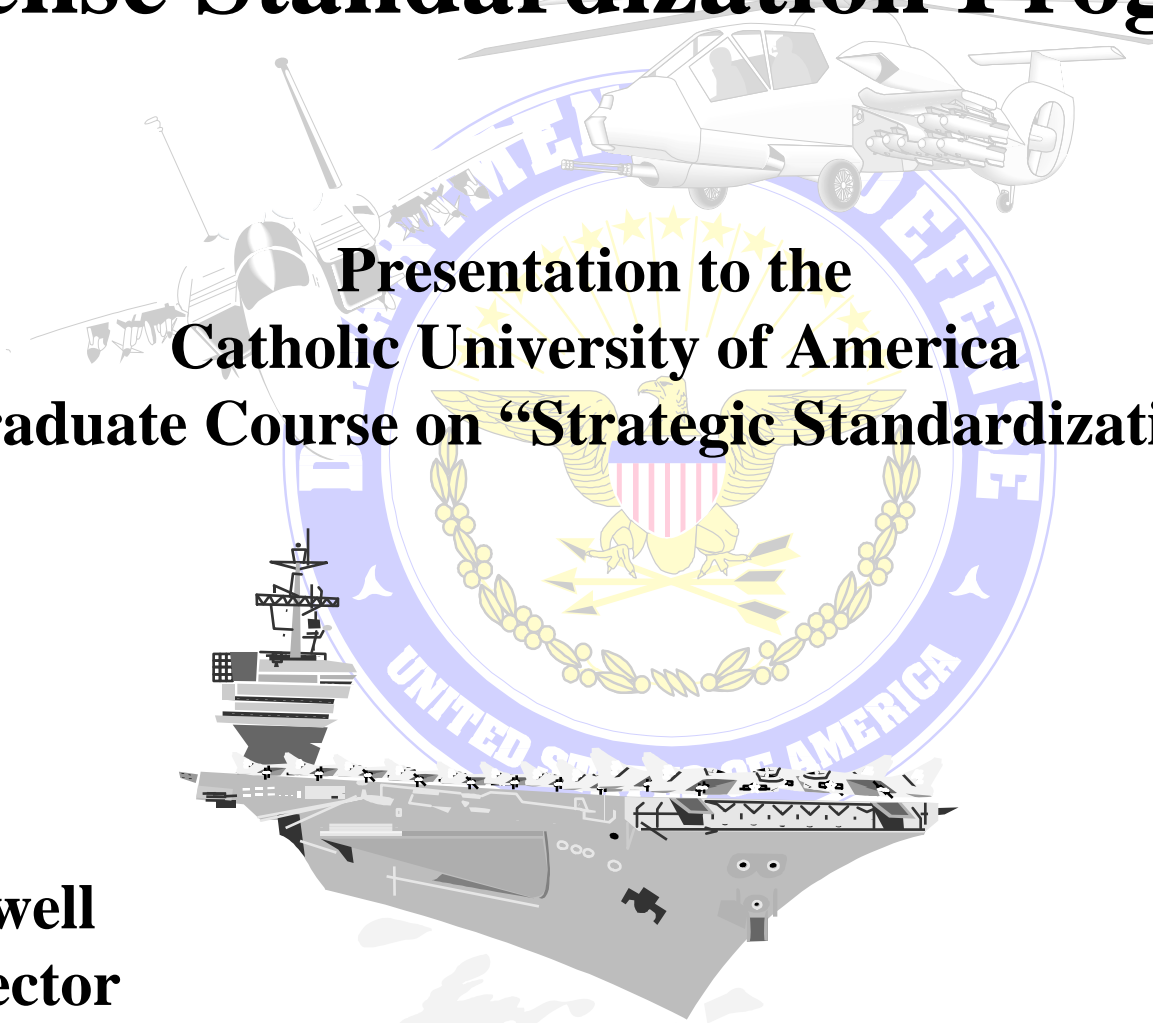


Defense Standardization Program

**Presentation to the
Catholic University of America
Graduate Course on “Strategic Standardization”**

**Stephen Lowell
Deputy Director
Defense Standardization Program Office**



Statutes on Standardization

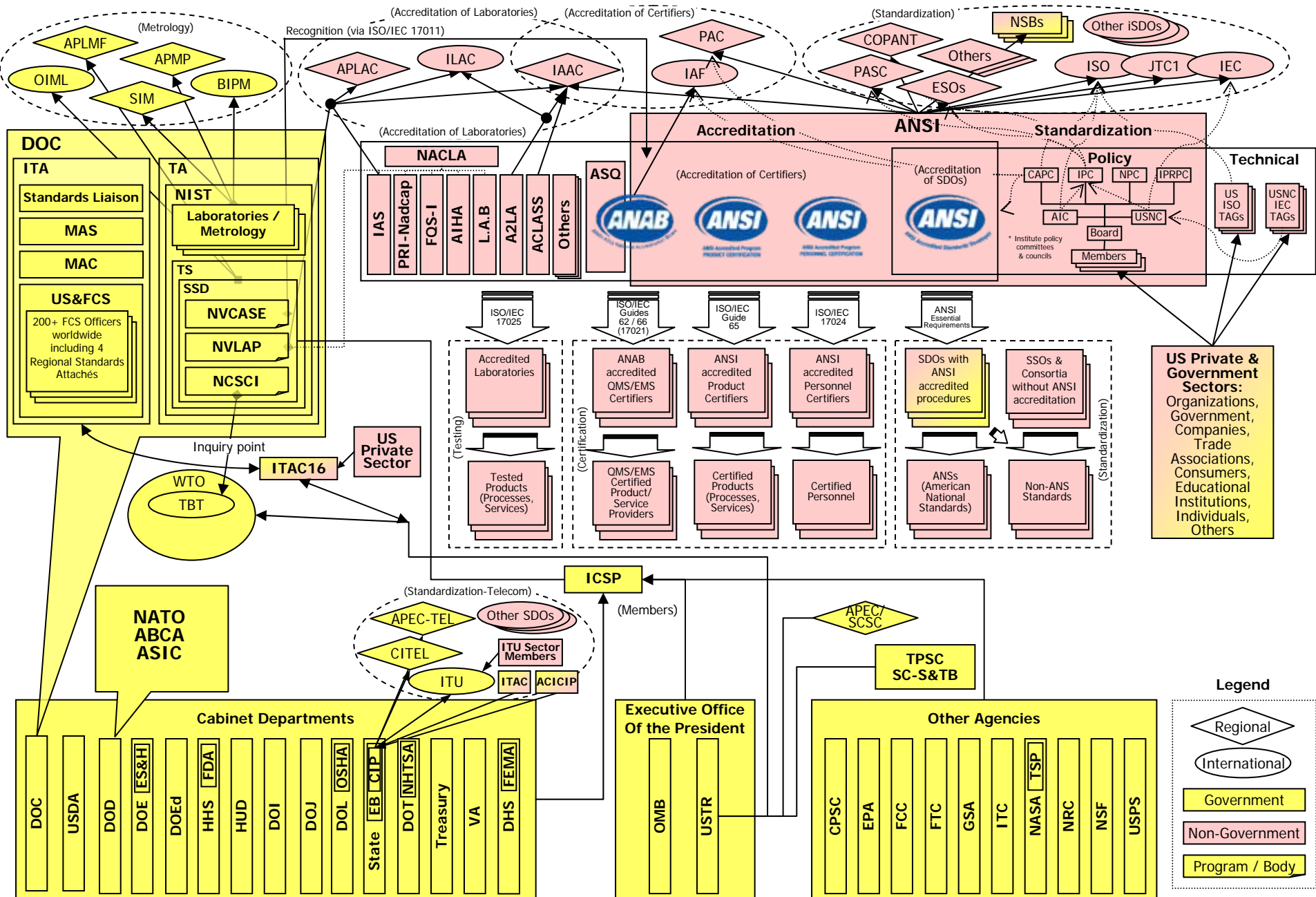
- Public Law 82-436, “Cataloging and Standardization Act”
 - Establishes a Single, Unified Standardization Program in the Department of Defense
