

Journal

Defense Standardization Program

July 2002



1952

2002

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A Letter from Former Secretary of Defense William Perry

JPALS: Making High-Risk Aircraft Operations Safer

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Gregory E. Saunders

Director, Defense Standardization Program Office

Sharon Strickland

Editor, Defense Standardization Program Journal

sharon_strickland@hq.dla.mil

Defense Standardization Program Office

8725 John J. Kingman Road

Stop 6233

Fort Belvoir, VA 22060-6221

(703) 767-6870

Fax (703) 767-6876

www.dsp.dla.mil

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e-mail to sharon_strickland@hq.dla.mil
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It was a very good year for classics—1952. The B-52 bomber was rolled out, the experimental two-seater sports car EX-122 was officially named the Corvette, and the creation of the Defense Standardization Program was signed into law. I've never been in a B-52, but I recently purchased a Corvette, and I've been in the Defense Standardization Program for 26 of its historic 50 years.

When we decided to publish this Golden Anniversary *DSP Journal*, the first question was what to include. Should we reflect on 50 years of standardization benefits that contributed to operational effectiveness, reduced costs, improved logistics support, and increased reliability? Should we illustrate how the DSP has been and continues to be a national treasure? Should we provide a litany of statistics to show how the program has changed emphasis over the years? Should we reflect back on the many studies and organizational changes that have greatly influenced the program?

To some degree, we have included a little bit of everything, but what we have tried to highlight are the people who were and are involved in the DSP story. The DSP story is about people's visions—so we have remembrances from past directors of the program, and articles and speeches from visionaries who are no longer with us, but might be considered among the founding fathers of the DSP. The DSP story is about successes—so we have highlights from the recent 2001 Defense Standardization Program Outstanding Achievement Awards presentation.

THE GOLDEN LEGACY OF THE DEFENSE STANDARDIZATION PROGRAM

The DSP story is about collegial cooperation—so we have reflections from some of our colleagues in other government agencies, industry, and private-sector standards organizations. The DSP legacy is not only golden but remarkable, because of the many remarkable people who have been involved.

The Book of Ecclesiastes says that “there is nothing new under the sun.” When you reflect on some of the articles written nearly 50 years ago, you begin to think that may be so. One of the first directors of the Defense Standardization



Gregory E. Saunders
Director, Defense Standardization Program Office

Program, U.S. Navy Captain C.R. Watts, wrote an article in 1956 in which he stated that the requirements of Public Law 436, the Defense Cataloging and Standardization Act, can be realized only if agencies commit adequate budgets and staffs and if we build support from the senior management echelons by demonstrating the relationships of progress to planned results, costs to benefits, and cause to effect. These are issues we continue to struggle with today.

We are now studying recommendations by a DSP Integrated Process Team to shift our orientation from Federal Supply Class standards to having functional domain boards set the standards for their common systems and equipment. Although this seems like a new idea, before the DSP emphasis on standardization within a Federal Supply Class, the 1940s saw specifications and standards being set by such joint service domain boards as the Aeronautical Standards Group, the Munitions Board Standards Agency, and the Armed Services Electro Standards Agency.

Still, there are new things under the DSP sun. As recently as 10 years ago, it could take months to obtain copies of DSP documents. Today most documents are available online through the Acquisition Streamlining and Standardization Information System. Some studies in the 1960s cast doubt on whether service branch parochialism would ever permit a significant percentage of DoD-wide specifications and standards, but today over 77 percent of DSP documents are used by multiple services and agencies. Questions about the actual or potential impact of standards application have gone largely unanswered at the enterprise-wide level, thus making it difficult to garner support for the program. Today we

are developing a weapon system impact tool that will help demonstrate the widespread use and value of standards, as well as a program manager tool to help program offices and their contractors make well-informed decisions about whether to apply standards in the development of their systems.

Even though we have no evidence of MilSpecs being used in the design of the Corvette, DSP documents did help define and verify the requirements for the B-52. For example, three DSP specifications—MIL-H-6088, “Heat Treatment of Aluminum Alloys”; MIL-I-6866, “Dye Penetrant Inspection Process”; and MIL-I-6868, “Magnetic Particle Inspection Process”—ensured the quality and longevity of the aluminum and steel alloys and parts that went into the B-52. I’m sure its designers never expected it to remain one of the most devastating weapons in the U.S. arsenal in the 21st century. But thanks in part to standards, which allowed for upgrades in avionics and data link communications and established inspection tests to ensure the structural integrity of this venerable bomber, the B-52 not only remains an integral part of our arsenal, but is scheduled to stay in service another 40 years.

The Department of Defense is by far the most diversified and largest developer and user of standards in the United States, and possibly the world. The people who have been a part of the DSP can point with pride to their golden legacy in one of the richest technical repositories of engineering knowledge anywhere. We could never do complete justice to that legacy, but we have tried to capture a small piece of it in honor and memory of those who served and in recognition of those who continue to do so.

The Birth *of the* Defense Standardization Program

Stephen Lowell

Although the Defense Standardization Program (DSP) was officially born on July 1, 1952, its gestation occurred over a period of 15 years.

The first effort to create an organization to develop joint procurement documents for the military took place in February 1937. In that year, the Army-Navy Aeronautical Board established a working committee to prepare joint specifications in the aeronautical area. This committee, which eventually became the Aeronautical Standards Group, issued more than 1,100 Army-Navy Aeronautical Standards, which were eventually brought under the DSP. After 1947, these standards were redesignated as Air Force-Navy Aeronautical Standards.

Congratulations

"Our two organizations joined forces to facilitate government acquisition reform as it pertains to aerospace manufacturers. This effort resulted in AIA's National Aerospace Standards Committee accepting over 500 former military specifications and converting them to non-government standards. Without the extensive help of the DSP this task could not have been accomplished."

John W. Douglass, President
and Chief Executive Officer
Aerospace Industries Association

"Since the Defense Standardization Program was created in 1952, the DoD has led every federal agency in its efforts to maximize resources through effective partnerships with the private-sector."

Mark W. Hurwitz, President
and Chief Executive Officer
American National Standards Institute

"For half a century, the DSP has championed standardization throughout the U.S. Department of Defense, greatly improving military effectiveness and at the same time reducing costs."

James A. Thomas, President
American Society for Testing and Materials

"Because we share a common desire to ensure the highest quality products through technologically sound and configuration-managed standards, it has been a privilege for The Boeing Company to support you over the years."

David O. Swain, Office of the Chairman
Senior Vice President, Chief Technology Officer
The Boeing Company

"The DSP has epitomized the concepts of cooperation, continuous improvement, and leadership by example in standards management activities for the federal government."

Richard L. Black, Director
Office of Nuclear and Facility Safety Policy
U.S. Department of Energy

"The tradition of commitment and excellence is a trademark of DoD...one of the first federal agencies to realize and implement policies that would improve its technologies and resources by partnering with the private sector."

William J. Tangye, Chief Executive Officer
International Code Council

Although most of the standards have been canceled, 17 are still in active use today, and another 245 are inactive for new design and used to support legacy systems. The oldest standard in the DSP still in use today is AN 2555, "Nozzle—Aircraft Fueling," which was last revised on September 16, 1944.

The success of the Aeronautical Board and the involvement of the United States in World War II led to further joint standardization efforts. A Joint Army-Navy Committee on Specifications was established in 1942 and was succeeded in 1945 by the Joint Army-Navy Specifications Board. Both groups developed Joint Army-Navy (JAN) specifications on a limited scale for procuring items and materials. Today no JAN specifications are still active, and only a handful of inactive ones remain. When the DSP was established, policy directed that JAN specifications be designated as MIL specifications as they were revised.

In December 1943, the Army Signal Corps and the Navy Bureau of Ships formed the Army-Navy Electronics Standards Agency to coordinate electronic parts specifications. In May 1946, the Secretaries of War and the Navy replaced this group with the Army-Navy Electronic and Electrical Standards Agency.

The creation of the Department of the Air Force in 1947 affected the organization of the various Army-Navy standardization groups. In May 1948, the Munitions Board Standards Agency replaced the Joint Army-Navy Specifications Board, and in February 1949, the Armed Services Electro Standards Agency replaced the Army-Navy Electronic and Electrical Standards Agency.

The function of the Munitions Board Standards Agency was to develop procedures for preparing, coordinating, and issuing National Military Establishment, or NME, specifications. That designation, however, was short-lived once someone observed that saying the letters “NME” quickly sounds like “enemy” specifications. One lone NME specification is still in the system today, inactive for new design, and that is JAN-D-709, “National Military Establishment Specification for Dimethyl-phthalate.”

NME specifications gave way to military specifications and the MIL designator. On April 25, 1951, Secretary of Defense George C. Marshall issued a memorandum emphasizing the importance of standardization in the Department of Defense and directing all future specifications and standards to be issued in the federal or military series, with July 1955 being the final date for converting existing service specifications to the federal and military series. It is interesting that in the 1950s, MilSpec Reform efforts involved transitioning to military specifications.

Before 1952, all joint standardization efforts resulted from military organizations recognizing the benefits of standardization and working together voluntarily to commit resources and support in exchange for future benefits. On July 1, 1952, however, the voluntary nature of cooperative military standardization efforts became statutory when the 82nd Congress passed Public Law 436, the Defense Cataloging and Standardization Act. That statute established a single, unified standardization program in the Department of Defense, and the rest, as they say, is history—a history that we continue to write.

Congratulations

“Your office has worked closely with us to develop standards that launched and deployed fiber optics technology from infancy to ubiquity. DSPO has fostered this spirit of close cooperation resulting in industry standards that span not only across commercial and military markets domestically, but globally.”

Dave McCurdy, President
Electronic Industries Alliance

“The DSP Office has always had the vision to do what was right for the government even when it wasn’t popular. Your leadership in encouraging government participation in non-government standards bodies has been invaluable to both government and industry.”

Dan C. Heinemeier, President
Government Electronics and Information
Technology Association

“The Defense program is a model...for all organizations that rely on standards for everything from procurement to technology innovation and development, to writing regulations. The enormity of your task in serving the standards needs of the Defense Department underscores how successful your work has been.”

Stephen L. Johnson, Assistant Administrator
U.S. Environmental Protection Agency

“DoD’s willingness to discuss their standards with industry opened doors to IPC. Companies joined IPC in order to develop common positions on specifications issues.”

Dennis P. McGuirk, President
IPC Association Connecting Electronics
Industries

“By any measure, the Defense Standardization Program has been a world-class program in its coverage, depth, and quality. The value and dependability of MIL documents is recognized throughout the world.”

Keith L. Hudkins, Acting Chief Engineer
National Aeronautics and Space Administration

“UL’s relationship with DSP has been positive and mutually beneficial...Keep up the good work. UL looks forward to continuing and strengthening our relationship with the Defense Standardization Program.”

Loring Knoblauch, President and CEO
Underwriters Laboratories Inc.

Congratulations

"Under [DSP] leadership, [DoD] has been one of the strongest contributors to the ICSP...The Department has converted more than 9,000 military specifications and standards to non-governmental voluntary standards."

Belinda L. Collins, Deputy Director, Technology Services and Chair, Interagency Committee on Standards Policy

National Institute of Standards and Technology

"The influence of the Defense Cataloging and Standardization Act has been significant. Today, across the spectrum of Pratt & Whitney's product line, this influence is felt in hundreds of...specifications and ultimately appears in service in many of the thousands of individual parts which are flying in our products worldwide. The quality and reliability of those parts are due in no small measure to the work of the DSP."

Arthur Lucas, Senior Vice President, Engineering
Pratt & Whitney

"The [DSP] has provided a vital link to SAE International in the development of standards. It has served as a critical focal point for...coordinating among standards-developing organizations, providing requests for non-government standards development, and communicating DoD policy [and has] fostered an efficient and effective program over the past 50 years."

