

Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

©2011. Japan Geoscience Union. All Rights Reserved.



U005-18

Room:IC

Time:May 26 15:15-15:30

Outline of Hayabusa-2, next asteroid sample return mission of Japan

Makoto Yoshikawa^{1*}, Minamino Hiroyuki¹, Satoru Nakazawa¹, Masanao Abe¹, Tsuda Yuichi¹, Junichiro Kawaguchi¹

¹JAXA

Hayabusa spacecraft finally came back to the earth on June 13, 2010. It has a quite dramatic story and we had a lot of experiences about planetary mission. And now we have started Hayabusa follow-on mission, Hayabusa-2. It is an asteroid sample return mission again, but the type of the target asteroid is C-type, which is different from the target of Hayabusa, Itokawa (S-type). The scale of the spacecraft is similar to Hayabusa, but many parts will be modified so that we will not have the troubles that we experienced in Hayabusa. Also the spacecraft has new equipment, which is called impactor. The impactor will make an artificial crater on the surface of the asteroid, and we will try to get the sample inside the crater. Then we can get much fresh material. The planned launch year is 2014 or 2015, arriving at the target asteroid 1999 JU3 in 2018, and coming back to the earth 2020. The budget of Hayabusa-2 has been approved by the Japanese government, so we can start manufacturing it from April 2011.

Keywords: Asteroid, Sample return, Hayabusa