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SUPERNOVA 2005dk IN IC 4882

P. Luckas, Perth, W. Australia; O. Trondal, Oslo, Norway; and M. Schwartz, Patagonia, AZ, report the discovery of an apparent supernova on unfiltered CCD frames taken with the 0.35-m Tenagra telescope at Perth; available approximate magnitudes for 2005dk: July 10.61 UT, [18.5; Aug. 21.53, 17.8; 22.62, 16.6. SN 2005dk is located at $\alpha = 19^{h}40^{m}23^{s}.71$, $\delta = -55^{\circ}12'05''.1$ (equinox 2000.0), which is $3''.4$ east and $16''.2$ south of IC 4882.

URANUS

L. A. Sromovsky and P. M. Fry, Space Science and Engineering Center, University of Wisconsin, report the discovery of the brightest cloud feature ever observed on Uranus at near-infrared wavelengths, in adaptive-optics (AO) images obtained with the 10-m Keck II telescope (+ NIRC2) on Aug. 14 and 15 (though the feature is large enough and bright enough to be observed without AO, even without excellent seeing). On Aug. 15.433 UT, when it was near latitude 30° N (planetocentric) and crossed the central meridian, the feature was a complex of four parallel components extending over 8° of latitude and 13° of longitude. Other central meridian crossings can be predicted from its rotation period about the planet's spin axis (16.83–16.90 hr). In the K' band (1.95–2.3 μm), the cloud feature reflected nearly 17 percent of all the light reflected by Uranus. In K' AO images (resolution near $0''.05$), the peak brightness of the cloud feature was nearly fifty times the brightness of the background atmosphere. Images with the H filter (1.485-1.78 μm) show a lower contrast ratio of $\sim$ 600 percent at AO resolution, which would drop to $\sim$ 30 percent at $0''.5$ seeing and to 10 percent at $1''$. In a methane-band-filter image covering 1.61–1.75 μm, $\sim$ 7 percent of the light reflected from Uranus came from this single cloud feature. The previous record fractional cloud brightness was observed in 1999 for the first discrete cloud feature to appear in groundbased digital images of Uranus (Sromovsky *et al.* 2000, *Icarus* **146**, 307); that feature, recorded at the NASA Infrared Telescope Facility in a somewhat-higher-contrast filter (1.68–1.78 μm), reflected almost 5 percent of the total light reflected by Uranus. The lifetime of this feature is unpredictable, though smaller bright features in the northern hemisphere have persisted for 100 days or more (Karkoschka 1998, *Science* **280**, 570), and more recent observations have identified features of intermediate brightness that survived at least 30 days (Sromovsky and Fry 2005, *Icarus*, in press).

2005 August 22 *Daniel W. E. Green*