

November 7, 2014

## MICRO-SATELLITE “HODOYOSHI-1” LAUNCHED SUCCESSFULLY

A micro-satellite “Hodoyoshi-1” developed by University of Tokyo in cooperation with Next-generation Space Systems Technology Research Association (President: Koji Yamaguchi) in the FIRST program of Cabinet Office of Japan was successfully launched on November 6th 07:35 (UTC) (6th 16:35 Japanese Standard Time) by Dnepr Launch Vehicle at YASNY Launch Base in Russia. This is now in initial operation phase.

Hodoyoshi-1 is a 60kg micro-satellite with a cubic shape, 60cm on a side. The mission of the satellite is earth observation. It is equipped with a reaction wheel, a star sensor, a MEMS-based gyroscope, a GPS receiver, and is capable of accurate 3-axis attitude control. In addition, the demonstration of orbit control by a newly developed propulsion system using hydrogen peroxide will be conducted. From the sun-synchronous orbit an altitude of 500km, the satellite will obtain images with the ground resolution of 6.7m in multi-spectral and the swath of 28km. The mission specifications of Hodoyoshi-1 are equivalent to those of a traditional larger satellite heavier than 150kg.

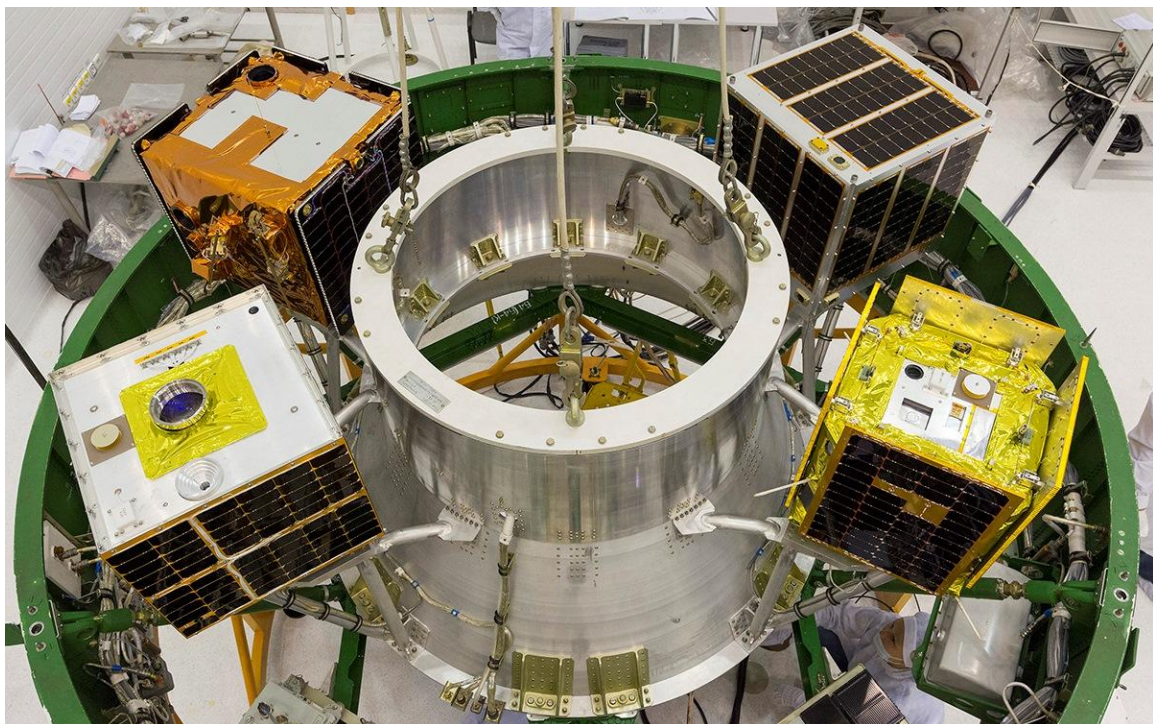
### [“Hodoyoshi-1” Main Specs Data]

<b>Mission Hardware Specifications</b>	
Shooting Type	Pushbroom
Ground Resolution	6.7m
Spectral Bands	B(450-520nm), G(520-600nm), R(630-690nm), NIR(780-890nm)
S/N Ratio	B(153), G(178), R(235), NIR(167)
Swath	27.8km
Maximum Continuous Scanning Distance	179km
Bit Depth	12bit
<b>Orbit</b>	
Orbit	Sun-synchronous
<b>Bus Hardware Specifications</b>	
Dimensions	503 x 524 x 524mm (No protrusions included)
Mass	60kg
Downlink Rate	10-20Mbps
Power Generation	50W
Attitude Control	Three-axis control (Nadir pointing)

[Photos]



Hodoyoshi-1 on the Dnepr Launch Vehicle



Hodoyoshi-1 on the Dnepr Launch Vehicle (Upper right)