

After the completion of these two studies ESO will select the solution which will be implemented at the VLT unit telescopes. The selected industrial firm will be responsible for the construction of the first unit, the qualification tests of this unit with a concrete dummy mirror, the construction and tests of 3 additional identical units, the packing, transport and integration into the VLT telescopes in Chile. The completion of these two studies is planned for the end of 1994.

### First 8.2-m Mirror Blank Ready at Schott

Major progress has been made in the production of the 8.2-m mirror blanks with the delivery by Schott of the first unit on June 25, 1993 (see Fig. 2).

The production of the first element of the telescope steel structure, the azimuth tracks, has also begun (Fig. 3).

The ESO VLT team has completed a detailed review of the VLT Programme covering managerial, financial, time planning, manpower and technical aspects.

The conclusions were presented to the ESO Council. The new planning, now under detailed definition, is following the constraint to obtain the first light of the first telescope properly instrumented and including the coudé and adaptive optics in early 1998 and to start interferometry as soon as possible in parallel with the 8-m activities.



Figure 3.

## ESO C&EE Programme: a Progress Report

R.M. West, ESO

This is a progress report about the ESO C&EE Programme, see also *The Messenger* 71, page 9. As will be remembered, copies of the Application Document were sent to about 1000 addresses in late January 1993. Moreover, the guiding principles of this Programme are that support will be provided on the basis of scientific and technical merit, in order to help C&EE astronomers to do good research at their home institutes and also to provide benefits to astronomy in the ESO member states.

In early March 1993, the Director General established an ESO C&EE Committee with the following members: Nicolai Chugai (Moscow), James Lequeux (Paris), George Meylan (ESO), Giancarlo Setti (Bologna), Jean-Pierre

Swings (Liège) and Richard West (ESO), who was requested to act as Committee Secretary.

### 1. Response to the First Round

By April 15, 1993, 284 applications had been received from 936 applicants, requesting a total of DM 5,450,304. This amount corresponds to about eleven times the annual budget of the Programme, i.e. an "oversubscription" that reminds of that encountered by the OPC at some of the ESO telescopes. Of this, about  $\frac{1}{3}$  was for Research Grants, and  $\frac{2}{3}$  was mostly for equipment, especially powerful PCs and a few Sun workstations, CCDs and electronic components for telescope instruments, etc., and to a

lesser extent for travel-related expenses. Some applicants sent more than one application; altogether there were 805 individual applicants from 22 countries.

The ESO C&EE Committee held its first meeting at the ESO Headquarters on April 19 and 20, 1993. It first discussed a number of policy matters, many of which had surfaced under the previous months and partly in response to the Application Document. Among others, it was decided to:

1. spend about  $\frac{1}{2}$  of the 1993 budget in the first round, in order to "show the flag" and to achieve an immediate and significant effect;
2. evaluate and classify the proposals into three classes, according to merit: Class I (Excellent), Class II (Good) and

Class III (Insufficient), with the appropriate subclasses.

3. allocate at this moment support only to Class I proposals, but to let all Class II proposals participate in the next round (July 15) without the need for resubmission;
4. fix Research Grants in the republics on the territory of the former USSR at DM 400/year, i.e. at about the level of the current local salary there, and proportionately higher in other countries;
5. allocate the same Research Grants to all successful applicants, irrespective of their positions at the C&EE institutes, and to give no more than one Research Grant per person, even if an applicant has more than one successful application;
6. provide standardized computer equipment in the form of 486 PCs with appropriate accessories (at DM 4,500 per computer), and normally only one per institute;
7. make the Principal Investigators (PIs) of Type A programmes responsible for the use of allocated equipment, especially PCs, and to insist that it is made available to other institute staff, as far as possible;
8. not support conferences which are not organized and/or sponsored by ESO, but to leave this field to IAU, EAS, etc.; and
9. have all applications involving observing time at La Silla first pass through the normal OPC evaluation and only provide support if observing time is indeed allocated.

The Committee then evaluated the 284 proposals according to the above-mentioned criteria, and with the result that 68 of these were classified in Class I and will therefore receive support. They involve 243 applicants, so that more than one quarter of all applicants will receive support already in the first round. About half of the applications will again be considered in the second round. A total of about DM 270,000 was allocated from the 1993 budget.

