by Allen Silver

Ripcord Pins

Are you constantly having to push your ripcord pins back in during preflight? Could your ripcord pull forces be part of the problem? Let's examine what you can do for your parachute to keep you safe and what your rigger's responsibility is to you.

Certain issues keep rearing their ugly heads these days. One of them is a subject I've written about on several occasions. See the photo on page 45. You can see the pin of the parachute is just about ready to come out. A lot of times, the thread attaching the lead seal that goes around the bottom ripcord pin is also broken. Whose fault is this? Well, do you preflight your parachute *every time* you put it on or just when you remember? The pins can work their way free in between flights when you take it off and when you put it back on. Wouldn't it be rather embarrassing to suddenly find your parachute lying on the ground? There is also the possibility of it inflating in strong winds and dragging you off of your aircraft if you still have it on, and along the ground, leaving portions of your hide and ego along the way. Serious injury or worse can happen in the process. Being dragged in high winds can be very dangerous.

Do you know the proper method of deflating your parachute if this happens? You should carry a hook knife such as the ones attached to the outside of my small survival kits to cut yourself free if you cannot get out of your harness. Some of you will say, I'll just take my parachute off before I get out of my aircraft and that'll solve the problem. This is not a good practice because you need to know the nuances of getting in and especially out of your aircraft, with your parachute on. There have been documented cases of people bailing out without their parachute on because muscle memory kicked in reminding them to take it off before getting out of their aircraft — just like my previous article and the "normalization of deviance."

But are you, the end user, really the initial cause of this problem? In most cases, I don't think so. The pack closing loops, between repacks, can easily stretch 1 to 3 inches out of tolerance. This is caused by the spring-loaded pilot chute that's been compressed from about 30 inches tall to around 2 inches. The pilot chute exerts a lot of pressure on the closing loops. Compounding this problem could be that your rigger might not be checking to make sure the pack closing loops are within the manufacturer's specifications. Many riggers do not have the means to manufacture closing loops or may not know how to shorten your existing closing loops. Having a sewing machine to do so is nice, but many outstanding riggers do not. What do they do? They keep a supply of closing loops in stock.

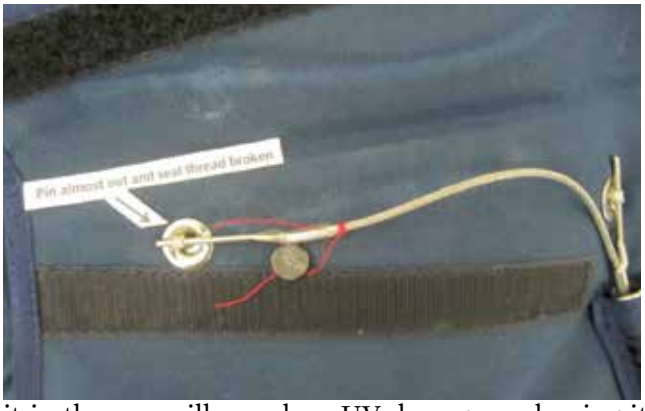
Some parachutes only require the rigger to untie an existing knot, shorten the loop back to factory specifications, and then retie it. Closing loops must be replaced or brought back into tolerance at each repack and when they are worn out. This may cost you a few extra bucks at repack time, but it's essential for your health and well-being. Is your rigger doing this? Finding out at your next repack may save your hide.

Your first line of defense initially lies with your parachute rigger doing their job properly. Packing your parachute at the 180-day interval is only part of their job. Your rigger *must* check your entire assembly for wear and tear and replace or repair parts as needed before the rigger can sign it off as airworthy.

Once your parachute has been properly packed and signed off by your rigger and handed back to you, it becomes your responsibility to maintain it between 180-day repacks.

I am concerned about your parachute rigger handing back to you a parachute not properly recertified. There is no excuse for a rigger not replacing or bringing back into factory tolerance all the parts, in particular the closing loops. All parachute maintenance/packing manuals are included when you purchase a new parachute. They also can be found online on all the manufacturers' websites. Make sure your parachute rigger has the necessary, current, and updated maintenance material. The manual was written for a purpose and must be followed to ensure your parachute has been packed properly and is airworthy.

If you'll take a few steps before you strap on your parachute, it will help to prolong your parachute's life. Placing your parachute onto a hard seat with no padding will speed up the wear and tear process. You need to pad your seat with something like a piece of carpet remnant to cushion it a bit. Leaving



it in the sun will speed up UV damage, or leaving it in the trunk of your car on a hot day also can cause problems.

The pull forces on a pilot emergency parachute cannot exceed 22 pounds in order to extract the ripcord pins and start the opening process. Most forces to pull the ripcord are less and average about 15 pounds of force. The pull forces will be dangerously reduced if the closing loops are not within factory specifications. For the first time, I've received many parachutes for repack with the pull forces less than 5 pounds. The slightest movement on your part when getting in or out of your aircraft or just removing it from its carry bag can leave you with a pile of nylon at your feet.

Ask your rigger, "Are you replacing or shortening, as needed, the pack closing loops as required by the manufacturer?" In the interim, what can you do? If you constantly find your ripcord pins not deep-seated and constantly having to push them back in yourself, then you have a problem. If this is happening to you and you're not sure what to do, have your rigger or someone knowledgeable explain how to push (wiggle) the pins back in. This is a temporary quick fix to a problem that should never be a problem in the first place. Returning your parachute for additional maintenance may be the answer.

Having the closing loops the right length doesn't mean you no longer have to be carefull while handling your parachute. Bending it while carrying it or not being careful getting in and out of your aircraft can cause the pins to slip and possibly come out, so be careful. Closing loops that are the proper length should protect you and your hide from a potentially dangerous situation.

If you have any questions about this or other parachute issues, please feel free to contact me anytime. I'm also available for safety seminars.

Take Care and Fly Safe. IAC