Aircraft Safety: Blowing Smoke?

By JOHN GREENWALD

The pilot's voice was calm, but his distress call described one of an aviator's worst fears: "We have smoke in the cockpit." Eleven minutes later, his radio fell silent, and six minutes after that, Swissair Flight 111 slammed into the Atlantic Ocean off Nova Scotia, killing all 229 people onboard. While the cause of that Sept. 2 crash has not yet been determined, investigators have discovered indications of a fire in an electronics compartment below the cockpit, and the presence of smoke made the crash seem eerily similar to that of ValuJet Flight 592 in the Florida Everglades in 1996. As a result, the Swissair disaster has attracted fresh attention to inexpensive devices already widely deployed in private corporate jets--but not in commercial aircraft--that can help protect pilots and passengers from the horror of a smoke-filled cabin.

For decades, the Federal Aviation Administration has required airlines to provide pilots with oxygen masks and goggles to shield them from smoke in the cockpit. But thick smoke can also prevent pilots from seeing their instruments or the view through their windshields. That concern has moved scores of owners and operators of corporate jets, from Prudential Insurance to Planet Hollywood, to install a $9,915 Emergency Vision Assurance System, manufactured by VisionSafe Corp. in Kaneohe, Hawaii.

The portable, 5-lb. units inflate to form smoke-free plastic "cocoons" around instrument panels and windshields. Pilots activate the systems--there are two in each cockpit--after donning oxygen masks and goggles. Says mechanical engineer Bertil Werjefelt, who invented the device in the late 1980s and is president of VisionSafe: "There should never be a question for a second whether or not the pilots are able to see."

But the Swedish-born Werjefelt, 54, has failed to win over the FAA. It maintains that goggles and oxygen masks are all that flight crews need to cope with cockpit-smoke emergencies, which occur at the rate of 40 to 50 a year on U.S. domestic flights. The agency says studies show that efforts to set up and activate EVAS-like devices could distract pilots from the task of controlling their planes. Many flight crews would disagree, according to John Mazor, a spokesman for the Air Line Pilots Association, which represents 50,000 commercial pilots. The evas, he says, "really works."

Commercial passengers also enjoy less protection from toxic smoke than those on corporate planes. After years of study, airlines still balk at installing individual smoke hoods that could provide each passenger with up to 30 min. of clean air. (Market leader Essex PB&R Corp. of Edwardsville, Ill., offers eight different versions at prices ranging from $160 to $750.) Nor has the FAA mandated hoods for passengers, although crews of commercial airlines have them. The airlines and FAA argue that smoke hoods could make it more difficult for passengers to evacuate a plane. Of course, that can also be difficult when you're blinded and choking on toxic fumes.

That's one reason some 300 of the FORTUNE 500 companies have installed smoke hoods on their corporate jets. And it's why safety-minded staff members of the FAA and the National Transportation Safety Board--which investigates air crashes--regularly stow smoke hoods in carry-on luggage when they fly.