

Unfortunately, it is a fact that aged protectors are in use, whose protection is reduced or, at worst, ZERO.

In a recent Swissglider (1.2016), the SHV reported on aged protectors with significantly reduced protection. There are multiple reasons why protectors may become defective; (deformed stiffeners + inlet vents, unfavorable inflow direction, porosity, open zippers, damaged seams and chambers, connecting valves blocked by stowed gear, etc.). In some cases the problem can be minimized by proper, careful handling. As the next example shows, this is not always enough.

Recently, airbag systems have turned up at inspection facilities, the fabric of which was so porous that they could be pre-filled, but the air would escape continuously and no internal pressure could build up. It is clear that such a protector no longer provides any protection. The pilots of the harnesses concerned were simply not aware of this, as it is difficult to detect by eye. The manufacturer argued that both harnesses were old and one of them was heavily used. They rejected the publication of a safety report, citing similar problems with other manufacturers as the reason.

As it is difficult to reach clear conclusions in the case of aged equipment, and there are still no recognized measurement methods for airbag aging, the SHV makes following limited general recommendations for the moment:



Despite careful handling, protectors can lose their protective effect over time



Porous airbag systems are difficult to detect by eye, because they contain air but offer little or no protection without internal pressure



Have your harness and protector regularly checked, e.g. Every 2 years (ideally together with your glider check)



If the airbag does not visibly fill properly, your protection is no longer guaranteed and an immediate inspection is essential



Sometimes other pilots see the problem first. Therefore, it is advisable for pilots to check each other's airbags (e.g., shortly before landing)



Always pack and store your protector with the necessary care



Loss of protection may also occur in foam protectors, e.g. If they are tightly packed and stored for a long time. However, they are easier to replace.

These recommendations alone are unsatisfactory for the future. The SHV is currently working in WG-6 on the revision of the harness standard "EN-1651". The manual and identification label should now contain the maintenance intervals recommended by the manufacturer. In addition, the manual should describe a protector function test (including the limits recommended by the manufacturer), and the recommended service life of the harness and protector, which may be extended if the test results are good.



A blower generates an airflow into the air bag vent to simulate a realistic flight situation. A special measuring device displays the increase in pressure, which must exist inside an intact airbag in order for it to function. There are large differences between functional and defective airbag protectors. This measurement method is currently being further developed and tested by Asagiri in Bex (VD).

In the meantime, the problem has already prompted some manufacturers and inspection facilities to develop measuring devices and test methods for protector controls. Certainly no easy task in view of the different designs of protectors. If at the very least, the obvious cases of protector failure are detected by inspections, then this is already an improvement in the status quo. The SHV will monitor the progress and will report on any new developments.