

Japanese Experiment Module



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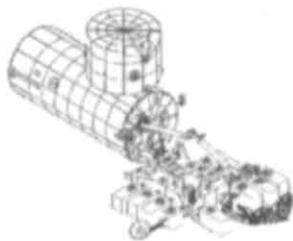
JEM (Kibo) Development Status

MEIT TIM (ITRG#7)

6/11-14/2002, NASA KSC

NASDA JEM Project Team

I.Kanazawa(kanazawa.isao@nasda.go.jp)

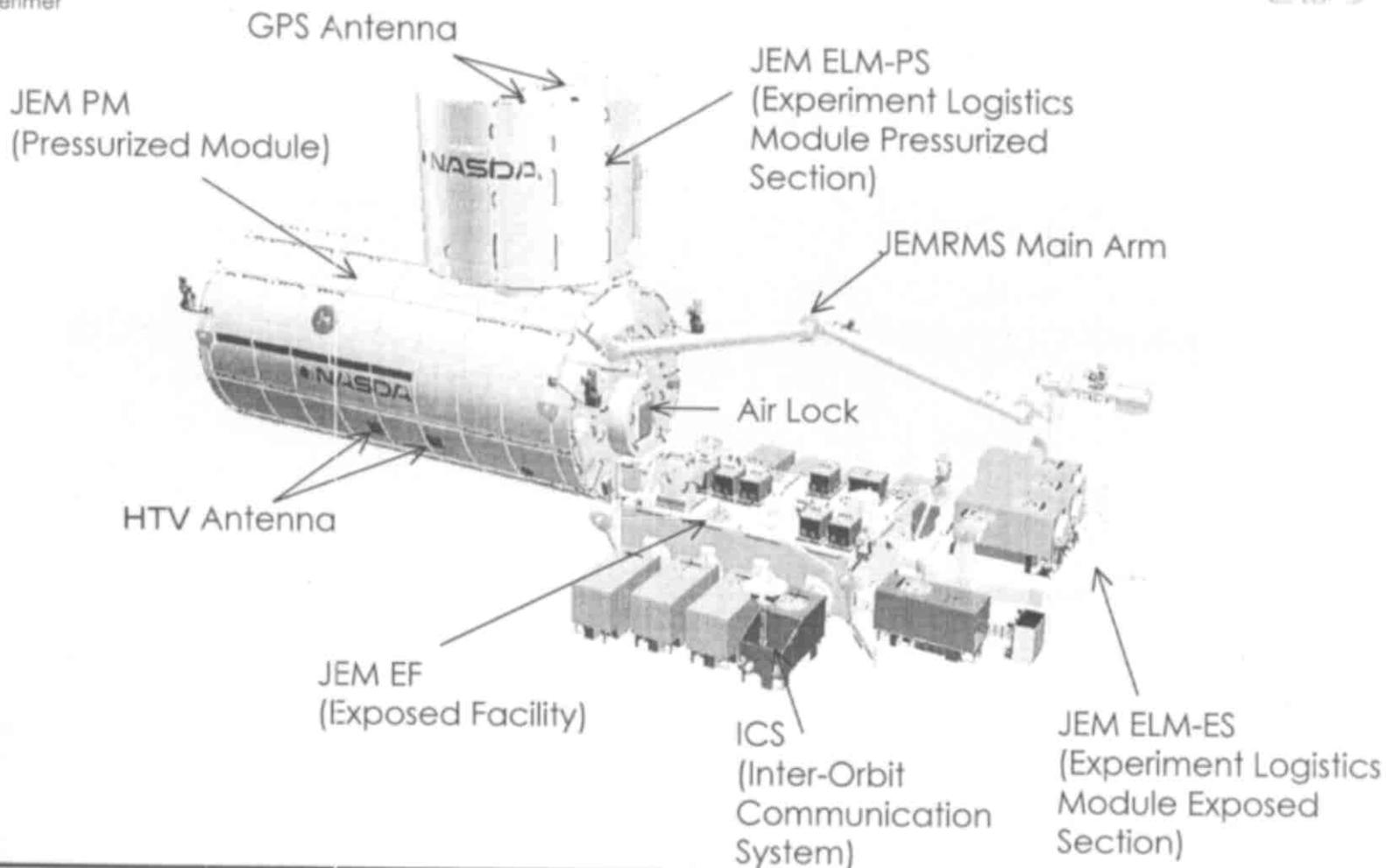


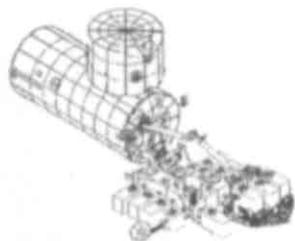
Japanese Experiment

JEM Development Status



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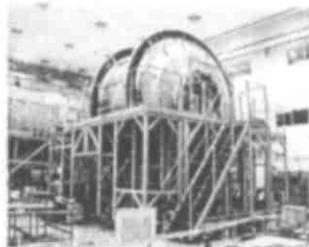


