



Notification of a proposal to issue an Airworthiness Directive

PAD No.: 16-072

Issued: 18 May 2016

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:

Zakłady Lotnicze Margański & Mysłowski

Type/Model designation(s):

MDM-1 "Fox" sailplanes

Effective Date: [TBD – standard: 14 days after AD issue date]

TCDS Number(s): EASA.A.039

Foreign AD: None

Supersedure: This AD supersedes EASA Emergency AD 2015-0182-E dated 31 August 2015.

ATA 27 – Flight Controls – Control Stick – Inspection / Replacement

Manufacturer(s):

Zakłady Lotnicze Margański & Mysłowski (ZLMM), formerly Zakład Remontów i Produkcji Sprzętu Lotniczego, Edward Margański

Applicability:

MDM-1 "Fox" and MDM-1P "Fox-P" sailplanes, all serial numbers.

Reason:

In 2011, during an aerobatic training flight on a single MDM-1 "Fox" sailplane, the tube of the control stick at the front seat broke. As the sailplane could still be controlled from the rear seat, a safe landing was made. The initial investigation results, later confirmed by a laboratory test of the damaged part, indicated that the affected stick may have been damaged due to a large overload on the stick during a previous flight.

This condition, if not detected and corrected, could lead to failure of a control stick, possibly resulting in loss of control of the sailplane and consequent injury to the occupant(s).

To address this unsafe condition, ZLMM developed and published Service Bulletin (SB) No. BO-17/2011 MDM-1 FOX, which provided instructions to inspect the front seat control stick tube



geometry and external surface condition and, consequently, EASA issued Emergency AD 2011-0210-E to require a one-time inspection of the front seat control stick to detect any damage and, depending on findings, replacement of the control stick.

In 2015, an additional occurrence of in-flight failure of a front seat control stick was reported on another MDM-1 "Fox" sailplane. The affected sailplane had successfully passed the one-time inspection required by EASA AD 2011-0210-E. Prompted by this occurrence, ZLMM issued Revision 1 (R1) of SB No. BO-17/2011 MDM-1 FOX, introducing an additional (dye penetrant) inspection and instructions to measure control stick clearance. Consequently, EASA issued Emergency AD 2015-0182-E, retaining the requirements of EASA AD 2011-0210-E, which was superseded, and required accomplishment of repetitive inspections of the front seat control stick and, depending on findings, replacement of the affected control stick.

After that AD was issued, ZLMM issued SB BO-23/2016, providing modification instructions for installing a steel control stick tube at the front seat location. This modification is recognised by EASA as an alternative method of compliance (AMOC, EASA approval 10057823) for EASA AD 2015-0182-E, removing the need for dye penetrant inspections, and reducing the extent of the required inspection to verification of clearance between the control stick and fuselage components.

For the reasons described above, this AD partially retains the requirements of EASA Emergency AD 2015-0182-E, which is superseded, and introduces simplified repetitive inspections for post-SB BO-23/2016 MDM-1 FOX sailplanes.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Pre-SB BO-23/2016 MDM-1 FOX sailplanes:

- (1) Before next flight after 02 September 2015 [the effective date of EASA AD 2015-0182-E], and, thereafter, at intervals not to exceed 100 flight hours (FH), or during each scheduled annual inspection, whichever occurs first, inspect the front seat control stick in accordance with the instructions of R1 of ZLMM SB BO-17/2011 MDM-1 FOX.
- (2) If, during any inspection as required by paragraph (1) of this AD, any damage is detected, before next flight, replace the affected control stick with a serviceable part, in accordance with the instructions of R1 of ZLMM SB BO-17/2011 MDM-1 FOX.
- (3) From 02 September 2015 [the effective date of EASA AD 2015-0182-E], installation of an aluminium front seat control stick on a sailplane is allowed, provided this is accomplished as required by paragraphs (3.1) and (3.2) of this AD:
 - (3.1) Before installation of a replacement control stick, except if the part is new, the control stick must pass an inspection in accordance with instructions of R1 of ZLMM SB BO-17/2011 MDM-1 FOX.



- (3.2) Before next flight after installation of a control stick, the clearance between the affected control stick and rear rim of the fuselage cut out meets the criteria as specified in R1 of ZLMM SB BO-17/2011 MDM-1 FOX.

Post-SB BO-23/2016 MDM-1 FOX sailplanes:

- (4) Within the compliance time as specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 100 FH, or during each scheduled annual inspection, whichever occurs first, measure the clearance between the control stick and rear rim of the fuselage cut out in accordance with the instructions of ZLMM SB BO-23/2016.

Sailplane configuration	Compliance Time
Modified in production	Before exceeding 100 FH since the first flight of the sailplane
Modified in service	Before next flight after modification of the sailplane

- (5) If, during any inspection, as required by paragraph (4) of this AD, any discrepancy is detected, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of ZLMM SB BO-23/2016.

Ref. Publications:

ZLMM SB BO-17/2011 MDM-1 FOX Revision 1 dated 05 August 2015.

ZLMM SB BO-23/2016 MDM-1 FOX dated 16 February 2016.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. This Proposed AD will be closed for consultation on 15 June 2016.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. For any question concerning the technical content of the requirements in this PAD, please contact: Zakłady Lotnicze Margański & Mysłowski S.A.
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