S.M. Shahed, President
SAE International

"Your efforts have proven to be the backbone for quality systems and parts standards for the Aerospace Industry. We look forward to the continued success of the organization as a source of reliable information for years to come."

Charla K. Wise, Vice President, Engineering
Lockheed Martin Aeronautics Company

"The contributions made by the [DSP] in promoting the concept of 'standardization,' not only of material, but facilities, services, and engineering practices in support of our 'warriors,' and the logistics and acquisitions communities, are well known throughout the government and commercial environs."

Patricia M. Mead, Acting Assistant Commissioner,
Office of Acquisition
General Services Administration

TIMELINE OF SELECTED EVENTS AFFECTING THE DSP

1998
DSP documents became available over Internet through ASSIST

1994
Secretary of Defense Perry issued memo on MilSpec Reform

1986
Defense Science Board study recommended DoD increase use of commercial products and services

1980
Paper Work Reduction Act required clearance of data requirements

1976
Resource Conservation and Recovery Act required that specifications and standards encourage use of recovered materials

1973
Defense Materiel Specifications and Standards Board established

1964
Centralized DSP document repository created at Naval Publications and Forms Center

1953
DoD Directive 4120.3, Defense Standardization Program, issued

1990s

1999
DSP Strategic Plan issued

1995
National Technology Transfer and Advancement Act directed federal use of voluntary standards

1990
Secretary of Defense Cheney's Defense Management Review of MilSpecs and MilStds

1980s

1982
OMB Circular A-119 issued on federal use of voluntary standards

1970s

1977
Defense Science Board published Shea Report on specifications and standards

1975
Metric Conversion Act encouraged development of metric specifications and standards

1960s

1964
DSP administration transferred from DSA to OASD(I&L)

1961
Defense Supply Agency (DSA) created to administer DSP

1950s

1952
Cataloging and Standardization Act establishes the DSP

DEFENSE CATALOGING AND STANDARDIZATION ACT

Ch. 539 LAWS OF 82ND CONGRESS—END SESSION July 1
Pub. 456

DEFENSE CATALOGING AND STANDARDIZATION ACT

See Legislative History, p. 1866

CHAPTER 539—PUBLIC LAW 456

[H. R. 7482]

An Act to provide for an economical, efficient, and effective supply management organization within the Department of Defense through the establishment of a single supply cataloging system, the standardization of supplies and the more efficient use of supply testing, inspection, packaging, and acceptance facilities and services.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That:

This Act may be cited as the "Defense Cataloging and Standardization Act".

Sec. 2. There is hereby established within the Department of Defense, the Defense Supply Management Agency, hereinafter referred to as the "Agency." This Agency shall develop a single catalog system and related supply standardization program.

Sec. 3. There shall be a Director of the Agency and a Deputy Director, who shall act as Director in the absence or disability of the Director, and who shall perform such other duties as are prescribed by the Director. The Director shall be appointed for a four-year term by the President, by and with the consent of the Senate. The Deputy Director shall be appointed by the Secretary of Defense. Both the Director and the Deputy Director shall be appointed from civilian life without regard to the civil-service laws, with due regard being given to the background and qualifications of each appointee to these positions on the basis of his experience in the conduct of major supply operations, cataloging, standardization, engineering, and civilian industrial practices. The Director shall receive compensation at the rate of \$14,800 a year and the Deputy Director shall receive compensation at the rate of \$13,000 a year: Provided, That the present Director of the Munitions Board Supply Management Agencies shall be eligible for appointment under this section.

Sec. 4. (a) In cataloging, the Agency shall name, describe, classify, and number each item repetitively used, purchased, stocked, or distributed, by the Department of Defense or any of the departments thereof, by such methods and in such manner that only one distinctive combination of letters or numerals or both will identify the same item either within a bureau or service, between bureaus or services, or between the departments. The single item identification shall be used for all functions of supply from original purchase to final field or area disposal. There shall be a single catalog, which may consist of a number of volumes, sections, or supplements, in which all items of supply shall be included and in which there shall appear information on each item needed for supply operations such as descriptive and performance data, size, weight, cube, packaging or packing data, a standard quantitative measurement unit, and such other related data as is determined by the Director of the Agency to be necessary or desirable.

(b) In supply standardization, it shall be the duty of the Agency to achieve the highest practicable degree possible in the standardization of items used throughout the Department of Defense, through the development and use of single specifications, in the elimination of overlapping and duplicating item specifications, and in the reduction of the number of sizes, kinds, or types of generally similar items. The greatest practicable degree of standardization of methods of packing, packaging, and preservation of such items shall be achieved, together with the most efficient use of services and facilities concerned with the inspection, testing and acceptance of such items.

Sec. 5. The Director shall under the direction of the Secretary of Defense—

- (a) establish, develop, and maintain the single supply catalog and standardization program herein established;
- (b) provide for, direct, and coordinate the progressive utilization of the single supply catalog provided for herein in all supply functions within the Department of Defense, its departments, bureaus, and services from requirements determination through ultimate disposal;
- (c) provide for, direct, review, and approve all item names, item descriptions, and description patterns, the screening, consolidation, classification, and numbering of item descriptions and the publication and distribution of the single supply catalog;
- (d) establish and maintain liaison with industry advisory groups to coordinate the development of the single supply catalog and standardization program herein established with the best practices of industry in order to obtain to the greatest extent practicable the cooperation and participation of industry in the program;
- (e) review, amend, revise, promulgate, and establish within the Department of Defense military specifications, standards, and qualified product lists and resolve differences between military departments, bureaus, and services with respect to the same;
- (f) assign among the military departments, bureaus, and services within the Department of Defense when practical and consistent with their capacity and supply interest, the responsibility for portions of the cataloging and standardization programs herein established, and establish time schedules for the completion of such assignments; and
- (g) make final decisions in all matters concerned with the cataloging and standardization authority established in this Act, subject to review and modification by the Secretary of Defense.

Sec. 6. When portions of the single supply catalog provided for herein are complete and ready for use they shall be distributed by the Agency and all existing catalogs shall be replaced according to schedules established by the Director. Thereafter all departments, bureaus, and services within the Department of Defense shall use such single supply catalog and no other. All property reports and records shall use the nomenclature, item numbers, and descriptive data as published in the single supply catalog.

Sec. 7. Following the publication and promulgation of the single supply catalog or portions thereof as provided herein only those items of supply listed therein shall thereafter be procured for repetitive use in the departments, bureaus, and services of the Department of Defense: *Provided, however,* That items so cataloged may be changed from time to time to include new items and to delete obsolete items: *Provided further,* That nothing in this section shall be construed to prohibit the military departments in the Department of Defense from acquiring new items required to carry out their missions: *And provided further,* That such new items when and if acquired shall be immediately submitted to the Director of the Agency for inclusion in the cataloging and standardization program established in this Act.

Sec. 8. The reports required by sections 9 and 10 of this Act may at the discretion of the Director be combined into one report.

Sec. 9. The Director of the Agency shall transmit to the Committees on Armed Services of the Senate and House of Representatives on January 31 and July 31 of each year, progress reports on cataloging from each of the military departments within the Department of Defense for the previous six months between July 1 and December 31 and January 1 and June 30, respectively. These reports shall contain—

- (a) the number of single supply catalog sections or portions published and the titles;

(b) the number of item identification numbers developed under the single catalog system which have replaced, for all supply purposes, former item identifications, stock or catalog numbers;

(c) the reduction in the number of separate item identifications achieved; and

(d) such other information as the Director considers will best inform the Congress of the status and progress of the cataloging program herein established.

Sec. 10. The Director of the Agency shall transmit to the Committees on Armed Services of the Senate and House of Representatives on January 31 and July 31 of each year, progress reports on standardization within the military departments in the Department of Defense for the previous six months between July 1 and December 31 and January 1 and June 30 respectively. The report shall contain—

(a) the number of separate specifications which have been consolidated into single specifications for the use of all of the military departments, bureaus, and services;

(b) the reduction achieved in the number of sizes, kinds, or types of generally similar items;

(c) duplications eliminated in services, space, and facilities; and

(d) such other information as the Director considers will best inform the Congress of the progress of the standardization program herein established.

Sec. 11. The Administrator of General Services and the Secretary of Defense shall coordinate the cataloging and standardization activities of the General Services Administration and the Department of Defense so as to avoid unnecessary duplication.

Sec. 12. There are hereby authorized to be appropriated such sums of money as may be necessary to accomplish the purposes of this Act.

Approved July 1, 1952.

Interview with the First Director of the Defense Standardization Program

Captain C.R. Watts, who served as the first Director for Standardization, wrote the article on which this fictional interview is based.

We can't say with 100 percent certainty that U.S. Navy Captain C.R. Watts was the first director of the Defense Standardization Program, but in 1956, he wrote an article about the program as the Director for Standardization, Office of the Assistant Secretary of Defense (Supply and Logistics). The date of the article would place him very near the beginning of the program.

The article appeared as a chapter in *National Standards in a Modern Economy* and describes in great detail the different kinds of standards, the principles of standardization, and the program's organizational structure.¹ Rather than reprint this long article, we have used excerpts to create an imaginary interview with Captain Watts to draw out some of the highlights. While the interview never took place and the questions are fictitious, the answers are his words from the article.

Q • Why did Congress feel it necessary to create the Defense Standardization Program?

A • Over a long period of years, the individual elements of the military departments had the responsibility of determining their own requirements, and of developing their individual specifications for purchasing the items necessary for their individual missions. This means that each bureau of the Navy and each technical service of the Army has been for decades developing specifications for materials and products considered best suited for its own military needs. In addition, during periods of emergencies, such as World War II and the Korean incident, it was generally necessary to procure from industry, by using performance specifications as the criterion for acceptance, whatever could be produced to meet military requirements.

As a result, the spare parts and line items required for supply and maintenance have multiplied to an enormous

inventory, causing overlapping and duplication in such supplies among the three military departments...An over-all Department of Defense Standardization Program is therefore necessary to limit the variety of equipment and supplies in the military supply system.

Q • Trying to set up the Defense Standardization Program must have been a big job. What were your first steps?

A • Soon after the newly created organization [the Standardization Office] was established, ... it was determined that a statement of Department of Defense standardization principles and policies, uniformly applicable to the three military departments, would have to be made. Such action was taken in October 1954 by the issuance of Department of Defense Directive 4120.3, titled "Defense Standardization Program." This directive sets the tone and the task for the whole standardization effort.

Q • We understand that DoD Directive 4120.3 establishes nine principles for the Defense Standardization Program. Could you tell us what they are?

A •

1. There will be but one Department of Defense Standardization Program.
2. It will be an accelerated program.
3. The Office of the Secretary of Defense will manage and control the program by planning, directing, and reviewing its operations, which, in turn, will be decentralized to the military departments with authority further to subassign portions of the operations, as necessary.
4. Interdepartmental coordination on all standardization matters having an impact on more than one department will be required.
5. Assignments and subassignments of standardization to the military departments will be made on the basis of departmental capacity and supply interest.
6. The coordinated specifications and standards derived from standardization effort will be mandatory for use throughout the military supply systems and in the design of new products where practicable. Any deviations or waivers from specifications or standards will be approved by competent authority and justified in writing.

7. Standardization efforts will not be limited to domestic standardization only.

8. Industrial coordination will be required in the development of specifications and standards.

9. Industrial standards will be adopted where practicable for military use.

Q • What do you mean by the second principle, that the Defense Standardization Program will be an accelerated program?

A • Because of the magnitude of the overall standardization effort, which involves nearly 2.6 million items, it would be impossible to devote the necessary manpower to undertake standardization of all these items at the same time. Therefore, it is necessary to phase the total program over a period of years. A minimum of five years was the estimated time required to accomplish the first cycle of the new Defense Standardization Program, i.e., it was planned that by the end of fiscal year 1960 all preliminary proposals and all detailed plans of action will have been developed and approved for all Federal Supply Classes....

