

Figure 5: Colour-magnitude diagram of NGC 7006 obtained with DAOPHOT.

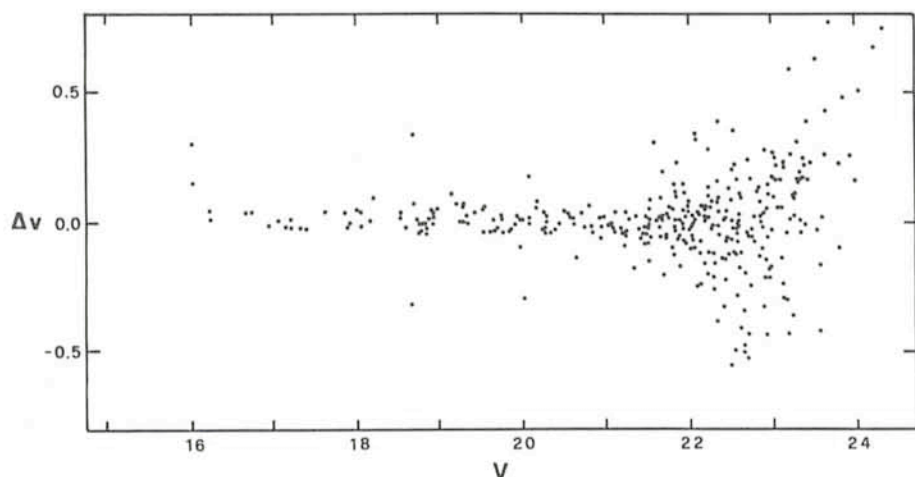


Figure 6: *INVENTORY* frame-to-frame errors plotted against the visual magnitude.

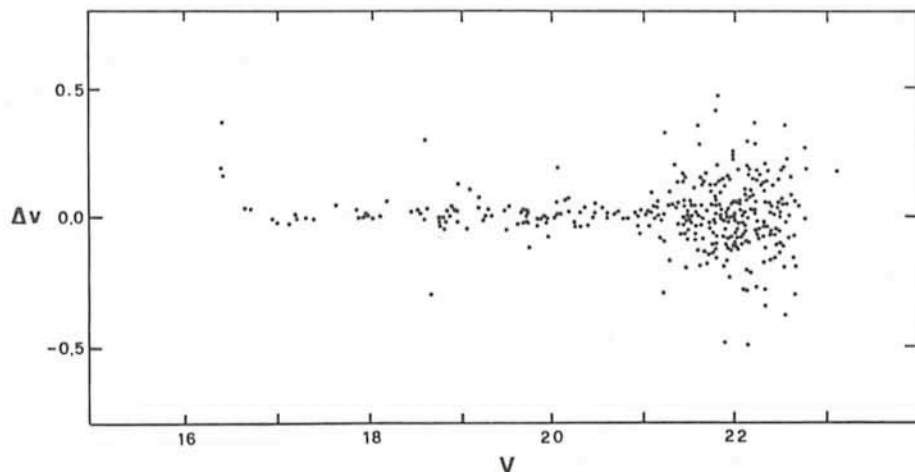


Figure 7: The same as Figure 6, but from DAOPHOT analysis.

tively .03, .03, .04, .07, .08, .18 magnitudes. DAOPHOT gives .02, .03, .04, .04, .12, ~.18.

These errors take into account blend,

centring problems, noise and deviations due to defects of the chip. They are higher than the photon statistics error alone, but are about three times smaller

than the correspondent aperture magnitude measurements of IHAP or MIDAS.

The execution time of the search and analysis of the $\sim 1,000 + 1,000$ stars in the 510×305 pixel frames was recorded during the night of November 17. 50 minutes were timed for DAOPHOT (this includes many dead times due to interactive inputs at the terminal), compared to about 40 minutes for INVENTORY (the preliminary normalization procedure is included). No unexpected problems were undergone during the execution, nor other users affected during the measured time.

In conclusion DAOPHOT seems more specific for stellar photometry, superior to INVENTORY in very crowded fields. On the other hand, INVENTORY is more flexible, permitting the measurements of both stars and diffuse objects, and it also gives many parameters (21) per detected object, useful for detailed analysis of single, peculiar objects. It is also a little faster. The possibility to use, in DAOPHOT, some very useful routines for the subtraction or addition of stars, fundamental for the discussion of the searching completeness and photometric accuracy, must be emphasized. Therefore, at present, an appropriate combination of the two programmes seems to be the best solution. This report presents only preliminary results. A more accurate comparison, obtained from optimized analysis, is in preparation.

