

To Pee Or Not To Pee – No Question About It

Karl and Iris Striedieck, USA

It's the finish of day 7 at the 1977 15 meter nationals at Hobbs as Billy Hill pulls his Zuni into a victory pull-up after 5 1/2 hours on course. More finishers straggle in and eventually a radio call from 7N announces he will land about one mile short. Perhaps it was fatigue, or maybe dehydration was the cause, but the PIK cartwheels and the pilot is injured. When doctors begin treatment of what should have been a relatively straightforward case they discover a ruptured bladder which turns a routine situation into something with more grave consequences.

Most of us can relate stories of flights whose most memorable aspects had something to do with either not drinking enough water or not being able to get rid of the contents of a bladder that seemed ready to explode. Add to those the tales of spewing baggies, cockpit floods and bags wrapped around leading edges and it is clear that more information is needed by glider pilots in dealing with what can be anything but a laughing matter. This article presents two systems by which men and women can take care of nature's call and thereby lessen the chances of dehydration, discomfort and the danger of a ruptured bladder in an otherwise "routine" crash.

Perhaps it is advancing age, maybe just the quest for more efficiency, but with time men's relief systems seem to evolve from just "holding it", to bag jettison systems, to various plumbing schemes that empty overboard. Given the ease of use, low incidence of leaks and spills, lower distraction factor in-flight, and absence of corrosive damage to landing gear and rudder parts, the male external catheter (mec) plumbed to a landing gear door seems to be the best system for the boys.

The tubing recommended is 1/4" id polyethylene. This is a hard-walled, rather rigid tubing that can nevertheless be routed from the cockpit, under the seat pan through bulkheads and mounted on the lower rear corner of a gear door. It will take the twisting required to extend the landing gear but won't collapse if it is squeezed under the seat pan. It is available at hardware stores.

It is a little simpler to vent the system out the belly under the seat pan but the result is a lower fuselage washed in corrosive urine that gets on the metal parts of landing gears and rudder hinges. Take the time to route the tubing to the gear door so that with the gear extended during use the entire spray is directed away from the ship. Tests with dyed water show this to be the case.

Another important hydrological feature is the incorporation of a T fitting between the mec and rigid tubing. A piece of surgical tubing (normally clamped off) allows the pilot to blow the plumbing dry following use and thereby avoid freezing and trailer stains.

Catheters are available at medical supply outlets or any pharmacy by special order. The Mentor Freedom Cath sells for about \$2.00 each and is available in three sizes. These devices are much like a condom with a flexible tube that connects to your ship's plumbing. The adhesive used prevents leaks even under the pressure of

purging blow outs, however it is recommended that a small towel be used when disconnecting to catch any stray fluid.

Women are confronted with a different set of challenges of course, but experience with use of feminine bladder control guards shows these to be quite satisfactory, and definitely superior to the alternatives of deliberate pre-flight dehydration, curtailed flights, or the hazards and discomfort that come to pilots flying with bulging bladders. The good news is that no modifications are necessary to the glider.

One of the manufacturers of the magic devices that solve the problem is Johnson and Johnson who offer their Serenity feminine bladder control pads (Super absorbency). The secret of these things is a chemical gelling system contained within the fluted cotton liner that can absorb and retain liquid as fast as it can be poured on. Even when held near vertical so that runoff would logically result, none occurs. The surface away from the user is water proof so handling is manageable.

In practice, at least for new users, there is some distraction from the demands of flying the ship so a crowded thermal is not a good place to try this. It is necessary to loosen the restraint system and clothes should be of a sort that will allow access. Consider a trial run on the ground and make provisions for a container to hold the used pads. It is most important that the pads not be squashed by weight or clothing while being used as this will prevent rapid absorption.

Although these pads will hold a full bladders worth, it is prudent to use them more often with less volume until experience shows the best logistics.

If you've been frustrated or lazy in dealing with the call of nature while soaring, good solutions are available. Don't tolerate the inconvenience any longer. It could be a lot worse than inconvenient.

A Solution for Female Pilots:

Dear Mr. Weber,

In the informative (and very important) "urinal article" there is an important solution for ladies, which is missing.

My daughter and a model maker have developed, a urinal device suitable for ladies. The urinal device is made from silicone rubber and is applied to the Vagina prior to take-off. It is non intrusive, according to some ladies who have tested the unit. Relief for the female pilot can now be similar to the men, via a bag or via a direct exhaust tube (Pee tube). Sitting on or withholding wet nappies is no longer the only choice for female pilots.

The Ladies National Champion has used the device for several years and an overseas female has used it for competition flying. The unit appears so successful that female relief problems are no longer an issue.

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I located the exhaust tube in my DG-800S as far from the interior fuselage centerline as possible. The main advantage was this permitted relief fluids to exhaust externally along the fuselage exterior, without entering the main wheel or rear wheel wells, thereby avoiding under carriage corrosion problems.

Many greetings, Klaus Keim



Katrin Senne wrote:

Womens help for Womens Pilots, Pilot relief system, pee-tube for pilots

I have the device since 10 years in use. But it hasn't been produced any more the last few

years so we "reproduced" it.

It is working perfectly, just look at the pictures. After a long competition flight I normally have 2 bags (which are 2 liters each) full! Of course I am drinking a lot of tea during flight.

You insert the longest piece (just before take off) like a tampon. The open part of it is than just in front of the part where the pipi comes out. It is not so comfortable to walk with it but in flight it is comfortable and you do not feel it.



It (the piece is made out of silicon) is very easy to handle and after flying I just rinse it with hot water and soap and put it into a cleaning bath for third teeth (antibacterial). The bags for the pipi you can be bought in any pharmacy. Further informations:

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