

UNCLASS
By authority of Section 19. *AVRS*
CF-105 SERVICE DATA

22 Sept 1968
BB Bully
Low Pressure Air System
AVRS

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ANALYZED CONFIDENTIAL

CF-105 SERVICE DATA

Classification cancelled / Changed to UNCLASS

LOW PRESSURE AIR SYSTEM

By authority of AVCS

Section 19

Date 27 Sept 66

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Signature DBully

Unit / Rank / Appointment AVCS

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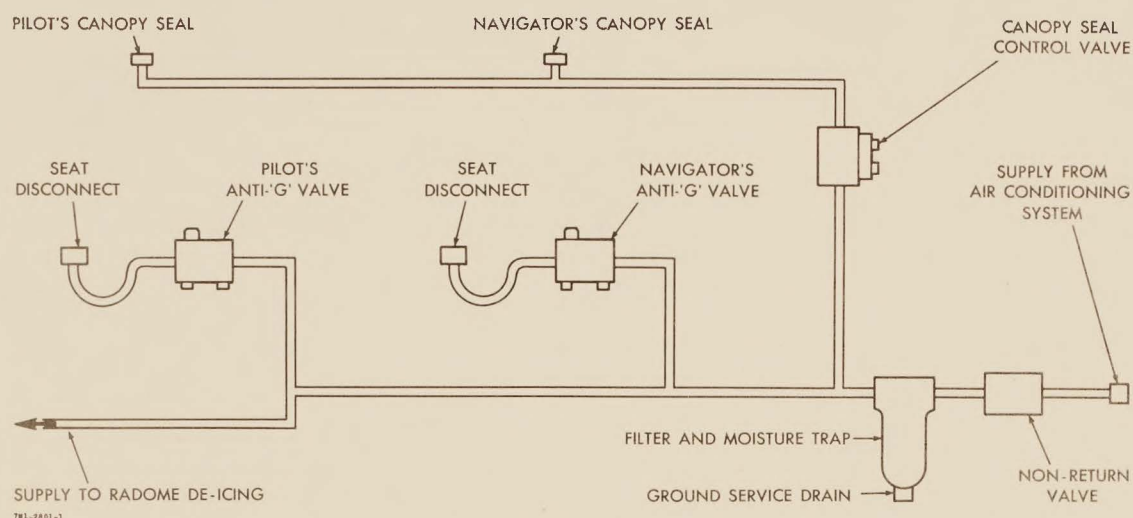


FIG. 1 LOW PRESSURE AIR SYSTEM - SCHEMATIC

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SYSTEM DATA SHEET

| SYSTEM | SUB-SYSTEM | | AIRCRAFT EFFTY | REF. NO. |
|--|------------|--|----------------|----------|
| LOW PRESSURE AIR | | | 25201 | 18 |
| DESCRIPTION | | | | |
| <p>General</p> <p>1. This system supplies low pressure air to the anti-g suits, canopy seals and radome de-icing system. The air is tapped from the inlet side of the air conditioning system cooling turbine at a pressure of 18 - 90 psi, and is passed through a non-return valve and a combined filter and moisture trap.</p> <p>Anti-G Suits</p> <p>2. The air supply for the anti-g suits is led from the combined filter and moisture trap to the anti-g suit regulating valves mounted on the RH side of the rear bulkhead in each cockpit. A pressure reducing valve and a relief valve are incorporated in each anti-g valve. From the anti-g valve air is supplied through a flexible hose to the composite leads disconnect (See Oxygen System) on the seat into which is connected the flexible hose to the anti-g suit.</p> <p>Canopy Seals</p> <p>3. The canopy seals are fitted in channels around the sealing faces of the four canopy sections. When the seals are inflated a square section grooved bead on each seal is forced against the cockpit and windshield sealing faces to provide a pressure tight joint. Where the RH and LH canopy sections meet on the centre line, the RH canopy seal bead is cut off to provide a smooth surface for the LH seal bead.</p> <p>4. Air to inflate the canopy seals is supplied from the combined filter and moisture trap, to a solenoid operated control valve in which is incorporated a pressure reducing valve, set at 18 - 22 psi, a non-return valve and a pressure relief valve. Air is supplied to the four seals when the control valve solenoid is energized by the closing of two micro-switches, one operated by each canopy locking handle. Unlocking either handle will deflate all seals, venting the pressure to atmosphere.</p> <p>Radome De-icing</p> <p>5. Low pressure air for the radome de-icing system is taken from a connection on the inlet pipe at the Pilot's anti-g suit valve. (See Radome De-icing System).</p> | | | | |
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COMPONENT DATA SHEET

