



## 2007 FLC Midwest Region Awards

### Excellence in Technology Transfer Award

This regional award is presented to an employee or team of employees of a Midwest Region member laboratory in recognition of outstanding work during the transfer of a technology between a federal laboratory and another entity. This year, the award winners are:

***Secure Mobile Networking for Space Communication, National Security & Commercial Products, NASA Glenn Research Center at Lewis Field.*** The Mobile Router is software code that resides in a network router and enables communication through an encrypted, mobile network providing instantaneous and continuous secure Internet connectivity. The Mobile Router eliminates the need to reconfigure a router as it moves in relation to other networks and uses standard Internet Protocol (IP) to seamlessly integrate network communications on the ground, at sea, in the air, and in space. The importance of this technology lies in its mobility, security and scalability. These improvements translate into cost savings and increased efficiency, because seamless interoperability between space, air, sea, and ground-based systems leverages the huge investment already made in terrestrial network systems. Glenn worked closely with Western DataCom, Cisco Systems, the United States Coast Guard, Globalstar, Sea Tel, L3-Communications East and numerous other companies to develop the secure mobile networking technology.

Both the NASA and the DOD are currently developing a new “transformational” communications architecture for land, sea, air and space. The new architecture is expected to revolutionize the way that NASA conducts science and the DOD conducts warfare. It is also a key enabling technology for aviation-based information applications. Mobile routing will make it possible for information such as weather, air traffic control, voice and video to be transmitted to aircraft using Internet-based protocols. The mobile router can also be incorporated into emergency vehicles to provide real-time connectivity back to the hospital and health-care experts, enabling the timely application of emergency medical care. Commercial applications include entertainment services, Internet Protocol (IP) telephone, and Internet connectivity for cruise ships, commercial shipping, tour buses, aircraft and eventually automobiles.

The Secure Mobile Networking Team includes the following individuals:

- William Ivancic
- Phil Paulsen

- Daniel Shell
- Phil Ardire