

From Downwind Rigging  
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## Annoying Deployment Problems

Recently, Nicole Fouche experienced a pilot chute in tow malfunction. After deploying her reserve she realized that her main deployment bag was trailing behind her and initiated cut-away procedures. After stripping her cutaway cables she noticed that her right side 3 rings had released normally but the left side stayed attached with the main streamering behind. Nicole physically removed the right side risers at the 3 ring attachment and landed normally under her reserve.

After retrieving her main, an inspection showed that her pilot chute bridle had half-hitched around the pilot chute, thus choking it off. This may have occurred during deployment or after cutting away while the main/pilot chute assembly fell to earth.

What causes a pilot chute in tow malfunction?

Worn pilot chute fabric

Shrunken pilot chute kill line

Mis-routed bridle

Poorly deployed pilot chute resulting in it being trapped in the burble over the jumpers back

If the pilot chute is functioning properly, it is not possible for most jumpers to close a container so tightly that the pin will not be extracted. A pilot chute will exert approximately 80 pounds force on the pin, where even a tightly closed main container needs only 5-10 pounds to remove the pin.

What should be done?

Replace the pilot chute when it becomes worn.

Replace the kill line when it shrinks to the point that the pilot chute is not fully cocked.

Conduct a proper gear check before each jump, including bridle routing.

Conduct correct 3 ring maintenance which includes cleaning the cut-away cables with denatured alcohol, spraying with silicon based lubricant and flexing the type 17 riser webbing to prevent material memory from setting in and brushing with a stiff brush to remove metallic deposits from the rings.

Packing your pilot chute.

There are a million plus methods to pack a pilot chute. All that matters is that the thing functions properly after deployment.

How do I check my kill line?

Cock the pilot chute and hold it upside down with the handle dangling at the bottom. If the spectra kill line is at least as long as the 3/8" apex tapes (ideally it's

longer, in other words you have slack in the kill line) your good to go. That's a cocked pilot chute. The indicator window can be deceptive and is not a true indicator of pilot chute status.

Further sources of information:

[http://www.downwindnc.com/from\\_the\\_loft.htm](http://www.downwindnc.com/from_the_loft.htm)

Relative Workshop owners manual for the Vector harness container system, 3 ring maintenance

[http://www.noexcusesrigging.com/UserMaintenance/3ring\\_maintenance.htm](http://www.noexcusesrigging.com/UserMaintenance/3ring_maintenance.htm)

Nicole did an awesome job responding to a very scary situation. Thanks for the Yuengling Nicole. Dawn and I have a periodic newsletter relating to such things, please refer to [www.downwindnc.com](http://www.downwindnc.com) to get on our list and refer to previous newsletters.

Dawn Larsen and John Lyman

Downwind Carolina

<http://www.downwindnc.com>

919-340-0044

919-496-7000 fax