EASA Safety Information Bulletin

SIB No.: **2010-09R1**
Issued: **20 October 2010**

Subject: **Wing Leading Edge Stall Strip Configuration**

Ref. Publication: CASA Airworthiness Bulletin (AWB) 57-009 issue 2 dated 10 September 2010.

Description: The Civil Aviation Safety Authority (CASA) of Australia has published the referenced advisory document (attached as pages 2 through 4 of this bulletin) to draw the attention of owners, operators and maintainers of Piper PA-31 series aeroplanes to the existing wing leading edge stall strip (or flow strip) configuration requirements. Issue 2 of the AWB has been published in response to additional information from Piper and the changes are indicated by a vertical bar in the Appendix of that document.

After reviewing the available information and recognising that CASA is not the 'State of Design' authority for the affected type design, EASA concurs with the advisory and fully supports the CASA recommendations contained therein. This SIB is published to ensure that all owners, operators and maintainers of the affected aeroplanes, registered in European Union Member States or associated countries, are aware of these recommendations.

Applicability: PA-31, PA-31-300, PA-31-325 and PA-31-350 aeroplanes, all models, all serial numbers.

Contacts: For further information contact the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu.

For copies of related service information, contact:
Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, Florida 32960, United States of America, telephone +1 772-567-4361, or contact you local Piper dealer, using the Piper website http://www.piper.com/home/pages/DealerInternational.cfm

Australian Government
Civil Aviation Safety Authority

AIRWORTHINESS BULLETIN

Piper PA-31 Series Aircraft: Wing Leading Edge Stall Strip Configuration

AWB 57-009 **Issue** : 2
Date : 10 September 2010

1. Applicability

All Piper PA-31 Series *Navajo* and *Chieftain* aircraft.

2. Purpose

This AWB has been raised to clarify the wing leading edge stall strip (or flow strip) configuration requirements for the PA-31 Series. Issue 2 has been published in response to additional information from Piper and the changes are indicated by a vertical bar in the Appendix.

3. Background

Prior to May 1969 Piper PA-31 Series aeroplanes did not have wing leading edge stall strips installed at manufacture. It was subsequently found that the installation of wing leading edge stall strips markedly improved the aircraft's low speed flight handling characteristics. Piper immediately commenced installing leading edge stall strips at the factory and issued Piper SB No. 294 to ensure wing leading edge stall strips were installed on PA31 Series aircraft with serial numbers up to 31-445. SB No. 294 was mandated by FAA AD 69-11-05.

It has come to CASA's attention that some PA-31 aircraft have no leading edge stall strips, and that some stall strips are not of the correct part number, correct configuration or in the correct location. Unless wing leading edge stall strips of the correct dimensions are installed in the correct configuration, including the correct position on the leading edge, the aircraft does not conform to the Type Design. Stall strips may have been inadvertently omitted when the de-ice boots were removed or when the wings were re-painted.

Information found in the Illustrated Parts Catalogue (IPC) suggests that stall strip configuration is dependant on wing locker installation. In order to verify the correct stall strip configuration, Piper has researched the original wing leading edge de-ice drawings along with the wing and wing locker installation and component drawings. It was found that it is the airframe model and serial number ranges, not wing locker installation, that determines the correct stall strip configuration.

As a result of its investigations, Piper advises that it intends to correct the references in the PA31 Series IPC, which links wing locker configuration to stall strip installation.

Piper has courteously provided CASA with the results of its research in advance of the proposed revision to the IPC (Refer Appendix). It should be noted that this information only provides clarification with regard to the general configuration and number of stall strips required for the various PA-31 serial numbers. The applicable Piper IPC should be consulted to determine the correct part number of each stall strip.

The precise location of each stall strip on the wing leading edge is critical. If the stall strips must be removed during maintenance, the

instructions provided in the Piper Service Manuals should be followed and the position of the stall strips should be carefully marked before removal. However, if the stall strips have been removed but their positions were not marked before removal, a Piper Dealer should be contacted for assistance with identifying the precise location for each stall strip.

4. Recommendation

Operators of PA-31 Series aircraft are advised to urgently review the installation of the wing leading edge stall strips and ensure they conform to Type Design.

5. Enquiries

Enquiries with regard to the content of this Airworthiness Bulletin should be made via the direct link e-mail address:

AirworthinessBulletin@casa.gov.au

Or in writing, to:

Airworthiness Engineering Branch
Civil Aviation Safety Authority
GPO Box 2005, Canberra, ACT, 2601

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Note: Reference to, or inclusion of manufacturers data in an AWB is not subject to revision.

Appendix

Piper PA 31 – Series Wing Leading Edge Stall Strip Configuration.

PA 31 Model	Serial Number Range	De-Ice Boots Installed?	Port Wing (in board) (LH)	Port Wing (out board) (LH)	Stb'd. Wing (inboard) (RH)	Stb'd. Wing (outboard) (RH)
		Stall strip installation configuration				
31-300	ALL	No	One	None	One	One
	31-5 TO 31-7612076	Yes	One	None	One	One
	31-7612077 to 31-7912124	Yes	One	None	One	One
	31-8012001 &up.	Yes	One	None	One	One
31-310	ALL	No	One	None	One	One
	31-5 to 31-7612076	Yes	One	None	One	One
	31-7612077 to 31-7912076	Yes	One	None	One	One
	31-8012001 & up	Yes	One	None	One	One
31-325	ALL	No	One	None	One	None
	31-5 to 31-7612076	Yes	One	None	One	None
	31-7612077 to 31-7912076	Yes	One	None	One	None
	31-8012001 & up	Yes	One	None	One	None
	Serial Number Range	**De-ice Boots Installed?**		**Port Wing (LH) approx. centre Wing Sta. 160**		**Stbd. Wing (RH) approx. centre Wing Sta. 160**
		Stall strip installation configuration				
31-350	All	No		One		One
	31-5001 to 31-7652123	Yes		One		One
	31-7652124 to 31-7952250	Yes		One		One
	31-8052001 & up	Yes		One		One