

PIMS 6th Annual Microgravity Environment Interpretation Tutorial
NASA Glenn Research Center, Ohio Aerospace Institute (OAI),
President Room, Cleveland, Ohio

Tuesday, March 4th, 2003

Introduction of Jack Salzman
Welcome Remarks
Orientation

D. Francisco
J. Salzman
K. Jules

1. NASA Microgravity Environment Program Overview
2. ISS Planning and Operation
3. PIMS Interactions with Experiment Teams
4. Working in a Reduced Gravity Environment: "A Primer"
5. Developing Microgravity Tolerance Specifications
6. Accelerometer Systems: Description and Capability
7. Basics of Signal Processing
8. Analysis Techniques for Quasi-steady Data
9. Analysis Techniques for Vibratory Data
10. Reduced Gravity Environment of Ground-based facilities and Non-orbital Flight Platforms

D. Francisco
K. DePaola
K. Jules
K. Jules
E. Nelson
W. Foster
E. Kelly
E. Kelly
K. Hrovat
R. DeLombard

Open Forum Discussion

Wednesday, March 5th, 2003

11. Microgravity Emission Laboratory Test Facility
12. PIMS International Space Station Operations
13. PIMS ISS Web Site Navigation for Acceleration Data Access

Tour Orientation and Instructions

Social Activity Plan

NASA Glenn Microgravity Facilities Tour

Social Activity/Dinner

A. McNelis
K. McPherson
K. McPherson
K. Jules
K. McPherson

Thursday, March 6th, 2003

14. Fundamentals of Microgravity Vibration Isolation
15. Survey of Microgravity Vibration Isolation Systems
16. Predicting Residual Acceleration Effects on Space Experiments
17. Impact of the Microgravity Environment on Experiments
18. Microgravity Control Integration Process and Disturbance Predictions for ISS Rack Payloads
19. ISS Microgravity Requirements
20. ISS Design Analysis Cycle and Environment Predictions
21. ISS Measured Microgravity Environment—Quasi-steady: Increments 4 & 5
22. ISS Measured Microgravity Environment—Vibratory: Increments 4 & 5

M. Whorton
M. Whorton
E. Nelson
B. Tryggvason
J. Heese
B. Humphreys
B. Humphreys
E. Kelly
K. Hrovat

Open Forum Discussion

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Library Room, Cleveland, Ohio

Tuesday, March 4th, 2003

Introduction of Jack Salzman	08:30-08:32
Welcome Remarks (by J. Salzman)	08:32-08:40
ISS Video	08:40-08:56
Orientation	08:56-09:20
1. NASA Microgravity Environment Program Overview	09:20-09:30
2. ISS Planning and Operation	09:30-10:00
MORNING BREAK	10:00-10:30
3. PIMS Interactions with Experiment Teams	10:30-11:00
4. Working in a Reduced Gravity Environment: "A Primer"	11:00-12:00
LUNCH BREAK	12:00-13:00
5. Developing Microgravity Tolerance Specifications	13:00-13:30
6. Accelerometer Systems: Description and Capability	13:30-14:15
7. Basics of Signal Processing	14:15-14:30
AFTERNOON BREAK	14:30-15:00
8. Analysis Techniques for Quasi-steady Data	15:00-15:25
9. Analysis Techniques for Vibratory Data	15:25-16:00
10. Microgravity Environment of Ground-based facilities and Non-orbital Flight Platforms	16:00-16:35
Open Forum Discussion	

Wednesday, March 5th, 2003

11. Microgravity Emission Laboratory Test Facility	09:00-10:00
12. PIMS International Space Station Operations	10:00-10:35
MORNING BREAK	10:35-11:00
13. PIMS ISS Web Site Navigation for Acceleration Data Access	11:00-11:40
Tour Orientation and Instructions	11:40-11:55
Social Activity Plan	11:55-12:00
NASA Glenn Microgravity Facilities Tour:	13:00-16:30
Microgravity Emission Lab	
2.2 Sec. Drop Tower	
Zero-g	
Telescience/FCF	
Social Activity/Dinner	19:30-Till

Thursday, March 6th, 2003

14. Fundamentals of Microgravity Vibration Isolation	08:00-09:15
15. Survey of Microgravity Vibration Isolation Systems	09:15-09:55
<i>MORNING BREAK</i>	
16. Predicting Residual Acceleration Effects on Space Experiments	10:00-10:30
17. Impact of the Microgravity Environment on Experiments	10:30-11:30
	11:30-12:15
<i>LUNCH BREAK</i>	
18. Microgravity Control Integration Process and Disturbance Predictions for ISS Rack Payloads	12:15-13:15
19. ISS Microgravity Requirements	13:15-14:15
	14:15-14:35
<i>AFTERNOON BREAK</i>	
20. ISS Design Analysis Cycle and Environment Predictions	14:35-15:00
21. ISS Measured Microgravity Environment—Quasi-steady: Increments 4 & 5	15:00-16:00
22. ISS Measured Microgravity Environment—Vibratory: Increments 4 & 5	16:00-16:25
	16:25-17:20

Open Forum Discussion