 - Requires Standardization of Items Used Throughout DoD to the Highest Degree Practicable

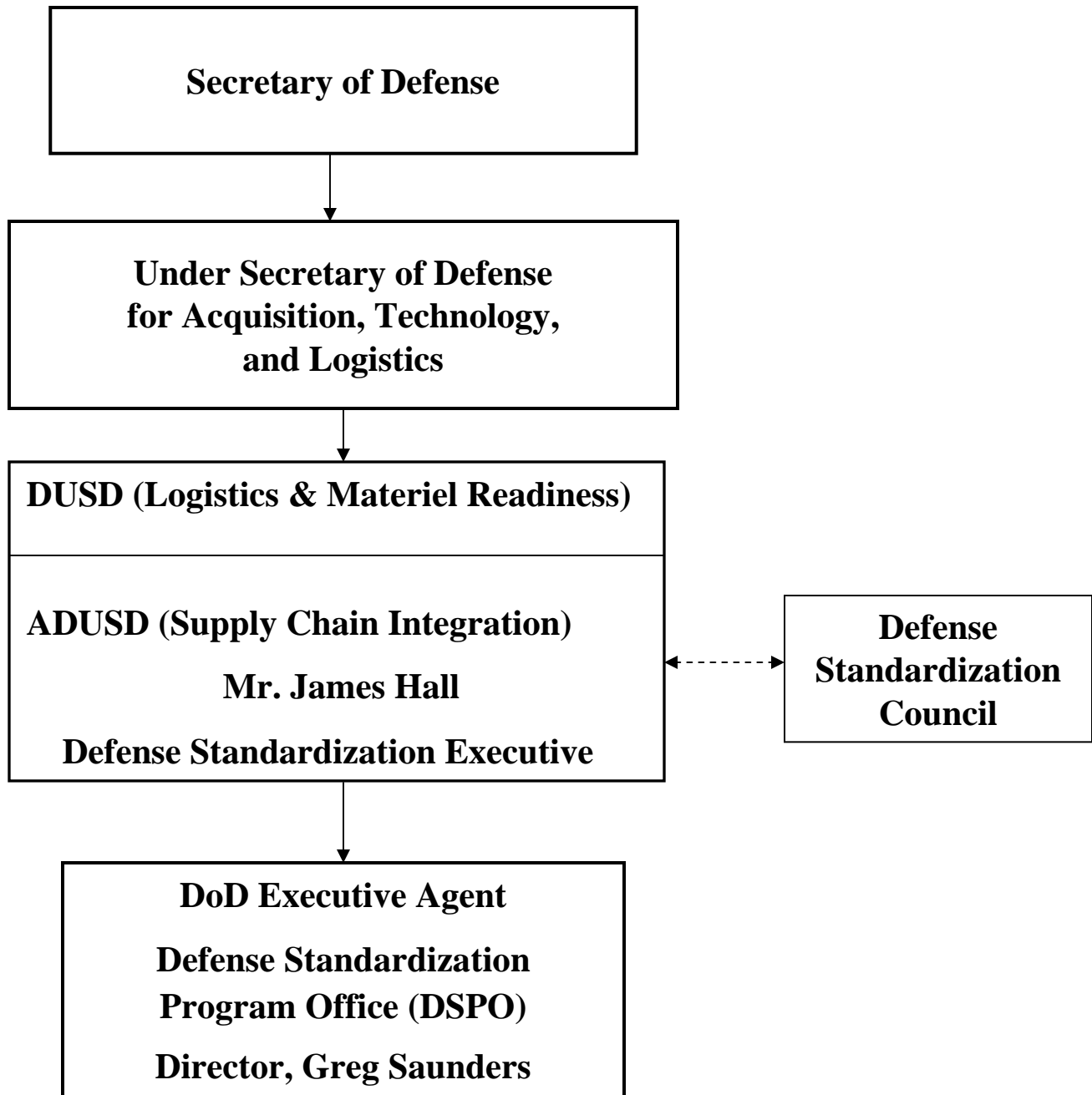
- Public Law 104-113, “National Technology Transfer and Advancement Act”
 - Unless Inconsistent with Law or Impractical, Federal Agencies Should Use Voluntary Consensus Standards
 - Federal Agencies Should Participate in Development of Voluntary Consensus Standards, If Compatible with Agency Mission, Priorities, and Resources

