Executive Summary

The joint RTCA SC-242 / EUROCAE WG-124 Plenary #4 meeting was held on November 10, 2022. The meeting was held in hybrid format with both in-person at RTCA and virtual attendees.

- Briefings were presented on the following topics:
  - Subgroup 1 Output to SC-242/WG-124 Plenary
  - Subgroup 2 Plenary Summary – SC-242/WG-124

Meeting materials are available in the November 10, 2022 Plenary Meeting #4 folder on AerOpus and Workspace at the following links (link may need to be copied into browser):
  - EUROCAE Workspace: https://eurocae.sharepoint.com/sites/strato/143ce6de-838d-ec11-b400-000d3ab41693/8b00537e-3d3f-ed11-9db0-000d3adca767/SitePages/Documents.aspx

- Next Meeting:
  - Joint RTCA SC-242 / EUROCAE WG-124 Plenary #5
    - April 18-20, 2023 or April 19-21, 2023 at either Airbus in Toulouse France or EUROCAE headquarters in Saint-Denis France
Joint Plenary Meeting Summary

The joint RTCA SC-242 / EUROCAE WG-124 Plenary #4 meeting was held on Thursday November 10, 2022. The meeting was held in hybrid format with both in-person at RTCA and virtual attendees.

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- EUROCAE Workspace: https://eurocae.sharepoint.com/sites/strato/143ce6de-838d-ec11-b400-000d3ab41693/8b00537e-3d3f-ed11-9db0-000d3adea767/SitePages/Documents.aspx

Thursday, November 10th Plenary
The Plenary convened at approximately 0830 EST / 1430 CET

1. Host and Co-Chairs Welcome and Introductions
   - Ed Hahn and John Micallef welcomed participants.
   - Ed managed participant introductions.
   - Attachment A lists the combined participants for the Plenary and subgroup meetings that occurred on November 8 and 9, 2022.

2. Administrative matters – RTCA & EUROCAE Policies
   - Rebecca Morrison and Anna Guegan presented the RTCA and EUROCAE mandatory slides on anti-trust, proprietary/intellectual property, committee participation membership, and GDPR privacy policies.

3. Review and Approval of Meeting Agenda
   - Ed Hahn presented the meeting agenda. Ed asked if there were other agenda items, and none were offered.
   - The agenda was approved.

4. Review and Approval of the Minutes from SC-242/WG-124 Plenary Meeting #3
   - Clay Barber presented the draft September 9, 2022 plenary minutes.
   - Clay asked if there were any amendments to the minutes and none were offered.
   - The minutes were approved.

   **Post meeting note:** The final minutes were posted to the September 9, 2022 Plenary Meeting #3 folder on AerOpus and Workspace.

5. Review of Actions and Risk Register
   - **Review of Actions:** The open actions from the September 9, 2022 plenary minutes were reviewed.
     - March 20, 2022 plenary #1:
       - Action 1: It was noted that efforts continue to be made to identify a WG-124 Secretary. It was agreed to keep Action 1 open and change the due date to Plenary Meeting #5.

Page 2 of 8
- Action 2: Ed Hahn volunteered to start the Report #2 outline. The due date to identify document editors was extended to Plenary Meeting #5.
  - September 9, 2022 plenary #3:
    - Actions 11, 12, 13, and 16: Agreement to close.
    - Action 15: The due date was extended to November 23, 2022 to allow Anna Guegan to bring the proposed report title changes to the TAC via email. As part of this discussion, it was also agreed that the titles agreed to by the TAC will be used for the reports and that the SC-242 TOR will be updated accordingly, which resulted in new Action #18.
    - Action #17 was amended to revise the Plenary number from 6 to 5 since the committee agreed the need for virtual Plenary number 5 was overcome by events.

- **ACTION**: Ed Hahn to start the Report #2 outline.
- **ACTION**: Ed Hahn to update the SC-242 TOR report titles to align with the titles agreed to by the TAC.

