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Future Air Navigation System 1/A – – Aeronautical Telecommunication Network Interoperability Standard (FANS 1/A — ATN B1 Interop Standard)

RTCA DO-305A
March 21, 2012

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FOREWORD

This guidance document was jointly prepared by Special Committee 214 (SC-214) and the European Organization for Civil Aviation Equipment (EUROCAE) Working Group 78 (WG-78) and approved by the RTCA Program Management Committee (PMC) on March 21, 2012.

RTCA, Incorporated is a not-for-profit corporation formed to advance the art and science of aviation and aviation electronic systems for the benefit of the public. The organization functions as a Federal advisory committee, and develops consensus-based recommendations on contemporary aviation issues. RTCA's objectives include but are not limited to:

- coalescing aviation system user and provider technical requirements in a manner that helps government and industry meet their mutual objectives and responsibilities;

- 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 Telecommunication Union and other appropriate international organizations can be based.

The organization's recommendations are often used as the basis for government and private sector decisions as well as the foundation for many Federal Aviation Administration Technical Standard Orders and several advisory circulars.

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1 INTRODUCTION

This standard was developed to enable air traffic service providers (ATSPs) to interoperate with data link equipped aircraft, regardless of which technology is installed on the aircraft. The standard is intended to support the goal of converging oceanic and continental data link applications.

1.1 Purpose

This document provides the interoperability requirements for an aeronautical telecommunication network baseline 1 (ATN B1) ground system that provides air traffic data link services to future air navigation system 1/A (FANS 1/A) aircraft in continental airspace.

Note: Based on DO-264/ED-78A, INTEROP and SPR standards provide recommendations intended for government organizations, conference of governments, or agencies having statutory jurisdiction over the use and provision of air traffic services supported by data communications. These recommendations are for use by such government organizations to enunciate official policy, related to such matters, in aeronautical information publications (AIPs), notices to airmen (NOTAMs), airplane flight manuals (AFMs), and operator specifications.

1.2 Scope

This standard provides:

- interoperability requirements for the ATN B1 ground system to provide FANS 1/A aircraft data link services, as defined by the Continental SPR Standard. See § 1.2.1.
- interoperability requirements to ensure seamless transition of ATS communications for bilingual aircraft (i.e. aircraft equipped with FANS 1/A and ATN B1 data link technologies) transitions from a FANS 1/A ground system to an ATN B1 ground system or vice versa (e.g. FANS 1/A ground system providing data link services in an oceanic airspace and an ATN B1 ground system providing data link services in a domestic airspace). See 1.2.2

Note 1: This standard provides a separated set of requirements for each of these two capabilities, which can be implemented and qualified independently.

Note 2: Some ATN B1 ATSUs might elect to comply with §3 only, with §4 only or with both §3 and §4.

Some FANS 1/A ATSUs might elect to comply with §4.

FANS 1/A and ATN B1 bilingual aircraft might elect to comply with §4.