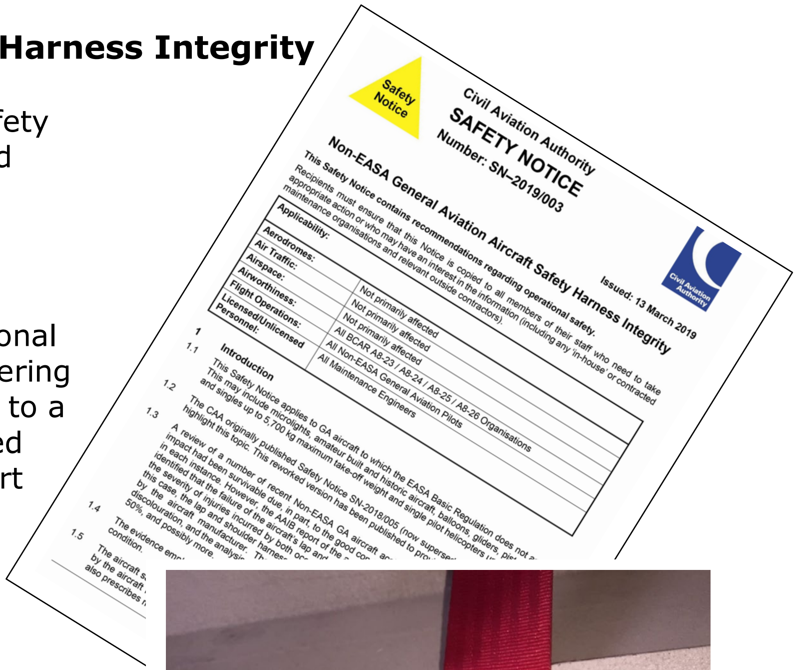
AIRWORTHINESS ALERT

LAA/AWA/19/12
28th March 2019

Civil Aviation Authority
Safety Notice SN-2019/003

Aircraft Safety Harness Integrity



Civil Aviation Authority
SAFETY NOTICE
Number: SN–2019/003
Issued: 13 March 2019

Non-EASA General Aviation Aircraft Safety Harness Integrity

This Safety Notice contains recommendations regarding operational safety.
Recipients must ensure that this Notice is copied to all members of their staff who need to take appropriate action or who may have an interest in the information (including any 'in-house' or contracted maintenance organisations and relevant outside contractors).

Applicability:	
Aerodromes:	Not primarily affected
Air Traffic:	Not primarily affected
Airspace:	Not primarily affected
Airworthiness:	All BCAR A8-23 / A8-24 / A8-25 / A8-26 Organisations
Flight Operations:	All Non-EASA General Aviation Pilots
Licensed/Unlicensed Personnel:	All Maintenance Engineers

1 Introduction
1.1 This Safety Notice applies to GA aircraft to which the EASA Basic Regulation does not a… This may include microlights, amateur built and historic aircraft, balloons, gliders, pis… and singles up to 5,700 kg maximum take-off weight and single pilot helicopters u…
1.2 The CAA originally published Safety Notice SN-2018/005 (now supers… highlight this topic. This reworked version has been published to pro…
1.3 A review of a number of recent Non-EASA GA aircraft ac… impact had been survivable due, in part, to the good con… in each instance. However, the AAIB report of the a… identified that the failure of the aircraft's lap and… the severity of injuries incurred by both oc… this case, the lap and shoulder harnes… by the aircraft manufacturer. Th… discolouration, and the analysi… 50%, and possibly more.
1.4 The evidence em… condition.
1.5 The aircraft s… by the aircraft… also prescribes…

The UK CAA have recently published a Safety Notice (SN-2019/003) giving guidance and offering recommendations regarding the ongoing operational safety of aircraft harnesses.

The Safety Notice was written after a national consultation exercise in which LAA Engineering played an active role and was in response to a Safety Recommendation (2017-021) issued by the UK AAIB as part of the official report into a fatal accident involving a YAK-52 in July 2016 (EW/C2016/07/01).

Within the LAA's maintenance regime the inspection of the aircraft's safety harness system forms part of the annual inspection as laid out in the renewal application form, though inspectors and owners must understand that this regime is an absolute minimum list. Often aircraft or kit manufacturers will prescribe a maintenance regime and many owners choose to create their own Tailored Maintenance Schedule (TMS): this Safety Notice provides more detailed advice about what the engineer should be looking for when it comes to inspecting an aircraft safety restraint system.

CAA SN-2019/003 can be downloaded HERE.

Fig. 1 (Above) shows a shoulder harness that failed during an accident involving an abrupt stop; though this harness has failed the energy absorbed by the belt during its failure contributed to a significant reduction in the level of head injury sustained by the pilot. Though this harness was over ten years old at the time of the failure, tests showed that a belt of similar age and examined quality still passed a pull test.

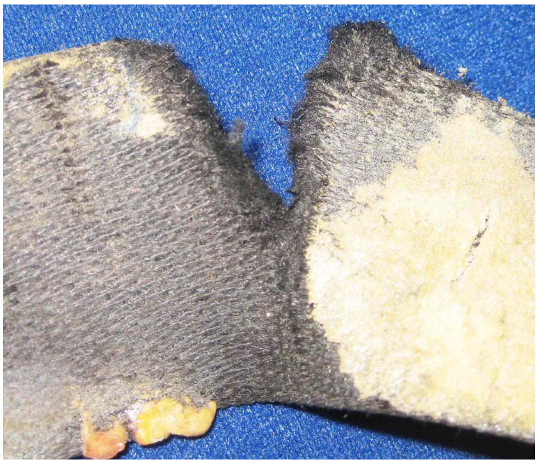


Fig. 2 (Left) is an example of lap strap that is clearly not serviceable – though, because this portion of the belt was 'hidden' within the aircraft's structure, the owner of the aircraft was not aware that it was badly worn through until a major inspection was carried out.