

The development status of ADEOS- II and GLI

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National Space Development Agency
ADEOS- II Project

1.The development status of ADEOS- II and GLI

- (1) The PFT (Proto-Flight Test) of ADEOS- II was started in May of last year.
- (2) Most PFT items, including mechanical and thermal environment test, have been finished.
ADEOS is currently being performed the final electric performance test.
- (3) GLI condition has been checked through the PFT, and there is no significant matter.

1.The development status of ADEOS- II and GLI (cont'd)

- (4) The PFT will be finished at the end of November.
After the PFT, the satellite will be stored until March in next year.
- (5) After the satellite storage, preparation work for the launch will start.
The GLI mission data evaluation will be done in this storage period.

2. GLI performance test

After the PFT of ADEOS- II , GLI will be unloaded from the satellite, and GLI mission data evaluation test will be done.

(1) Objectives

- The objectives of GLI mission data evaluation test is to confirm GLI flightworthiness before launch.

This is because after GLI was installed on ADEOS- II GLI mission data have not been evaluated except onboard lamp calibration test for about 1.5 years.

2. GLI performance test (cont'd)

(2) Test plan

- The GLI mission data evaluation test basically consist of the same test items carried out in atmospheric condition at PFT.
- The study of additional data acquisition was requested through the discussion about GLI characterization reflecting phenomena happened in MODIS operation etc., the feasibility was studied and presented to the GLI calibration scientists.

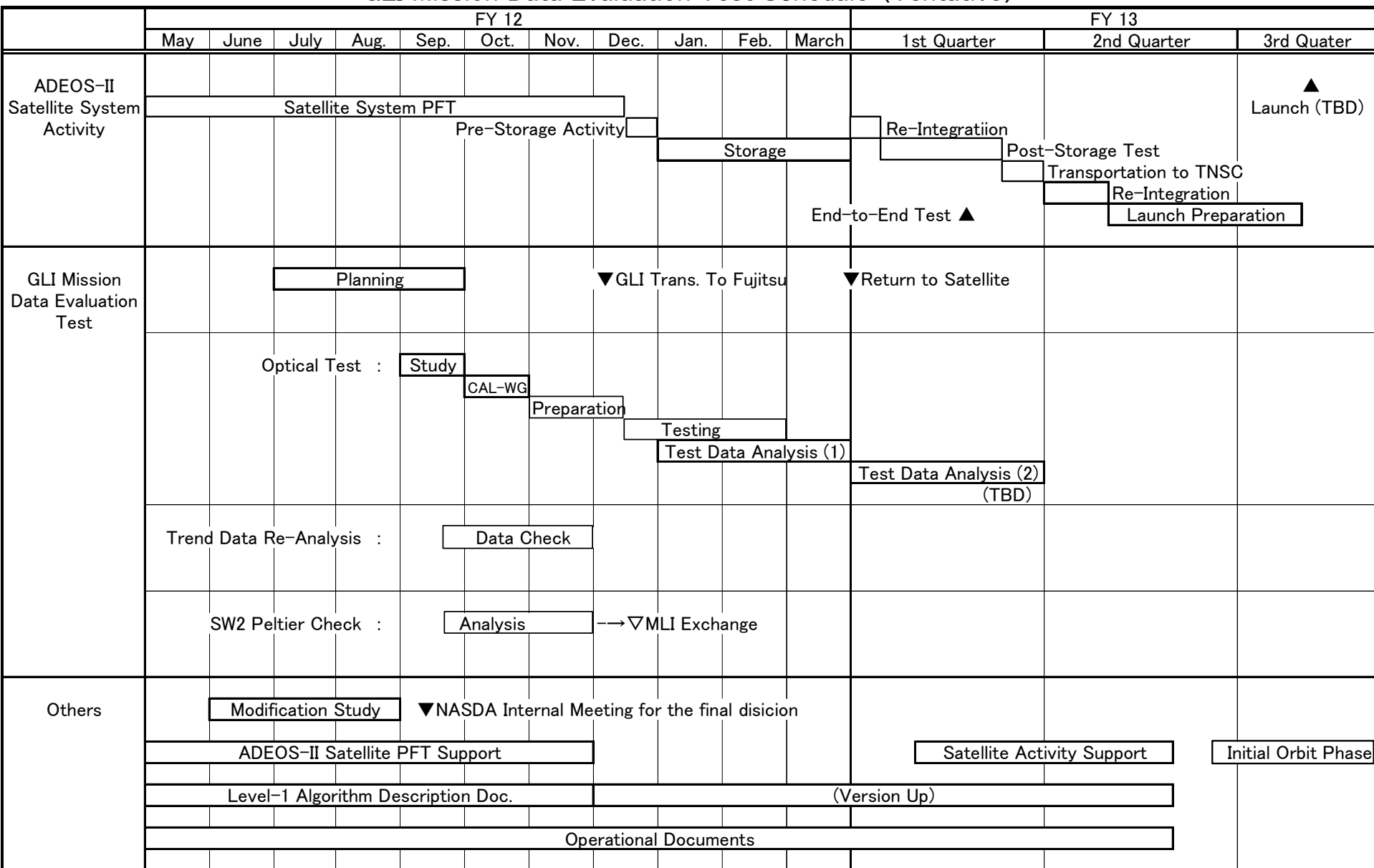
2. GLI performance test (cont'd)

