ISS/JEM for Inter-disciplinary research

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ISS and JEM

- JEM (Japanese Experimental Module) will become operational in 2008 as part of the ISS
- JEM provides an unique space environment for many researches:
  - Microgravity
  - Low temperature
  - Weak ventilation

- JEM is designed mainly for:
  - Life sciences
  - Fundamental sciences
  - Space / Earth sciences
  - Other

High priority research and experiments

Some topics have been selected as high prioritized research as:

- Research in crystal growth mechanism
- Fluid dynamics near the critical points
- Monitor of All-sky X-ray Image (MAXI)
- etc.

Inter-science or Inter-disciplinary concept

- There were talking about experiments in life, materials, medicine sciences etc.
- How about formulation of Inter-science or Inter-disciplinary concept to combine more basic research together to achieve practical application.
- This concept could be on basis of space-space experiments or space-ground experiments

ISS and Earth environment observation

- There is Nadir view observation window and also pointing device with range from –8 to 8 deg available on ISS
- Advancement of ISS is about 5 deg for each revolution
- There is possibility for continuous observation of Earth process in limited time period

- Earth observation system records information in scene based concept.
- How about to observe Earth process in its dynamics.
- Observation is opened to many processes including disaster.

Promotion campaign on JEM Utilization

- Uniqueness of JEM environment should be explained broadly among scientist community.
- Advantages of JEM environment for experiments should be highlighted and emphasized in various forms and media among scientists.