

THE FOLLOWING RELEASE WAS RECEIVED FROM THE CLAY CENTER  
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Note: As Beatty and Dantowitz are traveling in Australia in concert with the NASA team, contact with them will be sporadic until June 17th.

#### HIGH-SCHOOL STUDENTS JOIN NASA'S HAYABUSA EFFORT IN AUSTRALIA

For millions of American high-school students, early June means long hours studying for final exams. But for three lucky teenagers, getting a passing grade in their astronomy class has meant traveling halfway around the world -- from Massachusetts to the Australian Outback -- to work side-by-side with a NASA-led expedition of space scientists.

The researchers had gathered Down Under to study the brilliant fireball created late Sunday when Japan's Hayabusa spacecraft, finally coming home after seven years in interplanetary space, slammed into Earth's atmosphere at more than 7-1/2 miles per second. In November 2005, Hayabusa landed briefly on the asteroid Itokawa, and researchers hope that bits of its surface are sealed inside the spacecraft's sample-return capsule.

Getting to watch Hayabusa's return was the culmination of months of work for James Breitmeyer and Yiannis Karavas, both 17, and Brigitte Berman, 16. They attend the Dexter and Southfield Schools in Brookline, Massachusetts, where Ronald Dantowitz and Marek Kozubal from the schools' Clay Center Observatory have helped them build tracking platforms crammed with high-end imaging cameras; ultraviolet, infrared, and visible light spectrographs; and an IMAX-quality high-definition video system for recording the reentry.

Most of this high-tech gear was installed last week on NASA's DC-8 research aircraft in Palmdale, California, alongside other instruments brought by researchers from Germany, the Netherlands, Japan, and several U.S. institutions. The plane then headed to Australia, allowing the science team to conduct trial runs while en route to Hawaii and again after arriving in Melbourne.

During Hayabusa's hypervelocity homecoming, the jet flew a racetrack-shaped loop at an altitude of 41,000 feet near the landing zone in the Woomera Protected Area, a desolate, 50,000-square-mile military test area about 500 miles northwest of Adelaide. Breitmeyer, Berman, Dantowitz, and Kozubal carefully recorded the brightnesses and spectra of the sample capsule and pieces of the disintegrating main spacecraft as they plunged Earthward. NASA hopes data from these artificial meteors will allow researchers to reconstruct how the objects interacted with the upper atmosphere.

Meanwhile, Karavas and Dexter-Southfield astronomer Kelly Beatty were recording the brief but dramatic passage at ground level, from the mining town of Coober Pedy. Their images and spectra will be useful in calculating the exact trajectory of the incoming spacecraft.

"The students did their jobs well and have been superb representatives of our schools to NASA and to the international science community," notes Dantowitz. "One of the student-run DXSF cameras streamed video of the spacecraft reentry directly from the aircraft window to the world via satellite."

More information about the NASA-led effort and images of the students:

<http://airborne.seti.org/Hayabusa>

More information about the Clay Center Observatory

<http://clayobservatory.org>