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JEM RMS きぼう

ELM-PS

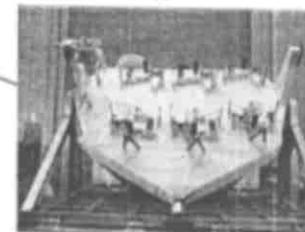


ELM-PS is used as the warehouse of experiment payloads, materials, and so on. Also ELM-PS has capability of transporting experiment payloads aboard the space shuttle.



RMS is used for ISS assembly and payloads exchanges.

ELM-ES



The ELM-ES is used as a warehouse of experimental payloads used on EF. It is capable of transporting experiment devices aboard the space shuttle.

PM



In the PM, astronauts can conduct space medicine, biology, material production, and biotechnology experiments.

ICS

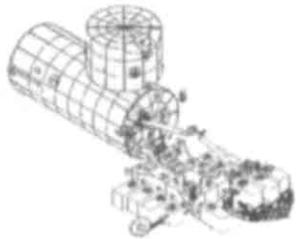


ICS is used for communication with the ground. ICS transmits experiment data, video, and voice data from JEM to the ground and receives the commands from the ground.

EF



The EF is exposed to space and is used for experiments in a space environment conditions.

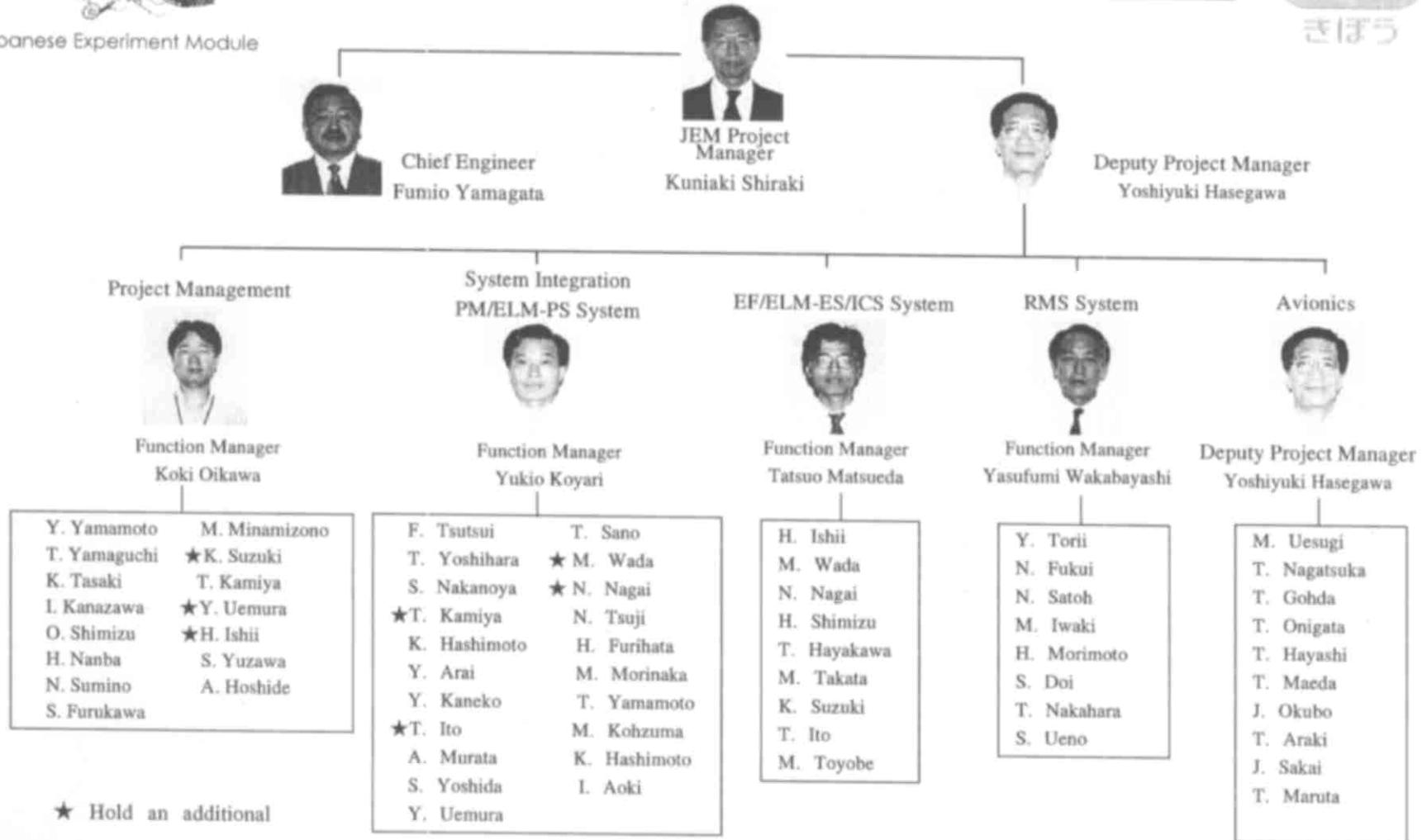


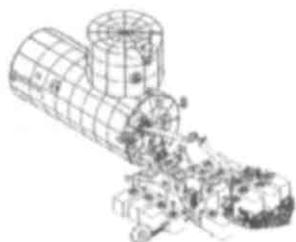
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2. JEM Organization



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Japanese Experiment Module

2. JEM MEIT III Organization



