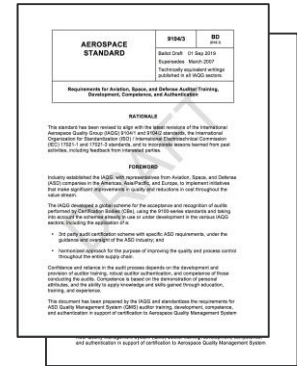


# 9104/3 – BALLOT DRAFT

## REQUIREMENTS FOR AVIATION, SPACE, AND DEFENSE AUDITOR TRAINING, DEVELOPMENT, COMPETENCE, AND AUTHENTICATION

### Deployment Support Material

### September 2019



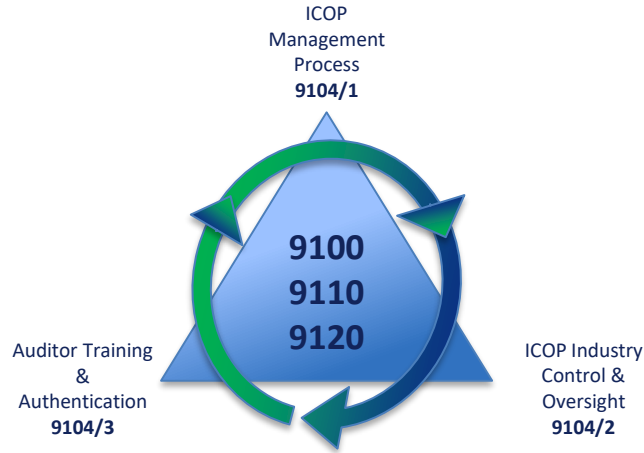
# Team Members



- Eric Jefferies - Bell Textron (IDR)
- Deneige Fitzpatrick - Bombardier (SDR)
- Pete Cracknell - BAE Systems (SDR)
- Yuta Kumada - MHI (SDR)
- Brendon Hill - BSI Group
- Jeanette Preston - Smithers Quality Assessments
- Mike McRandall - NSF
- Rich DeMary - Probitas
- Markus Krooss - Airbus
- Brian Geer - Lockheed Martin
- Eric Saillard - Thales Group
- Stuart Anthony – Scribe

