

# 2008 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.

## 2008 DISTINGUISHED ACHIEVEMENT AWARD WINNER

### DISA's International Liaison Leads to Birth of New Interface

*Tim Sharpe*, of the Defense Information Systems Agency, established and chaired a working group that worked together with 15 NATO nations to develop a standard interface between national tactical systems to form a federated network. This NATO tactical communications standardization effort has resulted in a family of standardization agreements that specify a standard wideband interface as well as an external interface. These interfaces will provide standard transport layer services for information and will significantly improve NATO network-enabled capability. Moreover, they will be the key enablers between the United States, the NATO Response Force, and coalition forces for enhanced network-centric, effects-based operational capability. U.S. implementation of these standards will not only reduce costs and bandwidth associated with satellite communications, but will increase interoperability by improving reliability, connectivity, redundancy, traffic flow, and robustness, while reducing latency and congestion at multinational tactical network interfaces.



# 2008 DEFENSE STANDARDIZATION

## ACHIEVEMENT AWARD WINNERS

### Team's Solution Is Loads More Palletable

A Joint Army/Defense Logistics Agency (DLA) team led the effort to reinstate MIL-STD-147, "Palletized Unit Loads." This standard addressed the methods, materials, and techniques to be employed in forming palletized unit loads of military supplies that are adaptable to unit loading. During acquisition reform, MIL-STD-147 was converted to MIL-HDBK-774, making the document for guidance only. In short, vendors were no longer required to use specific types of pallets or palletization procedures. As a result, the Defense Distribution Depot Susquehanna had to repalletize material at an annual cost of some \$4.1 million. An integrated product team (IPT) was formed to address the repalletization issue. Specifically, the team looked at the contractual palletization clauses used by the services and DLA. The IPT found that use of MIL-HDBK-774 resulted in the creation of a plethora of contract clauses that did not provide for adequate palletization and unitization requirements. When attempting to create standard clauses, the IPT found that many of the clauses they were creating had already existed in MIL-STD-147. Therefore, the IPT moved to reinstate MIL-STD-147. The reinstatement of MIL-STD-147 will reduce operating costs by eliminating the man-hours required to repalletize unstable loads or loads that lack adequate material protection.

*Team members: Thomas Kozlowski, Kenneth Hill, Timothy Keller, Ann Podrasky, and Joseph Wolak*

### Team Gives Army a Supersonic Cold Spray

An Army team led an international effort to develop a manufacturing process for the supersonic particle deposition process known as "cold spray" and the accompanying manufacturing process standard, MIL-STD-3021, "Materials Deposition, Cold Spray." Cold spray will allow for the reclamation of parts during overhaul and repair and a substantial reduction in costs. For example, over a 12-month period, the overhaul and repair of UH-60 main transmissions and tail rotor gearbox housing assemblies by Sikorsky Aircraft Company cost more than \$3 million, and magnesium housings cost about \$8 million per year. An estimated 75 percent of these costs can be avoided by using cold spray to reclaim parts. The use of cold spray during the overhaul and repair of all aircraft is expected to result in the reclamation of high-dollar-value parts and cost avoidance of millions of dollars.

*Team members: Richard Squillacioti, Dennis Helfritch, and Victor Champagne*

### Team Spans Wide Gap with Virtual Bridge

A Navy team developed a Virtual Tactical Bridge (VTB) that provides a seamless communications architecture for use in various service training environments. Such a bridge was needed because training methods, control mechanisms, system components, and practices using disparate live and virtual (simulated) communications devices and protocols based on different standards can lead to unrealistic tactical communications environments. To bridge the gap between live and virtual communications, the VTB team used a flexible, standards-based software application coupled with commercial off-the-shelf hardware. The resulting VTB supports a variety of interfaces to both live and virtual radios and will allow the addition of new interfaces as equipment and requirements change. The bridge, which is now being used for training by all of the services, provides a more realistic training environment for warfighters by enabling interoperability among various training systems. In addition, use of the VTB reduces the time required for testing and configuring communications for large-scale distributed training from 7 days to 2 days, it reduces costs by reducing the labor associated with testing and configuring communications towers from 5 work-years per tower to 1 work-year per tower, and it reduces maintenance and equipment costs through the use of commercial components.

