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**Minimum Operational Performance Standards  
(MOPS) for Aircraft Surveillance Applications  
(ASA) System**

RTCA DO-317A  
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Prepared by: SC-186  
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## FOREWORD

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# 1 PURPOSE AND SCOPE

## 1.1 Introduction

This document contains Minimum Operational Performance Standards (MOPS) for the Aircraft Surveillance Applications (ASA) System. These standards specify system characteristics that should be useful to designers, manufacturers, installers and users of the equipment.

These MOPS for the ASA System contain requirements for processing, control and display of traffic and Ownship information for use by the flight crew in performing airborne applications.

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 RTCA Special Committee 186 (SC-186) and EUROCAE Working Group 51 (WG-51), 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.

This document considers functional requirements consisting of: airborne surveillance and separation assurance processing (ASSAP), and cockpit display of traffic information (CDTI) as described in the Aircraft Surveillance Applications (ASA) Minimum Aviation System Performance Standards (MASPS), RTCA Document DO-289, and in the Safety, Performance and Interoperability Requirements documents for the four applications approved by RTCA SC-186 and EUROCAE WG-51, ATSA-AIRB (DO-319/EUROCAE DOCUMENT ED-164), ATSA-VSA (DO-314/ED-160), ATSA-ITP (DO-312/ED-159) and ATSA-SURF (DO-322/ED-165). Operational performance standards for functions or components that exceed the stated minimum requirements are identified as optional features.

The word “function” as used in this document includes all components and units necessary for the system to properly perform as intended. The functional requirements are allocated so that most input and output between the ASA system and the aircraft interacts with the ASSAP functional block. Functions that display data to the flight crew or accept input from the flight crew are allocated to the CDTI functional block. ASSAP