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**Minimum Aviation System Performance Standards
(MASPS) for a Combined Vision Systems for
Helicopter Operations**

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FOREWORD

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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; and
- 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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1 PURPOSE AND SCOPE

1.1 Introduction and purpose of document

This document contains Minimum Aviation System Performance Standards for a Combined Vision System for Helicopter Operations.

Compliance with these standards is recommended as one means of assuring that the system and each subsystem will perform its intended function(s) satisfactorily under conditions normally encountered in routine aeronautical operations for the environments intended. The Minimum Aviation System Performance Standards (MASPS) may be implemented by one or more regulatory documents and/or advisory documents (e.g., certifications, authorizations, approvals, commissioning, advisory circulars, notices, etc.) and may be implemented in part or in total. Any regulatory application of this document is the sole responsibility of appropriate governmental agencies.

1.2 Scope of the document

This document addresses Combined Vision Systems (CVS) technology applied to helicopter operations. While RTCA DO-315x / EUROCAE ED-179x and DO-371 / EUROCAE ED-249 documents are not specialized for a particular type of platform or mission, they were mostly written with fixed-wing platforms and operations in mind. The present document is oriented specifically towards helicopter platforms and operations. It defines performance standards for CVS over head down and transparent displays, which intended function is to provide a supplemental view of the external scene and visual references to the pilot. Such a CVS does not provide “additional operational credit” and is not intended to change the helicopter’s existing operational capability or certification basis. The pilot(s) is expected to follow the existing operational procedures and adhere to all published minimums.

1.3 Structure of the document

Chapter 1 (the current chapter) provides an explanation of the scope and purpose of this document and introduces the Combined Vision Systems for Helicopter Operations.

Chapter 2 describes the approach and methodology aspects applied for the development of this Combined Vision Systems for Helicopter Operations and outlines performance and interoperability assessments made in this document.

Chapter 3 contains the minimum performance standards and subsystem/functions that are required elements of minimum system performance in Section 2. These standards specify the required performance under the standard environmental conditions described.

Chapter 4 introduces the Interoperability Requirements applicable to the Combined Vision Systems for Helicopter Operations.

Chapter 5 describes the minimum system test procedures to verify system/application performance (e.g. end-to-end performance verification) and that subsystem performance meets the minimum performance requirements in Section 3. These system test procedures should be particularly helpful in prototyping and pre-operational trials of the system/application.

The verification procedures specified in this document are intended to be used as one means of demonstrating compliance with the performance requirements. Although specific test procedures are cited, it is recognized that other methods may be used. These alternate procedures may be used if it can be demonstrated that they provide at least equivalent information. System performance tests as they relate to operational capability are the most important test. Subsystem tests are useful as subsystems are added during system buildup and to ensure continued subsystem performance as it relates to system performance.