

## **U.S. Military Standards: Effective Acquisition, Reference and Use**

U.S. military standards (also referred to as military specifications, MIL-STDs, or MIL-SPECs) were originally created by the Department of Defense (DoD) to ensure the standardization of products and services to be produced and used by the U.S. military.

Despite efforts by the DoD in recent years to reduce the reliance on military standards in favor of commercial standards, the fact remains that thousands of companies still use military standards produced by the DoD for everything from design to manufacturing, and quality control to maintenance of military and non-military-related equipment and services.

Although the terms "military standard" and "military specification" are often used interchangeably, according to The Government Accountability Office there is a distinct difference between the two: military specifications "describe the physical and/or operational characteristics of a product"; military standards "detail the processes and materials to be used to make the product." For the sake of this article, we will use the terms interchangeably.

### **MILITARY USES FOR MILITARY STANDARDS**

The most obvious use of military standards involves a company developing a product or service for the U.S. Military. Under such circumstances, military standards and/or commercial standards, such as ISO 9000 standards, would be involved.

In the case of military standards being used for defense contracts, for example, the contracting company would first identify and acquire the standards required for the product or service being produced. With the military standards in hand, the company proceeds through the product or service development cycle, ensuring they comply with the details of the standards in question. Ideally, the military standards are in place to ensure the various products and services produced, though developed by various companies, will seamlessly work with each other while meeting identified requirements and reliability measurements.

### **NON-MILITARY AND MARKETING USES FOR MILITARY STANDARDS**

Non-military products and services are also developed to military standards every day, especially in industries where consumer safety is a factor. Since the standards are both free and considered reliable, any company can use military standards as a cost effective method for building in validated, quantifiable quality into their products and services.

Marketing considerations also motivate companies to use military standards. For example, the U.S. Military's universal image of ruggedness is inherently implied in any product developed – and advertised as such – to meet a military standard. A prime example involves notebook computer manufacturers using military standards MIL-STD 810F and MIL STD 810E, among others, to validate marketing claims of "ruggedness." Even the U.S. Army Developmental Test Command website's description of MIL-STD 810F sounds something like a marketing pitch: "When applied properly, the environmental management and engineering processes described in this standard can be of enormous value in generating confidence in the environmental worthiness and overall durability of material system design."

<http://www.dtc.army.mil/navigator/>

### **MILITARY STANDARDS AND PRODUCT LIFECYCLES**

Whether serving military, non-military or marketing motivations, military standards act as well-defined maps across a product or service's entire lifecycle. For example, in the case of the rugged notebook computers, the military standards in question can initially guide the manufacturers in matters of product design. Having designed a computer that meets the standards' specifications, the standards can then act as a filtering mechanism in terms of procurement of materials to be used in the construction of the computers. The manufacturing process can similarly be informed by the details of the military specifications, as can quality control. Finally, the computer's lifecycle – and the military standards' work – is complete when maintenance of the product becomes an issue.

#### ARE FREE AND FREELY ACCESSIBLE MILITARY STANDARDS A GOOD THING?

As mentioned earlier, since 1994, the DoD has made efforts to reduce the reliance on military standards in favor of commercial standards, mainly ISO 9000 standards (referred to as Q9000 in the U.S.). At the same time, thousands of military standards are yet to be replaced by commercial standards. The move to commercial standards is designed to remove the Military's burden of funding the development and deployment of standards. In 1995, however, the DoD's position reversed somewhat toward once again embracing the use of military standards.

Finding military standards is easier today than ever. Many websites supply lists of free downloadable versions. Although such freedom of information may appear good at first, a large number of the military standards available were created decades ago by the DoD, and have often been replaced by updated versions. Without a centralized access point to military standards that allows the cataloguing and comparison necessary to determine the latest standards available, finding a particular military standard can actually become a company liability instead of an asset.

#### IHS AND MILITARY STANDARDS

IHS (<http://www.ihs.com>) provides solutions for companies using U.S. military standards and specifications. IHS gathers these standards into its databases where they're catalogued and categorized for easy online searching. Versions are tracked, old versions are maintained and archived for reference purposes, and applications are provided to allow companies to manage the various documents they use. By creating a centralized access point to military standards, IHS makes it easy to acquire, reference and use U.S. military standards.