MORGAN and LAMSON, at the U.S. Naval Observatory, from observations of Dec. 18, 20 and 21.

ELEMENTS.

$$T = 1904 \text{ Oct. } 19.10 \text{ Greenw. M.T.}$$

$$\left. \begin{array}{l} \omega = 31^{\circ} 30' \\ \Omega = 217^{\circ} 1' \\ i = 98^{\circ} 55' \end{array} \right\} \text{Mean Eq. } 1904.0$$

$$q = 1.8091$$

EPHEMERIS.

Gr. Midnight 1905	R.A.			Decl.		Light
	h	m	s	°	'	
Jan. 6	17	9	8	+31	18	0.96
	10	17	21	39	24	
	14	17	34	41	32	
	18	17	48	+43	40	0.87

Light, Dec. 17 = 1.

* From Supplement to No. 570.

OBSERVATIONS OF COMET *e* 1904 (BORRELLY).*

MADE WITH THE 16-INCH EQUATORIAL OF THE CINCINNATI OBSERVATORY,

By J. G. PORTER.

1905 Cin. M.T.	*	Comp.	Δa	$\Delta \delta$	App. α	App. δ	log $p\Delta$	Red. to app. place	
Jan. 1 ^d 7 ^h 56 ^m 17 ^s	1	12, 12	-1 ^m 51.01 ^s	+1 ['] 28.9 ["]	1 ^h 17 ^m 42.71 ^s	-7 [°] 23 ['] 17.4 ["]	9.207	0.799	-0.13 -9.1
3 8 0 10	2	12, 12	+1 7.10	+3 35.5	1 20 25.86	-5 45 7.2	9.253	0.787	-0.14 -8.7

Mean Places of Comparison-Stars for 1905.0.

*	α	δ	Authority
1	1 ^h 19 ^m 33.85 ^s	-7 [°] 24 ['] 37.2 ["]	Rad. 1890, 327; Gr. 10-yr., 216; 2 ^d Gr. 10-yr., 516
2	1 19 18.90	-5 48 34.0	DM. -6°266; equatorial comparison with
	1 14 48.65	-5 49 30.1	Ll. 2394; W 1 ^h , 186; Rüm., 593; Par. 1674

In last star, LALANDE'S R.A., and WEISSE'S Decl., rejected.

* From Supplement to No. 570.