



# Warning: Hot Coffee! - Hazardous Materials

## Cirrus Airframe Parachute System (CAPS)

No. HC-2009-2 March 27, 2009

**Learning Objective:** The student shall be able to identify the dangers and cautions of parachute deployment systems from small aircraft.

It is a quiet Sunday afternoon. Spring is approaching—and it is NOT the sky falling, but it IS an aircraft floating to the ground in YOUR neighborhood or first due. What would YOU do? This happened on March 15th in Gaithersburg, Maryland as a Cirrus SR22 left Montgomery Airpark. The pilot told a witness that the aircraft door had popped open and the plane went into a nonrecoverable tail spin as he tried to secure the door. The chute was deployed and his plane landed safely in a neighborhood street! Pilots say any landing you walk away from is a good landing. No one was hurt. But what if the chute had NOT deployed? What would you do when you arrive at the scene of an aircraft down and the chute has NOT deployed? Safety is as critical as the ejection seat dangers in many aircraft! Anyone who trains for Crash Fire Rescue (CFR) incidents must be aware of ALL possible dangers around the aircraft before efforts in extrication or entry begin.

**Cirrus Airframe Parachute Systems (CAPS)**, are standard on all Cirrus manufactured aircraft. The CAPS Rocket and igniter are located behind the aircraft passenger compartment and if not deployed prior to an emergency crash landing, could pose a SERIOUS threat to bodily injury or death to first responders. **NEVER cut into the cabin roof!** If you encounter a CAPS system that has NOT deployed, you must enter the cockpit area, accomplish engine shutdown by moving the fuel selector to off to shutoff the fuel, and also secure electrical power by turning the ignition switch off. There are other concerns for first responders in small aircraft that include the fuel tanks, oxygen, and TKS-Fluids (de-icing fluids) tanks. In 2007, the Cirrus Design Corporation produced an excellent video on the CAPS device and on the dangers of small aircraft scenarios where the system has NOT deployed and concerns over these and other safety issues. You can see a short video on parachute deployment on the Cirrus website at <http://cirrusaircraft.com/parachute/> (A future reproduction option for the video is currently in search of funding. It will be announced in a future Coffee Break.)

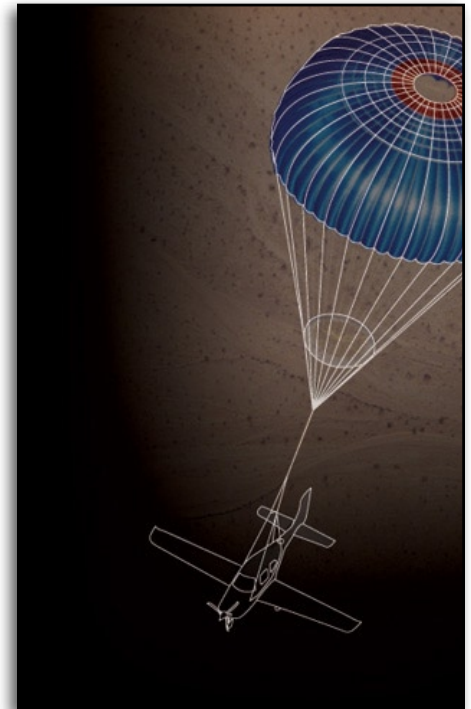


Photo courtesy CirrusDesign Web site  
Parachute Deployment (CAPS)

Another concern for emergency responders should be the **AmSafe Aircraft Inflatable Restraint system (AAIR)**. The AmSafe Web site has several links to news reports on the aircraft equivalent to vehicle airbag systems designed to improve occupant protection from serious head-impact injury and enhance one's ability to exit the aircraft following an otherwise survivable accident. <http://www.amsafe.com/news/videos/aviation/>

All first responders should take a few moments to review or investigate the concerns they may face when the incident involves small aircraft. Those few moments can be the difference in success or disaster in an emergency response to a downed small aircraft.



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