



October 5, 2015  
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EUR 314-15/ WG78-34

**MINUTES OF THE 23<sup>rd</sup> PLENARY MEETING OF WG-78/SC-214**  
**“Standards for Air Traffic Data Communication Services”**

<i>Date</i>	<i>31 August - 3 September 2015</i>
<i>Place</i>	<i>Washington DC</i>
<i>Hosted by</i>	<i>RTCA</i>

**The attendees included:**

Co-Chairs SC-214/WG-78

Jerome Condis                      Airbus  
Charles Stewart                      United Airlines

Secretary SC-214/WG-78

Jane Hamelink                      Thane, Inc.

Members (Present)

David Batchelor                      SESAR Joint Undertaking  
Frederic Beltrando                      Airbus  
Sophie Bousquet                      RTCA  
Randy Bone                      Mitre  
Mark Anthony Brown                      Electronic Navigation Research Institute  
Kim Cardosi                      VOLPE  
Marc Charron                      NAV Canada  
Jim Cistone                      Concepts Beyond  
Scott Conde                      NATCA/FAA SME  
Jerome Condis                      Airbus  
Cedric D’Silva                      Thales  
John Gonda                      MITRE  
Kumi Easwarachandran                      Concepts Beyond  
Alexander Engel                      EUROCAE  
Jane Hamelink                      Thane, Inc.  
Christine Haissig                      Christine Haissig Consulting LLC  
Joachim Hochwarth                      GE Aviation Systems  
Santi Ibarz                      Airtel-ATN  
Mike Jackson                      Honeywell

Ken Jones	NASA
Sabrina Karniej	Systems Enginuity
Kathleen Kerns	SITA
Todd Kilbourne	System Enginuity, Inc.
Tom Kraft	Federal Aviation Administration
Michael Laurent	Dassault Aviation
Thierry Lelievre	ALTRAN
Tracy Lennertz	US DOT
Olivier Lezerat	Airbus
Angel David Mancebo	EASA
James Moulton	Open Network Solutions, Inc.
Peter Muraca	FAA
Thomas Mustach	Federal Aviation Administration
Greg Neseimeier	Federal Aviation Administration
Dung Nguyen	The Boeing Company
Madhu Niraula	Rockwell Collins
Mark Patterson	FAA
Darrell Pennington	Air Line Pilots Association
Frederic Picard	Thales
Mark Reed	Air Line Pilots Association
Pascal Rohault	Thales
Gordon Sandall	The Boeing Company
Randy Sheng	Honeywell
Charles Stewart	United Airlines
Wes Stoops	Regulus Group
Rip Torn	IFALPA
Willie Truong	Honeywell
Hartmut Villwock	DFS Deutsche Flugsicherung GmbH
Dongsong Zeng	Mitre

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In accordance with the Federal Advisory Committee Act, Thomas Mustach, Federal Aviation Administration (FAA), was the designated Federal Representative for this meeting.

#### **Meeting Objectives:**

1. Finalize Revision A to Baseline 2 standards SPR and INTEROPS and release the four documents for FRAC/Open Consultation:
  - a) Resolutions for outstanding comments received on draft v1.C
  - b) Approval of documents for FRAC/Open Consultation (15 Sept-30 Oct)
2. Consider plan to pursue coordination for the CPDLC and ADS-C definition with the International Civil Aviation Organization (ICAO):
  - a) OPLINK Panel
  - b) ACP Panel
3. Progress status of VDL2 standards and next steps/meetings

#### **Meeting Minutes:**

##### **1. Plenary 23 Welcome/Introductions and Administrative Remarks**

Sophie Bousquet, RTCA, welcomed members to Plenary 23 in Washington DC.

In accordance with RTCA policy, Thomas Mustach, the designated FAA representative, opened the meeting by reading the following text:

“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: **July 10,**

**2015.** Attendance is open to the interested public. With the approval of the Chairman, members of public may present oral or written statements at the meeting. Persons wishing to present or obtain information should coordinate with RTCA Program Director – Sophie Bousquet and the Co-Chairs – Chuck Stewart and Jerome Condis."

