



March 18, 2025

Federal Aviation Administration
800 Independence Avenue, SW
Washington, D.C. 20591

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RE: DOCKET NO. FAA -2024-2531 – MODERNIZATION OF PILOT SCHOOLS

On behalf of the University Aviation Association (UAA) and the National Air Transportation Association (NATA), hereinafter “the Associations,” we submit recommendations for modernizing 14 CFR Part 141 flight training regulations to enhance training efficiency, safety, and industry alignment.

UAA’s 1,100+ individual members represent 116 collegiate aviation institutions and 74 industry partners across aviation education including regional and major US airlines, aircraft and flight simulation manufacturers, fixed- and rotary-wing flight training providers, and other aviation trade associations.

NATA represents nearly 3,700 aviation business locations across a broad cross section of the industry, including on-demand air charter air carriers and fractional ownership companies, maintenance facilities, FBOs, flight training providers, airport sponsors at general aviation airports, and others.

The Associations’ recommendations align with industry best practices and industry-supported efforts to enhance training and safety. UAA and NATA endorse comments submitted by the Aviation-Impacted Communities Alliance (AICA), Save Our Skies Alliance, and Groton Ayer Buzz (Comment ID FAA-FAA-2024-2531-0004) and the City of Phoenix Aviation Department (Comment ID FAA-2024-2531-0003).

We respectfully request the FAA adopt objectives below supported by our diverse membership base:

1. **Optimize Training Efficiency** – Reduce regulatory and operational hurdles that unnecessarily impose inefficiencies in training curriculum and resource allocation.
2. **Integrate Scenario and Competency Based Training** – Adopt FAA Industry Training Standards (FITS) practices into 14 CFR Part 141 regulations such as Learner-Centered Instruction (LCI), Scenario-Based Training (SBT), and Competency-Based Training and Assessment (CBTA).
3. **Leverage Innovation and Technology** – Allow for the expanded use of Flight Simulation Training Devices (FSTDs) and adoption of Virtual/Augmented Reality Training (V/ART).
4. **Enhance Flight Training with Evidence-Based, Data-Driven Insights** – Incorporate practices from 14 CFR 121 and 135 aircraft operators, such as Safety Management System (SMS), Flight Data Monitoring (FDM) / Flight Operations Quality Assurance (FOQA), Aviation Safety Action Program (ASAP), Line Oriented Flight Training (LOFT), Crew Resource Management (CRM), Human Factors Analysis and Classification System (HFACS), and Upset Prevention and Recovery Training (UPRT).
5. **Increase Transparency of Program Effectiveness** – Require Part 141 pilot schools to report to the FAA student outcome, training effectiveness, and operational safety metrics for evaluating training trends and informing decision-making for prospective students.



6. **Incorporate Stakeholder Inclusion and Community Engagement** – Strengthen collaboration with impacted communities to foster a community-conscious training environment that benefits both pilots and the aviation industry in accordance with Advisory Circular 91-36D.

1. Optimize Training Efficiency

Regulatory constraints limit the scalability of Part 141 flight training organizations. The 2025 Red Bird State of Flight Training Report found that training costs have risen 76.6% since 2020. The average flight training cost and training timeline through commercial, multi-engine with Certified Flight Instructor (CFI) certificate was \$65,750 and over 72 weeks of training. Over half (55%) of all Flight Training Organizations (FTOs) and 83% of Designated Pilot Examiners (DPEs) reported being over capacity or very busy. High capital costs and a limited pool of qualified instructors and DPEs make it difficult for FTOs to scale operations commensurate with current industry demand. However, simple regulatory changes can increase the efficiency of Part 141 training operations with no impact to operational safety.

The Associations request the FAA provide Part 141 flight schools autonomy under FAA Order 8110.15B, Organization Designation Authorization (ODA) procedures authorizing an organization to act as a representative of the Administrator. This would allow Chief Flight Instructors to designate Assistant Chief Flight Instructors and perform practical exams thereby reducing demands on strained staff resources in Flight Standards District Office (FSDO) and on DPEs.

2. Integrate Scenario and Competency Based Training

UAA members have received approval for reduced time, competency-based training syllabi based on FAA Industry Training Standards (FITS) curriculum for Part 141 flight training. FITS-based competency training has demonstrated that students can achieve commercial certification in 120 to 150 total hours, 21% - 37% less than the 190-hour minimum currently required. Incorporating Learner-Centered Instruction (LCI), Scenario-Based Training (SBT), and Competency-Based Training and Assessment (CBTA) into Part 141 syllabi is a proven approach to prioritizing skill development while reducing or eliminating unnecessary hour requirements. Outdated maneuvers (e.g., lazy eights, chandelles) can be replaced with scenario-based training that preserves existing mandated training flight to reduce noise pollution and improve operational relevance.

The FAA should also consider a pipeline for ab-initio airline transport pilot training, following the Multi-Crew Pilot License (MPL) framework outlined in ICAO Annex 1 – Personnel Licensing. ICAO Doc 9868 and ICAO Doc 9992 provide guidance on competency-based training using approved Flight Simulation Training Devices (FSTDs), a model successfully adopted in other ICAO member countries.

3. Leverage Innovation and Technology

Expanding the use of FSTDs in pilot training offers a cost-effective, scalable solution that enhances safety and resource utilization. Simulators provide structured, high-fidelity training environments where pilots can refine skills, develop muscle memory, and safely practice high-risk scenarios without aircraft availability constraints. Simulation allows student pilots to refine their skills in a controlled setting without the limitations of weather conditions or aircraft availability. Simulators also provide a critical



opportunity to develop skills for repetitive tasks as well as in practicing high-risk scenarios in a safe environment controlling for a multitude of factors.

