BAA electronic bulletin

An unusually large Near-Earth Object, 2012 LZ1 has just been discovered by Rob McNaught and colleagues on 2012 June 10/11 using the 0.5-m Uppsala Schmidt telescope at Siding Spring, Australia as reported in MPEC 2012-L30 issued on June 12 09:30 UT. See:
http://www.minorplanetcenter.net/mpec/K12/K12L30.html

The newly-discovered NEO is approximately 300-700 metres in size (H=19.7) and makes its closest approach of 0.036 AU (about 14 lunar-distances) on June 15.0 UT. The object will be visible from the UK near closest approach rather low down in a south-eastly direction and may be best seen before dawn (around 01:00-02:00 UT) on Friday, June 15 as an asteroidal object, magnitude 13.9 or so, moving at an apparent speed of about 38 "/min at an altitude of roughly 25 degrees above the horizon.

Unusually too, although moving in an orbit inclined at 26 degrees, its motion is quite commensurate with that of the Earth at the moment and so the object will remain visible from the UK on many successive nights as it moves further northwards. For example during the next ten days, the declination, brightness and apparent speed will be as follows:

June 14/15 Decl. -15 V=13.9 38"/min
June 15/16 Decl. +01 V=14.2 36 "/min
June 16/17 Decl. +13 V=14.6 30 "/min
June 17/18 Decl. +23 V=15.1 23 "/min
June 18/19 Decl. +31 V=15.6 18 "/min
June 19/20 Decl. +37 V=16.0 13 "/min
June 20/21 Decl. +42 V=16.4 10 "/min
June 21/22 Decl. +46 V=16.7 8 "/min
June 22/23 Decl. +49 V=17.0 7 "/min

Note that the summer solstice this year occurs on June 20 at 23h UT at which time this object will be visible from the UK in a westerly direction at an altitude of some 54 degrees.

Given its size and proximity to the Earth, 2012 LZ1 is the latest potentially hazardous asteroid (PHA) discovered. Congratulations to Rob McNaught on this particular find which was conducted as part of the Siding Spring Survey; an NEO search program, the southern hemisphere counterpart of the Catalina Sky survey.
See: http://www.mso.anu.edu.au/~rmn/

Sky coordinates for finding this new visitor to the Earth's neighbourhood can be obtained from the Minor Planet Center's ephemeris service at:
http://minorplanetcenter.net/iau/MPEph/MPEph.html
Remember to enter a suitable Observatory Code in the online form to achieve a satisfactory topocentric prediction. For the UK, you might wish to use the Code for Greenwich namely '000'.

Observers are encouraged to report astrometry to the Minor Planet Center. Please report photometry to the nearest 0.01 mag to myself at the address below. Thank you.

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