

Operational Issues and New Missions

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Several current and upcoming European missions with retroreflectors including ERS-2, GOCE, and SWARM are focused on Earth sensing and technology applications. SOHLA-1, to be launched in early 2009 by JAXA for a demonstration of small, low cost technical payloads; since the spacecraft will be spinning, it will pose a tracking challenge since access to the retroreflector array will only last a few seconds in every few minute revolution period. Astro-G, a space borne VLBI antenna, is planned for launch in 2012; the highly elliptical orbit and bi-modal, switching operation of the antenna; will also limit normal points to very short intervals and require some special data handling procedures. The Precision Expandable Radar Calibration Satellite being planned by NRL for calibrating radars and studying drag and electromagnetic conditions in orbit will carry over 1000 retroreflectors distributed inside and outside of a spherical deployable frame. Consideration for an Optical Link for the ACES Mission was discussed along with concepts for resolving the range biases in one-way ranging experiments and a novel application of SPADs using no optics. An IR camera and aircraft radio detection beacon using a patched antenna array offers promise of a new aircraft detection safety systems for laser ranging. The implementation of the Consolidated Laser Ranging Format is underway with full implementation later in 2009. Moblas 8 returned to operations. Posters included some historical SLR information, a status on the ILRS website update, and the upcoming ANDE mission scheduled for May 2009.