DoD Regulations on Standardization

- DoD Instruction 4120.24, “Defense Standardization Program”
 - Implements Public Law
 - Assigns Responsibilities for Defense Standardization Program
- DoD Manual 4120.24-M, “Defense Standardization Program Policies and Procedures”
 - Establishes the Operating Rules for the Defense Standardization Program

U.S. Standards and Conformity Assessment System





Secretary of Defense

**Under Secretary of Defense
for Acquisition, Technology,
and Logistics**

DUSD (Logistics & Materiel Readiness)

ADUSD (Supply Chain Integration)

Mr. James Hall

Defense Standardization Executive

**Defense
Standardization
Council**

DoD Executive Agent

**Defense Standardization
Program Office (DSPO)**

Director, Greg Saunders

Centrally Managed

DEFENSE STANDARDIZATION PROGRAM OFFICE (DSPO)

ARMY
DepSO*

NAVY
DepSO*

AIR FORCE
DepSO*

DLA
DepSO*

Other DoD
Agencies

MAJOR SUBORDINATE
COMMANDS, CENTERS
(E.G. TACOM)

SYSTEMS COMMANDS
CENTERS
LABORATORIES
TECH. FACILITIES
(E.G. NAVSEA)

FIELD COMMANDS
CENTERS/DIVISIONS
LABORATORIES
DEV. CENTERS
(E.G., ASC, ALCs)

DLA CENTERS
(E.G. DSCC)

MORE THAN 100 STANDARDIZATION OFFICES IDENTIFIED IN SD-1, "STANDARDIZATION DIRECTORY" DEVELOP, ADOPT, REVIEW, AND MAINTAIN STANDARDS

Decentrally Executed

* DepSO = Departmental Standardization Office
**SD-1 available from DSPO website at www.dsp.dla.mil. Click on "Library" and then click on "Standardization Documents Issued by DSPO."

DSP Assignments

- Assignment of DSP Responsibilities Based on Expertise/Interest in
 - Standardization Areas
 - Technologies (e.g. Modeling & Simulation, Quality, Non-Destructive Testing, Human Factors)
 - 40 Standardization Areas
 - Federal Supply Classes (FSCs)
 - Products (e.g., Munitions, Hoses, Batteries, Clothing, Test Equipment, etc.)
 - 646 FSCs

DSP Assignments

- Lead Standardization Activity (LSA)
 - One for Each Standardization Area or Federal Supply Class
 - Approves Project to Develop or Adopt Standards
 - Influences Standardization Direction
- Preparing Activity
 - Prepares DoD Specifications, Standards, and Handbooks
 - Coordinates Documents for Comment
 - Resolves Comments
 - Submits Documents to ASSIST Database Using Electronic Document Submission Tool
 - Point of Contact for Questions and Problems
- Adopting Activity
 - Adopts Non-Government Standards for DoD Use
 - DoD POC to Represent DoD Position to Non-Government Standards Developing Organization
- Document Review Activity
 - Provides “Official” Organization Comments on Documents Prepared by Other DoD Organizations

Types of Standards Used by DoD

Military Specifications - Defines requirements & tests for military unique items

Military Standards - Defines requirements for military unique processes, test methods, practices

Military Handbook - Provides guidance for selection of items or engineering approaches

International Standardization Agreement (ISA) - An agreement between treaty organization nations to standardize on interfaces, material, parts, equipment, etc. for military purposes. This is not an private sector international standards, such as ISO, IEC.

Federal Specifications - Defines requirements & tests for government unique items

Federal Standards - Defines requirements for government unique processes, test methods, practices

