

Proposed talk for the 2012 CfAO Laser Workshop at Lake Arrowhead

Presenter: A. Otarola in behalf of the collaboration team

Team: Paul Hickson, Ronald Gagné, Brent Ellerbroek, Corinne Boyer, Angel Otárola

Proposed title: Capabilities at the UBC/LZT site for testing LGS lasers

Summary: The UBC's LZT site holds a laser facility that has been used for the monitoring of the vertical distribution of Sodium atoms in the mesosphere. More recently, in collaboration with TMT, the site has been equipped with additional facilities and instrumentation to help testing the efficiency -in the coupling to the Na atoms layer- of LGS lasers. In particular, is the interest of TMT to use these new capabilities to test the efficiency of the TIPC pulsed laser that has been proposed as a possible laser for the TMT's LGS facility.

The upgrades to the UBC/LZT site, done with the support of TMT, includes, i) a new building to be used as a laser room where to install the lasers to be tested and their corresponding power & control electronics, ii) optical equipment (Scanning Fabry-Perot Interferometer, fast photodiode sensor and miscellaneous optical filters) to measure the characteristics of the laser spectral formats and pulse-shapes for the case of pulsed lasers, and also importantly, iii) the site now counts with a 12" Ritchey-Chrétien telescope equipped with a SBIG CCD camera for the imaging of natural stars and the LGS spots to help in the determination of the efficiency of LGS lasers.

This presentation will describe the new UBC/LZT facilities and ancillary equipment for the testing of LGS lasers, and will show some preliminary results obtained during the readiness tests carried out in the summer of 2012.

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