

AEROSPACE RECOMMENDED PRACTICE

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Identification and Implementation of Global Standardization Opportunities in the Commercial Jet Transport Industry

FOREWORD

This document is intended as a guide towards global industry standardization of non-competitive parts, materials, and processes for commercial jet transports and their engines. It was developed by the Commercial Jet Transport Standardization Committee (CJTSC) which was created as an Advisory Committee to the SAE Aerospace Council. While membership in the CJTSC was drawn from those companies involved in current production and holding type design certificates for airplanes or engines as governed by FAR/JAR 25 or FAR/JAR 33, the procedures set forth in this document are applicable to any two or more aerospace manufacturers or suppliers wishing to form a standardization committee to benefit from standardization in the area of non-competitive parts, materials, or processes.

This SAE Aerospace Recommended Practice (ARP) is intended as a guide towards standardization and is subject to change to keep pace with experience and technical advances.

1. SCOPE:

This document provides guidelines for consolidation and standardization of commercial jet transport parts, materials, and processes currently defined by two or more company or industry standards. Included in this ARP are processes for selecting and evaluating standardization opportunities as well as a procedure for initiating the development and release of global aerospace industry standards. These practices are intended to be used when two or more company standards appear to have significant overlap or in fact be technically identical. Benefits of such standardization efforts include part numbers and potentially reduced inventory levels, reduced errors, reduced qualification costs, and reduced equipment life cycle costs.

This ARP is intended to be used by any two or more companies involved in the aerospace industry that wish to benefit from standardization. For the purpose of this document, companies undertaking such a standardization effort shall be referred to as a standardization committee.

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1. (Continued):

The goal of such a standardization committee is not the actual development of an industry standard, but the identification of a valuable standardization opportunity. The actual development of the industry standard which will support the standardization effort will take place within an established Standards Developing Organization (SDO) according to the rules of due process.

2. REFERENCES:

2.1 Related Publications:

The following publications are provided for information purposes only and are not a required part of this SAE Aerospace Technical Report.

2.1.1 FAR Publications: Available from Federal Aviation Administration, 800 Independence Avenue, SW, Washington, DC 20591.

FAR/JAR 25
FAR/JAR 33

2.1.2 ISO Publications: Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002.

ISO/IEC Guide 2:1991

2.2 Definitions:

COMMERCIAL JET TRANSPORT STANDARDIZATION COMMITTEE (CJTSC): An Advisory Committee to the SAE Aerospace Council whose membership is drawn from those companies involved in current production which hold type design certificates for airplanes or engines as governed by FAR/JAR 25 or FAR/JAR 33, respectively.

COMPANY STANDARD: Standard developed and promulgated by a company for a material, product, or process related to and specific for that company. A company standard is normally not for public use.

CONSENSUS: (according to ISO/IEC Guide 2:1991) General agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments. (NOTE: Consensus need not imply unanimity.)

INTERESTED MEMBER: Any member of the standardization committee expressing an interest in and participating in a standardization project.

2.2 (Continued):

INDUSTRY STANDARD: Standard developed and promulgated by representatives of an industry for a material, product or process related to that industry. An industry standard is generally oriented towards the industrial or institutional consumer and represents a consensus of the industry regarding the nomenclature, identification, standard sizing, and material, design, or performance specifications for materials and products of that industry. An industry standard can be at the national, regional, or international level and is available for public use.

OEM: Original Equipment Manufacturer. Those companies holding type design certificates.

SPONSOR: Company or person acting as the focal point for the activities on a standardization committee project (including preparation of a draft standard).

STANDARDIZATION COMMITTEE: In the context of this document, a group of representatives from different organizations or companies interested in and actively supporting a standardization project covered by this document.

STANDARDS DEVELOPING ORGANIZATION (SDO): An organization or association which supports and promotes the development of voluntary use standards using a consensus process.

3. STANDARDIZATION PROCESS:

The standardization process documented here contains specific steps as outlined below and summarized in Figure 1. Prior to beginning the process it is fundamental that the members of any standardization committee clearly communicate the goals and potential benefits of undertaking such a process to the companies involved. Critical to success is the commitment by company management to the standardization process and to the intent to supersede company-unique standards with industry standards as a means to achieve the benefits of industry standardization.

3.1 Identify Potential Standardization Opportunities:

Potential standardization opportunities (e.g., two or more standards defining technical overlapping or identical parts, materials, or processes) can be identified using a variety of methods from customer and supplier surveys to comparisons of parametric databases.

3.2 Evaluate Against Criteria:

A potential standardization project involving a part, material, or process should be evaluated against certain criteria to determine its viability. A number of criteria have been identified which, if met, are good indicators as to the potential success of the standardization project. These criteria are detailed in Section 4.

