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NON-SPECIALIST: Progress with the development of the Lunar Laser Ranger for South Africa

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Abstract content
 (Max 300 words)

The development of a Lunar Laser Ranger based on a 1 m Cassegrain telescope is progressing well. This overview reports on the progress and sketches the way forward. Construction of a suitable housing for the telescope and a transportable control centre has been completed. Pointing and steering of the telescope is a critical issue and an overview is given of the software being developed as well as of the hardware requirements of the azimuth and elevation drive. A suitable laser system is being developed and the specifications as well as expected return signal levels are described. Data processing will be done using specially developed software which will allow highly accurate lunar ephemeris calculation in an orbital integrator which makes provision for the dynamics of the planets, the Moon and a number of asteroids. Possible scientific applications and participation in future interplanetary laser transponder based missions are described.

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Primary author: Prof. COMBRINCK, Ludwig (HartRAO)

Presenter: Prof. COMBRINCK, Ludwig (HartRAO)

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