**New Rules and Guidance for Using Flight Simulators, FTDs, and ATDs**

On August 21, 2009, the FAA published revisions to 14 CFR Part 61 (the rules that govern the certification of pilots and flight instructors), including the use of FTDs and flight simulators for training and to maintain instrument proficiency. The new rules become effective in 60 days.

The new rules (specifically §61.51) offer greater flexibility in the use of **approved FTDs (including ATDs)\*** and flight simulators in training for certificates and ratings and to maintain instrument currency. The FAA's comments in the Federal Register also clarify the agency's interpretation of the regulations.

For example, §61.51(b)(2) and §61.51(a) require that an authorized instructor must be present in the flight simulator, FTD, or ATD when instrument training time is logged for training and aeronautical experience for meeting the requirements for a certificate, rating, or flight review. The instructor must sign the trainee's logbook and verify training time and session content.

The FAA's comments on the new rules, however, clarify several points. First, the FAA explains what "present" means in this context.

Examples of situations in which an authorized instructor will be considered present would be where an authorized instructor is seated at a center control panel in a flight simulation lab and is monitoring each student’s performance from control panel display. Another example would be a situation where an instructor assigns a student several instrument tasks and then leaves the room. In such cases, if the flight training device has a monitoring and tracking system that allows the authorized instructor to review the entire training session, the instructor need not be physically present. Another example would be a situation where one authorized instructor monitors several students simultaneously in the same room at a flight simulation lab.

The new rules also change §61.57(c) "to allow use of aviation training devices (ATD), flight simulators (FS), and flight training devices (FTD) for maintaining instrument recent flight experience."

The FAA is allowing different means to maintain instrument currency. The pilot may use whatever method best suits his or her needs to maintain instrument currency by using the actual aircraft, flight simulator, flight training device, or aviation training device, or a combination of all.

The FAA's comments on the new rules elaborate, thus:

Subject to certain limitations, a pilot may choose completing his/her instrument experience requirements in an aircraft and/or through use of an FS, FTD, or ATD. The simulation devices must be representative of the category of aircraft suitable for the instrument rating privileges that the pilot desires to maintain. Under new §61.57(c)(2), a person may use a flight simulator or flight training device exclusively by performing and logging at least three hours of instrument recent flight experience within the six calendar months before the month of the flight.

Furthermore:

Under new §61.57(c)(3), a person may use an ATD exclusively by performing and logging at least three hours of instrument recent flight experience within the two calendar months before the month of the flight. We have deliberately established differences between the use of an ATD, FS, and flight training devices because use of an aviation training device to maintain instrument recent flight experience is a relatively new concept. The FAA wants to further evaluate its use before we allow use of ATDs equal to that of flight simulators and flight training devices.

Under new §61.57(c)(4), a person could combine use of the aircraft and FS, FTD, and ATD to obtain instrument experience. This requires at least 2 instrument approaches (wording is “instrument approaches”), 1 hold, (wording is “holding procedures” which according to John Lynch who wrote the regulation means only 1 hold) and tracking courses in an airplane and at least 6 approaches, 1 hold, and tracking courses in an ATD.

The new hourly requirements for the use of flight simulators and approved FTDs are offset, however, by allowing, in specific circumstances, a pilot to log simulated instrument time in a flight simulator or FTD without an instructor.

A person would not need a flight instructor or ground instructor present when accomplishing the approaches, holding, and course intercepting/tracking tasks of §61.57(c)(1)(i), (ii), and (iii) in an approved flight training device or flight simulator. Only when a person is required to submit to an instrument proficiency check must a flight instructor or ground instructor be present. The rationale is that a person is not required to have a flight instructor or ground instructor present when performing the approaches, holding, and course intercepting/tracking tasks in an aircraft. If the person is using a view-limiting device (i.e., hood device) when performing the approaches, holding, and course intercepting/ tracking tasks in an aircraft, only a safety pilot is required to be present. If a person is performing approaches, holding, and course intercepting/ tracking tasks in an aircraft in IMC, it is permissible to log the tasks without a flight instructor being present. Therefore, a person who is instrument current or is within the second 6-calendar month period (See § 61.57(d) for currency) need not have a flight instructor or ground instructor present when accomplishing the approaches, holding, and course intercepting/ tracking tasks of § 61.57(c)(1)(i), (ii), and (iii) in an approved flight training device or flight simulator.

Finally, the FAA clarifies the use of flight simulators and FTDs for accomplishing an IPC:

The revision to § 61.57(d) concerning the instrument proficiency check does not prohibit the use of a flight simulator or flight training device for performing an IPC check, nor did the proposal in the NPRM propose eliminating use of FS or FTDs for performing an IPC. An FS or FTD may be used for accomplishing an IPC if the training device is approved for performing an instrument proficiency check. The content of an instrument proficiency check is addressed on page 16 of the Instrument Rating Practical Test Standards.

\*N.B. the use of “approved.” FAA doesn’t approve flight simulation *software* such as [Microsoft Flight Simulator](http://www.fsinsider.com/Pages/default.aspx) or [X-Plane](http://www.x-plane.com/). It approves *flight training devices* (FTDs) and *simulators*, devices that include software *plus* displays, controls, and other features. For more information on this topic, see [Flight Simulator in Aviation Training](http://www.bruceair.com/msfs/fs_in_training.htm) at my Web site, [www.BruceAir.com](http://www.BruceAir.com)

For more information about Basic Aviation Training Devices (BATD) and Advanced Aviation Training Devices (AATD), see [Advisory Circular AC 61-136](http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/37E40A5E69B18FEF8625748E005B327A?OpenDocument&Highlight=aviation%20training%20devices)