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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	α_{2000}	δ_{2000}	Mag.	*Observer*
Sept.	7.08697	7^{h}53^{m}54^s.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

$$\begin{array}{lll} T = 1999\text{ Jan. } 17.9523\text{ TT} & \omega = 346^\circ.6774 & \\ e = 0.510065 & \Omega = 101.9735 & \Big\}\,2000.0 \\ q = 1.725761\text{ AU} & i = 21.9615 & \end{array}$$

$a = 3.522428$ AU $n^\circ = 0.1490874$ $P = 6.611$ years

Epoch = 2005 Aug. 18.0 TT

$$\begin{array}{lll} T = 2005\text{ Sept. } 3.2187\text{ TT} & \omega = 346^\circ.8442 & \\ e = 0.509476 & \Omega = 101.9200 & \Big\}\,2000.0 \\ q = 1.729675\text{ AU} & i = 21.9542 & \end{array}$$

$a = 3.526182$ AU $n^\circ = 0.1488494$ $P = 6.622$ years

2005 September 12 *Daniel W. E. Green*