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**INTERNATIONAL ASTRONOMICAL UNION**

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*COMET P/1998 W1 = P/2005 R3 (SPAHR)*

This comet has been recovered on CCD images taken by F. Fratev and E. Mihaylova (Zvezdno Obshtestvo Obsevatory, Plana, 0.25-m  $f/4.7$  reflector) and by E. J. Christensen (Catalina 0.68-m Schmidt telescope); Christensen noted a coma diameter of  $\approx 15''$  on 60-s exposures through thin clouds.

2005	UT	$\alpha_{2000}$	$\delta_{2000}$	Mag.	Observer
Sept.	7.08697	7 <sup>h</sup> 53 <sup>m</sup> 54. <sup>s</sup> 28	+17°37'11.4"	17.3	Fratev
	7.09583	7 53 55.62	+17 37 10.7	17.3	"
	7.47821	7 54 57.48	+17 37 38.2	17.2	Christensen
	7.48347	7 54 58.29	+17 37 38.8	17.3	"
	7.48759	7 54 59.04	+17 37 38.8	17.2	"
	7.48935	7 54 59.29	+17 37 40.0	17.7	"
	7.49418	7 55 00.15	+17 37 40.0	17.2	"
	7.49593	7 55 00.26	+17 37 40.5	17.7	"
	7.49766	7 55 00.62	+17 37 39.9	17.5	"
	7.49942	7 55 00.87	+17 37 40.1	18.0	"
	10.11091	8 02 03.12	+17 40 21.7	17.3	Fratev
	10.11661	8 02 03.97	+17 40 21.3	17.3	"
	10.12247	8 02 04.95	+17 40 22.2	17.3	"
	11.12051	8 04 46.07	+17 41 18.5	17.3	"
	11.13110	8 04 47.54	+17 41 13.9	17.3	"

The indicated correction to the predictions on *MPC 45657* and in the *Comet Handbook 2005* is  $\Delta T = -0.2$  day. Orbital elements by B. G. Marsden, from 273 observations, 1998 Nov. 13–2005 Sept. 11 (mean residual 0''.6).

Epoch = 1999 Jan. 22.0 TT

$$\begin{array}{l}
 T = 1999 \text{ Jan. } 17.9523 \text{ TT} \quad \omega = 346^\circ.6774 \\
 e = 0.510065 \quad \Omega = 101.9735 \\
 q = 1.725761 \text{ AU} \quad i = 21.9615 \\
 a = 3.522428 \text{ AU} \quad n^\circ = 0.1490874 \quad P = 6.611 \text{ years}
 \end{array}
 \left. \vphantom{\begin{array}{l} T \\ e \\ q \\ a \end{array}} \right\} 2000.0$$

Epoch = 2005 Aug. 18.0 TT

$$\begin{array}{l}
 T = 2005 \text{ Sept. } 3.2187 \text{ TT} \quad \omega = 346^\circ.8442 \\
 e = 0.509476 \quad \Omega = 101.9200 \\
 q = 1.729675 \text{ AU} \quad i = 21.9542 \\
 a = 3.526182 \text{ AU} \quad n^\circ = 0.1488494 \quad P = 6.622 \text{ years}
 \end{array}
 \left. \vphantom{\begin{array}{l} T \\ e \\ q \\ a \end{array}} \right\} 2000.0$$