| | | | | |
|---|--|-------------------------------|---------------------------------------|------------------|
| SYSTEM LOW PRESSURE AIR | | SUB-SYSTEM | COMPONENT Filter and Moisture Trap | REF. NO. 18-1 |
| AVRO PART NO. 7-1852-13 | MANUFACTURER Aircraft Porous Media Inc. | MAN'FR'S PART NO. ACG 21-2 | AIRCRAFT EFFECTIVITY 25201 | |
| OVERHAUL LIFE : KNOWN- ESTIMATED- | | | | |
| FUNCTION To remove impurities and moisture from air supply. | | | | |
| LOCATION Sta. 245.0 aft of Navigator's bulkhead. | | | | |
| ACCESS Remove electronic power bay access door between stations 224.0 and 255.0 (72 x 3/16 inch screws). | | | | MEN X MINUTES |
| | | | | |
| REPLACEMENT PROCEDURE Place clamp on filter. Place filter in position. Insert 3/16 inch screw in clamp. Connect two 5/8 inch diameter pipe connections. | | | | MEN X MINUTES |
| | | | | |

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|---|-----------|---------------|--|
| INSPECTION | | MEN X MINUTES | |
| Remove drain plug, bleed water and remove sediment. | | | |
| | | | |
| FUNCTIONAL CHECKS | | MEN X MINUTES | |
| | | | |
| | | | |
| GROUND HANDLING AND GROUND TEST EQUIPMENT | | | |
| B4 access stand. | | | |
| SPECIAL TOOLS TO REMOVE OR SERVICE | | | |
| REMARKS | | | |
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| | | | |
|---|-----------|---------------|--|
| INSPECTION | | MEN X MINUTES | |
| Check for security, damage and cleanliness. | | | |
| | | | |
| FUNCTIONAL CHECKS | | MEN X MINUTES | |
| | | | |
| | | | |
| GROUND HANDLING AND GROUND TEST EQUIPMENT | | | |
| Compressed air unit. Cockpit access stand. | | | |
| SPECIAL TOOLS TO REMOVE OR SERVICE | | | |
| REMARKS | | | |
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TW-5933-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

| | | | | | |
|---|-----------------------------------|-------------------|--|--|------------------|
| SYSTEM LOW PRESSURE AIR | | SUB-SYSTEM | | COMPONENT Seal - Canopy LH Pilot's | REF. NO. 18-3 |
| AVRO PART NO. 7-1053-101 | MANUFACTURER B.F. Goodrich Co. | MAN'FR'S PART NO. | | AIRCRAFT EFFECTIVITY 25201 | |
| OVERHAUL LIFE: | | KNOWN- | | ESTIMATED- | |
| FUNCTION Forms an airtight seal around canopy sections when canopy is closed and seals are inflated with air. | | | | | |
| LOCATION LH Pilot's canopy. | | | | | |
| ACCESS Accessible when canopy is open. | | | | | MEN X MINUTES |
| | | | | | |
| REPLACEMENT PROCEDURE Place seal in groove in canopy. Connect seal hose to adaptor. Attach canopy seal hose adaptor plate to canopy with four screws. Connect supply hose to adaptor. | | | | | MEN X MINUTES |
| | | | | | |

