

SCHEDULE OF AIRWORTHINESS DIRECTIVES

AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/SWSA226/90 Amdt 2 and issues the following AD under subregulation 39.1 (1) of CAR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Fairchild (Swearingen) SA226 and SA227 Series Aeroplanes

**AD/SWSA226/90
Amdt 3**

Auto Ignition Systems

**4/2003
TX**

Applicability: Model SA226 and SA227 series aeroplanes listed in the following table.

Model	Serial Numbers
SA226-AT	AT001 through AT074
SA226-T	T201 through T275, and T277 through T291
SA226-T(B)	T276 and T292 through T417
SA226-TC	TC201 through TC419
SA227-AC	AC406, AC415, AC416, AC420 through AC633, AC637, AC638, AC641 through AC644, AC647, AC648, AC651, AC652, AC656, and AC657
SA227-AT	AT423 through AT631
SA227-TT	TT421 through TT547

Requirement: 1. Unless already accomplished, amend the Aircraft Flight Manual (AFM) by incorporating into the Limitations Section of the AFM, the procedures included as Annex A or Annex B to this Directive.

This may be accomplished by inserting a copy of the applicable Annex to this Directive into the AFM.

2. Modify the torque sensing system to allow the igniters to automatically turn on when an engine senses low torque, by incorporating the kits specified in the following Fairchild Aircraft Service Bulletins, as applicable:

Aircraft Models	Service Bulletin (Kit Drawing)
SA226 (all models)	226-74-003 (27K82087), issued 21 March 2000
SA227-TT	227-74-003 (27K82087), issued 21 March 2000
SA227-AT and SA227-AC	227-74-001, issued 8 July 1986

3. Remove the AFM amendment introduced by Requirement 1.

Note: FAA AD 2002-01-16 Amdt 39-12610 refers.

Fairchild (Swearingen) SA226 and SA227 Series Aeroplanes

AD/SWSA226/90 Amdt 3 (continued)

Compliance: For Requirement 1 - Remains unchanged as “Within 50 hours time in service after the effective date of Amendment 1 to this Directive”.

For Requirement 2 - Before 30 June 2003.

For Requirement 3 - Concurrent with Requirement 2.

This Amendment becomes effective on 28 February 2003.

Background: The United States Federal Aviation Administration (FAA) has issued Airworthiness Directive (AD) 2002-01-16 which supersedes AD 86-24-11 and AD 86-25-04. The two earlier ADs required the incorporation into the Limitations Section of the pilot's operating handbook and airplane flight manual (POH/AFM) of Fairchild Aircraft SA226 and SA227 series aeroplanes, procedures for preventing an engine flameout while in icing conditions. CASA's predecessor did not issue an AD following the two earlier FAA ADs but required the insertion of Australian unique pages into the Australian AFM.

The original issue of this Directive retained the AFM requirements from the earlier FAA ADs and also requires a modification to the torque sensing system to allow the igniters to automatically turn on when an engine senses low torque. These actions were intended to prevent a dual engine flameout on the affected aeroplanes by providing a system that automatically turns on the engine igniters when low torque is sensed. When the torque sensing system modification is incorporated, the AFM requirements are no longer necessary.

Amendment 1 extended the compliance date for Requirements 2 and 3 by three months.

Amendment 2 further extended the compliance date for Requirements 2 and 3 until 28 February 2003.

This Amendment again further extends the compliance date for Requirements 2 and 3 until 30 June 2003.

The original issue of this Airworthiness Directive became effective on 21 March 2002.

Amendment 1 of this Airworthiness Directive became effective on 4 September 2002.

Fairchild (Swearingen) SA226 and SA227 Series Aeroplanes

AD/SWSA226/90 Amdt 3 (continued)

Amendment 2 of this Airworthiness Directive became effective on 28 November 2002.



James Coyne
Delegate of the Civil Aviation Safety Authority

28 February 2003

Fairchild (Swearingen) SA226 and SA227 Series Aeroplanes

**AD/SWSA226/90
Amdt 3**

Auto Ignition Systems - Annex A

4/2003

**Fairchild Aircraft Models SA226-AT, SA226-T, SA226-T(B)
and SA226-TC Aeroplanes
Procedures to Prevent an Engine Flameout While in Icing Conditions**

The IGNITION MODE switches shall be selected to AUTO/CONT during all operations in actual or potential icing conditions described herein:

- (1) During takeoff and climb out in actual or potential icing conditions.
- * (2) When ice is visible on, or shedding from propeller(s), spinner(s), or leading edge(s).
- * (3) Before selecting ANTI-ICE, when ice has accumulated.
- (4) Immediately, any time engine flameout occurs as a possible result of ice ingestion.
- (5) During approach and landing while in or shortly following flight in actual or potential icing conditions.

***Note:** If icing conditions are entered in flight without the engine anti-icing system having been selected, switch one ENGINE system to an ENGINE HEAT position. If the engine runs satisfactorily, switch the second ENGINE system to an ENGINE HEAT position and check that the second engine continues to run satisfactorily.

For the purpose of this POH/AFM supplement, the following definition applies:

"Potential icing conditions in precipitation or visible moisture meteorological conditions:

- (1) Begin when the OAT is plus 5 degrees C (plus 41 degrees F) or colder, and
- (2) End when the OAT is plus 10 degrees C (plus 50 degrees F) or warmer."

The procedures and conditions described in this Annex supersede any other POH/AFM procedures or conditions.

Fairchild (Swearingen) SA226 and SA227 Series Aeroplanes

**AD/SWSA226/90
Amdt 3**

Auto Ignition Systems - Annex B

4/2003

**Fairchild Aircraft Models SA227-AC, SA227-AT and SA226-TT Aeroplanes
Procedures to Prevent an Engine Flameout While in Icing Conditions**

The IGNITION MODE switches shall be selected to OVERRIDE or, for those aircraft which have the auto-relite system installed, CONTINUOUS OR AUTO during all operations in actual or potential icing conditions described herein:

- (1) During takeoff and climb out in actual or potential icing conditions.
- * (2) When ice is visible on, or shedding from propeller(s), spinner(s), or leading edge(s).
- * (3) Before selecting ANTI-ICE, when ice has accumulated.
- (4) Immediately, any time engine flameout occurs as a possible result of ice ingestion.
- (5) During approach and landing while in or shortly following flight in actual or potential icing conditions.

***Note:** If icing conditions are entered in flight without the engine anti-icing system having been selected, switch one ENGINE system to an ENGINE HEAT position. If the engine runs satisfactorily, switch the second ENGINE system to an ENGINE HEAT position and check that the second engine continues to run satisfactorily.

For the purpose of this POH/AFM supplement, the following definition applies:

"Potential icing conditions in precipitation or visible moisture meteorological conditions:

- (1) Begin when the OAT is plus 5 degrees C (plus 41 degrees F) or colder, and
- (2) End when the OAT is plus 10 degrees C (plus 50 degrees F) or warmer."

The procedures and conditions described in this Annex supersede any other POH/AFM procedures or conditions.