

**Summary of the Twenty-Seventh Meeting**  
**Special Committee 216**  
**Aeronautical Systems Security**

**DATE:** June 15-17, 2016

**PLACE:** RTCA, Inc.  
1150 18th Street, NW, Suite 910  
Washington, DC 20036

The Committee wishes to thank RTCA for hosting this meeting.

**CONTACT:** Karan Hofmann, RTCA Program Director  
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**ATTENDEES:**

SC-216 Co-Chairs

Daniel Johnson  
David Pierce

Honeywell International, Inc.  
GE Aviation

SC-216 Secretary

Derek Schatz

Boeing Commercial Airplanes

Designated Federal Official:

Varun Khanna

Federal Aviation Administration (FAA)

Members attended:

Serge Barbagelata  
Liz Brandli  
Claudio Castro  
Karl Frantz  
Marcus Labay  
Philippe Marquis  
Michel Messerschmidt  
Bernie Newman  
Siobvan Nyikos  
Romuald Salgues  
Michael Severson

Airbus Helicopters  
FAA  
Embraer  
Gogo, Inc.  
Federal Aviation Administration  
Dassault Aviation  
Airbus  
Astronautics Corporation of America  
Boeing Commercial Airplanes  
Airbus  
Bell Helicopter

Peter Skaves  
Li-Hseng Tai  
Mitchell Trope  
Dinkar Mokadam

Federal Aviation Administration  
Teledyne  
Garmin  
AFA-CWA

Members attended by phone:

John Angermayer  
John Flores  
Larry Hannert  
Andrew Kornecki  
Kevin Meier  
Mark Ronell  
Chuck Royalty  
Shohreh Safarian  
Tim Tinney  
Phil Watson

MITRE  
Federal Aviation Administration  
LCH Engineering  
Embry-Riddle Aeronautical University  
Cessna Textron  
Federal Aviation Administration  
R5Y Consulting  
Federal Aviation Administration  
Saab Group  
Panasonic Avionics

*Note:* Attendance was recorded via the verbal roll-call, the sign-in sheets at the meeting, and the list of people logged into the WebEx. Apologies if anyone was missed.

In accordance with the Federal Advisory Committee Act, Varun Khanna, Federal Aviation Administration (FAA), was the Designated Federal Official.

This meeting consisted of both plenary and working sessions.

The outline for this meeting summary is organized around the published agenda. SC-216 presentations and documents can be found at the committee's Workspace site at <http://workspace.rtca.org> . Please contact the Program Director for access to the site.

Details of document edits are generally incorporated by reference in this summary. The agenda was published in advance of the meeting, and is available from the RTCA website.

## Meeting Summary

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### Day 1

#### *Plenary*

Varun Khanna: Public meeting announcement:

*In accordance with the Federal Advisory Committee Act, this Advisory Committee meeting is open to the public. Notice of the meeting was published in the Federal Register on May 23, 2016. Attendance is open to the interested public. With the approval of the Chairs, members of the public may present oral or written statements. Persons wishing to present or obtain information should coordinate with the RTCA Program Director Karan Hofmann and Chairs David Pierce and Daniel Johnson.*

Karan Hofmann: RTCA proprietary references policy

RTCA seeks to develop standards that don't require proprietary information for compliance. However, patented technology and copyrighted material that are required for compliance may be included in a standard if RTCA determines it provides significant benefit. If your company holds a patent or copyright relevant to an SC-216 document being developed, advise Karan Hofmann, Dan Johnson and Dave Pierce.

Karan Hofmann: RTCA membership policy

Organizations with a representative participating on RTCA Committees must be members of RTCA.

The Chairs opened the meeting and introductions were made around the room. The agenda was reviewed, and the minutes of the last meeting were accepted.

Representatives for various rotorcraft organizations attended. FAA Rotorcraft group won't push for inclusion of specific guidance in DO-356A, will manage this via AC. Will seek commonality and applicability to smaller aircraft (scalability). Airbus Helicopter said they avoid separate processes for large vs small aircraft.