- **Risk Register**: John Micallef presented the example risk register.
  - The committee agreed that the risk register is useful to keep at the plenary level. John volunteered to formalize the register and keep it up to date.
  - **ACTION**: All committee members are asked to contribute to identifying risks that should be included in the risk register.

6. **Internal Coordination and Subgroup Reports to Plenary**
   a. **Status of Work by Subgroup Leads**
      - **Subgroup 1:**
        - Andy Roy led the discussion of the Subgroup 1 (SG1) slides (attached).
        - There was discussion of:
          - The tight timelines for completing SG1 survey report by April 2023 plenary #5.
          - How to engage other SCs/WGs to complete the survey responses that SC-242/WG-124 considers to be important to include in Report #1.
          - Whether surveys must be completed for the remaining inactive documents.
          - Which documents to prioritize: SC-159 DO-235 and SC-222 were identified.
        - Chris Tourigny offered that the FAA may be able to assist with survey analysis if SCs/WGs are unable to support. John Micallef offered that Gary Berz may be able to review the DME airborne MOPS surveys that are already completed as well as the DME ground system MOPS.
        - **ACTION**: Ed Hahn and John Micallef to send another reminder to other SCs/WGs about survey due dates.
      
      - **Subgroup 2:**
        - In Capucine Amielh’s absence, John Micallef led the discussion of the SG2 slides (attached).
        - Volunteers have been identified to lead the development of Issue Papers 1, 4 and 5.
        - John and Ed called for volunteers to lead the development of Issue Papers 2 and 3.
b. Tasks Allocation Discussion
   • Not discussed

7. External Coordination
   a. Correspondence and Announcements on Input Material from Other RTCA/EUROCAE SCs/WGs
      • Ed Hahn provided a summary of the survey responses and other correspondence that has been received from other SCs/WGs since the September 9, 2022 Plenary.
         o Jim Williams acknowledged that SC-228 owes a response for C2 MOPS survey and is working to provide a response.

b. Status from Other External Groups [e.g., CEPT, ICAO, etc.]
   • Ed Hahn and John Micallef indicated they have had no interactions with external groups since the September 9, 2022 Plenary.
   • Andy Roy noted that the ICAO FSMP is in the process of updating the ICAO Handbook with plans for multiple volumes. Andy also noted the need for coordination between the FSMP and SC-242/WG-124. Andy reiterated the need for the SC-242/WG-124 briefing to Feb 2023 FSMP identified by Action 14.
   • Andy noted that it would be helpful to have input from the FCC, NTIA, CEPT and others when the guidance document is more mature and particularly during the FRAC process.

8. Documentation of Action Items
   • Clay Barber provided the list of actions he had captured from the November 10 Plenary. The actions were amended as suggested by the committee and are captured in the following table.

   • Current SC-242/WG-124 Plenary Action Item list
     o Action Items closed during this Plenary are shaded in grey in the following table.
     o New Action Items identified during this Plenary are shaded in green in the following table.
     o Actions closed in previous Plenary sessions are not listed.