The main data have now been entered into a STARCAT-based archive which permits efficient and time-saving programme administration. Miguel Albrecht and Olivier Hainaut, both at ESO Headquarters in Garching, have provided very significant help for this. This made it possible to send individual reply letters to all 936 applicants within two weeks after the Committee meeting. By the end of May, the first responses to these were being received at ESO, as expected in particular from satisfied applicants who will now receive support within this Programme. The Committee is presently investigating the best ways of transferring the promised support.

## ESO Visitor Programme at Garching

In order to promote closer interactions between the astronomers in the ESO astronomical community, ESO has a Visitor Programme in which experienced astronomers from the member states spend periods ranging from a few months to a year working at ESO headquarters in Garching.

Major activities at ESO Garching include the design and development of the VLT and its instrumentation, activities related to the La Silla observatory (including remote observing), the development of data analysis software, and the European Coordinating Facility for the Space Telescope (ECF). The scientific research of the staff astronomers, fellows and students at ESO and the ECF covers a wide range of astronomical subjects. The ESO headquarters building is located on a research campus together with several other institutes including the Max-Planck Institutes for Astrophysics and Extraterrestrial Research.

Visitors are expected to take an active role in the scientific life of ESO, giving seminars and interacting with ESO staff on scientific or technical matters. They are given appropriate financial support to help cover travel and living expenses in Garching. ESO has a number of modern apartments in Garching to accommodate its visitors.

Persons interested in this Visitor Programme may submit a request to ESO at any time. Enquiries regarding application procedures should be addressed to:

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

The deadline for the next round is July 15, 1993, but already now (beginning of June), more than 50 new applications have been received. Although it is not yet possible to anticipate the total number, it may again be substantial.

### 2. Preliminary Conclusions

The rather impressive response to the announcement of the ESO C&EE Programme shows that its existence has quickly become well known among C&EE astronomers and that it effectively responds to a real need. It is also gratifying that there have been quite a few expressions from various sides about a positive psychological impact of this Programme.

An analysis of the applications to the first round shows that while salaries for scientists in many C&EE countries are very low, many serious C&EE scientists with excellent research proposals consider that their activities and efficiency are first of all limited by the fact that they only have access to outdated equipment. It therefore appears that at least for the time being – and until the expected and probably unavoidable further cuts in the institute budgets are made by the national funding bodies – these astronomers are best helped by making more modern equipment available at their places of work, e.g. PCs for computation and instrument control. In this way, they will have the opportunity to produce front-line science and thereby to collaborate with Western colleagues on a much more equal level, with the obvious mutual benefits. Still, it

is also clear that many excellent, but very poorly paid (especially younger) astronomers will be greatly helped in their daily lives and personally stimulated by the modest Research Grants now allocated.

The first experience has also shown that the scientific merits of the received proposals to some extent depend on the institutes of origin and the distribution of support in the first round has therefore not been completely uniform in geographical terms; this is also not the intention. Nevertheless, almost all major C&EE institutes have submitted proposals which were rated in Class II, and it is therefore likely that more of them will be successful in the second round.

Already in the first round, the ESO C&EE Programme has been able to provide support to a significant number of C&EE astronomers and the impact will soon be felt at many institutes.

A meeting between the ESO Executive and Professor Paolo Fasella of DG XII of the EC will take place in Brussels on July 13, 1993. On this occasion, ESO will inform about the early results and experience of its C&EE Programme and also how this organization is obviously in a good position to judge the true needs of C&EE astronomy. The initial response to the ESO Programme has clearly shown that the overall resources which are needed to provide efficient help to deserving C&EE astronomers are demonstrably much larger than those which can be mustered by the ESO Programme. It will therefore be interesting to explore the possibility of

some kind of EC/ESO collaboration in this field.

Finally, in view of the present UN embargo, the question of support to as-

tronomers within the ESO C&E Programme to astronomers in Yugoslavia (Serbia and Montenegro) has been the subject of some discussions. In its

meeting on June 2–3, Council decided not to consider scientists from Serbia and Montenegro under the ESO C&E Programme.

## The ESO-Portugal Cooperation

When Portugal and ESO signed an Agreement for cooperation in astronomy in 1990, cf. *The Messenger* 61, p. 1, the stated, common goal was to contribute to the rapid and efficient build-up of astronomical resources in this country. After a transition period, the entry of Portugal into ESO is planned to take place within the next decade. Now, three years later, it is gratifying to see that the number of Portuguese astronomers as well as the diversity and complexity of their research programmes is steadily increasing.

