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## Current status of selenodetic mission in SELENE

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Three selenodetic experiments are planned in Japan's SELENE (Selenological and Engineering Explorer) mission. One is the Laser Altimeter (LALT) which measures the distance between the Main Orbiter and the lunar surface to study the topography of the Moon. The second is four-way range-rate measurement by using a sub-satellite (RSAT). The last one is differential VLBI measurement of the two sub-satellites which are equipped with radio sources of S and X bands (VRAD). Both RSAT and VRAD experiments contribute to the lunar global gravity field measurement. As of early 2005, SELENE is scheduled to be launched in 2006 and various tests are now being conducted. The LALT which is onboard the Main Orbiter takes final check-out in the manufacturer to join the final PFM (proto-flight model) integration test. All the components on the two sub-satellites had been already delivered to the Japan Aerospace Exploration Agency (JAXA) from the manufacturer and the PFM integration test has already begun in late 2004. The receiver systems for the VLBI ground stations are developed and equipped to the VERA (VLBI Exploration of Radio Astronomy) antennas of National Astronomical Observatory of Japan (NAOJ) and Chinese sites (Shanghai and Urumqi). Test observations of spacecraft and quasars by these VLBI stations have been done since 2002.