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Minimum Operational Performance Standards (MOPS) for Airborne Selective Calling Equipment

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Prepared by: SC-232
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FOREWORD

This report was prepared by Special Committee 232 (SC-232) and approved by the RTCA Program Management Committee (PMC) on March 17, 2016.

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- Developing consensus on the application of pertinent technology to fulfill user and provider requirements, including development of minimum operational performance standards for electronic systems and equipment that support aviation
- Assisting in developing the appropriate technical material upon which positions for the International Civil Aviation Organization and the International Telecommunication Union and other appropriate international organizations can be based.

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Revision History

Rev Level	Description	Date	Effective Sections
	*Note – if the affected sections are extensive they may be captured in an Appendix		*Note – if the affected sections are extensive they may be captured in an Appendix

Key to text in this MOPS drafting guide:

- Text in plain format is meant to be retained as part of standard RTCA wording for all MOPS Documents.

- Text in Bold Italics is meant to be a place holder for wording to be added by the committee that is appropriate to the specific type of equipment being developed.

- Text in plain Italics is meant as notes to the committee to aid in writing the MOPS and should be removed during the writing process.

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TABLE OF CONTENTS

1 PURPOSE AND SCOPE 1

1.1 Introduction 1
1.2 System Overview 2
1.2.1 Document Hierarchy 2
1.3 Intended Function 2
1.4 Operational Goals 3
1.5 Assumptions 5
1.6 Test Procedures 6
1.7 Acronyms, Abbreviations, and Definitions 7
1.8 Anticipated Future Growth 7

2 EQUIPMENT PERFORMANCE REQUIREMENTS AND TEST PROCEDURES 9

2.1 General Requirements 9
2.1.1 Airworthiness 9
2.1.2 Intended Function 9
2.1.3 Federal Communications Commission Rules 9
2.1.4 Fire Protection 9
2.1.5 Operation of Controls 9
2.1.6 Accessibility of Controls 9
2.1.7 Effects of Test 9
2.1.8 Design Assurance 9
2.1.9 Integrated Systems 10
2.2 Equipment Performance – Standard Conditions 10
2.2.1 Sensitivity and Range 10
2.2.2 Tone Imbalance 10
2.2.3 Harmonic Distortion 10
2.2.4 Tone Frequency Tolerance 10
2.2.5 Noise Performance 10
2.2.6 Tone Code Timing Tolerance 10
2.2.7 False Operation 10
2.2.8 False Operation, Extended Duration 10
2.3 Equipment Performance – Environmental Conditions 11
2.3.1 Temperature Test *[DO-160G Section 4.5.1-4.5.4]* 11
2.3.2 Loss of Cooling Test *[DO-160G Section 4.5.5]* 11
2.3.3 Altitude Test *[DO-160G Section 4.6.1]* 11
2.3.4 Decompression Test (When required) *[DO-160G Section 4.6.2]* 11
2.3.5 Overpressure Test (When required) *[DO-160G Section 4.6.3]* 11
2.3.6 Temperature Variation Test *[DO-160G Section 5]* 11
2.3.7 Humidity Test *[DO-160G Section 6]* 11
2.3.8 Operational Shock and Crash Safety Test *[DO-160G Section 7]* 11
2.3.9 Vibration Test *[DO-160G Section 8]* 12
2.3.10 Explosion Proofness (When required) *[DO-160G Section 9]* 12
2.3.11 Waterproofness (When required) *[DO-160G Section 10]* 12
2.3.12 Fluids Susceptibility (When required) *[DO-160G Section 11]* 12
2.3.13 Sand and Dust (When required) *[DO-160G Section 12]* 12
2.3.14 Fungus Resistance (When required) *[DO-160G Section 13]* 12
2.3.15 Salt Spray (When required) *[DO-160G Section 14]* 12
2.3.16 Magnetic Effect Test *[DO-160G Section 15]* 12

