

Collision Avoidance using Ground Based Lasers

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The Space Environment Research Centre (SERC) aims to demonstrate the ability to perform collision avoidance maneuvers for high area to mass ratio objects using ground based lasers. Lockheed Martin has created an end-to-end system model that includes high power laser propagation through the atmosphere, target interactions and subsequent orbital maneuver of the object. This paper will briefly review the model and focus on performance estimates for laser maneuver demonstration with potential targets and associated trade studies.