EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2010–0196R1 **Date: 12 November 2010** 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 EC 1702/2003, Part 21A.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].

Type Approval Holder's Name :	**Type/Model designation(s) :**
GE Aviation Systems Ltd, trading as Dowty Propellers	R321, R324, R333 and R334 propellers

TCDS Number :	United Kingdom (UK) 115, 108 and UK Approval Letters, dated 3 April 1981.
Foreign AD :	Not Applicable
Supersedure :	This AD revises EASA AD 2010-0196 dated 29 September 2010, which superseded EASA AD 2009-0147 dated 07 July 2009 and CAA-UK AD 009-05-2002, 010-05-2002 and 011-05-2002.

ATA 61	**Propellers - Propeller Hub – Inspection / Replacement**
Manufacturer(s):	GE Aviation Systems Ltd, trading as Dowty Propellers (formerly Dowty Rotol Ltd, Dowty Aerospace Propellers, Dowty Aerospace Gloucester and Dowty Propellers)
Applicability:	R321/4-82-F/8, R324/4-82-F/9, R333/4-82-F/12 and R334/4-82-F/13 propellers, if fitted with Part Number (P/N) 660709201 hub assemblies. These propellers are known to be installed on, but not limited to, M7 Aerospace (formerly Fairchild Swearingen) SA227-AC, SA227-AT and SA227-TT aeroplanes, BAE SYSTEMS Jetstream 31 and 32 aeroplanes, and CASA C-212 aeroplanes.
Reason:	Fatigue failure has occurred around the threaded inserts in the rear hub half, leading to separation of the R334 propeller on CASA C-212 aeroplanes. The affected P/N 660709201 hub is also fitted to propellers installed on BAE SYSTEMS Jetstream 31 and 32 aeroplanes, and to those installed on M7 Aerospace SA227-AC, SA227-AT and SA227-TT aeroplanes. This condition, if not detected and corrected, could result in further events of propeller separation, possibly resulting in damage to the aeroplane and/or injury to person on the ground. For the reasons described above, this AD retains the repetitive inspection requirements of EASA AD 2009-0147 and CAA UK ADs 009-05-2002, 010-05-2002 and 011-05-2002, which are superseded, reduces the inspection intervals for NDT inspection and introduces an optional terminating action to

	the inspection requirements of all propellers fitted with hub P/N 660709201. This AD has been revised for reasons of standardisation and clarification, to confirm that two other CAA UK ADs have been superseded, and to remove the flight cycle (FC) inspection requirements for R321, R324 and R333 propellers.
Effective Date:	Revision 1: 26 November 2010 Original issue: 13 October 2010
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously. (1) Initially, within the time indicated in Table 1 of this AD, as applicable, inspect the affected hub assembly P/N 660709201 and, depending on findings, accomplish the associated corrective actions, in accordance with the instructions of Dowty Alert Service Bulletin (ASB) 61-1119, 61-A1124, ASB 61-A1125 or ASB 61-A1126, as applicable to propeller installation.

Table 1

Hub P/N 660709201 Installed on:	**Compliance Time:**
R334/4-82-F/13 propellers that have not been inspected within the last 300 flight cycles (FC) or flight hours (FH) prior to 13 October 2010 [the effective date of the original issue of this AD]	10 FH or 20 days, whichever occurs first after 13 October 2010 [the effective date of the original issue of this AD]
R334/4-82-F/13 propellers, that have been inspected within the last 300 FC or FH prior to 13 October 2010 [the effective date of the original issue of this AD]	300 FH or 300 FC, whichever occurs first since the last inspection
R333/4-82-F/12, R321/4-82-F/8 or R324/4-82-F/9 propellers, that have not been inspected within the last 1 000 FH prior to 13 October [the effective date of the original issue of this AD]	50 FH or 60 days, whichever occurs first after 13 October 2010 [the effective date of the original issue of this AD]
R333/4-82-F/12, R321/4-82-F/8 & R324/4-82-F/9 propellers, that have been inspected within the last 1 000 FH prior to 13 October 2010 [the effective date of the original issue of this AD]	1 000 FH since the last inspection

(2) Thereafter, within the intervals specified in Table 2 of this AD, as applicable, inspect the affected hub assembly P/N 660709201 and, depending on findings, accomplish the associated corrective actions, in accordance with the instructions of Dowty Alert Service Bulletin (ASB) 61-1119, 61-A1124, ASB 61-A1125 or ASB 61-A1126, as applicable to propeller installation.

Table 2

Propeller installation:	**Inspection Interval (not to exceed):**
R321/4-82-F/8 R324/4-82-F/9 R333/4-82-F/12	1 000 FH
R334/4-82-F/13	300 FH or 300 FC, whichever occurs first

(3) If, during any inspection as required of this AD, the hub P/N 660709201 does not meet the criteria for further operation (as defined in the applicable Dowty ASB), before next flight, replace the hub with a serviceable part. Replacement of a hub as required by paragraph (3) of this AD does not constitute terminating action for the repetitive inspection requirements of paragraph (2) of this AD.

(4) From 13 October 2010 [the effective date of the original issue of this AD], do not install a hub assembly P/N 660709201 (except zero-time units) on any aeroplane, unless it has been inspected and, depending on findings, corrected in accordance with the requirements of this AD.

(5) Modification of an aeroplane by installing new P/N 660717226 hub assemblies on both propellers of that aeroplane, in accordance with the instructions of the Dowty Service Bulletin (SB) listed in Table 3 of this AD, as applicable, constitutes terminating action for the repetitive inspection requirements of paragraph (2) of this AD for that aeroplane.

Table 3

Propeller installation:	**Dowty SB:**
R321/4-82-F/8	61-1143
R324/4-82-F/9	61-1142
R333/4-82-F/12	61-1144
R334/4-82-F/13	61-1138

Ref. Publications:

Dowty ASB 61-1119 Revision 5 dated 1 July 2009, and
Dowty ASB 61-A1124 Revision 2, ASB 61-A1125 Revision 2 and ASB 61-A1126 Revision 2, all dated 25 August 2010

Dowty SB 61-1138 dated 8 December 2009, and
Dowty SB 61-1144, SB 61-1143 and SB 61-1142, all dated 17 May 2010.

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

Remarks :

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. The required actions and the risk allowance have granted the issuance of a Final AD with Request for Comments, postponing the public consultation process after publication.
3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification 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, United Kingdom
Tel +44 (0) 1452 716067 – Fax +44 (0) 1452 716001
E-mail Mike.Towkan@ge.com