

## Current Status of Japan's Venus Climate Orbiter "Akatsuki"

TAKEHIKO SATOH<sup>1</sup>, MASATO NAKAMURA<sup>1</sup>, NOBUAKI ISHII<sup>1</sup>,  
TAKESHI IMAMURA<sup>1</sup>, MUNETAKA UENO<sup>1</sup>, MAKOTO SUZUKI<sup>1</sup>,  
SHIGETO WATANABE<sup>2</sup>, YUKIHIRO TAKAHASHI<sup>2</sup>, MAKOTO TAGUCHI<sup>3</sup>,  
and NAOMOTO IWAGAMI<sup>4</sup>

<sup>1</sup>*Institute of Space and Astronautical Science, JAXA*  
<sup>2</sup>*Hokkaido University*, <sup>3</sup>*Rikkyo University*, <sup>4</sup>*University of Tokyo*

Japan's Venus Climate Orbiter (aka PLANET-C, its code name) has been given a beautiful Japanese name "Akatsuki" which means the dawn. "Akatsuki" is the first spacecraft that is dedicated to study in depth the meteorology on a planet other than the Earth. It is equipped with 5 cameras (ultraviolet, visible, near-infrared and mid-infrared) plus an ultra-stable oscillator for radio-occultation experiments. Its unique orbit around Venus (a retrograde orbit, with 30-hour period, on the equatorial plane which yields the angular motion near the apocenter almost synchronized with that of super-rotating atmosphere) allows the spacecraft to act just like a geostational meteorological satellite around the Earth. "Akatsuki" upon arrival at Venus is expected to conduct joint science studies with ESA's Venus Express.

The final integration tests were carried out at ISAS (Sagamihara, Japan) for almost 10 months since June 2009 and the spacecraft was shipped to the launch site, Tanegashima Space Center, in the middle of March 2010. The launch window is about 2 weeks from May 18, 2010, which is the "past" when we are at AOGS2010 in Hyderabad. Therefore, we are to report the result of launch and the current status of "Akatsuki" on its interplanetary journey to Venus. The arrival at Venus is expected for early December 2010.

Keywords: Venus; meteorology; super-rotation; spacecraft mission; Akatsuki; PLANET-C.

## References

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