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Client Overview

We helped the University of Texas implement a suite of tools at six major airlines to collect, organize and analyze aviation safety reports. The result was easier report submission for the pilots and a simplified workflow for managers involved in the program. The common toolset provides a research tool for the University to discover systemic issues and improve aviation safety throughout the industry.

Business Need

Over the past five years a growing number of commercial airlines have started collecting large volumes of safety data through a voluntary, non-jeopardy reporting program. Referred to as the Aviation Safety Action Program (ASAP) and governed by a memorandum with the Federal Aviation Administration (FAA), ASAP was developed to enhance aviation safety through the prevention of accidents and incidents by encouraging airline employees to voluntarily submit safety related reports.

In response to requests from the commercial airline industry, the University of Texas at Austin Human Factors Research Project (UT-HFRP) reviewed a large number of ASAP programs. UT-HFRP concluded that many airlines lacked the tools and knowledge to track and identify trends in ASAP reports or common factors contributing to reported events. They also recognized that the airlines needed assistance in managing, categorizing and analyzing their growing ASAP database.

Solution

UT-HFRP contracted 7sm to design a series of web-based applications to aid airlines in the collection, organization, review and analysis of data resulting from their ASAP programs. In our initial phase we developed a web-based reporting tool for commercial pilots to submit ASAP reports and an application for ASAP program managers to collect, organize and review these reports.

This suite was developed from a thorough analysis of the workflow process currently in use at three major airlines in conjunction with a data taxonomy developed by UT-HFRP, and then enhanced through feedback and working group meetings with participating and interested carriers. In building the management and analysis application, we created a rich interface with many of the advantages of a desktop application, while maintaining the accessibility and ease of deployment common to web applications.

Results

The response to this program has been overwhelmingly positive from all parties involved. Airlines deploying the solution have seen their reporting rates double. The ASAP managers are extremely excited about our web-based tools because they simplify a once-lengthy process of reviewing, organizing, analyzing and researching ASAP event reports. The airline Pilot's Association listed the suite as one of their ten "Best Practices" for ASAP programs. Most importantly, our development of a common set of tools for managing ASAP event reports has improved inter-airline cooperation.