Project for Earth Environment Observation in NASDA

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Abstract

The overview of project for the earth environment observation mission in NASDA is introduced in the presentation.

The summary of Japanese Earth Obsevation Satellite Programs

- In operation: JERS-1(Earth Resources Satellite), GMS-5(Geostational Meteorological Satellite), ADEOS(Comprehensive Earth Observation)
- Under Phase C/D: TRMM(Rainfall Mission), ADEOS-II
- Under Phase B: ALOS(Land Observation)
- Under Phase A: ATMOS-A(Rainfall mission)
- Under Conceptual Study: ATMOS-B(Cloud and Radiation Mission), ATMOS-C (Atmospheric Mission), ADEOS-III

The summery Satellite Programs Status

- ADEOS was launched successfully on August 1996 and all onboard sensors /satellite are working well. ADEOS and ADEOS-II is jointly developed by NASDA, MITI, EA, NASA/JPL, CNES.
- TRMM is prepared for launch in autumn 1997. TRMM is a NASDA/NASA joint project.

Japanese Scenario of Long Term Earth Observation(Draft)

- Lidar MDS is considered as a precurcer of ATMOS-B, Cloud and Radiation Mission in the scenario. For MDS, phase C budget in FY1997 is requested.
- NASDA had discussions on the international cooperation in the development of ATMOS-B with ESA and JPL.
- JEM/SS first AO is dedicated to domestifc sensor providers.

NASDA
宇宙開発事業団

Project for Earth Environment Observation in NASDA

International Workshop on Spaceborne Lidar 1996

Tamotsu Igarashi

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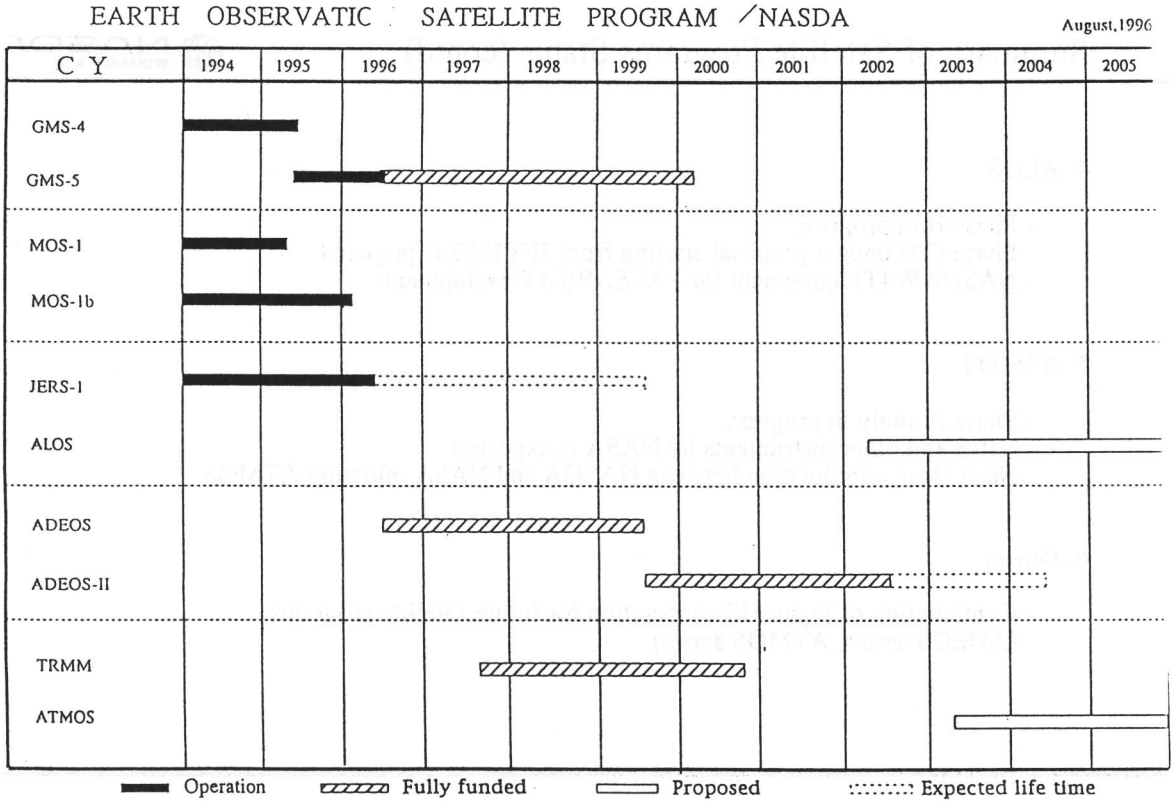
Summary of Japanese Earth Observation Satellite Programs

