

TERMS OF REFERENCE

Special Committee (SC) 206
Aeronautical Information and Meteorological Data Link
Services
(Revision 23)

SC LEADERSHIP:

Position	Name	Affiliation	Telephone	E-mail	Change
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BACKGROUND:

A key objective of the future International Civil Aviation Organization (ICAO) Air Traffic Management (ATM) concept and Next Generation Air Transportation System (NextGen) performance-based capabilities is to establish the aircraft as a participant in collaborative decision making (CDM); and, in some cases, establish airspace regions for autonomous operations where the aircraft is primarily responsible for safe separation from other traffic, weather and designated/restricted airspace. Timely availability of high-quality and reliable Aeronautical Information Services (AIS) and Meteorological (MET) Information Services are necessary to support the transition and implementation of these advanced global ATM concepts envisioned by ICAO, NextGen, and Single European Sky ATM Research (SESAR).

DELIVERABLES:

Product	Description	FRAC Completion Due Date*	Projected Publication Date**	Change
DO-364A / ED-XXX	Minimum Aviation System Performance Standards (MASPS) for Aeronautical Information / Meteorological Data Link Services	December 2024	March 2025	
DO-XXX / ED-XXX	Technical Standard for Automated Atmospheric Turbulence Derivation Techniques	December 2025	March 2026	June 2025
RTCA Report	Recommendation(s) Regarding Possible Standards to Support Aircraft-Based Meteorological Observation Dependent Applications	December 2025***	March 2026	June 2025
DO-358C	Minimum Operational Performance Standards (MOPS) for Flight Information Services Broadcast (FIS-B) with Universal Access Transceiver (UAT)	September 2025	December 2025	

*Note: Final Review and Comment (FRAC) Completion Due Date refers to the date that the committee plenary approves the document after completing the FRAC Process. SCs should submit the final document at least 45 days before the PMC meeting where it will be considered for approval.

**Note: Projected Publication Date refers to the date that the item will be approved by the PMC and officially published by RTCA.

***Note: This is the completion date for the RTCA Report and not a FRAC completion date (FRAC is not required for this internal RTCA Report).

SCOPE:

1. Update DO-364, *Minimum Aviation System Performance Standards (MASPS) for Aeronautical Information/Meteorological Data Link Services*, to address the following:
 - Expand minimum system requirements and recommendations to cover additional AIS and MET data link services as identified by SC-206, EUROCAE WG-76, and industry.

No changes, except error corrections, will be made to the Near Real-Time Aircraft-Based Meteorological Observation Services System already defined in DO-364.

- Add newly defined service descriptions to the updated MASPS.
 - For the newly defined service descriptions, complete and harmonize Operational Safety Assessment (OSA) and Operational Performance Assessment (OPA), except for the Weather Surveillance Service or other services already defined in DO-364.
 - Expand minimum system requirements and recommendations to include those for AIS and MET input information.
 - Identify AIS and MET input information and their associated attributes that support the newly defined services.
 - AIS and MET information for the services with their associated attributes are assumed to be provided by AIS / MET approved sources (information that has been approved for aeronautical / operational use).
 - Coordinate with the Collaborative Decision Making (CDM) Steering Group to document minimum information content requirements for cockpit participation in specific CDM initiatives. Document these requirements in the MASPS.
 - Expand minimum system requirements and recommendations to cover data link agnostic service for the provision of Digital Automated Terminal Information Service (D-ATIS).
2. A Technical Standard will be created that: a) identifies requirements for automated atmospheric turbulence derivation techniques that provide output in Eddy Dissipation Rate (EDR); and b) describes a methodology for data validation that ensures an acceptable level of operational comparability.
3. The RTCA Report will provide recommendation(s) to the PMC regarding possible standards development work associated with aircraft-based meteorological observations and supported existing and emerging applications, including those for wake turbulence proximity, air traffic management and control, and weather forecasting purposes.

The study team shall consider the performance of applications and systems providing aircraft-based meteorological observations and any requirements for supported applications.

SC-206 will recommend to the PMC what standards development work may be needed to support such applications.

SC-206 will coordinate with other aviation and weather community stakeholders as necessary to determine the best path forward.

4. Modify DO-358B MOPS for FIS-B UAT to include:
- Update current FIS-B products with higher resolution and update rates:
 - In-flight Icing – Current Icing Products and Forecast Icing Products
 - Turbulence – Turbulence Nowcast
 - Re-activate Special Use Airspace (SUA) Product (Product ID #13)
 - Uplink Unmanned Aircraft Systems-only Temporary Flight Restrictions as a separate Product ID
 - Improve FIS-B outage descriptions

- Provide Military Operating Area Status

Correct any errors or deficiencies in DO-358B reported to SC-206 or found by SC-206 during the course of the DO-358B update.

