



Super Hi-Vision Images of the Hayabusa2 Project

~NHK's Imaging Technologies to make 3D and CG Images from JAXA's Actual Numerical Data~

The Japan Aerospace Exploration Agency (JAXA) and Japan Broadcasting Corporation (NHK) are conducting a joint research project to produce Super Hi-Vision (SHV) images of the Hayabusa2 mission from actual numerical data.

This fusion of the world-class technologies of the Hayabusa2 space project and NHK's Super Hi-Vision imaging techniques will make it possible to represent the space mission visually based on actual data received across hundreds of millions of kilometers.

JAXA's Hayabusa2 Asteroid Explorer rendezvoused with the Ryugu asteroid in June this year and the first landing is scheduled in October. The data which Hayabusa2 sends back to Earth will cover a wide range from flight data of the craft itself (orientation, speed and positional coordinates) to observational measurements relating to the asteroid. Combining the various data types into visual images will make it possible to display Hayabusa2's space activities directly to viewers in a compelling video format. The capability to grasp the space craft's behavior visually could also make it easier to control.

NHK has been researching computer graphic and other related imaging technologies for more than 30 years. The programming technology for producing real-time computer graphics and visual images from actual data has already been applied in many fields, including weather and disaster news reporting. The development of Super Hi-Vision has driven R&D on ultra-high definition imaging. JAXA supplies the data received from Hayabusa2 and NHK provides distinctive imaging technologies for the newly developed Hayabusa2 Super Hi-Vision Imaging System.

The Hayabusa2 mission has travelled hundreds of millions of kilometers. The whole story of its asteroid approach and landings will now be told in ultra-realistic Super Hi-Vision computer graphic images which are expected to bring the wonders of space more vividly than ever to large numbers of viewers.

The images will be broadcast on "NHK Special" and other programs. The broadcast details will be announced in due course.



Hayabusa2 touching down on the Ryugu asteroid
(artist's impression)