2.3.17 Power Input Test *[DO-160G Section 16]* 12
2.3.18 Voltage Spike Test *[DO-160G Section 17]* 12
2.3.19 Audio-Frequency Conducted Susceptibility Test *[DO-160G Section 18]* 13
2.3.20 Induced Signals Susceptibility Test *[DO-160G Section 19]* 13
2.3.21 Radio Frequency Susceptibility Tests 13
2.3.21.1 Conducted Susceptibility Test *[DO-160G Section 20.4]* 13
2.3.21.2 Radiated Susceptibility Test *[DO-160G Section 20.5 or 20.6]* 13
2.3.22 Radio Frequency Emissions Tests 13
2.3.22.1 Conducted Radio Frequency Emissions Test *[DO-160G Section 21.4]* 13
2.3.22.2 Radiated Radio Frequency Emissions Test *[DO-160G Section 21.5 or 21.6]* 13
2.3.23 Lightning Induced Transient Susceptibility Test (When required) *[DO-160G Section 22]* 13
2.3.24 Lightning Direct Effects (When required) *[DO-160G Section 23]* 13
2.3.25 Icing (When required) *[DO-160G Section 24]* 13
2.3.26 Electrostatic Discharge Test *[DO-160G Section 25]* 13
2.3.27 Fire, Flammability Test (When required) *[DO-160G Section 26]* 13
2.4 Equipment Test Procedures 14
2.4.1 Definitions of Terms and Conditions of Test 14
2.4.2 Detailed Test Procedures 15
2.4.2.1 Sensitivity and Range (Paragraph 2.2.1) 15
2.4.2.2 Tone Imbalance (Paragraph 2.2.2) 15
2.4.2.3 Harmonic Distortion (Paragraph 2.2.3) 15
2.4.2.4 Tone Frequency Tolerance (Paragraph 2.2.4) 16
2.4.2.5 Noise Performance (Paragraph 2.2.5) 16
2.4.2.6 Tone Code Timing Tolerance (Paragraph 2.2.6) 16
2.4.2.7 False Operation (Paragraph 2.2.7) 16
2.4.2.8 False Operation, Extended Duration (Paragraph 2.2.8) 17

3 MANUFACTURER CONSIDERATIONS FOR INSTALLED EQUIPMENT 19

3.1 Equipment Installation 19
3.1.1 Accessibility 19
3.1.2 Aircraft Environment 19
3.1.3 Display Visibility 19
3.1.4 Failure Protection 19
3.1.5 Interference Effects 20
3.1.6 Inadvertent Turnoff 20
3.2 Test Procedures for Installed Equipment Performance 20

4 AIRCRAFT OPERATIONAL PERFORMANCE CHARACTERISTICS 21

5 MEMBERSHIP 23

APPENDIX A IMPLEMENTATION GUIDANCE A-1

1 PURPOSE AND SCOPE

1.1 Introduction

This document contains Minimum Operational Performance Standards for Selective Calling (SELCAL) systems installed in all types of aircraft. 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 operation. Any regulatory application of this document is the sole responsibility of appropriate governmental agencies.

Section 1 of this document provides information needed to understand the rationale for equipment characteristics and requirements stated in the remaining sections. It describes typical equipment operations and operation goals, as envisioned by the members of Special Committee SC-232, and establishes the basis for the standards stated in Sections 2 through 3. Definitions and assumptions essential to proper understanding of this document are also provided in this section.

Section 2 contains the Minimum Performance Standards for the equipment. These standards specify the required performance under standard environmental conditions. Also included are recommended bench test procedures necessary to demonstrate equipment compliance with the stated minimum requirements.

Section 3 describes the performance required of installed equipment. Tests for the installed equipment are included when performance cannot be adequately determined through bench testing.

Section 4 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 a SELCAL Unit and VHF and/or HF transceivers. 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 a standalone SELCAL decoder or an Audio System with integrated SELCAL functionality. Each design will include both SELCAL decoding and annunciating capabilities as well as a means of configuring the unique SELCAL code for the aircraft.

This MOPS applies to a specific defined function. The equipment may have additional features related to that function for which there are no specified minimum performance requirements. For example, many VHF radios have an active-standby frequency "flip-flop" feature for which there are no specified requirements or tests. Equipment may also have additional functions for which other MOPS or TSOs may be applicable or it may contain additional functions not defined by any MOPS or TSO, in which case non-TSO function guidance may be applicable.

If the equipment implementation includes a computer software package, the guidelines contained in RTCA Document No. DO-178C, *(or the most current published revision) Software Consideration in Airborne Systems and Equipment Certification*, should be considered.

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