



2009 DEFENSE STANDARDIZATION PROGRAM AWARDS

These awards honor personnel and organizations of the military departments and defense agencies for outstanding performance in the implementation of the Defense Standardization Program. The recipients have made singular improvements in technical performance, greatly enhanced safety for DoD personnel, and avoided billions of dollars in costs.

2009 DISTINGUISHED ACHIEVEMENT AWARD WINNERS

This year, for the first time, DSPO identified two individuals as being equally deserving of the Distinguished Achievement Award.

Martin Snyder, for developing the world's first 24-volt military vehicle headlamp using only light-emitting diodes, significantly reducing the danger to our warfighters.

David Leight, for developing a specification for fiber optic connectors that can be used in hundreds of shipboard, submarine, and avionic military applications, greatly reducing the logistics footprint.



2009 DEFENSE STANDARDIZATION

DISTINGUISHED ACHIEVEMENT AWARD WINNERS

Light-Emitting Diodes Brighten the Warfighter's World

Martin Snyder, from the U.S. Army Tank Automotive Research, Development and Engineering Center, conceptualized, designed, developed, tested, and attained final production certification for the world's first 24-volt military vehicle headlamp using only light-emitting diodes (LEDs). The LED headlamp is a direct replacement (form, fit, function) of the standard 1930s-design 12-volt incandescent headlamp seen on military vehicles. The LED headlamps are much brighter than the old lamps, significantly reducing the danger to our warfighters; soldiers can clearly see—and avoid—obstacles like gullies and soft sand, as well as things like roadside bombs. The LED headlamps are designed to last the lifetime of the vehicle, in stark contrast to the older lamps, which have a short lifetime (nominally, 100 hours). Because vehicle systems are designed to last for 20 years or more, the recurring cost of the old lamps (about \$12) outweighs the one-time cost of the LED lamps (about \$150). Another benefit of Mr. Snyder's work is that the military will be able to eliminate the hybrid (12-/24-volt) electrical systems used on vehicles to power the 12-volt incandescent lamps. By standardizing on 24-volt components, the military can reduce the complexity of vehicle electrical systems and improve logistics supportability.

Standardized Fiber Optic Connectors Save Millions

David Leight, from the Defense Supply Center Columbus, led the development of a new specification for next-generation connectors, specifically, fiber optic connectors using the latest technology. Publication of the new specification—MIL-PRF-64266, "Connectors, Fiber Optic, Circular, Plug and Receptacle Style, Multiple Removable Genderless Termini, Environment Resisting, General Specification for"—was the culmination of a 6-year effort. The fiber optic connectors covered by the new specification have diverse uses in hundreds of shipboard, submarine, and avionics military applications, greatly reducing the logistics footprint. In addition, the connectors are more reliable, more maintainable, and easier to clean, and they have tighter mechanical tolerances than older connectors. Moreover, costs will be substantially reduced. For example, the availability of a standard connector will eliminate the need to procure multiple types of non-standard ones, resulting in a cost avoidance, for surface ships alone, of about \$21 million over 5 years. Maintenance time also will be greatly reduced, resulting in significant cost savings—an estimated \$4 million over the next 5 years for one major aircraft alone. When all applications are considered, the savings will likely reach tens of millions of dollars.

ACHIEVEMENT AWARD WINNERS

Warfighters Now Have More—and Better—Steel

An Army team from the Weapons and Materials Research Directorate, U.S. Army Research Laboratory, undertook a project to increase the availability and capability of steel armor materials that could be used on military platforms. The reliance on outdated specifications using obsolete manufacturing technologies and inadequate requirements was hindering production and preventing the use of newer and better materials, such as armor as thin as 2.5 mm and a new class of air-cooled, auto-tempered high-hardness steels. Ballistic specifications also needed to be updated. To address these and other concerns, the team overhauled three major armor steel specifications and developed two new specifications (perforated homogeneous steel armor plate and ultra-high-hardness wrought-steel armor plate). The team's work made it possible to expedite the procurement of armor for more than 14,000 vehicles. Furthermore, the new specifications and new classes of materials better address current industrial practices, ensuring that the Army is getting an adequate supply of high-quality armor steel produced by the most effective processing available.

Team members: Richard Squillacioti, William Gooch, Matthew Burkins, Jonathan Montgomery, and Kirk Stoffel

PROGRAM AWARDS

“Flex” Factory Improves Missile Production

A Navy team from the NATO SEASPARROW Project Office has created a common set of test equipment that can be used by all missile testing facilities, including the Raytheon Missile System factory, various intermediate-level maintenance facilities, and the all-up-round (AUR) facility. The team consolidated AUR and guidance-section testing into one test set for the entire portfolio of surface weapons, including all variants of the Standard Missile, the Evolved SEASPARROW Missile, and the Rolling Airframe Missile. By using common test equipment and common procedures across the U.S. Navy missile family, the team was able to create a “flex” factory in which all Navy surface-to-air missiles can be processed on the same equipment base for subassembly, guidance-section, AUR, and intermediate-level recertification. The result has been a doubling of final test yields, a demonstrated doubling of maximum surge capacity, and a 50 percent increase in steady-state throughput. The team’s work resulted in an immediate \$40 million cost avoidance and approximately \$8 million in annual recurring costs. In the long term, the savings to the missile community are almost immeasurable.