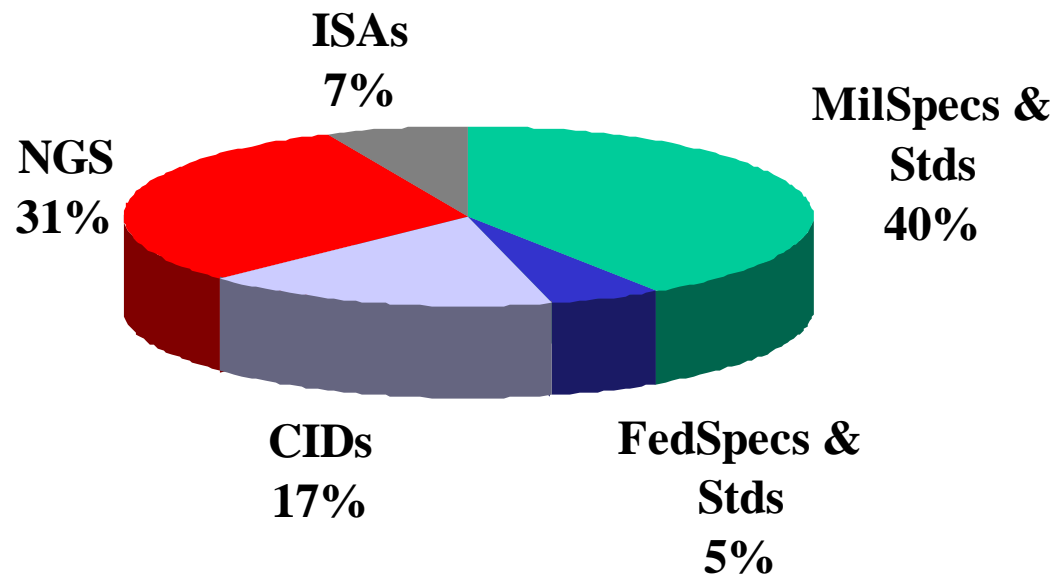
Commercial Item Description (CID) - Defines requirements of items commercially available

Non-Government Standard (NGS) - Also known as a voluntary consensus standard, it is a standardization document developed by a national or international private sector association, organization, or technical society that plans, develops, establishes, or coordinates standards, specifications, handbooks, and related documents. It does not include company standards.

Types of Standardization Documents Used by DoD

(29,000+ Active Documents)

As of Feb 7, 2008



NGS = Non-Government Standard

CID = Commercial Item Description

ISA = International Standardization Agreement, e.g. NATO STANAG

WHY DOD STANDARDIZES

IMPROVE OPERATIONAL CAPABILITIES

- Joint Service Operations
- Coalition Warfare
- Higher Reliability
- Readily Available Parts & Supplies
- New Technology Insertion

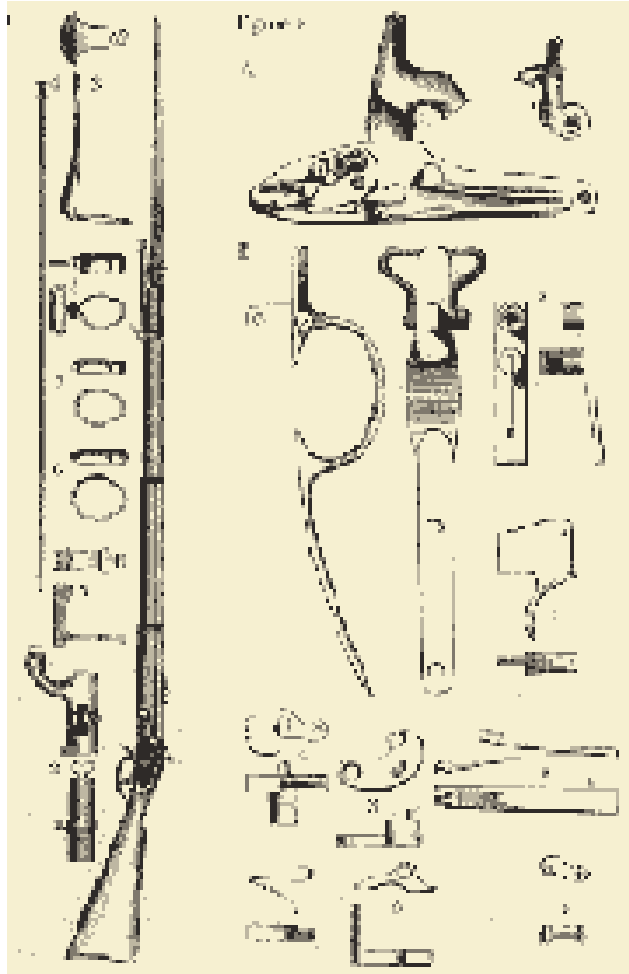
REDUCE COSTS

- Larger Economical Buys
- Less Inventory
- Reduce Development Cost
- Common Training
- Reduced Maintenance Costs

OTHER REASONS

- Competition
- Less Misunderstanding Between Government & Contractor
- Reduce Development Risk
- Support U.S. Industrial Base

U.S. military laid foundation for industrial standardization



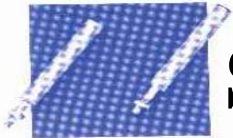
Eli Whitney's use of standard interchangeable parts to manufacture 10,000 muskets for U.S. military in early 19th century is considered the beginning of modern mass production

Standardization is vital for military success



- Operation Enduring Freedom
- U.S. F/A-18 Hornets receive fuel from British VC-10 tanker
- STANAG 3447, “Aerial Refueling Equipment”

REDUCE COSTS



A. Stud Type Spacer
NAS 1829

Standardizing on Aerospace Spacers:



B. Swage Type Spacer
NAS 1830

Reduced inventory by over 1200 types of spacers



C. Conventional Spacer
NAS 1831

Cost avoidance of \$6M over 5 year period

What happens when you don't standardize



Photo of 10% of the 5000 Different Batteries Used by DoD

Good Standardization



BA-5590/5390

Non-rechargeable battery
(uses standard military cell
per MIL-PRF-49471/3)



BB-2590

Rechargeable battery
(uses standard commercial cell
per MIL-PRF-32052)

These batteries support 122 known end items



Over 138 types of unmanned aircraft systems*

- They can't communicate
- They don't share information
- There is no common control

THE ANSWER: STANDARDS

*2003 National Defense Industries Association Study



Boeing ScanEagle



- Complies with NATO Standard 4586
 - Allows information to be shared real-time across common ground interface
 - Allows allies to access and use equipment of through common interfaces
- Public Law 109-163, Sec 141 requires tactical unmanned aerial vehicles comply with NATO STANAG 4586

