and deepest "step" coincides with the coverage of the "hot spot". The second lightcurve shown in figure 1 corresponds to the next night when OY Car had reached the maximum brightness of its eruption (~12^m.4). Only a partial eclipse is observed because the eclipsed body (the disk) is now much more extended than before, and cannot any more be covered totally by the faint red secondary star. Since we see the hot spot radiation separated from that of the disk at certain eclipse phases, we can calculate the relative contribution of both components to the total light, and can follow up this ratio throughout the outburst. This will have important consequences for the dwarf nova outburst mechanism which is still not definitely known.

The discovery of this eclipsing binary was not a pure accident: in January 1979, when I took spectrograms of several dwarf novae with the Image Dissector Scanner at the 3.6 m telescope, OY Car turned out to show a strong, double Balmer emission with a separation of ~1,500 km/s of both emission peaks. This is typical for cataclysmic binaries with high orbital inclination and, thus, justified a search for eclipses. The rest was good luck: fair weather conditions, the begin of an outburst and—last but not least—an excellent cooperation of Holger Pedersen who was scheduled for half of the observing nights, but kindly left me the critical hours for OY Car.

Nikolaus Vogt

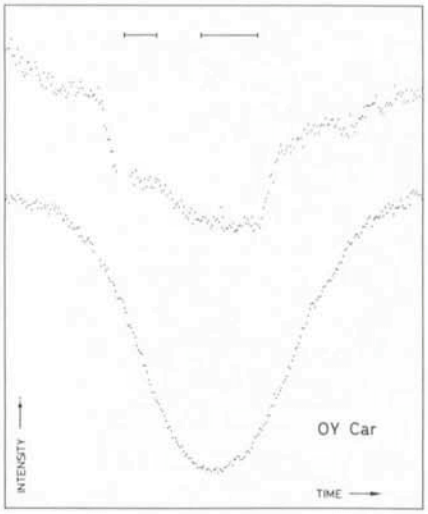

Fig. 1: *Eclipse lightcurves of OY Car, observed on April 29/30, 1979 (upper curve) and April 30/May 1 (lower curve) with the ESO 1 m telescope. The upper curve shows two totality phases which are indicated by bars (explanation see text). Each curve covers a total time interval of about 13 minutes.*

ALGUNOS RESUMENES

La calidad del telescopio danés de 1.5 m sobrepasa las expectaciones.

Desde fines de noviembre del año pasado un nuevo instrumento se encuentra a disposición en La Silla: El telescopio danés de 1.5 m.

En una serie de placas tomadas durante una noche de excelentes condiciones atmosféricas a principios de marzo del presente año, el tamaño de las imágenes variaba de 1 segundo de arco hasta 0.6 segundo de arco. La mejor placa—con una exposición de una hora—muestra bonitas imágenes circulares de 0.5 segundo de arco! Es éste un resultado casi increíble, que comprueba la excelente calidad de este nuevo telescopio.

δ Crucis es variable!

Durante una reciente estadía en La Silla el Dr. Eric W. Elst del Observatorio Royal en Uccle, Bélgica, ha descubierto que una de las estrellas en la Cruz del Sur, δ Crucis, es variable.

Naturalmente hay muchas otras estrellas variables, sin embargo, el presente caso es particularmente interesante porque la amplitud máxima en la curva luminosa tiene una magnitud de sólo 0.006! Esto explica el porqué hasta ahora la variabilidad de la estrella no había sido detectada antes, a pesar de que esta estrella había sido observada muchas veces.

El descubrimiento es una demostración de la excelente ubicación de La Silla y del buen rendimiento del telescopio de 61 cm de Bochum y su fotómetro, con el cual se efectuaron las observaciones.

Nuevas series de diapositivas de ESO

Durante los próximos meses se dispondrá de dos nuevas series de diapositivas.

La primera de éstas consiste de 20 diapositivas de 5 × 5 cm que muestran las instalaciones en La Silla. Incluyen edificios, telescopios y vistas del lugar. Una descripción completa en varios idiomas explica las diapositivas.

La segunda serie contiene algunas de las mejores fotografías que han sido tomados con la cámara del foco primario del telescopio de 3.6 m (corrector Gascoigne). De entre más de 1.000 fotografías, se eligieron 20 diapositivas en blanco y negro (nebulosas, galaxias, etc.).

El precio por una serie de diapositivas es de DM 18.– (o su equivalente) en Europa, y US$ 10,– por correo terrestre a todos los demás países, o US$ 12.50 para su envío por vía aérea (pagadero por adelantado).

ESO, the European Southern Observatory, was created in 1962 to . . . establish and operate an astronomical observatory in the southern hemisphere, equipped with powerful instruments, with the aim of furthering and organizing collaboration in astronomy . . . It is supported by six countries: Belgium, Denmark, France, the Federal Republic of Germany, the Netherlands and Sweden. It now operates the La Silla observatory in the Atacama desert, 600 km north of Santiago de Chile, at 2,400 m altitude, where ten telescopes with apertures up to 3.6 m are presently in operation. The astronomical observations on La Silla are carried out by visiting astronomers—mainly from the member countries—and, to some extent, by ESO staff astronomers, often in collaboration with the former.

The ESO Headquarters in Europe will be located in Garching, near Munich, where in 1980 all European activities will be centralized. The Office of the Director-General (mainly the ESO Administration) is already in Garching, whereas the Scientific-Technical Group is still in Geneva, at CERN (European Organization for Nuclear Research), which since 1970 has been the host Organization of ESO's 3.6-m Telescope Project Division.

ESO has about 120 international staff members in Europe and Chile and about 150 local staff members in Santiago and on La Silla. In addition, there are a number of fellows and scientific associates.

The ESO MESSENGER is published in English four times a year: in March, June, September and December. It is distributed free to ESO employees and others interested in astronomy.

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D-8046 Garching b. München
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Telex 05215915 eso d

Printed by Universitätsdruckerei
Dr. C. Wolf & Sohn
Heidemannstraße 166
8000 München 45
Fed. Rep. of Germany