

Outline of the next asteroid sample return mission - Hayabusa-2

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From 2011, Hayabusa follow-on mission, Hayabusa-2, has started. It is an asteroid sample return mission like Hayabusa, but the type of the target asteroid is C-type, which is different from the target of Hayabusa, Itokawa (S-type). It is considered that C-type asteroid contains more organic or hydrated minerals, so we can investigate the origin of water and organic matter of the life on the earth as well as the origin of the planets. 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 (2015 as backup), arriving at the target asteroid 1999 JU3 in 2018, and coming back to the earth 2020.

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