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From the Editor's Desk

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FAA Cover-Up?

by **Clif Ericson**

How does it make you feel when someone withholds safety information because they think you can't handle it? That is apparently what the Federal Aviation Administration has done for the last decade. An April 23, 2009 article in the *Fredericksburg Free Lance-Star* states, "The FAA had long argued the public couldn't handle the full truth about bird strikes." FAA data, released after pressure following the "Miracle on the Hudson" landing in January of this year, shows that more than 89,000 aircraft bird strikes have occurred since 1990, resulting in 11 lives lost. This seems to be another example of a safety paradox — Tell the truth and worry the real risk takers, or withhold information so the risk takers will continue to fly and generate airline profits. "What about risk communication and mitigation?" you ask.



The first major article in this issue is titled "Considering System Risks" by Mike Allocco. In this article, Mike discusses scenario-driven hazard analysis (SDHA) based on the works of Willie Hammer. Thirty years ago, Hammer realized that determining exactly which hazard is directly responsible for an accident is not quite as simple as it seems. Consequently, he introduced the concepts of initiating, contributory and primary hazards.

The second major article is titled "Redundancy for Safety" by Vito Faraci. In this article, Vito shows what is involved in quantifying the probability of success of systems utilizing redundancy. Although "Safety" and "Reliability" are not the same, very often (but not always) increasing reliability has the effect of increasing safety. Vito provides useful formulas for calculating the probability of loss of various layers of redundancy.

In his TBD column, Charlie Hoes discusses the hazards and risks associated with arc flashes. I had not previously given much thought about arc flashes, but Charlie's article has really opened my eyes in regard to their cause, effects, hazards and mitigations. This is definitely material that should be in the safety engineer's toolbox and file drawer.

In his Gains from Losses column, John Livingston discusses recent NASA experience with the STS-126 flow control valve poppet failure, and from there he moves into the safety concerns regarding aging mechanical parts. He presents aging aircraft issues and what safety engineers should be doing to help mitigate the safety risks involved.

In the Technology Corner, Sherry Deatrick discusses computer viruses in general and the Conficker virus in particular. If you want to better understand computer viruses, check out this column, as Sherry has done in-depth research. She has also included links to Web sites that provide valuable information and resources to combat computer viruses.

It seems like there is no lack of items for the safety engineer to worry about. Safety engineers deal with risk identification, assessment, mitigation and acceptance on a daily basis, yet they are subjected to risk cover-ups by prestigious organizations whose job it is to mitigate the very risks

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being covered up. Right now, computer viruses are only taking a toll in denial-of-service, theft and computer damage, but what happens when viruses start affecting aircraft flights, nuclear power plants, weapon launches, medical devices, etc.? I see nothing but a bright future for the need for system safety engineers; hopefully, industry will start to better appreciate the need for system safety.

Until next time,
Clif