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COMET 229P/2009 S1 (GIBBS)

The comet P/2009 S1 = P/2001 Q10 (cf. *IAUCs* 9074, 9097) has been assigned the permanent number designation 229P.

COMET 230P/2009 U6 = 1997 A2 = 2002 Q15 (LINEAR)

As first reported on *CBET* 2072, S. Nakano, Sumoto, Japan, has identified observations of comet P/2009 U6 (cf. *IAUCs* 9090, 9092) among single-night data from NEAT at the two preceding apparitions (on 1997 Jan. 11; and 2002 Aug. 20 and Sept. 9). R. Matson, Irvine, CA, independently located the images corresponding to the same observations (now given the designations P/1997 A2 and P/2002 Q15) and provided measurements from them, together with measurements from NEAT images on 1997 Jan. 10 and on five further nights during 2002 July 24–Sept. 16. The comet's approach to a distance of 0.88 AU from Jupiter in Sept. 2007 means that the orbital period, currently 6.27 years, was previously 6.48–6.49 years, with the comet's previous two perihelion passages occurring on 2003 Mar. 3 and 1996 Sept. 4. The available 1997 and 2002 astrometry (together with more from 2009), orbital elements linking the three apparitions, residuals, and an ephemeris appear on *MPEC* 2009-X47. The permanent number designation 230P has been assigned to this comet.

COMET 231P/2009 X1 (LINEAR-NEAT)

As first announced on *CBET* 2081, G. Hug (Scranton, KS, U.S.A.) reports his recovery of comet P/2003 CP_7 (cf. *IAUC* 8092), being of asteroidal appearance on CCD frames obtained with the 0.56-m reflector at Sandlot Observatory on Dec. 11, 15, and 16. The recovery position is as follows, the indicated correction to the prediction on *MPC* 62880 being ΔT = −0.5 day:

2009 UT	α_{2000}	δ_{2000}	Mag.	*Observer*
Dec. 11.32028	$5^h45^m31^s.85$	$+10^\circ53'40''.0$	20.0	Hug

Further details, including a new orbital linkage, are given on *MPEC* 2009-Y17. The permanent number designation 231P has been assigned to this comet.

2009 December 31 *Daniel W. E. Green*