Began review of the 10 ARAC topics for harmonization. Dave Pierce reminded the group of the tightly defined work scope in the TOR. The ARAC WG may come out with additional recommendations between now and the final report in August. There are no major new areas expected to come out, just one or two topics that might need additional attention. Goal for completion is still December 2017.

Dan Johnson presented a summary of the ARAC ASISP activities and the June meeting. Purposes are to make recommendations to regulators, and look for gaps in guidance.

ARAC Topics:

- Type Design Changes: Mostly focused on 4 cases of STCs.
- IFE: Ensure attention is paid to IFE even though it's level E, driven by public interest and attention. Interest in criminalizing any tampering with any equipment on the airplane, not just physical tampering with the safety stuff.
- Defining Assets to be Protected: Minor systems don't generally need protection, unless they are protecting more major systems.
- Draft Rule Statement: Needs more wordsmithing.
- Scope of Security ICA: proposed to reopen DO-355. Put DAH ICA in DO-356, operator ICA in DO-355.
- Part 33 Engines and Part 35 Propeller Systems: use guidance for electronics
- Part 27 and 29 for Rotorcraft
- Supply Chain: added counterfeit parts to concerns. ARAC position is that protection against counterfeit parts falls into security scope. Also a safety issue.
- Final FAA Policy Statement
- Field Loadable Software
- PEDs
- COTS: still need to perform change impact analysis.
- Risk Acceptability Framework: Larry provided a table for this.
- Acceptable Cert Evidence: FAA doesn't want to handle SSI data if they don't have to.
- Final Report Review

Dave began reviewing the document structures side by side. Proposed inclusion of more than one set of methods. Michel Messerschmidt stated there are still areas that are still lacking agreement that we will have to come to consensus on, regardless of how we merge doc content. Questions about document scoping and applicability to CFR parts. Dan Johnson intends to remove the restrictive scoping in DO-356 and use the verbiage from ED-203 regarding tailoring. He will send to Varun Khanna for approval.

## Day 2

*Working group session, joint with WG-72*

Michel Messerschmidt presented the outcomes of the WG-72 meeting the previous week.

There was some discussion in more detail of some key differences between DO-356 and ED-203. Dan showed a spreadsheet that showed the differences side by side, with color-coding indicating the level of consensus on each item. Yellow items should be worked first.

There is a disconnect between Europe and US regarding treatment of effectiveness and assurance. Europe wants to deal with them together, US separately. Some believe they are not the same thing, although related. Dan stated that DAL is assigned based on process, we don't mix DAL and risk level. Does DAL have to change when security is taken into account? Environment changes over time.

Reviewed joint schedule for 2016-2017. Next planned plenary is July 18th in Seattle, just prior to the ARAC meeting.

The group looked at Dan's spreadsheet and solicited volunteers to look at a selected topic from the ToC and discuss the differences between the two docs. Perhaps determine a path forward. Focus on the yellow items, as these are lacking consensus. He will forward the breakdown to both groups.

Reviewed specific ARAC guidance.

GH1: Varun: if you bury security controls in Level E functions, you need to show intended function. Dave: level commensurate with system you are protecting, not the system you are adding. We will skip security risk acceptability for now.

GH6: More guidance will need to be considered on how type design changes should be handled, particularly when OEM data is not available to the applicant.

GH7: Discussion of what constitutes acceptable certification evidence. Siobvan Nyikos presented her white paper. Philosophical discussion on whether or not examples are useful. It was noted that in Europe they are delegated, so much of the cert evidence is only retained and not submitted, e.g. DOAs under EASA.

GH9: Provide guidance for event logging and compliance with 14 CFR 21.3. Who defines the CONOPS? Per EASA, this is the operator.

GH10: Define the role of trust in the security environment, including which service providers may or may not be trusted.

Day 3

*Working group session (non-joint)*

Wrapped up work and discussions from the previous day.

Business completed, the meeting was adjourned by mid-morning. Action items were recorded and will be distributed separately.

/s/

Derek Schatz  
Secretary, SC-216

**CERTIFIED** as a true and accurate summary of the meeting

/s/

David Pierce  
Co-Chairman, SC-216

/s/

Daniel Johnson  
Co-Chairman, SC-216