

# LUFTVÄRDIGHETSDIREKTIV (LVD)

E. Hjälpapparater Filter RAPCO Inc. LVD Nr 2795

Sektion 2. Utlandstillverkad flygmateriel

TITEL:

Byte av feltillverkade filter

**GÄLLER:** 

RAPCO filter angivna och installerade i luftfartyg angivna i bifogad kopia

av FAA AD 97-16-10

**ATGÄRD:** 

Utför åtgärder angivna i FAA AD 97-16-10

TID FÖR ATGÄRD:

Inom 2 dagar eller före flygning vilket som inträffar senast

**UNDERLAG:** 

FAA AD 97-16-10

**REFERENS:** 

FAA AD 97-16-10

**BESLUTSDATUM:** 

1997-08-28

LFS 1997:38

Atgärder enligt LVD utgör nödvändig förutsättning för ifrågavarande flygmateriels luftvärdighet. Referens BCL M 1.11.

Anteckning om åtgärd, som vidtagits i enlighet med LVD, skall införas i teknisk journal för berörd flygmateriel med hänvisning till ifrågavarande LVD-nummer. Angivet underlag refererar till senast gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

**Postadress** 

Gatuadress

Telefonnummer

Telegram Civilair Telex

## PRIORITY LETTER AIRWORTHINESS DIRECTIVE

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U.S. Department of Transportation Federal Aviation Administration

REGULATORY SUPPORT DIVISION P.O. BOX 26460 OKLAHOMA CITY, OKLAHOMA 73125-0460

DATE: July 31, 1997 97-16-10

Events Leading to This Priority Letter AD

This priority letter airworthiness directive (AD) is prompted by recent operator reports and the manufacturer's report of several cracked filter housings on RAPCO, Inc. in-line pressure filters produced from lot numbers 05597, 07797, and 12597 and that have part numbers (P/N) RA-1J4-4, RA-1J4-6, and RA-1J4-7. The cracked filter housings are causing failure of the operators' flight instruments during flight. This product is an in-line pressure filter used on single and twin-engine airplanes with pressure driven primary and standby flight instruments (attitude gyros). The filters are designed to remove the carbon particles between the vacuum pump outlet and the instrument pressure inlet. Failure of this filter results in failure of the flight instruments, which could cause loss of control of the airplane.

Further investigation has revealed that some of the plastic filter housings are cracking during flight when exposed to high temperatures and low humidity conditions. The failure is occurring anytime between 2 and 6 hours time-in-service (TIS). The manufacturer discovered that the vendor of the plastic made a manufacturing change, moving the sonic weld machine and the housings into a high humidity area. Apparently, the sonic weld time was doubled due to a higher moisture content in the plastic. This condition leads to brittle plastic filter housings that crack when exposed to low humidity/high temperature ambient conditions.

These filters may be installed on certain Cessna, Piper, and Raytheon airplanes.

## The FAA's Determination

After examining the circumstances and reviewing all available information related to the incidents described above, the FAA has determined that AD action should be taken to prevent failure of the flight instruments during flight because of a failed in-line pressure filter, which could cause loss of control of the airplane.

## **Explanation of the Provision of This Priority Letter AD**

Since an unsafe condition has been identified that is likely to exist or develop on certain Cessna, Piper, and Raytheon airplanes with RAPCO in-line pressure filters marked with part numbers RA-1J4-4, RA-1J4-6, or RA-1J4-7 (Lot Numbers 05597, 07797, or 12597) installed, this AD requires removing the filters from service.

#### Compliance Time

The compliance time of this AD is presented in calendar time instead of hours time-in-service (TIS). The FAA has determined that a calendar time compliance is the most desirable method because of the diversity of the affected fleet. Therefore, to ensure that the above-referenced condition is corrected within a reasonable period of time, a compliance schedule based upon calendar time instead of hours TIS is utilized.

#### The AD

This rule is issued under 49 U.S.C. Section 44701 (formerly section 601 of the Federal Aviation Act of 1958), pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this priority letter.

97-16-10 RAPCO, Inc.: Priority Letter issued on July 31, 1997. Docket No. 97-CE-71-AD.

Applicability: Filter Part Numbers (P/N) RA-1J4-4, RA-1J4-6, and RA-1J4-7 (Lot Numbers 05597, 07797, and 12597) installed on but not limited to the following airplanes, certificated in any category:

Cessna Aircraft Company (Cessna) Models 310R and T310R Airplanes;

Raytheon Aircraft Company (Raytheon) (formerly known as Beech Aircraft Corporation)
Models E33A, F33A, V35A, V35B, 36, A36, 58, 65-B80, 70, 95-B55, D55, E55 Airplanes; and,

The New Piper Aircraft, Inc. (Piper)
Models PA-31-300, PA-31-325, PA-31P, PA-31P-350, PA-31T, PA-34-200T Airplanes.

PRIORITY LETTER AIRWORTHINESS DIRECTIVE

NOTE 1: This AD applies to each airplane with one or more of these filters installed that is identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required within the next 2 days after the receipt of this priority letter AD or prior to further flight, whichever occurs later, unless already accomplished.

To prevent failure of the flight instruments during flight because of a failed in-line pressure filter, which could cause loss of control of the airplane, accomplish the following:

- (a) Remove any filter with an applicable part number and lot number and replace with an FAA-approved filter that incorporates a part number (P/N) and lot number not covered by this AD.
- (b) Upon the effective date of this AD, no person may equip an aircraft with any RAPCO filters marked with P/N RA-1J4-4, RA-1J4-6, or RA-1J4-7 from Lot Numbers 05597, 07797, or 12597.
- NOTE 2: Production of the affected filters has ceased. The affected lots were produced in February 1997, and a check of the aircraft records will give a good indication as to whether these filters have been installed on an aircraft.
- (c) Special flight permits may be issued for daytime visual flight rules (VFR) flight only, in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location to accomplish the requirement of this AD.
- (d) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Chicago Aircraft Certification Office, 2300 E. Devon, Des Plaines, Illinois 60018. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may concur or comment and then send it to the Manager, Chicago Aircraft Certification Office.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Chicago Aircraft Certification Office.

- (e) Information related to this AD may be inspected at the FAA, Central Region, Office of the Assistant Chief Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.
  - (f) Priority Letter AD 97-16-10, issued July 31, 1997, becomes effective immediately upon receipt.

### FOR FURTHER INFORMATION CONTACT:

Roy Boffo, Aerospace Engineer, Chicago Aircraft Certification Office, 2300 E. Devon, Des Plaines, Illinois 60018, telephone (847) 294-7564; facsimile (847) 294-7834.