Review and modify DO-358B to match SBS FIS-B system changes since release of DO-358B, if necessary.

Evaluate and consider the following products additions and enhancements during the development of DO-358C:

- Digital-Automatic Terminal Information Service
- Add cloud bases to Cloud Tops
- Military Training Area and Routes

ENVISIONED USE OF DELIVERABLE(S):

The updated DO-364 MASPS will be used by designers, manufacturers, installers, service providers, regulators, and users of AI and MET data link services systems.

The turbulence Technical Standard will be used by aircraft and avionics manufacturers, EFB application and service providers, algorithm developers, as well as manufacturers of other devices and components therein.

The PMC will consider the RTCA Report recommendation(s) regarding possible standards to support aircraft-based meteorological observation (ABO) dependent applications for possible further action(s).

DO-358C MOPS will be used by manufacturers to ensure compatibility with the FAA's FIS-B products delivered over UAT.

SPECIFIC GUIDANCE:

SC-206 will work collaboratively to meet the deliverables set forth in this TOR. SC-206 will coordinate with other RTCA special committees and other entities developing standards related to data link technologies, as appropriate.

- *EUROCAE Coordination* – Updating / harmonizing DO-364 will require formal joint EUROCAE WG-76/RTCA SC-206 activities. Developing the “MASPS for Performance Requirements for Automated Atmospheric Turbulence Derivation Techniques” will also be performed jointly with EUROCAE WG-76. Developing the “Recommendation(s) Regarding Possible Standards to Support Aircraft-Based Meteorological Observation Dependent Applications” will be performed jointly with EUROCAE WG-76. It is anticipated that updating DO-358B will be performed jointly with EUROCAE WG-76.
- *Additional Coordination* – SC-206 will coordinate its activities with the following:
 - RTCA SC-186, SC-209, SC-214, and SC-227
 - NextGen – Programs such as Improved Surface Observations, Time-Based Flow

- Management, Improved Multiple Runway Operations, On-Demand NAS, and Common Services.
- SESAR – SESAR Joint Undertaking Projects, such as 8.3.3 “Identify and Develop Aeronautical and Meteorological Information ATM Services” and Project 9.48 “AIS/MET Services & Data Distribution”
 - EUROCAE WG-76 – will formally join with RTCA SC-206 as a joint effort in developing DO-364A and developing AIS and MET input information requirements as well as for the development of the “MASPS for Performance Requirements for Automated Atmospheric Turbulence Derivation Techniques”.
 - Coordinate with the appropriate CDM groups, as determined by the CDM Steering Group, to define information content requirements for cockpit participation in CDM.
 - Airlines for America (A4A) will provide airline perspective inputs for “MASPS for Performance Requirements for Automated Atmospheric Turbulence Derivation Techniques” development and review draft documents.
 - SAE/ARINC AEEC
 - ICAO Meteorology Panel, Communications Panel, Information Management Panel, and Surveillance Panel
 - World Meteorological Organization
 - EUROCONTROL
- *Document dependencies* – The allocation of system-level requirements needed to support services, recommendations, and requirements for the updated DO-364 MASPS and “MASPS for Performance Requirements for Automated Atmospheric Turbulence Derivation Techniques” are identified in the latest versions of:
 - DO-181/ED-73 Minimum Operational Performance Standards for Air Traffic Control Radar Beacon System/Mode Select (ATCRBS/Mode S) Airborne Equipment
 - DO-252 Minimum Interoperability Standards (MIS) for Automated Meteorological Transmission (AUTOMET)
 - DO-260/ED-102 Minimum Operational Performance Standards for 1090 MHz Automatic Dependent Surveillance - Broadcast (ADS-B)
 - DO-282 Minimum Operational Performance Standards for Universal Access Transceiver (UAT) Automatic Dependent Surveillance – Broadcast
 - DO-339 Aircraft Derived Meteorological Data via Data Link for Wake Vortex, Air Traffic Management and Weather Applications – Operational Services and Environmental Definition (OSED)
 - DO-340 Concept of Use (ConUse) for Aeronautical Information Services (AIS) & Meteorological (MET) Data Link Services)
 - DO-349 Architecture Recommendation for Aeronautical Information (AI) and Meteorological (MET) Data Link Services
 - DO-369 Guidance for the Usage of Data Linked Forecast and Current Wind Information in Air Traffic Management (ATM) Operations
 - DO-370 Guidelines for In Situ Eddy Dissipation Rate (EDR) Algorithm Performance
 - *Initial Documentation*