- Besides the mission data evaluation test, the development result of mechanisms in GLI and trends of main performance of critical functions will be reconfirmed.

(3) Schedule

GLI performance test will be carried out in the ADEOS- II storage period, and the schedule is shown in Fig.1.

GLI Mission Data Evaluation Test Schedule (Tentative)



3. Contents of GLI mission data evaluation test

- “GLI Mission Data Evaluation Test” is scheduled from Dec. 2000 to March 2001 under the ambient condition.
 - To verify the GLI optical performance is maintained after the 1999/07 delivery.
 - To obtain the additional user requirement data
- The basic test plan was studied and discussed with the GLI calibration scientists in October.

3. Contents of GLI mission data evaluation test (cont'd)

- The following user requirements were studied.
 - Reflectance and Polarization sensitivity against scan angle
 - Stray Light and Bright Target Recovery Response
 - Linearity
 - Thermal Band Output
- In case the difficulty to obtain the reliable data using GLI PFM exists, the alternative methods were discussed, such as witness sample measurement and additional PFT analysis.

GLI mission data evaluation test Item (Tentative)

		Proto-Flight Test (PFT) ; 1998-1999				GLI Special Performance Test ; 2000-2001	
		Ambient		T/V		Health Check *	User Req.
		VN/SW	MT	VN/SW	MT		
1	Scan Angle	○	◇	◇	◇	confirmation using MTF data	—
2	S/N	○	—	○	—	PFT Equivalent	—
3	NEΔT	—	◇	—	○	—	—
4	Dynamic Range, Linearity	○	—	○	○	Under Study	
5	MTF	○	◇	○	○	PFT Equivalent	—
6	Polarization Sensitivity	○	—	—	—	Under Study 〔additional PFT data evaluation, witness sample measurement, ... etc〕	
7	Stray Lights	○	○	—	—		
8	Flare	◇	—	—	—		
9	Optical Alignment	○	○	—	—	Analysis using MTF Data	—
10	Inter Band Registration	○	○	○	○	Analysis using MTF Data	—
11	Deviation of the Sensitivity	○	◇	○	○	PFT Equivalent	—
12	Internal Lamp Calibration	○	—	○	—	PFT Equivalent	—
13	Black Body Calibration	—	—	—	○	—	—
14	Solar Light Calibration	◇	—	—	—	—	—
15	Thermal Band Output	—	◇	—	—	PFT Equivalent	—

○ : Test Data、◇ : Reference Data