Sophie Bousquet presented the RTCA Propriety References Policy

- Policy for Proprietary References in RTCA Documents covers any patented or patentable technology and copyrighted material (proprietary information) required to comply with an RTCA Document
  - The goal is to develop documents without the inclusion of proprietary information
  - The policy allows RTCA to consider proprietary information for inclusion in an RTCA Document if it provides significant technical or economic benefit over non-proprietary technology
- By participating in an SC/WG meeting, signing the attendance book or by submitting items for consideration at the meeting, you confirm that you understand the RTCA policies and agree to comply with them
- The policy has distinct requirements:
  - A bona fide, public interest basis for the reference and or usage
  - Evidence that private pecuniary interests have not driven any decision to either include or exclude a system from the market
  - A commitment to license (CtL) the relevant technology, patent, patent pending, or copyrighted material either without compensation (e.g. royalty-free) or in a form and substance that is demonstrably free of any unfair discrimination or limitation of access must be obtained from the proponent (proprietary information owner)
    - If a CtL is not obtained, the information must not be included in the document
    - If a participant is personally aware, participant must disclose if the use of any proprietary information is proposed and/or required to comply with an RTCA document being developed
    - The Chairman of a SC proposing to use proprietary information will coordinate with SC's Program Director:
      - Provide a White Paper/presentation covering need
    - Once approved at the SC plenary session, White Paper/Presentation and CtL will be forwarded to the Program Management Committee (PMC) prior to any further discussion within the SC
    - Once reviewed by the PMC, the SC will take appropriate action
- RTCA policies available at: [www.rtca.org](http://www.rtca.org)

Andy Cebula, RTCA Vice President, presented the new RTCA membership policy. (See Slides 2015 Membership Policy.)

## **2. Approval of the agenda of Plenary 23**

Chuck Stewart, co-chair, presented the Plenary 23 agenda, which was approved as shown below:

1. Welcome/Introduction/Administrative Remarks
2. Approval of the Agenda of Plenary 23
3. Approval of the minutes of Plenary 22
  - a) Review Action Item Status
4. Coordination Activities with ICAO OPLINK
  - a) Plan for message set coordination and associated schedule
  - b) Assess the need to send WG-78/SC-214 Working Papers to ICAO
5. Status of B2 Rev A Standards, discussions on outstanding issues

6. Progress status of VDL2 standards
7. Review of Position Papers and Contributions
8. Approval of Sub-Group Meeting Objectives
9. Sub-group Report and Assignment of Action Items
  - a) RTCA FRAC and EUROCAE Open Consultation process overview
  - b) Agree action plan to close last outstanding comments
  - c) Confirm target date for publication of v1.D (version for FRAC/Open Consultation)
  - d) Establish and communicate schedule for FRAC /Open Consultation
10. Approval of Rev A of Baseline 2 documents for FRAC / Open Consultation
11. Approve dates and location of next Plenary Meeting – FRAC /Open Consultation Resolution
12. Any Other Business
13. Adjourn

### 3. Approval of the minutes of Plenary 22 and review of actions items

The Plenary 22 minutes were approved without modification

There was only 1 action item from Plenary 22:

**Action P22-1:** Get SC-214 TOR updated to remove “Final” at the March 2015 PMC meeting.

**Closed:** Chuck reported that the TOR was approved as written with all “final” indications were removed. As a result, the B2 TOR on the RTCA workspace is fully aligned with the EUROCAE WG-78 TOR.

