Strategic Option for Pilot Training Innovation

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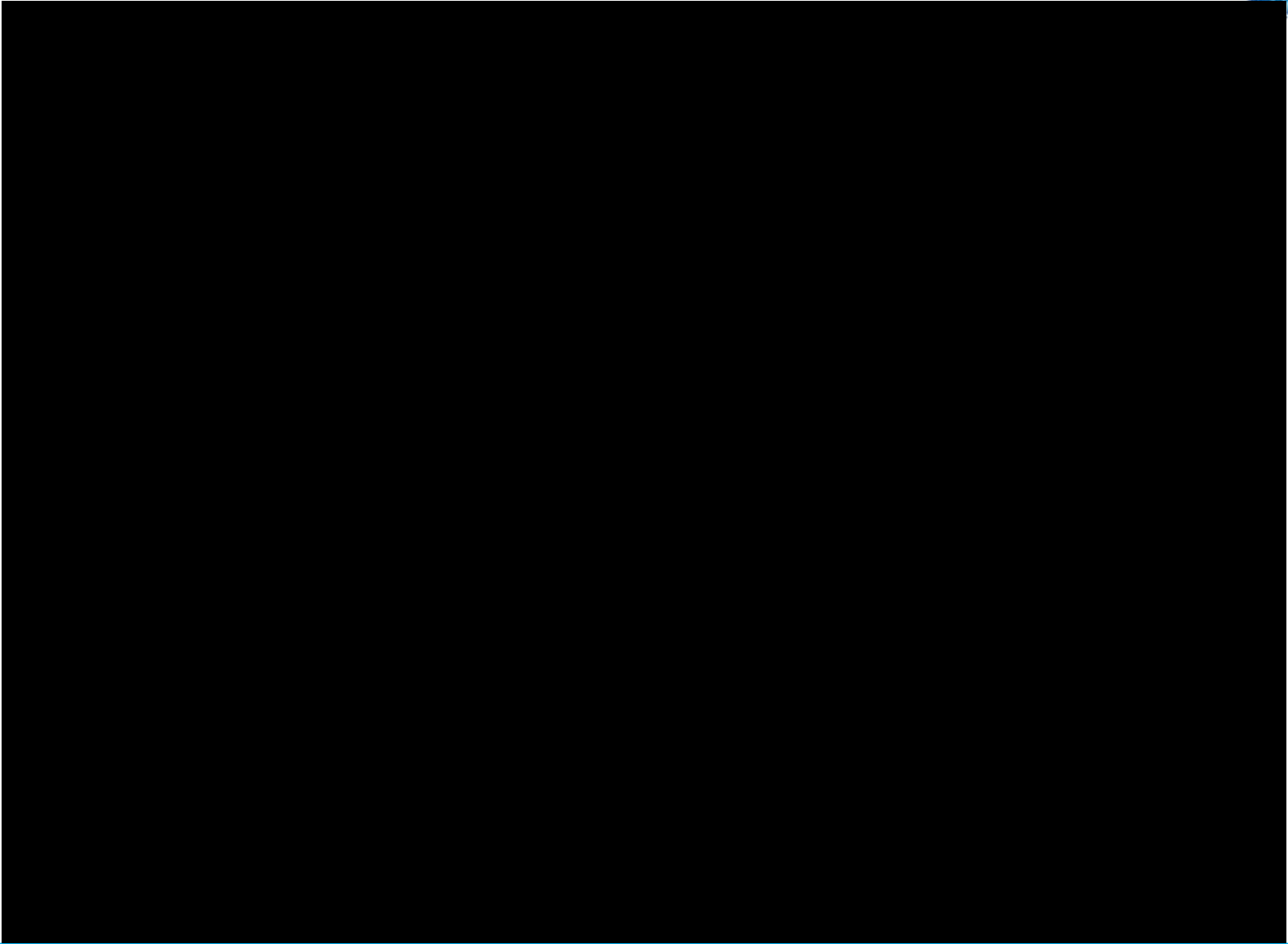
IAAPS Chairman

Actual situation

- At present there is a high demand for professional pilot training, this will become extreme over the next 5 years
- "Baby boomer-Generation" has started to retire from the system. That includes a high percentage of our present experienced instructors and examiners.
- European legal framework for pilot-, instructor- and examiner training is Regulation Aircrew (EU 1178/2011) and to a certain extend Regulation Air Operations (EU 965/2012)
- Present regulation relating to pilot training is contradictory in places, highly prescriptive and outdated, sometimes even wrong.

