

UNCLASS

Section 19. AVRS

CF-105 SERVICE DATA

Signature *2 Sept 99 BBully*
Low Pressure Air System

Unit / Rank / Appointment *AVRS*

ANALYZED ~~CONFIDENTIAL~~

CF-105 SERVICE DATA

Classification cancelled / Changed to UNCLAS

LOW PRESSURE AIR SYSTEM

By authority of AVRS

Section 19

Date 27 Sept 86

TABLE OF CONTENTS

Signature DBully

Unit / Rank / Appointment AVRS

TITLE	PAGE
SYSTEM SERVICE DATA	
DESCRIPTION	
General	3
Anti-g Suits	3
Canopy Seals	3
Radome De-icing	3
FUNCTION TESTING	(To be issued later)
INSPECTION	(To be issued later)
COMPONENT SERVICE DATA	
Filter and Moisture Trap	5
Valve - Anti-g Suit Regulating	7
Seals - Canopy	9
Valve - Canopy Seal Control	17

LIST OF ILLUSTRATIONS

FIGURE	TITLE	PAGE
1	Low Pressure Air System - Schematic	2

CF-105 SERVICE DATA

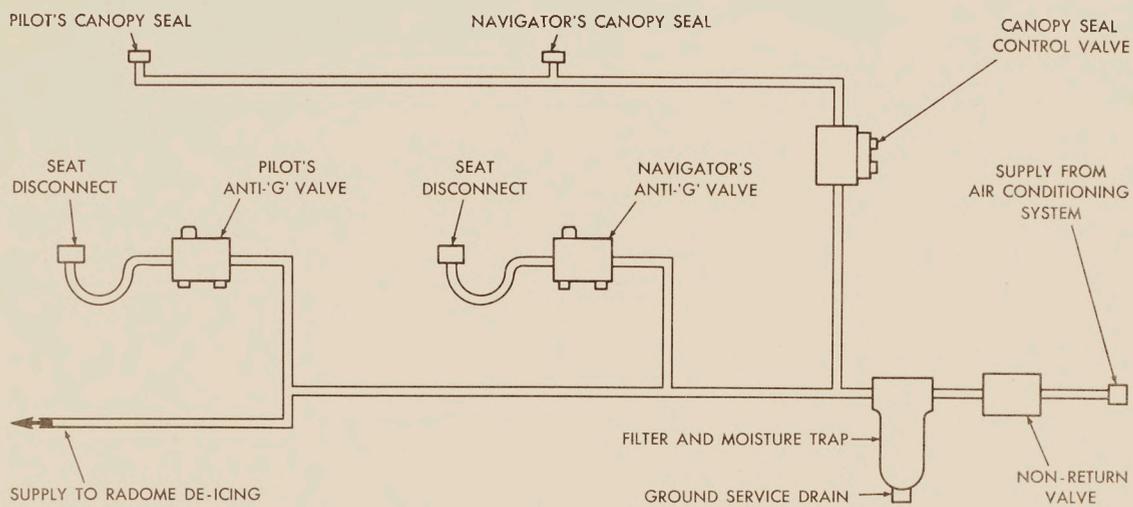


FIG. 1 LOW PRESSURE AIR SYSTEM - SCHEMATIC

CF-105 SERVICE DATA
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>			
ISSUE	1		
DATE	26 Nov 56		

781-3413-2-3



ISSUE	1							
DATE	26 Nov 56							

781-3433-2-4

CF-105 SERVICE DATA

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

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			
ISSUE	1		
DATE	26 Nov 56		

TMI-3413-2-4

CF-105 SERVICE DATA
COMPONENT DATA SHEET

SYSTEM LOW PRESSURE AIR		SUB-SYSTEM		COMPONENT Valve - Anti "G" Suit Regulating		REF. NO. 18-2	
AVRO PART NO. 7-1852-12		MANUFACTURER Alar Products Inc.		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE :		KNOWN-		ESTIMATED-			
FUNCTION To admit air to the Pilot's and Navigator's anti "G" suits at the proper pressure according to varying degrees of positive normal acceleration.							
LOCATION Forward face of Pilot's and Navigator's seat bulkhead.							
ACCESS Accessible on forward face of Pilot's and Navigator's bulkhead in cockpits.						MEN X MINUTES	
REPLACEMENT PROCEDURE Place in position on mounting bracket. Insert three mounting bolts. Connect two pipe lines.						MEN X MINUTES	

TM-3413-2-5

INSPECTION <p style="text-align: center;">Check for security, damage and cleanliness.</p>	MEN X MINUTES <table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>								
FUNCTIONAL CHECKS	MEN X MINUTES <table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>								
GROUND HANDLING AND GROUND TEST EQUIPMENT <p style="text-align: center;">Compressed air unit. Cockpit access stand.</p>									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS									
ISSUE	1								
DATE	26 Nov 56								

TKI-3913-2-6

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'F'R'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	

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			
ISSUE	1		
DATE	26 Nov 56		

741-343-2-4

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	

TM-7-613-2-5

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			
ISSUE	1		
DATE	26 Nov 56		

TK1-2513-2-4

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-	
<p>FUNCTION</p> <p style="text-align: center;">Forms an airtight seal around canopy section, when canopy is closed and seal is inflated with air.</p>			
<p>LOCATION</p> <p style="text-align: center;">LH Navigator's canopy.</p>			
<p>ACCESS</p> <p style="text-align: center;">Accessible when canopy is open.</p>			MEN X MINUTES
<p>REPLACEMENT PROCEDURE</p> <p style="text-align: center;">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.</p>			MEN X MINUTES

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			
ISSUE	1		
DATE	26 Nov 56		

TKI-3913-2-6

CF-105 SERVICE DATA
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

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									
ISSUE	1								
DATE	26 Nov 56								

TMI-3913-2-6

CF-105 SERVICE DATA
COMPONENT DATA SHEET

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 Remove electronic power bay access door under fuselage between Sta. 224.0 and 255.0 by removing 72 x 3/16 inch screws.			MEN X MINUTES <table border="1" style="width: 100%; height: 100px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		
REPLACEMENT PROCEDURE Place valve in position. Insert three attachment bolts. Connect two pipelines. Connect one electrical connector.			MEN X MINUTES <table border="1" style="width: 100%; height: 100px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		

701-1013-2-5

INSPECTION Check for security, damage and corrosion.		MEN X MINUTES	
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			
ISSUE	1		
DATE	26 Nov 56		

TMI-3413-2-4

DUO-TANG
No. 1553
MADE IN U.S.A.