

Index of Government Standards on Human Engineering Design Criteria, Processes, and Procedures

This listing is reasonably current as of August 2009, and is as accurate as the various indexes, data bases, and web sites that were used as sources. Document selection is a function of how one defines "human engineering," "human factors," "ergonomics," and "standard." Moreover, titles may not disclose the human factors nature of a document's content. The documents were not carefully reviewed and evaluated prior to listing.

While documents clearly identified as standards are included in the list, some standards-like documents may also be included. Some are titled as guides, preferred practices, or similar; however, they are written in the manner of standards, i.e., they contain provisions with traditional action verbs (shall/should/may) and bear a standard identifier number. This *Index* is initially limited to documents designated by numbered identifiers. Because of their shear volume, technical reports related to human factors have purposely been omitted.

It should be noted that the date shown is that of the basic document; it is possible that there may be amendments, notice changes, or validations that would have a later date. The scope was taken directly from the document; the intent is to give the reader some information regarding the document's contents. The web site link is only one source where the document can be obtained; other sources may exist.

This listing is by no means complete; suggestions for additions or corrections are always welcome, and should be sent to aposton86@gmail.com

Department of Defense

The web site listed for Department of Defense documents will take the user to the "home" page for the document. There, the user will be able to access any amendments, notice changes, or validations to the revision listed below.

MIL-STD-882D, Standard Practice for System Safety, February 10, 2000.

Scope: This document outlines a standard practice for conducting system safety.

http://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=36027

MIL-STD-1472F, Human Engineering, August 23, 1999.

Scope: This standard establishes general human engineering design criteria for military systems, subsystems, equipment, and facilities.

http://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=36903

MIL-STD-1474D, Noise Limits, February 12, 1997.

Scope: This standard establishes acoustical noise limits and prescribes testing requirements and measurement techniques for determining conformance to the noise limits specified herein.

http://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=36905

MIL-STD-1477C, Symbols for Army Systems Displays, September 30, 1996.

Scope: This standard prescribes the physical characteristics of ground and air track symbols, units/installation symbols, control measure symbols, equipment symbols, and associated alphanumeric information for U.S. Army Combined Arms system displays which are generated by electronic, optic, or infrared technology and presents information in real time or near-real time.

http://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=69268

MIL-STD-1787C, Aircraft Display Symbology, January 5, 2001.

Scope: This standard defines the symbology requirements for a primary flight reference and describes some fundamental relationships between symbol motion and aircraft system states. It describes symbols, symbol formats, and information content for electro-optical displays that provide aircrew members with information for takeoff, navigation, terrain following and terrain

avoidance, weapon delivery, and landing. It also provides (in appendixes) non-binding information on symbol geometry, fonts, recommended dimensions, and mechanizations.

This is a controlled distribution document.

DOD-HDBK-743A, Anthropometry of U.S. Military Personnel, February 13, 1991.

Scope: This handbook presents body size information on the military personnel of the United States in the form of anthropometric data. These data are suitable for human factors engineering applications in the design and development of military systems, equipment, and materiel and in the design and sizing of military clothing and personal equipment.

http://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=54083

MIL-HDBK-759C, Human Engineering Design Guidelines, July 31, 1995.

Scope: This handbook provides human engineering design guidelines and reference data for design of military systems, equipment, and facilities.

http://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=54086

MIL-HDBK-767, Design Guidance for Interior Noise Reduction in Light-Armored Tracked Vehicles, September 17, 1993.

Scope: Techniques available to reduce interior noise in light-armored tracked vehicles are discussed. Emphasis is on those sources that have their major effect on interior noise. Exterior noise is addressed only as a result of having reduced interior noise.

http://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=112000

MIL-HDBK-1473A, Color and Marking of Army Materiel, August 29, 1997.

Scope: This handbook provides general guidelines for color and marking of Army materiel. It does not cover finishes, surface preparations, related treatments for preservation and coating, or special requirements specified by Army design activities.

http://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=200029

MIL-HDBK-1908B, Definitions of Human Factors Terms, August 16, 1999.

Scope: This handbook defines terms frequently used in human factors standardization documents by providing common meanings of such terms to ensure that they will be interpreted consistently and in the manner intended.

http://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=121264

MIL-HDBK-46855A, Human Engineering Program Process and Procedures, May 17, 1999.

