



Japan Aerospace Exploration Agency (JAXA)

Status Summary

for

3rd International Planetary Data Alliance (IPDA)

Meeting in Montreal

Yukio Yamamoto

(ISAS/JAXA)

Iku Shinohara

(ISAS/JAXA)

Yasumasa Kasaba

(Tohoku University)

Masanao Abe

(ISAS/JAXA)



Our members in this meeting

Yukio Yamamoto

C-SODA/ISAS/JAXA

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- Member of Hayabusa and Kaguya Science Team
- **DB: Planetary Data (Hayabusa/Kaguya/...)**

Iku Shinohara

C-SODA/ISAS/JAXA

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- Member of the DARTS development team
[common DB for Space Sciences]
- **DB: Chief for Solar-Terrestrial & Planetary (Bepi / Geotail / ...)**

Masanao Abe

abe@planeta.sci.isas.jaxa.jp

Planetary Science Division/ISAS /JAXA

- Member of Hayabusa and Kaguya Science Team
- **DB: Planetary Data (Hayabusa/Kaguya/...)**

Yasumasa Kasaba

Dep. Geophysics, Tohoku Univ.

kasaba@isas.jaxa.jp

- JAXA/BepiColombo Project (Mission Manager)
- **DB: Solar-Terrestrial & Planetary (Bepi / Planet-C / ...)**



Organization & Members for IPDA activity

JAXA

- Institute of Space and Astronautical Science (ISAS)
[Overall Space Sciences]
 - Center for science Satellite Operation and Data Archive (C-SODA)
 - I. Shinohara, Y. Yamamoto
 - KAGUYA (=SELENE) project team
 - S. Sobue, H. Okumura, Y. Tanaka
 - HAYABUSA project team
 - M. Abe
 - PLANET-C project team
 - T. Imamura
 - BepiColombo project team
 - T. Takashima, T. Okada
- JAXA Space Exploration Center (JSPEC)
[Lunar & Planetary Explorations]

University members

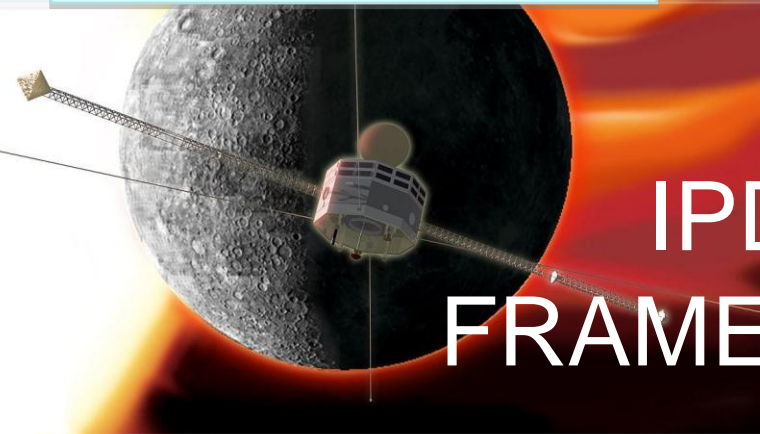
- Y. Kasaba (Tohoku University [moved from JAXA])
- J. Terazono (Aizu University)

Scientific Missions and Exploration Programs in JAXA

ISAS

Planet-C (Venus Mission)

Bepi-Colombo MMO (Mercury Mission)



