



AEROSPACE RECOMMENDED PRACTICE

ARP6073™

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Webbing Service Life for Occupant Restraints

RATIONALE

This document provides general guidance on recommended webbing service life and highlights factors that may affect webbing performance.

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Documents

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Figure 1 Edge fray on one or both sides of the webbing 7

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1. SCOPE

This document applies to webbing used on occupant restraint systems in service on 14 CFR/CS part 23, part 25, part 27, and part 29 aircraft applications. The guidelines presented within this document are intended to be supplemental to the requirements supplied by the OEM in the CMM, ICA, or like document. In cases of conflict between this ARP and the OEM's requirements, the requirements of the OEM shall be followed.

The objective of this document is to establish practical guidelines to help operators in the determining if restraint webbing has reached the end of its service life. The recommendations contained herein are based on test data from in service restraint systems and the continued airworthiness guidelines recommended by restraint system OEMs.

2. REFERENCES

2.1 Applicable Documents

The following commonly referenced publications form a part of this document as listed below. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of release of this document. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.2 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 727-776-4970 (outside USA), www.sae.org.

AS8043 Aerospace Standard for Torso Restraint Systems

2.3 FAA Publications

Available from Federal Aviation Administration, 800 Independence Avenue, SW, Washington, DC 20591, Tel: 866-835-5322, www.faa.gov.

TSO-C114 Technical Standard Order Torso Restraint Systems

TSO-C22 Technical Standard Order for Safety Belts

2.4 EASA Publications

Available from European Union Aviation Safety Agency, Konrad-Adenauer-Ufer 3, D-50668 Cologne, Germany (for visitors and for mail over 1 kg) and Postfach 10 12 53, D-50452 Cologne, Germany (for mail 1 kg or less); Tel: +49 221 8999 000, www.easa.europa.eu.

ETSO-C114 European Technical Standard Order Torso Restraint Systems

ETSO-C22 European Technical Standard Order for Safety Belts

2.5 NAS Publications

Available from Aerospace Industries Association, 1000 Wilson Boulevard, Suite 1700, Arlington, VA 22209-3928, Tel: 703-358-1000, www.aia-aerospace.org.

NAS802 National Aerospace Standard specification for Aircraft Safety Belts

2.6 RTCA Publications

Available from RTCA, Inc., 1150 18th Street, NW, Suite 910, Washington, DC 20036, Tel: 202-833-9339, www.rtca.org.

RTCA DO-160 Environmental Conditions and Test Procedures for Airborne Equipment

2.7 Definitions

WARP: The warp yarns are the set yarns that run in the lengthwise direction of the webbing.

WEFT: The weft yarn is the transverse thread which is drawn through the warp yarns to create the webbing.

FILAMENT: A single textile fiber of indefinite length.

FRAY/FUZZ: See 5.1 for detail description.

SERVICE: Any maintenance required on restraint system to return the part back to an airworthy state.

STANDARD AMBIENT CONDITIONS PER RTCA DO-160: Inside a closed building with no exposure to UV light, an ambient temperature of 77 °F ± 18 °F (25 °C ± 10 °C) and relative humidity not greater than 85%.

YARN: A continuous plied strand composed of filaments used in woven product such as webbing.

2.8 Acronyms

ARP	Aerospace Recommended Practice (SAE)
AS	Aerospace Standard (SAE)
CAA	Civil Aviation Authority
CFR	Code of Federal Regulations
CMM	Component Maintenance Manual
CS	Certification Specification (EASA)
EASA	European Union Aviation Safety Agency
ETSO	European Technical Standard Order
FAA	Federal Aviation Administration
ICA	Instructions for Continuous Airworthiness
OEM	Original Equipment Manufacture
RTCA	Radio Technical Commission for Aeronautics
TSO	Technical Standard Order
UV	Ultraviolet

3. GENERAL DISCUSSION

An occupant restraint system constitutes part of an aircraft seating system. It is designed to protect an occupant when used in the correct manner during all phases of operation including emergency condition.