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**Minimum Operational Performance Standard for
Aircraft Emergency Locator Transmitters
406 MHz**

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FOREWORD

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1 INTRODUCTION

1.1 Purpose and Scope

This document contains minimum operational performance specifications for Emergency Locator Transmitters, (ELTs), to ensure that they will:

- meet the activation specifications,
- meet environmental test conditions,
- meet Cospas-Sarsat system requirements for satellite processing of a distress signal (primary alert),
- be compatible with homing devices used for Search and Rescue (SAR),
- not adversely affect aircraft operations,
- not be adversely affected by the aircraft operations.

CHAPTER 1 of this document provides information needed to understand the rationale for the equipment characteristics and requirements stated in the remaining chapters. It describes typical equipment operation and goals, as envisioned by the members of EUROCAE Working Group 98 and RTCA Special Committee 229. Chapter 1 also establishes the basis for the standards stated in chapter 2. Definitions, a list of related documents and assumptions essential to proper understanding of this document are also provided in this chapter.

CHAPTER 2 contains the general Minimum Operational Performance Standards, (MOPS), General Design Specifications for the ELT system.

CHAPTER 3 describes ELT minimum performance specifications under standard conditions.

CHAPTER 4 provides minimum performance specifications under environmental test conditions.

CHAPTER 5 describes recommended bench level test procedures necessary to demonstrate the ELT system will meet the requirements stated in chapters 2 - 4.

CHAPTER 6 provides installed equipment performance as well as technical guidance equipment manufacturers can follow to write comprehensive installation manuals that contain best practices for automatic fixed, automatic portable, deployable, survival, and distress tracking ELTs.

CHAPTER 7 provides instructions to the ELT manufacturer on items that should be specified in documentation supplied to the customer to ensure ELT system continues to meet the performance standards throughout the life of the ELT system

APPENDIX A provides a comprehensive list of documents related to ELT systems to be included in the manufacturer's installation manuals.

1.2 Cospas-Sarsat System Overview

The International Cospas-Sarsat Program is a treaty-based, nonprofit, intergovernmental humanitarian cooperative of more than 40 nations and agencies dedicated to detecting and locating 406 MHz radio beacons activated from aircraft, vessels and by persons (e.g., backcountry hikers) in distress, and forwarding this alert information to SAR authorities that can take action for rescues. The system utilizes a network of satellites that provide coverage anywhere on Earth. Distress alerts are detected, located and forwarded to over 200 countries and territories at no cost to the receiving government agencies. Cospas-Sarsat