IPDA FRAMEWORK

JSPEC

Conglomerate of Exploration Technologies inside JAXA

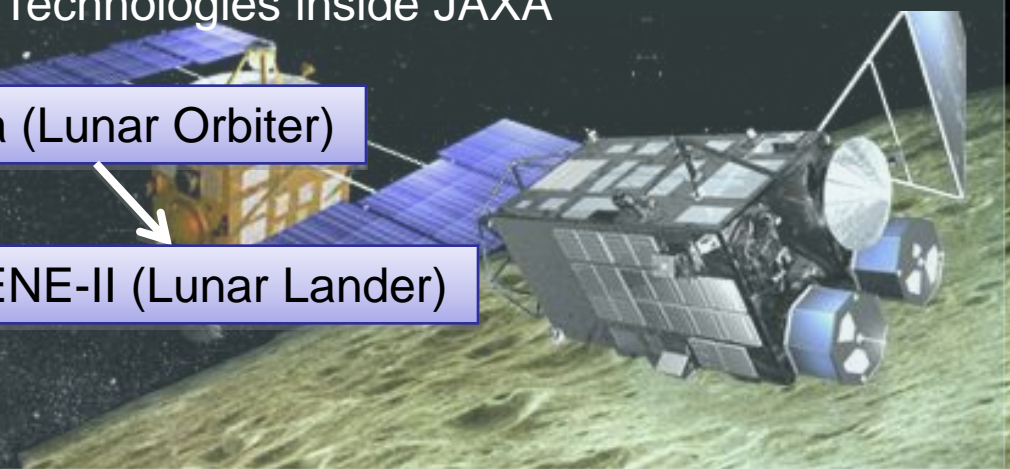
Hayabusa (Asteroid Probe)

Kaguya (Lunar Orbiter)

Hayabusa-2 (Asteroid Probe)

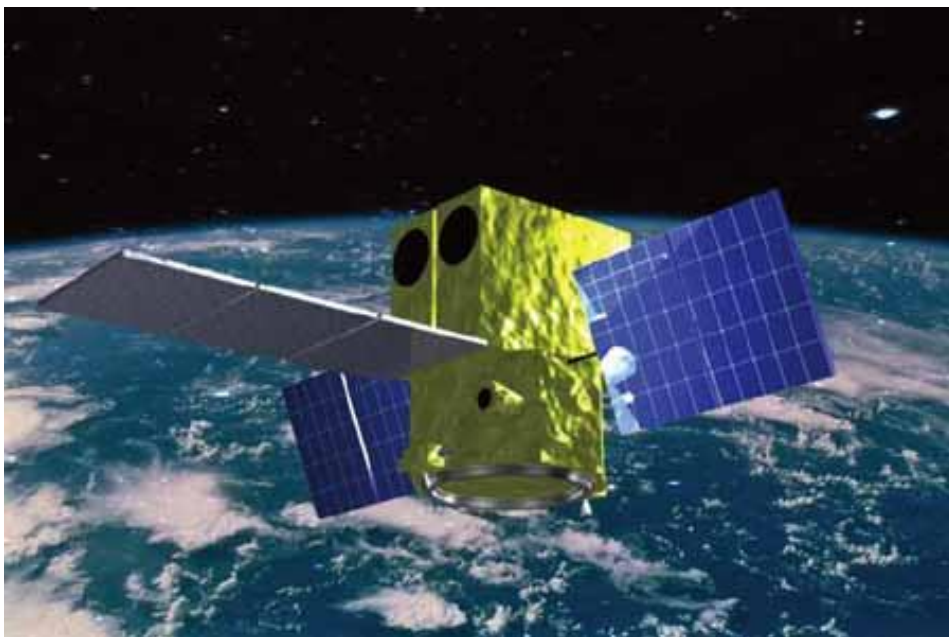
SELENE-II (Lunar Lander)

Hayabusa-Mk2 (Asteroid Probe)





A New Mission: Telescope Observatory for Planets on Small-satellite (TOPS)



TOPS was approved as the first application of the small satellite series of ISAS/JAXA.

The launch is scheduled in 2012-2013 TBD.

