

## かぐや (SELENE) 搭載磁力計の軌道上較正

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### In-orbit calibration of the lunar magnetometer onboard SELENE (KAGUYA)

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The high sensitivity fluxgate Lunar Magnetometer (LMAG) is onboard SELENE (KAGUYA) in order to reveal the near-surface electromagnetic environment and the evolution of the moon through the magnetic field observation. The position and orientation of the fluxgate sensor (MGF-S) in orbit are monitored by measuring known magnetic field generated by the Sensor Alignment Monitor Coil (SAM-C). In-orbit calibration of the orientation of the MGF-S using the SAM-C has been performed heavily during the initial check-out phase of the satellite and regularly afterwards to monitor alignment change. Observed stability of the orientation in-orbit is below 0.6 degree. The offsets of the MGF-S have been determined routinely. The obtained angles and offsets are being used to calibrate magnetic field data with accuracy about 0.1 nT, allowing us to detect magnetic anomalies of the lunar crust and induction signature from the interior of the moon.