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NASDA MEIT III Key Member

Dr. Yukio Koyari (MEIT III Steering Committee)

Mr. Isao Kanazawa (MEIT III Steering Committee (designee), Implementation Plan)

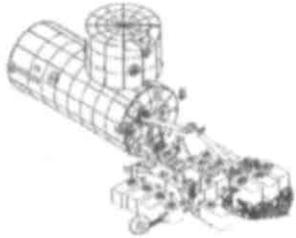
Mr. Masato Uesugi (NASDA MEIT III Team Lead, C&DH Lead)

Mr. Toshio Onigata (Technical Team Lead, EPS Lead)

Mr. Takuo Gohda (Technical Team Lead (designee), C&T Lead)

Mr. Osamu Shimizu (Staff)

	Subsystem Support Member	
EPS	Yoshihiko Uemura	
C&DH	Tomohiro Araki	Jun Okubo
Dry Run at ISIL	Jun Okubo	
C&T	Takuo Gohda	Norio Fukui
TCS/ECLSS	Ichiro Aoki	Funiya Tsutsui
GN&C	Shinobu Doi	Norio Fukui
Mechanical	Toru Yoshihara	Furihata Hiroki

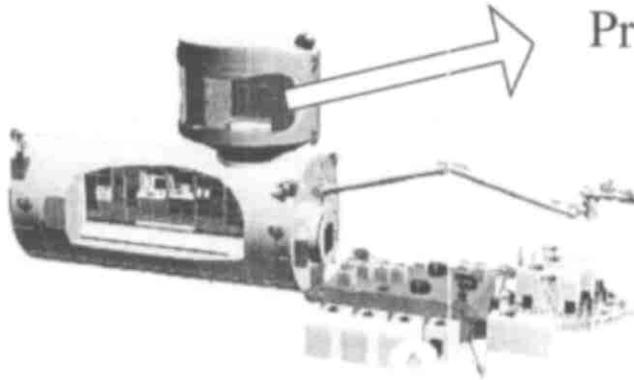


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4. ELM-PS Status

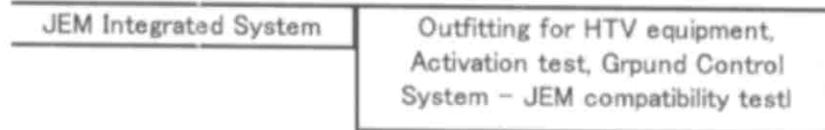


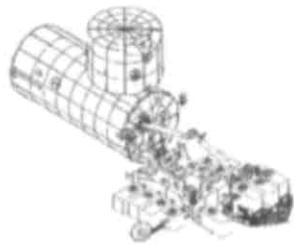
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Experiment Logistics Module- Pressurized Section (ELM-PS)

The most of ELM-PS integration, verification were completed. The JEM IST was also completed. Additional outfitting for HTV equipment integration remains before shipping to KSC. The Shipping date is finalized when the launch date is determined.