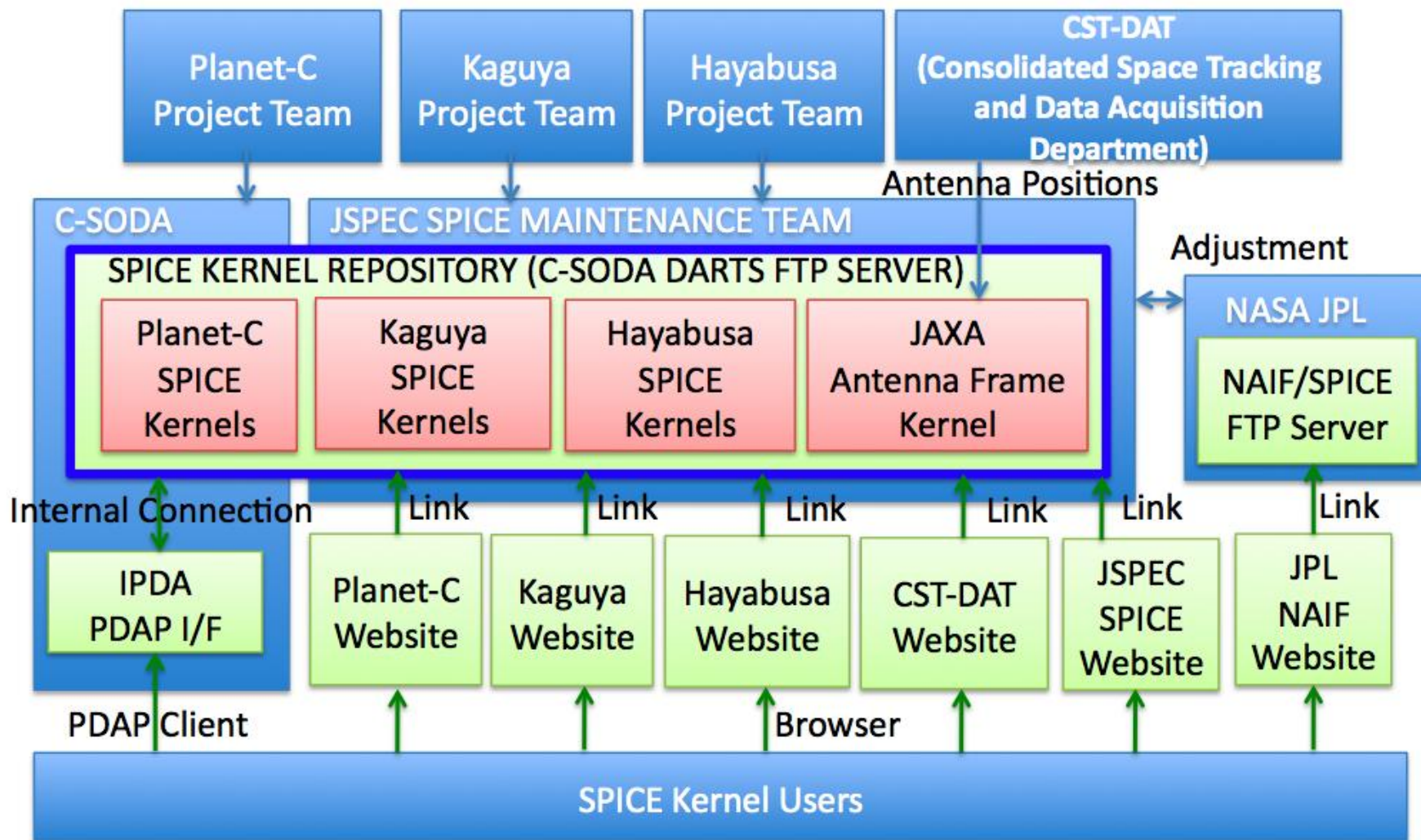
2 telescopes of 30cm diameter are onboard TOPS.

TOPS telescopes will be used only for the planetary observations.

- Interoperability between Astronomical VO and IPDA is required.



Maintenance Framework of SPICE Kernels in JAXA





KAGUYA PDAP Experiment

- Finish the prototyping of interoperable system for SELENE LISM L2 product with PDAP (option 2) on March, 2008
 - Metadata object mapping between SELENE catalogue and PDS label object
 - GUI I/F study for catalogue search
- Compile system requirement for interoperable catalogue system with PDAP including security, authentication/authorization, etc.



Summary

- Data archiving
 - Preparation of SPICE Server
 - Preparation of Kaguya Data
- IPDA Activities
 - USE-CASE Analysis of PDAP
 - PDAP Assessment
 - Query Model
 - Implementation (Testbed)