Scope: This handbook provides human engineering (HE) program tasks, procedures and preferred practices, and methods for application to system acquisition. The program tasks outline the work to be accomplished by a contractor or subcontractor in conducting an HE effort integrated with the total system engineering and development effort. They serve as a basis for offerors to provide HE program information during the solicitation process.

http://assist.daps.dla.mil/quicksearch/basic_profile.cfm?ident_number=201925

Department of Energy

DOE-HDBK-1140-2001, Human Factors/Ergonomics Handbook for the Design for Ease of Maintenance, February 2001.

Scope: This standard establishes system maintainability design criteria for DOE systems, subsystems, equipment, and facilities.

http://www.hss.doe.gov/nuclearsafety/ns/techstds/standard/hdbk1140/HDBK11402001_Part1.pdf (Note: This handbook is in 3 parts.)

Department of Transportation

Federal Aviation Administration

HF-STD-001, Human Factors Design Standard, May 2003.

Scope: The purpose of this Human Factors Design Standard is to provide a single easy-to-use source of human factors design criteria oriented to the needs of the FAA mission and systems. An additional goal is to facilitate use of appropriate design criteria by organizing the document so that users can easily locate the needed information.

<http://hf.tc.faa.gov/hfds>

HF-STD-002, Baseline Requirements for Color Use in Air Traffic Control Displays, April 26, 2007.

Scope: This standard establishes Federal Aviation Administration requirements to prevent generic problems associated with color use in general Air Traffic Control (ATC) displays. This standard also establishes a systematic method to assess the benefits and the

potential disadvantages of color use in ATC displays from an ATC operational perspective to ensure that the use of color enhances task performance and does not introduce undesirable safety risks.

<http://www.hf.faa.gov/portal/techrptdetails.aspx?id=2025>

HF-STD-003, Alarms and Alerts in the Technical Operations Environment, August 31, 2009.

Scope: This standard has been generated for use by all organizations of the Federal Aviation Administration (FAA). It is intended to provide design criteria and guidance for the presentation of alarm and alert signals to the Technical Operations (TO) environment. This standard establishes FAA requirements to apply when a new or modified system or subsystem with an alarm and alert component is designed, developed, or acquired. Although this standard will be applied on a system-by-system basis, the requirements and design criteria also apply if the entire alarm and alert system within a facility is redesigned.

<http://www.hf.faa.gov/portal/techrptdetails.aspx?id=2116>

HF-STD-004, Requirements for a Human Factors Program, June 1, 2009.

Scope: This standard establishes and defines the requirements for applying human factors to systems, equipment (hardware and software), and facilities developed for, and acquired by, the Federal Aviation Administration (FAA). These requirements include the work to be accomplished by a contractor or subcontractor in conducting a human factors effort integrated with the total system engineering effort in support of an acquisition.

http://www2.hf.faa.gov/workbenchtools/Tools/HF-STD-004%20-%202009_06_01.doc

Federal Highway Administration

FHWA-JPO-99-042, Preliminary Human Factors Guidelines for Traffic Management Centers, July 1999.

Scope: This document provides human factors guidance for designers, owners, and planners engaged in the development and operation of traffic management centers. Specific guidance addresses several dimensions of the work environment that can affect operator and system performance.

<http://www.fhwa.dot.gov/tfhrc/safety/pubs/99042/intro.htm>

FHWA-RD-98-057, Human Factors Design Guidelines for Advanced Traveler Information Systems (ATIS) and Commercial Vehicle Operations (CVO), March 1998.

Scope: This document is part of a series of documents designed to develop precise, detailed human factors design guidelines for Advanced Traveler Information Systems (ATIS) and Commercial Vehicle Operations (CVO). This handbook summarizes human engineering data, guidelines, and principles for use by creative designers, engineers and human factors practitioners during the ATIS design process.

<http://www.fhwa.dot.gov/tfhrc/safety/pubs/atis/index.html>

FHWA-RD-01-051, Guidelines and Recommendations to Accommodate Older Drivers and Pedestrians, May 2001.

Scope: This document contains updated recommendations and information on how to apply the *Highway Design Handbook for Older Drivers and Pedestrians*.

<http://www.tfhrc.gov/humanfac/01105/cover.htm>

FHWA-RD-01-103, Highway Design Handbook for Older Drivers and Pedestrians, May 2001.

