



U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Administrator

800 Independence Ave., S.W.
Washington, D.C. 20591

NOV 20 2013

Mr. Jonas Bäckstrand
The Swedish Accident Investigation Authority (SHK)
P.O. BOX 12538
102 29 Stockholm
Sweden

Dear Mr. Bäckstrand:

This is in response to Safety Recommendation RL 2012:14 R1 issued on January 31, 2013. The Swedish Accident Investigation Authority, *Statens haverikommission* (SHK), issued this recommendation following the investigation into the engine failure and subsequent emergency landing of a Cessna U206E on August 28, 2011. The flight departed Örebro Airport at 1755 local time for the purpose of dropping parachutists. Six minutes after takeoff, the pilot heard a loud bang, and the engine lost thrust. The pilot immediately moved the throttle to the idle position and instructed the parachutists to leave the plane. After the last parachutist had exited the aircraft, the pilot found a suitable field and executed an emergency landing. The pilot, who sustained minor injuries, exited the aircraft unassisted. The SHK determined that the engine seized as a result of oil starvation caused by large quantities of lead bromide that had accumulated on the oil suction screen. Safety Recommendation RL 2012:14 R1 was assigned Federal Aviation Administration (FAA) control number 13.011.

13.011. Act to change the maintenance programme for the engine type in question and other engines with similar fuel injection systems, such as Continental IO-520, so that an internal inspection of the oil pan is conducted in connection with oil changes, with the purpose of checking for the accumulation of deposits.

FAA Comment. The FAA's Atlanta Aircraft Certification Office (ACO) reviewed the Service Difficulty Reporting System for similar incidents and determined that there was no trend of such oil starvation events. Continental Motors, Inc. (CMI) also conducted a service review and reported similar findings.

The ACO also reviewed CMI documentation including the following maintenance manuals: IO-520 Publication M-11; IO-550 Publication X30605; IO-550 Publication X30607; and Teledyne Continental Aircraft Engine Service Information Letter SIL98-9A (enclosures). The maintenance manuals referenced above include discussion of an oil analysis program that identifies materials and their level of concentration in parts per million which can be used to supplement the CMI maintenance procedures. SIL98-9A, indicates that aircraft used in parachute jumping may require more frequent engine overhauls.

The FAA notes that the accident report issued by the SHK did not indicate if the owner of the accident aircraft was following SIL98-9A or if the oil analysis program prescribed by CMI was utilized. We believe, based on our review of service experience with the Continental IO-520 and IO-550 engines, that the procedures in these documents, when followed appropriately, would identify unusual amounts of lead bromide in the oil system prior to an engine seizure event.

The FAA has concluded that CMI's current maintenance procedures and documentation are adequate to ensure the safe operation of the engine type related to Safety Recommendation 13.011. CMI is also updating its maintenance manuals to provide a standardized format for all engine types. As a result, Safety Recommendation 13.011 has been classified as: closed-not adopted. If you have any questions regarding this safety recommendation, please contact Chris Pedersen, AVP-420, at (202) 267-9055.

Sincerely,


Tony Fazio
Director, Office of Accident Investigation
And Prevention

Enclosures