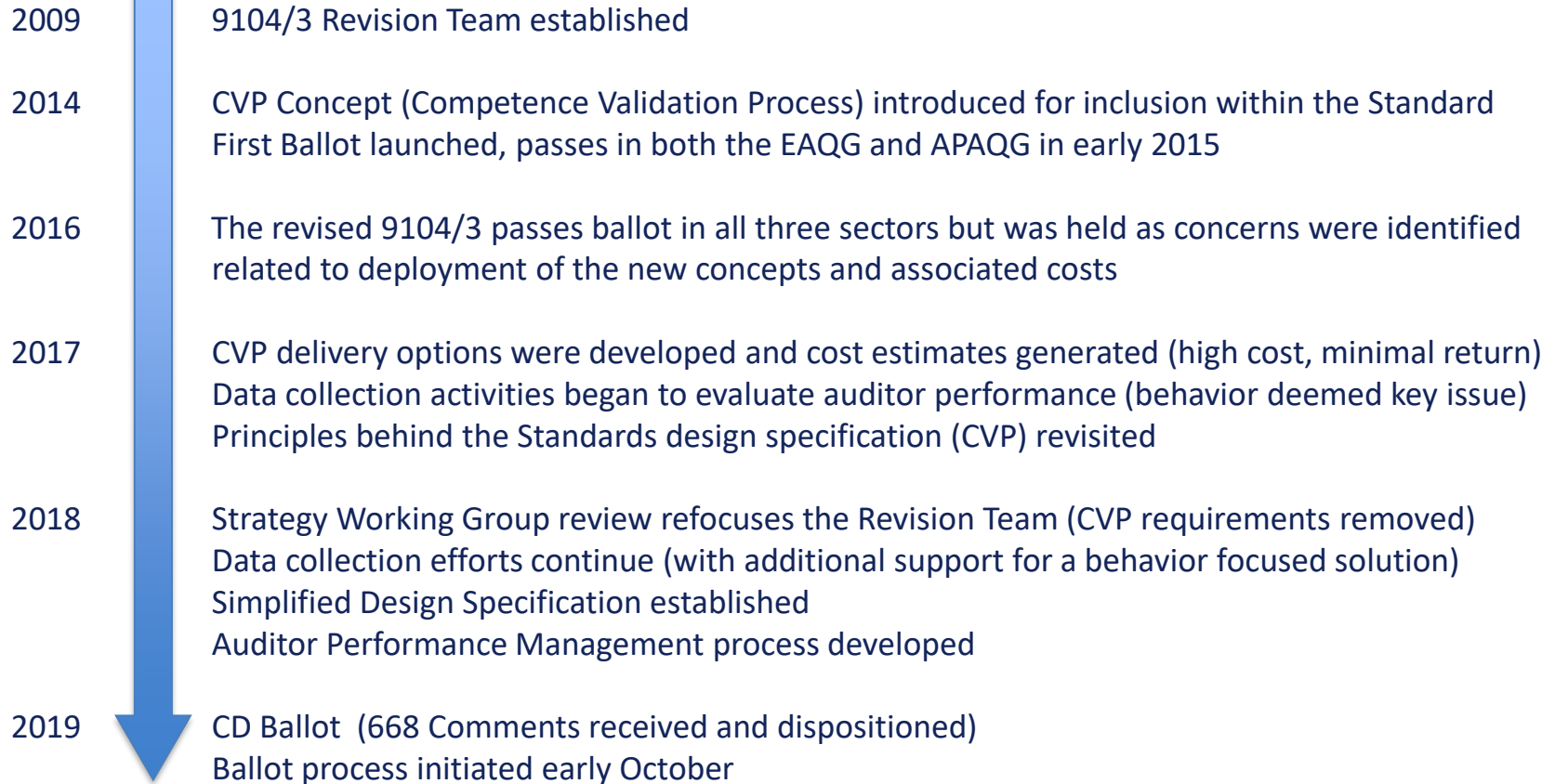
# 9104/3 Introduction

## Where does 9104/3 fit in the ICOP scheme?



- 9104/3 - Requirements for Aviation, Space, and Defense Auditor Training, Development, Competence, and Authentication
- One part of the 9104 trilogy of standards

# 9104/3 Revision Project Timeline



# Auditor Performance Survey/Analysis Results



- Survey 1 (*Member Companies, CB Program Managers, ABs, OP Assessors*)
  - Survey questions related to auditor competency
  - Asked to value to each question: Scale 1 (low) to 5 (high)
  - Results ranged from **3.54 - 3.92 (indicating high perceived competence)**
- CB Data Analysis (*Numerous CBs*)
  - Study derived from CB audit records
  - Key finding: Auditors are **3.4 times more likely to write NCRs** when being independently witnessed (**suggesting behavioral elements are a factor in performance rather than just competence**)
- Survey 2 (*Auditors*)
  - Survey questions relating to conducting the audit
  - Key findings: **51% are being influenced into not writing NCRs** due to various drivers (e.g. time management, off-site workload, client pressure)

## Conclusion

Consistent  
Competency



Inconsistent  
Conduct



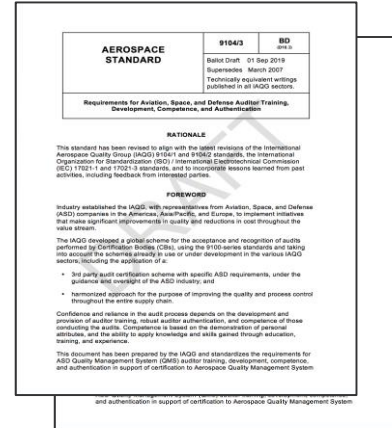
# Design Specification Criteria

- Removal and replacement of outdated content
- Inclusion of current 9104/3 resolutions
- Inclusion of related content from 9104/1
- Clarification of work experience/knowledge requirements
- General restructuring of the document for simplification
- Inclusion of an auditor performance monitoring and feedback process
- Method to allow transition of auditors from other industries into the scheme

