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Minimum Operational Performance Standards for Airborne Thunderstorm Detection Equipment

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F O R E W O R D

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1.0 PURPOSE AND SCOPE

1.1 Introduction

This document contains minimum operational performance standards for non-radar airborne thunderstorm detection 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 aeronautical operations. Any regulatory application of this document is the sole responsibility of the appropriate governmental agencies.

Section 1.0 of this document 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 as envisioned by Special Committee 154. Definitions and assumptions essential to proper understanding of this document are also provided in this section.

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 is used properly in the expected operational environment.

This document considers an equipment configuration consisting of, but not limited to: A receiver/processor, control panel, display, antenna(s) and interconnecting cables. Operational performance standards for functions or components that refer to equipment capabilities that exceed the stated minimum requirements are identified as optional features.

The word "equipment" as used in this document includes all components and units necessary for the system to properly perform its intended function(s). For example, the "equipment" may include an antenna, a receiver unit, a display, mounting trays, etc. In the case of this example, all of the foregoing components and units comprise the "equipment." It should not be inferred from this