Civil Aviation Authority

SAFETY NOTICE

Number: SN–2023/002

Issued: 13 April 2023

Maintenance Programmes for Aircraft Used for Glider Towing

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 Part-CAO, A8-25 / A8-26 Organisations with Airworthiness Review privileges, and all aircraft manufacturers with A8-1 or A8-21 approval
Flight Operations:	Gliding Clubs, Glider Tug Owners, Tug Masters, and Aircraft Owners
Licensed/Unlicensed Personnel:	All Maintenance Engineers

1 Introduction

1.1 Currently in the UK there are various aircraft operating as "Glider Tugs" (an aircraft used for launching gliders) with a Certificate of Airworthiness (C of A) or a National Permit to Fly (PtoF).

1.2 Typically, Glider Tugs for example spend more time at a higher power setting per flying hour, may have more engine starts per flying hour, and parts such as seat adjusters and harnesses may see higher usage cycles than a typical private use or flying training aircraft. This Safety Notice (SN) is published to raise awareness of the challenges relating to Aircraft Maintenance Programmes (AMP) for aircraft in this and similar types of unusual operation with regard to the following topics:

- Reviewing Airworthiness Directives (AD), Mandatory Permit Directives (MPD);
- Reviewing maintenance recommendations, such as time between overhaul ('TBO') intervals, issued through service bulletins, service letters, and other non-mandatory service information;
- Identifying additional maintenance tasks that may be required due to the type of operation, to be incorporated in the AMP;
- Ensure that the review of the AMP identifies the correct frequency for maintenance tasks considering the use of the aircraft and operational environment.

2 Background

2.1 Following an accident involving a Glider Tug in 2021 where a magneto impulse coupling failed, the CAA has determined the inspection frequency of the component, recommended in a manufacturers service bulletin, might not have been appropriate as the aircraft was being used as a Tug. The component failed before the next inspection was due. Typically, in this type of operation, the engine may be started many times within each hour of operation. In the USA, where the service bulletin originated, this type of operation is not common, so it is possible it was not considered when writing the service bulletin.

3 Regulation

3.1 Both UK Part-ML (for certified aircraft) and BCAR A3-7 (for Permit to Fly aircraft) include requirements for owners, operators, and organisations managing aircraft - to review and assess both mandatory and recommended instructions for continuing airworthiness within the AMP to assess its effectiveness of the maintenance tasks considering the use of the aircraft and operational environment.

3.2 The AMP shall be reviewed at least annually for certified aircraft and should be reviewed and amended accordingly when necessary for aircraft operating on a Permit to Fly.

3.3 In all cases the review should identify deficiencies in the AMP by a review of deficiencies in the aircraft, to ensure that the programme continues to be valid for the operation of the aircraft.

4 Actions

4.1 When compiling an AMP for an aircraft used for unusual operations, such as glider towing, it is essential that all elements of the operation are considered (e.g. Number of engine starts per flying hour, number of take-offs and landings per flying hour).

4.2 An initial review period should be established, with additional maintenance tasks specified as required, to assess the effectiveness of the AMP. The owner, operator or CAMO should determine this period based on utilisation.

4.3 The initial review should pay particular attention to hours-based maintenance tasks due to both repetitive ADs and recommendations issued through service bulletins, service letter, and other non-mandatory service information. Consideration should also be given to cycle based maintenance as per section 4.1 above, and where deficiencies are identified, the programme should be amended to include additional requirements. The results of the initial review should be incorporated in the AMP and further review periods set to ensure deficiencies are captured.

5 Requirements or Guidance Material

5.1 The following sources contain useful information which should be used in conjunction with this Safety Notice.

- **CAA CAP 553** - BCAR Section A, Chapter A3-7
- **CAA** Continuing Airworthiness Regulation UK Reg (EU) 1321/2014
- **CAA** Continuing Airworthiness Regulation UK Reg 1321/2014 AMC and GM

6 Queries

6.1 Any queries or requests for further guidance as a result of this communication should be addressed to:

GA Unit, Safety & Airspace Regulation Group,
Civil Aviation Authority,
Aviation House,
Beehive Ring Road,
West Sussex,
RH6 0YR

E-mail: **GA@caa.co.uk**

7 Cancellation

7.1 This Safety Notice will remain in force until further notice