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| | | | |
|--|-----------|---------------|--|
| INSPECTION | | MEN X MINUTES | |
| Check for signs of wear, check for security. | | | |
| | | | |
| FUNCTIONAL CHECKS | | MEN X MINUTES | |
| | | | |
| | | | |
| GROUND HANDLING AND GROUND TEST EQUIPMENT | | | |
| Compressed air unit. | | | |
| Cockpit access stand. | | | |
| SPECIAL TOOLS TO REMOVE OR SERVICE | | | |
| REMARKS | | | |
| | | | |
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CF-105 SERVICE DATA

COMPONENT DATA SHEET

| | | | | | | | |
|---|--|-----------------------------------|--|--|--|-------------------------------|--|
| SYSTEM LOW PRESSURE AIR | | SUB-SYSTEM | | COMPONENT Seal - Canopy RH Pilot's | | REF. NO. 18-4 | |
| AVRO PART NO. 7-1053-102 | | MANUFACTURER B.F. Goodrich Co. | | MAN'FR'S PART NO. | | AIRCRAFT EFFECTIVITY 25201 | |
| OVERHAUL LIFE : | | KNOWN- | | ESTIMATED- | | | |
| FUNCTION Forms an airtight seal around canopy sections, when canopy is closed and seals are inflated with air. | | | | | | | |
| LOCATION RH Pilot's canopy. | | | | | | | |
| ACCESS Accessible when canopy is open. | | | | | | MEN X MINUTES | |
| | | | | | | | |
| REPLACEMENT PROCEDURE Place seal in groove in canopy. Connect seal hose to adaptor. Attach canopy seal hose adaptor plate to canopy with four screws. Connect supply hose to adaptor. | | | | | | MEN X MINUTES | |
| | | | | | | | |

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| | | | |
|---|-----------|---------------|--|
| INSPECTION | | MEN X MINUTES | |
| Check for signs of wear, check for security. | | | |
| FUNCTIONAL CHECKS | | MEN X MINUTES | |
| | | | |
| GROUND HANDLING AND GROUND TEST EQUIPMENT | | | |
| Compressed air unit. Cockpit access stand. | | | |
| SPECIAL TOOLS TO REMOVE OR SERVICE | | | |
| REMARKS | | | |
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FM-3015-2-8

CF-105 SERVICE DATA

COMPONENT DATA SHEET

| | | | | | | | |
|--|--|-----------------------------------|--|--|--|-------------------------------|--|
| SYSTEM LOW PRESSURE AIR | | SUB-SYSTEM | | COMPONENT Seal - Canopy LH Navigator's | | REF. NO. 18-5 | |
| AVRO PART NO. 7-1053-121 | | MANUFACTURER B.F. Goodrich Co. | | MAN'FR'S PART NO. | | AIRCRAFT EFFECTIVITY 25201 | |
| OVERHAUL LIFE: KNOWN- ESTIMATED- | | | | | | | |
| FUNCTION Forms an airtight seal around canopy section, when canopy is closed and seal is inflated with air. | | | | | | | |
| LOCATION LH Navigator's canopy. | | | | | | | |
| ACCESS Accessible when canopy is open. | | | | | | MEN X MINUTES | |
| | | | | | | | |
| REPLACEMENT PROCEDURE Place seal in groove in canopy. Connect seal hose to adaptor. Attach canopy seal hose adaptor plate to canopy with four screws. Connect supply hose to adaptor. | | | | | | MEN X MINUTES | |
| | | | | | | | |

