

1980 is clearly visible as well as a new feature which extends about 4 arcsec from the star towards a position angle $\sim 40^\circ$. The 30 sec exposures show that the brightness peak of this second nodule is at about 2 arcsec from the star. It coincides with a new radio spot signaled by Kafatos et al. (*Ap. J.*, **267**, L 103, 1983). The integrated luminosities of the 10 and 4 arcsec nodules are roughly 7% and 6% of the luminosity of the star in the V colour band (namely $m_{(10)} = 13.9$ and $m_{(4)} = 14.1$ for $m_{\text{Mira}} = 11$, assuming a linear response of the CCD even at very low and very high fluxes). The simplest interpretation of the 4 arcsec nodule is that it is due to a new ejection of matter which occurred between 1980 and 1982, unless it was not detected on the 1980 plates because of an overexposure of the star. The difference in the position angles of the two nodules expresses that those nodules have been ejected in two independent events or rather that they belong to the same beam curved by some effect as precession of the emitting system.

Due to its relative vicinity (200 parsec), R Aquarii is one of the few objects which could be used to confront directly with the observations the models of ejection of matter along the axis of an accretion disk, since its accretion disk is supposed to have an angular size of the order of 0.1 arcsec and could be resolved by interferometric techniques or by the space telescope. As it seems to be now in an active phase (are we observing a slow nova outburst?) it would be of interest to obtain a few times every year photographic (possibly with a stellar coronagraph) and spectroscopic data of the object. The material difficulty to organize such a surveillance of a single object is expressed in the general question of M. Gerbaldi (*Messenger* of December 1982): how to obtain (officially) occasional observations without applying for several telescope nights?

Thanks are due to Nicolas Mauron for pointing out to me the existence of R Aquarii.

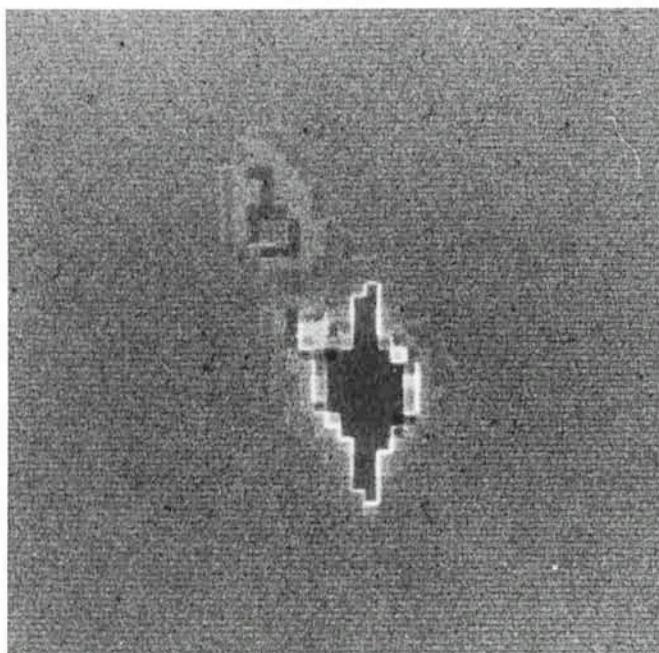


Fig. 1: This photograph of the central region of the R Aquarii complex has been obtained on November 25 1982. The minimum of the Mira was expected for December 3. A curved jet constituted by 2 nodules described in the text extends to 10 arcsec from the star, north-eastwards (north is at top, east to the left). At the distance of the star (200 pc) these 10 arcsec correspond to a linear size of 1,000 astronomical units. The vertical line in the middle of the picture is due to a saturation of the CCD in the zone of the bright star: the excess of charges is transferred above and below the overexposed region. (V filter; 2 min exposure; 1 pixel = 0.471 arcsec.)

The Proceedings of the ESO Workshop on PRIMORDIAL HELIUM

which took place on 2–3 February 1983 in Garching, are now in print and will be available at the beginning of July. (Eds. P. A. Shaver, D. Kunth and K. Kj ar.) The price for this 420-p. volume is DM 50.— and has to be prepaid.

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- "Dwarf Galaxies", Proceedings of the First ESO/ESA Workshop on the Need for Coordinated Space and Ground-based Observations. Geneva, 12–13 May 1980. Ed. by M. Tarenghi and K. Kj ar (free).
- ESO Workshop on "Two Dimensional Photometry", Noordwijkerhout, 21–23 November 1979. Proceedings. Ed. by P. Crane and K. Kj ar, March 1980, 412 p. (DM 40.—).
- "Scientific Importance of High Angular Resolution at Infrared and Optical Wavelengths". ESO Conference. Garching, 24–27 March 1981. Proceedings. Ed. by M. H. Ulrich and K. Kj ar, 444 p. (DM 50.—).
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- ESO Workshop on "The Need for Coordinated Ground-based Observations of Halley's Comet". Paris, 29–30 April 1982. Proceedings. Ed. by P. V eron, M. Festou and K. Kj ar. 310 p. (DM 35.—).
- "Second ESO Infrared Workshop". Garching, 20–23 April 1982. Proceedings. Ed. by A. F. M. Moorwood and K. Kj ar, 446 p. (DM 50.—).

Aluminization of Mirrors

The Optical Laboratory, in charge of aluminizing, informs us that as a general practice, astronomical main mirrors are aluminized every 18 months (Fig. 1). In the case of small main mirrors (upper limit 1 m), it is intended to intercalate a washing between two aluminizations, with the main purpose of reducing the chemical effects on the mirror blank. Secondary mirrors, less exposed to dust, are not included in this scheme.

For national telescopes, the agreement of the person responsible for the telescope is requested before any action is taken; so they are previously informed when a new aluminization is deemed necessary.

Laboratory tests performed with the fiber optic reflectometer have shown the following evolution (Fig. 2):