

TERMS OF REFERENCE
Special Committee (SC) 213
Enhanced Flight Vision Systems/Synthetic Vision Systems
(Revision 19)

SC LEADERSHIP:

Position	Name	Affiliation	Telephone	email	Change
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BACKGROUND:

In December 2024, the PMC approved the work which had been jointly performed by the members of SC-213 and WG-79. As a result of this work (which was focused on the development of guidance associated with Synthetic Vision Systems (SVS), Enhanced Flight Vision Systems (EFVS), Enhanced Vision Systems (EVS), and Combined Vision System (CVS), the PMC has published two new MASPS DO-407/ED-326 and DO-408/ED-327.

However, due to change in technical imperative on the development of a MASPS for a Combined Vision System for Helicopter Operations for Low Visibility Operational Credit, the joint-committee (with EUROCAE WG-79) have decided to remove this deliverable from this TOR indefinitely.

Considering upcoming new air vehicles designs and operations in the industry and the applicability of new vision systems technology, the committee, backed by industry interest, proposes expanding the TOR to establish two new reports and subsequent development of MASPS for the following:

- Vision systems for Innovative Aerial Services / Advanced Air Mobility (IAS/AAM) and Helicopters in low visibility and night operations
- eXternal Vision System (XVS) technology for aircraft piloted by crew members on-board

PRODUCT DELIVERABLES:

Product	Description	FRAC/RAC Completion Due Date*	FRAC or RAC	Projected Publication Date**	Changed From
Report	Vision systems for Innovative Aerial Services / Advanced Air Mobility (IAS/AAM) and Helicopters in low visibility and night operations	May 2026	RAC	June 2026	New
Report	eXternal Vision System (XVS) technology for aircraft piloted by crew members on-board	May 2026	RAC	June 2026	New

*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.

SCOPE:

Emerging technology continues to result in more sophisticated systems. This RTCA Special Committee jointly with EUROCAE will initially develop report-level publications*. These publications will be aimed at presenting different viewpoints and capturing ideas to determine the readiness of creating MASPS-level guidance.

Regarding the report for Vision systems for Innovative Aerial Services / Advanced Air Mobility (IAS/AAM) and Helicopters in low visibility and night operations, the focus will be to explore the specific use-cases for these types of operations and collectively determine the best path to take for the development of MASPS-level guidance.

Regarding the report for eXternal Vision System (XVS) technology for aircraft piloted by crew members on-board, all phases of flight will be considered. This goal of this technology will be to create equivalent level of performance and safety to flight deck windows. The report will scope out the specific functions, environment, and concept of operations and determine the best path to take for the development of MASPS-level guidance.

March 13, 2025

The report “eXternal Vision System (XVS) technology for aircraft piloted by crew members on-board” will be led and developed solely by this RTCA Special committee (not jointly with EUROCAE. In the future, should there be a MASPS development on this topic, EUROCAE has the option to join that MASPS development at that time.)

ENVISIONED USE OF DELIVERABLE(S)

The envisioned use of the two new reports will be to address the relevance for creating OSED/MASPS-level guidance in alignment with existing or future regulatory guidance used by applicants for regulatory approval of Innovative Aerial Services / Advanced Air Mobility (IAS/AAM) and Helicopters in low visibility and night operations and external vision systems technology for aircraft piloted by crew members on-board.

SPECIFIC GUIDANCE:

The intent is for these documents to form the basis for applicants seeking regulatory approval. The results of this activity could serve as the foundation for future policy.

EUROCAE Coordination - RTCA SC-213 / EUROCAE WG-79 is a joint committee and will conduct joint meetings. The goal is to publish joint documents whenever possible.

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 in Hiatus. Any change/extension in the committee’s work program requires prior PMC approval.