In operation	Launch	Instruments	Remarks
JERS-1	2/1992	SAR(L), OPS	Land Obs.
GMS-5	3/1995	VISSR	Metorological Service
ADEOS	8/1996	OCTS, AVNIR, IMG	Polar Platform
		ILAS, RIS, NSCAT	Environmental Obs.
		TOMS, POLDER	Operational from Nov. 1996
Under Phase C/D (Fully Funded)			
TRMM	1997	PR, TMI, VRIS, CERES, LIS	U.S/Japan joint program
ADEOS-2	1999	AMSR, GLI, SeaWinds, ILAS-II, POLDER, DCS	ADEOS F/O
MTSAT	1999	Imager	Meeteorological Service
Under Phase B			
ALOS	2002	PALSAR(L), AVNIR-2, PRISM	Land Obs. High Resolution
Under Phase A			
ATMOS	2003	PR, AMSR, VIRS (CERES, LIS)	TRMM F/O



Summary of Satellite Programs Status

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1. ADEOS

- Flight Readiness Review was completed on Aug. 12, 1996
- ~~Scheduled for~~ launch on Aug. 17, 1996
- Operational ed

2. TRMM

- PR was delivered to NASA
- TRMM launch schedule/November 1997 was coordinated.

3. ADEOS-II

- Phase C/D in Progress
- Half year delay of launch target proposed to SAC and approved.
  (New Target Date: August 1999)
- MOU between NASDA and NASA/NOAA being coordinated.

Summary of Satellite Programs Status (contd)

4. ALOS

- Phase B in progress
- Phase C/D budget proposal starting from JFY1997 is prepared.
- NASDA/MITI agreement for PALSAR(L) Development.

5. ATMOS

- Phase A study in progress
- VIRS and other instruments by NASA is expected.
- Need close coordination between NASDA and NASA initiating ATMOS

6. Others

- Continuation of Japan-US cooperation for future satellite programs (ADEOS series, ATMOS series)

NASDA Instruments for NASA/EOS

1. AMSR for EOS-PM1

- Phase-A budget approved in FY1996
- Phase-C/D budget starting JFY1997 is prepared
- Letter exchange between NASDA and NASA for technical information exchange

2. ODUS for EOS-Chem

- Phase-A budget approved in JFY1996
- Phase-A budget will be continued in JFY1997
- Good working relationship between NASDA and NASA/GSFC
- Waiting for NASA's result of EOS-Chem options study

Japan-US Cooperation for Earth Observation

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1. IGOS (Integrated Global Observing Strategy)

- NASDA welcomes US initiative for IGOS
- NASDA participated in IGOS/CEOS meeting in Seattle, March 1996.
- NASDA ~~will~~ participated in IGOS/IN-situ meeting in September, Geneva.

2. Earth Observation Information Networks

- Japan-US cooperation for GOIN, G7 ENRM and so on.
- EOIS/NASDA-EOSDIS/NASA, NASDA-NOAA Data Networks, WGISS/CEOS activities and so on are in progress.

Japan-US Cooperation for Earth Observation (contd)

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3. Cooperation for Earth Science

- NASDA established EORC(Earth Observation Research Center) in 1995.
- NASDA-NASA Joint Science Activities for satellite programs (TRMM, ADEOS-I/II,....)
- Japan-US joint science workshops (1st US-Japan Earth Remote Sensing Conference, Hawaii University in April 1996, and others)
- Japan-US joint effort to initiate International Research Centers;
  - -- At Alaska, Japan-US close coordination to establish new International Arctic Research Center (IARC) in progress
  - -- At Hawaii, preliminary discussions and feasibility study are on going.