Industry & Non-RTCA Documents	Intended Use
ARP 5621 Standards for Electronic Display of Aeronautical Information (Charts)	Background and guidance
ICAO Global Operational Data Link Document (GOLD)	Background and guidance
EUROCONTROL Communications Operating Concept and Requirements for the Future Radio System (COCR Version. 2.0)	Background and guidance
ICAO Doc. 9694 Manual of Air Traffic Services Data-Link Applications	Background and guidance

RTCA/EUROCAE Documents	Intended Use
RTCA Minimum Operational Performance Standards (MOPS) Drafting Guide	Policy guidance on drafting contents of a MOPS
RTCA Minimum Aviation Safety Performance Standards (MASPS) Drafting Guide	Policy guidance on drafting contents of a MASPS
RTCA DO-181F/EUROCAE ED-73F Minimum Operational Performance Standards for Air Traffic Control Radar Beacon System/Mode Select (ATCRBS/Mode S) Airborne Equipment	Background and guidance
RTCA DO-252A Minimum Interoperability Standards (MIS) for Automated Meteorological Transmission (AUTOMET)	Background and guidance
RTCA DO-260C/EUROCAE ED-102B Minimum Operational Performance Standards for 1090 MHz Extended Squitter Automatic Dependent Surveillance – Broadcast (ADS-B) and Traffic Information Services – Broadcast (TIS-B)	Background and guidance
RTCA DO-264 Guidelines for Approval of the Provision and Use of Air Traffic Services Supported by Data Communications	Guidance on preparation of RTCA DO-308/EUROCAE ED-151 OSED and RTCA DO-324/EUROCAE ED-175 SPR documents
RTCA DO-267A Minimum Aviation Safety Performance Standards (MASPS) for Flight Information Services – Broadcast (FIS/B) Data Link	Background and guidance
RTCA DO-282C Minimum Operational Performance Standards for Universal Access Transceiver (UAT) Automatic Dependent Surveillance – Broadcast	Background and guidance

RTCA/EUROCAE Documents	Intended Use
RTCA DO-308/EUROCAE ED-151 Operational Service and Environment Description (OSED) for Aeronautical Information Services (AIS) and Meteorological (MET) Data Link Services	Basis for developing RTCA DO-340 (ConUse) and RTCA DO-349 (AIS and MET Services Delivery Architecture Recommendations)
RTCA DO-324/EUROCAE ED-175 Safety and Performance Requirements (SPR) for Aeronautical Information Services (AIS) and Meteorological (MET) Data Link Services	Basis for developing RTCA DO-340 (ConUse) and RTCA DO-349 (AIS and MET Services Delivery Architecture Recommendations) <i>Note: RTCA DO-364 (AIS / MET Data Link Services MASPS) superseded this document</i>
RTCA DO-339 Aircraft Derived Meteorological Data via Data Link for Wake Vortex, Air Traffic Management, and Weather Applications Operational Services and Environmental Definition (OSED)	Basis for developing RTCA DO-364 MASPS
RTCA DO-340 Concept of Use (ConUse) for Aeronautical Information Services (AIS) & Meteorological (MET) Data Link Services	Basis for developing RTCA DO-364 MASPS
RTCA DO-349 Architecture Recommendations for Aeronautical Information (AI) and Meteorological (MET) Data Link Services	Basis for developing RTCA DO-364 MASPS
RTCA DO-358B Minimum Operational Performance Standards (MOPS) for Flight Information Services Broadcast (FIS-B) with Universal Access Transceiver (UAT)	Basis for RTCA DO-358C
RTCA DO-364 Minimum Aviation System Performance Standards (MASPS) for Aeronautical Information / Meteorological Data Link Services	Basis for RTCA DO-364A
RTCA DO-369 Guidance for the Usage of Data Linked Forecast and Current Wind Information in Air Traffic Management (ATM) Operations	Background and guidance
RTCA DO-370 Guidelines for In Situ Eddy Dissipation Rate (EDR) Algorithm Performance	Background and guidance
EUROCAE ED-89A and ED-89A Change 1 Data-Link Application System Document (DLASD) for the “ATIS” Data-Link Service	Basis for RTCA DO-364A / EUROCAE ED-XXX provision of agnostic data link D-ATIS.

TERMINATION:

When the scope of this Terms of Reference is complete, the committee will recommend to the PMC that the committee Sunset, go into Active Monitoring Mode, or spend a period of time in Hiatus. Any change/extension in the committee’s work program requires prior PMC approval.