<table>
<thead>
<tr>
<th>#</th>
<th>Owner</th>
<th>Action</th>
<th>Date</th>
<th>Due Date</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Anna Guegan / John Micallef</td>
<td>Identify WG-124 Secretary</td>
<td>Mar 10, 2022</td>
<td>Apr 18, 2023</td>
<td>Open</td>
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<tr>
<td>2</td>
<td>Ed Hahn / John Micallef</td>
<td>Identify subgroup leads and document editors</td>
<td>Mar 10, 2022</td>
<td>Apr 20, 2023</td>
<td>Partially Open</td>
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<td></td>
<td></td>
<td>• Subgroup leads identified Apr 20, 2022</td>
<td></td>
<td></td>
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<tr>
<td>11</td>
<td>John Micallef</td>
<td>Prepare an example risk register and present it to the committee for discussion</td>
<td>Sep 9, 2022</td>
<td>Nov 8, 2022</td>
<td>Closed</td>
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<tr>
<td>12</td>
<td>Ed Hahn / John Micallef</td>
<td>Refine the survey request to other SCs/WGs and send updated request</td>
<td>Sep 9, 2022</td>
<td>Sep 20, 2022</td>
<td>Closed</td>
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<tr>
<td>13</td>
<td>Andy Roy</td>
<td>Schedule Webex meetings with other SCs/WGs to aid returning their responses (assisted by Ed Hahn / John Micallef)</td>
<td>Sep 9, 2022</td>
<td>Sep 26, 2022</td>
<td>Closed</td>
</tr>
</tbody>
</table>
# Owner | Action | Date | Due Date | Status
--- | --- | --- | --- | ---
14 Ed Hahn / John Micallef | SC-242/WG-124 to prepare a presentation for the February ICAO FSMP (ensuring coordination with RTCA/EUROCAE) | Sep 9, 2022 | Feb 1, 2023 | Open
15 Anna Guegan | Bring proposed report title changes to EUROCAE TAC for consideration | Sep 9, 2022 | Nov 23, 2022 | Open
16 Rebecca Morrison | Send survey to establish March 2023 virtual Plenary 5 date | Sep 9, 2022 | Dec 1, 2022 | Open
17 John Mettrop / Anna Guegan | Determine April 2023 Plenary 5 location | Sep 9, 2022 | Jan 15, 2023 | Open
18 Ed Hahn | Change SC-242 TOR to update report title changes | Nov 10, 2022 | Dec 15, 2022 | Open
19 All | Contribute to identifying risks that should be included in risk register | Nov 10, 2022 | Nov 29, 2022 | Open
20 Ed Hahn / John Micallef | Send another reminder to other SCs/WGs about survey due dates | Nov 10, 2022 | Nov 30, 2022 | Open
21 Ed Hahn | Start Report #2 outline | Nov 10, 2022 | Apr 20, 2023 | Open

9. Date and Venue of Next Meeting
- The committee agreed to resume subgroup weekly meetings on November 15, 2022.
- The committee agreed there was no longer a need for the March 2023 virtual plenary.
- The committee agreed to meet for Plenary 5 on either April 18-20, 2023 or April 19-21, 2023 with the preferred location being Airbus in Toulouse France. Rooms have been reserved at EUROCAE headquarters in Saint-Denis France if the Airbus Toulouse facility is not available. Either way there will be a hybrid option.

<table>
<thead>
<tr>
<th>Meeting Dates</th>
<th>Locations (Hosts)</th>
<th>Meeting Goal</th>
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</thead>
<tbody>
<tr>
<td>April 18-20, 2023 or April 19-21, 2023</td>
<td>Toulouse France (Airbus) or Saint-Denis France (EUROCAE) (hybrid)</td>
<td>Finalize and approve Report #1 Progress Guidance document and Report #2</td>
</tr>
</tbody>
</table>

10. Any Other Business
- None identified

11. Adjournment
- The Plenary adjourned at approximately 1050 EST / 1650 CET on Thursday November 10, 2022.
CERTIFIED as a true and accurate summary of the meeting.

Clay Barber, SC-242 Secretary  TBD, WG-124 Secretary

Ed Hahn, SC-242 Chair  John Micallef, WG-124 Chair
### Leadership

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Ed Hahn</td>
<td>ALPA</td>
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<tr>
<td>SC-242 Chair</td>
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<tr>
<td>John Micallef</td>
<td>EUROCONTROL</td>
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<tr>
<td>WG-124 Chair</td>
<td></td>
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<tr>
<td>Clay Barber</td>
<td>Garmin</td>
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<td>SC-242 Secretary</td>
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<tr>
<td>Chris Tourigny</td>
<td>FAA</td>
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<td>Rebecca Morrison</td>
<td>RTCA</td>
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<td>SC-242 Program Director</td>
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<tr>
<td>Anna Guegan</td>
<td>EUROCAE</td>
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<td>WG-124 Technical Programme Manager</td>
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<tr>
<td>Andrew Roy</td>
<td>ASRI</td>
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<td>Subgroup 1 Lead</td>
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<td>Capucine Amielh</td>
<td>Airbus</td>
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<td>Subgroup 2 Lead</td>
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### Membership

