AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive AD/ELECT/70 Amdt 1 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.

AD/ELECT/70 Amdt 2 — Inflatable Door Seal System — 1/2001

Applicability: Bob Fields Aerocessories inflatable door seal systems installed either in accordance with Federal Aviation Administration (FAA) Supplemental Type Certificate (STC) or through FAA field approval, that are installed on but not limited to, the following aircraft:

Affected STC	Make and Model Aircraft Affected
SA3735NM	Cessna Models 170, 170A, and 170B
SA4136WE	Cessna Models 310, 310A, 310B, 310C, 310D, 310E, 310F, 310G, 310H, 310I, 310J, 310K, 310L, 310N, 310P, 310Q, 310R, T310P, T310Q, and T310R
SA2226NM	Cessna Models P210N and P210R
SA3736NM	Cessna Models 185, 185A, 185B, 185C, 185D, A185E, and A185F
SA4177WE	Cessna Models 175, 175A, 175B, and 175C
SA4212WE	Cessna Models 210, 210A, 210B, 210C, 210D, 210E, 210F, 210G, 210H, 210J, 210K, 210L, 210M, 210N, T210F, T210G, T210H, T210J, T210K, T210L, T210M, T210N, 210-5 (205), and 210-5A (205A)
SA4283WE	Cessna Models 172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, 172H, 172I, 172K, 172L, 172M, and 172N
SA4284WE	Cessna Models 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, and 180K
SA4285WE	Cessna Models 182, 182A, 182B, 182C, 182D, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, R182, and TR182

SA4286WE	Cessna Models 206, P206, P206A, P206B, P206C, P206D, P206E, TP206A, TP206B, TP206C, TP206D, TP206E, U206, U206A, U206B, U206C, U206D, U206E, U206F, U206G, TU206A, TU206B, TU206C, TU206D, TU206E, TU206F, and TU206G
SA4287WE	Cessna Models 320, 320A, 320B, 320C, 320D, 320E, 320F, and 320-1
SA4180WE	Raytheon (Beech) Models H35, J35, K35, M35, N35, P35, S35, V35, V35A, V35B, 35-33, 35-A33, 35-B33, 35-C33, 35-C33A, E33, E33A, E33C, F33, F33A, F33C, G33, 36, A36, A36TC, and B36TC
SA4184WE	Raytheon (Beech) Models 95, B95, B95A, E95, 95-55, 95-A55, 95-B55, 95-B5A, 95-B55B, 95-C55, D55, E55, 56TC, 58, and 58A
SA4239WE	Raytheon (Beech) Models 58P, 58PA, 58TC, and 58TCA
SA4240WE	Raytheon (Beech) Models 50, B50, C50, D50, D50A, D50B, D50C, D50E, D50E-5990, E50, F50, G50, H50, and J50
SA4282WE	Raytheon (Beech) Models 35, A35, B35, C35, D35, E35, F35, G35, and 35R
SA4178WE	Mooney Models M20, M20A, M20C, M20D, M20E, M20F, M20G, M20J, and M20K
SA4234WE	The New Piper Aircraft, Inc. (Piper) Models PA-34-200, PA-34-200T, and PA-34-220T
SA4179WE	Piper Models PA-24, PA-24-250, PA-24-260, and PA-24-400
SA4235WE	Piper Models PA-44-180 and PA-44-180T
SA4236WE	Piper Models PA-28-140, PA-28-150, PA-28-160, PA-28-180, PA-28-235, PA-28-151, PA-28-181, PA-28-161, PA-28-236, PA-28-201T, PA-285-160, PA-28S-160, PA-28S-180, PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201, and PA-28RT-201T
SA4237WE	Piper Models PA-23, PA-23-160, PA-23-235, PA-23-250, and PA-E23-250
SA4238WE	Piper Models PA-30, PA-39, and PA-40

SA4385WP	Piper Models PA-31, PA-31-300, PA-31-325, and PA-31-350
SA4288WE	Piper Models PA-32-260, PA-32-300, PA-32S-300, PA-32-301, PA-32-301T, PA-32R-300, PA-32R-301, PA-32R-301T, PA-32RT-300, and PA-32RT-300T
SA2511NM	Bellanca Models 17-30, 17-31, and 17-31TC
SA2510NM	Bellanca Models 17-30A, 17-31A, and 17-31ATC
SA4316WE	Wing Aircraft Company Model D-1

Requirement:

1. Unless already accomplished in accordance with previous issues of this Directive, deactivate the electric door seal inflation system by accomplishing the following:

   a. Disconnect the battery.

   b. Locate the air pump and identify the power wire to the air pump.

   c. Trace the power wire to its connection to the aircraft's original electrical power system. Disconnect the power wire at its attachment to the aircraft's electrical power system and stow the wire end.

   d. Reconnect the battery before returning the aircraft to service.