*Team members: Robert Reif, John Allen, Lance Legan, Chris Sprague, and Peter McCarthy*



# PROGRAM AWARDS

## Deficiencies Reported to Save Millions

A joint team led by the Navy created a common Joint Deficiency Reporting System (JDRS) throughout the military aviation sector. A Deficiency Report (DR) is a formal notice of problems with specific items or equipment. The team's objective was to provide a single, standardized, interoperable automated system for reporting, investigating, and addressing all aviation-related DRs. Some 50,000 DRs are expected to be processed through JDRS annually. Although the primary goal is to improve equipment reliability, the system also yields substantial financial benefits. JDRS will result in annual cost avoidance of more than \$1 million by eliminating redundancies associated with maintaining separate DR systems, as well as an annual cost avoidance of an estimated \$2.6 million by facilitating engineering investigations related to problems with aviation equipment and platforms commonly used by multiple services.

*Team members: Steven Hauck, William Queener, David Christy, William Duren, and William Folsom*

## Soft and Hard Body Testing Is Now Standard

An Air Force team led an effort to coordinate and publish MIL-STD-3027, "Performance Requirements and Testing of Body Armor." This standard provides military-unique requirements for ballistic threat protection, environmental exposure, durability, and testing for use in the development of new soft and hard body armor. Specifically, the standard establishes a new ballistic threat classification scheme and provides body armor manufacturers with standards for performance characteristics and test protocols to support their independent product development and qualification. MIL-STD-3027 enables all the services, whose forces' mission requirements preclude using the Interceptor body armor system, to accurately specify and verify standard military-unique requirements in body armor procurements.

*Team members: Mark Mallory, Todd Turner, Timothy Staley, Madeline Istvan, and Chris Ptachik*

## DLA Accepts Nickel to Finish Circular Connection

*Abdonasser Abdouni*, of the Defense Supply Center Columbus, led an effort to develop alternative finishes for high-reliability electrical circular connectors in lieu of traditional finishes that rely on cadmium, a hazardous chemical. The military services have used cadmium connector finishes for many years, largely because alternatives to cadmium could never pass the military's stringent environmental tests. Through Mr. Abdouni's efforts, three new finishes—zinc nickel, nickel fluorocarbon polymer, and electrodeposited aluminum—have successfully passed the tests. The new finishes were included in MIL-DTL-38999L, "General Specification for Connectors, Electrical, Circular, Miniature, High Density, Quick Disconnect (Bayonet, Threaded, and Breech Coupling), Environment Resistant, Removable Crimp and Hermetic Solder Contacts," issued on May 30, 2008. Not only does this effort support DoD's efforts to minimize the use of hazardous material, but it will enable DoD to avoid costs conservatively estimated at more than \$20.9 million over the next 5 years.

## DISA Advocates Standard Profiles

*Ralph Liguori*, of the Defense Information Systems Agency, led the way to carry out the mandate of the Office of the Secretary of Defense to ensure the maintenance of DoD-wide product interoperability through the use of Internet Protocol Version 6 (IPv6). In particular, Mr. Liguori chaired a working group to develop "DoD IPv6 Standard Profiles for IPv6 Capable Products." The initial version of this document, issued in May 2006, was a list of IPv6 products that are developed, procured, or acquired by DoD. Version 3.0 of the document was approved in July 2008. Mr. Liguori also worked closely with the Joint Interoperability Test Center in establishing an IPv6 Certification Program, based on the IPv6 product profiles, to test DoD vendor products. Products that pass the tests are placed on an IPv6 Approved Products List to be used for acquisitions throughout DoD.

# 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