### 4. Coordination Activities with ICAO OPLINK

Jerome provided the following feedback from the OPLINK WG OPLINK/2:

- ICAO is working on current implementations used on a daily basis for inclusion in PANS
- Edition 1 of GOLD (Doc 10037) is now planned to be published toward the end of 2015
- Edition 2 is planned for end 2016 to align with concomitant PANS amendments
- ICAO is ready to work on B2 material for inclusion in GOLD Edition 3, targeted end 2017

Impact on 214/78 standards

- No work required for GOLD Edition 1
- GOLD Edition 2 is an alignment no action
- Support is needed only on GOLD Edition (November 2017)
- Comments received on PANS ATM during ICAO States consultation and impacting existing messages (e.g., message reinstatement) must be transmitted to WG-78/SC-214 for consideration as part of FRAC / Open Consultation

**Action P23-1:** Jerome to facilitate coordination of States comment on PANS ATM PfA that could impact B2 Standards.

Frederic Picard noted that the *Doc 9880 Edition 2* publication is now planned for early 2016.

### 5. Status of B2 Rev A Standards, discussions on outstanding issues

Thierry presented B2 SPR Rev A Standards status. (See *SC-214/WG-78 CSG Progress Report Plenary #23.*) 391 comment were received on the v1.C SPR and 126 on the Interop standards. A majority of the comments have been resolved prior to the Plenary meeting though the CSG webex process, IM tiger team meetings, and discussion with comment authors. The showstopper comments will be reviewed during the Plenary this week.

Of note was concern on referencing the B2 standards to ICAO material, when such material has not yet been developed for all of the B2 services/operations. The relevant material has been updated in the B2 standard to address this concern (See *v1.D of the SPR*)

Tomas Mustach presented a paper on changes required to the SPR to harmonize the safety requirements. (See PL-POS Consistency OSA.)

**Action P23-2:** Jerome/Chuck to confirm if TORs need updating by having wind part of appropriate external standards (i.e. AEEC) instead of in the B2 standards.

## 6. Progress status of VDL2 standards

Dongsong presented the VDL Mode-2 status. (See SC-214 VDL2G Status Update Briefing.) In particular he noted that Link 2000+ is experiencing technical issues in Europe due to provider aborts and long delays. Details of the work plan to resolve these issues is detail on the on-line presentation.

Dongsong also noted that the TOR for the VDL Mode2 update technical issue improvement on MOPS and MASPS was approved in March 2015. There will be continued harmonizing all technical changes with the ICAO VDL Mode 2 Technical Manual.

## 7. Review of Position Papers and Contributions

Jerome introduced a paper from JARUS providing their recommendations on the use of CPDLC in the Remotely Piloted Aircraft System (RPAS) communications context. (See JAR DEL WG5 JARUS Recommendation CPDLC in the RPAS Communications.)

The Plenary considers that the ConOps for RPAS communications are still too unclear to have detailed requirements placed on the 214/78 standards. It was noted that a TOR revision would be required to enable any required work for 214/78. It was emphasized that even if 214/78 did perform a detailed analysis, architecture 2 (as presented in the reference paper) should still be considered valid.

**Action P23-3:** Jerome to coordinate with SC-228 and then provide feedback to JARUS by end of September 2015.

## 8. Approval of Sub-Group Meeting Objectives

Approval was given to the sub-groups to progress work on the v.1C comment resolution.

## 9. Sub-group Report and Assignment of Action Items

Thierry presented CSG progress report. (See Plenary #23 CSG Wrap-up.) He noted that all comments of v1.C have resolution. Concern was raised was held on how RNP precedence works (applicable to DRNP). RNP precedence deals with the assignment/required re-assignment of RNP values as changes are made along the route of flight. RNP precedence rules may determine the need for additional operational requirements in the B2 standard.

**Action P23-4:** Mike Jackson (as part of SC-227) to confirm how RNP precedence works.

Ken Jones provided a summary of the IM-PTM requirements. (See Interval Management Pair-wise Trajectory Management (IM-PTM) Concept Overview and Message Set Resolution Sept 2015.)

