



The world's largest professional association for the advancement of technology



News Releases

Neil G. Siegel, Pioneer of Digital Battlefield Technology, to Receive 2011 IEEE Simon Ramo Medal

Bringing Information Technology to the Battlefield Has Increased Combat Effectiveness and Saved Lives

10 August 2011 – Neil G. Siegel, an engineer whose groundbreaking systems engineering and programming work in creating the “digital battlefield” has helped define the future of the U.S. armed forces, increase combat effectiveness and save the lives of soldiers, is being honored by IEEE with the 2011 IEEE Simon Ramo Medal. IEEE is the world's largest technical professional association.

The medal, sponsored by Northrop Grumman Corporation, recognizes Siegel for the pioneering engineering that led to the successful development of the digital battlefield, a lifesaving and integral part of U.S. Army operations. The medal will be presented on 20 August 2011 at the IEEE Honors Ceremony in San Francisco, Calif.

By bringing information technology and wireless communications to the battlefield, Siegel has revolutionized the military's response to the war on terror and most importantly has saved the lives of U.S. and allied forces. Siegel designed a digital system capable of tracking friendly and enemy forces and enhancing tactical-level command and control. He led each aspect of the systems engineering and technology effort and guided what was an initially controversial concept through political minefields to realization. Siegel's achievements have set the standard for network-centric land combat technology and his work plays a key role in the U.S. military's system modernization efforts.

Siegel is most known for his work on the Force XXI Battle Command Brigade-and-Below System, also known as FBCB2, and the Blue Force Tracker. These systems, which improve situational awareness on the battlefield, utilize computers, satellites, a global positioning system and command-and-control and mapping software to display locations of friendly and enemy forces in relation to the host vehicle. Siegel developed the force-structure-aware communications network, which provides continuously updated deep knowledge of the military force structure it is supporting. Along with a revolutionary network management mechanism, the communications network achieves reliable wireless communications interconnectivity of thousands of mobile platforms with low-cost radios and without the need for cellular towers or fixed-site relays.

FBCB2 is the centerpiece of the U.S. Department of Defense's effort to digitize the battlefield and is the U.S. Army's principle battle command system. A variant of FBCB2, the Blue Force Tracker is deployed on thousands of U.S. Army and U.S. Marines vehicles worldwide and is credited with saving hundreds of lives of U.S. and U.K. soldiers during its use in Iraq, Afghanistan and the Balkans. Blue Force Tracking was cited by commanders as one of the most decisive new military technologies of our time. Over 60,000 units of these systems are in use today, and the U.S. military plans to continue to develop the systems in the future for use as the Joint Battle Command Platform.

An IEEE Fellow, Siegel is also a member of the U.S. National Academy of Engineering. His honors include the TRW Chairman's Award for Innovation, the U.S. Army's Order of Saint Barbara and a Special Recognition Award from the Army FBCB2 Office. Under his management, the FBCB2 program received honors including the Institute for Defense and Government Advancement's Award for Most Innovative U.S. Government Program and the Battlespace Award for Best Program in Support of Coalition Forces. He received his bachelor's, master's and doctorate degrees from the University of Southern California, Los Angeles. Siegel is currently the Information Systems Sector vice president and chief engineer at Northrop Grumman Corporation, Dominguez Hills, Calif.

Contact

Francine Tardo
1 732 465 5865
f.tardo@ieee.org

Marsha Longshore
1 732 562 6824
m.longshore@ieee.org