



## ION Awards and Fellow Memberships

The Institute of Navigation (ION) presented its Annual Awards and Fellow Memberships during the ION International Technical Meeting (ITM) 2010 in San Diego, California, 25th to 27th January 2010. The ION Annual Awards Programme is sponsored to recognise individuals making significant contributions or demonstrating outstanding performance relating to the art and science of navigation.

Dr. Dennis M. Akos received the Thomas L. Thurlow Award for his contributions to the design and application of GNSS software defined radios, embedded receivers and detailed observation of GPS, GLONASS, Galileo, and Compass signals. The Thomas L. Thurlow Award recognizes outstanding contributions to the science of navigation.

Col. David W. Madden received the Norman P. Hays Award for leading a ten-year development program over 400 multi-organisational personnel through delivery and transition to operation of an USD850 million dollar GPS control segment system and for the execution of "back-to-basics" baseline review for the three next-generation navigation programs totaling more than two and a half billion dollars, paving the way for continuing GPS as the gold-standard for world-wide position, navigation, and timing. The Norman P. Hays Award is presented in recognition of outstanding encouragement, inspiration and support contributing to the advancement of navigation.

Edward H. Martin received the Captain P.V.H. Weems Award for his contributions to the selection of the P code and C/A code GPS waveforms, for his leadership in the development of the first GPS receiver and for his years of contributions to the application of GPS to the U.S. military and Allied users, civil transportation systems including aviation, and his clear and concise teachings to the next generation of space-based navigation developers. The Captain P.V.H. Weems Award is presented to individuals for continuing contributions to the art and science of navigation.

Denis Laurichesse, Flavien Mercier, Jean-Paul Berthias, Patrick Broca and Luca Cerri received the Dr. Samuel M. Burka Award for their paper "Integer Ambiguity Resolution on Undifferenced GPS Phase Measurements and its Application to PPP and Satellite Precise Orbit Determination" published in the Summer 2009 issue of NAVIGATION, Journal of The Institute of Navigation, Vol. 56, No. 2, pp 135. The Dr. Samuel M. Burka Award recognizes outstanding achievement in the preparation of a paper contributing to the advancement of navigation and space guidance.

Capt. James R. Pancoe received the Superior Achievement Award for his superior leadership and significant contributions to the effective combat employment of the United States and Iraq Air Force C-130s as an Instructor Navigator. The Superior Achievement Award is presented to an individual demonstrating outstanding accomplishments as a practicing navigator.

Dr. José Ángel Ávila Rodríguez received the ION Distinguished Service Award for his remarkable contributions to the design of the Galileo frequency and signal plan and for his sustained technical work on compatibility and interoperability among GNSS systems. The Early Achievement Award is presented in recognition of outstanding contributions made early in one's career.

## **Fellow Membership**

Election to fellow membership recognizes the distinguished contributions of The Institute of Navigation members to the advancement of the technology, management, practice and teaching the arts and science of navigation; and/or lifetime contributions to the Institute.

Dr. Raynor L. Duncombe has been elected for his involvement in developing the initial methods for tracking the first artificial satellites, and for his leadership in the production of almanacs and the development of the new celestial reference system in the 1970s, and for his contributions in the founding of the International Association of Institutes of Navigation.

John W. Lavrakas has been elected for his contributions to the development of GPS Control Segment and user applications, and for service to The Institute of Navigation.

Dr. Boris Pervan has been elected for his extraordinary contribution to the advancement of differential GPS technology and integrity assurance, for his excellence as a teacher, and for his service to The Institute of Navigation.