



Civil Aviation Authority

AIRWORTHINESS DIRECTIVE

Number: G-2021-0005

Issue date: 03 August 2021



Note: In this Airworthiness Directive, references to EU regulations are to those regulations as retained and amended in UK domestic law under the European Union (Withdrawal) Act 2018 and are referenced as "UK Regulation (EU) year/number" or "UK Regulation (EU) No. number/year".

This Airworthiness Directive (AD) is issued by the UK CAA in accordance with UK Regulation (EU) No. 748/2012 Part 21.A.3B, acting as the Authority of the State of Design for the affected product(s), under Article 34 of the Air Navigation Order 2016 (ANO) and UK Regulation (EU) 2018/1139.

In accordance with UK Regulation (EU) No. 1321/2014 Annex I (Part-M), M.A.301 / Annex VB (Part-ML), ML.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 or agreed by the CAA [Part-M, M.A.303 / Part-ML, ML.A.303].

Type Approval Holder's Name:

Type/Model Designation(s):

BAE SYSTEMS (OPERATIONS) LTD

Jetstream 3100 and 3200 aeroplanes

Effective Date:	17 August 2021
TCDS:	(UK) EASA.A.191, Issue 3, 15 January 2015
Foreign AD (if applicable):	Not applicable
Superseding AD:	None

ATA 27- Flight Controls – Push Rod Assembly at Gust-lock/Power Lever Baulk Mechanism - Replacement

Manufacturer(s):

BAE Systems (Operations) Ltd

Applicability:

Models Jetstream Series 3100 and Series 3200 Aircraft up to and including constructor's number 927, and from constructor's number 929 to 936 inclusive

Definitions:

For the purpose of this AD, the following definitions apply:

- Affected part: push rod assembly Part Number 137201E419
- AMM: Aircraft Maintenance Manual

- The SB: unless otherwise specified, refers to BAE Systems Service Bulletin 27-JM 5350 – Flight Controls - Introduction of Modified Push Rod Assembly at Gust-lock/Power Lever Baulk Mechanism (Modification JM 5350), Revision 01, dated 06 May 1994.

Reason:

On 8 October 2019, a Jetstream Series 3200 aircraft aborted take-off at a speed of approximately 130 kt and veered off runway. The investigation into the serious incident concluded the take-off was initiated with an engaged Gust Lock Mechanism, resulting in a temporary loss of aircraft control. Damage was identified in the Gust Lock mechanism, which allowed both power levers to be moved beyond flight idle with the gust locks engaged.

The serious incident investigation determined that a bent control rod within the gust lock system made it possible to move both power levers simultaneously to the max position, even though the gust locks were still engaged.

The gust-lock system is designed to lock and prevent damage to the control surfaces when the aircraft is parked during gusting wind conditions. The system contains a mechanical baulk which prevents both power levers from being moved beyond the flight idle position when the gust locks are engaged.

Three previous occurrences in which a bent control rod enabled both power levers to be moved simultaneously beyond the flight idle position while the gust lock system was engaged have been identified by the Type Certificate Holder. Service Bulletin 27-JM 5350 was first published in 1992 to introduce a stronger control rod.

This condition, if not prevented, could lead to partial or total loss of aircraft control. To address this potential unsafe condition, this AD mandates the installation of a modified push rod assembly.

BAE Systems operating manuals contain pre-flight checks that are designed to ensure the gust locks are not engaged during take-off.

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

Corrective Action:

Service Bulletin 27JM-5350 instructs replacement of the affected part with a stronger new or serviceable Push Rod Assembly, Part Number 137201E429.

Replacement:

Required as indicated, unless accomplished previously:

- Within 2 years after the effective date of this AD, replace the affected part in accordance with the instructions of the SB.

Reference Publications:

- Jetstream Series 3100 and Series 3200 Aircraft Maintenance Manual, Chapters 24, 25, 27 and 76
- Jetstream Series 200 Aircraft Maintenance Manual, Chapters 19, 30, 40 and 55

- Jetstream Series 3100 and Series 3200 Aircraft Illustrated Parts Catalogue, Chapter 27-70-00-01 (Ref. 120 (Push Rod Assy PN 137201E429)).
- BAe Systems Service Bulletin 27-JM 5350 – Flight Controls – Introduction of Modified Push Rod Assembly at Gustlock/Power Lever Baulk Mechanism (Modification JM 5350), Revision 01, dated 06 May 1994

Remarks:

1. This AD was posted on 17 June 2021 as PAD 1980 for consultation until 16 July 2021. No comments were received during the consultation period.
2. If requested and appropriately substantiated, CAA can approve Alternative Methods of Compliance for this AD.
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the CAA aviation safety reporting system. This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
4. Enquiries regarding this Airworthiness Directive should be referred to: Continued.Airworthiness@caa.co.uk
5. For any question concerning the technical content of the requirements in this Airworthiness Directive, please contact: BAE Systems (Operations) Ltd, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; E-mail: Rpublications@baesystems.com.