Aviation in the Age of Artificial Intelligence

Data, Accountability, Safety Oversight and State Readiness

ICAO seminar hosted by the United Arab Emirates · Dubai · 1–3 February 2027

CENTRAL QUESTION

Who remains responsible when AI systems support or perform aviation-relevant functions, and do existing rules adequately address these situations?

DAY ZERO · SUNDAY 31 JANUARY

Effective Delegation 2.0 — pre-event workshop

By invitation · host-State workshop with ICAO co-facilitation

TIME	SESSION / ACTIVITY	FOCUS AND PROPOSED CONTRIBUTION
14:00–18:00	**Effective Delegation 2.0 — when the delegate is a system · LIVE**	By-invitation workshop in which an AI agent performs an oversight task on synthetic data through six rounds. Proposed contribution: a six-round delegation ledger, presented on Day 2.

DAY 1 · MONDAY 1 FEBRUARY

The system as it is

Responsibility, present practice, dependency, reliable AI and delegation

TIME	SESSION / ACTIVITY	FOCUS AND PROPOSED CONTRIBUTION
09:00–09:45	**Opening ceremony**	Welcome by the host Director General; addresses by the President of the ICAO Council and the ICAO Secretary General; UAE keynote; and a short film setting the inspector's perspective.
09:45–11:00	**1. Who signs? Personal responsibility in a Convention written for humans**	Focus: where the human-signature requirement sits in today's rulebook, and what follows when a safety-relevant act is performed by a system a State did not certify or cannot inspect. Contribution: first line for the Chair's summary.
11:15–12:30	**2. The inspector's new colleague: what authorities are already doing with AI**	Practical experience from authorities using AI: what has improved, what challenges remain, and how data quality and human accountability are maintained. Contribution: the first entries in the case register.
14:00–15:15	**3. The night the update went wrong: what one outage taught aviation about dependency**	A real dependency case involving providers outside the authority's certification remit. Contribution: evidence exhibits on dependency and disruption; the disruption case does not involve AI.
15:30–16:45	**4. Data or models: which matters more for reliable AI in aviation?**	Is data more important than the AI model itself? How should authorities assess data quality, model performance and the reliability of the resulting decisions? Contribution: the data-quality, validation and model-reliability line for the Chair's summary.
17:00–18:30	**5. Delegation, live: the room decides where authority goes · LIVE**	A compressed ICAO delegation exercise with audience decision points on delegation, trust, provider instruction, updates and accountability. Contribution: the audience ledger — five votes and two polls, by segment.

DAY 2 · TUESDAY 2 FEBRUARY

Where the boundaries are

Certified objects, digital infrastructure, jurisdiction, delegation and continuous assurance

TIME	SESSION / ACTIVITY	FOCUS AND PROPOSED CONTRIBUTION
Survey item	**What the survey said — and did not say**	Short presentation of the ICAO Secretariat's membership-wide AI governance survey and its limits. Contribution: evidence for the Day 2 discussion.
09:15–10:30	**6. Where does the aircraft end?**	Tests where a certified object ends and an external dependency begins. Contribution: Boundary one — and whether the question remains if the technology disappears.
10:45–12:00	**7. Invisible infrastructure: when a vendor becomes aviation infrastructure**	Considers when an ordinary digital service begins to carry aviation's public responsibility. Contribution: Boundary two and the provider typology.
13:30–14:45	**8. Whose inspector? Oversight when the function sits in another State**	Tests the current allocation of State responsibilities against materially distributed safety-critical functions. Contribution: Boundary three.
15:00–15:45	**9. Authority under test: the delegation ledger · LIVE**	Report from the Sunday exercise, with six token maps, six verdicts and floor reaction. Contribution: the delegation ledger, as an input received.
16:00–17:15	**10. Certified once, assured forever? From configuration to continuous assurance**	Asks whether approval can remain fixed when safety-relevant capability evolves through the lifecycle. Contribution: Boundary four.

DAY 3 · WEDNESDAY 3 FEBRUARY

What States ask for

Readiness, State capacity, regulatory interoperability and safeguards

TIME	SESSION / ACTIVITY	FOCUS AND PROPOSED CONTRIBUTION
09:00–10:00	**11. A global provider fails at 03:00 — what can you do before breakfast? · LIVE**	Directors General work through a no-staff scenario at regional tables. Contribution: regional answers, reported verbatim and attributable to no State.
10:15–11:30	**12. The two-inspector authority: what small States need from a system going digital**	Small authorities identify what is needed to keep responsibility real when functions move beyond their reach. Contribution: regional requests, as stated.
11:45–13:00	**13. Who trains the trainer? Building the authority's own capability**	Moves beyond training demand to the capability and ownership authorities require. Contribution: the capability line for the Chair's summary.
14:00–15:15	**14. One rulebook or many? Regulatory interoperability as the next interoperability problem**	Distinguishes legitimate State variation from divergence that only a common approach can remove. Contribution: the interoperability line.
15:30–16:45	**15. Engagement without capture: using outside knowledge without handing over the pen**	Tests how ICAO can draw on outside expertise while decisions remain with States. Contribution: the safeguards line.
Closing items	**The next generation's verdict** **Chair's summary read-back** **closing remarks**	A Chair's summary capturing practical lessons, priorities for data quality and validation, AI model reliability, bias and transparency, oversight challenges, State capacity needs, and proposed follow-up actions, for submission to the ICAO Council.