

Recent Developments

R. GIACCONI, Director General of ESO

Many significant events have occurred in the past few weeks and months which will affect the life of ESO for years to come.

The most important one has been the signing of the "Interpretative, Supplementary and Amending Agreement" to the 1963 Convention between the Government of Chile and ESO, by Mr. Roberto Cifuentes, Plenipotentiary Ambassador representing the Government of Chile and the Director General of the European Southern Observatory on April 18, 1995.

This Agreement, which will have the effect of widening and strengthening the cooperation between ESO and the Chilean scientific community, will be submitted for ratification by the National Congress of the Republic of Chile and by the ESO Council. Upon taking effect, this Agreement will ensure guaranteed access by Chilean astronomers to all ESO facilities up to 10% of the observing time. It is expected that for VLT/VLTI half of this time will be devoted to collaborative efforts between Chilean and European astronomers. In the field of labour relations, the Agreement will result in the incorporation of some fundamental principles of Chilean labour legislation in the internal ESO rules and regulations for the local staff in Chile. Chilean scientists named by a Chilean Committee will participate in all ESO scientific and technical committees. Joint Chile-ESO committees on the preservation of the

environment for astronomical purposes and on programmes of development of Chilean astronomy and related technologies, will play an important role in our future cooperation.

In a joint press release the Government of the Republic of Chile and the European Southern Observatory expressed their desire to continue to work towards the resolution of common problems in a spirit of mutual respect and full collaboration. The signing of the Agreement occurred after months of dialogue between the parties and constitutes an important step towards the solution of some of the pending points on the current agenda for discussions between Chile and ESO. Among the remaining points the most important appear to be well on their way to solution thanks to the determined efforts of the Chilean Government.

The issue of ESO immunity of jurisdiction on Paranal which was violated on March 30, 1995 by the visit of a member of the Judiciary with the support of the police, has been dealt with an official expression of regrets by the Chilean Government and assurances by the Government that all necessary steps within the Chilean constitution would be taken to prevent the recurrence of such incidents.

The issue of imports and accreditation has been dealt with by the issuance of two

notae clarifying the procedures, by the establishment of a point of liaison for ESO at high level in the Chilean Foreign Ministry and by the liberation of all materials which had been upheld at customs. The issue of the claims of ownership of Paranal by the La Torre family is being resolved by the Government of Chile in out of courts direct discussions which will hopefully lead to a settlement in a short time. The Government of Chile has given ESO both public and private assurances that Chile considers this problem as an internal Chilean issue which should not affect ESO-Chile relations. In any case, work on Paranal is proceeding at full speed.

This generally positive evolution of the situation in Chile has been the result of many efforts. The determined effort and resolve of the Chilean Government to deal with the issues in a decisive manner cannot be overemphasized. The actions by the Ambassadors and Foreign Ministries of the member states of ESO in clarifying to the Chilean Government the concerns of the European states for the difficult situation in which various events had placed the VLT/VLTI project were essential. Finally, the continued and patient efforts of many, many diplomats, scientists and administrators both Chilean and European have been essential to progress. We at ESO are extremely grateful to all of them.

The ESO Council, which met in Extraordinary Session on April 19, 1995, expressed its satisfaction for the many positive steps which had been achieved, its intent to ratify the Agreement and instructed the Executive to continue the direct negotiations with the Chilean Government to hopefully resolve all remaining issues prior to the regular Council meeting of June 7 and 8. Important and fundamental as the issue of Chile is to permit us to continue carrying out astronomical programmes, it was only one of significant events in the last few months.

The first comprehensive VLT management report based on a Work Breakdown Structure was presented to the ESO Scientific Technical Committee on May 4 and 5 and to the Finance Committee at its meeting of May 9 and 10. This report, which will be issued every six months at the request of Council, was very warmly received by both committees. Apart from its intrinsic interest for those who are involved in the monitoring of the technical and managerial aspects of the VLT programme, it represents the culmination of a very intensive effort by many groups at ESO to restructure the accounting, reporting and management information systems to cope with the challenge of the VLT project.