The first year's approved standardization program (fiscal year 1956) calls for the submission by the departments during that period of a number of preliminary proposals and detailed plans of action. It is expected that the accomplishment of standardization actions resulting from the detailed plans will be accelerated in succeeding years, until finally all items in the military supply system will have undergone the standardization screening process.

Q • Principle 9 requires the services to adopt industry standards for military use. Isn't this a pretty radical concept, using industry standards instead of government specifications and standards?

A • The military departments have made use of commercially accepted standards of such societies as the American Society for Testing Materials, the American Institute of Electrical Engineers, the American Standards Association, the American Iron and Steel Institute, the Society of Automotive Engineers, the American Society of

Mechanical Engineers, and many others. There has been no dearth of standardization activity throughout the country, but, rather, an inadequate effort to bring various parts into focus and to take advantage of the results produced by many over a long period of time.

Q • While your directive sets the overall policies for the Defense Standardization Program, the devil is in the details. How were you able to assign responsibilities within the services and establish procedures for ensuring that different organizations work together?

A • As a first step in developing detailed procedures for this program to aid the military departments in carrying out their portions of the program, a Military Manual for Standardization, M201, was developed and issued. It furnished the necessary guidance and prescribed a sequence of actions required of the military departments in discharging their responsibilities under the new program.

Briefly, the detailed procedures involve the preparation by each military department of a series of preliminary proposals for scheduling the workload for each Federal Supply Class assigned to it. These preliminary proposals will give the names of the organizational elements within each military department designated to coordinate the work of the participating departments as well as the date of submission to the Standardization Division—OASD (S&L)—of detailed plans of action to accomplish standardization. The technical service, bureau, or command in the departments designated to carry out the standardization assignment will collect, from whatever sources are available, the data needed to determine the standardization potential of a total FSC class.

Once the determination is made, the department will prepare and submit to OASD(S&L) for approval a detailed plan of action to accomplish this potential. The detailed plan of action, when approved, will prescribe the method of procedure (including means of coordination within the military departments), stipulate the subassignments for the work involved, specify time schedules for completion, identify those items most suitable for standardization, and establish priorities for undertaking studies in such areas.

Q • It sounds as if you have all the bases covered to implement the Defense Cataloging and Standardization Act. Is there anything that still needs to be done?

A • Several tasks still remain . . . before the program can gather its full momentum and meet all the requirements of Public Law 436. One of these is the establishment and staffing of an organization adequate to manage and operate so vast an enterprise throughout the military. The Department of Defense Directive of October 1954 requires each military department to set up a responsible organizational unit to manage the standardization effort, and specifies the responsibilities assigned to it as follows: (1) coordinate standardization efforts of the services, bureaus, and commands; (2) establish adequate budgets and staffs for standardization operations and the integration of departmental and Department of Defense standardization.

Another task is the provision of adequate fiscal support to sustain the planned work program throughout its scheduled span of time. Still another major task is the development of an adequate reporting system that will provide necessary and timely information to the various echelons of management in order to highlight the relationships of progress to planned results, cost to benefits, and cause to effect. . . .

The Department of Defense believes that the basic principles and policies upon which its standardization program has been built will produce in the years to come, under effective management, a far greater return to the nation than the cost of undertaking, not only in the number of tax dollars saved but, even more important, in the major improvements within the logistics system of the military services and in the operational readiness of the Army, the Navy, and the Air Force.

¹Dickson Reck, editor, *National Standards in a Modern Economy* (New York: Harper & Brothers, 1956), pp. 247–259.

Former Leaders Speak

Golden Anniversary Celebration

As we planned our Golden Anniversary *DSP Journal*, we decided that we wanted to include comments about the program by some of our former directors. We are pleased to present messages from Les Fox, Jack Wyatt, and Brad Bergmann. It is clear that they were key leaders in the creation, development, and future direction of the Defense Standardization Program.

Evolution of the Standardization Program

Les Fox

First Director, Defense Materiel Specifications and Standards Office

I am proud to say I was a part of the Defense Standardization Program (DSP) beginning in early 1956. During that year, the U.S. Army Signal Corps Engineering Laboratories in Fort Monmouth, NJ, began seeking candidates from other installations at the Fort in its effort to be compliant with the Defense Cataloging and Standardization Act. It was in the Component and Materials Branch that we created the first detailed plans delineating actions to be taken resulting in the standardization of electronic parts.

In those early days, we took on positions as Assignee Activity, Preparing Activity, Custodians—all new terms to us, as they were passed down from the policy-makers in Washington. The policies for us in the Signal Corps came from what was then known as OCSIGO, the Office of the Chief Signal Officer, who in coordination with counterparts of the Navy

and the Air Force laid the groundwork for what was to become the Defense Standardization Program.

It was 17 years later (1973) that I became the first Director of the Defense Materiel Specifications and Standards Office (DMSSO). DMSSO came into existence under the leadership of Admiral Eli T. Reich, the Deputy Assistant Secretary for Materiel Acquisition. The standardization program was in the Directorate of Technical Data, Standardization Policy and Quality Assurance, under John Riordan.

In the face of criticism, reorganization became the order of the day and the Defense Materiel Specifications and Standards Board was established with the DMSSO organized to act as its Secretariat. Admiral Reich was chairman of the board, and the military services and the Defense Supply Agency were repre-

sented by Flag rank officers or civilians of equivalent rank. The board was to establish panels consisting of service members in areas wherein problems were prevalent. DMSSO would contribute a staff member to act as secretary to each panel.

In the early days of the board, an Electronics Panel solved an ongoing problem dealing with high-density electrical connectors, delineating a particular design for future applications. A Metrication Panel prepared a plan for metric conversion that was signed by President Gerald Ford. All in all, proliferation of documentation was curbed by superseding existing documentation through the workings of the many panels.

In the succeeding years, DMSSO took on other assignments, which resulted in a stronger DoD/industry interface and a posture heretofore overlooked to adopt industry standards where they met defense needs. A directive was promulgated pointing the way to successful adoption of industry documentation. We were instrumental in causing the reactivation of the Inter-Agency Committee on Standards Policy under the chairmanship of the Department of Commerce. Among its many accomplishments was the development of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities," which lent impetus to the adoption of non-government standards and increased the use of such documents in lieu of writing military specifications.

We were also instrumental in establishing a NATO committee governing assemblies, components, spare parts, and materials. The forming of the committee was in response to NATO standardization thrusts to stress the importance of materiel standardization and

address ongoing problems. We organized documentation, created a system of feedback with respect to implementation, acted decisively on design standards, identified duplication, and interfaced NATO codification activities with a view toward reducing variety, as well as interfacing with the Quality Assurance Committee of the Conference of National Armaments Directors. These actions combined to have a positive effect on cost and logistics support.

Under the leadership of Dr. Joseph F. Shea, senior vice president of the Raytheon Company, the Task Force on Specifications and Standards was convened to examine the "increasing costs arising from unreasonable contract requirements" contributed to by the Defense Standardization Program. I served as executive secretary to the task force. In April 1977, we issued a report concluding that a concerted effort was needed to improve management of documents and the climate for application of specifications and standards in requests for proposals and in contracts. Also undertaken was an evolutionary program to improve the existing body of specifications and standards.

And finally, I want to mention the hiring, some 25 years ago, of young engineers at grades commensurate with their youth. Today they are the leaders within the Defense Standardization Program, one of them being the current director of the successor organization to the DMSSO (Gregory Saunders). Of that I am most proud!

Thank you for the opportunity to offer a bit of history and congratulations to an important program that has contributed generously and importantly to the nation's needs through the years. I feel certain that it will continue in the same vein.

Congratulations on 50 Years of Progress

Jack Wyatt

*Former Director, Defense Standardization and Quality Support Office
and Vice President of Engineering, Electronic Industries Alliance*

In 1959, I worked for the Navy, where I learned what defense standardization was all about. For the next 22 years, I participated in the origination, maintenance, and application of military specifications and standards, as well as their adoption by many of our allies across the globe.

There was a true sense of accomplishment and gratification when I found my work benefiting the sailors in the fleet and the troops in the field. After all, that is the primary purpose of the program—it was then, and always should be. Otherwise, it would be extremely difficult to justify the tremendous expenditure of resources that the program involves.

Admiral Isaac Kidd used to ask, “What have you done for the fleet today?” Whether it is the fleet or the forces in the field, all involved in defense standardization should ask themselves, “Have I done the best I can for the American taxpayers and our armed forces?” If the answer is a resounding yes, then they can be proud of another day spent in the service of our country. If the answer is anything else, it is time to make some serious changes.

During my own 30-plus years of participation in the Defense Standardization Program, I saw many changes take place—some to make things better, some not. Of course, there will always be change—the trick is to make it work for the betterment of us all.

As you face this challenge, I offer my best wishes for success. I have had the good fortune to work with many of the best people industry and government had to offer. I pray that my many successors will have similar good luck!

A Turning Point in the 1990s

Brad Bergmann

Former Chairman, Defense Standardization Council

I became responsible for executive oversight of the Defense Standardization Program in the summer of 1992. At that time, the focus of the leadership in the Office of the Secretary of Defense (OSD) was to gain control of the system-level standards. Specifically, the goal was to recast them into a design-controlling hierarchy—with an overarching systems engineering standard at the top—and have a specific OSD office be the preparing activity for each. This approach was felt to be the best way to prevent “over spec-ing” in weapon system acquisitions.

The arrival of the Clinton administration brought acquisition reform. MilSpec Reform was the first major acquisition reform initiative. In scope, it attacked all problems, both real and imaginary, attributed to military specifications. However, the overriding focus of OSD’s leadership was to replace the DoD-promulgated system-level standards with non-government standards (NGSs)—for example, ISO 9001 for MIL-Q-9858, etc.

The Defense Standards Improvement Council, which I chaired, conducted a rigorous review of the “Hot 105” military specifications and standards that industry sources identified as the most egregious documents in terms of adding cost without adding value. Nearly half of these documents were canceled, with the remainder largely replaced by non-government standards, performance specifications, or guidance handbooks.

The council also ensured DoD reviews of over 29,000 military specifications and standards. As a result of this effort, 9,600 military specifications and standards were canceled (6,100 canceled without replacement, and 3,500 canceled and superseded by non-government standards, performance specifications, commercial item descriptions, and guidance handbooks). In addition, over 8,100 military specifications and standards were inactivated and retained only to support procurement of parts and components for legacy equipment and systems.

Changes in senior leadership midway through the Clinton administration led to a furtherance of OSD’s efforts to remove standards-imposed restrictions on weapons systems developers. The Under Secretary of Defense (Acquisition and Technology) promulgated a policy that processes would not be mandated in systems acquisition contracts—even NGSs could not be specified.

In October 1999, I and the other Standardization Executives signed a strategic plan that laid out a path for transforming the Defense Standardization Program to better serve the needs of the warfighter, as well as the acquisition and logistics communities, by providing standardization processes, products, and services that would promote interoperability, reduce total ownership costs, and sustain readiness.

The following is the text of a speech given on October 20, 1948, by the Under Secretary of the Navy, W. John Kenney, to the 30th annual meeting of the American Standards Association (ASA), which today is the American National Standards Institute. The speech—in many ways prescient and forward-thinking—still has relevance today. Although Under Secretary Kenney was speaking from a Navy perspective, note that he predicted that by 1952 the armed services should have a common cataloging and standardization program. The Defense Cataloging and Standardization Act established such a program in July 1952.

HOW THE MUNITIONS BOARD IS COORDINATING THE SERVICES' STANDARDS

*W. John Kenney
Under Secretary of the Navy*

From its wartime experiences, the Navy is keenly aware of the importance of simplification and standardization to an efficient and economical military supply system, to rapid industrial mobilization and, therefore, to our national security. No customer having spent some 55 billions of wartime dollars on the products of industry, as did the Navy, could be unaware of their importance. In three fields alone, where simplification and standardization are of special concern, we spent respectively 400 millions on motor vehicles; 3 billions on electronics; and on aircraft, 7½ billions.

