

Report on Japanese mission

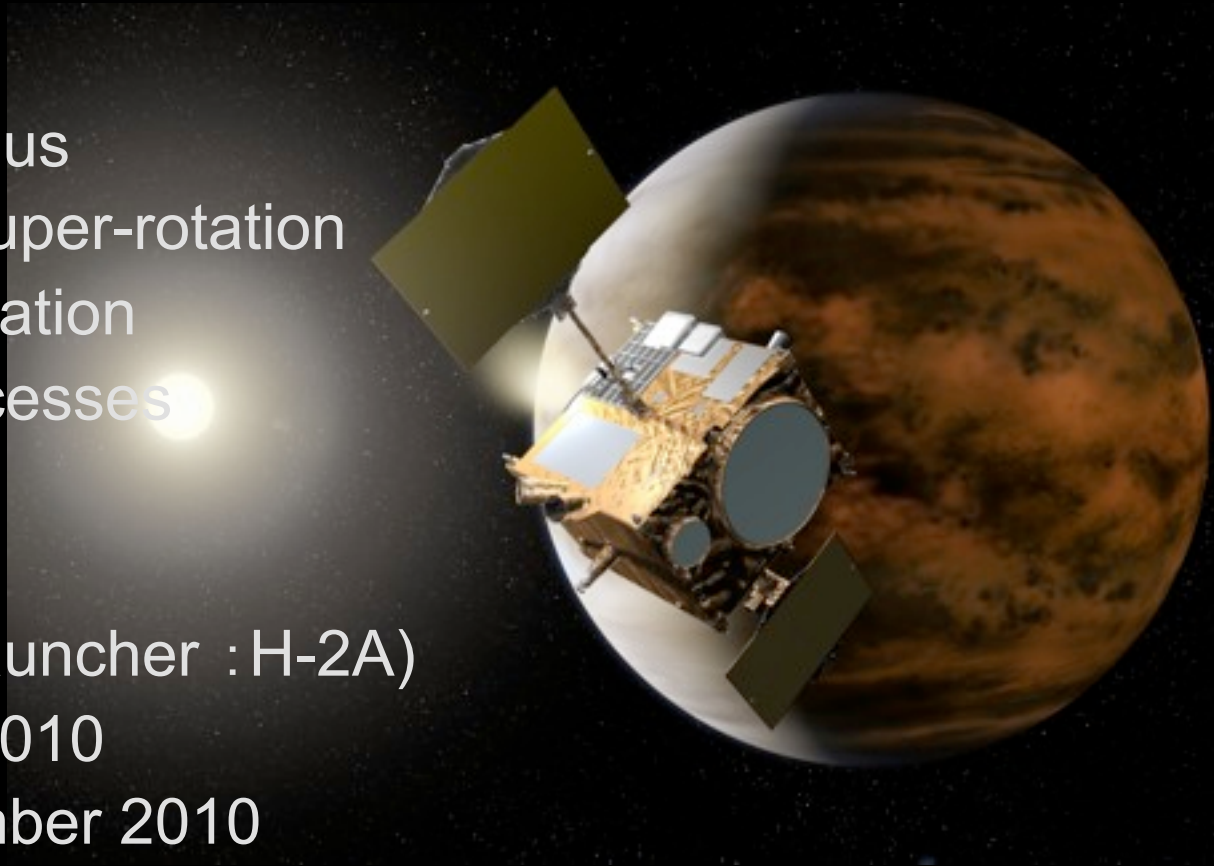
M. Yamamoto (Kyushu Univ.),

T. Imamura (ISAS), and VCO group

(Thanks for providing slides and information from
Dr. Imamura)