Historical Background

- Current European legal framework Reg. Aircrew is based on JAA´s JARs which were "Club Rules" of a Dutch Club, in which the European NAAs were the members with voting rights.
- These "Club Rules" became applicable law, with the intention;
  - to as best as possible integrate all JAA member states' national and cultural specific needs,
  - that each member state as an ICAO member state embodies ICAO regulation, unless the state has applied for a derogation to opt out of specific regulation

ICAO provision for flexibility

- ICAO obligates that a Licensing Authority may approve a training programme that allows an alternative means of compliance with the experience requirements established by Annex 1, provided that the approved training organization demonstrates to the satisfaction of the Licensing Authority that the training provides a level of competency at least equivalent to that provided by the minimum experience requirements for personnel not receiving such approved training. ICAO Annex 1 Appendix 2 para 3.1
- This ICAO Annex1 flexibility provision was not allowed for when Regulation Aircrew was drafted. The RMG FCL001 was instructed to transpose JAR FCL1, 2 and 3 etc. as close as possible to the text of the JARs.

ICAO provisions for CBTA

- Addressing the need for holistic, output based training which develops and assesses the pilot's competencies
- PANS TRG future amendments 5 & 6 will respectively provide CBTA course design methodology and guidance and provisions for licences from PPL to ATPL/MPL, to instrument and type ratings and for recurrent training
- Aligns with and supplements Annex 1, Appendix 2 para 3.1 provision

Identified weaknesses in Reg. Aircrew

- Regulation aircrew is outdated focusing separately on only theory and practical training.
- The only existing competency based pilot licence was shoe-horned into prescriptive regulation and restricted in scope, rather than enabling the original ICAO provisions, which are the globally agreed standards.
- Current, JAR-FCL-based implementing rules for pilot training are "inventory based", very prescriptive, inflexible and completely outdated sometimes even wrong.
- Current IRs are "overtaken" by research, educational best practice and technological innovations

Resulting Threats:

- Ineffective training system with approx. 50% pilots graduating from the current EASA pilot training being assessed by airlines to have insufficient competencies for employment
- Inefficient training system where unnecessary training, management and administration costs are incurred to comply with and/or manage alternative compliance caused by outdated and/or contradictory rule requirements
- The inability or restriction of ATOs to innovate devices & systems and to implement educational best practices which further restricts the effectiveness and efficiency of future training.

Resulting Threats:

- Inability to modernize training through the use of ICAO Annex 1 provision
- Ineffective approval and oversight of Competent Authorities driven by the focus on prescriptive requirements such as hours in the classroom or aircraft rather than the quality of the training and ATO systems including working and effective ISD (instructional system design) course design
- Adaptation of training content and devices/systems to target populations almost impossible resulting in reduced student motivation and less effective training and inability to provide individualized training (No allowance for generation Y and millennials, previous experience, preferred learning styles and cultural issues…)

Proposed Solution:

- Integrate into Regulations Aircrew and Air Operations flexibility provisions with reference to ICAO Annex 1 and PANS TRNG.
- Mandate, that NAAs may approve CBTA in coordination with EASA
- Create a Qualified Entity (QE), that supports this CBTA approval process
- QE should consist of experts from EASA, NAAs, Airlines, Training Industry and Pilot Unions without minority ability to veto
- Enable the training system to innovate training with the same rate as technological innovations

Mitigation of new threats:

- Threat: Flexibility provisions might result in "corner cutting" by a less professional ATO whose course approval and oversight is conducted by a CA without sufficient expertise resulting in sub-standard qualification levels of trainees
- Mitigations:
- Robust mandatory application of ISD for all CBTA based courses under development
- Training of CA inspectors and ability for CA to use expertise from other CA and QE
- Follow up monitoring of trainee´s performance „in real life" during a defined period. That may require mandatory cooperation between ATO and AOC holder
- Trainee performance monitored and analyzed by QE

Application of Change Management

- Development of Competency Based Training and Assessment (CBTA) is ongoing at ICAO
- Implementation of CBTA is looming on the horizon
- Our experience with the introduction of Regulations Aircrew and Air Operations has shown, that a suitable change management process before and during the implementation phase would have "eased the pain" a lot.
- Introduction of CBTA will be a more complex and demanding change for all stakeholders.
- Cooperation between ATOs that develop CBTA in coordination with NAAs, EASA and supported by the QE would be a very clever change management strategy

Suggestion

- We as stakeholders in that unavoidable change process should learn from our experience and request a change management process along with the introduction of CBTA.
- IAAPS will suggest exactly this through the SAB and we hope for your support!

Thank you!