

**Summary of the 10th Plenary
Special Committee 235 - Non-Rechargeable Lithium Batteries
Active Monitor Status Meeting**

Meeting Summary:

The 10th Plenary Meeting of Special Committee 235 (SC-235) was held on September 2, 2020. The meeting was conducted as a Virtual Meeting with the following attendees participating via WebEx:

John Trela (Chairman)	The Boeing Company
Norman Pereira (Government Authorized Representative)	Federal Aviation Administration
Jeff Densmore (Secretary)	Radiant Power Corporation
Karan Hofmann (Program Director)	RTCA, Inc.
Xavier Audouze	European Aviation Safety Agency
John Barry	Federal Aviation Administration
Susanna Bruffett	National Institute for Aviation Research
Antonio Chiesa	Transport Canada
Nick Conquest	National Institute for Aviation Research
Claude Cresp	ELTA
Samuel Davenel	Orolia
Fabricio de Oliveira Spigolon	Mitsubishi
Rodolfo Duran	Astronics DME
Nazih Khaouly	Federal Aviation Administration
Larry Masters	Gulfstream Aerospace Corporation
Fredric Menard	Orolia
Fernando Menendez Rodriguez	European Aviation Safety Agency
Thomas Pack	ACR Electronics
Paul Pfeifer	Textron
Jim Russell	The Boeing Company
Luis Samico	Mitsubishi
Leire SeguraMartinez de Ilarduya	Airbus
Adrian Sfetcu	Bell Helicopter Textron

*In accordance with the **Federal Aviation Advisory Committee Act**, Norm Pereira, Federal Aviation Administration, was the Government Authorized Representative for this meeting.*

Opening Plenary

- The 10th Plenary meeting of SC-235 was convened on September 2, 2020 at 12:00pm EDT by Chair John Trela (Boeing). Jeff Densmore (Radiant Power) was the SC-235 Recording Secretary.
- Norman Pereira was introduced as the Government Authorized Representative.
- An RTCA overview, including RTCA's Proprietary References Policy was read by Karan Hofmann, the Program Director.
- Welcoming remarks were made by John Trela. Each person in attendance was invited to introduce themselves.
- The meeting agenda was reviewed.
- The Revised Terms of Reference (TOR) for SC-235 was reviewed. This revision changed to Committee Status to Active Monitoring to enable the committee to review potential changes and clarifications to DO-227A.
- All documents and presentation material reviewed during Plenary #10 have been uploaded and is available on the RTCA Workspace at the following location:
https://workspace.rtca.org/apps/org/workgroup/sc235_nonrechargeble_lithium_batteries/documents.php?folder_id=9394

Review of Prior EASA Deviation Requests Against ETSO-C142a

The committee reviewed several EASA Deviation Requests that were previously submitted against ETSO-C142a. These requests addressed potential changes and clarifications to DO-227A. Note that these deviation requests are available on the RTCA Workspace.

Deviation Request ETSO-C142a#2

This deviation request addressed paragraph 2.4.2.1.7, Battery Humidity Test. The request identified inconsistencies between Table 2-2, Figure 2-16, and the paragraph text. These three sources did not equally consider the pre-conditioning / stabilization times of the test profile. The committee concurred that all three sources should agree and that corrections would be considered clarification and not a change in requirement.

Deviation Request ETSO-C142a#3

This deviation request addressed paragraphs 2.4.3, End Item Test Procedures and Criteria and 2.3.3, Test Samples and Test Sequence. The request identified inconsistencies between Figure 2-27 and the text of these paragraphs. The committee discussed this item at length, which highlighted the ambiguity that these inconsistencies have created. The committee clarified that the intent of this section was to perform Vibration and Shock on batteries within end-items prior to performing the Thermal Management, Thermal Runaway, and Load Profile (if applicable) tests. It was agreed that these inconsistencies be corrected by updating the figure and revising the text. Changes to DO-227A must still be defined by the committee during subsequent meetings. The committee will need to address questions regarding usage of the End Item Test Articles throughout the test sequence.

Deviation Request ETSO-C142a#4

This deviation request addressed paragraph 2.4.1.2.1, Cell Discharge Current Test. This test procedure specifies discharging the cells in step (d) at 3 volts. Elsewhere in the document, test voltages are referenced as the nominal cell voltage. The noted paragraph is an issue for those Lithium Cells that do not have a nominal voltage of 3 volts. The committee concurred that this reference should be corrected and that the change would be considered a clarification and not a change in requirement.

Deviation Request ETSO-C142a#5

This deviation request addressed paragraphs 2.1.3 and 2.1.4 Open Circuit Voltage (OCV) criteria. These paragraphs specify a maximum of 2% allowable change in OCV. The committee could not fully address this request due to a time limitation on the plenary. It was agreed to table the discussion until the next Plenary.

At the conclusion of the meeting, committee members were encouraged to submit other discussion items for review at the next Plenary meeting.

Action Item Summary

There were no actions assigned during this Plenary.

Next Plenary

Plenary #11 has been scheduled as a Virtual Meeting on October 8, 2020. A detailed agenda and WebEx meeting information will be issued closer to this meeting date.

-S-
Jeff Densmore
Secretary

CERTIFIED as a true and accurate summary of the meeting.

-S-
John Trela
Chairman

