EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2014-0060 **Date: 10 March 2014** Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:	**Type/Model designation(s):**
GE Aviation Systems Ltd, trading as DOWTY PROPELLERS	R391 propellers

TCDS Number:	EASA.P.087
Foreign AD:	Not applicable
Supersedure:	This AD supersedes EASA AD 2013-0199 dated 28 August 2013.

ATA 61	**Propellers – Auxiliary Pump – Identification / Replacement**
Manufacturer(s):	GE Aviation Systems Ltd, trading as Dowty Propellers (formerly Dowty Rotol Ltd, Dowty Aerospace Propellers, Dowty Aerospace Gloucester or Dowty Propellers)
Applicability:	Model R391/6-132-F/10 and R391/6-132-F/3 propellers, all serial numbers. These propellers are known to be installed on, but not limited to, Alenia Aermacchi C-27J Spartan and Lockheed 382J (C-130J) aeroplanes.
Reason:	Dowty Propellers observed an increasing trend of reduced Mean Time Between Failures (MTBF) of the Auxiliary Pump (AP). Root cause analysis showed that the increasing trend had been associated with Auxiliary Pumps delivered as new or repaired from the year 2010 onwards. Investigation showed that the failures were associated with brush and commutator wear in the motor fitted to the AP (Part Number (P/N) 697096001 for R391/6-132-F/10 propeller and P/N 697065001 for R391/6-132-F/3 propeller). It was identified that an unauthorised change had been made to the material from which the motor brush is manufactured. This condition, if not detected and corrected, could (in combination with other combined failure modes of the engine and propeller control system) lead to unexpected propeller behaviour, possibly resulting in damage to the aeroplane. To address this potential unsafe condition, EASA issued AD 2013-0199 requiring a one-time inspection to identify the P/N and serial number (s/n) of the AP motor and, depending on findings, replacement of APs with serviceable parts.

<table>
<tr><td></td><td>Since that AD was issued, it was discovered that more s/n of the same P/N AP are affected and therefore not listed in Appendix 1 of EASA AD 2013-0199.

For the reason described above, this AD retains the requirements of EASA AD 2013-0199, which is superseded, but expands the group of affected AP units.</td></tr>
<tr><td>Effective Date:</td><td>24 March 2014</td></tr>
<tr><td>Required Action(s) and Compliance Time(s):</td><td>Required as indicated, unless accomplished previously:

(1) Within 100 flight hours (FH) after the effective date of this AD, identify the P/N and s/n of the AP installed on the propeller and, if a P/N 697096001 or P/N 697065001 AP is installed having a s/n as listed in Dowty Propellers Alert Service Bulletin (ASB) C27J-61-A50 or ASB C130J-61-A112 Revision 2, as applicable, within the threshold indicated in Table 1 of this AD, as applicable, remove the AP from the propeller and replace it with a serviceable AP in accordance with the instructions of Dowty Propellers ASB C27J-61-A50 or ASB C130J-61-A112 Revision 2.

Table 1 - Removal Threshold
<table><tr><th>Accumulated FH since new (first installation on a propeller) by the AP on the effective date of this AD</th><th>Compliance Time</th></tr><tr><td>Less than 650 FH</td><td>Before accumulating 750 FH since new</td></tr><tr><td>Equal to or more than 650 FH</td><td>Within 100 FH after the effective date of this AD</td></tr></table>
(2) From the effective date of this AD, installation on any propeller of a P/N 697065001 or P/N 697096001 AP, having a s/n as listed in ASB C27J-61-A50 or ASB C130J-61-A112 Revision 2, as applicable, is allowed, provided that the AP has been recertified (including brush replacement) by Dowty Propellers.</td></tr>
<tr><td>Ref. Publications:</td><td>Dowty Propellers ASB C27J-61-A50 initial issue dated 08 July 2013.

Dowty Propellers ASB C130J-61-A112 Revision 2 dated 06 February 2014.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</td></tr>
<tr><td>Remarks:</td><td>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

2. This AD was posted on 13 February 2014 as PAD 14-039 for consultation until 06 March 2014. No comments were received during the consultation period.

3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail ADs@easa.europa.eu.

4. For any question concerning the technical content of the requirements in this AD, please contact:
Dowty Propellers, Anson Business Park, Cheltenham Road East, Gloucester GL2 9QN, The United Kingdom
Tel +44 (0) 1452 716067 – Fax +44 (0) 1452 716001
E-mail Mike.Towkan@ge.com.</td></tr>
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