



RTCA Paper No. 317-22/SC242-008  
EUROCAE Paper No. 417-22/WG124-08

November 10, 2022

**Summary of the 4<sup>th</sup> Meeting**  
**Summary of the 4<sup>th</sup> Meeting**  
**Spectrum Compatibility**

**RTCA Special Committee 242 (SC-242)**  
**EUROCAE WG-124**

### **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):

- RTCA AerOpus:  
<https://aeropus.i3cloudservices.com/Group/GroupLanding/10010?tab=Documents&folder=Plenary+Sessions%2F2022+Sessions%2F4-November+10%2C+2022>
  - EUROCAE Workspace: <https://eurocae.sharepoint.com/sites/strato/143ce6de-838d-ec11-b400-000d3ab41693/8b00537e-3d3f-ed11-9db0-000d3adea767/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

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## 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.

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):

- RTCA AerOpus:  
<https://aeropus.i3cloudservices.com/Group/GroupLanding/10010?tab=Documents&folder=Plenary+Sessions%2F2022+Sessions%2F4-November+10%2C+2022>
- EUROCAE Workspace: <https://eurocae.sharepoint.com/sites/strato/143ce6de-838d-ec11-b400-000d3ab41693/8b00537e-3d3f-ed11-9db0-000d3adea767/SitePages/Documents.aspx>

### Thursday, November 10<sup>h</sup> 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.

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- 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.

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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.
  - 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
  - Action Items closed during this Plenary are shaded in grey in the following table.
  - New Action Items identified during this Plenary are shaded in green in the following table.
  - Actions closed in previous Plenary sessions are not listed.

#	Owner	Action	Date	Due Date	Status
1	Anna Guegan / John Micallef	Identify WG-124 Secretary	Mar 10, 2022	Apr 18, 2023	Open
2	Ed Hahn / John Micallef	Identify subgroup leads and document editors • Subgroup leads identified Apr 20, 2022	Mar 10, 2022	Apr 20, 2023	Partially Open
11	John Micallef	Prepare an example risk register and present it to the committee for discussion	Sep 9, 2022	Nov 8, 2022	Closed
12	Ed Hahn / John Micallef	Refine the survey request to other SCs/WGs and send updated request	Sep 9, 2022	Sep 20, 2022	Closed
13	Andy Roy	Schedule Webex meetings with other SCs/WGs to aid returning their responses (assisted by Ed Hahn / John Micallef)	Sep 9, 2022	Sep 26, 2022	Closed

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#	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	Closed - OBE
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.

Meeting Dates	Locations (Hosts)	Meeting Goal
April 18-20, 2023 or April 19-21, 2023	Toulouse France (Airbus) or Saint-Denis France (EUROCAE) (hybrid)	Finalize and approve Report #1 Progress Guidance document and Report #2

**10. Any Other Business**

- None identified

**11. Adjournment**

- The Plenary adjourned at approximately 1050 EST / 1650 CET on Thursday November 10, 2022.

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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

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**Attachment A – Participants**

**Leadership**

<b>Name</b>	<b>Organization</b>
Ed Hahn SC-242 Chair	ALPA
John Micallef WG-124 Chair	EUROCONTROL
Clay Barber SC-242 Secretary	Garmin
Chris Tourigny, SC-242 Government Authorized Representative	FAA
Rebecca Morrison SC-242 Program Director	RTCA
Anna Guegan WG-124 Technical Programme Manager	EUROCAE
Andrew Roy Subgroup 1 Lead	ASRI
Capucine Amielh Subgroup 2 Lead	Airbus

**Membership**

<b>Name</b>	<b>Organization</b>
Alex Wanda	Satnav Africa
Clint Quesenberry	FAA
Dave Redman	AVSI
Earle DePass	TCCA
Jessie Turner	Boeing
Jim Williams	Aura Network Services
John Moore	Aura Network Services
Jose Luis Chinchilla	Indra
Karan Hofmann	RTCA
Kathleen Kearns	AlternaSource
Kathryn Bernazzani	DOT Volpe Center
Kim Kolb	Boeing
Mauro Pagliarini	EASA
Naruto Yonemoto	Electronic Navigation Research Institute (ENRI), Japan
Ravi Jain	FAA
Sam Weich	Ligado Networks
Sasa Jankovic	Bundesluftfahrtbehörde für Flugsicherung, Germany
Sergio Bovelli	Airbus
Steve Giles	Mitre
Wen Chan	Delta Airlines