International Aerospace Quality Group – Revision Progress					
		<b>9104-003 – Requirements for ASD Auditor Training, Development, Competence, and Authentication</b>		Project Leader: Eric Jefferies (IDR)	
Date of last report: October 2018	Date of this report: May 2019	Current Status: 	Strategy Stream Leader: Alan Daniels	Sector Document Rep: Dennige Fitzpatrick	
Initial Planned Completion Date: (From IAQG 9103.1 App B)		Current Estimated Completion Date:		Yuta Kumada Peter Grackwell	
2018-Apr		December 2019			
<b>Project description / benefits:</b>				<b>Recent accomplishments (since last report):</b>	
<b>Initial Goal</b> – Complete rewrite/update of the standard to support a process that: <ul style="list-style-type: none"><li>• Enhances audit effectiveness.</li><li>• Moves away from qualification based approval to demonstrated competence based auditor approvals.</li><li>• Allows for potential expansion of the ASD auditor population.</li><li>• Addresses identified missing areas (TPAB and AAB requirements).</li></ul>				<ol style="list-style-type: none"><li>1. Provided contribution with additional input for incorporation of all AAB and TPAB specific requirements. Agreed to minor Auditor Performance Monitoring requirements under ASD/003 with the objective of making a reference to the new requirements.</li><li>2. Adjusted Assessment to Auditors Scope and Delivery in most of the document.</li><li>3. Completed identification of AAB content to be reviewed for missing reasons. Results include:<ul style="list-style-type: none"><li>Assessor Competency – 12 (100%)</li><li>Partly Assessed Competency – 21 (84%)</li><li>Assess in Principle – 32 (75%)</li><li>Not Assessed Competency – 45 (72%)</li></ul></li><li>4. To Complete: Legality of Data Sharing and Measurement of NCNs.</li></ol>	
<b>Unresolved issues &amp; decisions needed (if any):</b>				<b>Next steps (30-60-90 day look ahead):</b>	
<ol style="list-style-type: none"><li>1. Support review of legally enforceable agreements concerning the signing of personal data (CBs, AABs, TPABs, TPs).</li></ol>				<ol style="list-style-type: none"><li>1. Conduct final review in prep for submission of ballot draft.</li><li>2. Submit final document to IAQG Legal for review.</li><li>3. Development of deployment support material.</li><li>4. Submit document for balloting by 15th working Legal</li><li>5. Meet in Berlin for ballot draft comment disposition.</li></ol>	

# Document Structure

- Rationale, Forward, Scope, References
- Terms, Definitions and Acronyms
- Requirements for Auditor:
  - Initial Authentication, Re-authentication, Advancement
- Requirements for:
  - Auditor Performance Monitoring and Management
  - Auditor Authentication Bodies (AAB)
  - Training Provider Approval Bodies (TPAB)
  - Training Providers (TP)
  - Training Courses



9104/3 Ballot Draft

# Key Changes



# New Definitions

- **Auditor Performance Management:**
  - Activity undertaken to monitor individual 3<sup>rd</sup> party auditor performance, and establish improvement programs as required to maintain auditor authentication, based upon the results of performance information gathered.
- **Performance Improvement Plan (PIP):**
  - The means to address performance improvement that includes clear, structured set of actions and deliverables, together with timescales, in order to attain a specified level of performance.



## Rationale:

- To support the introduction of performance management activity and identify improvement opportunities