There are now before the appropriate subcommittee of your Electrical Standards Committee some 47 electronics specifications developed by the Army-Navy Electronic and Electrical Standards Agency. The national standardization program will be advanced to the extent that these specifications for military requirements can be incorporated into working commercial specifications. A correspondingly quick shift of industry to wartime production in this field thus will be assured.

Conference Brought Understanding of Mutual Problems

Many of you no doubt recall the joint Navy-Air Force-Industry Conference on standardization and simplification of air frames held in 1947 at the Aviation Supply Depot, Philadelphia. That free, frank, and open discussion resulted in a better understanding of mutual problems.

Also, of much interest and benefit to the Military Establishment over the past three years have been Howard Coonley's talks before the Industrial College of the Armed Forces on simplification and standardization.

I am happy to tell you something about the Military Establishment's approach to simplification and standardization with especial reference to the Munitions Board's cataloging and standardization program.

But, first, the process should be understood by which it is determined whether or not the resources of the United States—its materials, manpower, and production facilities—are adequate to support the strategic and

logistic plan recently prepared by the Joint Chiefs of Staff.

The strategic plan of the Joint Chiefs of Staff, which is the starting point of the process for determining our military logistic requirements, is tested as to its logistic feasibility. For this purpose, a sample consisting of a high percentage of the most important, or key, end items—items without which we could not fight a war—is selected from the many millions of items needed. This sample then is compared with our country's potential production capacity. A quick estimate of what is needed in the way of steel, copper, and aluminum also is made.

If the various requirements for this sample indicate total requirements in excess of what is available for military needs, the strategic plan either must be reduced in scope or the timing modified.

When the overall military requirements have been balanced against the nation's productive capacity, the plan is considered feasible. The Departments of the Army, Navy, and Air

Force then draw up their respective schedules or requirements.

To determine all the requirements involved in the large numbers of end items used for planning purposes, extensive planning for the supporting elements—the materials, the facilities, the manpower—is involved. All these supporting elements are then inter-related. As in the case of shortages in metals, if there is a shortage in any one of the supporting elements a change of plan becomes necessary. This, substantially, is the approach of the Munitions Board to the strategic and logistic plan of the Joint Chiefs of Staff.

Munitions Board to Give Industry Data on Requirements

Industry will be informed by the Munitions Board as to the overall requirements of the plan. In turn, individual companies will be requested to inform the Board as to what items they can produce to the maximum utilization of their facilities.

Though such exchange of information would be of a mutual nature, I stress the fact that the Military Establishment considers the determination of the military characteristics of our weapons to be its primary responsibility.

Our military material must be adequate for the missions to be accomplished by the Armed Forces. Also, it must provide an effective counter to whatever in the way of military material—weapons particularly—any enemy might already have, or have on the way. As to that, our military

intelligence groups keep us constantly informed.

Although the military characteristics of our material are the primary responsibility of the Services, the actual development of the material cannot be done without consultation between the Armed Services and industry. This will determine whether and how the required items can be produced.

Industry frequently expresses impatience with military standards and specifications which seem to depart unnecessarily from ordinary commercial standards. Such impatience is understandable.

One of the objectives of the standardization program of the Munitions Board is to bring the characteristics of our military items into as close alignment with commercial items as is compatible with combat effectiveness. But various complications and requirements, arising from out-of-the-ordinary geographic and climatic conditions, or from special combat needs, force departures. They are necessary in order to obtain the requisite military characteristics as well as the information upon which to base appropriate standards and specifications.

Experiments Test Efficiency of Navy and Commercial Equipment

Vice-Admiral Duncan has recently returned from conducting shipboard experiments in the Persian Gulf with equipment manufactured to Navy as well as to commercial standards and specifications. The temperatures in

the operating and machinery spaces of the testing ships ranged from 100 to 140 degrees Fahrenheit.

In general, the equipment manufactured for the requirements of the Navy performed satisfactorily. However, considerable revision in the specifications of some of the commercial equipment appears necessary if satisfactory performance under comparable conditions is to be achieved. This applies notably to air conditioning, refrigeration, distilling, and electrical machinery.

The principal factors causing reduced performance were the very high injection temperature of the sea water—actually, 95 degrees—its tropical atmospheric temperature and humidities.

This equipment must also be designed to perform efficiently in arctic regions. While I appreciate the burden that this imposes upon manufacturers it is a necessary burden because the selection of the areas of combat is not entirely within our control. The Services may be called upon to fight in areas of extreme climatic severity—areas in which commercial equipment designed for the temperate zones cannot be expected to perform.

In the future, American industry will be called upon to provide standards and material which will perform satisfactorily in a greater diversity of climates. This should tend to bring many commercial standards more nearly into line with the requirements of the Armed Services.

The standardization program of the Munitions Board was greatly advanced this spring when its Cataloging and its Standards Agencies were established.

The task of the Board's Cataloging Agency is to coordinate the efforts of the Army, Navy, and Air Force in the preparation of a uniform catalog system for all items used by the Military Establishment at all times. Eventually, each item will be provided a single name, description, and identification number and will be classified in but one supply commodity class. It is estimated that this process will eliminate about fifty percent of the five million items involved.

Heretofore, the Military Services have maintained different cataloging systems. This made the interchange of supplies and equipment difficult, and impeded coordinated military procurement. Consequently, this common cataloging program is of great importance to the standardization program and to the effective conduct of business within the Military Establishment. By 1952, the catalog system should be fully developed. Both the development of this system and its subsequent implementation are tremendous and exacting tasks. But the proven and ultimate benefits both in dollar savings and combat effectiveness justify them.

Navy Cataloging Project Saved 275 Million Dollars in a Year

A wartime Navy Department cataloging project, with the accompanying simplified inventory control for the engine parts of one airplane

company, saved in one year over 275 million dollars. That is enough to pay the Supply Depot at Philadelphia for over 30 years.

The Bureau of Ships has estimated that through its cataloging program a net saving of 25 million dollars on an inventory of 282 million dollars will be achieved over the next six years.

Due to estimated inventory reductions through cataloging, approximately 500 fewer employees will be needed at two naval supply depots. Resulting annual payroll savings will be about one million dollars.

To turn to savings on individual items—cataloging disclosed, for example, that the Navy was buying identical thread taps from three different suppliers at \$9.12, \$2.33 and 73 cents.

Identical turbine bearing liner assemblies supplied by two companies at \$25.00 and \$63.00 respectively, were found to be manufactured by a third company which could supply them at \$9.06.

Screws purchased at five and ten cents were found to be identical with one screw carried by the Navy General Stores at seven and two-tenths mills.

One pinion shaft supplied by one company was known by 13 different identifying numbers; a single refrigeration compressor piston by 94.

Three hundred thousand anti-friction bearings identification numbers have been consolidated into approximately 9,000 different items.

Potential Benefits to National Economy and Security

These are but a few examples of the kind of savings in material, manpower, and dollars that can be accomplished through the cataloging project. And please bear in mind that I have drawn upon Navy examples only. When the benefits of the Navy's cataloging are combined with the benefits of the Army and the Air Force cataloging, the magnitude of the task and potential value of the overall project to our national economy and to our security can be better appreciated.

Moreover, the single common catalog for the Armed Services will indicate the areas where standardization is most needed and may be considered the foundation for effective inventory control and purchase assignment activities.

I have referred to the establishment of the Cataloging Agency as an important preliminary step in the Munitions Board's standardization program. An important second step was the establishment of the new Army-Navy-Air Force activity succeeding the old Joint Army-Navy Specifications Board.

The objectives of the Agency are to promulgate Military Establishment specification and engineering standards and to study the areas and extent to which joint Army-Navy-Air Force equipment standardization is practicable. This will include the development of common designs of equipment and components.

All Service Specifications to Be Issued by Standards Agency

When the operations of the Standards Agency are fully underway, the Army, Navy, and Air Force specifications presently authorized will no longer be published by the respective Departments. Instead, after a predetermined date, all specifications will be issued by the Agency as National Military Establishment—or “NME”—Specifications. Such common Army, Navy, and Air Force specifications as are already in existence will not be voided but will be converted to NME specifications whenever necessary.

The work of various member-bodies of the ASA, such as the American Society for Testing Materials, the American Society for Automotive Engineers, and the American Society of Mechanical Engineers, to mention but a few, is well known among the Armed Services. Their recommendations always have been studied carefully and, whenever possible, incorporated in the adopted specifications.

To achieve the closest possible tie between industrial and military standards it is hoped that NME specifications, which may have aspects in common with industrial standards, will be sent through the procedure of the ASA to become American Standards. This should assure a common material language for both industry and the Services.

In addition to the NME specifications, the Standards Agency also promulgates NME Engineering

Standards. These are put out for reference purposes in drawing up specifications. Their use by the Military Establishment is mandatory when applicable and industry is encouraged to follow them in commercial drawings whenever possible.

In the field of Equipment Standardization, three working groups have been appointed by the Munitions Board as an initial step toward achieving the objective of the Standards Agency. They have been specifically directed to consult with representatives of industry on three main points:

1. The extent to which standardization of certain commercial items is feasible for military purposes,
2. the means by which technological improvements can be incorporated into selected standardization designs, and
3. peacetime production planning to develop a nucleus of facilities which can be expanded for wartime production.

Joint consultation on these and other points will assure the development of sound and workable plans for standardization.

From a military standpoint, it would, for instance, be highly desirable to have but one completely standardized truck. This would reduce the number of spare parts, the upkeep, and the training of personnel. But from industry's standpoint, this would be an impracticable objective if for no other reason than that, in the event of an emergency, the

automotive industry as a whole would not be tooled up to produce such a truck. Besides, there would be great loss of productive capacity. It is for the purpose of avoiding just that kind of extreme in standardization that joint consultation between the Military Establishment and industry is desirable. For this reason, the three working groups I have mentioned ultimately will be taken into the Standards Agency. Other working groups probably will be appointed from time to time.

Will Contribute to Interchangeability of Supplies and Equipment

Ultimately, the cataloging and standardization programs will contribute toward the achievement of interchangeability of supplies and equipment among the combat units of the three Services in the field. From the logistic standpoint, the common catalog system and standardized equipment will mean easier and less costly storekeeping, great reduction in shipping and storage requirements and faster supply service. Combat efficiency will be increased immeasurably.

These accomplishments, in an unglamorous but extremely important field—a field which is sometimes overlooked—represent a great advancement. They represent but a few of the many accomplishments performed by the Military Establishment under the able and courageous leadership of our first Secretary of Defense, James Forrestal, during the first thirteen months under the Unified Commands.

THE EVOLUTION OF DSP DOCUMENT DISTRIBUTION



In the beginning, there was chaos—at least that was a finding in a study of the Defense Standardization Program (DSP) by the Logistics Management Institute (LMI) in November 1963. LMI noted that industry representatives complained about having to contact 35 to 40 different military activities each year in order to obtain specifications and standards, because no centralized system existed for distributing these documents.

Chaos, however, gradually evolved to order with the establishment of the Navy Forms and Publications Supply Office on May 31, 1964. One of its responsibilities was to serve as the DoD Single Stock Point (DoDSSP) for all DSP documents. It undertook the Herculean task of collecting thousands of military and federal specifications and standards in order to create the first centralized stock point for printing, distributing, stocking, and indexing DSP documents. Its labyrinth of conveyor belts snaked through 719,000 square feet of warehouse space, while stock pickers pulled documents from countless stacked bins to fill 2,000 customer orders a day. While this process may seem crude by today's standards, in its time it was a model of distribution efficiency.

It wasn't long, however, before the bin process became outmoded. Such a manual system was subject to human errors and out-of-stock conditions. It was also expensive, labor-intensive, and time-consuming: the process, from the

time a document was requested until it was received, typically took anywhere from 30 to 60 days.