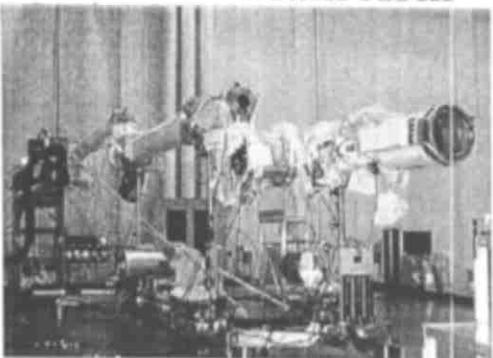


5. JEM RMS Status

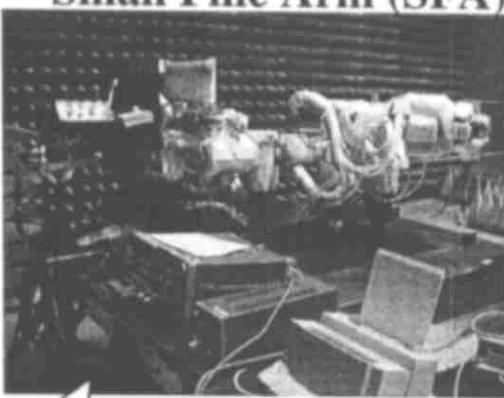


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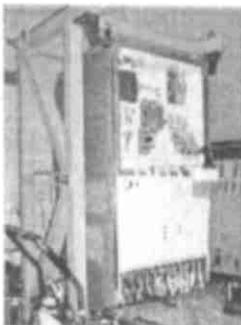
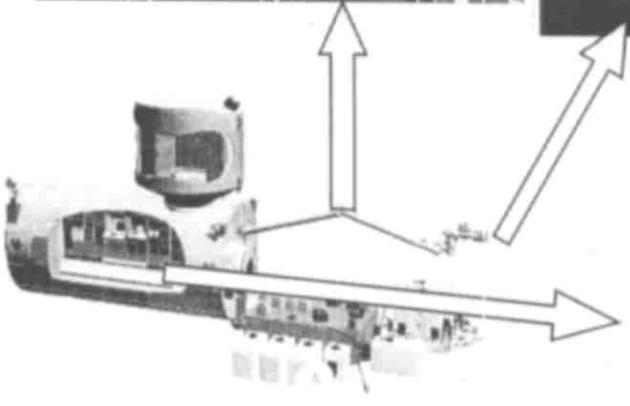
Main Arm



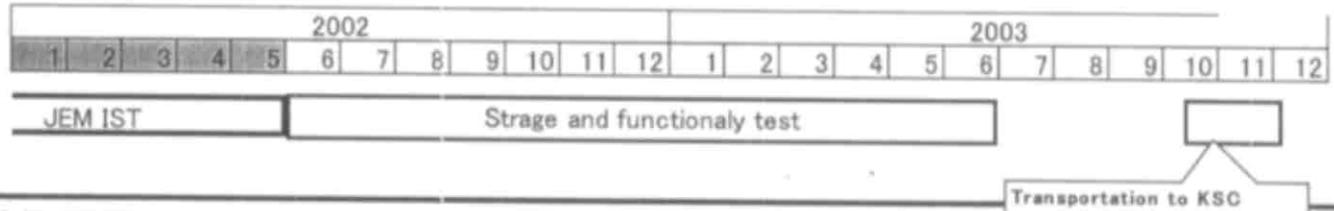
Small Fine Arm (SFA)

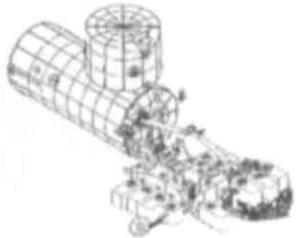


- The RMS main arm attached to the PM and console installed in the PM compatibility test was conducted during the JEM system integration test.
- The RMS console will be transported to KSC with the PM. The RMS main arm functionally test will be conducted until shipping to KSC.