UAA members have successfully implemented Virtual/Augmented Reality Training (V/ART), reducing time-to-solo by over 30% while improving retention and training efficiency. UAA also represents simulation manufacturers that provide structured, immersive environments enhancing pilot training, with FAA and EASA certification. The use of V/ART to simulate complex flight scenarios in a controlled setting can further minimize reliance on costly aircraft and FSTDs while maintaining high safety standards. To maximize these benefits, UAA encourages the FAA to allow for the use of V/ART in competency-based training, ensuring that training remains rigorous, affordable, and adaptable to evolving industry demands such as Powered Lift / Advanced Air Mobility (AAM) pilot certification.

4. Enhance Flight Training with Evidence-Based, Data-Driven Insights

Adopting evidence-based, data-driven training methodologies from 14 CFR Part 121 and 135 operators would significantly enhance safety and pilot competency. By incorporating Safety Management Systems (SMS) and Flight Data Monitoring (FDM) / Flight Operations Quality Assurance (FOQA), training programs can use de-identified data to proactively identify risk trends, improve decision-making, and reinforce a culture of continuous safety improvement. Additionally, the Aviation Safety Action Program (ASAP) encourages pilots and instructors to report safety concerns without fear of punitive action, fostering a learning-based approach to hazard mitigation. These strategies ensure that training environments reflect real-world operational challenges, preparing pilots to manage risks effectively in line with commercial aviation standards.

Beyond safety reporting and data analysis, structured training programs such as Line Oriented Flight Training (LOFT) and Crew Resource Management (CRM) develop essential skills in teamwork, communication, and situational awareness—critical elements in a multi-crew flight deck. Human Factors Analysis and Classification System (HFACS) provides a framework for understanding and mitigating human error, a leading factor in aviation incidents. Furthermore, Upset Prevention and Recovery Training (UPRT) equips pilots with the knowledge and skills to handle unexpected loss-of-control situations, enhancing resilience under high-stress conditions. By integrating these best practices into flight training curricula, pilot education can evolve beyond regulatory minimums, ensuring graduates are equipped with the competencies required for safe and efficient airline operations.

5. Increase Transparency of Program Effectiveness

Requiring Part 141 flight schools to report student outcomes, training effectiveness, and operational safety metrics would improve accountability and provide prospective students with data-driven decision-making tools. Recommended metrics include graduation rates and certification success rates, pass/fail rates on FAA knowledge and practical exams, training hours per certificate and remedial training rates statistics, as well as safety-related incidents and pilot proficiency trends.

These metrics would allow for benchmarking across schools and identifying best practices that contribute to pilot success. Additionally, tracking safety-related incidents, remedial training rates, and



trends in pilot proficiency assessments would help ensure that training programs maintain high safety and competency standards, ultimately leading to better-prepared pilots entering the industry.

Increased transparency would support more informed decision-making when selecting a flight school and incentivize training effectiveness of high achievement providers. Publicly available data would enable students to evaluate training programs based on measurable success factors rather than marketing claims. The FAA could use these insights to refine training standards, address systemic issues within flight training, and ensure pilot education aligns with real-world operational needs. Establishing a structured reporting system for Part 141 schools would foster a culture of accountability and continuous improvement, ultimately strengthening the pipeline of well-trained pilots entering commercial aviation.

6. Incorporate Stakeholder Inclusion and Community Engagement

The Associations recognize that flight training operations contribute to noise and environmental pollution. Many of our members have implemented voluntary initiatives to reduce noise and pollution emissions in collaboration with impacted community stakeholders. The practices include avoiding flight maneuvers above populated areas or operating well above minimum altitudes when these areas cannot be avoided. We support the use 94-octane unleaded fuel wherever possible, and the FAA EAGLE's initiative, co-chaired by NATA, for transitioning to 100-octane unleaded fuel when commercially viable.

UAA and NATA, along with Aviation-Impacted Communities Alliance (AICA), Save Our Skies Alliance, and Groton Ayer Buzz (Comment ID FAA-FAA-2024-2531-0004), endorses the City of Phoenix Aviation Department's comment (Comment ID FAA-2024-2531-0003) in its advocacy for "the identification of concepts and actions that improve the responsibility to, communication with, and recognition of impacted communities." Additionally, we endorse the following concepts from the aforementioned comments:

- Proactive engagement with impacted communities when training operations change;
- Collaboration with airport operators, FAA offices, and air traffic officials to balance safety, training efficiency, and community concerns; and
- Public transparency in training schedules and operational data to foster community trust.

On behalf of the Associations' membership representing the flight training community that educate and train the next generation of aviation professionals and business aviation where these professionals will continue their careers, we applaud the FAA's initiative to modernize overdue 14 CFR Part 141 regulations. These reforms will strengthen pilot training, improve efficiency, enhance safety, and foster industry-community collaboration. We urge the FAA to adopt these recommendations to ensure a sustainable and effective pilot training framework.

Sincerely,

A handwritten signature in black ink that reads "Ryan Leick".

Ryan Leick, PhD
President
University Aviation Association

A handwritten signature in black ink that reads "Curt Castagna".

Curt Castagna
President and CEO
National Air Transportation Association