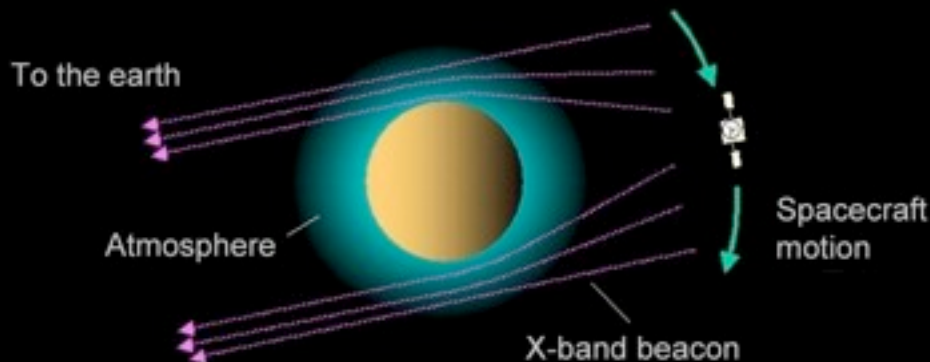
PLANET-C / Venus Climate Orbiter

- Primary target :
Meteorology of Venus
 - Mechanism of super-rotation
 - Meridional circulation
 - Meso-scale processes
 - Cloud physics
 - Lightning
- Launch window (Launcher : H-2A)
 - Nominal : May 2010
 - Arrival : December 2010
- Mission life : ~ 2 Earth years



Scientific Instruments

- 4 cameras covering from ultraviolet to infrared, a high-speed lightning detector, and an ultra-stable oscillator for radio science
- Visualization of 3-D structures of atmospheric dynamics



Radio science (vertical structure)

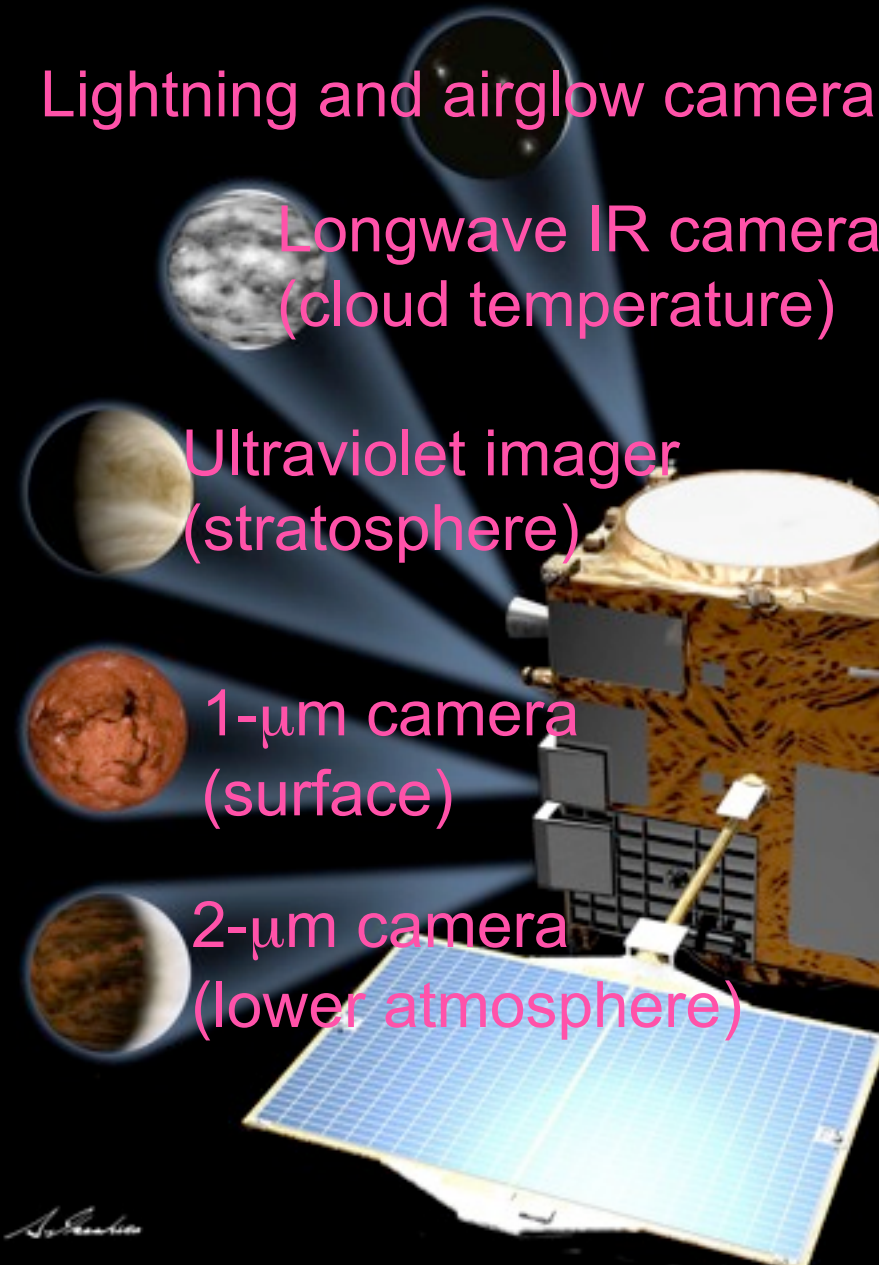
Lightning and airglow camera

Longwave IR camera
(cloud temperature)

