



SERVICE LETTER

No. 835B

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

June 20, 1980

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(Service Letter 835B Supersedes and voids Service Letter 835A dated March 9, 1979.)

<u>Subject:</u>	Stability Augmentation System Refinement
<u>Reason for Revision:</u>	Add improved SAS Vane Information (PART II); Revise Affected Serial Numbers.
<u>Models Affected:</u>	<u>Serial Numbers Affected:</u>
PA-31T Cheyenne	Refer to PART I and PART II below.
<u>Compliance Time:</u>	Recommended at the next regularly scheduled Progressive Inspection Event/Maintenance interval.

PART I

<u>Serial Numbers Affected:</u>	31T-7400002 through 31T-7820086 unless Kit 763 896 SAS Computer Modification has been previously installed.
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Purpose:

The **Stability Augmentation System** ("SAS") incorporates instrument panel-mounted warning lights that will illuminate in the event of a system component failure. It has been noted that the "RAM" warning light (designed to illuminate in the event of a SAS Computer, Vane and/or Servo Actuator failure) will "flicker" intermittently, often due to a component malfunction. This condition occurs as a result of an interaction between the SAS Vane and SAS Computer. The Computer may react to spurious signals from the Vane. The condition may be alleviated by the addition of filtering to the Computer without affecting the normal operation of the system.

PART I of this Service Release announces the availability of a further refined SAS Computer Modification Kit, containing material and instructions to modify the SAS Computer and recalibrate the SAS. This refinement is designed to eliminate the cause of the intermittent condition described above and to update the SAS Computer to current configuration.

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Instructions:

SAS Computer modification data and SAS recalibration instructions are contained in Piper Kit No. 763 896, SAS Computer Modification.

Material Required:

One (1) each per aircraft, Piper Kit No. 763 896 SAS Computer Modification.

PART II

Serial Numbers Affected: 31T-7400002 through 31T-8020051

Purpose:

PART II of this Service Release announces the availability of an improved Stability Augmentation System ("SAS") Angle of Attack Sensor Vane and a kit which provides material and instructions for the installation of a new vane. The addition of a heater in the rear of the SAS Vane Transducer reduces moisture and ice accumulation within the unit and reduces false warnings and erratic SAS indications.

Instructions:

Installation instructions are contained in Piper Kit No. 764 031, SAS A.O.A. Sensor Vane Installation.

Material Required:

One (1) each per aircraft SAS A.O.A. Sensor Vane (Piper Part No. 29316-02).
One (1) each per aircraft SAS A.O.A. Sensor Vane Installation Kit (Piper Part No. 764 031).
Serial Nos. 31T-7400002 through 31T-7720007 require one (1) each per aircraft 3-amp Screw-type Circuit Protector (Piper Part No. 454 695).

Availability of Parts: Your Piper Field Service Facility.

Effectivity Date: This Service Release is effective upon receipt.

Summary:

Please contact your Piper Field Service Facility to make arrangements to obtain and install the above-referenced item(s). To avoid unnecessary down time, it is recommended that the installations coincide with a scheduled maintenance/inspection event.