Continued Airworthiness Notification to the International Community

To: Civil Aviation Authorities Date: November 8, 2019

From: Federal Aviation Administration (FAA)
Engine and Propeller Standards Branch, AIR-6A0
1200 District Avenue
Burlington, MA 01803

Subject: This message is to advise you of the FAA's ongoing activities related to in-flight shutdown (IFSD) events on International Aero Engines, LLC (IAE) PW1100G series model turbofan engines installed on Airbus A320neo airplanes.

Accident/ Incident Description: A number of low-pressure turbine (LPT) stage 3 (S3) blade failures have occurred on the PW1100G engine resulting in high engine vibrations followed by a reduction in power of the engine. On some occasions, the pilot has commanded an IFSD resulting in disruption of the flight. The root cause of the failures is the sensitivity of the blade material to damage. A newly-designed LPT S3 blade that is more tolerant of damage was approved for introduction into the engines in May 2019. A retrofit campaign of the new design into the operating fleet is currently underway. The new LPT S3 blades are installed into the engine at each engine shop visit. The old design blades are no longer produced or installed.

Aircraft/ Engine Make, Model and Series: IAE PW1100G series model turbofan engines

Worldwide fleet: 483 Airplanes

Operators: IndiGo, GoAir, China Southern Airlines, Lufthansa, Air China, Volaris, Vueling Airlines, ANA-All Nippon Airways, S7 Airlines, Sichuan Airlines, VivaAerobus, Hawaiian Airlines, Vietnam Airlines, Spirit Airlines, VietJet Air, Turkish Airlines, Air New Zealand, Qingdao Airlines, Air Astana, Cebu Pacific Air, Wizz Air, Philippine Airlines, Shenzhen Airlines, West Air (China), Tianjin Airlines, LATAM Airlines Brazil, LATAM Airlines Chile, HK Express, Airbus, Air Macau, JetBlue Airways, Scoot, Air Transat, JetSMART Chile, LATAM Airlines Peru

Ongoing activities: The FAA will be issuing airworthiness directives (ADs) to expedite replacement of a number of engines identified by serial number. These engines are installed at operators who have experienced an increased rate of LPT S3 blade failures. Engines not listed by serial number will be addressed by a separate AD requiring the LPT S3 blades replaced at the next engine shop visit. In addition, enhanced inspection techniques will be released in the coming weeks aimed at reducing the possibility of damage to the LPT S3 blades.

Next update, if any: As Required.

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