Ultraviolet imager
(stratosphere)

1- μm camera
(surface)

2- μm camera
(lower atmosphere)



Observation plan

-- Every revolution, ~ 2 years --

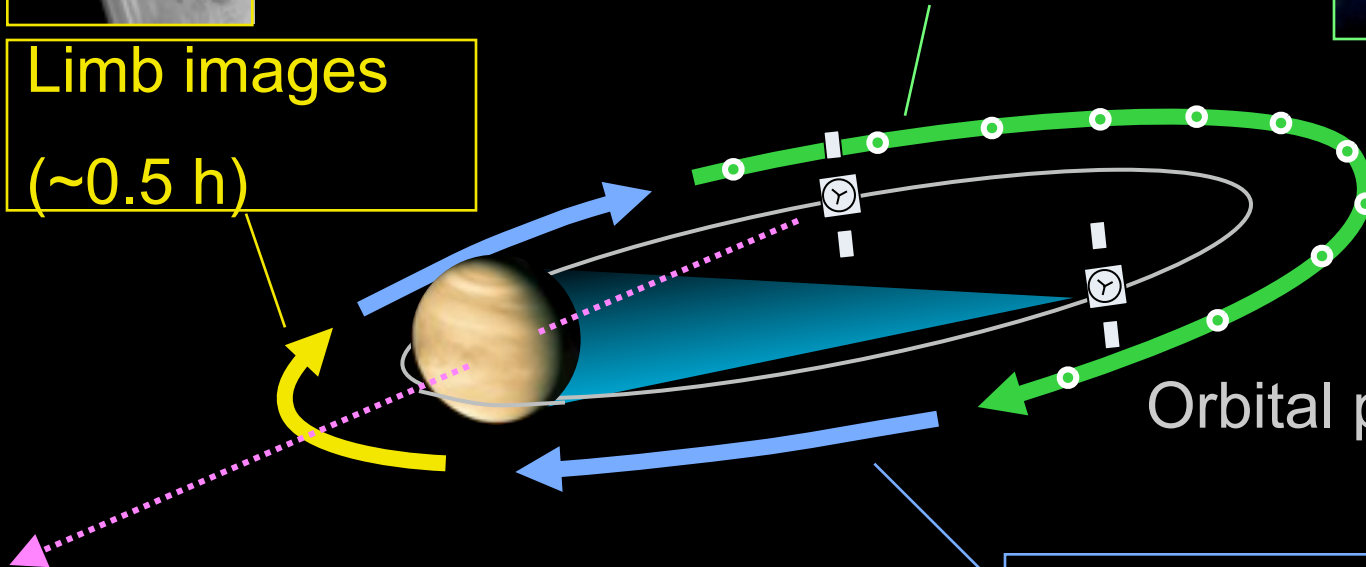
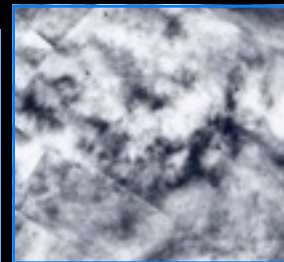
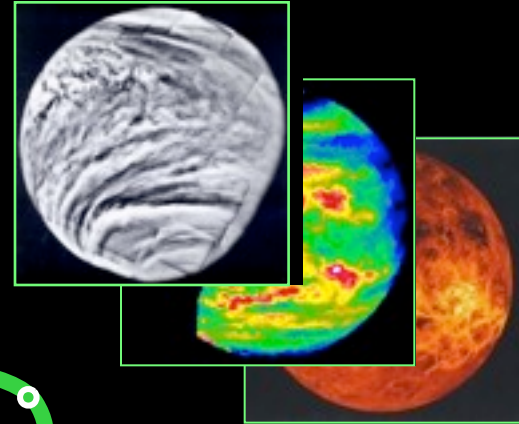
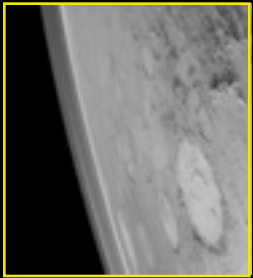
Successive global images
of atmosphere, wind vectors
from cloud-tracking (~24 h)

