



# ASK Allen

*A master rigger answers your questions about parachutes*

**Q:** *I'm thinking of purchasing a new parachute, and I want to upgrade. Should I consider a rectangular (ram-air) parachute like sky divers use?*

**A:** My simple answer to that question is no. If you are wearing a pilot emergency parachute, it is more than likely a round parachute that is shaped like an umbrella. Some pilots do use ram-air parachutes. A few months ago, Sean D. Tucker bailed out with a ram-air parachute that I packed, but many people may not know that Sean is also an experienced sky diver with more than 300 ram-air jumps.

While everyone would enjoy landing like a feather in the spot he or she has chosen, there are many pitfalls in owning a ram-air parachute for use as an emergency chute. They are not user-friendly to someone with little or no jump experience. You must take specific actions to have a successful flight and landing under a ram-air parachute; actions you may be unable to take if you are injured during the bailout.

A ram-air parachute will typically (in no wind) have a forward speed of 20-plus mph. It is packed in a "half-brake" configuration (like having 50 percent flaps down on an airplane). After opening the parachute, you must release the brake system to gain maximum maneuverability. What if you accidentally

release one brake and not both? You will soon find yourself in a rapid spin, spiraling toward the ground at between 40 and 50 mph.

On the other hand, a round parachute, once deployed, is ready to fly at a docile 5 mph. This is important if you are incapacitated after its opening and hanging under your parachute like a rag doll. Your round parachute will be moving through the air about 15 mph slower than its ram-air cousin. Now let's add a typical 10 mph wind. All parachutes have a tendency to run with the wind if you do nothing, so in this scenario you are still hanging like a rag doll on your round parachute going about 15 mph. However, with the ram-air you are going at least 30-plus

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mph. The landing would be similar to jumping off the roof of your car going 30 mph. Ouch!

Let's assume you were lucky, and everything has been going well. Now it's time to land. Like an aircraft, you need to flare (or stall) just a few inches above the ground to achieve that soft landing. This is hard for sky divers to do when they are first starting out, let alone a possibly injured pilot with no jump experience! Remember the first time you attempted a landing with your instructor? Landing a parachute is more complicated than it may seem because you cannot add power and go around. Also, there is no structure around you to absorb a hard landing.

Now that I have scared you, let me tell you who is a candidate for a ram-air parachute. Typically it's a person who weighs more than 225 pounds and who is flying at high field elevations. The person is usually taller than 6 feet and has limited room for a big, bulky, round parachute in the cockpit. A ram-air parachute will typically carry more weight and have a smaller pack volume.

I will not put anyone in a ram-air canopy unless he or she has completed a jump training program specifically for pilots. Some pilots will go through only the ground training, but most make at least one tandem jump, and several have

gone through a complete free-fall course. Making an actual jump is not required, but it's loads of fun and makes for a better story!

Ram-air parachutes will typically cost you an extra \$500 or so and require a special harness/container. Most manufacturers do not make or sell ram-air parachutes to pilots. I have found the Softie by ParaPhernalia to be the best and most user-friendly. For most pilots, in the unlikely event you need to use your "expensive cushion," a round parachute is usually best.

**Q:** *I plan on flying in the winter, and I wear extra clothing. Do I need to take extra precautions with my parachute?*

**A:** The standard rules of proper parachute "care and feeding" still apply: Keep your parachute in a

cool, dry, dark place when not in use, and when flying, try to keep it out of UV rays as much as possible.

My concern is more about what you (the pilot) are wearing for winter flying, particularly on your hands. There have been numerous accidents involving people unable to release their canopy or seat belts or even pull the ripcord on their parachute because of bulky gloves. Make sure you can perform all flying duties, especially your emergency procedures, with the gloves you will be wearing. I have known several sky divers who had an emergency, realized they could not pull their emergency ripcord, and had to rip off their gloves in free fall. You might not have time to do that. Plan ahead and stay alive! Thank you and keep your questions coming! See you in February.

*Allen Silver is the owner of Silver*

*Parachute Sales and is always available to answer your questions about parachutes. Send your questions to Allen@SilverParachutes.com.*



*Allen Silver's ride with the Patriots in June of 2006*

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