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|--|-----------|--|--|--|--|---------------|--|--|--|
| INSPECTION Check for signs of wear, check for security. | | | | | | MEN X MINUTES | | | |
| | | | | | | | | | |
| FUNCTIONAL CHECKS | | | | | | MEN X MINUTES | | | |
| | | | | | | | | | |
| GROUND HANDLING AND GROUND TEST EQUIPMENT Compressed air unit. Cockpit access stand. | | | | | | | | | |
| SPECIAL TOOLS TO REMOVE OR SERVICE | | | | | | | | | |
| REMARKS | | | | | | | | | |
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COMPONENT DATA SHEET

| | | | | | | | |
|---|--|-----------------------------------|--|---|--|-------------------------------|--|
| SYSTEM LOW PRESSURE AIR | | SUB-SYSTEM | | COMPONENT Seal - Canopy RH Navigator's | | REF. NO. 18-6 | |
| AVRO PART NO. 7-1053-122 | | MANUFACTURER B.F. Goodrich Co. | | MAN'FR'S PART NO. | | AIRCRAFT EFFECTIVITY 25201 | |
| OVERHAUL LIFE : | | KNOWN- | | ESTIMATED- | | | |
| FUNCTION Forms an airtight seal around canopy section when canopy is closed and seal is inflated with air. | | | | | | | |
| LOCATION RH Navigator's Canopy. | | | | | | | |
| ACCESS Accessible when canopy is open. | | | | | | MEN X MINUTES | |
| | | | | | | | |
| REPLACEMENT PROCEDURE Place seal in groove around canopy. Connect seal hose to adaptor. Attach canopy seal hose adaptor plate to canopy with four screws. Connect supply hose to adaptor. | | | | | | MEN X MINUTES | |
| | | | | | | | |

TWI-3413-2-5

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|---|-----------|--|--|--|--|--|--|---------------|--|
| INSPECTION | | | | | | | | MEN X MINUTES | |
| | | | | | | | | | |
| <p>Check for signs of wear, check for security.</p> | | | | | | | | | |
| | | | | | | | | | |
| FUNCTIONAL CHECKS | | | | | | | | MEN X MINUTES | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| GROUND HANDLING AND GROUND TEST EQUIPMENT | | | | | | | | | |
| <p>Compressed air unit. Cockpit access stand.</p> | | | | | | | | | |
| SPECIAL TOOLS TO REMOVE OR SERVICE | | | | | | | | | |
| REMARKS | | | | | | | | | |
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|---|--|------------------------------------|--|--|--|-------------------------------|--|
| SYSTEM LOW PRESSURE AIR | | SUB-SYSTEM | | COMPONENT Valve - Canopy Seal Control | | REF. NO. 18-7 | |
| AVRO PART NO. 7-1852-14 | | MANUFACTURER Surface Combustion | | MAN'FR'S PART NO. | | AIRCRAFT EFFECTIVITY 25201 | |
| OVERHAUL LIFE: | | KNOWN- | | ESTIMATED- | | | |
| FUNCTION To reduce and control electrically, supply of air to inflate canopy seals. | | | | | | | |
| LOCATION Aft face Navigator's bulkhead. | | | | | | | |
| ACCESS | | | | | | MEN X MINUTES | |
| Remove electronic power bay access door under fuselage between Sta. 224.0 and 255.0 by removing 72 x 3/16 inch screws. | | | | | | | |
| REPLACEMENT PROCEDURE | | | | | | MEN X MINUTES | |
| Place valve in position. Insert three attachment bolts. Connect two pipelines. Connect one electrical connector. | | | | | | | |

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|---|-----------|---------------|--|
| INSPECTION | | MEN X MINUTES | |
| Check for security, damage and corrosion. | | | |
| | | | |
| FUNCTIONAL CHECKS | | MEN X MINUTES | |
| | | | |
| | | | |
| GROUND HANDLING AND GROUND TEST EQUIPMENT Compressed air unit. Stop watch, pressure and temperature gauges. Electrical ground power unit. Cockpit access stand. B4 access stand. | | | |
| SPECIAL TOOLS TO REMOVE OR SERVICE | | | |
| REMARKS | | | |
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781-3413-2-4