Referred to as the "Jukebox"

Technology, however, does not stand still for very long. Rapid improvements in computer capabilities and widespread use of the Internet led the DoDSSP to replace NPODS with

the Acquisition Streamlining and Standardization Information System (ASSIST). Beginning October 1, 1998, the ASSIST Online website gave customers immediate access to most DSP documents.



From bins to PODS to the Net, the DoDSSP has constantly changed to better serve its customers' needs. The DoDSSP has been an important part of the DSP's history and will no doubt continue to play a key role in its future.

A LETTER FROM FORMER SECRETARY OF DEFENSE WILLIAM PERRY



STANFORD UNIVERSITY INSTITUTE FOR INTERNATIONAL STUDIES

Encina Hall
Stanford, CA 94305-6165
(650) 723-9919
FAX (650) 725-0920

WILLIAM J. PERRY
*Michael and Barbara Berberian Professor
and Senior Fellow*
wjerry@stanford.edu

June 20, 2002

Mr. Gregory Saunders
Director, Defense Standardization Program
8725 John J. Kingman Road, Mail Stop 6233
Ft. Belvoir, VA 22060-6221

Dear Greg,

In June 1994, when I delivered a special briefing on a plan to streamline the purchasing practices of the Department of Defense (DoD), I cautioned, "No one should underestimate the difficulty of making a change that is fundamental ... it requires changes in deep-seated, long term practices, it truly requires cultural changes in the way we do our business in acquisition." Last year, the Defense Standardization Program Office presented the final report on MilSpec reform. I congratulate the men and women whose dedication and efforts to achieve the objectives of this program have indeed resulted in making a fundamental change -- removing obstacles to efficient procurement and to integrating state-of-the-art technology into our weapon systems.

The "final report," however, does not indicate completion of the task, just as my 1994 directive was not the beginning.

In the years following World War II, each of the military services operated independently: each with its own separate supply system and each with its own processes and procedures for cataloging its items. The resulting inefficiencies, duplications, and waste catalyzed Congress to pass, in July 1952, the "Defense Cataloging and Standardization Act". This act provided for "an economical, efficient, and effective supply management organization within the Department of Defense through the establishment of a single supply cataloging system, the standardization of supplies and the more efficient use of supply testing, packaging, and acceptance facilities and services." This was the beginning of what was to become the Defense Standardization Program and led to some real improvements in efficiency.

But the challenges were not static and new technologies were emerging at an unprecedented rate. In the late fifties, an effort was made to develop a prototype Class I installation automatic data processing system to integrate supply, personnel, and financial reporting. It proved to be more difficult than anyone anticipated and each new problem exposed seemed to spawn a host of new ones. As computer systems and complex software programs became an increasingly integral part of our military systems, MilSpecs became the way to assure that the high standard of quality and reliability was worth the price. Accordingly, our procurement practices were designed to make it increasingly difficult to procure anything without complying with military specifications.

In the 1980s, a blizzard of articles swept through the media that ridiculed the Pentagon for the outrageous prices it had paid for hammers and toilet seats. To deal with this intensely negative press, President Reagan took the approach of appointing a Presidential Commission, chaired by David Packard, to investigate the problem and make recommendations for corrective action.

The Commission's report, published in April 1986, contained a section on acquisition reform called, "A Formula for Action." Its conclusion was stated in simple and unambiguous language:

All of our analysis leads us unequivocally to the conclusion that the defense acquisition system has basic problems that must be corrected. These problems are deeply entrenched and have developed over several decades from an increasingly bureaucratic and overregulated process. As a result, all too many of our weapon systems cost too much, take too long to develop, and by the time they are fielded, incorporate obsolete technology.¹

The Commission recommended many changes in the organization of DoD's acquisition system, some of which were accepted by DoD and implemented the next year. The heart of the recommendations, however, called for changes in process and procedures: to change from MilSpecs to commercial industrial standards, and from buying practices that were unique to DoD to commercial buying practices.

David Packard urged this plan on President Reagan, and the President approved it in principle, but in fact, the plan was not put into practice at that time.

It was this "Formula for Action" that I used as the basis for "Acquisition Reform: A Mandate for Change" delivered to Congress six days after I was sworn in as Secretary of Defense.² Congress, enthusiastic about reform, promptly passed two landmark pieces of legislation, the Federal Acquisition Streamlining Act and the Clinger-Cohen Bill. These laws gave DoD the legal authority to unshackle the acquisition system.

We now have the "MilSpec Reform: Final Report" – but, as I congratulate the many contributors to this achievement, I challenge you in the Defense Standardization Program Office to define the new vision for excellence and to develop the plan to make it a reality. We continue to need greater interoperability between the services. The challenges of working within the context of coalition forces are great – not because of the service personnel – but because the systems are incompatible. And, we need to look forward to the requirements of multinational operations – combat, peacekeeping, humanitarian, or disaster relief.

Based on the clarity and urgency of your report, I am confident you will succeed.

Sincerely,



William J. Perry

¹ *A Quest for Excellence*, Final Report by the President's Blue Ribbon Commission on Defense Management (the Packard Commission), The White House, June, 1986. The program of acquisition reform was further developed a few years later by the Carnegie Commission on Science, Technology, and Government, in which David Packard and Norman Augustine participated; see Ashton B. Carter and William J. Perry, *New Thinking and American Defense Technology*, Report of the Carnegie Commission on Science, Technology, and Government's Ad-Hoc Task Force on National Security, August 1990.

² Office of the Secretary of Defense, February 9, 1994.

NATO STANDARDIZATION WORK IN PROGRESS

Recently, the Director, Australian Land Engineering Agency, invited George Zakhem (Associate Director, U.S. Army Tank-Automotive Command, Warren, MI) and George McEwan (Head of International Standardisation Division, United Kingdom Defence Standardisation Organization, Glasgow, Scotland) to visit Australia to meet with members of the Australian Department of Defence. Mr. Zakhem and Mr. McEwan are heavily involved with NATO standardization activities and chair or are members of various NATO panels. Their visit had two aims: (1) brief Australian Defence personnel, who are involved in engineering and materiel acquisition through life-cycle support, on current national and NATO materiel standardization activities, and (2) examine opportunities for closer cooperation between Australia and NATO on materiel standardization to enhance interoperability between Australia and the United States, the United Kingdom, and other NATO member nations.

During their visit, Mr. Zakhem and Mr. McEwan attended a series of meetings and presentations at key locations in Melbourne, Sydney, and Canberra. Formal presentations included an introduction that described the American, British, Canadian, Australian (ABCA) Armies Program; a briefing on the roles, structure, and standardization programs within NATO; a briefing on acquisition reform and Army transformation programs in the United States; and a briefing on standardization, its links to Smart Acquisition in the United Kingdom, and its relationship to interoperability. In addition, an excellent question and answer session occurred.



In the photograph above, seated from left to right, are John Logan, Head of Delegation, Quadripartite Working Group—Materiel Acquisition and Technical Support, ABCA Armies Program and John Bladen, Land Engineering Agency, Engineering Support and Standardisation, Melbourne, Australia. Standing from left to right are George McEwan, George Zakhem, and Terry Dowling, National Point of Contact, Quadripartite Working Group—Materiel Acquisition and Technical Support, ABCA Armies Program.

Now, if we could just get the Aussies, the Brits, and the Yanks to agree on spelling—“defense” versus “defence” and “standardization” versus “standardisation,” for example—everyone would be saved a region-specific spell check with every article!

JOINT PRECISION APPROACH AND LANDING SYSTEM (JPALS): MAKING HIGH-RISK AIRCRAFT OPERATIONS SAFER

by John B. Patterson

JPALS combines three technologies—global positioning system (GPS), inertial navigation system (INS), and network—to provide pilots with highly accurate position data. With JPALS, pilots can use their instruments to safely approach and land in high-risk environments, such as those with electronic jamming.

The system will be installed on nearly every aircraft in the U.S. military inventory, every air-capable Navy and Coast Guard ship, and every U.S. military air station with a precision instrument approach. It also will support joint military service, civil, and multinational interoperability.

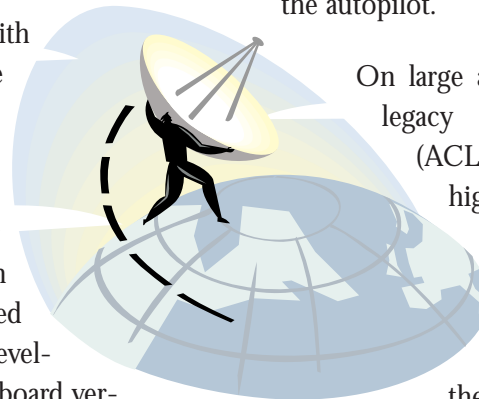
JPALS is being developed jointly, with the U.S. Air Force as the Executive Service. The Air Force is developing and testing the shore-based applications, consisting of fixed-base, tactical, and special mission systems. The Air Force awarded a contract to Raytheon to develop airborne and ground-based demonstration systems. The Navy is developing, testing, and integrating the shipboard version. The Navy portion was performed in-house by a team consisting of government and contractor personnel who developed the test beds and software used to demonstrate automatic landings on aircraft carriers. The services have coordinated their efforts to develop the program documentation, including cost data; the acquisition, engineering, and test plans; the work breakdown structure; and the operational requirements document.

What Is JPALS?

JPALS will use GPS receivers with advanced antijam techniques and inertial navigation systems, plus a covert wireless network at sea, to provide a rapidly deployable, maintainable, and interoperable precision approach and landing capability on land and at sea. Deployable systems will be ready to support tactical operations from allied air

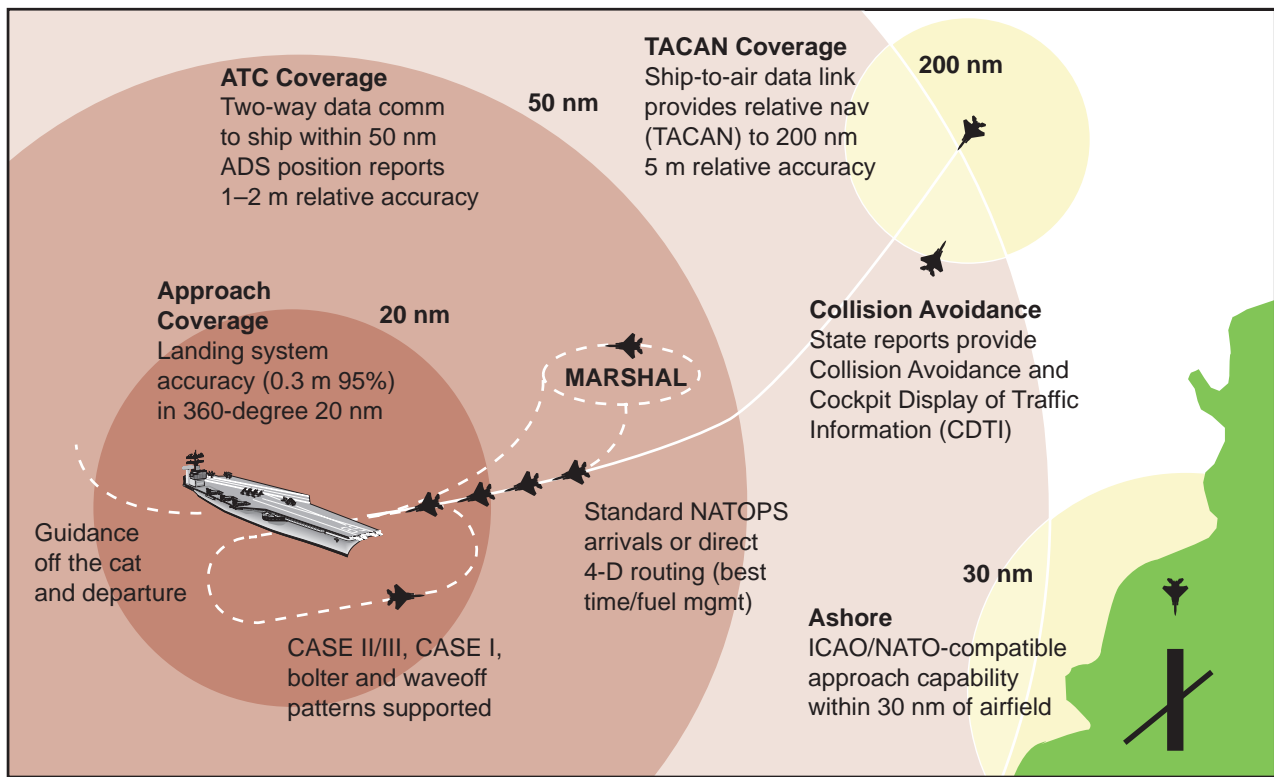
bases and special missions operating out of austere airfields worldwide. Pilots will use the same procedures for every instrument approach, greatly reducing training costs and currency requirements.

