raw form. Observational logs, technical data, and calibrations are also archived to give a full description of scientific data. Archiving of data from a given instrument is started when procedures have been implemented to record all relevant observational parameters and provide reliable calibration data. Priority for establishment of such procedures is given to the major ESO telescopes and instruments.

Proprietary Period

The proprietary period for scientific data is one year after termination of the observations. The prime investigator of an observing programme can apply to the OPC for an extension of this period. This is granted in special cases only. All other data (i.e. observing logs, technical and calibration data) are public immediately after the observations. Astronomers may request to have the list of targets concealed during the proprietary period in their application for observing time. The OPC can grant such requests in exceptional cases.

Location and Access to Archive

The ESO archive, both data archive and catalogue, is located and managed at the ESO Headquarters in Garching. A copy of all digital data obtained at the ESO Observatory is kept in Chile to allow recoveries of errors. This security copy is erased after a period of six months. The catalogue is accessible for queries at the ESO computer facilities in Garching and over computer networks. Access to the non-proprietary part of the data archive can be made at ESO Garching. Limitations to the volume of accessed data can be imposed for technical reasons. The requests for retrieval and shipment of data from the ESO archive are subject to a scientific evaluation. A modest charge may be applied for large volumes of data.

H. VAN DER LAAN, ESO

Diskettes for "Astronomy and Astrophysics" (First Announcement)

Main Journal

In the future, contributors to *Astronomy and Astrophysics* using TEX will get the opportunity to submit their manuscripts on diskettes. In agreement with the Board of Directors and the Editors of *Astronomy and Astrophysics*, Springer-Verlag will offer a macro-package on a diskette together with a set of instructions. Texts formatted with Springer's macros will be produced on your printer in essentially the same way as they will appear later in the journal, and, furthermore, they allow typesetting directly from the author's input. In 1988 the product will be tested by Springer in co-operation with astronomical institutes and the typesetter. It is hoped that by 1989 this new system will allow a more speedy and more efficient processing of the articles. Similar macros are offered to the authors of Springer-Verlag's new journal *The Astronomy and Astrophysics Review*, which will be launched in 1989. More details will be given in the next issue of the *ESO Messenger*. For information please contact the Editors of *Astronomy and Astrophysics*.

H.-U. DANIEL, Springer-Verlag

Supplement Series

Les Editions de Physique can now accept manuscripts for *Astronomy and Astrophysics* in the form of diskettes containing text generated by TEX or by MATHOR. MATHOR allows interactive, wysiwyg editing of text and formulae with the possibility of automatic conversion to TEX format.

Chr. ARDEN, Les Editions de Physique

STAFF MOVEMENTS

Arrivals

Europe:

LINSSEN, Marion (NL), Secretary
HOOK, Richard (GB), Fellow
HUIZINGA, Jan (NL), Student

Chile:

GOJAK, Domingo (YU), Electronic Engineer
PERSSON, Glenn (S), Telescope Software Scientist

Departures

Europe:

DEMIERRE, Ulla (CH/D), Secretary to the Director General
GUZZO, Luigi (I), Associate
RICHMOND, Alan (GB), Associate

Chile:

MURPHY, David (USA), Telescope Software Scientist

Transfers

MAGAIN, Pierre (B), Fellow (from Chile to Europe)

2nd NOAO/ESO Conference on "High Angular Resolution by Interferometry"

In 1985 the Director of the National Optical Astronomy Observatories (NOAO), J. Jefferies, and the Director General of ESO, L. Woltjer, stimulated the idea of having regular workshops jointly organized by the two institutions.

The first workshop was then organized by NOAO at the Sun Space Ranch Conference Center in Oracle near Tucson, Arizona, from January 12 to 15 in 1987. Both organizations had invited in total 52 participants to this Joint ESO/NOAO Workshop on "High Resolution Imaging from the Ground Using Interferometric Techniques". The proceedings with the title "Interferometric Imaging in Astronomy" were published by NOAO in April 1987. During the workshop it became very clear that the topics addressed were of such interest to the astronomical community that the following meeting should be an open conference on high resolution imaging by interferometry and all researchers and scientists interested in this area should have the chance to participate. This time it was the task of ESO to organize a meeting in early 1988.

The second NOAO/ESO conference on "High Resolution Imaging by Interferometry" was held in Garching from March 14 to 18, 1988. The response was so large, that it had to take place in the lecture halls of the Technical University in order to accommodate all participants. Approximately 120 presentations were announced for this four-day conference, which took place just before the ESO-Conference on "Very Large Telescopes and their Instrumentation".

In addition, a one-day tutorial was arranged the day before the conference to teach scientists, researchers and students new in this area about the theory and experimental techniques of interferometry in optical astronomy. About 100 persons participated.

The conference itself was attended by 183 participants (including 24 from ESO and the ST-ECF). They came from more than 15 countries. The United States was represented by 46, followed by France with 41, and the Federal Republic of Germany with 26 scientists. A total of 20 invited talks, 97 contributed presentations (63 talks and 34 posters) and 1 special talk were given during the conference.