Limb images
(~0.5 h)

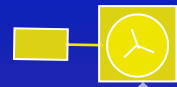
Orbital period: 30 hours

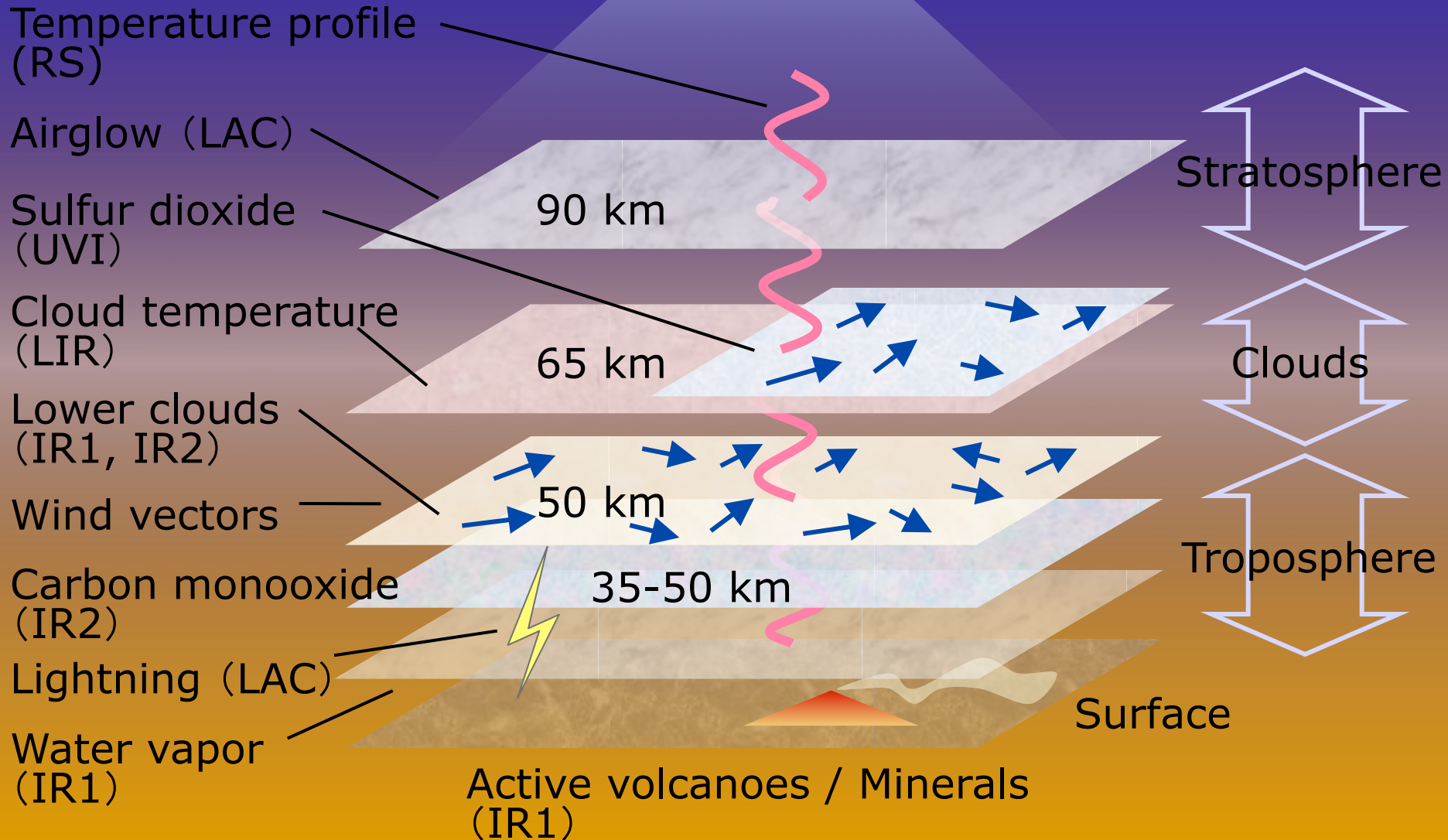
Temperature / H_2SO_4
vapor / Ionosphere
by radio occultation