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<b>Name</b>	<b>Organization</b>
Wes Googe	American Airlines
Xavier Esneu	Collins Aerospace

**Guests**

<b>Name</b>	<b>Organization</b>
None	



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

- Aeropus 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

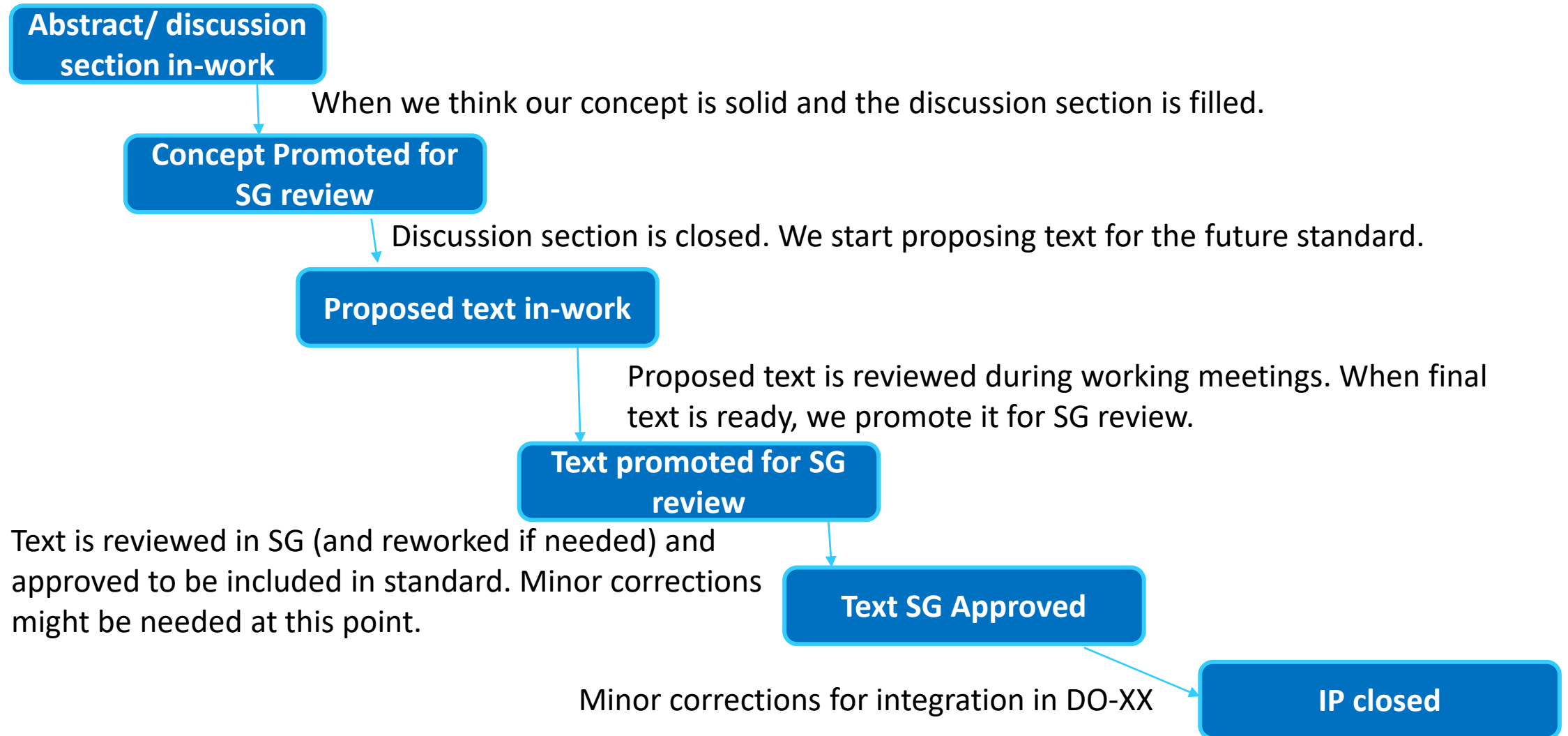
Nov. 10th, 2022



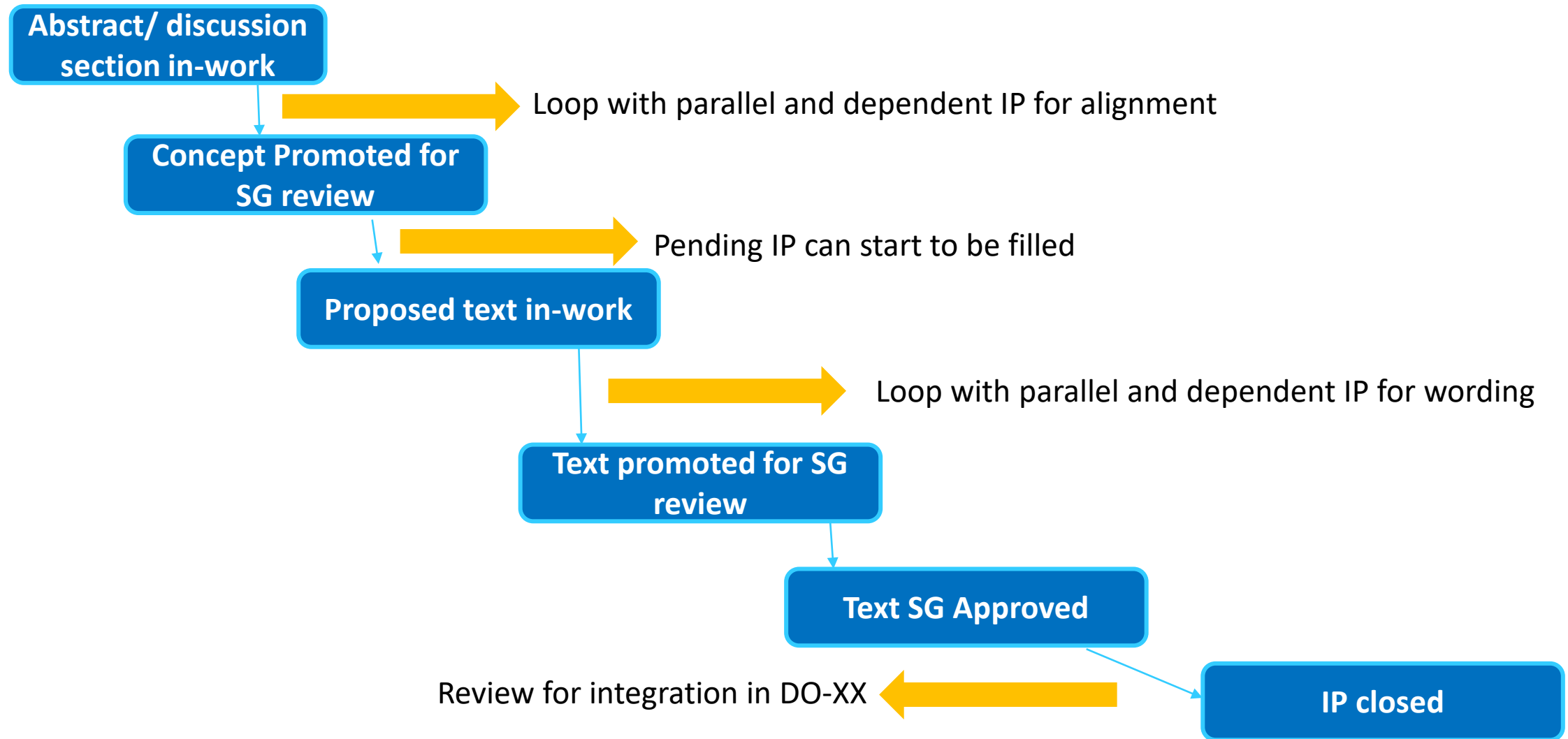
# SG2 activities

- 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

