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COMET P/2006 U4 (SHOEMAKER-LEVY)

R. H. McNaught and D. M. Burton report the recovery of comet P/1991 V1 = $1991b_1$ = 1991 XVIII on images taken with the 0.5-m Uppsala Schmidt telescope at Siding Spring, the comet's images on Oct. 26.5 UT being fairly weak, with a coma of FWHM 6″ and an ill-defined faint tail 10″ long in p.a. 120°. At the request of the Central Bureau, the comet was observed on Oct. 27.4 by A. C. Gilmore at Mt. John Observatory (0.6-m *f*/6.4 reflector), who in poor seeing described the comet as a diffuse spot of FWHM 4″; the final position is of poor quality, with the image located between star trails. The indicated correction to the prediction by S. Nakano (*MPC* 48384 and *Comet Handbook 2006*) is $\Delta T = +8.0$ days.

2006 UT	α_{2000}	δ_{2000}	Mag.	*Observer*
Oct. 26.46792	$19^h23^m14^s.36$	$-39°35'06''.7$	18.2	McNaught
26.51716	19 23 25.63	−39 34 08.1	17.4	"
27.40930	19 26 52.56	−39 16 40.2		"
27.41528	19 26 53.93	−39 16 32.6		"
27.43316	19 26 57.96	−39 16 06.8	18.7	Gilmore
27.44152	19 26 59.92	−39 15 57.4	18.6	"
27.44991	19 27 01.81	−39 15 46.7	18.7	"
27.47842	19 27 08.58	−39 15 16.1		"

The following orbital elements linking the two apparitions are by B. G. Marsden:

Epoch = 1991 Oct. 31.0 TT

$$\begin{array}{lll} T = 1991\ \text{Oct.}\ 13.8642\ \text{TT} & \omega = 333^\circ.1337 & \\ e = 0.705912 & \Omega = 37.9308 & \Big\}2000.0 \\ q = 1.132412\ \text{AU} & i = 16.8569 & \end{array}$$

$a = 3.850584$ AU $n^\circ = 0.1304410$ $P = 7.556$ years

Epoch = 2006 Dec. 11.0 TT

$$\begin{array}{lll} T = 2006\ \text{Nov.}\ 25.0013\ \text{TT} & \omega = 333^\circ.5580 & \\ e = 0.706643 & \Omega = 37.8728 & \Big\}2000.0 \\ q = 1.127551\ \text{AU} & i = 16.9267 & \end{array}$$

$a = 3.843617$ AU $n^\circ = 0.1307959$ $P = 7.535$ years

2006 October 27 *Daniel W. E. Green*