Close-up images/
Lightning/Airglow
(~2 h x 2)

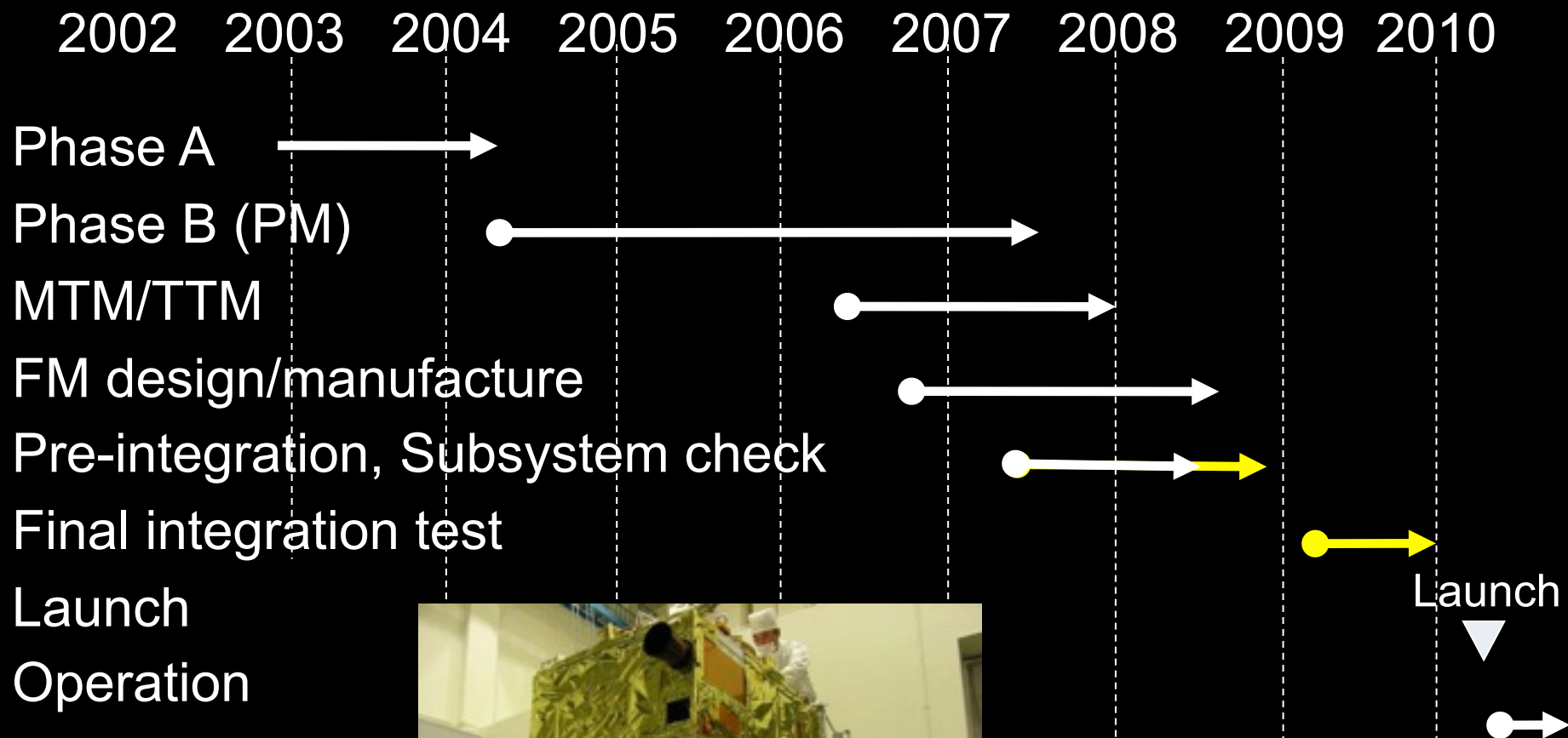


3-D sounding

 Planet-C



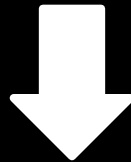
Schedule



May 2009

since last ISSI meeting
(Sep. 2008)

Pre-integration test



Final integration test

Schedule in 2009

Final integration test

The assembly of the flight model and its test will be started on June 2009.

We are discussing detailed data processing and operation plan.

by core members for VCO instruments and the VCO science team

VEX SWT (meeting with VEX and VCO teams), ISAS, Japan on 2-3 July 2009