

Case Study: Federal Aviation Administration

Whenever people fly, their safety is dependent upon the training of the many pilots, air traffic controllers, equipment maintenance personnel, airport security personnel, designers, technicians, programmers, environmental specialists, and others who develop and maintain the nation's aerospace system.



Under the collective supervision of the Federal Aviation Administration (FAA), these diverse business units receive their technical training through the FAA Academy, the agency's respected training facility in Oklahoma City, OK. Established in 1959, the Academy operated for decades relying solely on the traditional classroom model of training, bringing in vast numbers of students from around the country to its Oklahoma City "resident training" facilities. Due to the detailed nature of the training, many students were required to leave their families and work sites for extended periods of time—often several weeks or months.

Over its history, the Academy has increasingly found itself at a budgetary crossroads. Continued demands by Congress to reduce FAA budgets coupled with the sizable travel, lodging, and lost productivity expenses that resident training entails led the agency to pursue alternative approaches to the classroom model. In turning to distance learning as a solution, the agency's first attempt consisted of correspondence study training courses, a program of text-based, self-study courses still used today to address several courses that are prerequisite to more advanced training. Although computer-based training, introduced in 1975, made an impact in certain areas, the FAA discovered it needed to take more pronounced steps toward operational efficiency.

“The entire four-day program was delivered to 318 students at a cost to the taxpayers of only \$18 per student, and as anyone in training can tell you, that's pretty good.”

Rich Schrum,
Interactive Video Teletraining
Operations Manager,
Federal Aviation Administration

Meeting the Knowledge Sharing Challenge

In 1995, to dramatically reduce expenses and increase efficiency in the national aerospace system, the agency implemented an advanced broadband e-Learning system from ONE TOUCH, the KnowledgeSite™ Classroom solution. The agency calls the e-Learning network Interactive Video Teletraining (IVT).

While the benefits have been dramatic, convincing Congress to approve the shift to distributed learning was not as easy as one might think. “We had to prove to Congress not only that our proposed IVT network was cost-effective but that the training was as good as our established resident training system,” noted Rich Schrum, the FAA's IVT Operations Manager. In an exhaustive study conducted for Congress, test results for residence classroom classes and their equivalent IVT courses were compared to measure their effectiveness. “As we expected, the new (distributed) training medium was proven to be as good as—and in certain cases more effective than—the traditional classroom approach.”

Learning at The Speed of Change™

The FAA's ONE TOUCH e-Learning network now consists of 59 receive sites nationwide—reaching 70% of the FAA population within a 25-mile radius of the workplace. This means that the majority of



potential trainees are within a short drive of a fully interactive training environment controlled by the Academy's staff. And for many who work at an airport or agency-based facility, a direct link to the Academy is right down the hall.

Measure of Success

ONE TOUCH e-Learning not only helps the agency save money, it supports revenue generating operations in the area of international training. Since 1946, the international aviation community has relied on the FAA Academy for the training of their personnel. Over 10,600 students from 167 countries have received training at the Academy. "Today, any country with a compatible satellite downlink capability could participate in the Academy's aviation training interactively, at a distance. This can save significant money for them while generating revenue for the Academy," noted Schrum.

In one example of training savings, the Academy was responsible in 1999 for the rapid delivery of training across its Aviation Security population on recent changes in policies and procedures for the Dangerous Goods/Cargo Security Program. Over the course of four days, the Academy trained several hundred security personnel using 37 receive sites. "Courses that would have required between 8 and 16 hours to conduct in Oklahoma City were completed remotely in 6 hours due to the efficiency of the multimedia-based presentation," noted Schrum. "The only people who had to travel were three subject matter experts who flew into the Academy to present the information."

The impact on decreased travel costs has been substantial. Schrum added, "Taking individuals away from their homes and front-line duties for protracted training in Oklahoma City is no longer a necessity in a great many cases. Now, with the ONE TOUCH solution, we can reach and train hundreds of students simultaneously while maintaining a high level of training quality."



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