
# The La Silla News Page

*The editors of the La Silla News Page would like to welcome readers of the fourteenth edition of a page devoted to reporting on technical updates and observational achievements at La Silla. We would like this page to inform the astronomical community of changes made to telescopes, instruments, operations, and of instrumental performances that cannot be reported conveniently elsewhere. Contributions and inquiries to this page from the community are most welcome.*

## News from the NTT

*O. HAINAUT and the NTT Team*

During the past months, many things have changed at the NTT. In June, we closed the telescope during 10 days, for a major maintenance period. During that time, our computer system was completely upgraded: the 99FEB version of the VLT software was installed, together with the latest version of the Data Flow Software. In parallel, several machines were either changed or received additional memory, making the whole system much faster. Visiting astronomers will be pleased to learn that the observer's workstation has been replaced by an HP-C360 (a very powerful machine) equipped with 50 Gb of disk for data storage and analysis. The latest versions of MIDAS, IRAF, IDL and eclipse are installed and running on this machine. A consequence of the workstation upgrade is that P2PP (the "Phase II Preparation Programme" used to prepare the observations) is running much faster: one no longer has to wait several seconds for a pop-up to appear. The La Silla software team did a great job at installing this software with the help of colleagues from Garching and Paranal. At this time, there are still a few details to be ironed out (e.g. a problem of compatibility between the new software and the old time distribution cards on the axes computers), but they should be solved soon, and have no major impact on the operation.

During the June technical time, all the telescope optics were maintained: Alain Gilliotte washed the main and tertiary mirrors with soap and water (cf. Fig. 1). The result is excellent: M1's reflectivity is back to 89.5%, while it was 90.1% right after its last aluminisation two years ago. The micro-roughness of the mirrors was not fully restored by the washing: it is now 37Å, instead of 10Å after aluminisation. We are investigating the consequences of this change on the diffused light. The secondary mirror was also aluminised.

EMMI and SUSI2 received a complete optomechanics maintenance: all the optics were cleaned, and some motors were changed. The dichroic used in EMMI-DIMD was inspected, as it was suspected to cause some problems, but was found in good shape. SUSI's M4 (the pick-up mirror) was found to have a damaged coating; the whole mirror is being replaced. Various narrow band filters just arrived for SUSI2: H$\alpha$, H$\alpha$ (6000 km/s), H$\beta$, H$\beta$ (6000 km/s), O III and He II. They will be tested and hopefully offered soon to the observers.

SOFI has been misbehaving over the past months: the liquid Helium closed-cycle cooler failed just before the technical time (during which it was supposed to be maintained!), causing the complete loss of three nights. After its replacement, it was discovered that part of the instrument was not properly cooled. This new problem is being investigated, and will force us to re-open the instrument soon. In the meantime observations are not disrupted as we use the LN2-based pre-cooling system.

A new GPS board arrived to replace the one we are currently using for our time reference. In August the week counter of the general GPS system will reach the critical value of 1023, then restart at 0. Our GPS, as most of those more than a few years old, cannot deal with this change and will find itself back in the late 1970s. After changing a chip in our old board, we will keep it as a spare.

From the operational point of view, the past months have seen the implementation of a detailed plan of preventive maintenance. Every day, a scheduler provides us with a list of items to be verified and, in most cases, we just have to run a "template" which performs a series of measurements, and generates a plot and diagnostics.

The NTT is still operated with a team that is short of one astronomer, who should replace Chris Lidman (who left for the VLT) as SOFI instrument scientist. During the first six months of the year, the fellows were asked to perform extra duty days at the telescope to ensure full support of each SOFI run, but in August, we will have to offer this instrument with minimum support. We hope to recruit an additional astronomer in the coming months.

Ismo Kastinen recently joined the team as our 6th Telescope and Instrument Operator. This will allow us to run the telescope most of the time with a day, a night, and a day/night operator. This configuration provides the necessary manpower to perform the operations required by the calibration and maintenance plans.

During the coming months, we plan to update the EMMI and SUSI observation templates. As these were written at the time of the "Big Bang" (the 1996–1997 one, not the cosmological one), and as they were the first observation templates ever written, they are far from ideal from an operation and maintenance point of view. We hope to be able to offer the new ones early next millennium.

*Figure 1: Alain Gilliotte, optician engineer at La Silla, is starting to wash the NTT main mirror, with a solution of soap and water and a sponge.*