### (2) Avro Anson and Avro 19

UK National Airworthiness Directives previously published in CAP 476 – Mandatory Aircraft Modifications and Inspections Summary

**CAA AD No:** 1496 PRE 80

**Associated Material: 108** 

**Description:** Tailplane wire bracing.

Applicability - Compliance - Requirement

Applicable to Anson Mark 1 only, with wooden tailplane.

**CAA AD No:** 1497 PRE 80

**Associated Material: 121** 

**Description:** Guard for rudder bar torque tubes.

Applicability - Compliance - Requirement

To prevent loose items falling into the spur gears and locking the rudder control. Applicable to Anson Mark 1 only.

**CAA AD No:** 1498 PRE 80

**Associated Material: 122** 

**Description:** Introduction of petrol trap in boost gauge lines.

Applicability - Compliance - Requirement

To prevent boost gauges being damaged by petrol. Applicable to Anson Mark 1 only.

**CAA AD No:** 1499 PRE 80

**Associated Material: 173** 

**Description:** Strengthening of aileron hinge.

**Applicability - Compliance - Requirement** 

This changes the end hinge from steel to brass. Applicable to Anson Mark 1 only.

**CAA AD No:** 1500 PRE 80

**Associated Material: 265** 

**Description:** Pilot's Emergency Exit.

**Applicability - Compliance - Requirement** 

To improve the 'rip-off' strip method of operating exits. Applicable to Anson Mark 1 only.

**CAA AD No:** 1501 PRE 80

**Associated Material: 289** 

**Description:** Combined filter and non-return valve in flap hydraulic circuit.

### **Applicability - Compliance - Requirement**

Introduced to prevent dirt reaching the pump relief valve. Applicable to hand operated flaps only on Anson Marks 1, 10 and 11.

**CAA AD No:** 1502 PRE 80

**Associated Material: 308** 

**Description:** To reposition oil tank cock and thermometer pocket.

# **Applicability - Compliance - Requirement**

Introduce brackets to support oil cock and thermometer pocket. Applicable to Anson Mark 1 only.

**CAA AD No:** 1503 PRE 80

**Associated Material: 654** 

**Description:** Strengthened tailwheel rocker beam.

#### Applicability - Compliance - Requirement

Mandatory only for aircraft with AUW of 9540 lb. Applicable to Anson Marks 1, 10 and 11.

**CAA AD No:** 1504 PRE 80

**Associated Material: 661** 

**Description:** Strengthened wing (retrospective).

#### Applicability - Compliance - Requirement

Introduces strengthened underside wing panels between spars (diagonal plywood). To be introduced in conjunction with Mod. No. 695. Applicable where Mod. No. 657 is not embodied. See Note 2. Applicable to Anson Marks 1, 10 and 11.

**CAA AD No:** 1505 PRE 80

**Associated Material: 669** 

**Description:** To introduce engine fire warning.

#### Applicability - Compliance - Requirement

To be embodied in conjunction with Mod No. 844. Switches to Mod No. 855 are an approved alternative to those of Mod No. 669. Applicable to Avro 19 Series I and II.

**CAA AD No:** 1506 PRE 80

**Associated Material: 687** 

**Description:** To introduce strengthened wheels, tyres and brakes.

### **Applicability - Compliance - Requirement**

Applicable to Avro 19 Series I with wooden wing. Embody in conjunction with Mod. No. 637 Heywood compressor.

**CAA AD No:** 1507 PRE 80

**Associated Material: 695** 

**Description:** To strengthen the glued joints of mainplane spars.

#### Applicability - Compliance - Requirement

Introduces woodscrews in joints of plywood webs to top and bottom booms. To be embodied in conjunction with Mod. No. 661 when Mod. No. 657 is not incorporated. See Notes 1 and 2. Applicable to Anson Marks 1, 10 and 11.

**CAA AD No:** 1508 PRE 80

**Associated Material: 709** 

**Description:** To strengthen rear seat attachment between spars.

## Applicability - Compliance - Requirement

Applicable to wooden wing aircraft only. Introduces internal block and stiffeners in floor between spars. Applicable to Anson Mark 11 and Avro 19 Series I.

**CAA AD No:** 1509 PRE 80

**Associated Material: 716** 

**Description:** General Improvements to drainage.

### Applicability - Compliance - Requirement

Applicable to Anson Marks 1, 10 and 11 and Avro 19 Series 1 and II.

**CAA AD No:** 1510 PRE 80

**Associated Material: 725** 

**Description:** To lower accumulators charging pressure from 200 lb/in2 to 165–170 lb/

in2.

