

Resolution ____

Placing Laser Retro-reflectors on Satellites of the Global Navigation Satellite System

IAG,

NOTING:

- The extensive and accelerating use over the past 15 years of the Global Navigation Satellite System (GNSS, i.e., United States' Global Positioning System (GPS) and the Russian GLONASS) and the anticipated future use of new GNSS (i.e., European Galileo and China's COMPASS); and
- The societal benefits increasingly derived from the GNSS techniques;
- The essential contribution of GNSS techniques to the multidisciplinary scientific advances within the IAG and other institutions,

RECOGNIZES:

- The requirement for improved inter-technique calibrations and validation needed for the demanding geodetic accuracies of these applications;
- The need for improved interoperability between the different GNSS systems; and
- The resulting improvement in our understanding of the Earth system processes, including geo-hazards, ice and ocean mass transport, atmospheric processes, and sea-level variations.

RECOMMENDS THAT:

- GNSS providers ensure that a precision laser retro-reflector array, consistent with Global Geodetic Observation System (GGOS) standards, is placed on all future GNSS satellites;
- A careful pre-launch ground calibration/measurement of the center of mass offset of the array is provided; and
- IAG scientists, Commissions, Services and the GGOS advocate an awareness of the critical importance of placing the retro-reflectors on GNSS satellites.