ASSIST Database

- Acquisition Streamlining & Standardization Information System (ASSIST)
 - Over 140,000 Online Documents (Includes Active & Historical Documents)
 - Online Tool to Request Standardization Project Approval and to Coordinate Documents
 - Identifies Points of Contact
 - Identifies Document Update Actions
 - Links to Related Qualified Product Lists, International Standardization Agreements, etc.
 - Link to Weapon System Impact Tool (WSIT) to Identify Standards Use
 - Management Reports
 - <http://assist.daps.dla.mil/online>
 - Password Required

ASSISTDOCS.COM

➤ ASSISTDOCS.COM

- Unrestricted Documents Available Online
- Far Less Information Than Full ASSIST Database
- No Password Needed



Document Analysis

Document Details - General

Document ID: MIL-STD-961E Scroll down to access document images.

Overview

Title: DEFENSE AND PROGRAM-UNIQUE SPECIFICATIONS FORMAT AND CONTENT

Scope: This standard establishes the format and content requirements for the preparation of defense specifications and program-unique specifications prepared either by DOD activities or by contractors for the DOD.

Status: Active

Document Date: 01-AUG-2003

FSC/Area: SDMP

Dist Stmt: A

Doc Category: Standard Practice

AMSC Number:

Responsibilities

Lead Standardization Activity: [SO](#) Executive Agent for the Defense Standardization Program

Preparing Activity: [SO](#) Executive Agent for the Defense Standardization Program

Coordination: Full

Army Custodian: [AR](#) US Army Research Devlp & Engr Command, Armament Research Devlp & Engr Cente

Navy Custodian: [SH](#) Naval Sea Systems Command (Ship Systems)

Air Force Custodian: [11](#) Aeronautical Systems Center

DLA Custodian: [DH](#) Defense Logistics Agency (DepSO)

Other Custodian:

Media	Document Part Description	Document Date	Pages	Size
	Revision E Change 1 (change incorporated)	02-APR-2008	120	899.0 KB
	Revision E	01-AUG-2003	111	559.6 KB
	Revision D Change Notice 1	22-AUG-1995	56	140.5 KB
	Revision D	22-MAR-1995	113	403.5 KB
	Revision C Change Notice 1	08-NOV-1988	6	213.6 KB
	Revision C	20-MAY-1988	134	5173.2 KB
	Revision B	31-MAY-1985	115	4499.4 KB

- General
- References
- Reviewer Interest
- Intl Agreements
- Sec 6 Keywords
- DIDs
- Fundamentals

- Report Library
- FAQs
- Main Menu
- Logout



DoD Contacts (SD-1)

Points of Contact by Activity

Standardization Management Activity: S0

Technical Point of Contact

Name:	Steve Lowell
Email Address:	stephen.lowell@dla.mil
Address:	Defense Standardization Program Office Attn: J-307, Stop 6233 8725 John J. Kingman Fort Belvoir, VA 22060-6221 USA
DSN Phone:	427-6879
DSN Fax:	427-6876
Commercial Phone:	703-767-6879
Commercial Fax:	703-767-6876

Other Point(s) of Contact

POC	Address
Mr. Greg Saunders	Defense Standardization Program Office, Attn: J-307, Stop 6233
Karen Bond	Defense Standardization Program Office, Attn: J-307, Stop 6233



Document Automation and Production Service, Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.
 If you have any questions, please contact the appropriate ASSIST-Help Desk team:
 Account/Password Issues: 215-697-6396 or 215-697-6257 [DSN: 442-6396 or 442-6257].
[Privacy and Security Information](#) and [Section 508 Compliance Information](#). Questions or comments: [ASSIST Feedback](#).





User Profile

Menu

- Doc Analysis
- Doc Management
- Review Drafts
- DoD Contacts
- DoD Projects
- HAZMATs / ODCs
- DIDs
- ISAs
- Acq Analysis
- Qualification
- WSIT
- PMT

- User Profile
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- NGS Adopted
- Main Menu
- Logout

- DSP Home Page
- NSSN Search
- Shopping Wizard

Admin Modules

- ▶ Submit Document
- ▶ User Feedback

[Account Profile Maintenance](#)

Allows you to modify point of contact information such as your mailing address, phone numbers, and e-mail address. Also provides the ability to turn off e-mail notification distribution based on other profile settings.

[My Alert Portal](#)

Provides the ability to view the items of interest to you that have changed during the past two weeks. These items can be specified by you as part of your profile and include: individual documents, documents associated with selected FSC/Areas, DIDs, and/or MS Drawings.

[Alert Portal Profile Maintenance - Documents Criteria](#)

Provides the ability to add and/or delete specific documents from the listing associated with your profile.

[Alert Portal Profile Maintenance - FSC/Area Criteria](#)

Provides the ability to add and/or delete specific FSC/Areas from the listing associated with your profile.

[Multiuser Extended Validation Notice](#)

Provides the ability to submit requests for approval or rejection of overlaid documents to the administrator. This release of the EVN features multiuser capabilities. This means that other people within your preparing activity may be able to see and work with the documents that are in your portal.



