Circular No. 8636

Central Bureau for Astronomical Telegrams
INTERNATIONAL ASTRONOMICAL UNION
Mailstop 18, Smithsonian Astrophysical Observatory, Cambridge, MA 02138, U.S.A.
IAUSUBS@CFA.HARVARD.EDU or FAX 617-495-7231 (subscriptions)
CBAT@CFA.HARVARD.EDU (science)
URL http://cfa-www.harvard.edu/iau/cbat.html ISSN 0081-0304
Phone 617-495-7440/7244/7444 (for emergency use only)

S/2005 (2003 EL_{61}) 2

M. E. Brown, California Institute of Technology, on behalf of the adaptive-optics team at Keck Observatory, reports the discovery of a second satellite of the transneptunian object 2003 EL_{61} from K'-band images taken with the Laser Guide Star Adaptive Optics system at the Keck II telescope on Mar. 1, May 27, and June 29. The satellite is 4.6 ± 0.5 mag fainter than the primary. A preliminary circular orbit suggests a 34.1-day period with a semimajor axis of 39300 km, inclined by 40° from the larger outer satellite, S/2005 (2003 EL_{61}) 1 (cf. *IAUC* 8577), though additional observations are required to confirm the orbit. Additional information can be found at website http://www.gps.caltech.edu/~mbrown/2003EL61

NOVA IN THE LARGE MAGELLANIC CLOUD 2005

E. O. Waagen, AAVSO, reports that B. Allen's position (cf. *IAUC* 8635) was only an estimation, adding that a precise position was measured by P. Nelson (Ellinbank, Victoria, Australia) from a CCD image taken on Nov. 27.583 UT: $\alpha = 5^{\rm h}10^{\rm m}32^{\rm s}.68$, $\delta = -69°12'35''.7$ (equinox 2000.0).

SUPERNOVA 2005ky

D. A. Howell, University of Toronto, on behalf of the Supernova Legacy Survey (http://xxx.lanl.gov/abs/astro-ph/?0510447), reports the discovery of a supernova at magnitude $i'(AB) = 22.3$ on Nov. 24.3 UT on Megacam images obtained with the Canada-France-Hawaii Telescope. SN 2005ky, which had brightened to $i'(AB) = 21.0$ by Dec. 1.3, is located at R.A. = $2^{\rm h}24^{\rm m}36^{\rm s}.254$, $\delta = -4°10'54''.94$ (equinox 2000.0), which is $0''.33$ west and $3''.40$ south of the center of its host galaxy. A spectrogram of 2005ky, obtained by M. Sullivan and R. S. Ellis on Nov. 30.3 with the Keck I telescope (+ LRIS), indicates that this is a type-Ia supernova about one week before maximum light. A redshift of $z = 0.148$ was determined from host-galaxy Ca H and K absorption. The supernova shows a blue wing on the Si II 635.5-nm feature that is a possible indication of high-velocity features. The expansion velocities are relatively high for this epoch: 15000 km/s determined from Si II 635.5-nm and 27000 km/s determined from Ca II H and K and the Ca II infrared triplet. There is no apparent feature at 580 nm, and the blue part of the S II 'W' at 540 nm is enhanced relative to the red absorption. Strong Na D from the host galaxy indicates that there may be extinction along the line-of-sight to this supernova.

2005 December 1 *Daniel W. E. Green*