

TERMS OF REFERENCE
Terrain Awareness Warning System (TAWS)
SC-231 (Rev 8)

SC LEADERSHIP:

| Position | Name | Affiliation | Telephone | email | Change |
|------------------|----------------|-------------|----------------|--|------------|
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| Co-Chair | Rick Ridenour | L3Harris | 623-445-6619 | Rick.Ridenour@L3Harris.com | |
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BACKGROUND:

SC-231 has been in Active Monitoring Status since 2020. The FAA and EASA requested that the Committee be reactivated to discuss several issues and update DO-367 TAWS MOPS and/or generate RTCA Reports as appropriate.

DELIVERABLES:

| Product | Description | FRAC Completion Date** | Projected Publication Date** | Change |
|-------------|---|------------------------|------------------------------|------------------------------|
| RTCA Report | Internal report scoping planned changes to DO-367 and plans for additional RTCA Reports | Jun 2025*** | Sep 2025 | Corrected Wording under FRAC |

*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 and COORDINATION:

Topics to address:

Consider the white papers the Committee generated in 2020 regarding potential means of preventing operators from leaving the Forward-Looking Terrain Awareness function inhibited indefinitely. Determine if appropriate to incorporate in DO-367.

Consider a Low-Energy Alerting mode and determine if this is an appropriate function for inclusion in the Terrain Awareness & Warning System MOPS.

Consider how TAWS requirements would be harmonized with requirements for a future Ground Collision Avoidance System (GCAS).

Consider modifications to the Premature Descent Alerting (PDA) envelope defined in the current TAWS MOPS and determine if the envelope could be made more sensitive to early descents due to a mis-set barometric altimeter without negatively impacting nuisance alert rates.

Consider the effects of GPS spoofing on TAWS equipment.

The special committee should:

- A. Review the white papers that the committee generated in 2020 regarding the TAWS inhibit function.
- B. Review NTSB Recommendation A-14-43 regarding a low-energy alerting system.
- C. Review the work currently being performed by the FAA relative to a Ground Collision Avoidance System (GCAS).
- D. Review the BEA report (when released) regarding the Airhub A320 9H-EMU incident at Paris Charles de Gaule on 23May22.
- E. Review available data on GPS Spoofing.

ENVISIONED USE OF DELIVERABLE(S)

The RTCA report would be used to define possible next steps for the committee. The FAA may use subsequent updates to RTCA/DO-367 for revision to TSO-C151().

SPECIFIC GUIDANCE:

The special committee should develop a work program, with schedule and milestones, to accomplish the following tasks:

- A. Invite participation from interested parties, specifically including equipment manufacturers, aircraft manufacturers, airlines, and aircraft operators. Specifically solicit input from aircraft performance and navigation subject matter experts.

B. Review terms of reference during initial special committee meeting and recommend changes to the Program Management Committee based on inputs from the special committee members and interested parties.

C. Review the white papers that the committee generated in 2020 and determine what, if any changes are appropriate to the TAWS MOPS in terms of requirements to preclude the TAWS inhibit function remaining active indefinitely.

D. Review NTSB Recommendation A-14-43 and determine if the proper skillsets exist among committee members to define a low-energy alerting system and, if so, determine if such a system should be defined in the TAWS MOPS or if a separate MOPS would be more appropriate.

E. Review the work currently being performed by the FAA relative to a Ground Collision Avoidance System (GCAS). Determine a framework that could be used to harmonize TAWS requirements with potential future requirements for GCAS.

F. Review the BEA report (when released) regarding the Airhub A320 9H-EMU incident at Paris Charles de Gaulle on 23May22. Determine if requirements for Premature Descent Alerting (PDA) currently defined in the TAWS MOPS could be modified to generate an alert for the flight crew in the incident.

G. Review available data on GPS Spoofing. Determine the robustness a typical TAWS would have against GPS Spoofing.

It is expected the committee will request approval of the PMC to develop additional RTCA Reports and to update the TAWS MOPS in a subsequent phase.

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