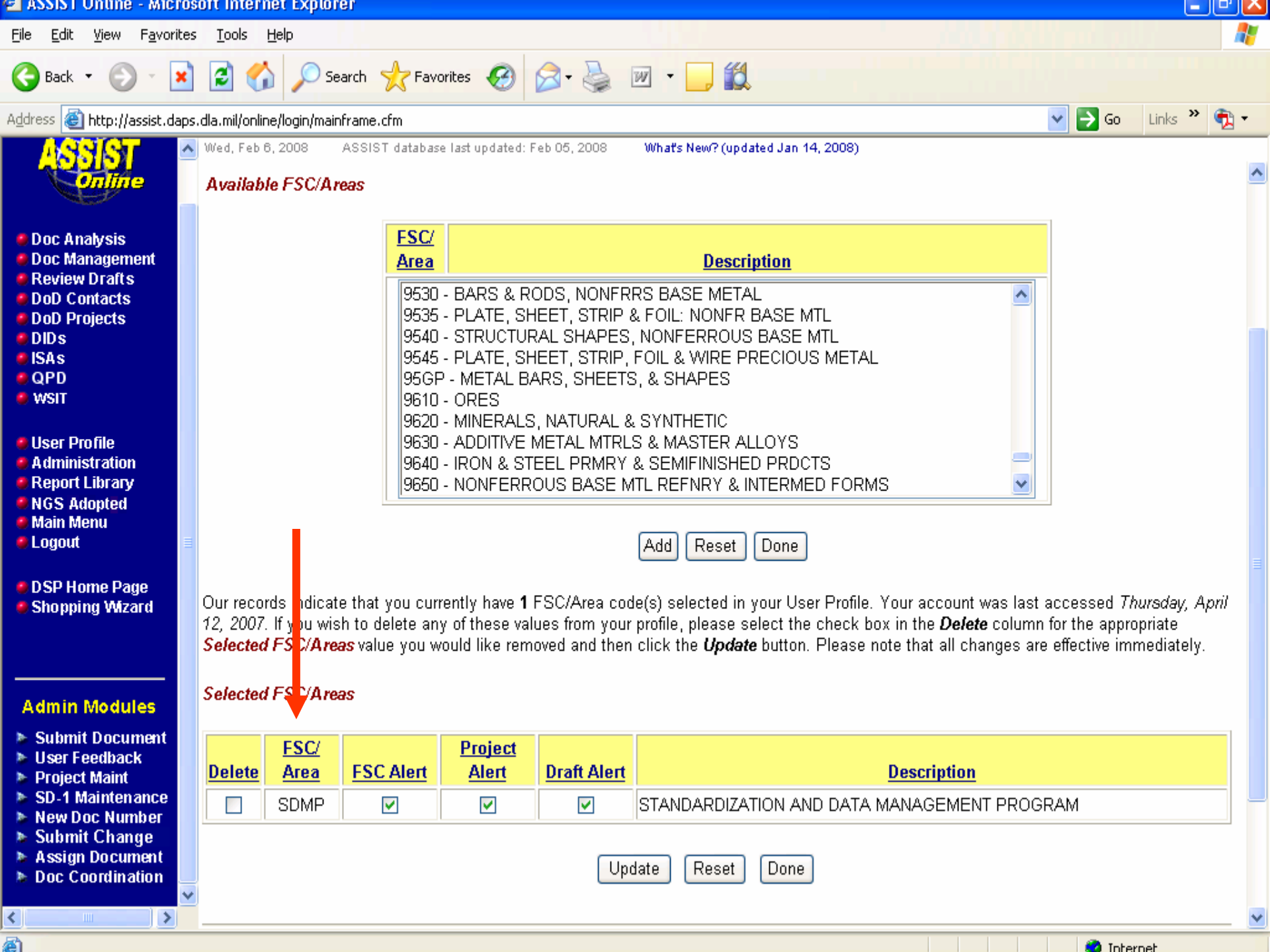
Document Automation and Production Service, Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

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[Privacy and Security Information](#) and [Section 508 Compliance Information](#). Questions or comments: [ASSIST Feedback](#).



WARNING: UNAUTHORIZED ACCESS TO THIS UNITED STATES GOVERNMENT COMPUTER SYSTEM AND SOFTWARE IS PROHIBITED BY PUBLIC LAW 99-474 (THE COMPUTER FRAUD AND ABUSE ACT OF 1986) AND CAN RESULT IN ADMINISTRATIVE, DISCIPLINARY OR CRIMINAL PROCEEDINGS.



Available FSC/Areas

<u>FSC/ Area</u>	<u>Description</u>
9530	BARS & RODS, NONFRRS BASE METAL
9535	PLATE, SHEET, STRIP & FOIL: NONFR BASE MTL
9540	STRUCTURAL SHAPES, NONFERROUS BASE MTL
9545	PLATE, SHEET, STRIP, FOIL & WIRE PRECIOUS METAL
95GP	METAL BARS, SHEETS, & SHAPES
9610	ORES
9620	MINERALS, NATURAL & SYNTHETIC
9630	ADDITIVE METAL MTRLS & MASTER ALLOYS
9640	IRON & STEEL PRMRY & SEMIFINISHED PRDCTS
9650	NONFERROUS BASE MTL REFNRY & INTERMED FORMS

Add Reset Done

Our records indicate that you currently have 1 FSC/Area code(s) selected in your User Profile. Your account was last accessed Thursday, April 12, 2007. If you wish to delete any of these values from your profile, please select the check box in the **Delete** column for the appropriate **Selected FSC/Areas** value you would like removed and then click the **Update** button. Please note that all changes are effective immediately.

