

LISTENING TO THE Data

As I mentioned last month (“Safety in Bad Times,” *ASW*, 4/09, p. 1), we are seeing a disturbing set of accidents that seem to lack a common thread. We can now add the tragic crash of a FedEx MD-11 to that list. As random as these recent accidents look, though, one factor does connect them. We didn’t see them coming and *we should have*.

Before, we could blame technology. There was no affordable way to collect and analyze data. Well, we don’t have that excuse anymore. Now we look at these accidents and have to admit the data were trying to tell us something but we weren’t listening.

We failed to heed the data in a couple of ways. In many cases, flight data monitoring was available but was not being used. Look at the accident record and count the number of carriers that were not using FDM or FOQA.

Second, look at the number of accidents where the data were there but their significance was lost on us. Only after the runway confusion crash of Comair was the U.S. Federal Aviation Administration (FAA) able to dig through the mountains of data and find that departures on the wrong runway were surprisingly common <www.asias.faa.gov/pls/portal/docs/page/asias_pages/asias_studies/pdfs/asiaswrongrunwayreport.pdf>. After the Spanair crash, it took *USA Today* to look at the data and find 55 reports of flap extension errors on takeoff since 2000 in the United States alone <www.usatoday.com/travel/flights/2008-10-22-madridcrash_N.htm>. In these cases, the data were there but we didn’t find the implications in time. I am sure that safety managers read accident reports, but from where they sat they couldn’t see the pattern.

So how do we do better? Obviously, those segments of the industry that are holding out on data collection systems like FDM and FOQA need to

reconsider their positions. I am still at a loss to explain why FOQA isn’t a requirement in the United States. At the same time, those countries and airlines that have not committed to voluntary reporting systems need to look for the best practices in put them in place. Those have to include strong protection for the data, not just from actions by the regulator, but by courts as well. I don’t think any place in the world has this exactly right yet, but there are plenty of guides to get started. For example, Australia is adopting a sweeping new aviation policy, and the United States is looking at a new FAA authorization bill under a new administration. The opportunities are out there if we look for them.

Finally, the tougher challenge is to share the data to allow us to see problems early on. If several airlines share data, occasional events that once appeared random may be more clearly seen to be part of a pattern that allows a common safety threat to be understood. This isn’t exactly a new idea. The U.K. Flight Safety Committee has been doing this in a low-tech way since 1959.

But now we have other technical opportunities. The FAA is starting to fuse data from dozens of carriers, some of them international, in a program called Aviation Safety Information Analysis and Sharing (ASIAS). Efforts like these point us to the next generation of safety improvements. Looking back over the past few months reminds us that we still have to get better at looking forward.



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