JPALS does not add any equipment to the aircraft. It will modify and improve a communications or data link radio to serve as a modem for its network requirements. It will use the improved GPS receivers being modified by the GPS modernization program. It will modify the aircraft operational flight program to process the information and provide the displays for the pilot and the commands for the autopilot.



On large aircraft carriers, JPALS will replace the legacy Automatic Carrier Landing System (ACLS) equipment with a few small antennas high on the ships' masts and two standard equipment racks near the radio compartment in the island. This will save the ships more than 600 cubic feet and 9,000 pounds above deck and will save the Navy millions of dollars in operations and support costs. On amphibious assault ships, JPALS will replace the AN/SPN-35, saving 2,400 cubic feet and 6,000 pounds above deck.

JPALS will replace the AN/URN-25 TACAN on all ships and the AN/FPN-63 Precision Approach Radar on all Navy shore stations, saving many more millions of dollars in support costs. JPALS also can replace the Instrument Landing System (ILS) at Air Force bases and the precision approach radar in deployable mission pack-up kits, greatly enhancing the nation's ability to deploy an instrument approach capability on short notice. As an added benefit, it will provide a new capability for precision instrument approaches on air-capable ships, such as cruisers, destroyers, amphibious transport docks, and command ships.



JPALS Shipboard Concept of Operations

How Will JPALS Be Used?

Ashore, JPALS will use standard differential GPS techniques. The ground station will broadcast approach-path information and GPS error data on a link that is compatible with the Federal Aviation Administration (FAA) Local Area Augmentation System (LAAS). The aircraft will be able to receive that information when it is about 10 to 30 miles from the runway. The aircraft will use the information from the data link and its own GPS receivers to determine its approach path and landing point within a few meters.

Using JPALS at sea is somewhat more involved. It requires a covert two-way data link to provide network connectivity and a technique known as Shipboard Relative GPS (SRGPS). Under this technique, the aircraft compares its position, determined by its onboard GPS and INS, with the location of the glide slope as transmitted over the network by the ship. The major GPS error sources are common to the ship and aircraft, and only the relative position of the two platforms is important. As the aircraft approaches the ship, the GPS errors from the ship and aircraft systems cancel each other out, allowing

extremely accurate determination of relative position. On amphibious assault ships, JPALS can support multiple approaches simultaneously to different landing areas on the ship (see above).

When the aircraft is within about 200 nautical miles of any ship with JPALS, it will be able to pick up enough information from the network to determine the range and bearing to the ship, eliminating the need for shipborne TACAN stations.

As the aircraft approaches within about 50 nautical miles of the ship, the carrier air traffic control center or helicopter direction center will be able to pick up the aircraft's position from the network along with other pertinent data such as fuel state, hung ordnance, and maintenance status. This information can be used to vector the aircraft to an appropriate position in the recovery pattern at an assigned time, avoiding the need for the aircraft to wait in the marshal stack and reducing the fuel required for holding.

As the aircraft approaches within about 20 nautical miles of the carrier (or other air-capable ship), it will begin

receiving the detailed guidance information it needs for its approach and landing. In case it is waved off or fails to engage the arresting cable, the aircraft will receive guidance throughout the pattern as it flies downwind to its next assigned recovery position. This is essential for unmanned aircraft and very helpful to manned aircraft, especially in hazy conditions.

Not only will JPALS enable an aircraft to accurately determine its position relative to the ship, but it will enable the aircraft to identify and locate other aircraft that are within about 20 nautical miles. This will allow better situation awareness in heavy ACLS traffic, enhance the ability to rendezvous without making radio transmissions, and enable unmanned combat air vehicles to operate safely near manned aircraft.

On aircraft, such as the F/A-18 or Joint Strike Fighter, JPALS will do the following:

- Provide an SRGPS capability for instrument approaches and landings on aircraft carriers
- Expand GPS capability to make it compatible with FAA's LAAS and Wide Area Augmentation System (WAAS)
- Modify antijam compatibility to provide high integrity and availability in the presence of jamming for all phases of flight, including precision approach
- Add standalone GPS capability to the lowest minimums possible under lateral precision approach with vertical guidance terminal instrument approach procedures, which are being developed by the FAA
- Provide for a consistent set of instrument procedures that can be practiced ashore before deployment, as opposed to the current situation where training at AN/SPN-42T sites is extremely limited by the lack of availability at the three operational sites
- Provide for decommissioning of current ACLS avionics, including the data link radio and aircraft radar beacon
- Provide positive guidance for operations around the ship in visual flight rules and emissions control (EMCON) environments

- Provide two-way data link operation with air traffic control (ATC) under "zip-lip" and EMCON conditions
- Provide embedded surveillance data to the carrier for ATC and enhanced landing signal officer monitoring, including use for collision avoidance and cockpit display of traffic information.

Will JPALS Work?

JPALS is no longer just a concept. The Air Force and the Navy have successfully demonstrated the system in tests of operationally representative, high-risk instrument approaches—both at-sea autolandings and approaches in a jamming environment. The Air Force also demonstrated its interoperability.

In April 2001, the Navy team tested the SRGPS aboard the USS *Theodore Roosevelt* (CVN-71), demonstrating 10 fully auto-coupled landings with a Navy F/A-18 aircraft. During the tests, the landing dispersion (1 sigma) was 15 feet, and the vertical system error averaged only 11 cm. Both of these values meet the JPALS operational requirements for automatic landings at sea.



Strike Aircraft Test Squadron F/A-18A During Initial Testing of SRGPS on USS Theodore Roosevelt (CVN-71) on 23 April 2001

In August 2001, the Air Force successfully demonstrated more than 120 precision approaches in a jamming environment at Holloman Air Force Base, NM. The JPALS antijam system performed so effectively that the aircrew could not determine from the performance of the guidance system whether jamming was on or off during the approach.



USAF 46th Test Group C-12J at Holloman AFB During Testing of the Raytheon JPALS Demonstration Systems in August 2001

In addition, during the flight testing at Holloman, the Air Force demonstrated civil interoperability using LAAS avionics installed in a Federal Express Boeing 727. This aircraft performed 10 auto-coupled landings at Holloman using the FAA's airborne LAAS receiver and Raytheon's JPALS ground-based demonstration system.



Federal Express Boeing 727 with FAA LAAS During Interoperability Testing at Holloman AFB in August 2001

Conclusion

JPALS provides a covert, jam-resistant network-centric way to support instrument landings ashore and at sea. It brings tremendous new capabilities and high-quality safety features to the entire U.S. military aviation community and the fleet. Enabling military pilots to fly into any military or civilian airfield with an instrument approach using uniform procedures will make flying in bad weather much safer and will reduce training costs.

No longer will pilots have one set of procedures for approaches using precision approach radar, another for ILS approaches, another for ACLS approaches, and still another for TACAN approaches. Now pilots will have a single procedure for all. Navy pilots will be able to practice carrier instrument procedures ashore and to file and fly into Air Force bases. U.S. pilots will be able to conduct the same instrument approaches in America, Europe, and Asia.

Our Marines and Special Operations Forces will have a rapidly deployable capability that can be set up on short notice in tactical and special mission scenarios. The Navy will be able to operate in low-visibility meteorological conditions without giving up the ship's position and will, for the first time, have a precision approach capability on its small air-capable ships.

JPALS provides the only fully interoperable solution among the military services, the FAA, and international aviation. It provides a cost-effective and capable replacement for a number of systems nearing the end of their service lives and will enable the U.S. military to avoid billions of dollars in operations and support costs for the legacy systems it will replace.

About the Author

John B. Patterson works at the Naval Air Systems Command, Patuxent River, MD. He is a retired Navy test pilot and program manager with 28 years of military service. Mr. Patterson has been supporting the JPALS Team as a contractor for the last 5 years, and in February 2002, he became the JPALS Team Leader.✱





Allen Beckett, Principal Assistant Deputy Under Secretary of Defense for Logistics Materiel Readiness, gave a rousing speech at the 2001 DSP award ceremony. His speech follows.

It is a privilege to be here today to recognize some remarkable individuals and teams, who have contributed to the operational success of the Department, through their standardization efforts. Traditionally, this award ceremony highlights standardization achievements that have

- reduced total ownership costs,
- reduced the logistics footprint,
- improved quality and reliability, and
- promoted integration of the commercial and military industrial bases.

These things are still important, of course, but given the events of September 11th, I want to describe the need for standardization in a different context.

When you consider what has happened during the last seven months, it is clear that standardization is more than just an engineering process. Standardization is an enabler that enhances the effectiveness of our armed forces today and will allow us to meet our national security goals tomorrow.

The United States cannot defeat global terrorism without support from our allies, and without standardization, such support would be limited. Using the USS *Carl Vinson* Carrier Battle Group as an example to represent a microcosm of coalition interoperability taking place under Operation Enduring Freedom, it gives you a great appreciation of the operational capabilities made possible because of standards.

PRESENTATION OF THE 15TH ANNUAL DEFENSE STANDARDIZATION PROGRAM AWARDS

Picture, if you will,

- Canadian and Dutch frigates standing picket guard for the U.S. guided missile cruiser *An-tietam* in the North Arabian Sea, while
- the Japanese supply ship *Hamana* refuels the cruiser at sea, and off in the distance,
- British Royal Air Force VC-10 tankers refuel U.S. Navy Hornets returning to the carrier group from a mission.

None of these seemingly routine, but essential, coalition operations would have been possible if it were not for common fuel, coupling, and communication standards.



Allen Beckett
Principal Assistant Deputy Under Secretary of
Defense for Logistics Materiel Readiness

Today's requirement and acquisition policies demand that weapon systems be "born joint." By that, we mean the systems must be interoperable among the U.S. forces and with our allies, and have the means to be upgraded readily as technology evolves. We must think in terms of interchangeable modules that can "plug and play" in any situation and with any military service or ally. So in the future, all new systems should be fielded with essential interoperability capabilities built in.

Coalition interoperability, however, is not the only area where standards have improved our operational capabilities. Operation Enduring Freedom has the longest supply lines of any U.S. war since World War II. Historically, the U.S. takes months to build a giant supply base in a region before beginning a campaign of this magnitude. But thanks to improved networks of information systems and better tracking systems made possible because of widely accepted industry standards, supply officers can monitor goods from Kansas City to Kandahar, and receive time-critical supplies using commercial overnight services.

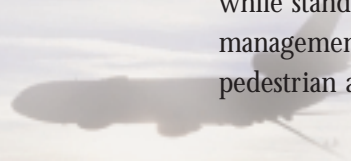
Such dramatically improved logistics capabilities depend not only on standard information systems, but also to a large extent, on standard items of supply. As the supply officer on the U.S. Navy ship *Niagara Falls* recently commented, such items as fuel, food, munitions, and standard spare parts were being supplied like clockwork. Supply problems only arose when trying to find a unique or obsolete part for something such as a radar or jet engine and getting it shipped quickly. So while standardization efforts such as parts management and item reduction may sound pedestrian and mundane, they achieve the

commonality of spare parts that is vital to the resupply of our troops during deployment to remote parts of the world.