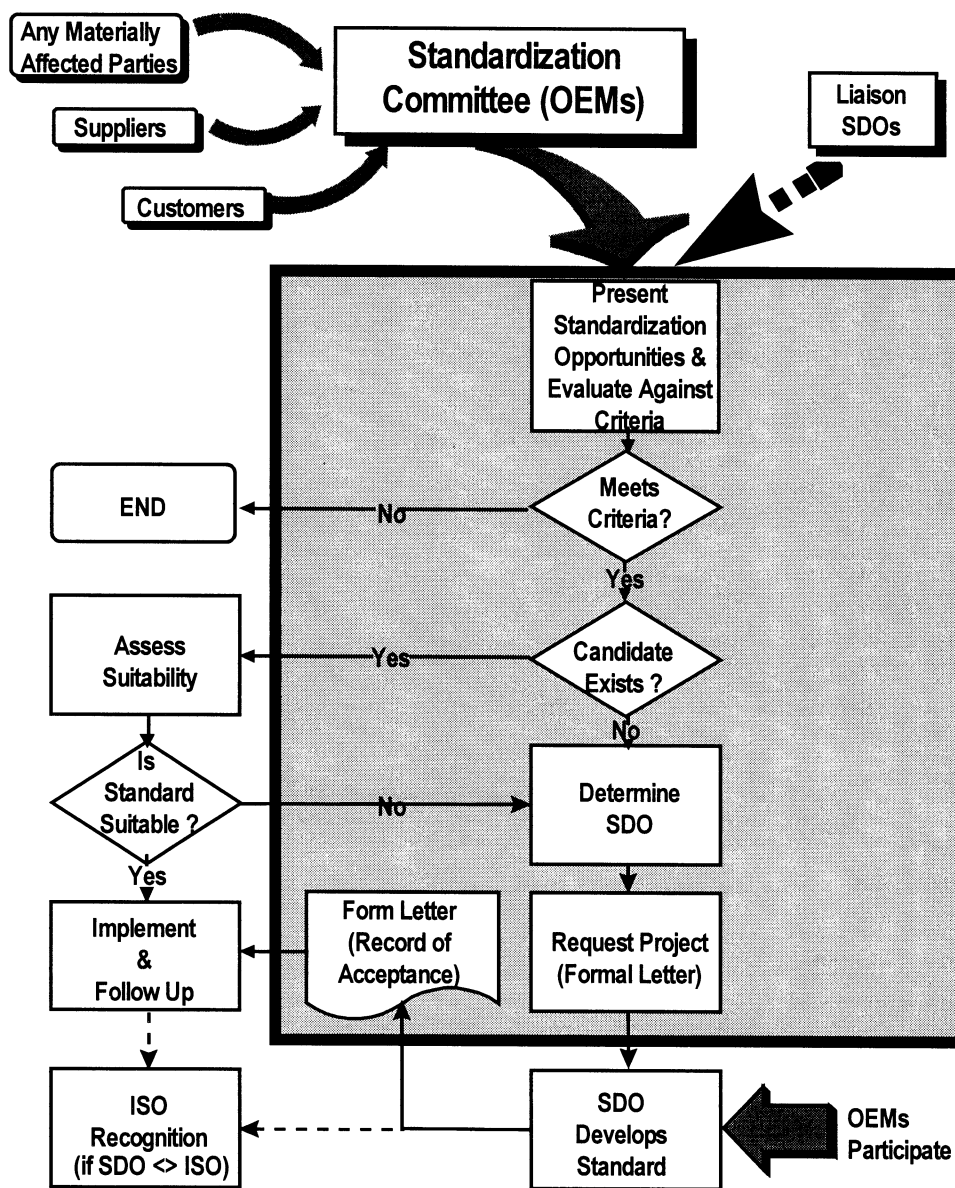


FIGURE 1 - Standardization Process Flow

3.3 Determine if Candidate Industry Standard Exists:

Standardization committee members should review existing industry standards to determine if one exists which can be adopted as-is or with modifications.

3.4 Select Standards Developing Organization to Prepare New Standard:

If no industry standard exists which will meet the requirements of the standardization committee, a new standard must be developed. The standardization committee should choose a standards developing organization which is suited technically to undertake the specific standardization project and where the standardization committee members have adequate representation to sponsor and monitor such a project (see Section 5). (For development of an industry standard, see Section 7.)

3.5 Implement New Industry Standard:

Standardization only happens when the standardization committee members use the industry standard. This requires that the members supersede, to the greatest extent possible, any company standards and incorporate the industry standard into their design and production processes.

3.6 Ensure International Recognition of Industry Standard:

To achieve the widest possible global standardization, the resulting industry standard should be recognized as an international standard. This can be achieved either formally, by having the standard go through the ISO process for the generation of an international standard, or informally by having the standard recognized by ISO as an industry-acknowledged international standard. The latter process can be accomplished using the process for recognition of global industry standards established by ISO TC 20.

4. PROJECT SELECTION CRITERIA – DEVELOPMENT OF A BUSINESS CASE FOR STANDARDIZATION (see Figure 2):

A number of criteria have been identified which can be used to evaluate a standardization opportunity and develop a business case for standardization. A clear business case should exist for using an industry standard instead of a company unique standard. Facts and data should be collected which would support the expected cost savings if the use of company-unique standards were replaced with an industry standard.

These criteria may be applied to any standard part, material, or manufacturing process. To the greatest extent that the following criteria are met, a positive business case should emerge which establishes the proposed standardization project as a benefit to the aerospace industry. If the criteria lead to a positive business case for a majority of the standardization committee members, they can agree to undertake the project with the minority members abstaining from participation in that project. (For documentation of the criteria for each project, use Figure A1.)