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<tr>
<td>Alex Wanda</td>
<td>Satnav Africa</td>
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<td>Clint Quesenberry</td>
<td>FAA</td>
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<td>Dave Redman</td>
<td>AVSI</td>
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<td>Jessie Turner</td>
<td>Boeing</td>
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<td>Jim Williams</td>
<td>Aura Network Services</td>
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<td>John Moore</td>
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<td>Jose Luis Chinchilla</td>
<td>Indra</td>
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<td>Karan Hofmann</td>
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<td>Kathleen Kearns</td>
<td>AlternnaSource</td>
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<td>Kathryn Bernazzani</td>
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<td>Mauro Pagliarini</td>
<td>EASA</td>
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<tr>
<td>Naruto Yonemoto</td>
<td>Electronic Navigation Research Institute (ENRI), Japan</td>
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<td>Ravi Jain</td>
<td>FAA</td>
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<tr>
<td>Sam Weich</td>
<td>Ligado Networks</td>
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<tr>
<td>Sasa Jankovic</td>
<td>Bundesaufsichtsam für Flugsicherung, Germany</td>
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<td>Sergio Bovelli</td>
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<td>Steve Giles</td>
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<td>Wen Chan</td>
<td>Delta Airlines</td>
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<td>Wes Googe</td>
<td>American Airlines</td>
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<td>Xavier Esneu</td>
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Guests

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SG-1 Output to SC-242/WG-124
Plenary
Nov 22 WG-W SG1 Activities

- Workplan/Timelines updates
- Reviewed the RF survey responses
- Draft report development
- Organizing survey response review process
SG-1 Workplan

• Create list of all SC/WGs and the relevant standards documents that have an RF component to an active TSO/ETSO
• Define list of questions/parameters survey will gather for each TSO/ETSO system by their respective SC/WG
• Send ‘questionnaire’ to SC/WGs
• Provide briefing to SC/WG leads to address any questions
• Receive relevant data from SCs
• Begin summarizing information and various methods of presenting it
• Summarize work and provide any conclusions
• 30 April 2023 - Target for publication
Timelines

- **Sep**
  - Progress update for Plenary meeting
  - Begin drafting intro sections of report and trial standards summary
  - Host webinar for questions from SC/WG leadership

- **Oct**
  - Drafting of report intro and current responses
  - Processing returns from SC/WG/Experts

- **Nov**
  - Drafting of report intro and current responses
  - Processing returns from SC/WG/Experts
  - 8-10 Plenary – Assessment of RF survey returns progress
  - Send reminders to outstanding SC/WGs
  - 22 - TAC

- **Dec**
  - Drafting of report intro and current responses
  - Processing returns from SC/WG/Experts
  - 13 – Last weekly session of the year
  - 15 – Update to PMC
  - 31 Dec – Deadline for returns from SC/WG/Experts

- **Jan**
  - Drafting period for full document. Ensure engagement with SG-2 for active feedback
  - 31 - draft of report ready for SC/WG/Experts feedback and wider comments*

- **Feb**
  - 27* - SC/WG feedback and inputs due, incorporate feedback

- **Mar**
  - 16 Mar PMC - present progress and request out of cycle approval (TAC should be around same time for same request)
  - 21 – Finalize SG-1 Report ready for 2 week RAC process

- **Apr**
  - 3 – deadline for RAC comments. Incorporate them into document to finalize
  - 19-21 – 242/124 full Plenary to approve document
  - 21 - Document reviewed by RTCA/Eurocae staff ready for PMC/Council review process
  - 31 – Report publication target date
RF Survey Responses Update

- Aeropuis folder of responses: [Link]
  - 21 responses received (14 from inactive)
  - 57 requests outstanding
  - Latest RF Survey Tracker – [Link]