The programme was composed of papers covering the scientific needs for high angular resolution and interferometry, single aperture interferometry including speckle interferometry, pupil-plane interferometry, the Know-Thompson method, triple correlation methods, phase-closure methods and others, and multiple aperture interferometry with presentations on existing and future projects for long-baseline interferometers and related technologies. A special talk illustrated the progress of radio interferometry during the last decades and the way interferometry at infrared and visible wavelengths still has to go.

A large number of excellent and novel scientific and technical results were presented during this conference. The highlights included spectacular scientific results, improved algorithms and reconstructed images, advanced experimental set-ups, instruments and interferometers and plans and proposals for the next generation of interferometric equipment. The Proceedings, which will give a comprehensive overview of the area of high resolution imaging by interferometry in astronomy, are expected by end of July 1988.

The next ESO/NOAO meeting – on "Infrared Array Detectors" – will take place in Tucson in September or October 1989.

F. MERKLE, ESO

VLT NEWS

The VLT Adaptive Optics Prototype System: Status May 1988

F. MERKLE, ESO

In 1987 ESO decided to develop and construct an adaptive optics prototype system. This initial step into the field of adaptive optics at ESO has been taken in collaboration with the French three institutions ONERA, CGE-Laboratoires de Marcoussis, and the Observatoire de Paris-Meudon (DESPA). The system is dimensioned for F/8 focus of the ESO 3.6-m telescope and the 1.52-m telescope of the Observatoire de Haute-Provence. It operates as a polychromatic adaptive system (see Fig. 1), i.e. it is equipped with an infrared camera for image detection in the 3 to 5 μm range while its wavefront sensor works in the visible. It uses a deformable mirror with 19 actuators while the wavefront is sensed at 10 × 10 subapertures. It serves as a testbench for the various elements of an adaptive system and the modal control algorithms.

The construction of the main elements of this adaptive optical system is basically finished and the first functional tests have already started. These elements are:

- the deformable mirror,
- the wavefront sensor, and
- the control computer.

For this prototype system a thin face-plate (0.7 mm) deformable mirror had been selected. It was developed at CGE-Laboratoires de Marcoussis in France (see Fig. 2). The 19 piezoelectric actuators are distributed over a circular area with 65 mm in diameter in a hexagon arrangement. The total diameter of the mirror is 130 mm. The maximum actuator stroke is in the range of ± 7.5 μm for a voltage of ± 1,500 V. The mirror itself is made of silicon which has been polished to better than half an interference fringe at the HE-NE-laser wavelength and is coated with silver.

For adaptive optics a Shack-Hartmann sensor seems to be the most adequate wavefront sensor. The lenticular arrays which are the key-components of Shack-Hartmann sensors have been

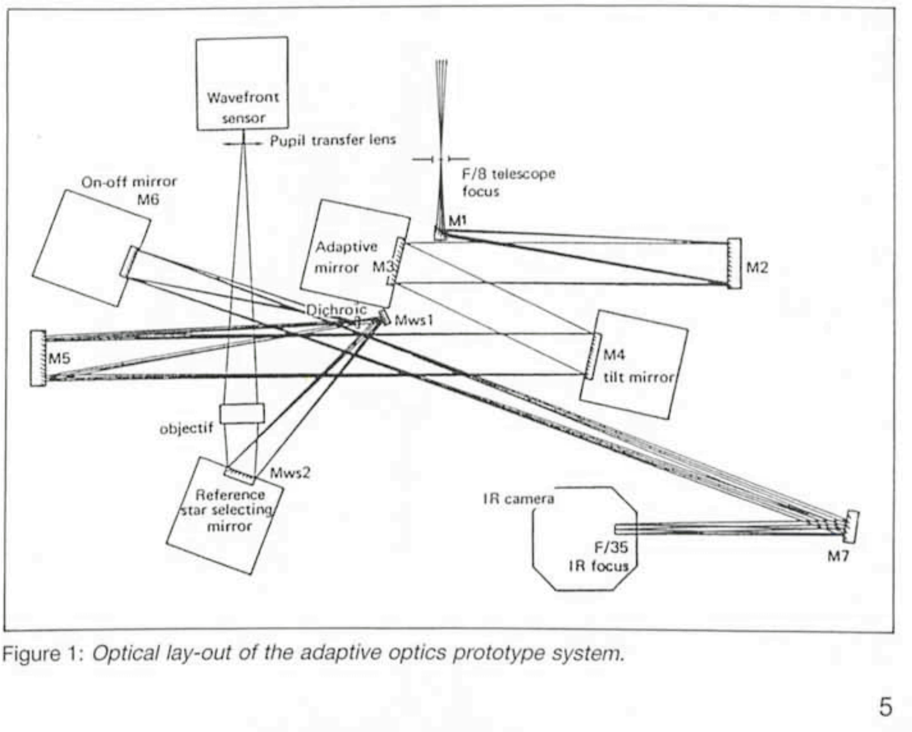

Figure 1: *Optical lay-out of the adaptive optics prototype system.*