I am particularly pleased that one of today's award recipients has doggedly pursued changing mindsets, which resulted in our replacing over 30 military specifications for aerospace sealants with industry standards. More importantly, we are now using a third-party inspection source to certify compliance with those standards. By creating a forum for the Department of Defense and the aerospace industry to develop shared auditing processes and results, both we and industry can significantly trim costs and cycle time by reducing redundant audits and multiple processes. For now, reliance on third-party product and process certification in the Department is somewhat limited, but I am hoping that this example of success will produce a comfort level that will encourage similar efforts in other areas.

While we have enjoyed some notable success in Operation Enduring Freedom, due in part to standards, a lack of standardization has produced some difficulties when it comes to homeland security. Beginning with that tragic day of September 11th, various local, state, and federal emergency support agencies were unable to communicate with each other around the Pentagon because the different radios, telephones, and walkie-talkie systems were not compatible. Even in the World Trade Center, reception problems with analog radio transmissions meant that fire fighters did not receive the evacuation orders, which may have contributed to higher casualties.

Because of the unfortunate lessons learned at the Pentagon and the World Trade Center,



local, state, and federal emergency agencies are all looking for universally accepted interoperability standards and equipment so that radio and telephone communication can take place between responding units. I am pleased to report that one of our standardization award winners here today, the Joint Tactical Radio System, is one of the systems that these agencies are studying as an approach to solving their interoperability and reliability problems.

Homeland security has generated a wealth of standardization opportunities. The National Institute of Standards and Technology has identified a large number of homeland security areas where standards must be developed in order to meet national needs for

- building safer structures and more secure information systems,
- enhancing threat detection and protection,
- providing law enforcement agencies with better tools, and
- improving our emergency response capabilities.

At a government-industry information security conference held last December, the participants spent some time discussing what the different roles for government and industry should be when it comes to homeland security. One security company CEO stated that an important contribution government can make to homeland security is “pushing standards.” Only by developing and enforcing standards will we have the necessary technological bridges that will allow the private sector and governments at all levels to work together locally, nationally, and globally.

By “pushing standards,” this CEO was not talking about the government developing

standards. He was talking about the government acting as a catalyst to bring stakeholders together to develop standards that can be used by both the private and public sectors on a national or global basis. Since the Department of Defense is a key player in homeland security, it is essential that we serve as a catalyst for standards and remain actively engaged with private-sector organizations developing these standards.

Standardization is something we tend to take for granted. In our everyday lives, we would be surprised to buy a hair dryer, television, or personal computer and discover that the electrical plug did not fit into an outlet and operate off of the current coming from that outlet. But take that same item to Europe and try to plug it in an electrical socket, and you quickly begin to appreciate standardization.

In Operation Enduring Freedom, our troops have come to expect ammunition, fuel, communications, towing hitches, and a litany of other items to be standard. Only when there is a lack of standardization does the need for standardization become noticeable and truly appreciated.

There is a saying that when people perform the common things in life in an uncommon way, the world will sit up and take notice. Some would say that standardization is one of those “common” things in life. But the reason we are gathered here today is because your colleagues, customers, and management have taken notice of your uncommon accomplishments. Before the awards are officially handed out, let me be the first to congratulate you on this personal achievement and for all that you have done for the men and women in uniform who serve the Nation. Thank you.





2001 Defense Standardization Program Award Winners

On April 17, 2002, Allen Beckett, Principal Assistant Deputy Under Secretary of Defense for Logistics Materiel Readiness, and Gregory Saunders, Director, Defense Standardization Program Office, presented seven 2001 DSP awards. The awards recognize individuals or teams whose standardization efforts demonstrably promoted interoperability, reduced total ownership costs, or improved readiness.

The 2001 Distinguished Achievement Award, which includes an engraved crystal Pentagon and a check for \$5,000, went to [Alan J. Fletcher](#), Air Force Research Laboratory, Wright-Patterson Air Force Base, Dayton, OH. Mr. Fletcher led a DoD-wide effort to convert from military specifications and qualified products lists to non-government standards for aerospace sealants and elastomeric seals. The development of a single industry standard for each kind of sealant resulted in a decrease in the price of sealant for both the government and industry. Mr. Fletcher's work achieved incalculable savings, decreased field failures, and improved performance, not only for all military branches, but also for industry.



Pictured above are presenter Gregory Saunders, Director, Defense Standardization Program Office; presenter Allen Beckett, Principal Assistant Deputy Under Secretary of Defense for Logistics Materiel Readiness; and Alan Fletcher, winner of the 2001 Distinguished Achievement Award.

The six other winners of the 2001 awards were as follows:

- **Joint Tactical Radio System Joint Program Office** (LTC Robert Heathcock, Army; Major Stanley Pustarfi, Army; James Nooney, Navy; Margaret Powell, Navy; and Dr. Gunter Brunhart, Navy)—for standardizing software communications architecture for use in all future DoD tactical radio designs. For the first time in history, the military services will use common waveforms and a new capability, software-defined radios that act and are modified like computers.
- **U.S. Army AN/PRC-112 Production Support Team** (Fenton Yip, Bruce Jetter, Gary Ott, Kathleen Rizzo, and John Hartman)—for setting the mid-term strategy for upgrading and extending the life of the radio for as long as necessary until the Combat Survivor Evader Locator system is fielded. The team reduced the DoD acquisition cost of the product by more than 50 percent, resulting in phase one savings of more than \$20 million.
- **Joint Precision Approach and Landing System (JPALS) Team** (John Patterson, General Scientific Corporation; Mike Kreul, Navy; Eric Lekberg, Air Force; Glenn Colby, Navy; and Frank R. Allen, Navy)—for setting the architecture for JPALS, which demonstrated that global positioning technology can solve the precision approach system problem, even in high-risk at-sea autolandings and operation during jamming. JPALS will save the military services several billion dollars, avoiding costs for maintaining legacy equipment and tremendously increasing joint capability.
- **Alan Barone, Defense Logistics Agency (DLA), Defense Supply Center, Columbus, OH (DSCC)**—for leading the engineering standardization efforts for the high-reliability semiconductor program, MIL-PRF-19500, which resulted in a series of new specifications covering plastic semiconductors for use in demanding military applications. This 2-year effort standardized plastic devices for use in more than 30 different weapons platforms by the Army, Navy, and Air Force. Interoperability, system performance, and reliability will improve, and total ownership costs will decrease, with \$1.5 million to \$3 million in costs avoided in the first year.
- **James A. Crum, DLA, DSCC**—for revising the performance document, MIL-PRF-6106/15, to establish a standardized electronic relay, and for developing a new general specification, MIL-PRF-32085, for a 270-volt relay.
- **Michael Jones, DLA, DSCC**—for bringing a new class of product into the Hybrid Microcircuit Standardization Program to meet the needs of military customers. The new class allows the use of standard products built to best commercial practices, while still ensuring the required quality and reliability.



Pictured above are Gregory Saunders, the 2001 DSP award winners—James Crum, Alan Barone, Michael Jones, Alan Fletcher, Fenton Yip (representing the AN/PRC-112 Production Support Team), LTC Robert Heathcock (representing the Joint Tactical Radio System Joint Program Office), and John Patterson (representing the JPALS Team)—and Allen Beckett.

DSP AWARD CEREMONY PHOTOS



Pictured above are three of the DSP award winners holding their plaques: James Crum, Alan Barone, and Michael Jones. With them, from left to right, are Vice Admiral Keith Lippert, Director, DLA; DLA Standardization Executive Thomas Ridgway; Allen Beckett; Bill Lee, DLA Departmental Standardization Officer; Gregory Saunders; James Gambert, Director, Operations Support Group, DSCC; and David Moore, Branch Chief, Documentation Standardization Unit, DSCC.



Pictured above enjoying the award ceremony reception are members of Alan Fletcher's family. From left to right are Mr. Fletcher's sister Cathi Szlembarski, his wife Ellen, and his mother Helen Fletcher.



Pictured above are the current DoD Service and Agency Standardization Executives: Richard Harrell Barnett, Army; Christine Stelloh-Garner, Navy; James Engle, Air Force; and Thomas Ridgway, DLA. All attended the DSP award ceremony.



Pictured above is the JPALS Team receiving its award plaque. From left to right are Eric Lekberg, Frank Allen, Glenn Colby, John Patterson, Allen Beckett, Gregory Saunders, Mike Kreul, LtCol Layne Merrit, Christine Stelloh-Garner, Mr. Bill Balderson, Carlotta White, and Major Mike Calendar.



Pictured above are the members of the U.S. Army AN/PRC-112 Production Support Team. Fenton Yip is shown holding the award plaque, presented by Allen Beckett and Gregory Saunders. The team was accompanied by Army Departmental Standardization Officer Karim Abdian; Dick Barnett; Victor Ferlise (Deputy to the Commanding General and representing Major General William Russ, Commander, CECOM); William Carl, Director CCS/Avionics; Kenneth Brockel, Senior Manager; and Harry Ivory Jr., Branch Supervisor.



Pictured above is the DSP award winning team from the Joint Tactical Radio System Joint Program Office. LTC Robert Heathcock is shown receiving the award plaque from Allen Beckett; in the center is Gregory Saunders. Also pictured are Dick Barnett; Christine Stelloh-Garner; Carlotta White, Navy Standardization Office; Air Force Colonel Steven MacLaird; Army Colonel Michael Cox; and Karim Abdian.



Pictured above are James Gambert, Gregory Saunders, and David Moore. Mr. Gambert and Mr. Moore accompanied the three DLA winners and their spouses to the ceremony.

The Standards Engineering Society (SES), in conjunction with the World Standards Day (WSD) Planning Committee, has announced the theme, judging and awards, and rules for participating in the 2002 WSD paper competition.

Theme

The general theme of the competition is “Standards Mean Business”—how standards or conformity assessment programs foster a healthy economy. The goal of the competition is to illustrate specific issues, concerns, and applications of standards or conformity assessment programs pertaining to business. For the competition, “business” is defined broadly. This means that papers may explore how standards affect the production, distribution, marketing, or sales of goods and services. Papers may also examine how business is conducted globally, nationally, or regionally.

Judging and Awards

A panel of independent judges selected by SES and approved by the 2002 WSD Planning Committee will review the papers. The judges will have absolute discretion to decide the winner of the competition or to withhold any award if no paper is of sufficient merit.

The winners will be acknowledged and receive their awards during the annual WSD ceremonies on October 16, 2002, in Washington, DC. The

first-place winner will be awarded a plaque and \$2,500. The second- and third-place winners will receive \$1,000 and \$500, respectively. The winning papers will be published in the SES journal, *Standards Engineering*. The first-place paper will also appear as a special article in *ANSI Reporter*.

Entry Rules

The competition rules are as follows:

- The competition is open only to U.S. citizens and organizations based in the United States.
- The SES Executive Director must receive all papers and official entry forms no later than midnight, August 30, 2002. Entry forms are available from the SES Executive Director and on the web at www.ses-standards.org.
- Papers must be original and not previously published.
- Papers must be submitted in English, both in an electronic format (preferably Microsoft Word 2000 on a diskette or CD-ROM) and in hard copy (two paper copies). Failure to provide all requisite electronic and hard copies will automatically disqualify the submission.
- Papers must be between 2,500 and 4,500 words and must not exceed 20 pages, including graphics and tables (graphics within the text are encouraged). Winning papers and papers selected for future publication by SES may be edited at a later date.
- Papers should be formatted in 10 point, Times New Roman, double spaced on 8.5-by-11 inch paper, with a margin of 1 inch on all four sides.
- The first page must contain only the title of the paper, a pseudonym for the author (needed to ensure impartiality), and the word count of the paper.
- Each paper must be accompanied by a sealed envelope containing the author's true name, full address, and the title of the paper as shown on the official entry form. The pseudonym must be printed clearly on the outside of the envelope.
- Each contestant may submit only one paper.
- Contestants grant publication rights to the SES and to the WSD sponsoring organizations. SES also has the right to grant publication in other media with approved attribution.

