

# NEWS from the NTT

## *O. Hainaut and the NTT Team*

Since the last article in this series, the NTT has been through a complete rejuvenation process: during a period of 5 technical nights in December 1999, the main mirror has been re-aluminised and the telescope, the walls of the telescope room, and the main parking lot have been painted. The NTT looks brand new, while it has just passed its 10th anniversary.

The result of the aluminisation is excellent: the reflectivity is back to 91% and the micro-roughness to 10Å. These values are similar to those we obtained after the previous aluminisation, which took place 3.5 years ago. It should however be noted that, thanks to the weekly CO<sub>2</sub> cleaning and the water cleaning every 3–6 months, just before the aluminisation, the reflectivity was still at 87%, and the micro-roughness at 60Å. The amount of diffused light was measured before and after the aluminisation (using the radial profile of bright stars): a significant improvement is noted in the U, B, and V filters, of the order of 40, 30, and 20% respectively, at 40" from the star. No significant improvement was measured in R, I, J, H and K.

The outside parking lot and platform were repainted in white, in order to minimise the amount of heat that is accumulated during the day and released during the night. Be sure not to forget your sunglasses when you exit the telescope during daytime: the platform's

albedo is now very close to 1! The inner walls of the telescope room have been painted with a high-diffusion paint to cut down the reflection of the Moon during the night. Indeed, the former grey walls were quite glossy, and we often had some nasty reflections when observing with the Moon up. The telescope itself has also been painted (we did not change the colours) to protect the structure, which was starting to oxidise in places.

During Period 64, the NTT schedule includes 14 nights of service observing. Unfortunately, the weather is not very co-operative, but the programmes are being executed. The User Support Group maintains a web page where the progress of these programmes can be monitored, see URL

<http://www.hq.eso.org/observing/df/>

Since the last article, the data-reduction pipeline has significantly grown thanks to the intensive work of B. Joguet (NTT). All the imaging modes of the three instruments are now supported, and data from some of the spectroscopic modes are also processed: a couple of minutes after you take a RILD spectrum, you get a wavelength-calibrated, flat-fielded version of your spectrum. The remaining modes (i.e. echelle spectroscopy, IR polarimetry imaging) should be implemented in the coming months. Consequently, we are now keeping a library of standard

calibrations: you can request from your support astronomer the flat-field, biases, darks, etc., from the previous weeks.

SOFI, the IR spectro-imager, is still misbehaving. Over the past months, we had an alert with the closed-cycle cooling system (now under control), with the Detector Control System (under investigation, but now behaving properly) and with the Grism wheel. The latter is still not working, and is kept in the "open" position, in order to permit imaging observations. An intervention on that wheel is foreseen in April, but until that date, no spectroscopic (or polarimetric) observations will be possible. The PIs of the affected programmes have been contacted. After the April intervention, the problem should be solved in a permanent way.

To conclude this message, I am happy to announce that the change from 1999 to 2000 did not cause any problem at the NTT: we stopped the whole system on December 31 at 18:00 (the control room with all its 17 switched-off monitors is a depressing sight), and restarted everything at 21:30 (January 1, 2000, 00:30 UT). By 23:30, i.e. after the time to start everything, we were on the sky.

Finally, the IR staff position has finally been filled: Leonardo Vanzi, former NTT fellow, is now the SOFI instrument scientist.

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## ***New Pictures from Paranal Observatory***

