

the optical power requirement, which is to have 589 nm laser modules producing each ≥ 6.5 W CW of narrow-band (10 MHz) laser output power at the sodium D₂ line.

Even without counting potential improvements arising from the dye-nozzle optimisation, we can expect each module to deliver 7.6 W CW at 589 nm, using the 2 × 10 W Verdi pumps. Two complete dye-laser modules will then produce ≥ 13 W CW at 589 nm.

This experiment, together with the former experimental results of the single-mode fibre laser relay⁴, completes the feasibility tests for the innovative concepts of the baseline LGSF.

The dye laser tested has proven very stable and reliable. Before freezing the

decision on the final laser system for LGSF, we plan to explore further alternatives.

Finally, in Figure 3, we plot the equivalent LGS magnitude in V-band, assuming average sodium column densities, typical atmosphere and launch telescope transmissions for different telescope zenithal distances.

References

(1) Bonaccini, D., Hackenberg, W. and Avila, G: "The Laser Guide Star Facility for the VLT", in Proceedings of the ESO June 23–26 1997 Workshop on 'Laser Technology for Laser Guide Star Adaptive Optics', p. 152–157, N. Hubin ed.

(2) Bonaccini, D., Hackenberg, W., Cullum, M., Quattri, M., Brunetto, E., Quentin, J., Koch, F., Allaert, E. and Van Kesteren, A.: "Laser Guide Star Facility for the ESO VLT", *The Messenger* No. 98, p.8-13, Dec 1999 – <http://www.eso.org/gen-fac/pubs/messenger/>

(3) Davies, R.I., Eckart, A., Hackenberg, W., et al., 1998. In: Adaptive Optical System Technologies, Bonaccini, D., Tyson, R.K. (eds.), Proc. SPIE 3353,116.

(4) Hackenberg, W., Bonaccini, D. and Avila, G: "VLT Laser Guide Star Facility Subsystem Design Part I: Fibre Relay Module", *The Messenger* No. 98, p.14–18, Dec 1999 – <http://www.eso.org/gen-fac/pubs/messenger/>

For information on the Compass Verdi V-10 laser, see www.cohr.com



The La Silla News Page

The editors of the La Silla News Page would like to welcome readers of the fifteenth 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.

2p2 Team News

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The 2p2 Team continued towards the implementation at the 2.2-m of the same BOB (Broker for Observation Blocks) observing interface as seen at other ESO telescopes. This requires an interface to be written between the existing BOB software and the non-VLT compatible control software for the Wide-Field Imager (WFI) and 2.2-m. Cristian Urrutia, Tatiana Paz and Eduardo Robledo are heading its development. With this software in place, observers can use the VLT Phase 2 Proposal Preparation System (P2PP) for definition of their exposures, whether they are for Visitor or Service Mode.

In the longer term, there are plans to upgrade the current WFI archiving operations to become identical to those presently on Paranal. Such a system would readily streamline the amount of data handling during archiving. This would be an important step for an instrument such as the WFI, from which we currently see data volumes of around 200 Gb per week, the ingestion of which by the Science Archive in Garching carries large overheads.

In January we bade farewell to Team Leader Thomas Augusteijn who left

ESO for the Isaac Newton Group of Telescopes on the island of La Palma in the Canary Islands. Our new leader will be Rene Mendez from CTIO here in Chile, who has interests in Galactic structure and astrometry. We wish him a warm welcome to ESO. Rene will commence work with the team in September. In the meantime, existing team member Patrick François, currently on secondment to ESO from Observatoire de Paris, has taken over Team Leader duties. In February we welcomed Fernando Selman to the team. Fernando is currently undertaking his PhD on massive star-formation regions in the LMC, under the supervision of Jorge Melnick. Around the same time we farewelled long-time Telescope Operator Pablo Prado to the Gemini Project. Our best wishes accompany him.

During the re-aluminisation of 2.2-m M1 in April, Alain Gilliotte and Gerardo Ihle inspected the mirror cell as part of ongoing efforts to find the cause of astigmatism often seen as a result of large zenith travel. With the help of members from the Mechanics Team, they discovered a problem with one of the fixed mirror supports. Correction of

this now sees astigmatism reduced to the range 0.07 and 0.15 arcsec up to 60 degree zenith distance. For many applications, the amounts of astigmatism are negligible. Further room for improvement is foreseen by Alain which we hope to accommodate during the coming months. A dedicated *Messenger* article has more details.

At the ESO 1.52-m there have recently been major efforts on several fronts. In the final week of April, the mirror was re-aluminised and a replacement slit-unit installed in the Bolter and Chivens spectrograph. This should allow observers greater precision when selecting slit-widths with this instrument. At the same time, the control room of the ESO 1.52-m has been extensively refurbished, giving it the same modern and comfortable working environment of other ESO telescopes.

New (or even old) observers are reminded that information on all of our telescopes and instruments can be found through the team web pages at <http://www.ls.eso.org/lasilla/Telescopes/2p2T/> This information is kept up-to-date with all major new developments.