

## GENERAL SERVICE LETTER

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JFE/HB/BB

General Service Letter No. 3043/19 - 2<sup>nd</sup> issue This General Service Letter supersedes the issue dated January 16, 2020.

Subject: Fuel - Applicability of ASTM D1655 and DEF-STAN 91-091 international standards to engines manufactured by Safran Helicopter Engines

Dear Sir or Madam,

Fuel quality is an essential criterion in ensuring the correct operation of turboshaft engines and turbojet engines manufactured by Safran Helicopter Engines.

To ensure constant compatibility of jet fuels produced according to international standards, particularly ASTM D1655 and DEF STAN 91-091, Safran Helicopter Engines actively participates in the working groups of international bodies that develop these standards.

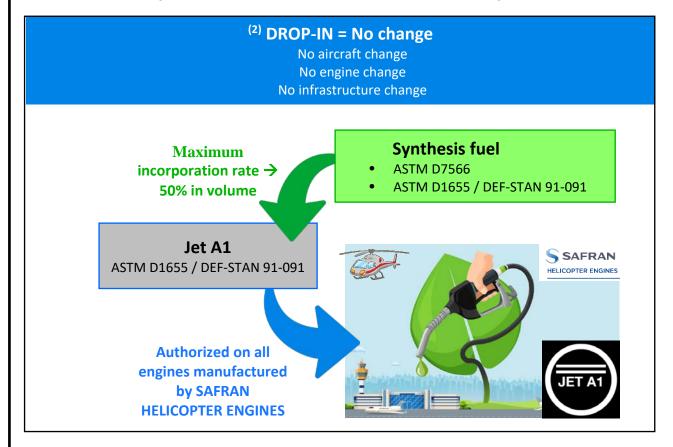
All fuels validated by Safran Helicopter Engines are mentioned in flight manuals (published by aircraft manufacturers) as well as standards they meet. The two aforementioned standards being in constant evolution, the references of revisions are not mentioned in flight manuals, in compliance with the certification authority.

When the references of revisions are not mentioned, all recent and future changes to international standards (for instance ASTM D1655 or DEF STAN 91-091) must be considered applicable to engines manufactured by Safran Helicopter Engines as soon as they are published, because they have been validated beforehand as part of international working groups.

For example, the following recent changes have been validated by Safran Helicopter Engines for use on their engines: see next page.

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- ASTM D1655 and DEF STAN 91-091 standards authorize the incorporation of up to maximum 50% synthetic fuel (1) in Jet A/A1, for drop-in use (2).
- (1) Synthetic fuels that meet an environmental sustainability criterion on CO2 emission reduction are called "Carburants de Synthèse Durable" (CSD) or Sustainable Aviation Fuels (SAF).
- (2) Drop-in: interchangeable use of fuel without functional effect on the engine.



- Evolution of the ASTM D1655 standard related to Fatty Acid Methyl Ester (EMAG or FAME) in fuels.
- <u>IMPORTANT</u>: Changes to standards on fuels monitored and validated by Safran Helicopter Engines do not include additives that can be used when mixed with Jet A1/Jet A. Refer to the flight manuals to find the additives validated by Safran Helicopter Engines.
- IMPORTANT: The use of a fuel on a helicopter is still subject to prior approval by the aircraft manufacturer and its recording in the relevant flight manual.

Please contact us if you require further information or assistance. Yours sincerely,

**Technical Support Department** 

J.F. ESCURET