**Decision P23-1:** IM-PTM does not require ADS-C on either the IM-PTM or target aircraft.

Randy Bone provided a summary of the IM-AACD requirements. (See A-IM Message Development SC-214/WG-78.)

### a) RTCA FRAC and EUROCAE Open Consultation process overview

Sophie presented an overview of the FRAC/Open Consultation process. She noted that a common comment matrix will be used by both RTCA and EUROCAE. There is a separate comment matrix for each of the B2 documents. All reviewers are requested to use these comments matrices when providing comments to facilitate the resolution process.

- b) Agree action plan to close last outstanding comments

All comments have been resolved, and are expected to be included in v1.D for the FRAC/Open Consultation Review process. Any comments, not resolved to a commenter's satisfaction will be worked through with each commenter.

- c) Confirm target date for publication of v1.D (version for FRAC/Open Consultation)

The B2 v.1D standards and accompanying comment matrix will be completed and posted to the RTCA workspace by September 15, 2015.

- d) Establish and communicate schedule for FRAC /Open Consultation

The B2 standards FRAC and Open Consultation review period is from September 15- October 30, 2015. Comments on the B2 standards are due to RTCA/EUROCAE by October 30 2015.

## **10. Approval of Rev A of Baseline 2 documents for FRAC / Open Consultation**

**Decision P23-2:** The B2 Rev A Baseline 2 documents are approved for FRAC / Open Consultation.

*Note: Rockwell-Collins expressed a dissenting opinion on the maturity of the B2 Rev A documents for the FRAC/ Open Consultation due to the lack of stability of the IM and DRNP services definition.*

## **11. Approve dates and location of next Plenary Meeting – FRAC /Open Consultation Resolution**

Airbus will host Plenary 24 near Paris, France the week of 7-11 December 2015.

## **12. Any Other Business**

Based on the discussions during the meeting, Jerome proposed for review a summary of the 214/78 Plenary's assessment of the "JARUS Recommendations CPDLC in the RPAS communications" paper (see § 7). The Plenary concluded the committee would proceed with a response to JARUS as part of the ongoing external consultation, around two main points:

- a) Comment 1

SC-214/WG-78 is not in a position today, without more information about concept of operations, to assess detailed impacts on the ATS data link industry standards from introduction of RPAS in the CPDLC performance scheme. For this reason, SC-214/WG-78 cannot comply with the JARUS recommendations to update ED-228/DO-350.

Industry consultation should be coordinated at EUROCAE / RTCA level to assess which committee(s) have to contribute to the activity.

Further coordination is also required with ICAO in order to ensure global convergence for ATS data link standards.

- b) Comment 2

Even though further work is required to assess impacts of the introduction of RPAS on the ATS data link standards, SC-214/WG-78 insists on providing an initial feedback to JARUS recommendations on the use of CPDLC in the RPAS communications context.

SC-214/WG-78 strongly recommends Architecture 2 (ground-ground connectivity) is investigated by RPAS community as early as possible as an option to support CPDLC communication between ATC and the Remote Pilot. Architecture 1 could be considered if ground-ground connectivity cannot be established.

This will avoid putting unnecessary load on the air-ground links, especially on the ATS data link network that is already saturated in some airspaces (contrary to the assumption stated in the paper 3.1.3).

Moreover, the feasibility of architecture 1 while maintaining the current CPDLC performance allocation model for RPAS as proposed in the paper (i.e. including RPA + C2 link + RPS in the current aircraft RCTP) is questionable.

### **13. Adjourn**

The group thanked RTCA for the welcome and excellent support.  
Plenary 23 was adjourned.

All the papers referred to in these minutes can be downloaded from  
<http://workspace.rtca.org/apps/org/workgroup/sc-214/documents>.

Jane Hamelink  
Secretary, SC-214/WG-78

CERTIFIED as a true and accurate summary of the meeting.

Charles Stewart  
Co-Chairman, SC-214/WG-78

Jerome Condis  
Co-Chairman, SC-214/WG-78