

AIRWORTHINESS APPROVAL NOTE NO: 26567 Issue 2

APPLICANT: Delta Foxtrot Club

AIRCRAFT TYPE: Piper PA-28-161 (now includes PA28-140 s/n 28-20521 and subsequent, PA 28-180 s/n 28-1760 and subsequent and PA28-151)

REGISTRATION NO: G-BFDK      CONSTRUCTOR'S NO: 28-7816010

DESIGN ORGANISATION: Royal Victorian Aero Club / Vision Air

CERTIFICATE CATEGORY: Transport Category (Passenger)

MODIFICATION NO.      DFC1

MODIFICATION TITLE:      **Vision Air Hand Controller for Disabled Pilots**

## 1. **Introduction**

The Vision Air hand controller for use by disabled pilots is a development of the American Blackwood hand controller approved by AAN 24875. The controller is approved by the Civil Aviation Safety Authority of Australia (CASA) by their STC 231-1 under their CAR 35 regulations. This AAN is being raised to Issue 2 to extend the applicability to also cover PA-28-140, 150 and 180 aeroplanes in accordance with CASA STC 231-1 Issue 2.

## 2. **Modification Description**

The hand controller resembles the Blackwood hand controller, except that the lever part is in two pieces. This allows the lower part to remain permanently attached to the vertical post of the left rudder on the right side of the aircraft, the disabled pilot only needing to attach the upper half of the hand controller to the lower half using two pins to secure the connection, in order to use the controller. In addition, stops are fitted to limit nosewheel travel and split bushes secured by hose clamps are fitted to modify the nosewheel steering spring bungees in accordance with Engineering Order VA272001 Revision 3 or later revision.

The Hand Controller is defined by drawing number VA-272001 Revision D, and is applicable to PA 28-140, PA 28-151, PA28-161, PA 28-180 and PA-28-181 aircraft.

**3. Approval Basis**

CAA working practices allow the acceptance of foreign modifications of a conventional nature, certificated to an acceptable code of requirements by an authority known to have standards similar to those of the CAA.

This modification has been approved by CASA of Australia via STC 231-1 Issue 2 in accordance with Regulation 35 of the (Australian) Civil Aviation Regulations. The CASA approval certifies that the design complies with Civil Aviation Orders Section 101.22 Iss. 3 and FAR Part 23 at Amdt 43, when operated in accordance with the specifications and limitations of Supplemental Type Data Sheet Number 231-1 Issue 2 or later. In view of this CASA approval no further investigation is necessary. This modification is approved on the basis of its CASA of Australia approval and the provisions of BCAR B2-2.

Gippsland Aeronautics, the manufacturer, are a company approved by the CASA of Australia.

**4. Compliance with Requirements**

This modification has been assessed against the requirements of Civil Aviation Orders Section 101.22 Iss. 3 and FAR Part 23 at Amdt 43 by CASA and found to be compliant.

**5. Fight Test**

A handling assessment of this modification has been carried out by CAA Flight Department. Flight Department FTR 10629 dated 12 November 1998 confirms that the handling was acceptable to CAA.

**6. Flight Manual**

Vision Air PA28-140, PA 28-151, PA 28-161, PA 28-180 and PA 28-181 Hand Controller Flight Manual Supplement is attached to the STC as Appendix 1 and has been approved by CASA. This approval is acceptable to the CAA.

This Flight Manual Supplement must be included in the back of the CAA approved Flight Manual for the aircraft, and the contents/amendment sheet amended accordingly.

**7. Noise**

This modification is assessed as having no significant effect on the aircraft noise, and the status of the aircraft relative to the noise legislation is unaffected. The existing noise certificate, if any, remains valid.

**8. Limitations**

Limitations and conditions defined in the Visionair Flight Manual Supplement, the CASA STC, Engineering Order VA272001 Rev. 5, and the manufacturer's documentation must be observed.

CAA/JAA CRS and Duplicate Inspection requirements shall be applied, in place of the Australian equivalents specified. It has been determined that the attachment of the hand controller extension is as simple as the fitment of dual controls to Helicopters, and on that basis authorisation to complete this function, considered to be well within the competence of a pilot, is not necessary.

The following placard is to be installed in full view of the pilot:

“Operation of the aircraft with the hand controlled rudder system must be conducted in accordance with the Visionair Flight Manual Supplement”.

Attention is drawn to the condition stated in paragraph 1.3 of CASA STC 231-1 Issue 2 that approval of this modification to an aircraft is conditional upon the aircraft being free of other modifications unless it has been determined that the combination of all the modifications will not reduce the standard of airworthiness of the aircraft. The compatibility of this modification with other previously approved modifications must be verified by the installer. Where the potential for adverse interactions between modifications exists, the advice of the CAA shall be sought.

**9. Continued Airworthiness**

The influence of the modification on Airworthiness Directives, Service Bulletins etc., eligibility must be considered and the publications monitored accordingly. The maintenance schedule for the aircraft should include reference to this material additional to the original design.

**10. Approval**

This modification is approved for embodiment on PA28-140 s/n 28-20521 and subsequent, PA 28-180 s/n 28-1760 and subsequent and on any Piper PA 28-151, PA-28-161 and PA-28-181 aircraft equipped with toe brakes, within the applicability of Civil Aviation Safety Authority of Australia STC 231-1 Issue 1, in the Transport Category (Passenger), provided that it conforms to the contents of this AAN, is operated in accordance with the Flight Manual, and is maintained in accordance with the manufacturer's requirements, and a maintenance schedule approved by the CAA.

**A.J. Maxwell**

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For the Civil Aviation Authority

Date 26 November, 2002.