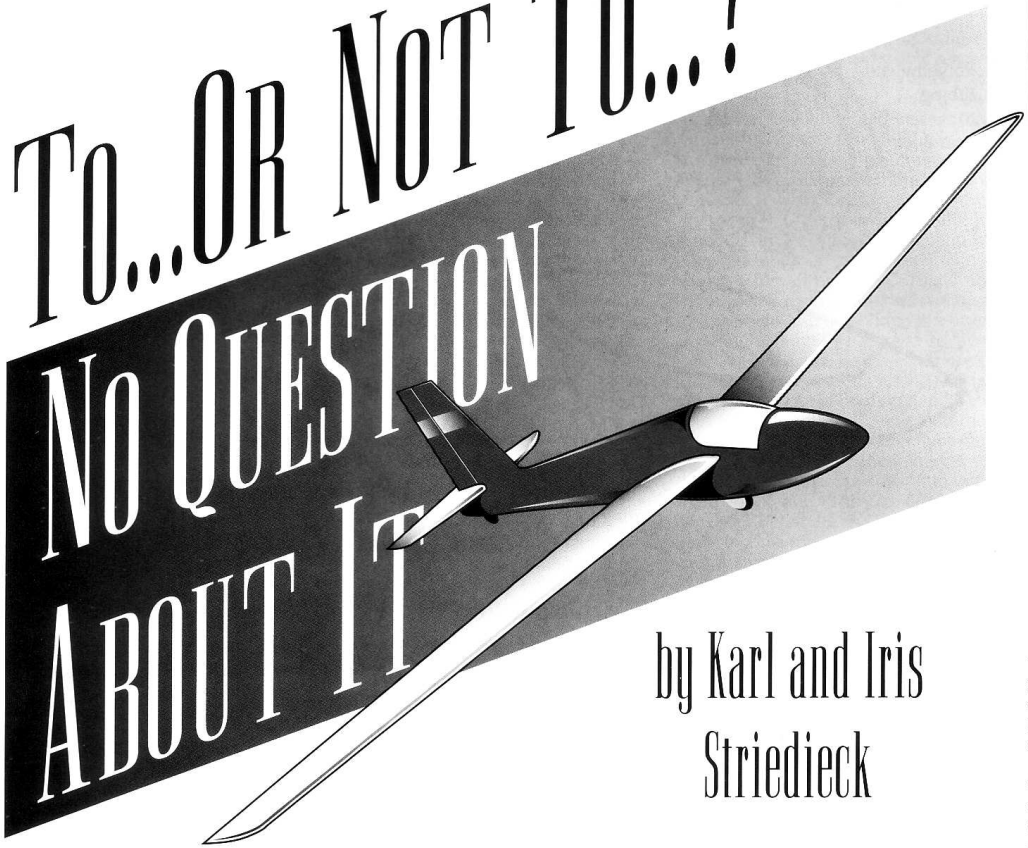
To...Or Not To...? No Question About It



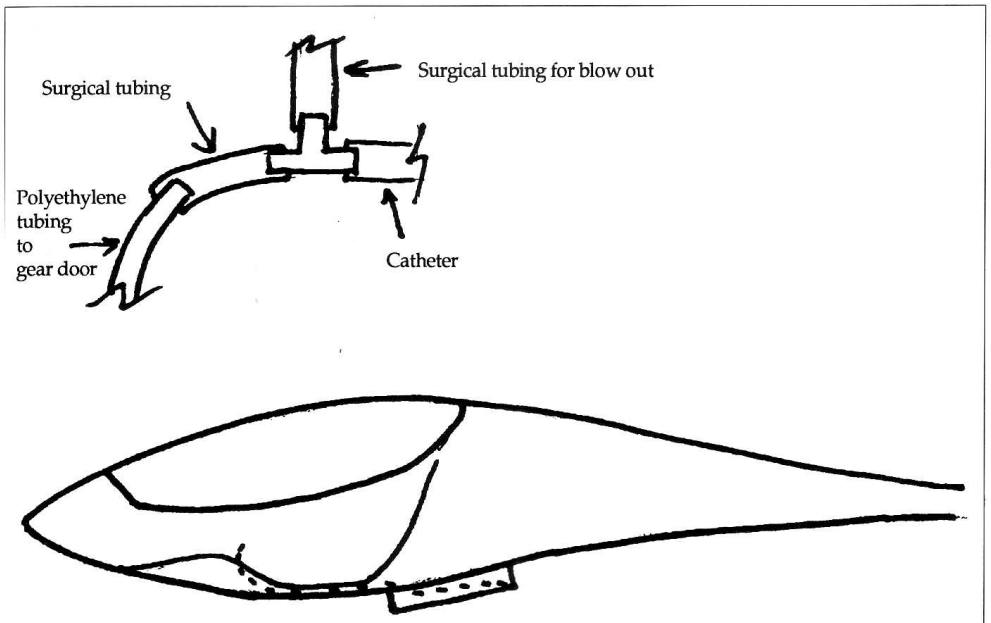
by Karl and Iris Striedieck

It's the finish of day 7 at the 1977 15 Meter Nationals at Hobbs as Billy Hill pulls his Zuni into a victory pullup 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 inflight, 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



...routing for polyethylene relief tube

Glider Relief System

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 Catheter sells for about $1.40 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 waterproof 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 bladder's 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. ■