THE MESSENGER

EL MENSAJERO

Hamburg
Geneva
La Silla
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ESO European Headquarters in Munich

The Council, at its meeting of December 2, 1975, took some decisions of far-reaching importance for the future of ESO.

The Council accepted the very generous offer of the Federal Republic of Germany of a site of 1.2 hectares and a building of a total floor space of 6,000 m² at Garching, near Munich, to house the European headquarters of the Organization. At this headquarters, all departments of ESO will be united, which now are scattered over Hamburg and Geneva.

To widen the contacts between institutes in the member countries and to promote their cooperation among each other and with ESO on the scientific and instrumentational sectors and to secure the optimum functioning of the observatory on La Silla in Chile for the benefit of the astronomical community in the member countries, the Council authorized the Director-General to create a scientific-technical centre. This centre will also take steps towards the coordinated planning of large-scale instrumental developments and observing programmes with other large astronomical projects, in particular in the member states. Until completion of the new building at Garching, expected at the end of 1978, the centre will be located at CERN, Geneva, the host Organization of ESO's 3.6 m Telescope Project Division during the past five years.

Under application of the strictest economy, the Director-General was confident to realize all this within the contribution ceilings fixed by the Council at DM 32.5 million for the year 1976 and estimated at DM 32.5 million and 30 million for the years 1977 and 1978 respectively. The total international staff complement will be 125 in 1976, 122 in 1977, 120 in 1978, with 12 positions blocked in each year.

The chairmen of the various committees were all reappointed, as a result of which the following persons hold office:

Professor B. Strömgren, President of Council; Professor J.-F. Denisse, Vice-President of Council; Mr. M. Deloz, Chairman of the Finance Committee; Professor L. Biermann, Chairman of the Scientific Policy Committee; Professor G. Courtès, Chairman of the Instrumentation Committee, and Dr. G. Wlérick, Chairman of the Observing Programmes Committee.

ASTRONOMY AT ESO

Supernovae in the Magellanic Clouds

The study of the Small and the Large Magellanic Clouds is a great privilege of the astronomers in the southern hemisphere. Their importance is mainly due to the small distance from us (50 and 63 kpc), which allows the astronomer to observe in them fine details and faint objects. In addition, the Clouds appear to be in an evo-

lutionary stage quite different from that of our own galaxy, as witnessed for instance by the relatively high percentage of mass in gaseous form. In order to gain more understanding of the evolution of stars and galaxies, it is therefore very important to investigate in the Magellanic Clouds questions such as the metal content or the detailed properties of regions of star formation and death. Astronomers have been going after these questions for years and one can imagine that the forthcoming large ESO telescope will help elucidating many of the present problems.

Recently at ESO, astronomers J. Danziger and M. Dennefeld started to take another look at some supernova remnants in the Large Cloud. One of the objects investigated is N 132 D which had been studied already by Westerlund and Mathewson about ten years ago. The study of Danziger and Dennefeld leaves no doubt that N 132 D is the remnant of a stellar explosion somewhat similar to the galactic object Cas A. In addition, the same study suggests that this object may possibly be the source of an intense flux of X-rays recently reported by a group of American scientists. Should this be the case, N 132 D would be the most powerful X-ray emitter of all known supernova remnants. This circumstance could be explained by the fact that the explosion took place in an environment denser than the interstellar space of our own galaxy, thus changing the evolutionary history of the remnant. It is also interesting that almost all supernova remnants in the Magellanic Clouds seem to be associated with regions of ionized hydrogen (H II regions).

Theoretical studies on this and related problems are now under way in the ESO Scientific Group in Geneva. These studies and the parallel observational work on supernova remnants in the Magellanic Clouds are not only of interest in themselves but may lead to more insight on the effects and peculiarities of stellar explosions in dense media such as those possibly prevailing in the nuclei of galaxies.

STAFF ASSOCIATION NEWS

New Staff Representatives Elected

Elections took place in Chile on December 9, 1975, in Hamburg on December 19, 1975 and in Geneva on January 27, 1976. The following representatives were elected:

ESO-CHILE:	F. Simon (Chairman) W. Eckert (Deputy) S. Balon (Substitute)
ESO-HAMBURG:	R. Marcinowski (Chairman) J. van Tol (Deputy) Barbara Hansen (Substitute)
ESO-GENEVA:	D. Enard (Chairman) P. Scharnweber (Deputy) Suzanne Nègre (Substitute)

Local Staff Organization, La Silla

The "Directorio" of AUPL has the following members:

Reinaldo Kennett (Chairman)
Ramón Huidobro (Vice-Chairman)
Rolando Veliz (Secretary)
Luis Aguila (Treasurer)
Maria Acosta
Germán Gonzalez
José y Alfredo Rozas

One of the supernova remnants in the Large Magellanic Cloud, photographed in blue light with the ESO 1 m Schmidt telescope.

PROFILE OF A VISITOR'S PROGRAMME:

Spectra of Bright Southern Stars

When Danish astronomer Johannes Andersen and his Swedish-born wife, Birgitta Nordström, also astronomer, appear on La Silla, the night assistants at the ESO 1.5 m spectroscopic telescope know that they are in for some hard nights' work. For although their observing programme may not seem glamorous when compared to present-day X-ray sources and black holes, it is certainly a very important and fundamental one, demanding a lot of first-class astronomical observations.

The radial velocities of many bright southern stars have never been measured and no high-resolution spectra have ever been taken of them, due to the well-known lack of suitable telescopes in the southern hemisphere. Now Andersen and Nordström, of Copenhagen Observatory, are filling this gap. They have selected 450 bright stars of spectral types B0-F4, with the aim of taking three spectra of each, in order to detect possible variability and to obtain radial velocities, accurate to a couple of kilometres per second. During three major observing sessions, they have obtained more than 1,600 spectra of these stars as well as of 250 selected B8-A0 stars, which P. Grosbøl, also of Copenhagen Observatory, uses for calculations of the spiral structure of our galaxy. During some nights, more than 70 spectra, all at 20 Å/mm, were taken. No wonder that everyone was busy!

In the course of this work, many new double-lined spectroscopic binaries have been detected, along with a substantial number of Be, shell and other peculiar stars. Another Danish astronomer, Erik Olsen, has taken a photometric look at 17 of the spectroscopic binaries with the Danish 50 cm telescope on La Silla and he found that at least four of them also show eclipses.

This programme is just one of some fifty which were carried out in 1975 with the ESO telescopes on La Silla.