Selected FSC/Areas

<u>Delete</u>	<u>FSC/ Area</u>	<u>FSC Alert</u>	<u>Project Alert</u>	<u>Draft Alert</u>	<u>Description</u>
<input type="checkbox"/>	SDMP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	STANDARDIZATION AND DATA MANAGEMENT PROGRAM

Update Reset Done

- ASSIST Online**
- Doc Analysis
- Doc Management
- Review Drafts
- DoD Contacts
- DoD Projects
- DIDs
- ISAs
- QPD
- WSIT
- User Profile
- Administration
- Report Library
- NGS Adopted
- Main Menu
- Logout
- DSP Home Page
- Shopping Wizard
- Admin Modules**
- ▶ Submit Document
- ▶ User Feedback
- ▶ Project Maint
- ▶ SD-1 Maintenance
- ▶ New Doc Number
- ▶ Submit Change
- ▶ Assign Document
- ▶ Doc Coordination



- Doc Analysis
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Tue, Feb 5, 2008 ASSIST database last updated: Feb 04, 2008 What's New? (updated Jan 14, 2008)

ASSIST



[search](#) [overview](#) [report roadmap](#) [functional zoom](#) [alert portal](#) [help](#)

Go directly to your Alert Portal



The Official Source of
*DoD Standards
and Specifications*



Welcome STEVE LOWELL

» email: stephen.lowell@dlm.mil
» logon (this session): Feb 05, 2008 07:51:38 AM
» last logon: Feb 04, 2008 02:25:31 PM
» please change your password by Mar 10, 2008
» [click here to edit your profile](#)



acquisition streamlining and standardization information system



Document Automation and Production Service, Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

If you have any questions, please contact the appropriate ASSIST-Help Desk team:





Weapon System Impact Tool

Query By: NSN | Specification | WSDC | Specification & WSDC

[WHAT'S NEW](#)

Enter a National Stock Number or Specification Document Number or Weapon System Designator Code
(Sample Inputs: 02F (WSDC) or MIL-STD-130M (Specification) or 5340000000057 (National Stock Number))

Lookup: National Stock Number, Specification Document, Weapon System Designator Code

[Help us make WSIT better, click here.](#)

Query History

Today
[None]

Yesterday
5905011283428
MIL-PRF-55342H-43N
MIL-PRF-55342H

Advanced search types:

Query by National Stock Number (NSN)
 Query by NSN allows the user to view all weapon systems the NSN is used in along with the specification documents that govern the use. The results returned by the query include the specification document number, the weapon

Query by Specification Document Number
 This query allows the user to view all the weapon systems affected by a specification. The results returned by the query include the specification document number, a description of the specification, along with the designator code and

Specification Document Number[?]

MIL-PRF-55342H

Document Description[?]

RESISTORS, CHIP, FIXED, FILM, NONESTABLISHED RELIABILITY, ESTABLISHED RELIABILITY, SPACE LEVEL, GENERAL SPECIFICATION FOR

Document Scope[?]

This specification covers the general requirements for nonestablished reliability (non-ER), established reliability (ER), and space level, fixed, film, chip resistors primarily intended for incorporation into surface mount and hybrid circuit applications. These resistors have a high degree of stability with respect to time under normal conditions. ER resistors covered by this specification have life failure rates (FR) ranging from 1 percent to 0.001 percent per 1,000 hours (see 1.2.7). These FRs are established at 60 percent confidence on the basis of life tests. Table I provides a summary of performance characteristics for these resistors.

Document Date[?]

2007-10-15 00:00:00.0

FSC Area[?]

Resistors (5905)

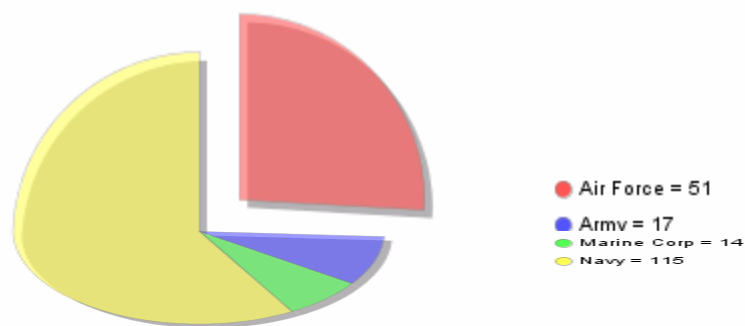
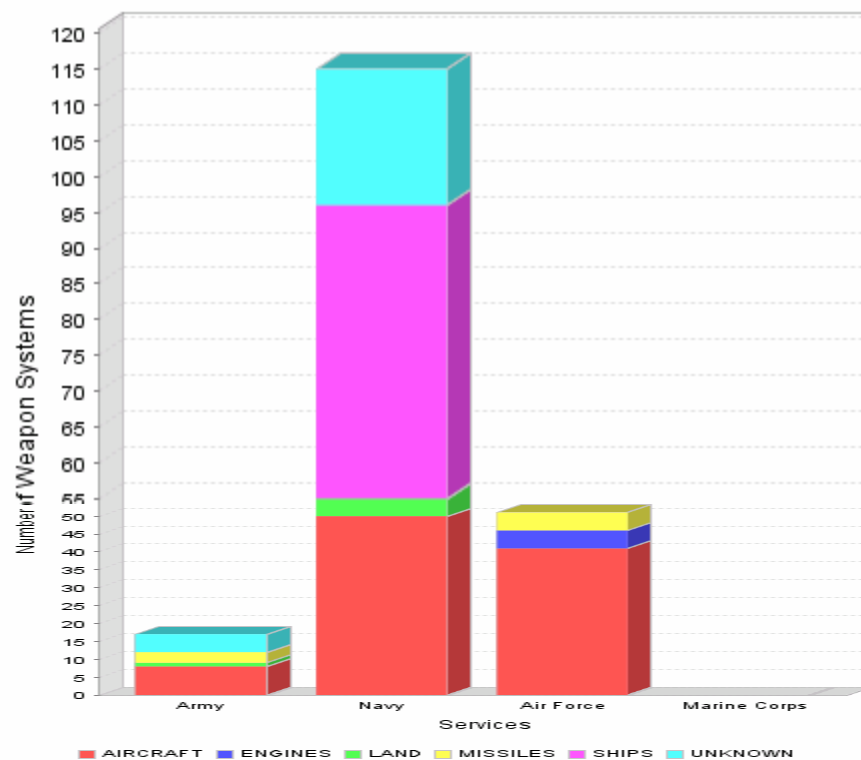
Preparing Activity[?]