2. For non-pressurised aircraft or for aircraft that have an operating manual door seal inflation system, unless already accomplished in accordance with previous issues of this Directive:

   a. Fabricate a placard that incorporates the following words utilising letters that are at least 2.5mm (0.1 inches) in height and install the placard on the instrument panel within the pilot's clear view:

      "ELECTRIC DOOR SEAL INFLATION SYSTEM INOPERATIVE"

   b. Add the following statement to the Limitations section of the Flight Manual:

      "ELECTRIC DOOR SEAL INFLATION SYSTEM INOPERATIVE"

      This task may be accomplished by inserting a copy of this Airworthiness Directive into the Limitations section of the Flight Manual.

3. For pressurised aircraft or for aircraft that do not have an operating manual door seal inflation system unless already accomplished in accordance with previous issues of this Directive:

a. Fabricate a placard that incorporates the following words utilising letters that are at least 2.5mm (0.1 inches) in height and install the placard on the instrument panel within the pilot's clear view:

"ELECTRIC DOOR SEAL INFLATION SYSTEM INOPERATIVE THIS AIRCRAFT CAN ONLY BE OPERATED IN UNPRESSURISED FLIGHT"

b. Add the following statement to the Limitations section of the Flight Manual:

"ELECTRIC DOOR SEAL INFLATION SYSTEM INOPERATIVE THIS AIRCRAFT CAN ONLY BE OPERATED IN UNPRESSURISED FLIGHT"

This task may be accomplished by inserting a copy of this Airworthiness Directive into the Limitations section of the Flight Manual.

4. Bob Fields Aerocessories electrically inflatable door seals are not to be installed on any aeroplane unless the actions specified in Bob Fields Aerocessories Service Bulletin No BFA-001 dated 3 November 1998 have been incorporated.

Note 1: FAA AD 98-21-21 Revision 1 Amdt 39-11621 refers.

Note 2: Following are optional alternate methods of compliance:

a. Removal of all provisions of the Bob Fields Aerocessories Inflatable door seals and installation of the original equipment manufacturer door seals or other approved equivalent that is of a different design to the referenced Bob Fields Aerocessories inflatable door seals.

b. For Cessna P210 series (pressurised) aeroplanes or other aeroplanes that can obtain pressurisation without the door seals inflated:

(1) Fabricate a placard that incorporates the following words utilising letters that are at least 2.5mm (0.1 inches) in height and install the placard on the instrument panel within the pilot's clear view:

"ELECTRIC DOOR SEAL INFLATION SYSTEM INOPERATIVE"

(2) These aircraft can be operated pressurised with the electric door seal system inoperative in accordance with the applicable Flight Manual provisions for pressurised flight.

c. *The installation of a manually operated pump and retention of the Bob Fields Aerocessories STC provisions, except that the electric system must be deactivated in accordance with Requirement 1 of this Directive, noting that the design of the modification incorporating the pump must be approved by a person that either holds a delegation or an instrument of appointment under Regulation 35 of the Civil Aviation Regulations 1988.*

d. *Modify the electric door seal inflation system in accordance with the procedures in Bob Fields Accessories Service Bulletin No BFA-001.*

Compliance:

1. Remains unchanged as - Before further flight.

2. Remains unchanged as - Before further flight.

3. Remains unchanged as - Before further flight.

4. As of the effective date of this Amendment.

This Amendment becomes effective on 25 January 2001.

Background: The FAA has received numerous reports of occurrences of overheated components associated with the electric door seal inflation system on aircraft equipped with Bob Fields Aerocessories inflatable door seals installed in accordance with the applicable FAA STC. One occurrence resulted in an in-flight fire, other occurrences have resulted in:

a. the electric door seal pump being heavily charred,

b. the pump assembly and resistors of the electric door seal pump being partially melted, and

c. vinyl, plastic and insulation material in the proximity of the electric door seal inflation system being found burned.

The original issue of the Directive required the deactivation, or alternatively, the removal of the Bob Fields Aerocessories inflatable door seal system, this will decrease the likelihood of an in-flight fire resulting from the overheating of the door seal system components.

Amendment 1 was issued to reflect the alternate methods of compliance introduced by the FAA. This Amendment also removed aeroplanes with STC SA4472NM incorporated from the applicability.

Amendment 2 removed aeroplanes with STC SA4213WE incorporated from the applicability and introduced an additional alternate method of compliance. The Amendment also allows the installation of Bob Fields Aerocessories door seal inflation systems provided that SB No BFA-001 was incorporated.

The original issue of this Airworthiness Directive became effective on 12 October 1998.

Amendment 1 of this Airworthiness Directive became effective on 31 December 1998.

Eugene Paul Holzapfel
Delegate of the Civil Aviation Safety Authority

11 December 2000

The above AD is notified in the *Commonwealth of Australia Gazette* on 20 December 2000.