# TERMS OF REFERENCE Special Committee (SC) 244

## **Take-off Performance Monitoring System Strategy**

## **Initial**

### **ORIGINAL REQUESTOR:**

| Organization | Person                               |
|--------------|--------------------------------------|
| EUROCAE      | Anna von Groote, Director<br>General |

#### **SC LEADERSHIP:**

| Position                                   | Name              | Affiliation | Telephone          | email                             | Change |
|--|-------------------|-------------|--------------------|-----------------------------------|--------|
| Chair(s)                                   | Thomas<br>Landers | Gulfstream  | 912-965-<br>4745   | Thomas.Landers@<br>gulfstream.com |        |
| Government<br>Authorized<br>Representative | Jeff Meyers       | FAA         | (425) 830-<br>1600 | jeffrey.meyers@fa<br>a.gov        |        |
| Secretary                                  | TBD               |             |                    |                                   |        |

#### **BACKGROUND:**

EUROCAE Working Group (WG) 94 produced a Technical Report in 2015 which discussed, at a high level, the basic concept of a Take Off Performance Monitoring (TOPM) System. The group concluded that the requirement for a MOPS/MASPS should be reviewed in the medium term (3-5 years). WG-94 was closed in 2015.

Issue: The UK CAA received a safety recommendation from a UK Air Accidents Investigation Branch (AAIB) Serious Incident Report (AAIB-27895) relating to a take-off performance issue.

The Serious Incident Report concludes that a UK registered aircraft took off from a runway with insufficient power selected and, although the aircraft became airborne, it used up much more of the runway length than intended. Fortunately, there was sufficient runway to enable the aircraft to reach its rotation speed and lift off. During the climb out, the crew realized their mistake and applied full power. A total of 32 similar events occurred during 2017-2022 and AAIB identified these events in Appendix A of the UK AAIB Serious Incident Report.

In order to facilitate the introduction of a TOPM System, a minimum operational performance standard (MOPS) and/or a minimum aviation system performance standard (MASPS) is needed to enable the certification authorities to establish equipment standards (TSO/E-TSO) and certification requirements.

## **DELIVERABLE:**

| Product  | Description  | FRAC Completion Due Date* | Change |
|--|--|---------------------------|--------|
| RTCA Report: Technology Assessment of Take Off Performance Monitoring (TOPM) Systems to inform Standards Development | Internal Report for the<br>Program Management<br>Committee to assess<br>TOPM Systems and<br>possible need for<br>standard(s) | August 2024**             | New    |

<sup>\*</sup>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.

\*\* As an RTCA internal report, the report will be distributed to SC-244/WG-129 committee membership and the Program Management Committee members. Further, internal RTCA reports are not subject to the Final Review and Comment Process.

#### **SCOPE and COORDINATION:**

This report shall undertake a technology assessment of TOPM systems so as to inform a future standardization program for this capability.

Prepare an RTCA Report to recommend additional reports and/or additional technical standards to be produced by SC-244/WG-129.

#### **ENVISIONED USE OF DELIVERABLE(S)**

The RTCA Report will be used by the Program Management Committee and EUROCAE Technical Advisory Committee to scope additional reports and/or technical standards to be produced by SC-244/WG-129.

### **SPECIFIC GUIDANCE:**

SC-244 is directed to operate as a joint committee with EUROCAE WG-129.

### • Initial Documentation

| Documents   | Intended Use                                |
|---|---|
| Technical Report EUR 047-15 / WG94-16, titled WG-94 Take-off Performance Monitoring (TOPM) Systems Technical Report, dated 05 February 2015 | Input to identify potential recommendations |

| UK AAIB Serious Incident Report (AAIB-27895)   | Input to identify potential recommendations |
|--|---|
| SAE AS8044A (Takeoff Performance<br>Monitor (TOPM) System, Airplane,<br>Minimum Performance Standard for)  | Input to identify potential recommendations |
| EUROCAE ED-250 (Minimum Operational<br>Performance Standards (MOPS) for a<br>Runway Overrun Awareness and Alerting<br>System)                                    | Input to identify potential recommendations |
| AC 25-15 (Approval of Flight Management Systems in Transport Category Aircraft)  | Input to identify potential recommendations |
| ANM-111-09-006 (Policy Statement on the<br>Certification of Flight Management Systems<br>(FMS) that Include Takeoff or Approach<br>Reference-Speed Calculations) | Input to identify potential recommendations |

**TERMINATION:** At the completion of the initial RTCA Report for the group, the group is asked to suggest to the Program Management Committee whether new deliverables should be developed, if the group should enter an Active Monitoring state, or the group should be sunset.