Papers that do not follow all of these entry rules will not be forwarded to the judges and will not be eligible for any award. Please direct all questions by mail to

2002 WSD Paper Competition
13340 SW 96th Avenue
Miami, FL 33176

Questions may also be sent by e-mail to hgzigg@worldnet.att.net.

The PSMC held its biannual conference on April 15–19, 2002, in San Diego, CA. A joint industry/government working group, the PSMC provides a forum for promoting effective parts management and standardization through commonality of parts and processes. Through networking of the group's diverse membership and activities of the PEMS/COTS, DMS, Parts Management Documentation, Education, and MPCASS subcommittees, the most current parts management knowledge, guidance, and lessons learned are shared and used, enhancing parts management programs throughout DoD.

Participants at the conference included representatives from AFMC/LGIS (Battle Creek, MI); ARINC (Dayton, OH); Army Aviation and Missile Command, Redstone Arsenal; ASC/ENSS (Wright-Patterson Air Force Base, Dayton, OH); Boeing (St. Louis, MO); Defense Logistics Information Services (Battle Creek, MI); Defense Supply Centers (Columbus, OH, and Richmond, VA); General Dynamics Armament Systems (Burlington, VT); Honeywell (Tempe, AZ, and Torrance, CA); L3 Communications (Salt Lake City, UT); Lockheed Martin (Dallas, TX); NAVAIR Aircraft and Weapons Divisions; NAVSEA Crane; Northrop Grumman (El Segundo, CA, and Woodland

Hills, CA); PHD NSWC (Port Hueneme, CA); Raytheon (Indianapolis, IN); and United Defense LP (Minneapolis, MN).

Guest speakers presented the following topics:

- “Partnering for Obsolescence Management Success,” presented by Bob Gibbs (AMCOM) and Ed Odette (Lockheed Martin)
- “Metal Castings and the Defense Logistics Agency,” presented by David Poweleit (American Metal Castings Consortium)
- “Federal Logistics Information Services: The Heart of Logistics Information,” presented by Thomas Rowley (Defense Logistics Information Services)
- “Rochester Electronics Overview,” presented by Jack Stradley (Rochester Electronics)
- “DSCC Generalized Emulation of Microcircuits (GEM) Program,” presented by Bill Johnson (AT&T Government Solutions)
- “Honeywell Parts Management Program,” presented by John Becker (Honeywell).

A notable PSMC accomplishment presented at this conference was the final report, *Reduce Program Costs through Parts Management*. This business case, coordinated with the Defense Standardization Program Office, explains the benefits of an effective

parts management program through parts standardization. For copies of this business case or more information about PSMC activities, contact Jamie Gluza, Chairman, PSMC Marketing Subcommittee, at (732) 323-1333 or gluzajl@navairnavy.mil.

Visit the PSMC website—www.dsccl.dla.mil/psmc—for complete minutes of the April PSMC conference and information about subcommittee activities and points of contact.

And put the October conference on your calendar. That conference is scheduled for the week of October 21, 2002, in the Orlando, FL, area. The PSMC website has more information.

Events

Upcoming Meetings and Conferences

50th Anniversary Display at World Standards Day October 16, 2002

The Defense Standardization Program Office is building an exhibit celebrating the 50th anniversary of the July 1, 1952, signing of the Defense Cataloging and Standardization Act. The exhibit will highlight the many congratulatory letters DSPO has received, some early MilSpecs and policy documents, examples of standardization successes, historical documents and artifacts, and a hands-on display showing how standardization has contributed to national defense and saved millions of dollars for taxpayers.

The exhibit will be a fitting contribution to observance of World Standards Day, which will be marked on October 16 at the U.S. Chamber of Commerce in Washington, D.C. Honorary Chairman William M. Daley, chairman and chief executive officer of SBC Communications, will join other dignitaries to salute the accomplishments of the U.S. standardization and conformity assessment community.

Many key events will be celebrated during all of World Standards Week, October 14–18. For a list, visit the American National Standards Institute web page at www.ansi.org.

August 7–9, 2002, San Diego, CA *2002 International Military and Aerospace/Avionics COTS Conference, Exhibition, and Seminar*

You still have time to register for the August 7–9 Commercial Off-the-Shelf (COTS) Conference to be held at the Mission Valley Marriott. The best single and double room rate, available until July 9, is \$99; after that the price will rise. The registration fee is \$400 until July 25; after that, the fee will be \$475. The registration fee includes continental breakfasts, coffee breaks, lunches, cocktail reception, a conference abstract booklet, and conference proceedings. Please contact Edward Hakim, Conference Chairman and Coordinator:

E-mail: ebhakim@verizon.net
Telephone: (732) 449-4729
Fax: (732) 855-0847

September 23–27, 2002, Snowbird, UT *36th GEIA Annual Engineering and Technical Management Conference*

Register now for the 36th annual meeting of the Government Electronics and Information Technology Association. Detailed information about the meeting and registration is available on the web at www.geia.org.

March 4–6, 2003, Washington, DC *2003 Standardization Symposium*

Heads up for the next Defense Standardization Program (DSP) symposium. The DSP, Aerospace Industries Association (AIA), Government Electronics and Information Technology Association (GEIA), and National Defense Industrial Association (NDIA) have joined forces to hold a standardization symposium in March 2003 at the Omni Shoreham Hotel (the same hotel used for the November 2002 symposium). The DSP Annual Awards will be presented at this symposium.

The symposium theme and proposed tracks will be announced in early Fall. If you would like to propose a speaker or be a speaker, please contact Sharon Strickland, DSPO, at (703) 767-6870, or write to her at sharon_strickland@hq.dla.mil.

Watch for more information at the DSP, AIA, GEIA, and NDIA websites:

DSP: www.dsp.dla.mil
AIA: www.aia-aerospace.org
GEIA: www.geia.org
NDIA: www.info@ndia.org

Other non-government standards bodies may also join our office in partnering to present this symposium. **Members of the DSP community should include this symposium in their FY03 budgets.**

Introducing New Standardization Executives

Presenting James B. Engle

James B. Engle, Deputy Assistant Secretary of the Air Force for Science, Technology and Engineering, is the new Air Force Standardization Executive. He is the senior Air Force official responsible for preparing policy and guidance for science and technology; selected research, development, test, and evaluation programs; systems engineering; weapons systems pollution prevention; and industrial practices. He also develops and provides program management direction for assigned research, development, test, and evaluation activities, and for industrial preparedness and standardization programs. In addition, he provides overall management direction for Air Force-owned industrial facilities.

Before this assignment, Mr. Engle was the Deputy Director of Strategic Planning, Deputy Chief of Staff for Plans and Programs, at Air Force Headquarters, Washington, DC.

Mr. Engle graduated from the University of Arizona in 1970 and 2 years later received a Master's of Science in genetics. In May 2000, he retired from the Air Force in the rank of Colonel and entered the Senior Executive Service.

We are pleased to have Mr. Engle as our Air Force Standardization Executive.

Presenting Ronald J. Dorman

Ronald Dorman is the Principal Director for Interoperability at the Defense Information Systems Agency (DISA) and the new DISA Standardization Executive. He is responsible for achieving end-to-end interoperability between systems within the Global Information Grid through compliance with requisite interoperability standards, regulations guidelines, and life-cycle evaluation, certification, and technical support.

From November 1999 to September 2001, he was the Deputy Director for C41 Program Integration at DISA and managed the development and fielding of the Global Command and Control System, Global Combat Support System, and Defense Message System. He was also responsible for program management of the Information Assurance Electronic Commerce/Electronic Data Interchange programs and components of the Defense Information Systems Network. From 1996 until 1999, he was the Director, Communications and Electronics Division, U.S. Mission to NATO, Brussels, Belgium, where he served as a senior advisor to the U.S. Ambassador to NATO and his Defense Advisor.

The prestigious and varied positions that Mr. Dorman has held throughout his noteworthy career will serve him well as the new DISA Standardization Executive.

Introducing ASTM's Teresa Cendrowska

The Department of Defense welcomes Teresa Cendrowska, ASTM's newly assigned Director for External Relations and ASTM's Washington Representative. She replaces Kitty Kono, who is now ASTM's Vice-President, Global Cooperation.

Ms. Cendrowska's responsibilities include understanding and resolving the needs of the U.S. Congress and government agencies regarding the development and use of ASTM standards, and supporting the initiatives and objectives of ASTM's global cooperation and outreach. Ms. Cendrowska joined ASTM in 1989 and, since 2000, has directed the New Business Development unit. She holds a Bachelor of Science in industrial engineering from the University of Pittsburgh and a Master of Business Administration from Temple University.

Ms. Cendrowska can be reached at (610) 832-9718 or tcendrow@astm.org.



Editor's Corner

Sharon Strickland
Defense Standardization Program Journal

This is the fifth *Defense Standardization Program Journal* published, and we are constantly receiving compliments on our content and style. Much of the success of this publication is due to our contributing authors, and we are grateful for their enthusiastic participation in getting the news out to the standardization community and our partners.

As the editor, I am always seeking articles. We are now going to publish three journals a year and that will mean more demand for written material. I will be glad to send out our editorial guidelines and work with any author to get his or her material shaped into an article. We invite government employees involved in defense standardization, military personnel, and industry leaders to use the *DSP Journal* as a voice.

Send materials to [Sharon Strickland](mailto:sharon_strickland@hq.dla.mil), J-330, Defense Standardization Program Office, J-3, 8725 John J. Kingman Road, Stop 6233, Fort Belvoir, VA 22060-6221, or e-mail materials to sharon_strickland@hq.dla.mil. Materials can be submitted by digital/electronic means (Microsoft Windows-formatted only). Our office reserves the right to modify or reject any submission as deemed appropriate.

Hellos and Farewells

Welcome back Captain Mary Beth Newton, Navy Departmental Standardization Officer. You were missed! Captain Newton recently returned from attending the Advanced Program Management Course, Defense Acquisition University. She arrived back in time to finish one more year as the Navy's DepSO.

David Peveler wrote to say farewell and let our community know that he has moved to another position within the Navy Warfare Development Command and will no longer be involved in International Military Standardization. Your friends and coworkers wish you well as you move into your new position as the coordinator for the Forward Sea-Based Forces Warfare Innovation Development Team (an exciting job looking at future concepts in the areas of amphibious warfare, pre-positioned forces, and logistics).

Jim Pena, Air Force, Battle Creek, MI, recently retired. The Item Reduction Program community will sorely miss his expertise. Enjoy your retirement Jim!

Passings

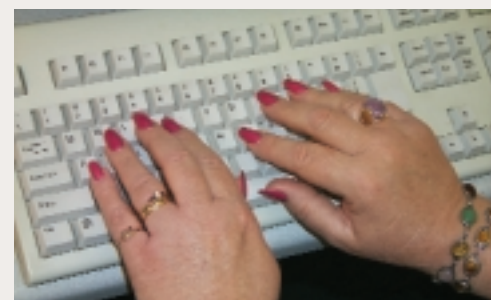
William J. Tangye, Chief Executive Officer, International Code Council (died June 1, 2002, at age 57).

Retired Lt. Gen. Andrew T. McNamara, DLA's First Director (died April 6, 2002, at age 96).

Lawrence D. Eicher, Secretary General of the International Organization for Standards (died March 21, 2002, at age 63).

THE DSP MISSION:

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 and sustain readiness.



Notes



Defense Standardization Program Office

8725 John J. Kingman Road
Stop 6233
Fort Belvoir, VA 22060-6221

(703) 767-6870

Fax (703) 767-6876

www.dsp.dla.mil