

B. Greene

On-Orbit Calibration of Laser Beam Intensity

Various methods for moving space debris in orbit have been proposed. These include the use of high power laser beams to move space debris away from the path of operating satellites, or even to fully de-orbit debris by moving it to successively lower orbits.

The Space Environment Research Centre [SERC] expects to initiate space debris manoeuvre with very high power lasers from 2019. Preliminary steps include developing special catalogues of known debris objects with suitable properties, and calibration of SERC laser beam intensities in space.

SERC will launch test satellites from 2018 to allow its laser and adaptive optics teams to refine the performance of their systems prior to full scale engagement of space debris in 2019.

The space-based infrastructure will be made available to the international community for testing of high power laser beams in space.