

various constraints (~50 % of the nights). This example illustrates that remote observing is a competitive and successful mode of observation.

D. Alloin discussed the coordination of programmes on an international basis. The nature of some astrophysical questions to which we are faced today is such that their handling requires the effort of a very large astronomical community. She insisted on the potentiality offered by the new electronic devices and on the fact that their optimal use allows nowadays world-wide collaboration in an easy way.

More specifically, J. Clavel described an example of an internationally coordinated observing programme with IUE. This coordination allowed the proposers to perform observations that they would not have been able to conduct individually through standard procedures. These two talks stimulated various reactions from the audience. The main point of both speakers was that, in some cases, there is no other means to tackle fundamental problems that can be solved today thanks to the technological progresses. Later in the day, stellar seismology was quoted as a field in which an international collaboration is essential for obtaining the necessary continuous time-coverage.

Through several examples, M. Crézé demonstrated the necessity of archiving data. His talk was followed by a vivid discussion about the nature of what should be archived. Everybody agreed that we should save the scientific outputs aimed at originally. The CORAVEL experiment was mentioned in that respect; its condensed output is considered as a key to its renowned efficiency. But should we also keep what we might, in the light of new developments, need in the future? ... At that time the spectre of Sk -69°202 was haunting the auditorium ...

A talk centred on the interferometric mode of the VLT (VLTI) was presented by J.-M. Mariotti. It is clear that this very complex mode of observation will require a coordination in the observing programmes to obtain an optimal and efficient use of the VLTI. Before the 4 T8m can be coupled for interferometry, the 2 to 3 auxiliary movable telescopes (VISA) will be used on Paranal. Already, this mode will require on the site a very competent scientific staff specialized in interferometry.

A. Omont discussed some scientific projects which need the full dedication of a telescope, in general now considered as small ($D \leq 2$ m), and which have a strategical interest for the development of astronomy. As an example the 2- μ m survey of the southern sky was described (DENIS). This programme has

been accepted recently as an ESO Key Programme by the OPC and requires the use of the existing 1-m telescope on La Silla more than 50 % of the time during at least three years. DENIS will produce a complete coverage of the southern hemisphere with a spatial resolution of 3" down to $l \sim 18$, $J \sim 16$ and $K \sim 14$. In continuation, A. Omont advocated the construction on Paranal of a modern-technology small-size telescope dedicated to deep wide-field imagery in the near-infrared range (1–2.5 μ m) as has already been proposed by some members of the DENIS team.

A. Blanchard discussed possible uses of the future medium-size telescopes ($D \sim 2$ to 4 m). He demonstrated the need of wide-field multi-object spectroscopy for cosmological programmes. In this respect, the already existing 4-m-class telescopes are well suited and will stay competitive in the era of the T8m.

Then, a panel discussion chaired by P. Léna was held. Intervenorers were J. Beckers, R. Cayrel, J. Clavel, J. Lequeux and L. Woltjer. P. Léna himself opened the discussion. He recalled the cost of the new equipments and the volume of data that they will produce. He urged astronomers to rationalize their programmes and to increase the productivity of the instruments they use by a proper distribution of the outputs.

J. Beckers talked about the complexity of future telescopes and especially of the VLT which will be different from all other existing telescopes including the NTT. In addition, the VLT may evolve in the direction of even more complexity. For instance, adaptive optics is foreseen today only at the primary coudé, but we cannot afford in the future not to have it at the other foci; furthermore, artificial reference stars appear now available, so that they will certainly be requested. In short, it means that we will be dealing with a "whole new age of telescopes" that must be operated differently from before. From this follows the requirement to have on the Paranal site a very competent and dedicated staff. Solid programmes of maintenance and check-up will also be required. The conditions are necessary to assure that the

systems are working at best when they are used by or for scientists. Of course, similar conditions are also necessary to maintain the competitiveness of the other, conventional, ESO telescopes and hence to allow for the justification of activities on La Silla till or even beyond 2001.

R. Cayrel called for a revolution in the astronomers' habits, in their relations with the data-acquisition procedures. The ever-increasing complexity of modern instruments and telescopes is intractable for a scientist observing 3 or 4 nights each year, and sometimes less. For example, the introduction of adaptive optics which will produce a considerable gain in the performances of modern telescopes or the development of the interferometric mode will require the permanent presence of specialists on the Paranal site. All these specialists will have to interact strongly with the users. Some must be themselves scientists with an instrumental speciality. Also, a standardization of the observing procedures will be necessary to avoid duplication of the calibrations and to improve their quality. Finally, R. Cayrel called for an effort towards a more solid conversion of astronomical units into physical ones!

J. Clavel brought the assistance back to space. He cautioned us to be very careful in organizing well in advance the management of observatories in their routine phase and at setting on time proper media for data processing. Finally, he spoke about the development of ESIS whose mission is to archive and distribute scientific data in Europe.

J. Lequeux intervened at that time and reminded the audience that publication in scientific journals is a way of saving data of importance for the future. Paper is still the most permanent support for archiving. On the other hand, access to the relevant data is not always easy as they are not stored digitally. He advocated the evolution of printed journals towards digitally-supported and electronically-distributed journals (see also *The Messenger* 67, p. 58).

As a conclusion, L. Woltjer summarized some of his ideas. He insisted

H.-W. Marck 1914–1992

We received the sad news that Mr. Hans-Werner Marck, accountant at ESO from 1963 to 1976, died on 25.1.1992.

Mr. Marck was in the early days of ESO a close collaborator to the Manager, Mr. J. Bloemkolk, and was in charge of all financial and accounting matters at the beginning of the Organization until the relocation from Hamburg to Munich in 1976.