



Frequently Asked Questions about FAA/Industry Training Standards (FITS)

1. What exactly *IS* the FITS program?

In partnership with industry and academia, the FAA/Industry Training Standards (FITS) program creates scenario-based, learner-focused training materials that encourage practical application of knowledge and skills. The goal is to help pilots of technically-advanced aircraft (TAAs) -- which have more automation and often greater performance capability -- develop the risk management skills and in-depth systems knowledge needed to safely operate and maximize the capability of these aircraft in the National Airspace System (NAS). Use of FITS materials is voluntary.

2. What is a technically advanced aircraft (TAA)?

A TAA is an aircraft that contains GPS navigator with a moving map, plus any additional systems (e.g., an autopilot combined with a GPS navigator is also a TAA). Many new TAAs have highly integrated systems, including advanced engine management, integrated cockpit systems, and "glass cockpit" avionics (i.e., primary flight displays and multifunctional displays). Typically, new TAAs also have a greater performance envelope (speed, range, altitude) than "legacy" aircraft.

3. Isn't FITS just a back-door way to regulate?

No. The FAA recognizes that in a rapidly changing aviation environment, regulatory action is not always the most appropriate or effective way to promote safety. In order to keep training products and tools fully up-to-date and reduce product cycle times, the FITS program is deliberately designed around technical standards rather than around regulatory or policy issues that would require longer development and production times.

4. Is FITS a partnership with industry, or is FAA running the whole show?

Just as flight crews are taught that crew resource management involves drawing on all available resource to ensure safety, the FAA recognizes that a government agency does not have all the answers. The FAA bears statutory responsibility for ensuring safety, but cannot fulfill this responsibility without industry participation. Where training on new aircraft and new avionics is concerned, for example, safety and best practices dictate making full use of the knowledge and expertise held by manufacturers, instructors, schools, and other members of the general aviation community.

5. What is the purpose of the FITS Oversight Committee?

The FITS Oversight Committee (FOC) provides industry input and guidance to FAA and the FITS team on the FITS Program Plan, FITS team goals and methodologies, and schedules. The FOC has broad representation, and includes participants from the FAA, the General Aviation Manufacturers Association, the Small Aircraft Manufacturers Association, the Aircraft Owners and Pilots Association-Air Safety Foundation, the National Association of Flight Instructors, and the National Air Transportation Association.

6. If FITS standards are not mandatory, why does FAA “approve” them?

FAA *acceptance* (not “approval”) of FITS standards developed by the industry, academic, and FAA partnership is a quality control mechanism. Although the FAA is directly involved, the products developed through the FITS program are industry voluntary consensus standards, not FAA policies. However, since FITS develops standards intended to promote safety and to comply with the FAA rules, regulations, and policies already in place, it is incumbent upon the FAA to help develop these standards; to ensure that they are indeed consistent with existing rules, regulations, and policies; and to help make them available to the public.

7. Because flight schools and insurance companies may treat FITS standards as mandatory, will FITS increase the cost of flying?

Industry members of the FITS team support the program in part because it adds structure and value to private sector training and experience requirements for certain types of aircraft. Without the structure of a well-designed FITS syllabus, insurance companies and flight schools may seek to limit their risk and exposure by resorting to the traditional minimum requirements based on time-in-type and/or a specified number of hours with a flight instructor. FITS standards, by contrast, are based on quality of instruction rather than quantity, and thus provide greater value – possibly at *less* expense – than current private sector financial risk management practices offer.

8. The existing Practical Test Standards (PTS) have stood the test of time, and the GA safety record really isn’t that bad. So why do we need FITS?

The FAA works hard to ensure that the Practical Test Standards (PTS) are kept up-to-date and that the PTS tasks are consistent with ensuring that a pilot has the skills necessary to operate in the “real world” general aviation flying environment. The PTS, however, necessarily concentrates on defining the basic levels of knowledge and aircraft control skill needed to handle both the physical airplane and what some experts call the “mental” airplane. Because the complexity of TAAs (e.g., automated systems, systems integration, and performance) puts greater demands on the pilot than “legacy” aircraft, FAA partnered with industry and academia to develop training tools to help pilots meet these challenges, manage risk, and safely maximize the capability of these aircraft.

9. Maybe the airplane should not be so complex. Why has FAA allowed manufacturers to develop such complicated and diverse avionics, rather than requiring that basic functions be consistent in all units?

The FAA does not believe it would be appropriate or efficient to dictate the design of aircraft products, such as GPS navigators and other avionics. Instead, the FAA uses the Technical Standard Order (TSO) as a way of ensuring safety while streamlining the certification process, increasing the efficiency of the certification system, and providing a means of approving new technology and innovations in a prompt and effective manner. (NB: A TSO is a minimum performance standard issued by the Administrator for specified materials, parts, processes, and appliances used on civil aircraft. The TSO process serves the industry and the flying community very well, because it ensures safety while allowing the innovations that free market competition promotes.)

10. Why is FAA relying so heavily on big-name schools like ERAU and UND for FITS work? These schools are set up to train airline pilots, not typical GA operators.

FITS is a broad-based partnership that includes a number of entities, ranging from large organizations like ERAU, UND, and aerospace manufacturers to smaller organizations like the Aero-Tech flight school in Kentucky. These participants bring a wide range of expertise, experience, and perspectives to the development of FITS products.

To validate the results of using FITS products and explore the many issues arising from the use of TAAs, ERAU, UND, and other respected institutions form the FAA's Air Transportation Center of Excellence for General Aviation Research (CGAR). (NB: The CGAR consortium seeks to address the critical needs of general aviation through collaborative studies and research. As such, CGAR forms a cumulative repository of knowledge, and encompasses the entire spectrum of research and development from basic research to engineering development and prototyping.)

11. What is so new about “scenario-based training?” Isn't that what the current flight training system does already?

Ideally, all flight training should include some degree of scenario-based training (SBT), which helps develop decision-making, risk management, and single pilot resource management skills (SRM). Consistent with the concept of training the way you fly and flying the way you train, FITS simply places more emphasis on “whole task” training and uses carefully planned scenarios structured to address TAA flight-training objectives in a “real world” operational environment. Scenarios give the pilot an opportunity to practice for situations that require sound aeronautical decision-making. The FITS curriculum guides also require that scenarios be adapted to the flight characteristics of the specific aircraft and the likely flight environment, and that they require the pilot to make real-time decisions in a realistic setting. SBT thus provides an effective method for the development of judgment and decision-making skills.

12. Does the FAA intend to expand FITS to training for so-called “legacy” aircraft and rotorcraft, or is it just for TAAs?

The FITS program was established to address the need for targeted training on technically advanced aircraft (TAAs). Traditional training programs do not sufficiently address the challenges of operating aircraft with automated/integrated systems and (in the case of newer airframes) higher performance capability. Since advanced technology is also moving into rotorcraft, there is no reason to exclude a rotorcraft manufacturer or training provider from participating in the FITS program.

FITS itself was not intended for training on non-TAA aircraft. However, the system safety concepts at the core of the FITS program (i.e., risk management, aeronautical decision-making, situational awareness, and single pilot resource management) are not unique to FITS or to TAAs, and many flight training professionals strongly believe that these concepts should be integrated more effectively into other areas of flight training. The FAA is consulting closely with industry on ways to address this need.