# Table 1 – Initial Auditor Authentication



Element	Authenticated Auditor (AA)	Authenticated Experienced Auditor (AEA)	
Baseline Training	Evidence of passing a TPAB approved ASD Lead Auditor Course (see 3.11).		
Audit Experience (see 3.4)	Evidence within the past three years of: <ol style="list-style-type: none"> <li>a minimum of four 2nd party QMS/AQMS and/or 3rd party QMS full system audits (see 3.17) in a team member or team leader role;</li> <li>additional audits, if necessary, to demonstrate coverage of all requirements of the respective standard at least twice; and</li> <li>a minimum of 20 on-site audit days (excluding planning and report writing).</li> </ol>	Evidence within the past three years of: <ol style="list-style-type: none"> <li>a minimum of four 2nd party QMS/AQMS and/or 3rd party QMS full system audits (see 3.17) leading a team in a team leader role;</li> <li>additional audits, if necessary, to demonstrate coverage of all requirements of the respective standard at least twice; and</li> <li>a minimum of 20 on-site audit days (excluding planning and report writing).</li> </ol>	
IAQG Sanctioned Requisites (see 3.16)	Evidence of successful completion (including examination, as applicable) of any IAQG requisites.		
Work Experience (see 4.3)	Evidence of 2 years work experience within the past 10 years (see 4.3.1).	9100 9120	Evidence of four years ASD work experience (see 4.3.2) within the last 10 years.
		9110	9100 above, plus evidence of two years aviation maintenance work experience (see 4.3.3) within the last four years.
ASD Industry Knowledge (see 4.4)	Evidence not required.	9100 9120	Evidence of industry knowledge (see 4.4.1).
		9110	Evidence of industry knowledge (see 4.4.2).

Auditor authentication:

- External QMS auditor recognition not required
- Single path to AEA certification created

Audit experience

- Team member/leader roles recognized

Baseline Training:

- Requires approved ASD lead auditor course

IAQG Requisites

- IAQG sanctioned requirements mandated

Work experience:

- Requirements added for AAs
- Scope expanded for AEAs

Industry knowledge

- Requirements clarified

**Rationale:**

- Strengthened the requirements for initial authentication

# Table 2 – Auditor Re-authentication



Element	Authenticated Auditor (AA)	Authenticated Experienced Auditor (AEA)
Audit Experience (see 3.4)	Evidence within the past three years of: <ol style="list-style-type: none"> <li>a minimum of four 2nd and/or 3rd party QMS/AQMS full system audits (see 3.17);</li> <li>additional audits, if necessary, to demonstrate coverage of all requirements of the respective standard at least twice; and</li> <li>a minimum of 20 on-site audit days (excluding planning and report writing).</li> </ol>	Evidence within the past three years of: <ol style="list-style-type: none"> <li>a minimum of four 2nd and/or 3rd party AQMS full system audits (see 3.17);</li> <li>additional audits, if necessary, to demonstrate coverage of all requirements of the respective standard at least twice; and</li> <li>a minimum of 20 on-site audit days (excluding planning and report writing).</li> </ol>
IAQG Sanctioned Requisites (see 3.16)	Evidence of successful completion (including passing an examination, as applicable) of any IAQG requisites.	
Work Experience (see 4.3)	Evidence not required.	
ASD Industry Knowledge (see 4.4)	Evidence not required.	
Continual Professional Development (CPD) (see 3.13)	Evidence of 40 hours within the auditor authentication cycle, with a minimum of 10 hours per year. NOTE: Each hour of structured learning activity is equivalent to one CPD hour.	
Auditor Performance Management (see 3.8)	Evidence of any PIPs raised (see 6.3.a) and any other reported performance issues or concerns over the auditor authentication cycle (see 9.4).	

## Continual Professional Development

- Requirements increased from 15 hours to 40 hours, during the authentication cycle

## Auditor Performance Management

- New requirements introduced

### Rationale:

- Step change in CPD requirements to better align with other benchmarked schemes
- Performance management introduced to address inconsistent audit conduct

