

# NEWSLETTER

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ION® EDUCATION MODULES

# TEACHING OUR KI'dS NAVIGATION

By Dr. Penina Axelrad

The Institute of Navigation is announcing the completion of a set of education modules for teaching navigation in middle school grades 6, 7, and 8. The education modules were developed by the University of Colorado Integrated Teaching and Learning (ITL) Laboratory in cooperation with the ION®.

The navigation education modules take teacher and students from the beginning principles of navigation to the sophisticated satellite technology used today. They incorporate easy-to-use, hands-on lessons that support the rapid understanding of the subject that comes with doing. Hands on projects are low budget, typically costing between \$5 and \$10 for the whole class.

#### **Exploring Navigation**

These modules give middle school teachers and pupils the opportunity to explore together the exciting world of navigation in the classroom. While describing the "what" of navigation, the modules teach the "how" as well—guiding students to understand the tools of navigation and the mathematics and science behind them. The materials also provide numerous links to related Internet sites for additional research and investigation.

Each of the navigation education modules satisfy state teaching standards established by Mid-continent Research for Education and Learning (McREL). McREL standards in turn meet state teaching standards established by the Colorado Department of Education.

The materials are provided free of charge for use in non-commercial educational activities. In addition to classroom instruction, the modules are also well suited for use by youth development and recreational organizations. To access the education modules go to the ION Web site at www.ion.org/satdiv/education.cfm.

—The Integrated Teaching and Learning Program at University of Colorado Boulder is a nationally recognized engineering education leader. Using inter-disciplinary, hands-on approaches and incorporating leading-edge technology, engineering students at the ITL gain the understanding and confidence to succeed. For more information, please contact Dr. Penina Axelrad via e-mail at penina.axelrad@colorado.edu.



# Congratulations

# Institute of Navigation Honorees

he Annual Awards Program is sponsored by the Institute of Navigation to recognize individuals making significant contributions, or demonstrating outstanding performance, relating to the art and science of navigation.

Nominations for these awards

may be submitted by anyone, but all nominations must conform to  $ION^{\text{\tiny{\$}}}$  nomination guidelines.

Award recipients need not be members of the Institute. Details of the nomination process and nomination forms are available at www.ion.org.

The Institute of Navigation had the pleasure of honoring an outstanding group of contributors to the art and science of navigation at its 60th Annual Meeting held in Dayton, Ohio, June 7-9, 2004. The Institute extends its warmest congratulations to the recipients, its sincere thanks to all those who submitted nominations and its appreciation to the members of the ION® Awards Selection Committee who served so effectively in select-

ing the honorees.

### Distinguished Service Award



Mr. Larry Hothem
In grateful recognition of his leadership and achievements on behalf of the Institute of Navigation.

# Superior Achievement Award



For his meritorious achievements as MC-130P Navigator in Iraq combat operations and his innovations in developing and executing new, allweather, low-level MC-130P navigation -procedures.

**Major Donald** 

A. Aspden

## Dr. Samuel M. Burka Award



Dr. Donghyun Kim

For the paper with Prof. Richard B. Langley, "On Ultrahigh-Precision GPS Positioning and Navigation" published in the summer 2003 issue of NAVIGATION, The Journal of The Institute of Navigation, Vol. 50, No. 2, pp. 103.