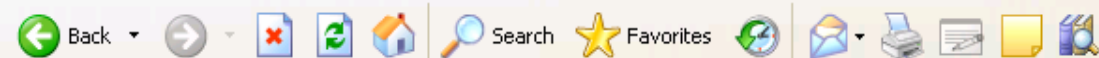
Communications - Electronics Command (CR)

Distribution Code[?]

Approved for public release; distribution is unlimited. (A)

NOTE: More information about this document can be found on the ASSIST website MIL-PRF-55342H [\[doc\]](#)

Weapon Systems Per Service**Weapon Types Per Service**



Results 1 - 50 of 198

[Download](#)

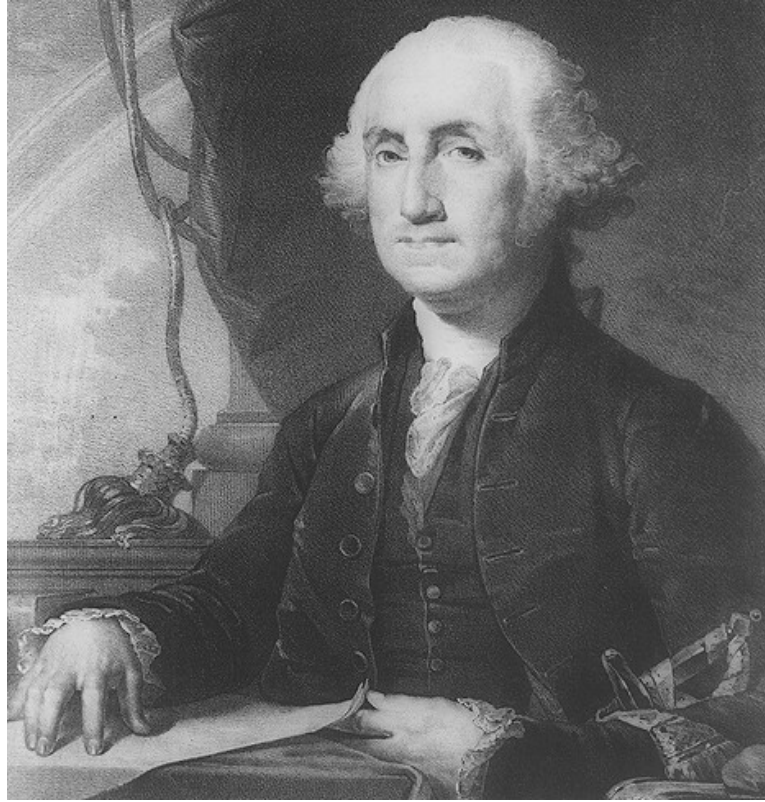
Specification Document Number : MIL-PRF-55342H::RESISTORS, CHIP, FIXED, FILM, NONESTABLISHED RELIABILITY, ESTABLISHED RELIABILITY, SPACE LEVEL, GENERAL SPECIFICATION FOR

[Print](#)

#	Weapon System Designator Code (WSDC) [?]	Weapon System Description [?]	No. of NSN References [?]
1	43N	AIRCRAFT, HORNET F/A-18	298
2	JAN	NIMITZ CLASS CVN	286
3	JKN	WASP CLASS LHD	282
4	JLN	TARAWA CLASS LHA	254
5	HZN	FORRESTAL CLASS CV	252
6	VUN	AIRCRAFT, HORNET F/A-18 (E/F)	227
7	45N	AIRCRAFT, PROWLER EA-6B	191
8	ATF	AIRCRAFT, SOF (AC-130H, MC-130H, EC-130E, HC-130, MC-130W)	181
9	JDN	ARLEIGH BURKE CLASS DDG	177
10	26F	AIRCRAFT, F-16	176
11	JFN	OLIVER PERRY CLASS FFG	174
12	FMF	AIRCRAFT,B-2 BOMBER (ATB)	173
13	10N	AIRCRAFT, TOMCAT F-14	172
14	55N	AIRCRAFT, HARRIER AV-8B	165
15	44N	HELICOPTER, LAMPS MARK III, SH-60B	163
16	EZN	TICONDEROGA CLASS CG (47)	154
17	25F	AIRCRAFT, AWACS, E-3A	151
18	ZDN	LPD-17 CLASS AMPHIBIOUS TRANSPORT DOCK	151
19	JSN	WHIDBEY ISLAND CLASS LSD	150
20	17N	AIRCRAFT, HAWKEYE E-2C	143
21	EDN	LANDING CRAFT AIR CUSHION (LCAC)	143
22	SZN	2M/ATE MICROMINIAUTURE AUTOMATIC TEST EQUIPMENT	142
23	Y1N	HELICOPTER, SEAHAWK, H-60	129

DSP Web Site

- Defense Standardization Program Web Site:
www.dsp.dla.mil
 - DoD Standardization Policies & Procedures
 - Online Document Access
 - Online Standardization Case Studies
 - DoD Standardization Journals
 - Frequently Asked Questions
 - Links to Other Government Standards Offices



“It is essential [to the defense of the Republic] that the same species of arms, accoutrements, and military apparatus should be introduced in every part of the United States. No one, who has not learned it from experience, can conceive the difficulty, expense, and confusion, which result from a contrary system.”

Letter from George Washington in 1783 to the governors of the 13 states disbanding the Continental Army