#### **Applicability - Compliance - Requirement**

Mandatory to aircraft embodying Mod. No. 682 (direct flap linkage). Applicable to Avro 19 Series I only.

**CAA AD No:** 1511 PRE 80

**Associated Material: 732** 

**Description:** Improvements to passenger seat locking.

#### Applicability - Compliance - Requirement

Applicable to all seats having spring loaded vertical locking plungers. Applicable to Anson Marks 1, 10 and 11.

**CAA AD No:** 1512 PRE 80

**Associated Material: 744** 

**Description:** To change position of 'Press to Speak' switch.

### Applicability - Compliance - Requirement

Changed from right to left. Applicable to Anson Mark 11 and Avro 19 Series I and II.

**CAA AD No:** 1513 PRE 80

**Associated Material: 750** 

**Description:** To introduce wire locking of AGS couplings.

### Applicability - Compliance - Requirement

Applicable to Anson Marks 1, 10, 11 and Avro 19 Series I and II

**CAA AD No:** 1514 PRE 80

**Associated Material: 759** 

**Description:** To introduce strengthened oil cooler support clip.

#### Applicability - Compliance - Requirement

To be embodied in conjunction with Mod Nos. 825 and 899. Only applicable if Vickers Potts oil cooler is fitted. Applicable to Avro 19 Series I and II.

**CAA AD No:** 1515 PRE 80

**Associated Material: 762** 

**Description:** Introduction of strengthened eye-bolts for main undercarriage.

### Applicability - Compliance - Requirement

Eyebolt in torque increased from 3/8" to 7/16". Applicable to Avro 19 Series I and II.

**CAA AD No:** 1516 PRE 80

**Associated Material: 773** 

**Description:** To cancel Mod. No. 733 (improvements to Heywood compressor

drainage).

### Applicability - Compliance - Requirement

This modification also makes provisions for Bristol Siddeley Engine Mod. Nos. E832 or E856 and is only mandatory if either of these engine modifications is embodied. Applicable to Avro 19 Series I and II.

**CAA AD No:** 1517 PRE 80

**Associated Material: 775** 

**Description:** Improvements to safety device on undercarriage retraction control.

**Applicability - Compliance - Requirement** 

Applicable to Avro 19 Series I and II.

**CAA AD No:** 1518 PRE 80

**Associated Material: 777** 

**Description:** To eliminate compass interference.

Applicability - Compliance - Requirement

Mandatory only when wiper is fitted. Applicable to Avro 19 Series I and II.

**CAA AD No:** 1519 PRE 80

**Associated Material: 782** 

**Description:** Marking of cowl fasteners to indicate locked position.

Applicability - Compliance - Requirement

Applicable to Avro 19 Series I and II.

**CAA AD No:** 1520 PRE 80

**Associated Material: 795** 

**Description:** To prevent chafing of feathering feed pipe.

**Applicability – Compliance – Requirement** 

Obviate chafing by wheel in nacelle. Applicable to Avro 19 Series I and II.

**CAA AD No:** 1521 PRE 80

**Associated Material: 797** 

**Description:** To record correct main undercarriage pressure in main oleo leg.

Applicability - Compliance - Requirement

This calls for pressure of 620 lb/in2 instead of i485 lb/in2. Applicable to Avro 19 Series I and II.

**CAA AD No:** 1522 PRE 80

**Associated Material: 825** 

**Description:** To strengthen oil cooler support clip.

#### Applicability - Compliance - Requirement

To be embodied in conjunction with Mod. Nos. 759 and 899. Only applicable if Vickers Potts oil cooler is fitted. Applicable to Avro 19 Series I and II.

**CAA AD No:** 1523 PRE 80

**Associated Material: 844** 

**Description:** Re-routing of flame switch cable on port and starboard bulkheads to

prevent chafing.

# Applicability - Compliance - Requirement

When embodied the flame switch cable is clipped to oil dilution valve attachment lug. Applicable to Avro 19 Series I and II.

**CAA AD No:** 1524 PRE 80

**Associated Material: 873** 

**Description:** To change the material of the bolts securing the fork to the brake flange

from mild steel to high tensile steel.

#### Applicability - Compliance - Requirement

Applicable only if Mod. No. 687 is embodied. Applicable to Avro 19 Series I and II.

**CAA AD No:** 1525 PRE 80

**Associated Material: 899** 

**Description:** To introduce a new oil cooler support bracket.

### Applicability - Compliance - Requirement

To be embodied in conjunction with Mod. Nos. 759 and 825. Applicable only if Vickers Potts oil cooler is fitted. Applicable to Avro 19 Series I and II.

CAA AD No: 1526 PRE 80
Associated Material: Civil Mod. 9
Description: To fit ashtrays.