# Table 3 – Auditor Advancement



Element	Authenticated Auditor (AA) to Authenticated Experienced Auditor (AEA)
Audit Experience (see 3.4)	For advancement to 9100, evidence of: a. at least one full auditor authentication cycle as an AA conducting 3rd party AQMS audits; b. a minimum of 30 on-site 3 <sup>rd</sup> party AQMS audit days (excluding planning and report writing), in each of any three consecutive years; and c. a minimum of four 3 <sup>rd</sup> party QMS audits leading a team, in a team leader role.
	For advancement to 9120, evidence of: a. 9100 AEA authentication; b. a minimum of five on-site 3 <sup>rd</sup> party 9120 audit days (excluding planning and report writing), in each of any three consecutive years.
	For advancement to 9110, evidence of: a. 9100 AEA authentication; b. passing a regulatory aviation maintenance specific training course (see 3.20); c. a minimum of five on-site 3 <sup>rd</sup> party 9110 audit days (excluding planning and report writing), in each of any three consecutive years; and d. direct involvement in one complete 3 <sup>rd</sup> party 9110 audit, witnessed by a 9110 AEA (authenticated in accordance with 9110 Table 1 work experience).
IAQG Sanctioned Requisites (see 3.16)	Evidence of successful completion (including passing an examination, as applicable) of any IAQG requisites.
Work Experience (see 4.3)	Evidence not required.
ASD Industry Knowledge (see 4.4)	Evidence of industry knowledge (see 4.4.1 and/or 4.4.2, as applicable).
Auditor Performance Management (see 3.8)	Evidence of any PIPs raised (see 7.4.a) and any other reported performance issues or concerns in the previous three years (see 9.4).

## Audit Experience

- Reliant upon completion of one authentication cycle
- Minimum number of on-site audit days identified
- Demonstration of leading a team

## Industry knowledge

- Requirements introduced

### Rationale:

- New concept introduced to allow a pathway for AAs to become AEAs, thus providing an opportunity for career growth
- Audit experience will contribute towards gaining industry knowledge

# Auditor Performance Monitoring

## Monitoring criteria established

- Nonconformities per audit day
- Upheld complaints
- Upheld client nonconformity appeals
- Oversight/witness findings

## Additional criteria can be determined

- Based on lessons learned and trends

## Thresholds:

- Targets set periodically by IAQG



Managed by the CBs

### Rationale:

- To provide a common baseline for consistent monitoring of auditor performance
- Align CB data to individual auditor performance

# Auditor Performance Monitoring

## CB witness audits

- Criteria established
- Applies to new and existing auditors
- Frequency based on determined risk (3-6 years)



Auditor	Performance Assessment	Witness Audit
New to the CB	Every 12 months	First AQMS audit.
Existing		a. Every three years; or b. Up to a maximum of six years, based on risk assessment results (see 8.4.2.2).

### Rationale:

- To provide a consistent approach to CB witness audits
- To allow for frequency adjustment of witness audits based on risk evaluation

# Auditor Performance Management

## Performance Improvement Plan (PIP)

- Established to manage auditor performance improvement
- Contains clear actions, deliverables and timescales in order to attain a specified level of performance
- Escalation process defined for Auditor Authentication Body (AAB) intervention



### Rationale:

- To provide a consistent approach towards managing auditor performance
- To support auditor development

# Sharing Performance Data

Sharing personal activity and performance information with relevant interested parties:

- To be managed via bi-lateral contracts between the joint controllers of the data

Applies to:

- IAQG
- Auditors
- Certification Bodies (CBs)
- Auditor Authentication Bodies (AABs)
- Training Provider Approval Bodies (TPABs)
- Training Providers (TPs)
- Training Participants
- Sector Management Structure (SMS) body



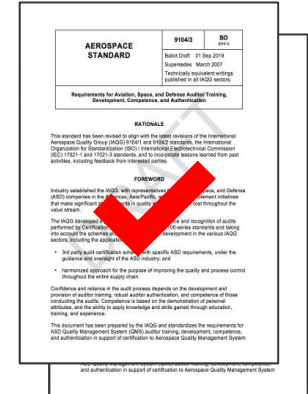
Rationale:

- To allow for a more wholistic approach to performance management



# In Summary

- Confidence and reliance in the audit process depends on:
  - Behavior and competence of those conducting the audits
  - Professional development of auditors
  - Robust auditor authentication
  - Development and provision of auditor training
  - Effective governance between the interested parties
- The next publication of 9104/3 will represent a step change in providing the necessary focus to enable consistent and robust 3<sup>rd</sup> party audits across the ASD industry





INTERNATIONAL AEROSPACE QUALITY GROUP

