Continued Airworthiness Notification to the International Community

To: Civil Aviation Authorities Date: July 23, 2020

From: Federal Aviation Administration
Aircraft Certification Service
Compliance & Airworthiness Division

Subject: This message provides information regarding the FAA's ongoing continued operational safety activities related to the engine bleed 5th stage check valves on Boeing Model 737-300, -400, -500, -600, -700, -700C, -800, -900, and -900ER series airplanes.

Situation Description: The FAA has recently received four reports of single-engine shutdowns due to 5th stage bleed air check valves being stuck open. Operator inspections of approximately 200 airplanes have found numerous corroded valves; the valves on both engines were corroded on 6 of those airplanes.

Corrosion of the 5th stage bleed air check valve internal parts during airplane storage is determined to cause the valve to stick in the open position. If this valve opens normally at takeoff power, it may become stuck open during flight and fail to close when power is reduced at top of descent, resulting in an unrecoverable compressor stall and the inability to restart the engine. Corrosion of these valves on both engines could result in a dual engine power loss without the ability to restart.

This unsafe condition is not found on Model 737-8 and 737-9 airplanes (737 MAX) airplanes. The engine 5th stage bleed air check valves installed in 737 MAX airplanes are a different size, and internal parts are made from material that has better corrosion resistance.

Aircraft/engine make, model, and series: Boeing Model 737-300, -400, -500, -600, -700, -700C, -800, -900, and -900ER series airplanes

U.S.-registered fleet: 2,161 **Worldwide fleet:** 8,122

Operators: All operators of Boeing Model 737-300, -400, -500, -600, -700, -700C, -800, -900, and -900ER series airplanes

Ongoing activities: The FAA has coordinated with Boeing to address this unsafe condition. The FAA may issue AD rulemaking to require inspection of the check valves before further flight, depending on the length of storage of the airplane.

FAA contact: Ian Won, Seattle ACO Branch Manager
Compliance & Airworthiness Division
Telephone: (206) 231-3500