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**MINIMUM OPERATIONAL PERFORMANCE  
STANDARDS FOR AVIONICS SUPPORTING  
NEXT GENERATION SATELLITE SYSTEMS (NGSS)**

RTCA/DO-262A  
December 16, 2008

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## FOREWORD

DO-262A was prepared by Special Committee 215 (SC-215) and approved by the RTCA Program Management Committee on December 16, 2008.

DO-262A incorporates the generic DO-262 and Change 1 and contains a Normative Appendix for the Iridium Satellite System. DO-262A supersedes both DO-262 and DO-262 Change 1 in whole. No significant technical changes were made to the generic requirements in the superseded version.

The Iridium Satellite Normative Appendix has its own table of contents and numbering and follows the exact structure of the DO-262A main document. This Normative Appendix contains system-specific requirements for Aeronautical Mobile Satellite (Route) Services (AMS(R)S) over the Iridium Satellite system.

The original DO-262 was developed by Special Committee 165 (SC-165) as a generic Minimum Operational Performance Standards (MOPS) with the expectation that such Normative Appendices would be developed to correspond to individual next generation satellite systems (NGSS). The Iridium Satellite Normative Appendix is the first such system-specific appendix.

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- analyzing and recommending solutions to the system technical issues that aviation faces as it continues to pursue increased safety, system capacity and efficiency;
- 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; and
- assisting in developing the appropriate technical material upon which positions for the International Civil Aviation Organization and the International Telecommunications Union and other appropriate international organizations can be based.

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AMS(R)S SAFETY SERVICES

## **NORMATIVE APPENDICES**

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# 1 PURPOSE AND SCOPE

## 1.1 Introduction

This document contains minimum operational performance standards (MOPS) for avionics that provide Aeronautical Mobile Satellite (R) Services (AMS(R)S) by means of satellite communications technologies scheduled to become operational after the year 2000. Each of these technologies is individually and collectively referred to as a "Next Generation Satellite System" (NGSS), and the NGSS nomenclature will be used throughout this document. This document does not apply to avionics that provide AMS(R)S in accordance with the current version of RTCA DO-210.

Compliance with these standards is recommended as one means of assuring that NGSS avionics 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 appropriate governmental agencies.

The main part of this document contains a generic description of a satellite communication system configuration including Ground Subnetworks; NGSS Satellite Subnetworks, of which the Aircraft Earth Station (AES) is one part; and Aircraft Subnetworks. However, the specified Minimum Operational Performance Standards in both the main document and the corresponding Iridium Satellite Normative Appendix, address only the AES portion of the Satellite Subnetwork.

To comply with the minimum requirements of an application for certification or other approval, an NGSS applicant is required to submit information regarding the technical characteristics of the NGSS. The technology-specific requirements for each such system will become normative appendices to this document. It is anticipated that such technology-specific appendices will be created as the particular NGSS becomes operational for AMS(R)S. DO-262A contains a Normative Appendix for the Iridium Satellite System.

The main part of this document covers typical NGSS avionics requirements and tests for the aircraft avionics. It includes the purpose, scope and equipment performance requirements, recommended bench tests and other performance verification procedures, and installed-equipment tests and operational performance characteristics. Detailed requirements and test procedures are based on the technical characteristics documented in the normative attachments, as discussed in the previous paragraph.

A companion document, *DO-270 Minimum Aviation System Performance Standards (MASPS) for the Aeronautical Mobile-Satellite (R) Service (AMS(R)S) as Used in Aeronautical Data Links*, should be consulted for operational requirements at the air/ground system level and for details of specific systems providing AMS(R)S. It is expected that DO-270 will be revised to include an Iridium Satellite Normative Appendix. RTCA documents DO-215A and DO-231 provide guidance on overall data and voice performance issues.