In the February ESO-wide annual review the same management principles were applied to the reporting of every ESO activity both in Europe and Chile. The efforts of the VLT Division, the newly created Instrumentation Division, Administration and Project Office, and of the Chile Administration were essential in making this possible. These new tools will be even more important to permit clarity of communication between ESO management and its oversight committees in the difficult financial times that one can see ahead.

While the overall technical progress on VLT is extremely encouraging, the difficulties in Chile in the recent past have resulted in both time and financial losses which are currently being evaluated. We

expect the date of first light to be affected by 3 to 6 months. Financial losses have been experienced due to work stoppages, delays, increased costs for storage of components, rescheduling of planned activities, etc. Resolution of these financial issues will require considerable attention by the ESO Executive and Council over the next year.

In the technical areas the meetings of the Users Committee and of the Scientific Technical Committee have resulted in important decisions regarding the future of La Silla. STC has approved the construction of SOFI (a near infrared imaging spectrometer for the NTT) and the beginning of the assessment phase of the 3.6-metre upgrade plan. The La Silla 2000 group is completing its work of planning for the future of La Silla in the VLT era. The increased attention by ESO to the development and operation of optical detectors with competitive quantum efficiencies, speed of read-out and noise has already resulted in notable improvements. A plan for the continuation of this effort for the VLT instrumentation was enthusiastically endorsed by both UC and STC.

The VLT Science Operation plan was presented to the STC and received a very positive approval and recommendation to proceed even further in implementing the end to end approach to implementation of the science programme that it represents. In general, the increased attention to the planning for the utilisation of the VLT telescopes and instruments has resulted in a first cut study for the necessary software and hardware tools that will need to be developed. Increased attention to and formal representation of the data flow necessary to take us from proposal entry to scheduling, data reception, calibration, reduction and archiving has shown the considerable amount of work still in front of us. A recent ESO Workshop on Calibration and Data Management Techniques was extremely successful in permitting us to measure our progress with respect to past and current large projects in astronomy.

These past few months have been also extremely significant in the development of an even closer involvement of the Science Divisions both in Garching and La Silla in all technical aspects of ESO activities. Staff scientists and Fellows are expected and do contribute to operations, maintenance and upgrading of existing facilities, to the development of new instrumentation, to the development of new software for proposal processing, scheduling and implementation, to the development of physical models of the instruments, to trade-off studies between scientific requirements and engineering difficulties, to development of detectors, in short to all essential activities of ESO as an observatory. While this involvement is being strengthened by proceeding with the hiring to the budgeted staff level, the cooperation between ESO scientists and engineers in Chile and Europe is increasing. Slowly, the concept that ESO is a single observatory, with a single staff whether in Chile or Europe, is emerging. Detector development projects are the responsibility of people at La Silla as well as Garching, the NTT and the 3.6-m refurbishment efforts are being carried out by mixed groups, software development is being carried out jointly and so forth. We consider this approach essential to the successful operation of facilities such as the VLT/VLTI in the future.

I would like to conclude these brief notes by expressing my increasing confidence that ESO and the European astronomical community will prove equal to the challenges of the next century. I base this confidence on the evidence I see of increased cooperation between ESO and its Scientific and Technical Committee and the European astronomical community. On the solidarity which was expressed in difficult times by all member states. On the remarkable performance by the European hardware contractors. Finally on the splendid performance by the entire ESO staff everywhere and in every function.

TELESCOPES AND INSTRUMENTATION

News from the VLT Programme

M. TARENGHI, ESO-Garching

This has been an incredibly challenging period for the VLT Programme. The simultaneous difficulties in Chile and two major external contracts have taxed the management resources of both the VLT

Programme and ESO as a whole. The most serious problems were related to difficulties with the import of material and equipment to Chile and the accreditation of contractor personnel. The second area

of difficulty was the civil engineering work being performed at the VLT site by the Joint Venture Skanska-Belfi which was aggravated by the Chile situation. Finally, the loss by Matra Marconi of access to a