#### **Applicability - Compliance - Requirement**

Mandatory when smoking is permitted. Mod No. 758 is an acceptable alternative. Applicable to Avro 19 Series I and II.

CAA AD No: 1527 PRE 80 Associated Material: Civil Mod. 32

**Description:** Labels to meet ARB Requirements.

**Applicability - Compliance - Requirement** 

Applicable to Avro 19 Series I and II.

CAA AD No: 1528 PRE 80
Associated Material: Civil Mod. 33

**Description:** To prevent aileron cable chafing voltage regulator leads.

Applicability - Compliance - Requirement

Applicable to metal wing aircraft only. Mod. No. 774 is an acceptable alternative. Applicable to Avro 19 Series II only.

CAA AD No: 1529 PRE 80 Associated Material: Civil Mod. 49

**Description:** To introduce Marconi constant speed trailing aerial winch in lieu of AM

type.

Applicability - Compliance - Requirement

Applicable to Avro 19 Series I and II.

CAA AD No: 1530 PRE 80 Associated Material: Civil Mod. 53

**Description:** To introduce re-designed forward cabin escape hatch and to delete rear

cabin escape hatch.

Applicability - Compliance - Requirement

Applicable to Anson Mark 11 and Avro 19 Series I and II.

CAA AD No: 1531 PRE 80 Associated Material: Civil Mod. 56

**Description:** To introduce improved cabin escape hatch.

Applicability - Compliance - Requirement

Certain operators have already modified their aircraft to their own schemes. These alternatives are still approved and acceptable. Applicable to Anson Mark 1 and 10.

**CAA AD No:** 1532 PRE 80

Associated Material: T.S.B. No. 76, No. 80, No. 88

**Description:** Inspection of spar boom joints, etc.

**Applicability - Compliance - Requirement** 

Compliance required as detailed in Service Bulletin.

CAA AD No: 1533 PRE 80 Associated Material: T.S.B. No. 84

**Description:** Inspection of Trailing Edge Ribs No. 20, Port and Starboard.

Applicability - Compliance - Requirement

Compliance required as detailed in Technical Service Bulletin.

CAA AD No: 1534 PRE 80 Associated Material: T.S.B. No. 85

**Description:** Cracking of Top Support Brackets for Undercarriage Jack Channels,

centre section front spar.

Applicability - Compliance - Requirement

Compliance required as detailed in Technical Service Bulletin.

CAA AD No: 1535 PRE 80 Associated Material: T.S.B. No. 87

**Description:** Inspection of Aileron Operating Levers.

Applicability - Compliance - Requirement

Compliance required as detailed in Technical Service Bulletin.

**CAA AD No:** 1536 PRE 80

Associated Material: T.S.B. No. 89, No. 90

**Description:** Inspection of Main Undercarriage Radius Rod Attachment at Rear Spar.

**Applicability – Compliance – Requirement** 

Should have been carried out by 1 September 1963. Re-inspection required at each 5 or 600 hours.

CAA AD No: 1537 PRE 80 Associated Material: T.S.B. No. 91

**Description:** Locking Handle, 2nd Pilot's Control Column Fouling at Floorboard Cut

Out.

### Applicability - Compliance - Requirement

Compliance required within the next 50 flying hours, and in any case not later than 28 days from receipt of this bulletin.

CAA AD No: 1538 PRE 80 Associated Material: T.S.B. No. 92

**Description:** Pilots' escape hatch – difficulty in removing.

### Applicability - Compliance - Requirement

Compliance required as detailed in Technical Service Bulletin.

**CAA AD No:** 1539 PRE 80

NOTE 1: Mod. No. 657 embraces the design provisions of Mod. No. 695, but some wings to Mod. No. 657 standard do not incorporate the woodscrews referred to in the note against Mod. No. 695. It is essential that the woodscrews be fitted, and in cases where Mod. No. 657 is logged as embodied but no woodscrews are present, they must be fitted in accordance with Mod. No. 695. The presence of the woodscrews can be checked at any point on the spars.

NOTE 2: Certain Australian 'Anson' aircraft have been modified to RAAF Mod. No. 143 (Strengthening of spar booms) and RAAF Order No. 40 (Modification to wing covering under fuel tank base). These two modifications are acceptable in place of Mod. No. 661 and 695.

NOTE 3: If the aircraft is operated in the tropics, it may not be possible to keep within engine temperature limitations unless the following modifications are embodied.

Mod. No. 458 – Introduction of seven element oil cooler.

Mod. No. 621 – Introduction of Oxford Type cowling.

Bristol Siddeley Mod. No. E729 changes the cowling brackets to the cylinder head, and must be embodied in conjunction with Mod. No. 621.