

Space Station Science and Applications Advisory Subcommittee

Summer Workshop, June 26-30, 1989
Woods Hole Study Center
Woods Hole, Massachusetts

DRAFT

AGENDA

SUNDAY, JUNE 25

5:30-7:30 P.M. Registration [Quality Inn - Falmouth]

MONDAY, JUNE 26

7:00 - 8:00 Chairman's Executive Breakfast
(Workshop Session Chairpersons only)

7:30 - 8:30 Registration [Woods Hole Study Center]

Morning - PLENARY SESSION

[Woods Hole Study Center]

GENERAL ORIENTATION AND REVIEW

Chair - Dr. Bayuzick

8:30 - 9:00 Orientation to Committee, Procedures & Responsibilities

9:00 - 9:30 OSSA Strategic Plan

9:30 - 10:15 Space Station Manned Base Program Status

10:15 - 10:30 -- Break --

10:30 - 11:00 Space Station Polar Platform Program Status

11:00 - 11:30 Earth observing system (Eos)

11:30 - 12:00 The Ongoing Space Flight Program

12:00 - 2:30 Lunch [Woods Hole Study Center]

Afternoon - PLENARY SESSION

[Woods Hole Study Center]

SPACE SCIENCE AND APPLICATIONS

Chair - Dr. Bayuzick

1:30 - 2:00 Life Sciences

2:00 - 2:30 Materials and Fluid Sciences

2:30 - 3:00 Space Physics

3:00 - 3:15 -- Break --

3:15 - 3:45 Astrophysics

3:45 - 4:15 Earth Science

4:15 - 4:45 Solar System Exploration

4:45 - 5:30 Synopsis of Cooperative International Programs

Evening - PLENARY SESSION

[Woods Hole Study Center]

5:30 - 7:00 Reception for Workshop Participants

TUESDAY, JUNE 27

7:00 - 8:00 Chairman's Executive Breakfast
(Workshop Session Chairpersons only)

7:30 - 8:30 Registration [Woods Hole Study Center]

Morning - PLENARY SESSION [Woods Hole Study Center]

SPACE SCIENCE RESEARCH AND EXPERIMENT PHYSICAL ACCOMMODATIONS

Chair - Dr. _____

8:30 - 9:15 Attached Payloads
9:15 - 10:00 Platforms and Attached Payloads
10:00 - 10:30 - - Break - -
10:30 - 11:15 Evolution from Spacelab to Space Station
11:15 - 12:00 Model Experiment Scenarios

12:00 - 1:30 Lunch [Woods Hole Study Center]

Afternoon - PRIMARY SPLINTER GROUP SESSIONS [Woods Hole Study Center]

1:30 - 2:30 Platforms and Attached Payloads Splinter Group
Chair - Dr. _____
- Distributed Payloads
- EPOP
- JPOP

1:30 - 2:30 Pressurized Volume Splinter Group
Chair - Dr. _____
- Laboratory Support Equipment
- Model Experiment Scenarios

2:30 - - Break - -

Evening - SCIENCE DISCIPLINE SPLINTER GROUPS SESSIONS [Quality Inn - Falmouth]

7:00 - 10:30 SPLINTER GROUPS SESSIONS:
I. **Life Sciences** Chair -
- Laboratory Support Equipment Needs/Phasing
- Model Experiment Scenarios
- Tight Building Syndrome/Microbial build-up
- Centrifuge
II. **Material & Fluid Sciences** Chair -
- Laboratory Support Equipment Needs/Phasing
- Microgravity limits/criteria/parameters
- Vibroacoustic isolation
- Model Experiment Scenarios
III. **Earth Sciences** Chair -
- Small Attached Payloads
- Rapid Response Payloads
- Limits to contamination/countermeasures
IV. **Astrophysics, Solar System Exploration,
and Space Physics** Chair -
- Small Attached & Rapid Response (SARR) Payloads
- Contamination limits/possible countermeasures
- Induced environment limits/countermeasures

WEDNESDAY, JUNE 28

7:00 - 8:00 Chairman's Executive Breakfast
(Workshop Session Chairpersons only)

Morning - PLENARY SESSION

[Woods Hole Study Center]

SCIENTIST - EXPERIMENT INTERACTION

Chair - Dr. _____

8:30 - 9:15 Automation
9:15 - 10:00 Expert Systems and Artificial Intelligence
10:00- 10:15 - - Break - -
10:15- 11:15 Telescience
11:15- 12:30 Telerobotics

12:00 - 2:30 Lunch

[Woods Hole Study Center]

Afternoon - PLENARY SESSION

[Woods Hole Study Center]

1:30 - 2:30 Platforms and Attached Payloads Splinter Group
Chair - Dr. _____
- Robotic Assembly/Serviceing
- EVA Requirements and Crew Availability

