

# *Ladies and Gentlemen: Allow Me to Demonstrate the Safety Features of the Air Transportation Division*



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**B**y now you've probably read elsewhere in this issue about the different ways FAA's Flight Standards Service is involved with a topic near and dear to many of you — general aviation safety. However, Flight Standards' purview goes well beyond protecting GA. They're also responsible for the regulations and policies that govern "heavy metal," or air carrier operations and certification. This includes commuter and on-demand operations as well as training centers for air carrier crewmembers.

So, if you're pondering an airline career, or maybe just curious about all of the intricate safety orchestration taking place on your next commercial flight, then buckle up for a detailed look at the part of the FAA that sets standards for commercial flight safety: the Air Transportation Division.

## **Welcome Onboard!**

Comprising over 100 employees, the Air Transportation Division (known as AFS-200 in FAA lingo) is among the largest divisions within Flight Standards. Division employees are split across nine different branches, most of which are based at FAA's Washington, D.C., headquarters. AFS-200 also interfaces with and supports FAA's vast network of field offices including Flight Standards District Offices (FSDOs), that focus on GA, and Certificate Management Offices or Teams (CMOs/CMTs), that special-

ize in the certification, surveillance, and inspection of a specific major air carrier.

As a GA pilot, your interactions with the FAA are normally influenced by policy decisions made by Flight Standards' General Aviation, Regulatory Support, or Aircraft Registry divisions. But should you decide on an airline career, it's the Air Transportation Division that will determine the type of experience, training, and knowledge you'll need to advance in the air carrier world.

You can see a recent example of this influence with the first officer qualification and Airline Transport Pilot (ATP) certificate changes that were introduced in a rule change last July. The new rule boosts pilot qualification standards by requiring first officers to hold an ATP certificate and an aircraft type rating for the aircraft flown. It also modifies the requirements to be eligible for an ATP multiengine airplane certificate. This rule change demonstrates the successful working relationship AFS-200 has with other divisions. In this case, the General Aviation and Commercial Division was instrumental in supplying information on pilot certification issues during the rulemaking process.

"We work very closely with the folks at the General Aviation and Commercial Division, especially when it comes to pilot training and certification

issues,” says Robert Burke, manager of AFS-200’s Air Carrier Training Systems and Voluntary Safety Programs Branch. Given its overlap with many GA policies and its involvement in the airman training arena, the Training Systems Branch may also be of interest to those considering the jump from a Beech to a Boeing. And that goes for more than just pilots.

“In addition to handling all the training policy for air carrier pilots, we also cover flight engineers, flight navigators, dispatchers, flight attendants, and any training programs approved under part 142,” says Burke.

That’s quite a tall order when you consider the various types and sizes of air carrier operations, the various sizes of aircraft used (Cessna Caravans to Boeing 747s), and all the different methods of training that are employed throughout the industry.

### **Please Fasten Your Seatbelt**

Despite having the largest and busiest airspace system in the world, the United States continues to lead the pack among nations when it comes to commercial aviation safety. That’s largely due to the FAA’s unwavering focus on continued operational safety and through the many efforts of AFS-200 and supporting divisions. But that success doesn’t come without its challenges.

One issue that has plagued the industry in recent years and which seems to be on the minds of safety experts worldwide is an overreliance on cockpit automation. This technology tunnel-vision seems to go hand-in-hand with yet another perceived pilot problem, a degradation of stick-and-rudder skills. To address this issue, AFS-200 plans to roll out a new rule this fall that will emphasize training requirements for full stall recovery, upset recovery, and pilot monitoring skills.

“With the new rule, air carrier pilots will be required to regularly demonstrate proficiency of hand flying skills in targeted emergency situations and maneuvers,” says Burke. “There will also be new operational requirements for pilots to ‘monitor’ during a flight as well as demonstrate these monitoring skills during training.”

The new training requirements should also be able to help pilots with the industry’s transition towards the full integration of NextGen, FAA’s satellite-based navigation system. “We’ve been used to flying in pretty large tubes of airspace until now,” says Burke. “With NextGen, we’re flying in a much tighter space and requiring pilots to be even more reliant on technology.”

Burke looks forward to the change, but considers the transition to be a bit of an enigma from a pilot training perspective. “On one hand we have to consider the technical skill sets needed to operate and monitor automated systems, while on the other, we need to understand how to keep pilots motivated and engaged during a flight.”

Compliance with FAA’s upcoming rule that increases flight crew minimum rest periods will likely play a role in helping to combat some of the human factors challenges that automation and the NextGen transition may present.



### **Your Closest Exit May Be Behind You**

As mentioned earlier, AFS-200 is responsible for the regulations and policy for a variety of other air transportation issues beyond pilot training, including many of the more routine things you might see or hear on a commercial flight. Flight attendant training is a good example. This training includes everything from the inflight safety demonstration at the beginning of a flight, to how flight attendants prepare the cabin for landing, to how to successfully evacuate an entire aircraft after an accident or incident.

The FAA also approves these evacuation procedures to ensure that in the event of an emergency, passengers can disembark safely and efficiently. The FAA tests the effectiveness of these procedures by requiring air carriers who have introduced a new type and model of airplane to their fleet to perform an evacuation demonstration as well as a ditching demonstration if extended overwater operation parameters are met. During a full evacuation demonstration,



flight attendants are required to safely evacuate all passengers in the dark, with pillows, blankets and carry-ons strewn about the aisles, and with only half of the exits available for use. They have a mere 90 seconds — about the time it takes to microwave a bag of popcorn — to complete the evacuation.

A proving run is another method the FAA utilizes to verify an air carrier's ability to operate a new aircraft, or conduct a particular type of operation. This exercise requires carriers to fly under the oversight of FAA safety inspectors while running through a series of simulated emergency and non-normal scenarios, like a medical emergency or an engine failure.

"The idea with these exercises is to make sure they're ready for the unexpected," says Burke. "It's a litmus test to see how well their procedures work."

An area that is perhaps less obvious to the flying public, but no less important to safety, is aircraft dispatcher procedures. Dispatchers are FAA-certificated personnel who help plan and monitor a flight from

the early preparation stages until safely parked at its destination. Although remotely sited, they are involved with everything from load manifests and maintenance issues, to communicating with the flight crew on pop-up issues like airport closures or deviations caused by volcanic ash. AFS-200 provides the policy for the CMO/CMTs to use to ensure the systems and procedures in use provide adequate safety and reliability.

### We Hope You Enjoyed Your Flight ...

As you can see, the Air Transportation Division is an important player in the FAA's and Flight Standards' safety network. And we haven't even covered all that they do! AFS-200 also handles the qualification of flight simulators, approves extended range twin operations (ETOPS), and provides guidance for helicopter air ambulance operations. (You can find a complete list of division functions in chapter seven of Flight Standards Organizational Handbook, Order 1100.1C)

So the next time your flight path crosses over to the air carrier world, whether as an airline passenger or an employed participant, know that there is a team of professionals dedicated to keeping you safe and maintaining the high standards of our nation's vast air transportation system. 

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### Learn More

**Flight Standards Organizational Handbook**  
<http://go.usa.gov/DKDT>

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