AIRCRAFT OWNERS AND PILOTS ASSOCIATION
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COPY

February 5, 2001

Mr. Roy E. Boffo, III
Aerospace Engineer
Chicago Aircraft Certification Office
Systems and Flight Test Branch
2300 E. Devon Ave.
Des Plaines, IL 60018

Dear Mr. Boffo,

The Aircraft Owners and Pilots Association (AOPA), representing the aviation interests of more than 365,000 pilots and aircraft owners, submits the following comments to your airworthiness concern sheet (ACS) dated November 16, 2000. The ACS, applicable to "All twin reciprocating engine small airplanes certificated under CAR 3 or 14 CFR Part 23 that have gyroscopic instruments which are powered by single or dual vacuum sources," recommends the periodic replacement of vacuum system check valves to preclude the possibility of an undetected vacuum system malfunction or failure.

AOPA agrees that, in this particular situation, the potential for undetected vacuum system failure, subsequent loss of attitude and directional information and possible spatial disorientation of a pilot operating in IMC warrants airworthiness concern. However, AOPA does not believe that the periodic repetitive parts replacements set forth in Parker Hannifin's Product Reference Memo No. 39 (and included by reference in the ACS in question) are necessary to prevent an undetected vacuum system failure or malfunction.

On October 4, 1999, Cessna Aircraft Company issued Service Bulletin MEB99-19 highlighting the possibility of undetected vacuum system failure/malfunction. In that service bulletin, Cessna put forth supplements to the Pilot's Operating Handbook/Owners manual implementing amended operating procedures. Pilot's Operating Handbook (POH) supplements D5317-13 and D5318-13 add critical steps to the aircraft's engine start-up and shutdown procedures, that when conducted, will preclude the possibility of an undetected vacuum system failure or malfunction.

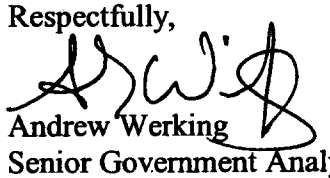
In airplanes having a suction gage with failure indicators, following the engine start-up/ shutdown procedures included in the POH supplements will allow a pilot to detect the failure of a vacuum source or the vacuum system check valve. In airplanes having a suction gage without failure indicators, following the start-up/shutdown procedures included in the POH supplement will allow a pilot to detect vacuum source failure or

malfunction. In either case, a pilot who properly conducts the engine start-up procedure set forth in Cessna's POH supplements will detect vacuum system failures or malfunctions prior to operating the aircraft in IMC.

Given the fact that a simple amendment to standard operating procedures would preclude any possibility of an undetected vacuum system failure or malfunction, AOPA believes that mandatory replacement of vacuum system check valves per Parker Hannifin Product Reference Memo No. 39 is unwarranted. Thus, AOPA believes that this concern may be best addressed through amendments to the aircraft's respective Pilot Operating Handbooks implementing the engine start-up/shutdown procedures set forth in Cessna POH supplements D5317-13 and D5318-13.

Thank you for your time and consideration in this matter. AOPA stands ready to assist the FAA in considering the best appropriate manner to address this airworthiness concern.

Respectfully,



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