

Central Bureau for Astronomical Telegrams  
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STELLAR OCCULTATION BY TRANSNEPTUNIAN OBJECT (208996) 2003 AZ84

F. Braga-Ribas, B. Sicardy, F. Colas, and J. Lecacheux, Observatoire de Paris; A. Maury, San Pedro de Atacama Celestial Explorations Observatory (SPACE); J. L. Ortiz, N. Morales, and I. de la Cueva, Instituto de Astrofísica de Andalucía (IAA), Granada; E. Jehin, J. Manfroid, and M. Gillon, Institut d'Astrophysique de l'Université de Liège; M. Assafin, Observatorio do Valongo, UFRJ, Rio de Janeiro; and R. Vieira-Martins and J. I. B. Camargo, Observatorio Nacional, Rio de Janeiro, report on the positive detection of an occultation of a faint star (magnitude R about 18) by the transneptunian object (208996) 2003 AZ84 on Jan. 8d06h29m59s UT (mid-time), from the SPACE Observatory. The occultation was recorded by A. Maury with the C. Harlinton 0.5-m Planewave telescope there, and also by J. L. Ortiz with the remotely operated 0.4-m ASH2 telescope of the IAA in Spain. E. Jehin and J. Manfroid report that no drop of the flux was observed with the 0.6-m robotic TRAPPIST telescope of Liege University, which is located 610 km from San Pedro. Using a diffracting model, F. Braga-Ribas determined the times of immersion and emersion of the star. The occultation lasted for 21.7 +/- 0.8 seconds, corresponding to a chord length of 573 +/- 21 km. This result gives a lower limit to the diameter of the TNO, and can be compared to the estimated diameter from Stansberry et al. (2008, \*Physical Properties of Kuiper Belt and Centaur Objects\*, University of Arizona Press, pp. 161ff; 685.8 +/- 95.5 km, based on Spitzer data) and Mueller et al. (2010, A.Ap. 518, L146; 910 +/- 60 km, based on Herschel data).

NOTE: These 'Central Bureau Electronic Telegrams' are sometimes superseded by text appearing later in the printed IAU Circulars.

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