



Abstract JD9-108P, page 50

Dedicated Asteroid and Comet Radar

Steven Ostro, JPL, USA, Steven.J.Ostro@jpl.nasa.gov

Alexander Zaitsev, IRE, Russia, alzaitsev@ms.ire.rssi.ru

Yasuhiro Koyama, CRL, Japan, koyama@crl.go.jp

Alan Harris, DLR, Germany, alan.harris@dlr.de

Radar offers a powerful means of investigating the physical and dynamical properties of asteroids and comets. A radar facility dedicated to NEAs would probably consist of two large, fully steerable antennas, one for transmitting at a mean power of about a megawatt and one for receiving, separated by several tens of kilometers, operating at a wavelength between 0.9 and 3.5 cm. This system would be an order of magnitude more sensitive than the upgraded Arecibo Radar Telescope and would provide more NEA observation time in one year than existing radars will in a decade. We propose the implementation of this radar telescope as an international project.