

COMMISSIONS 27 AND 42 OF THE IAU
INFORMATION BULLETIN ON VARIABLE STARS
Number 4742

Konkoly Observatory
Budapest
6 August 1999
HU ISSN 0374 – 0676

IRAS 19035-0134: A NEW MIRA VARIABLE

B. HASSFORTH^{1,2}, U. BASTIAN³

¹ Ringstr. 27, 69115 Heidelberg, Germany, e-mail: bela1996@aol.com

² Bundesdeutsche Arbeitsgemeinschaft für Veränderliche Sterne e.V. (BAV), Munsterdamm 90, D-12169 Berlin, Germany

³ Astronomisches Rechen-Institut, Mönchhofstr. 14, 69120 Heidelberg, Germany, e-mail: s01@ix.urz.uni-heidelberg.de

The *Stardial* project of the University of Illinois at Urbana-Champaign provides a sky patrol of a declination band just south of the equator, using a drift-scan robotic CCD camera. All the images are immediately made available on the world-wide web under <http://www.astro.uiuc.edu/stardial/>. While “blinking” *Stardial* frames in a search for new variables, the star IRAS 19035-0134 = USNO-A2.0 0825-14421517, located at 19^h06^m05^s.65 – 01°29′59″.0 (J2000, from USNO-A2.0), was found to vary between about 10 and fainter than 12.5 in unfiltered CCD magnitudes.

The *Stardial* lightcurve from all 181 usable frames (collected over 4 observing seasons) indicated Mira-type variability with a period of about 250 days. Fig. 1 shows positive magnitude measurements relative to GSC 5128-945 as solid diamonds, and upper limits from non-detections as very small triangles. There is a clear-cut maximum around JD 2 450 620, and an incomplete one at about JD 2 451 360. In between, a minimum is indicated by a decline around JD 2 450 950 and a rise around JD 2 451 060. The minimum itself is indicated by the large number of non-detections (small symbols) around JD 2 451 000. In addition, there is a rise around JD 2 450 330, given by a group of non-detections followed by a group of positive observations.

This interpretation of the *Stardial* data is corroborated by 14 frames from *The Amateur Sky Survey* (TASS, another public CCD sky patrol project, see <http://www.tass-survey.org/>). *I*-band magnitudes derived from the 14 frames are displayed as crosses in Fig. 1. Due to the larger optics compared to *Stardial*, the TASS data give positive observations even close to the minimum.

From Fig. 1 the following rough ephemeris can be derived:

$$\text{JD (Max)} = 2450620 + 247 \times E.$$

Acknowledgements: This research made use of the SIMBAD data base, operated by the CDS at Strasbourg, France.

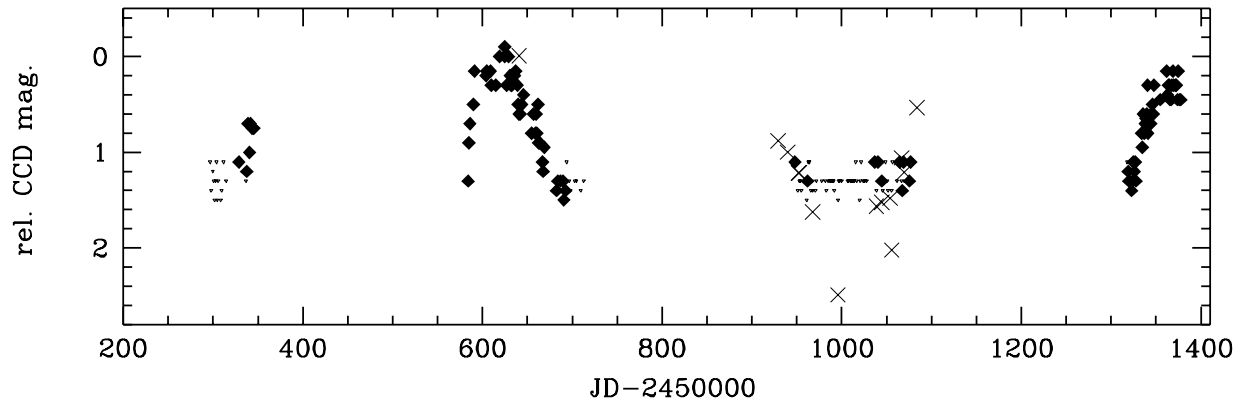


Figure 1. Lightcurve of IRAS 19035-0134. Symbols are explained in the text.