- Responses since last plenary
  - DO-260C with Change 1 – MOPS for 1090 MHz Extended Squitter ADS-B and Traffic Information Services - Broadcast (TIS-B)
  - ED-102B – MOPS for 1090 MHz Extended Squitter ADS-B and Traffic Information Services-Broadcast (TIS-B)
  - DO-144A – MOPS for ATCRBS Airborne Equipment
  - DO-181F with Change 1 – MOPS for ATCRBS/Mode S Airborne Equipment
  - ED-73F with Change 1 – MOPS for Secondary Surveillance Radar Mode S Transponders
  - ED-47B with Amendment 1 – MOPS for Airborne ILS Glidepath Receiving Equipment
SG1 Report Review

• See uploaded report: Link

• Reviewed the current text:
  • Main body
  • Appendices
  • Report additions

• Considerations:
  • Volunteers for specific sections
  • Balance/content/tone of survey commentary
  • Addition of implied questions section
RF Survey Review Trial

• Assessing survey as an individual can be very subjective (and significant workload)
  • Successfully trialed a group review process instead
  • Having different CNS expertise a significant help for context

• Will implement group review process and coming WGs
  • Will organize into separate C, N, & S sections to better plan expert member attendance
  • Expect surveillance first given early inputs from CSC
Plenary summary – SC242/WG124
SG2
Nov. 10th, 2022
SG2 activities

• **Tue Nov 8**
  • Review workplan and planning
  • Agreed on information paper/standard process

• **Wed Nov 9**
  • Review and discuss the 5 information papers
  • IP champion propositions
  • Discussion about the standard edition

• **Thu Nov 10**
  • Summary of work for plenary
Information papers process

1. **Abstract/discussion section in-work**: When we think our concept is solid and the discussion section is filled.

2. **Concept Promoted for SG review**: Discussion section is closed. We start proposing text for the future standard.

3. **Proposed text in-work**: Proposed text is reviewed during working meetings. When final text is ready, we promote it for SG review.

4. **Text promoted for SG review**: Text is reviewed in SG (and reworked if needed) and approved to be included in standard. Minor corrections might be needed at this point.

5. **Text SG Approved**: Minor corrections for integration in DO-XX

6. **IP closed**
Information papers dependencies

- Abstract/discussion section in-work
- Concept Promoted for SG review
- Proposed text in-work
- Text promoted for SG review
- Text SG Approved
- Review for integration in DO-XX
- IP closed

Loop with parallel and dependent IP for alignment
Pending IP can start to be filled
Loop with parallel and dependent IP for wording
Standard edition process

1st draft of DO-XX organization and introduction

Discussed in working sessions

Once organization clarified and IPs proposed text approved

IP text incorporation: IP 1 to 5

Links across first paragraphs and organization review

Discussed in working sessions

IP text incorporation: IP 6 to 9

Links across whole document

Discussed in working sessions

Internal review

Maturity discussed in plenary

FRAC
Workplan and planning

• Agreed process to proceed on Information Papers:
  • Collective approach: the content will be filled during SG meetings along the way.
  • Weekly meetings will be scheduled and canceled/ or finish earlier if needed. This way, agendas are blocked.
  • Champions should be named on each IP to facilitate progress in-between SG meetings.
  • Champion task will be to apply corrections/advices proposed in SG meetings, have a look at advised references...

• Planning review – Available on Aeropus
Information papers

- The following 5 information papers have been discussed and content has been added.
  - Information paper 1: Synthesis of RF survey and first recommendations
  - Information paper 2: How to fully describe a transmitter spectrum envelope
  - Information paper 3: How to fully describe a receiver spectrum envelope
  - Information paper 4: Decision criteria for interference assessment
  - Information paper 5: Interference scenarios
- Champions have been identified for IP 1, 4 and 5.
- The IPs reviewed during the working session are available on Aeropus.
Standard edition

• Template of DO
  • We could use RTCA or EUROCAE format.
  • But once we exchange this format, we should only distribute it as pdf.
  • The recommendation is to use our own format to start.

• Editor identification deadline
  • The recommendation is to wait until our first IP is ready.