MICROGRAVITY ENVIRONMENT INTERPRETATION TUTORIAL (MEIT)
December 7-9, 1999, NASA Glenn Research Center, Cleveland, Ohio

COURSE DESCRIPTION

The objectives of the NASA Glenn Microgravity environment interpretation tutorial (MEIT) training course are:
1. Educate both Project Scientists (PS) and Principal Investigators (PI) about the impact the microgravity environment will have on their experiments.
2. Expose the PS and PI's to the different methods that can be used to assess and quantify the microgravity impact so that it can be taken into account during data analysis and data   interpretation.
3. Make the attendees aware of the many services the Principal Investigator Microgravity Services (PIMS) project offers to PSs and PIs as they evaluate the effects of varying acceleration levels on their experiments. These include services such as data analysis, logging and tracking of ancillary information pertinent to the microgravity environment measured during experiment operations, and preparation of mission summary reports aims at furthering the PIs understanding of the microgravity environment.

The following topics will be covered:

1. Components of the microgravity environment of orbiting spacecraft
   - Quasi-steady acceleration
   - Vibratory and transient accelerations
   - Accelerometer system description

2. Known impacts of the microgravity environment on experiments
   - Effects caused by the microgravity environment
   - Taking advantage of different aspects of the microgravity environment

3. Analysis of accelerometer data
   A. Quasi-steady data (OARE / MAMS)
   - data collection / compensation
   - data analysis / display
   B. Vibratory data (SAMS / SAMS-II / SAMS-FF)
   - data sampling, aliasing, resolution and frequency limits
   - data collection / compensation
   - time domain analysis / display
   - frequency domain analysis / display

4. Different microgravity platform signatures (both Quasi-steady and Vibratory)
   A. Orbiters
   B. MIR
   C. Sounding Rockets
   D. KC-135
   E. International Space Station (ISS)

5. Predicting residual acceleration effects on space experiments

For further information, please call Kenol Jules at 216-977-7016 or send email at: pims@grc.nasa.gov
For online registration go to: http://www/lerc.nasa.gov/WWW/MMAP/PIMS/MEIT/meit99.html
Registration deadline is: <u>November 15, 1999</u> (limited capacity)