Team members: Don Hoffman, Jon Pieti, John Plews, Bruce Tuskey, and Fernando Omega

Revolutionary pRFID System Improves Asset Visibility

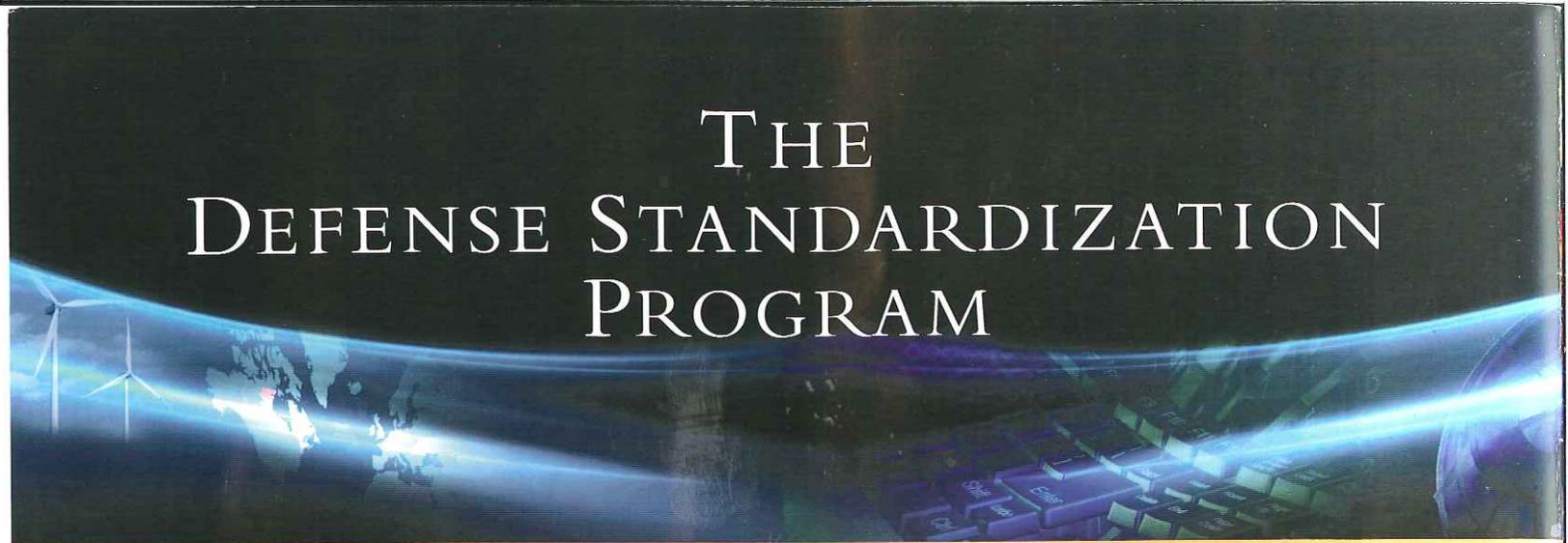
A team from the Navy Automatic Information Technology Program Office, a component of the Naval Supply Systems Command, designed and is implementing a Passive Radio Frequency Identification (pRFID)-based system to support receipt-and-issue transactions for the entire Navy Department. The system consists of a centralized server repository at the Navy enterprise level and standardized equipment at the field activity level, along with standardized business and reporting processes. In addition, the Navy’s pRFID system is integrated with DoD asset visibility systems. When fully implemented, the Navy’s system will provide real-time visibility over assets as they move through the supply chain, enabling managers to make more informed operational decisions, as well as to expedite critical repair parts to the end user. The new system also will reduce the logistics footprint by, for example, eliminating the requirement for servers at hundreds of field activities. In addition, it will increase operational readiness; for instance, high-priority requisitions will be delivered within 4 days rather than as much as 12 days. Finally, by implementing the new system, the Navy will cut costs significantly—by at least \$70 million and potentially nearly \$1.8 billion over a 6-year period.

Team members: Robert Bacon, Lorrey Bentzel, Gary Bruner, Helen Wonders, Pat Blakney, and Jerry Zamer

Improved Rubber Keeps Our Submarines Safer

A Navy team simultaneously revised five specifications affecting critical end-use submarine components—specifically, rubber gaskets, seals, and other rubber parts—identified by the Navy as being used in “SUBSAFE” applications. Failure of a SUBSAFE component can result in the loss of a ship. The team corrected first-article and conformance testing discrepancies that jeopardized delivery of high-quality, safety-critical rubber parts. As part of this effort, the team developed, and incorporated in all five specifications, a standard, consistent process for testing rubber products; this process can serve as a broadly applicable template for similar Navy and DoD molded rubber parts specifications. The revised specifications ensure the quality of vital rubber components and thus the safety of our submarines. In addition, they reduce production costs by eliminating redundant tests, eliminating complicated and expensive tests from quality conformance testing, specifying the tests to be conducted under first-article evaluation (so they need to be performed only once), and significantly streamlining lot conformance tests to speed production and reduce delivery time.

Team members: Forrest Pilgrim, Steve Lutgen, Mark Lattner, Roland Lemieux, and Richard Dempsey



THE DEFENSE STANDARDIZATION PROGRAM

PURPOSE

We champion standardization throughout the Department of Defense to reduce costs and improve operational effectiveness.

MISSION

We identify, influence, develop, manage, and provide access to standardization processes, products, and services for warfighters, the acquisition community, and the logistics community to promote interoperability, reduce total ownership cost, and sustain readiness.

VISION

The Defense Standardization Program is a comprehensive, integrated standardization program linking Department of Defense acquisition, operational, sustainment, and related military and civil communities. It is universally recognized for advancing the Department of Defense's joint interoperability, acquisition, and sustainment goals.

"Standardization is about finding common solutions for common problems and sharing them across programs. It can be a great challenge."

Gregory E. Saunders
Director, Defense Standardization Program