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 organising collaboration in astronomy . . . It is supported by eight countries: Belgium, Denmark, France, Germany, Italy, the Netherlands, Sweden and Switzerland. It operates the La Silla observatory in the Atacama desert, 600 km north of Santiago de Chile, at 2,400 m altitude, where fourteen optical telescopes with diameters up to 3.6 m and a 15-m submillimetre radio telescope (SEST) are now in operation. The 3.5-m New Technology Telescope (NTT) became operational in 1990, and a giant telescope (VLT = Very Large Telescope), consisting of four 8-m telescopes (equivalent aperture = 16 m) is under construction. It is being erected on Paranal, a 2,600 m high mountain in northern Chile, approximately 130 km south of Antofagasta. Eight hundred scientists make proposals each year for the use of the telescopes at La Silla. The ESO Headquarters are located in Garching, near Munich, Germany. It is the scientific, technical and administrative centre of ESO where technical development programmes are carried out to provide the La Silla observatory with the most advanced instruments. There are also extensive facilities which enable the scientists to analyse their data. In Europe ESO employs about 200 international Staff members, Fellows and Associates; at La Silla about 50 and, in addition, 150 local Staff members.

The ESO MESSENGER is published four times a year: normally in March, June, September and December. ESO also publishes Conference Proceedings, Preprints, Technical Notes and other material connected to its activities. Press Releases inform the media about particular events. For further information, contact the ESO Information Service at the following address:

EUROPEAN SOUTHERN OBSERVATORY Karl-Schwarzschild-Str. 2 D-85748 Garching bei München Germany Tel. (089) 320 06-0 Telex 5-28282-0 eo d Telefax (089) 3202362 ips@eso.org (internet) ESO::IPS (decnet)

The ESO Messenger: Editor: Marie-Hélène Demoulin Technical editor: Kurt Kjär

Printed by Druckbetriebe Lettner KG Georgenstr. 84 D-80799 München Germany

from the rapidly expanding Chilean astronomical community collaborate with ESO colleagues in a growing partnership between ESO and the host country's academic community. The main areas of activity at the Headquarters and in Chile are:

- research in observational and theoretical astrophysics:
- · managing and constructing the VLT;
- developing the interferometer and adaptive optics for the VLT;
- operating the La Silla Observatory;
 development of instruments for current ESO telescopes and for the VLT;
- calibration, analysis, management and archiving of data from the current ESO telescopes;
- fostering co-operation in astronomy and astrophysics within Europe and Chile.

In addition to personal research, fellows in Garching spend up to 25% of their time on the support or development activities mentioned above. These activities offer the opportunity to make short-term visits to the ESO sites in Chile and to develop in-depth knowledge of the operations of the observatory. In Chile, fellows and staff astronomers spend one week at ESO's centre in Santiago, one week at La Silla Observatory and have the third week off. At La Silla, fellows help in supporting visiting astronomers, and participate in the development and maintenance of the telescopes and instruments. The fellowship programme in Chile offers a unique opportunity to learn and to participate in the process of observational astronomy while pursuing a research programme with state-of-the-art facilities.

The basic monthly salary will be not less than DM 4853 to which is added an expatriation allowance of 9-12% in Garching, if applicable, and up to 40% in Chile. The remuneration in Chile will be adjusted according to the cost of living differential between Santiago de Chile and

The fellowships are granted for one year with the expectation of a renewal for a second year and exceptionally a third year. Fellowships begin between April and October of the year in which they are awarded. Selected fellows can join ESO only after having completed their doctorate.

Ápplications should be submitted to ÉSO not later than 15 October 1997. Applicants will be notified in December 1997 or soon thereafter. The ESO Fellowship Application Form must be used, which is available from the ESO Personnel Department or from http://www.hq.eso.org/ gen-fac/adm/pers/vacant/fellow.html. The applicant should arrange for three letters of recommendation from persons familiar with his/her scientific work to be sent directly to ESO. These letters should reach ESO not later than 15 October 1997.

Further inquiries, requests for application forms, and completed applications should be addressed to:

European Southern Observatory Fellowship Programme Karl-Schwarzschild-Str. 2 D-85748 Garching bei München, Germany

Tel.: 0049-89-32006-438 or -219 — Fax: 0049-89-32006-497

e-mail: ksteiner@eso.org

Contents

TELESCOPES AND INSTRUMENTATION

S. Stanghellini, M. Hess, G. Raffi, JM. Moresmau, F. Koch, M. Kraus:	
The M1 Cell - M3 Tower Undergoes Tests in Europe	1
S. Stanghellini, G. Jander, A. Michel, A. Van Kesteren, M. Duchateau, W. Ansorge:	
The Secondary Unit of the VLT Approaches Delivery	3
M. Schneermann and M. Groessl: The VLT Mirror Coating Unit Ready for Shipment	4
JL. Lizon: New Cryostats for Scientific CCD Systems in the VLT Era	6
H.U. Käufl: Ground-Based Astronomy in the 10 and 20 μm Atmospheric Windows at	_
ESO: Two New Instruments, VISIR for the VLT and TIMMI for La Silla Now Under Way.	8
T. Lehmann, T. Böker, A. Krabbe, J.W.V. Storey: 10- and 20-µm Imaging with MANIAC A. Moorwood: SOFI at the NTT	9 11
NEWS FROM THE NTT: J. Spyromilio	12
THE LA SILLA NEWS PAGE	
A New Fabry-Perot for IRAC2b	13
R. Gredel, S. Guisard, G. Ihle: Load Cells Installed in the 3.6-m M1 Mirror Cell	13
SCIENCE WITH THE VLT	
D. Reimers and L. Wisotzki: The Hamburg/ESO Survey	14
REPORTS FROM OBSERVERS	
Bo Reipurth: Herbig-Haro Jets and their Role in Star Formation	20
EROS Collaboration: A Supernova Found by EROS, Followed with the 1.5-m Danish,	
and Pictured and Characterised at the 3.6-m Telescope	26
OTHER ASTRONOMICAL NEWS	
P. Magain, F. Courbin, S. Sohy: Deconvolution with Correct Sampling	28
F. Courbin, JF. Claeskens: High-Resolution Imaging with Bad Seeing:	
PKS 1610-771 as a Test Case	32
ANNOUNCEMENTS	
R. Hook: Mirror of NOAO IRAF Archive Now Available at ST-ECF/ESO	34
L. Da Costa: ESO Imaging Survey: Update	34
Joint ESO/Australia Workshop "Looking Deep in the Southern Sky"	34
ESO Internal Workshop on Forecasting Astronomical Observing Conditions	35
First Announcement of ESO/OSA Topical Meeting "Astronomy with Adaptive Optics –	
Present and Future Programmes"	35
Personnel Movements	35
ESO Fellowship Programme 1998/99	35