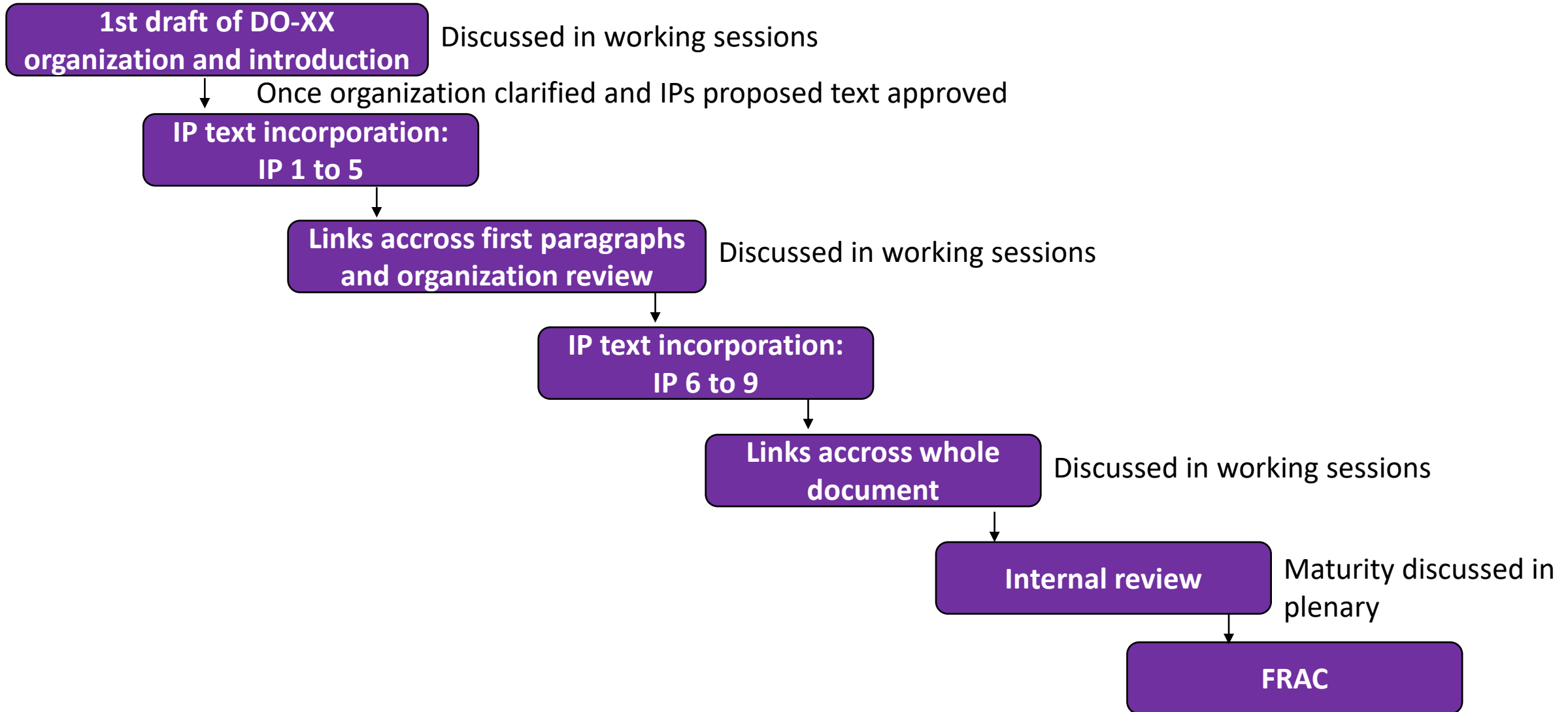
# Information papers process



# Information papers dependencies



# Standard edition process



# 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.