Scope: This document updated, revised, and expanded the scope of the *Older Driver Highway Design Handbook*. The resulting document incorporates new research findings and technical developments; extensive feedback from state, county, and municipal engineers; and recommendations with supporting background material for aspects of modern roundabouts and highway-rail grade crossings. Recommendations geared to use of highway facilities by pedestrians also receive greater emphasis.

<http://www.tfhrc.gov/humanfac/01103/coverfront.htm>

Federal Standards

FED-STD-795, Uniform Federal Accessibility Standards, April 1, 1988.

Scope: This document sets standards for facility accessibility by physically handicapped persons for Federal and federally-funded facilities.

http://assist.daps.dla.mil/docimages/a/0000/0005/3835/000000434681_000000140563_cfbaiajtzd.pdf

National Aeronautics and Space Administration

NASA-STD-3000B, Man-Systems Integration Standards, July 1995

Scope: This document provides specific user information to ensure proper integration of the man-system interface requirements with those of other aerospace disciplines. These man-system interface requirements apply to launch, entry, on-orbit, and extraterrestrial space environments. This document is intended for use by design engineers, systems engineers, maintainability engineers, operations analysts, human factors specialists, and others engaged in the definition and development of manned space programs.

<http://msis.jsc.nasa.gov>

NASA-STD-3001, NASA Space Flight Human System Standard, Vol 1: Crew Health, March 5, 2007.

Scope: This standard is published by the National Aeronautics and Space Administration (NASA) to establish standards for providing a healthy and safe environment for crewmembers, and to provide health and medical programs for crewmembers during all phases of space flight. Standards are established to optimize crew health and performance, thus contributing to overall mission success, and to prevent negative long-term health consequences due to space flight.

<http://standards.nasa.gov/documents/detail/3315622>

Nuclear Regulatory Commission

NUREG-0700 (Rev 2), Human-System Interface Design Review Guidelines, May 2002.

Scope: The U.S. Nuclear Regulatory Commission staff reviews the human factors engineering aspects of nuclear power plants. Detailed design review procedures are provided in NUREG-0711. As part of the review process, the interfaces between plant personnel and the plant's systems and components are evaluated for conformance with HFE guidelines. This document provides the guidelines necessary to perform this evaluation.

<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0700>

NUREG-0711 (Rev 2), Human Factors Engineering Program Review Model, February 2004.

Scope: This document is used by the staff of the Nuclear Regulatory Commission to review the human factors engineering programs of applicants for construction permits, operating licenses, standard design certifications, combined operating licenses, and for license amendments.

<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0711>

British Defence Standards

00-250 (Part 0)/Issue 1, Human Factors for Designers of Equipment, Part 0: Human Factors Integration, May 23, 2008.

Scope: This Part of the Defence Standard discusses the concept of Human Factors as a scientific discipline, and Human Factors Integration as the MOD process that integrates the Equipment Component of operational capability and the People Component of operational capability so that system objectives are achieved.

<http://www.dstan.mod.uk/data/00/250/00000100.pdf>

00-250 (Part 1)/Issue 1, Human Factors for Designers of Equipment, Part 1: Overarching People-Related Requirements, May 23, 2008.

Scope: This part of the Defence Standard presents the set of Overarching People-Related Requirements and associated compliance means identifiers.

<http://www.dstan.mod.uk/data/00/250/01000100.pdf>

00-250 (Part 2)/Issue 1, Human Factors for Designers of Equipment, Part 2: Particular People-Related Requirements, May 23, 2008.

Scope: This Part of the Defence Standard contains a set of technical requirements and associated compliance means identifiers.

<http://www.dstan.mod.uk/data/00/250/02000100.pdf>

00-250 (Part 3)/Issue 1, Human Factors for Designers of Equipment, Part 3: Technical Guidance (This Part is in 16 Sections), May 23, 2008.

Scope: This Part of the Defence Standard embodies a suite of guidance, best practice standards and associated human factors data, based upon material contained in the previous standard Def Stan 00-25.

<http://www.dstan.mod.uk/data/00/250/03010100.pdf>

00-250 (Part 4)/Issue 1, Human Factors for Designers of Equipment, Part 4: HFI Method, Tools and Techniques, May 23, 2008.

Scope: This Part of the Defence Standard identifies and describes a number of Human Factors methods, tools and techniques that a Solution Provider may seek to apply in creating, testing and demonstrating a Solution.

<http://www.dstan.mod.uk/data/00/250/04000100.pdf>