Console



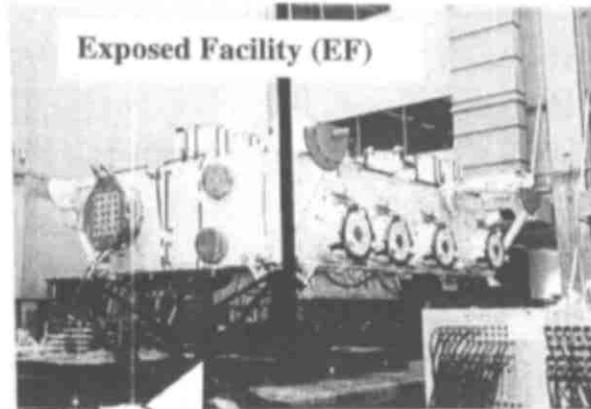


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6. EF / ELM-ES Status

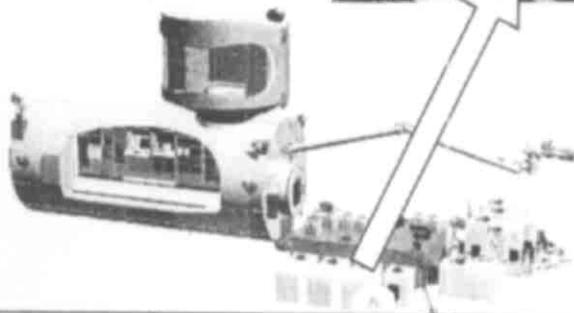
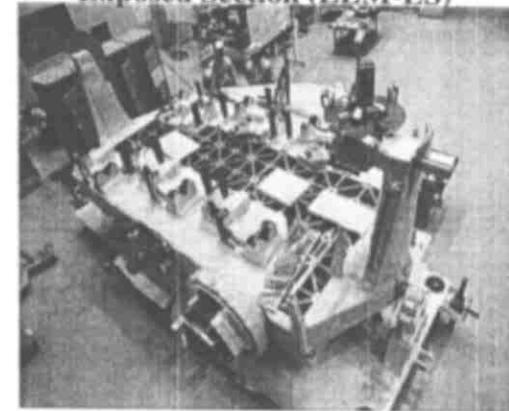


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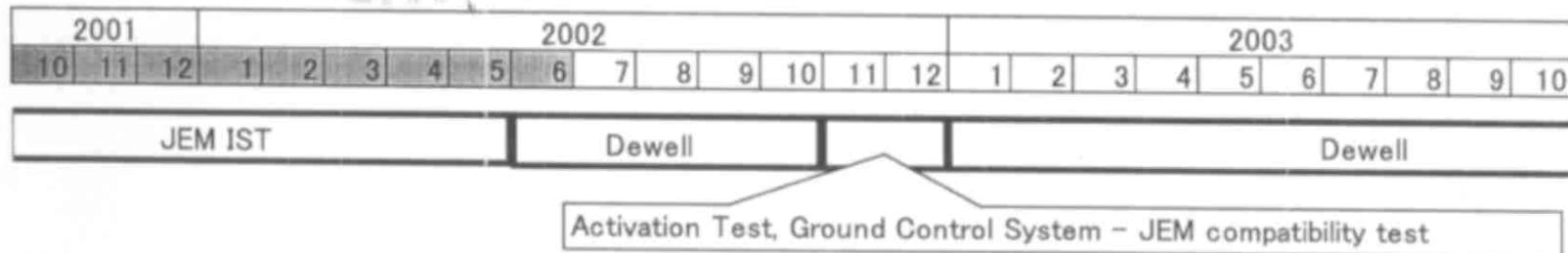


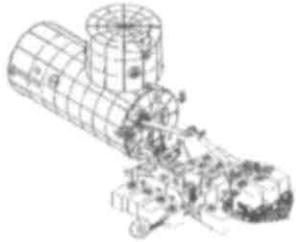
Exposed Facility (EF)

Exposed Logistics Module-
Exposed Section (ELM-ES)



- The verification were almost completed.





Japanese Experiment Module

7. JEM Integrated System Test



>After JEM elements were manufactured and contractor verification activities were completed, each JEM flight element was transported to Tsukuba Space Center and subjected to the JEM Integrated System Test. The purpose of Integrated System Test is ;

☆ **To confirm compatibility between JEM elements and JEM overall functionality.**

>The JEM Integrated System Test is the last verification activity in Japan to certify JEM design validity and operability. The test configuration is close to the on-orbit configuration. The JEM Integrated System Test took about eight months (from Oct. 2001 to May 2002).