Japanese Scenario of Long Term Earth Observation(Draft)

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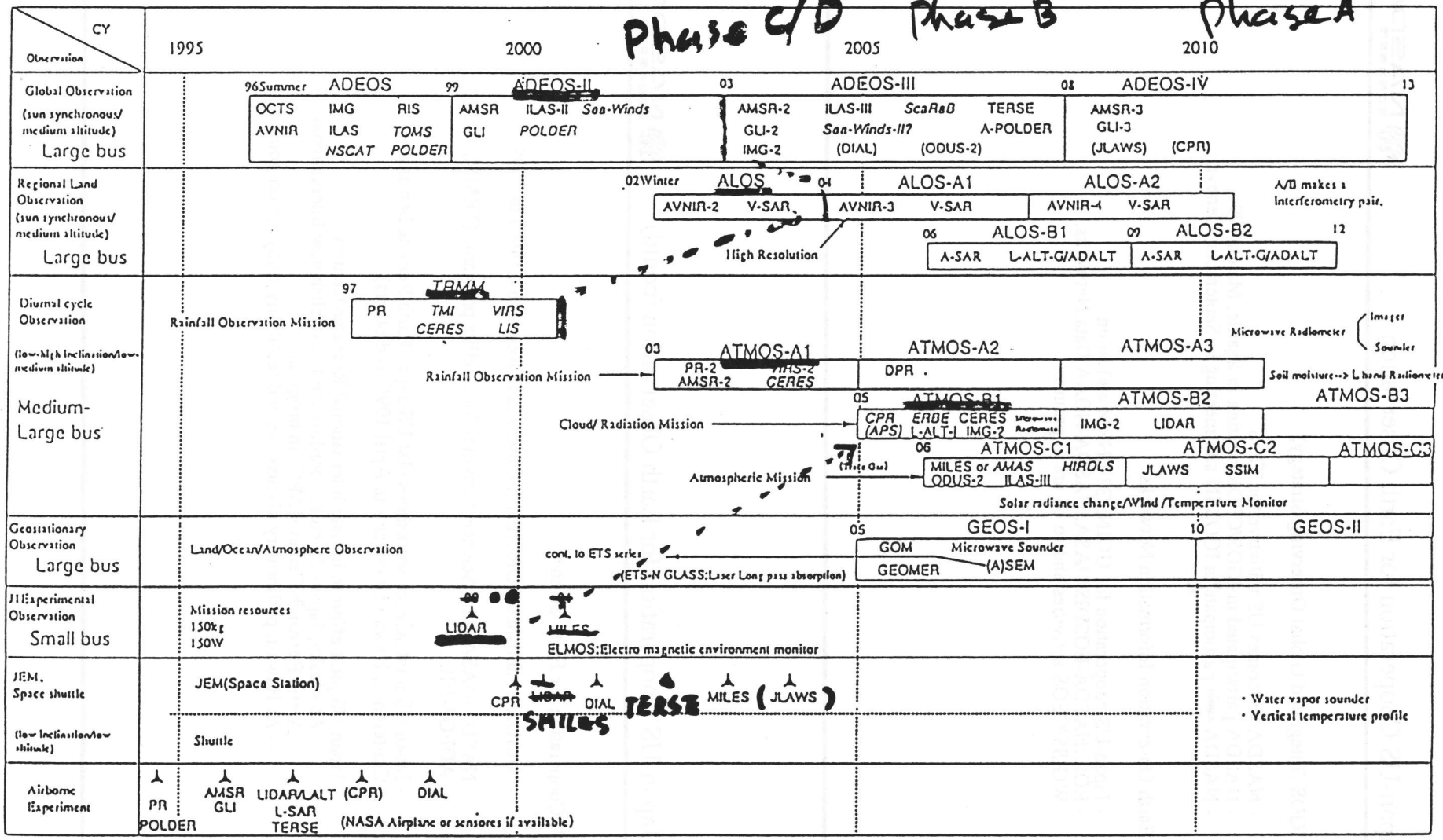

Japanese sensor to foreign satellites.
: ODUS-->EOS/CHEM(2002)
TERSE-->EXPLORER

Foreign sensors to Japanese satellites
: AMAS(D) -->ATMOS-C1
APS(Au) -->ATMOS-B1
CPR(US、GB) -->ATMOS-B1
DPR(F) -->ATMOS-A2

: ScaRaB -->ADEOS-III
ERBE -->ADEOS-III
IASI -->ADEOS-III
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