ELEMENTS AND EPHEMERIS OF COMET a 1910,

By HERBERT R. MORGAN.

[Communicated by Captain T. E. De Witt Veeder, U.S.N., Superintendent, U.S. Naval Observatory.]

Approximate elements, from my previous computations, gave the geocentric distances of the comet for the observations, at Rome, Jan. 18, and at Washington, Feb. 4. The ratio (M), of these distances, was varied for three sets of parabolic elements; and the corresponding residuals, in λ and β, for an observation at Washington, Jan. 25. Log M was then varied in direct proportion to $\Delta\lambda$ and $\Delta\beta$; this gave the following elements:

Elements.

T = 1910 Jan. 17.08840, Gr. M.T.

ω = 320° 53′ 47″
Ω = 88 46 44 } Ecliptic 1910.0
i = 138 46 36

$\log q$ = 9.11050

$$(O-C)\begin{cases}\cos\beta\,\Delta\lambda = -3'' \\ \Delta\beta = -9\end{cases}$$

Constants for the Equator.

$x = r[9.87637]\sin(v + 322°\ 31'\ 11'')$
$y = r[9.98141]\sin(v + 67\ 41\ 56)$
$z = r[9.85637]\sin(v + 354\ 31\ 34)$

Note: In Pasquier's French Edition (1886), of Oppolzer, Vol. I, the "Errata" to page 476 should be for page 474.

* This article was accompanied with an Ephemeris that gave in comparison with the Ephemeris of Curtiss in this number, April 26.0, Morgan—Curtiss $\Delta\alpha$ — 0s.4 $\Delta\delta$ — 18″. —Ed.

OBSERVATIONS OF COMETS,

MADE WITH THE 26-INCH AND THE 12-INCH EQUATORIALS AT THE U.S. NAVAL OBSERVATORY,

By J. B. EPPES.

Communicated by Captain T. E. De Witt Veeder, U. S. N., Superintendent.

1909–10 Wash. M.T.	*	Comp.	$\Delta\alpha$	$\Delta\delta$	App. α	App. δ	log $p\Delta$	Red. to App. Pl.	
Halley's Comet.									
1909 Dec. 10 8h 35m 46s	1	25, 5	−1m 25.47s	− 2′ 6.9″	3h 47m 19.16s	+14° 52′ 58.6″	n9.357	0.576	+3.35s +12.9″
1910 Jan. 15 8 52 17	2	25, 5	+0 59.80	+ 7 34.1	3 25 5.65	14 10 53.3	n9.061	0.568	+3.28 +14.1
Jan. 3 8 43 29	3	25, 5	−1 47.02	+12 28.9	2 9 15.78	11 8 57.5	9.230	0.619	−0.48 − 1.2
7 7 21 31	4	25, 5	−1 29.24	− 0 5.9	1 56 39.49	10 34 58.3	8.806	0.619	−0.60 − 1.9
15 7 31 40	5	30, 6	+1 1.76	+10 1.0	1 34 49.04	9 36 23.7	9.272	0.695	−0.81 − 3.1
Feb. 7 7 43 15	6	25, 5	−2 10.41	+ 8 26.0	0 54 30.50	8 6 18.8	9.600	0.695	−1.27 − 6.1
10 7 34 51	7	25, 5	+1 1.27	− 3 20.1	0 51 0.13	+ 8 1 36.4	9.607	0.697	−1.33 − 6.3
Comet 1909 e (Daniel).									
1909 Dec. 10 9 7 59	8	25, 5	−1 18.14	− 4 20.2	6 17 26.58	+37 10 24.9	n9.688	0.342	+4.20 + 0.2
1910 Jan. 15 12 1 48	9	24, 5	−0 52.06	− 1 3.7	6 18 3.60	41 12 42.8	n9.017	n9.496	+4.52 + 0.3
Jan. 10 9 9 45	10	25, 5	−0 42.11	− 0 23.3	6 18 12.07	54 24 41.6	n9.558	n0.243	+0.98 + 6.1
15 8 11 38	11	29, 6	−0 33.87	− 2 2.0	6 19 55.71	+55 28 59.9	n9.691	0.426	+1.06 + 7.3
Comet 1910 a.									
1910 Jan. 25 6 16 22	12	19, 4	−6 2.53	+ 1 23.8	21 17 36.47	− 3 15 24.9	9.653	0.745	−1.90 −10.7
Feb. 2 6 39 14	13	15, 3	−1 53.18	− 6 25.6	21 40 43.54	+ 3 52 35.9	9.660	0.737	−1.87 −10.7
4 6 18 19	14	30, 7	+0 7.20	+ 7 27.5	21 44 37.44	+ 5 0 2.7	9.658	0.732	−1.86 −10.7

Comet 1910 a was observed with the 12-inch equatorial, the other two on the 26-inch.

Mean Places of Comparison-Stars for the beginning of the Year.

*	α	δ	Authority	*	α	δ	Authority
1	3h 48m 41.28s	+14° 54′ 52.6″	A.G. Leipzig I, 1132	8	6h 18m 40.52s	+37° 14′ 44.9″	A.G. Lund 3275
2	3 24 2.57	14 3 5.1	" " I, 1018	9	6 18 51.14	41 13 46.2	A.G. Bonn 5230
3	2 11 3.28	10 56 29.8	" " I, 668	10	6 18 53.20	54 24 58.8	A.G. Camb. U.S. 2497
4	1 58 9.33	10 35 6.1	" " I, 610	11	6 20 28.52	+55 30 54.6	A.G. Hels-Gotha 4508
5	1 33 48.09	9 26 25.8	" " II, 614	12	21 23 40.90	− 3 16 38.0	A.G. Strassburg 7499
6	0 56 42.18	7 57 58.9	" " II, 355	13	21 42 38.59	+ 3 59 12.2	A.G. Albany 7600
7	0 50 0.19	+ 8 5 2.8	" " II, 308	14	21 44 32.10	+ 4 52 45.9	" " 7614