May 2012

Quest awarded Phase III contract to develop, build and install new Load Bearing MLI on NASA Multicenter Liquid Hydrogen Reduced Boiloff Test Program

NASA selected Quest to design, build and install new Load Bearing MLI (LBMLI) on two large test tanks at Marshall Space Flight Center and Glenn Research Center. Quest's LBMLI can self support large Broad Area Cooled (BAC) thermal shields without need for tank supports to eliminate parasitic heat leak into the cryotank. LBMLI uses the structural strength available in IMLI and LRMLI insulation to support externals while still minimizing heat leak. Passive and active cooled systems with LN2 and LH2 tanks will be tested, along with extensive vibe and depressurization testing, to further mature IMLI and LBMLI technology.

The test program will also provide a head to head test between a BAC shield with traditional MLI and tank standoffs and a BAC shield supported by the new LBMLI.

Reduced boiloff of cryogenic propellants is a critical technology need for longer duration NASA missions.