

newly-installed dual screen HP-735 at the Danish 1.54-m. The graphical user interface will resemble the one at the Dutch telescope but the functionality will of course be expanded to allow the control of the significantly more complex DFOSC instrument. DAISY will interface to the DFOSC controller (slit, filter, and grism wheels, camera focus) as well as with the telescope focus unit, the filter and shutter unit (FASU), and the CCD controller. Thus DAISY will provide an integrated interface to the complete instrument.

The new HP-735 workstation and the newly installed 150 MHz Pentium PC, which controls the CCD, are now capable of reading out a full $2k \times 2k$ CCD

frame (when using a single read-out amplifier) and display it on the MIDAS display on the workstation in less than 90 seconds. In the coming year we will experiment with using two amplifiers simultaneously. This should reduce the read-out time to well under 1 minute.

EFOSC-2 CCD Upgrade

In the last week of July we plan to install a UV-sensitive CCD in EFOSC2. The device will be a thinned LORAL $2k \times 2k$ chip of the platinum flash gate type. This means that the device will not need UV flooding to achieve the high quantum efficiency (a significant operational advantage), but otherwise the specifications

are very similar to the ones of the chip currently in operation at the ESO 1.52-m telescope (see above). The new CCD will be significantly larger than the Thompson chip currently in use but the pixels will be slightly smaller ($15 \mu\text{m}$ compared to $19.5 \mu\text{m}$). The field of view will thus increase, but we expect that the image quality will degrade towards the edges of the field as EFOSC2 was not designed for such a large-format detector.

With this upgrade, the optical instruments mounted on the three main telescopes operated by the 2.2+1.5-m Telescope Team will all have high-quantum-efficiency, large-format CCDs, making them truly competitive for the coming years.

IRAC1 – Back in Good Shape

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IRAC1 is ESO's 1–5-micron imager on the 2.2-m telescope. It has been operating in its present form since 1994.

For IRAC1, 1995 was a disappointing year. Apart from its infrequent use by the community, the camera had suffered from significantly reduced throughput

and significantly higher backgrounds than what was found during the initial test observations of 1994.

During the new year, it was discovered that an oily liquid was deposited on the inside of the entrance window lens. The origin of this liquid is unclear, but may be due to the evaporation of over-

heated insulating material when the detector is baked inside the dewar. The liquid was removed and baking is performed now with greater care. Since that time there have been two observing runs with the camera. The performance of IRAC1 has returned to that measured in 1994.

The Mechanical Support Team (MST)

G. IHLE

Everyone who observes at, or visits, La Silla would have come into contact with the Mechanical Support Team. Some of the time, it is a last-minute modification to a well-prepared experiment; at others, it is a broken pair of spectacles or a broken luggage handle that needs repairing.

The day starts with the eight-o'clock meeting with the other teams. This is where and when the previous night's problems are discussed. Back to the workshop, and after a short discussion, the mechanics plan the day's activities. The stand-by mechanic takes care of all the emergency calls while the other mechanics are dedicated to continuing projects or maintenance. The dome mechanics continue to check daily the condition of the domes, compressors and hydraulic systems of all the tele-

scopes. The cryogenic experts produce the cryogenic liquids vital to the continuing operation of modern detector systems.

At ten o'clock, there is a break: it's coffee time. The famous *CAD* (Café A las Diez) is held in the design and engineering office. Issues of importance are discussed. If you happen to arrive you will probably find interesting conversation and a good provision of chocolates or cookies that many times are provided by our friends in Garching.

Problems of varying complexity and bewildering variety appear continuously, and most of the time they have to be solved as soon as possible.

During the whole year there are other jobs that require special attention. The aluminisation of telescope mirrors is one of great importance. This delicate job is

handled by the MST until the mirror is left at the aluminisation plant, where the Optical Group takes over. After cleaning and aluminisation, the MST take care of its re-installation.

The different projects that are developed by the MST at La Silla start from an idea that is expressed as detailed design to the manufacturing of parts to a precision, when required, of no less than a few microns. The MST have conceived projects as the Schmidt guider and film holder, EFOSC2, the 1.52-m telescope mechanical upgrade, the NTT telescope installation, the CCD adapter flange for the CES, the mechanical improvements for different telescopes, etc. They have been carried to reality by a group of mechanics with a vast experience and a willingness to make things to the highest quality.



▲ VLT enclosures 1 and 2 photographed by H. Zodet in May 1996.



▶ The primary mirror cell of the VLT (Unit 1) is turned at the St-Chamond GIAT factory, prior to undergoing dimensional check and painting (16/07/96).

The structure of the primary mirror cell has been assembled face down on a dedicated jig, by welding together a number of sub-assemblies previously generated by means of laser cutting and welding technology.

(Photographer: H.-H. Heyer)