

Safety Reports

Aviation Safety Data Accessibility Study Index: Public Access to Safety Information

Although the risk of being killed in a plane crash is infinitesimal for a traveler on a U.S. commercial airline, a passenger has a natural inclination to try to further reduce the odds. Improved access to safety information would have a twofold role for interested consumers: (1) to expedite the flow of potentially relevant safety data and information, and (2) to provide neutral but informative supplementary analyses about safety issues. Fulfilling this role will enable FAA to bear witness to two important if unfashionable truths: (1) for individual U.S. airlines, past nonfatal accidents and incidents have no statistical power as predictors of future crashes, and (2) among U.S. airlines, there is no statistical correlation between past and future mortality risks. Communicating this will involve providing timely and complete access to relevant airline safety data (including data on accidents, incidents, and other relevant events as well as exposure data), presenting basic information about the likelihood of being involved in an aviation accident, and describing the workings of in the overall aviation safety system and its participants. Each of these three communications goals would allow FAA to address public concerns in a distinct way.

Because there is no evidence that individual carriers differ to a significant degree in terms of safety records, airline safety information presented with supplementary analysis need not be prejudicial for any individual carrier, and will enhance public perception of FAA's stewardship of aviation safety. Grose (1995) makes the point that if such information is only made public immediately following an accident, it may actually be counterproductive, since it will give the impression that information had previously been withheld from the public. Although there is no predictive power in airline specific data to date, information released after the fact may inevitably look sinister. FAA's goal should be to educate the public, not merely to provide it with numbers.

The routine provision of aggregate aviation safety data should also be encouraged. Aviation accidents are rare events, but when they do occur they tend to be severe and to have high consequences for those involved. Attempts to reassure the public with technical discussions of probabilities can sound defensive in the days immediately following a major accident. Routine provision of complete information about aviation system safety would also reduce the need for FAA to change the focus of its safety communications efforts as consumer concerns change, say from safety issues to security issues, or from concerns with all carriers to concerns with regional carriers. Presenting historical information in an "event/outcome" framework could also usefully address public concern about safety. FAA and NTSB investigation of an air accident often results in improvements in the aviation safety system that eliminate or reduce the risk of a similar accident. Information of this sort could reassure passengers that

however catastrophic a past accident might have been, a similar one may be much less likely than before.

Finally, the public may lack information about the overall safety process and the complex workings that connect carriers, manufacturers, airports, flight crews, ground crews, and FAA in the provision of a safe aviation system. In fact, since it may be that there are no discernible differences between carriers with regard to accident rates, the greatest effect of an FAA safety communication effort would be to increase public confidence in the aviation safety system and in FAA's stewardship of that system. As FAA and other participants move toward more proactive safety policies, nonaccident information, gathered and analyzed within a cooperative framework, will acquire increasing importance for preventing future accidents. If information on how the safety system works is made available repeatedly and routinely, then it might do much to educate the public not only that aviation accidents are very low probability events, but why they are low probability events. The key point to be made here is that some thought has to be given to how the message about existing safety systems and procedures is delivered and, in particular, when it is delivered.

Even with improvements in FAA's safety information dissemination practices, there still may be strong public concerns about air safety. The nuclear power industry has spent years trying to inform the public of the low risks associated with the use of nuclear power to generate electricity. Despite the weight of statistical evidence and rational analysis, nuclear power is still a technology which makes many uncomfortable.

Much of the data used in safety analysis is now publicly available, but it is not easily accessible, especially to persons who lack knowledge about the specific data sources or who have limited analytic expertise. Even for experts, obtaining the data can be a lengthy, burdensome process. Obtaining data is an especially burdensome process when it can only be obtained through the Freedom of Information Act. One way for FAA to make public access to information easier is to release information that is now available only through a Freedom of Information Act request. In addition to improving access to information now available, the FAA can clarify its policies concerning the public availability of information resulting from its surveillance activities. Clarification of these policies can provide a necessary foundation for improving public access to surveillance-related information.

The internet and the increasing versatility of home pages and web sites for presenting complex information offer a means of improving the public accessibility of available safety information, especially for persons with well developed analytic skills and intensive information needs. Although many public users lack the skill or equipment to use the internet directly, even these users can be helped indirectly by improved access to safety information on the internet, since better access to safety information can help journalists, travel agents, and

consumer group representatives meet the public's safety information needs. FAA, however, can also explore additional ways to make safety information more directly accessible to the public, such as through 1-800 information hotlines, printed materials for distribution in airports and travel agencies, and even video presentations.

There are three general principles that could usefully guide FAA's policymakers as they increase the public availability and accessibility of aviation safety data. First, any information available to some persons outside FAA should be available to all persons outside FAA. Restrictions on access to information, especially through "two tiered" systems such as availability through FOIA, can create an impression that information is being withheld, or that some reports are "secret." Second, information made available to the public should be presented in a way that allows and encourages sensible use of the data. This includes informative discussions of the pros and cons of the various exposure measures that are used for normalizing event data. Third, the release of information to the public should not make safety worse, nor should it make achieving higher levels of safety more difficult. This report discusses the numerous incentive issues that are raised by the public release of safety data that is gathered from carriers through cooperative and self-monitoring programs. FAA and other policy makers must consider the potential costs and benefits from the release of new forms of safety data.