

**Before the
FEDERAL AVIATION ADMINISTRATION
Washington, DC.**

In the Matter of

**Notice of Proposed Rulemaking:
Flight Simulation Device Initial
and Continuing Qualification
and Use**

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Docket No. FAA-2002-12461

COMMENTS of Nickolaus E. Leggett

My comments discuss the proposed new requirements for maintenance and record keeping for flight simulation devices (FSDs). My comments are focused on simple FSDs operated by small flight schools.

I am a licensed pilot (FAA Certificate # 2190005) with the following ratings: Commercial Pilot – Lighter-than-air free balloon (hot air balloon), Private Pilot – Single engine airplane (land), Private Pilot – Glider aero tow. My flight experience includes the Cessna 172 airplane, Schweitzer 2-33 glider, and Raven S-50 hot air balloon (56,000 cubic feet capacity).

A Flight Simulation Device is Not an Aircraft

There is no flight simulation device that is an aircraft. None of these FSDs ever leave the ground. This simple fact is important because the basic reason for FAA regulations is to promote the safety of vehicles that fly into the air. Since FSDs never really fly, there is much less of a reason to subject them to strict maintenance and reporting regulations.

Educational Quality Regulation

A second reason for regulating FSDs is to make sure that they accurately represent the flying situations that they are simulating. This can be considered an educational quality regulation. The FAA can certainly regulate this especially as FAA licensed instructors and FAA approved flight schools utilize the FSDs in formal flight training. Educational quality can most easily be regulated by applying formal FAA approval processes to FSD products that are used in formal flight training.

Maintenance of FSDs

FSDs are basically digital electronic devices that provide an “electronic game” for the serious purpose of enhancing flight instruction. The typical failure mode for such a device is to fail completely and obviously. As a result of this, there is little purpose in imposing strict maintenance standards on a digital device that either operates correctly or not at all. The only exception to this is the very advanced simulators that have numerous mechanical and/or electromechanical components that could develop erroneous behavior over time.

Non-regulated FSD Use

If the FAA imposes strict standards on basic FSDs, it is likely that smaller flight schools will simply discontinue their use and do all of their training in the airplane and the classroom. This retrogressive step would not help the cause of effective flight instruction.

In addition, it is probable that separate businesses would arise which would offer FSD use and instruction to the general public. As long as these businesses don't present the FSDs as components of flight training, their operations are probably outside of the

FAAs jurisdiction. Indeed, such FSDs could be presented as an educational entertainment much like the use of the Microsoft Flight Simulator computer program. I suspect that any such unregulated marketing and use of FSDs by the private market place would be strongly protected by the First Amendment of the United States Constitution just as the publishing and sale of books and videos on aviation is protected. The FAA should contact its legal staff about this possibility.

The Small Operator and the FAA

I have noticed a continuing trend in the FAA making it more and more difficult for the small operator to continue to operate and make a profit. This unfortunate trend reduces the legitimacy of the FAA regulatory process. This NPRM supports the trend of throwing more and more barriers in the path of the small operator.

Requested Action

The NPRM should be dropped for all but the most complex FSDs.

Respectfully submitted,

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