RTCA
1140 Connecticut Avenue, NW, Suite 1020
Washington, DC 20036-4001 USA

Minimum Operational Performance Standards (MOPS) for Airborne ILS Localizer Receiving Equipment Operating Within the Radio Frequency Range of 108-112 MHz

RTCA DO-195
Supersedes DO-131A
November 17, 1986

Prepared by: SC-153

F O R E W O R D

This document was prepared by Special Committee 153 of the Radio Technical Commission for Aeronautics. It was approved by RTCA on November 17, 1986, and supersedes RTCA/DO-131A, "Performance Standards Airborne ILS Localizer Receiving Equipment," November 2, 1978.

RTCA is an association of aeronautical organizations of the United States from both government and industry. Dedicated to the advancement of aeronautics, RTCA seeks sound technical solutions to problems involving the application of electronics and telecommunications to aeronautical operations. Its objective is the resolution of such problems by mutual agreement of its member organizations.

The findings of RTCA are in the nature of recommendations to all organizations concerned. Since RTCA is not an official agency of the United States government, its recommendations may not be regarded as statements of official government policy unless so enunciated by the U. S. government organization or agency having statutory jurisdiction over any matters to which the recommendations relate.

Coordination of these standards was accomplished by RTCA SC-153 with the European Organisation for Civil Aviation Electronics (EUROCAE) WG 5.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

1.0 PURPOSE AND SCOPE

1.1 Introduction

This document contains minimum operational performance standards for airborne ILS localizer receiving equipment. These standards specify system characteristics that should be useful to designers, manufacturers, installers and users of the equipment.

Compliance with these standards is recommended as one means of assuring that the equipment will perform its intended function(s) satisfactorily under all conditions normally encountered in routine operations.

Any regulatory application of this document is the sole responsibility of appropriate governmental agencies.

Section 1.0 provides information needed to understand the rationale for equipment characteristics and requirements stated in the remaining sections. It describes typical equipment applications and operational goals and establishes the basis for the standards stated in Sections 2.0 through 4.0. Definitions and assumptions essential to proper understanding of this document are also provided in Section 1.0.

Section 2.0 contains the minimum performance standards for the equipment. These standards specify the required performance under standard and environmental conditions. Also included are recommended bench test procedures necessary to demonstrate equipment compliance with the stated minimum requirements.

Section 3.0 describes the performance required of the installed equipment. Tests for the installed equipment are included when performance cannot be adequately determined through bench testing.

Section 4.0 describes the operational performance characteristics for equipment installations and defines conditions that will assure the equipment user that operations can be conducted safely and reliably in the expected operational environment.

This document considers an equipment configuration consisting of: Antenna system(s), transmission lines, radio receiver, localizer circuitry and a course deviation indication display. Additional functions and components that refer to expanded equipment capabilities are identified as optional features.

The word "system" as used in this document refers to the ILS localizer system. It includes all portions of both the ILS localizer ground transmitter and the ILS localizer airborne equipment.