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## **Japanese Lunar Exploration Program**

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Last year in 2007, JAXA launched a lunar orbiter Kaguya (SELENE) onto a lunar polar orbit, fifteen years since Japan's first lunar orbiter/hard lander mission Hiten launched in 1990. Kaguya carries 14 instruments aboard including high definition TV camera, weighing totally about three tons, and it is the most sophisticated and largest lunar explorer launched since Apollo program. Kaguya finished its early/initial orbit operation phase and started its regular observation last December. Kaguya provided its first intensive look at the lunar surface, which stunned observers interest very much. Every instrument aboard Kaguya functioned well, and the scientific results have been accumulated and will be presented/published in very near future.

JAXA established last April the JSPEC (JAXA Space Exploration Center) to advance its Lunar and Planetary Exploration activity in post-ISS era. JSPEC runs Hayabusa and Hayabusa-follow-on missions as well as the Lunar Exploration missions of JAXA. JSPEC aims at fostering and advancing Japan's Exploration status that have some advantages over others. For this purpose, JAXA has contributed to the international collaborative activities represented by ISECG (International Space Exploration Coordination Group) efforts, and played a key role in having the Space Exploration Framework Document that was first agreed among participating agencies in Kyoto in March of 2007.

JAXA has started its Phase-A investigation for the SELENE-2, a lunar lander, which will be launched in the middle of 2010s. SELENE-2 will carry both scientific instruments and utilization research payloads on it. It possesses the top objective of securing Japan's own landing capability to place and deploy the payloads on the surface intended. SELENE-2 will be followed by advanced version of SELENE-X, whose mission contents are still under investigation ranging from Sample & Return to Logis-

## tics Demonstrator.

JAXA believes the future real lunar exploration will have to accompany an International Cooperation inevitably, and is currently seeking Humans Transportation means with other agencies. The Lunar Exploration JAXA assumes will do have humans activity, and will develop necessary technologies taking the advantage of the ISS experience JAXA has distilled. JAXA is sure its missions will complement the international lunar exploration activity.