

October 10, 2002

Microgravity Environment Interpretation Tutorial

Presentation #

| <i>start</i> | <i>end</i> | <i>Title</i> | <i>Presenter</i> | |
|--------------|------------|--|------------------------------|----|
| 9:00 AM | 9:15 AM | Welcoming remarks & logistics | Kenol Jules, NASA GRC | |
| 9:15 AM | 9:25 AM | Overview of Microgravity Environment Program | Richard DeLombard, NASA GRC | 1 |
| 9:25 AM | 9:35 AM | PIMS Interaction with Principal Investigator Teams | Kenol Jules, NASA GRC | 2 |
| 9:35 AM | 9:50 AM | Working in a Reduced Gravity Environment: "A Primer" | Kenol Jules, NASA GRC | 3 |
| 9:50 AM | 10:20 AM | Developing microgravity tolerance specifications | Emily Nelson, NASA GRC | 4 |
| 10:20 AM | 10:40 AM | BREAK | | |
| 10:40 AM | 11:00 AM | Acceleration Measurement Systems Deployed by SAMS | William M. Foster, NASA GRC | 5 |
| 11:00 AM | 11:20 AM | Basics of Signal Processing | Eric Kelly, ZIN Technologies | 6 |
| 11:20 AM | 11:30 AM | Analysis Techniques for Quasi- Steady Data | Eric Kelly, ZIN Technologies | 7 |
| 11:30 AM | 11:45 AM | Analysis Techniques for Vibratory Data | Ken Hrovat, ZIN Technologies | 8 |
| 11:45 AM | 12:45 PM | LUNCH | | |
| 12:45 PM | 1:00 PM | Microgravity Environment of Ground- based Facilities and Non- orbital Flight Platforms | Richard DeLombard, NASA GRC | 9 |
| 1:00 PM | 1:10 PM | Fundamentals of Microgravity Vibration Isolation | Richard DeLombard, NASA GRC | 10 |
| 1:10 PM | 1:25 PM | Survey of Microgravity Vibration Isolation Systems | Richard DeLombard, NASA GRC | 11 |
| 1:25 PM | 1:45 PM | Microgravity Control Integration Process & Disturbance Predictions for ISS Rack Payloads | John Heese, ZIN Technologies | 12 |
| 1:45 PM | 1:55 PM | PIMS International Space Station Operations | Kevin McPherson, NASA GRC | 13 |
| 1:55 PM | 2:15 PM | BREAK | | |
| 2:15 PM | 2:20 PM | How to Access PIMS ISS Acceleration Data | Kevin McPherson, NASA GRC | 14 |
| 2:20 PM | 2:50 PM | Predicting Residual Acceleration Effects | Emily Nelson, NASA GRC | 15 |
| 2:50 PM | 3:00 PM | ISS Microgravity Requirements | Richard DeLombard, NASA GRC | 16 |
| 3:00 PM | 3:30 PM | Microgravity Acceleration Environment of the International Space Station - Quasi-steady Regime | Eric Kelly, ZIN Technologies | 17 |
| 3:30 PM | 4:00 PM | International Space Station (ISS) Measured Vibratory Environment Increments 2 and 3 | Ken Hrovat, ZIN Technologies | 18 |

MGMG Agenda

Friday, October 11, 2002

Presentation #

| <i>start</i> | <i>end</i> | <i>Title</i> | <i>Presenter</i> | |
|------------------|------------|---|---|----|
| 8:00 AM | 8:15 AM | Welcoming remarks & logistics | R. DeLombard, NASA GRC | |
| Session A | | ISS ENVIRONMENT - PART 1 | | |
| 8:15 AM | 8:35 AM | International Space Station microgravity quasi-steady acceleration predictions | Michael R. Laible, Boeing Co. | 1 |
| 8:35 AM | 8:55 AM | International Space Station microgravity vibratory acceleration predictions | Steven A. Scheer, Boeing Co. | 2 |
| 8:55 AM | 9:15 AM | Space Station vibration environment and statistical energy analysis prediction comparison | Ed J. O'Keefe, Boeing Co. | 3 |
| 9:15 AM | 9:30 AM | BREAK | | |
| 9:30 AM | 10:00 AM | Space Acceleration Measurement System Stand-alone Sensor Head | William Foster III, NASA GRC | 4 |
| Session B | | ISS USERS | | |
| 10:00 AM | 10:30 AM | Earth Observations Capabilities of the International Space Station | Dean Eppler, SAIC; Karen P. Scott, Aerospace Corporation | 5 |
| 10:30 AM | 11:00 AM | The importance of an accurate knowledge of the microgravity environment for potential ISS users | Raffaele Savino, Prof. Rodolfo Monti, Univ. of Naples | 6 |
| 11:00 AM | 12:00 PM | LUNCH | | |
| 12:00 PM | 12:30 PM | Accelerometer Measurement of Interface Impedance for ISS Payloads | Fred Henderson, Teledyne Brown Eng'r / Houston | 7 |
| 12:30 PM | 1:30 PM | Processing of On-orbit Acceleration Data to Compare with Requirements | Kevin McPherson, NASA GRC | 8 |
| Session C | | ISS ENVIRONMENT - PART 2 | | |
| 1:30 PM | 2:30 PM | ARIS-ICE Results and Lessons | Ian Fialho, Boeing / Houston & Naveed Quraishi / NASA JSC | 9 |
| 2:30 PM | 2:45 PM | BREAK | | |
| Session D | | ACCELEROMETERS AND DATA FOR ISS | | |
| 2:45 PM | 4:45 PM | International Partners ISS Accelerometer Status | International Partner participants | 10 |
| | | NASDA's Activities for "Microgravity" in JEM | Masayuki Goto, NASDA | 11 |
| | | Operations of SAMS, MAMS, and PIMS for ISS Microgravity Characterization | Kevin McPherson, NASA GRC | 12 |
| Session E | | SUMMARY | | |
| 4:45 PM | 5:00 PM | Summary discussion of MGMG #21 and plans for MGMG #22 | Richard DeLombard, NASA GRC | |