

PPS003-P01

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Output Power Change of the Laser Altimeter (LALT) onboard KAGUYA

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One of the instruments boarded on KAGUYA lunar orbiter, LALT, which measured the distances to the lunar surface with an accuracy of 4 meters from 30 December, 2007 to 10 June, 2009. The aim of LALT is precise and accurate measurements of the global lunar topography. The acquired range data amounts to more than 20 millions.

The laser output power of LALT showed several variations not seen during the pre-launch tests such as (1) the monotonic laser power down through the full operation (0.77mJ/106 shot), (2) periodic and short term temporal variations of the output power, (3) and relatively rapid power down observed on 9-14 April, 2008. We will report these phenomena in detail and discuss their causes.

Keywords: kaguya, selene, laser, altimeter