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Don't let the Grim Reaper take your parachute

Damage control, Grim Reaper and thinking inside the box

After reading Mike Heuer's editorial in the June issue about meeting editorial deadlines, I decided to expound upon that a bit. Monthly deadlines do not just pass you by; they are always haunting you. Will I receive the article that someone promised me in time? Will fresh ideas pop into mind? Some months will be easier than others, like the 70th anniversary of the Pitts. One could write volumes about that! Thirty-two pages is a lot for editor Reggie Paulk to publish, but he manages with the largely volunteer group of authors that *Sport Aerobatics* so heavily relies upon.

All I have to whimper about is meeting my bimonthly deadline, but so far I've found enough material to write about. After nine years I often wonder what my next column will be, while also hoping for ideas from you. I'm grateful for the support from the few of you who have given me ideas for an upcoming column, but I could sure use your help for more of them. Many of you have questions that I haven't thought of that would be of interest to the rest of the readers. All I need is your input. An e-mail, a call, or even a quiet whimper would be much appreciated. We learn from others, and I know there are those of you who have nagging questions or personal experiences that when shared would be helpful. Send your questions!

Keeping an eye on your parachute

Over the years I keep seeing parachutes come into my shop for servicing that show the same kind of wear and tear. It would be easy to say no one is paying attention, but I have to remind myself that there are a lot of new pilots out there who could use our mentoring and many experienced pilots who need reminders. Most of you *do* take proper care of your parachutes, and I'm pleased to have had a hand in that.

Now what do I talk about this month? Three topics come to mind.

Problem 1. Damage control: As far back as August 2007, I wrote about this problem. It's not uncommon to see the back or bottom of a customer's container worn and frayed because the owner didn't know or was too busy to place some sort of padding on the seat back or bottom to help protect the container from excessive wear and damage. The most common excuse I hear when I talk to the owner is, "The seat bottom or back is smooth." Or, "It's not rough." The surface is not the problem. The problem is the seats are very hard. Over time your parachute container will show wear from your weight leaning against or sitting on it. Usually the wear comes from the rip cord cable and pins, but also friction from both you and your parachute container shifting in the seat. You'll first start to see a faint outline of the rip cord cable and pins through the rip cord protector flap. Eventually they can wear through, causing a hole. The answer to this situation is padding. It could be a custom-made cushion or something as simple as a piece of carpet remnant. You need to cushion the area that places the most pressure on your parachute. Do not use a loose, uncovered piece of foam. It will break down and tear apart very

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quickly, leaving a mess to clean up.

If you use Velcro tape or something similar to hold the padding in place, make sure the soft, fuzzy part, called pile, is on the seat back or bottom. If you have the scratchy part, called hook, there and remove the padding, you'll create a new problem the next time you get into your aircraft while wearing your parachute. Placing your parachute against the hook **will cause damage**. It'll look like a cat has clawed the back or bottom of your parachute container. In most cases the damage can be easily repaired, but why not take the time to prevent the problem? It's kind of like childproofing your home. You need to protect your parachute from unnecessary damage and keep it safe. While you're at it, look around for sharp or rough spots like welds or bolt/rivet heads that can also cause wear and (literally) tear. With proper care your parachute should last 20 years.

Problem 2. Your parachute and the grim reaper: It's been many a year since I've had to condemn out what was once a perfectly good parachute, but I've done it. I hope this doesn't sound or look familiar. This individual was accustomed to leaving his parachute out in the sun and weather for hours at a time. Leaving it in your cockpit unprotected is also not good. Over a few years, neglect took its toll. When he brought his parachute to me the first time for routine servicing, he was in for a surprise. I told him I was going to condemn it out as nonairworthy. I explained why. The owner asked if I could just replace the ultraviolet-faded and heavily sun-damaged outer harness and container. It had already faded from its true color to almost white. I explained that could be done, but the parachute inside had extensive UV damage also. How could that be, he asked. Most containers do have some sort of UV protection, but they are not impervious to UV damage, and that includes the parachute inside. His only comment was that it looked good to him.

I'm sure he thought I was trying to sell him a new parachute. I later did, but first I had to convince him he had a problem. I told him to pick areas at random on the canopy, and I would perform nondestructive pull tests on the fabric he chose. I also chose a few areas. See my June 2015 column in *Sport Aerobatics* for how this is accomplished. Needless to say, he was rather surprised that his parachute failed some pull tests in some of the areas he and I had chosen. At the time, the standard pull test was 40 pounds. If the material had not been compromised, it shouldn't have ripped until around 75-80 pounds. His parachute ripped in a couple of areas at less than 15 pounds! He learned his lesson the hard way. Please don't let this happen to you. UV damage on fabric, just like on our skin, is cumulative and cannot be reversed or repaired. If you ever have to use your emergency parachute, you do want to be able to look up and see something other than blue sky.

And here's a good story. A few days ago I received a parachute from someone who is getting back into tumbling through the sky after an eight-year layoff. Because he stored his parachute properly, the only thing I had to do was replace the rubber bands holding the lines in place and pack his parachute. I do recommend if you are going to store your parachute for more than a year, that you open the container and remove all the rubber bands surrounding the suspension lines. Rubber bands can store very badly. They often rot, and under the right conditions like heat, humidity, and time, they can become sticky and ruin your parachute. This is also a good time to put your parachute on and practice pulling the rip cord.

Be extremely careful handling your parachute if you do decide to remove the rubber bands. **Make sure the parachute material, and especially the lines, do not come in contact with the hook Velcro.** It can cause considerable damage if it snags the canopy material or suspension lines. Both, especially the lines, can be very expensive to replace. Once the bands are removed, place your parachute and the lines in a plastic garbage bag separate from the container to help keep them away from the Velcro hook and anything else that could damage them. Then make sure everything is stored in a cool, dry, dark place off the floor. Putting it into a plastic box with desiccants also can help to ensure that when you open it at a later date you'll not be in for a surprise.

Problem 3. Think inside the box: A parcel arrives at my shop with your expensive cushion sticking halfway out of the box. If you want someone to service your parachute, it needs to arrive **with** and in the box. Don't skimp on the tape. That means the bottom also! Tape dries over time and loses its ability to adhere. One box recently arrived with the parachute hanging halfway out the bottom. It appeared the box was only half full, or was it half empty? Where was his other parachute? A quick phone call assured me he had sent only one. Not using enough tape and not filling out the box can cause a problem, especially when other boxes are placed on top of it. Tape is cheap. Of course I've covered this many times, but remember not to use loose Styrofoam chips to fill the box. They get into everything and are a mess to clean up.

And again, please send your questions and experiences to me or to Reggie. We know you have ideas out there waiting to be shared. Again, thank you, Marilyn, for editing my column. Remember, fly safely! IAC