# THOUGHT LEADERS

## The Army's senior scientific professionals

*by Dr. Scott Fish*

Sometimes hidden in the midst of the more than 11,000 Army laboratory and technical center scientists and engineers are a select few senior scientific professionals with very important roles to play in guiding and executing essential research and engineering. These key professionals help ensure that our Soldiers have the best capability possible in a complex, ever-changing environment.

**ADVANCING CAPABILITIES**

Jill Smith, Director, U.S. Army Communications-Electronics Research, Development, and Engineering Center (CERDEC) (middle), talks to Dr. Meimei Tidrow (left) and Dr. Tom Broach about a prototype robotic countermine/counter-IED system at CERDEC Night Vision and Electronic Sensors Directorate (NVESD). Tidrow is the Chief Scientist for Focal Plane Arrays at NVESD, Fort Belvoir, VA, and Broach is the Chief Scientist for Countermine and Counter-IED technologies. (U.S. Army photo by Kimberly Bell, CERDEC-NVESD Public Affairs Office.)

We don't hear much about these people because they are modest, and their positions are not as well-recognized as their management counterparts within the Senior Executive Service (SES).

This article is intended to highlight the Scientific Professional Corps (ST Corps) and to demonstrate, through wider awareness, the impact these special people can make on our products for the warfighter.

## ROLES, RESPONSIBILITIES

The ST Corps was created in 1998 to establish SES protocol-equivalent positions to promote excellence in scientific and technical work through a long-term career path alternative to entering management. The STs are the highest-ranking technical personnel, and their positions are the equivalent of chaired professors at leading research universities. The ST professional carries the following responsibilities within his or her organization:

- Serve as an advocate for the Army's engineers, mathematicians, and scientists.
- Promote collaborative research and technical interchange with scientists and scientific organizations external to the Army at both national and international levels.
- Encourage participation in external scientific and technical meetings, symposia, and publications, and support collaboration among DOD and its services.
- Advocate actions and policies that maintain the stability of basic and applied research, technology development, and technology base programs within the Army.
- Advise and consult on technical matters to the Army's civilian and military executives and other government agencies.
- Provide a catalyst for change in research programs, research organizational structure, and planning for future science.
- Perform voluntary, self-imposed functions related to the collective expertise of the ST Corps that aid the Army and the United States of America.

The ST Corps is chaired by one of its members. This corps provides a forum for interaction among members to exchange ideas, plan activities, and perpetuate the organization.

An important additional ST Corps activity not widely known is the technical assessment that drives recommendations for the Small Business Innovative Research Program within the Army.

## QUALIFICATIONS

The qualifications to be considered for an ST position, which is generally referred to as the chief scientist for the organization, are the following:

- Has authored fundamental papers in the field of expertise that are widely used and cited.
- Has received significant honors from major organizations for his or her accomplishments and contributions.
- Is sought as an advisor and consultant on scientific and technological problems that extend beyond his or her specialty.

These qualifications put the ST in a position both to continue advanced technical work and to offer respected technical perspective to the organization's SES leadership. The ideal laboratory or technical center leadership construct has the ST serving as a senior trusted advisor to the director on strategic issues related to the

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The ST also advises on trends in technology related to the organization's long-term productivity. This can be a delicate balancing act for the ST, who also serves as a mentor to junior scientists and engineers and who continues to conduct high-quality research.

## WHO THEY ARE

The Army currently has 42 ST positions filled, with four in the confirmation process at this time. The filled positions are noted below for technical reference; they are points of contact across our Army laboratory system in their respective areas of expertise.

**Henry Everitt** (optical sciences), U.S. Army Aviation and Missile Research, Development, and Engineering Center (AMRDEC)

**Jester (Jay)** Loomis (radio frequency sensors), AMRDEC

**Michael Scully** (rotorcraft aeromechanics preliminary design), AMRDEC

**Paul Ruffin** (micro sensors), AMRDEC

**Mark Tischler** (rotorcraft flight dynamics and control), AMRDEC

**Richard Fong** (warheads technology), U.S. Army Armament Research, Development, and Engineering Center (ARDEC)

**Donald Carlucci** (computational structural modeling), ARDEC

**Ernest Baker** (insensitive munitions), ARDEC

**Ananthram Swami** (network science), U.S. Army Research Laboratory (ARL)

**Bruce West** (mathematical sciences), ARL/Army Research Office (ARO)

**Stephen Lee** (interdisciplinary/GPS), ARL/ARO

**Peter Reynolds** (physical sciences), ARL/ARO

**Tomasz Letowski** (Soldier performance), ARL-Human Research and Engineering Directorate (ARL-HRED)

**Kwong-Kit Choi** (physical sciences), ARL-Sensors and Electron Devices Directorate (ARL-SEDD)

**Nasser Nasrabadi** (sensors), ARL-SEDD

**Paul Shen** (nuclear/electronics survivability), ARL-SEDD

**Joseph Mait** (electromagnetics), ARL-SEDD

**Shashi Karna** (nanofunctional materials), ARL-Weapons and Materials Research Directorate (ARL-WMRD)

**James McCauley** (ceramic materials), ARL-WMRD

**Brad Forch** (ballistics research), ARL-WMRD

**Arthur Ballato** (electromagnetics), U.S. Army Communications-Electronics Research, Development, and Engineering Center (CERDEC)

**Paul Zablocky** (electronic warfare technology), CERDEC

**Thomas Broach** (counter mine/counter IED technology), CERDEC

**MeiMei Tidrow** (electro-optics technology), CERDEC

**Jose-Luis Sagripanti** (biochemistry), Edgewood Chemical Biological Center (ECBC)

**James Valdes** (biotechnology), ECBC

**Augustus (Way) Fountain** (chemistry), ECBC

**Donald Resio** (coastal systems), Engineer Research and Development Center (ERDC)

**Paul Mlakar** (weapons effects/structural dynamics), ERDC

**John Peters** (near surface phenomenology), ERDC

**Jeffery Steevens** (biotechnology), ERDC

**Todd Bridges** (environmental science), ERDC

**Edward Perkins** (environmental networks and genetic toxicology), ERDC

**Leonard Smith** (medical countermeasures), U.S. Army Medical Research and Materiel Command (MRMC)

**Connie Schmaljohn** (medical defense against infectious disease), MRMC

**Jaques Reifman** (advanced medical technology), MRMC

**Armand Cardello** (human behavior and performance), Natick Soldier Research, Development, and Engineering Center (NSRDEC)

**Claire Gordon** (biological anthropology), NSRDEC

**James Overholt** (robotics), U.S. Army Tank Automotive Research, Development, and Engineering Center (TARDEC)

**David Gorsich** (general engineering), TARDEC

**Brian Strickland** (directed energy), U.S. Army Space and Missile Defense Technical Center

**Douglas Brungart** (auditory science), Walter Reed Army Medical Center

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