AIRWORTHINESS DIRECTIVE

AD No.: GACA-2022-001

Issue Date: 01 October 2022

Note: This Airworthiness Directive (AD) is issued by GACA in accordance with GACAR § 39.9 to address an unsafe condition.

In accordance with GACA regulations, 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 GACA.

Design Approval Holder's Name:	**Type/Model designation:**
CFM International, S.A.	Engine Model LEAP-1A26

TCDS Number:	EASA.E.110 (Type Accepted by GACA as part of Airbus Model A320-251N TCDS EASA.A.064)
Related Foreign AD:	EASA AD 2022-0009R1 dated 19 Jul 2022 which is still applicable in the areas not covered in this AD.
Supersedure:	N/A
ATA *72*	Engine – High Pressure Turbine Rotor Stage 1 Blade and Stator Stage 1 Nozzles – Inspection
Manufacturer(s):	CFM International, S.A.

Applicability:	Turbofan Engine LEAP-1A26 (all serial numbers) CFM International, S.A. installed on Airbus Model A320 – 251N Aircraft registered in the Kingdom of Saudi Arabia
Reason:	The LEAP-1A26 engines High Pressure Turbine (HPT) damage incidents have been occurring since October 2021 on the Airbus aircraft A320-251N operated by MENA region, resulting in rejected take-offs and inflight engine failures. These serious incidents were reported to the CFM International who as a proactive action recommended a Borescope Inspection (BSI) for HPT Stage 1 plates and the results of these BSI have already been reported to CFM International. The GACA has been closely monitoring the situation and working with all the stakeholders for resolving the issues that resulted in rejected take-offs and inflight engine failures. The GACA held various meetings with the Airlines, FAA, EASA and CFM International for preventing such serious incidents in the future. An EASA AD 2022-0009 dated 19 January 2022 was issued and was revised by EASA AD 2022-0009R1 dated 19 Jul 2022. It is understood that EASA, FAA and Type Certificate (TC) holders are still working on the final solution to resolve the issue, and to improve fleet stability, time on wing and engine cost of ownership. The GACA, as the State of Registry, has reviewed the technical data made available by the stakeholders and decided that there is a need for taking proactive actions to prevent repetition of such serious incidents in the future until the State of Design and TC Holders are able to propose the final solution. The GACA is continuously monitoring the situation surrounding this matter and will consider updating the restrictions imposed in this AD on as required basis.
Effective Date:	16 October 2022

Required Action(s):	**1.** The operators shall incorporate the following items in maintenance inspection program: 1.1.Remove the engines once reaches 3900FC, 1.2.With reference to Paragraph (1.2) Inspection of EASA AD 2022-0009R1, the BSI requirements is reduced from 300FC to 150FC, 1.3.The engine is required to be removed before next flight if any discrepancy is found in the BSI; the following over-serviceable limit extensions given in AMM Task 72-52-00-290-803-A “Borescope Inspection of High-Pressure Turbine” are withdrawn: 1.3.1. Subtask 72-52-00-290-058-A HPT Section Inspection: (8)(F) The over-serviceable limit extension for axial cracks in Area B of the HPT stage 1 blade LE; Remove the engine in 25 cycles or less if a crack extends past the cooling air holes in row 2 or row 6. (9)(V) The over-serviceable limit extensions for oxidation in the stage 1 blade TE root radius; Remove the engine in 10 cycles or less if you can see internal cavities. 1.3.2. Subtask 72-40-00-290-051-A Combustor / High Pressure Turbine (HPT) Section Inspection: (3)(b) Over-serviceable limit extension for oxidation or missing material; Missing material in Area Y no more than 0.100 in. (2.54 mm) from Area X is permitted for 25 cycles. 1.3.3. In addition to the above (Paras 1.3.1 & 1.3.2), any other over-serviceable limit extension allowed in the AMM for 10 or 25 cycles is withdrawn as well.

	2. The operators shall acquire CFM International agreement on an engine-staggering program requiring the removal of the engine at a predetermined FC threshold based on the operators BSI findings. The staggering program shall be submitted to the GACA for prior acceptance before implementation, **3.** The operators are required to report any serious incident relating to the engine to the point of contact mentioned below in addition to normal GACA incident reporting channels, **4.** The operators shall submit a bi-weekly report to GACA containing BSI findings and any action taken under the authority of this AD.
Reference Publications:	N/A
Remarks:	If requested and appropriately substantiated, the GACA may approve Alternative Methods of Compliance (AMOC) to this AD. Enquiries regarding this AD shall be referred to the GACA Airworthiness Engineer Mr. Bahaa Alghalbi who may be contacted by phone: +966126137886 or by email: balghalbi@gaca.gov.sa.