



# Notification of a Proposal to issue an Airworthiness Directive

**PAD No.:** 19-207

**Issued:** 21 November 2019

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 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:**

POWERJET S.A.

**Type/Model designation(s):**

SaM146 engines

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

**TCDS Number(s):** EASA.E.034

**Foreign AD:** Not applicable

**Supersedure:** None

## ATA 73 – Engine – Fuel Nozzle – Replacement

### Manufacturer(s):

SAFRAN Aircraft Engines, formerly SNECMA; and UEC Saturn, formerly OAO NPO Saturn

### Applicability:

SaM146-1S17, SaM146-1S17C, SaM146-1S18 and SaM146-1S18C engines, all serial numbers.

These engines are known to be installed on, but not limited to, Sukhoi RRJ-95B aeroplanes.

### Definitions:

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

**The SB:** PowerJet S.A. Service Bulletin (SB) 73-0023

**Affected part:** Fuel nozzles, having Part Number (P/N) 365-144-303-0 or P/N 365-144-503-0.

**Serviceable part:** Any fuel nozzle which is not an affected part; or an affected part which has not exceeded 7 000 flight hours (FH) since its first installation on an engine.



**Groups:** Group 1 engines are those that have an affected part installed. Group 2 engines are those that do not have an affected part installed.

**Reason:**

In-service findings have shown that some SaM146 engines may be subject to high levels of wear of the fuel nozzle noses and sliding seals, resulting in an increase of the leakage section between fuel nozzles and combustion chamber.

This condition, if not corrected, could lead to the inability to restart the engine following flame out, possibly resulting in reduced control of the aeroplane.

Prompted by these findings, Powerjet S.A. published the SB, which identifies certain parts potentially subject to excessive wear and provides instructions for timely removal from service of the affected parts.

For the reasons described above, this AD requires removal from service of the affected parts. This AD also prohibits (re)installation of affected parts that have exceeded the new reduced limits.

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

Required as indicated, unless accomplished previously:

**Removal from service:**

- (1) For Group 1 engines: Before an affected part exceeds 7 000 FH since its first installation on an engine, or within 300 FH after the effective date of this AD, whichever occurs later, remove the engine from service and, before release to service of the engine, replace that affected part with a serviceable part in accordance with the instructions of the SB.

**Part(s) Installation:**

- (2) From the effective date of this AD, it is allowed to install on any engine an affected part, provided it is a serviceable part, as defined in this AD and that, following installation, the engine is removed from service for replacement of the affected part(s) as required by paragraph (1) of this AD.

**Engine Installation:**

- (3) From the effective date of this AD, it is allowed to install a Group 1 engine on an aeroplane, provided the affected parts on that engine are serviceable parts, as defined in this AD, and that, following installation, the engine is removed from service for replacement of the affected part(s) as required by paragraph (1) of this AD.

**Ref. Publications:**

Powerjet S.A. SB 73-0023 original issue dated 19 January 2016, or Revision 1 dated 31 March 2016, or Revision 2 dated 21 April 2016.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.



**Remarks:**

1. This Proposed AD will be closed for consultation on 19 December 2019.
2. Enquiries regarding this PAD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, can be reported to the [EU aviation safety reporting system](#).
4. For any question concerning the technical content of the requirements in this PAD, please contact: PowerJet Customer Support Centre, Telephone: +33 1 64 14 81 46, Fax: +33 1 64 14 80 89, E-mail: [powerjet.csc@safrangroup.com](mailto:powerjet.csc@safrangroup.com).