Acknowledgements

We are indebted to J. Melnick for explanations and preparations of useful table and image conversion programmes from DAOPHOT to MIDAS. We are also very grateful to the ESO staff for helping us during the reduction of the data, in particular to A. Lauberts who permitted us to use his excellent PAIR programme.

ESO Book in Preparation

Under the working title "An Outlook to the Southern Sky", a pictorial book showing the most spectacular celestial objects in the southern sky is in the final phases of preparation. The main authors are Svend Laustsen and Claus Madsen. Dr. Laustsen, who is lecturer at the Aarhus University, Denmark, was also the manager of the ESO 3.6-metre telescope project. Mr. Madsen is Scientific Photographer at the ESO Information and Photographic Service at the ESO Headquarters in Garching.

The book which is aimed at all persons interested in astronomy, will contain sections about the distant Universe, the Milky Way and the Solar System. The ESO La Silla Observatory will also be described. Most of the pictures have not been made available to the public before. They include colour photos of very beautiful, but relatively unknown astronomical objects obtained with the 3.6-metre telescope in the prime focus

mode. In addition, there will be many examples of wide-field photos and a unique 4-page spread showing the entire 360-degree Milky Way band. It is a composite of 8 wide-angle photos obtained at La Silla and at the La Palma observatory in the Canary Islands and represents the first such composite with high resolution.

Early in 1986, ESO sent out a call for tenders to more than 80 publishers in

the member states. A contract will be negotiated during April and the book will be published later in 1986. In order to reach the broadest possible audience, the 200+ page publication will become available in the languages of the member states and also in English and Spanish. More details will be given in the next issue of the *Messenger*.

ESO Exhibition on Halley's Comet at Reuschel Bank in Munich

An exhibition on Halley's comet has been organized by ESO photographer Claus Madsen in the premises of the Reuschel Bank in Munich. The exhibition mainly consists of posters illustrating the history of this most famous of all comets. They tell about ancient observations of the comet, of the fears it aroused in the past when people thought that comets were bad omens announcing wars and destruction. The main part, however, is devoted to recent observations of Comet Halley made at ESO and elsewhere. In addition, models of ESO's 3.6-m telescope, the 3.5-m New Technology Telescope – now under construction – and the Very Large Telescope – a 16-m equivalent telescope planned for the nineties – are displayed.

The inauguration of the exhibition took place on Wednesday, 20 March.

The number of visitors exceeded all expectations, and the reception hall could hardly accommodate all those who had come to learn more about Halley's comet.

After the welcome by one of the directors of the Reuschel Bank, Dr. R.M. West, Head of the ESO Information and Photographic Service, who himself is actively engaged in cometary research, showed a video film on the activities of ESO in Chile and in Garching. He then held a lecture on Comet Halley with emphasis on the most recent observations at ESO and the latest available pictures made with the space probes. After his talk, the visitors were invited to ask questions, and they made ample use of this opportunity! Starting with questions on the origin and the life time of comets, they soon came to the inevitable question of whether life may

exist elsewhere in the Universe. Dr. West could probably have continued for hours answering these questions, if time had not been limited . . .

The exhibition will last until April 30, 1986. K.K.

ESO Press Releases

The following six Press Releases have been published since the last issue of the *Messenger*. They were sent to about 300 addresses in the ESO member countries and beyond. Due to practical reasons, the distribution is limited, but members of the press are welcome to apply for inclusion to the ESO Information and Photographic Service.

PR 01/86: ESO Information and Photographic Service (13 January)

PR 02/86: ESO Signs Major Contract with INNSE for the Technologically Most Advanced Telescope in the World (21 January; with photo of the NTT)

PR 03/86: Comet HALLEY Recovered at ESO (16 February)

PR 04/86: Comet HALLEY Status on February 18, 1986: Observations at La Silla (18 February; with photo of HALLEY, taken with ESO's wide-field CCD camera)

PR 05/86: Observations of Comet HALLEY at ESO Continue (26 February; with photo showing HALLEY's multiple tail system)

PR 06/86: ESO Presents the VLT: A 16-Metre Optical Telescope Project (3 March; with photo of VLT model)



– I think I cannot overcome to collect all newspaper cuttings about Comet Halley . . . Observations have started at La Silla . . . (Freely adapted from "El Mercurio".)