Under the terms of this bilateral Agreement, Portugal will provide a yearly increasing amount of support to its still relatively small astronomical community, hereby helping institutes and individuals to establish themselves nationally as well as internationally. This support is given by the Ministry of Science and Technology, through the Junta Nacional de Investigação Científica e Tecnológica (JNICT), the Science Research Council of Portugal. In practice, the available funds are allocated after a competitive application procedure and by recommendation of an Astronomy Panel, appointed by the Portuguese Secretary of State for Science and Technology. The Panel also includes two representatives of ESO.

This Panel has just met in Lisbon at the Headquarters of JNICT on May 24, 1993, to make its recommendations for the distribution of money from the 1993 budget, the third year since the start of this programme. For the current year, the amount of support available corresponds to 70% of what Portugal's contribution to ESO would have been, had the country already become a member. The sum to be allocated corresponded to almost 1 million DM.

Despite the still limited size of the Portuguese astronomical community, there were a considerable number of applications, and the Panel spent more than eleven busy working hours to consider their individual merits. The themes ranged from laboratory studies of the surface chemistry of the icy moons in the outer solar system, multi-band observations of young stellar objects, the properties of stellar clusters in the inner galactic bulge, to observational and theoretical aspects of gravitation. Many

of the proposals were excellent and bear witness to the recent progress in Portuguese astronomy. In the end it was decided to recommend to JNICT that most of them be supported.

The Panel also noted with satisfaction that several Portuguese post-doctoral fellows are expected to return later this year to their home institutes after having obtained Master and PhD degrees at the end of prolonged stays at foreign universities. They will form the spearhead of the new generation of scientists who will carry Portuguese astronomy into a new age.

It is now crucial that they be offered the possibility to continue their work in their home country and the Panel, at the end of its meeting and having discussed in some detail the long-term aspects of this programme, therefore formulated the following recommendation: "Taking into account that it is of decisive importance for the success of the Portugal/ESO accord that the young PhDs in the area of astronomy be able to continue their research in Portugal, the Panel recommends that a substantial part of the funds allocated for the astronomy programme and not attributed be reserved for Post-doc positions in this area."

The day following the Panel discussions, the Portugal/ESO Committee (T. Lago and F. Bello from Portugal; P. Shaver and R. West from ESO) which was set up to monitor the developments within the Portugal/ESO Agreement met to evaluate the progress so far. The Committee concluded that, following a period of initial consolidation during which an important part of the funds available under this programme has been used to build up the infrastructure at the astronomical institutes in Portugal, it now appears that, as expected, individual projects will play an increasingly prominent role, as more and more young astronomers enter into the field.

The Committee noted with great interest and enthusiasm the current plans to establish a Portuguese national observatory on the island of Madeira. The projected observatory, which will also be open for international participation, is considered an undertaking of national importance and is now under discussion at government level. If all goes well, a final decision may be possible already within the current year and the construction of the infrastructure could then start in 1994.

*The Editor*

### FELLOWSHIP ON LA SILLA

A post-doctoral fellowship is offered on La Silla starting at the beginning of 1994. The position is open to a young astronomer with an interest in observational astronomy. The ESO fellowships are granted for a period of one year, normally renewed for a second and exceptionally for a third year.

The successful applicant will be required to spend 50% of his/her time doing support activities and 50% of the time on research.

Applicants normally should have a doctorate awarded in recent years. Applications should be submitted to ESO **not later than 15 September 1993**. Applicants will be notified by October 1993. The ESO Fellowship Application Form should be used and be accompanied by a list of publications. In addition, three letters of recommendation should be obtained from persons familiar with the scientific work of the applicant. These letters should reach ESO **not later than 15 September 1993**.

The research interests of the members of the staff in the Astronomy Support Department include low-mass star formation, formation and evolution of massive stars and starbursts, post-AGB stellar evolution and planetary nebulae, supernovae, active nuclei, high redshift galaxies and galaxy clusters. Staff members and senior fellows act as co-supervisors for students of European universities that spend up to 2 years on La Silla working towards a doctoral dissertation.

Enquiries, requests for application forms and applications should be addressed to:  
European Southern Observatory  
Fellowship Programme  
Karl-Schwarzschild-Straße 2  
D-85748 Garching bei München  
Germany