

technology TODAY

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Parachute Away

OUR two-hour tour of Alaska in a DeHavilland Beaver float-plane (water takeoff and landing) was a fantastic experience that will remain with us for a lifetime. I sat in the co-pilot's seat and my wife and three other tourists sat behind me.

One of those "What if?" thoughts flashed through my mind, and sharing it with you is the perfect way to introduce this month's column.

Our pilot was young and probably in perfect health, but what if he had suddenly clutched his chest in physical distress? Obviously, helping him would be the least of my problems, since my flight experience on Nintendo and Microsoft Flight Simulator would not help me fly this plane.

Without training could we all get into parachutes and bail out of the plane? If the plane had only one parachute, could I just tell the others, "Don't worry, I'm going down for help?"

The one-parachute possibility could save everyone's life, including the life of the plane if it is a *whole-airplane parachute system*, such as the one approved this summer by the FAA for use on Cessna 172 aircraft. This is the fourth approval granted to Ballistic Recovery Systems for a Supplemental Type Certificate for a full-airplane emergency parachute system.

If a plane is equipped with this system and an emergency landing is impossible, the pilot or a passenger would shut off the engine and pull a handle mounted just behind the fuel selector on the Cessna 172. In just one second, this simple action would cause a solid fuel rocket to pull the parachute from the

airplane's fuselage mounting at over 100 miles per hour to its opening position above the airplane.

The design actually assures a normal flight appearance as the plane makes a stable descent under a 55-foot parachute canopy at 15 to 30 feet per second. While the system can hold a 12,500-

lb. airplane, the system is designed to save the occupants rather than the plane.

BRS engineers who designed the system and the FAA inspectors who approved it both indicate that the plane's landing could seriously damage the plane as it saves the lives of the plane's occupants.

BRS reports that pilots who have flown airplanes with this system on board indicate that "the installation has no effect on flight characteristics or performance" of the airplane. Approximately 35,000 Cessna 172 planes are now in use, making this general aviation plane the most popular single-engine aircraft ever sold.

This new system and the three



Photo courtesy of Ballistic Recovery Systems Inc.

previously approved systems can be retrofitted to existing planes or included on new plane orders. The system is certified for 10 years before it must be checked, repacked, and its rocket motor replaced.

As of August 2002, 129 pilots have pulled the red handles on previously approved systems, thereby saving 154 lives.

Learn more about whole-airplane parachute systems and watch a deployment video at BRS's website: www.airplaneparachutes.com.

Recalling the Facts

1. Why is this system better than individual passenger parachutes?

2. Name eight airplane situations where a pilot would want to deploy this system. (Hint: Check out the website.)

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