1:30 - 2:30 Pressurized Volume Splinter Group
Chair - Dr. _____
- On-Board Analysis/Sample Characterization
- Crew Time/Skills and Telescience Trades

2:30 - - Break - -

[2:30 - 4:00] *International Forum for the Scientific Use of Space Station
(IFSUSS) Steering Committee Meeting [Members only]*

Evening - SCIENCE DISCIPLINE SPLINTER GROUP SESSIONS

[Quality Inn - Falmouth]

7:00 - 10:30 SPLINTER GROUP SESSIONS:

- I. **Life Sciences** Chair -
 - Laboratory Support Equipment & Telescience
 - Crew Time/Skills and Telescience Trades
 - Expert Systems and Artificial intelligence
 - Model Experiment Scenarios - continued
- II. **Material & Fluid Sciences** Chair -
 - On-Board Analysis/Sample Characterization
 - Fluid science/biology interfaces
 - Crew Time/Skills and Telescience Trades
 - Model Experiment Scenarios - continued
- III. **Earth Sciences** Chair -
 - Tradeoffs between crewtime & telerobotics
 - Design constraints for robotic compatibility
 - Options/criteria for capability evolution
- IV. **Astrophysics, Solar System Exploration, and Space Physics** Chair -
 - Expert Systems and Artificial intelligence
 - Tradeoffs between crewtime & telerobotics
 - Design constraints for robotic compatibility

THURSDAY, JUNE 29

7:00 - 8:00 Chairman's Executive Breakfast
(Workshop Session Chairpersons only)

Morning - PLENARY SESSION

[Woods Hole Study Center]

SCIENCE OPERATIONS CONCEPTS

Chair - Dr. _____

8:30 - 9:15 Distributed Operations Functional Capabilities
9:15 - 10:00 International Cooperation
10:00 - 10:30 -- Break --
10:30 - 11:15 The JEM Exposed Facility/ ESA Columbus Airlock
11:15 - 12:00 ESA Man Tended Free Flyer

12:00 - 1:30 Lunch

[Woods Hole Study Center]

Afternoon - SCIENCE DISCIPLINE SPLINTER GROUP SESSIONS

[Woods Hole Study Center]

1:30 - 5:30 SPLINTER GROUP SESSIONS:

I. Life Sciences

Chair -

- Precursor science and operations activities
- Distribution of functional capabilities (User sites)
- Assumptions & model for initial capability
- Options/criteria for capability evolution

II. Material & Fluid Sciences

Chair -

- Precursor science and operations activities
- Distribution of functional capabilities (User sites)
- Assumptions & model for initial capability
- Options/criteria for capability evolution

III. Earth Sciences

Chair -

- Precursor science and operations activities
- Eos Data & Information System (DIS) sufficiency
- Distribution of functional capabilities (User sites)
- Options/criteria for capability evolution

**IV. Astrophysics, Solar System Exploration,
and Space Physics**

Chair -

- Precursor science and operations activities
- Distribution of functional capabilities (User sites)
- Attached payload Joint Science Utilization Study?

5:30 -- Break --

EVENING SESSION

[Woods Hole Study Center]

5:30 - 6:30 Joint Space Station Advisory Committee (SSAC) and SSSAAS Summer Workshop
Reception

6:30 - 8:00 Joint Space Station Advisory Committee (SSAC) and SSSAAS Summer Workshop
Down-East Dinner

FRIDAY, JUNE 30

7:00 - 8:00 Chairman's Executive Breakfast [Quality Inn - Falmouth]
(Workshop Session Chairpersons only)

Morning - AD HOC SESSIONS AS NEEDED

8:30 - 12:00 Prepare Splinter Group Reports [Quality Inn - Falmouth]
(Per Splinter Group Chairperson instructions)

[9:30 - 11:30] **IFSUSS Meeting** - Prepare Woods Hole Statement
(Members only)

12:00 - 1:00 Lunch [Individual responsibility]

Afternoon - JOINT PLENARY SESSION WITH SSAC [Quality Inn - Falmouth]

SSSAAS SUMMER 1989 WORKSHOP CONCLUSION AND RECOMMENDATIONS

Chair - Dr. _____

1:00 - 1:20 Recap of meeting objectives

REPORTS FROM SUBGROUPS

1:20 - 1:40 LIFE SCIENCES

1:40 - 2:00 MATERIALS AND FLUID SCIENCES

2:00 - 2:20 ASTROPHYSICS, SOLAR SYSTEM EXPLOARTION, AND SPACE PHYSICS

2:20 - 2:40 EARTH SCIENCES

2:40 - 3:00 -- BREAK --

3:00 - 5:30 **CONCLUSIONS AND RECOMMENDATION TO OSSA/SSAAC/SSAC**

5:30 ADJOURN