Test Project

Module C – Aircraft Troubleshooting and Defect Rectification at Line Maintenance

Aircraft Maintenance

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Contents

Marking Scheme **3**
Introduction to Test Project **4**
Overview **5**
AGENCY: National Aviation Authority (NAA) **9**
Appendix 1: Aviation material requisition form **11**
Appendix 2: Aviation material requisition form (continued) **12**

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Marking Scheme

MODULE C – AIRCRAFT TROUBLESHOOTING AND DEFECT RECTIFICATION AT LINE MAINTENANCE	MARKS
C1: Preparation, Safety, Housekeeping and Documentation	20
C2: Perform task 1 - Troubleshooting	
C3: Perform Task 2 - AD	

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Introduction to Test Project

INTRODUCTION TO TEST PROJECT MODULE C			
NAME	**(First)**	**(Last)**	
COUNTRY		**Date:** dd/mmm/yyyy	
TIME	**START TIME**		
	END TIME		
Introduction			
Aircraft technicians in line maintenance require a strong blend of technical and troubleshooting skills to quickly identify and resolve issues on aircraft during daily operations. This involves understanding aircraft systems, using diagnostic tools, interpreting maintenance documentation, and applying sound problem-solving techniques.			
Time allotted	3.5 hours		
Description of tasks			
1	Task 1: Perform troubleshooting and rectification of defect reported by the pilot Task 2: Compliance with Airworthiness Directive "AD".		
2	Submit Task Cards to Experts upon completion of Test Project.		
Reference	Aircraft Integrated Troubleshooting Trainer Maintenance Manual		

A defect is recorded in the inbound flight Journey "Technical" Log by the captain.

Hand-over to you: The earlier handover shift had initiated the post-flight inspection and troubleshooting.

Your responsibility is to use the task cards to rectify the defects and to perform the required inspection.

You will hand-over to the next shift: You will then hand over the aircraft to the next shift Authorised Personnel to perform the duplicate inspection (Required Inspection), aircraft departure checks and release to Service.

IF FAULT IS DETECTED OR IN CASE OF DOUBT DURING THE INSPECTION OF THE AIRCRAFT, REFER TO THE EXPERTS/MANUAL.

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Overview

Task 1

The flight crew reported that the **low-pressure light** of the fuel pump in the left fuel tank is illuminated.

The handover shift Engineer had informed you that the possible causes of the fault are:

- the low-pressure switch,
- R18 relay,
- fuel pump, and/or
- control wiring.

You are to conduct further verification, troubleshooting and to rectify the defect(s).

Tools and consumables

NAME	PN	QTY
Seal ring	JA6735-2-001	2
Seal ring	JA1615-1-001	1
Seal ring	JA1315-1-001	1
Fuel Pump	ISTFP2025-05	1
Low-pressure Switch	ISTLPS1300-01	1

Task 2

Compliance with Airworthiness Directive "AD" as per TASK CARD 2.

Preparation

1. Use the necessary Personal Protection Equipment.
2. Check tools in accordance with the tool list.
3. Check the test equipment status and confirm there are no obstacles in the working area. If there are any issues arise, report to the Expert.
4. Read the AD and task card.
5. Conduct maintenance and troubleshooting in accordance with the procedures in the Aircraft Integrated Troubleshooting Trainer Maintenance Manual.

Restore aircraft to Original Configuration

1. Clean and restore the work area.
2. Return the tools in accordance with the tool list.
3. Submit the task card to the Experts.

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Task Card 1	From Technical Log	Technical log #	Page
Left fuel tank pump "Low-pressure" light illuminated.	**Aircraft Regn**		**Reported by**
	Date	dd/mmm/yyyy	

S/N	MAINTENANCE REQUIRED/DEFECT DESCRIPTION	RESOLUTION	RESOLVED BY/DATE
1	The flight crew reported that the low-pressure light of the fuel pump in the left fuel tank is illuminated. The possible causes of the fault are the low-pressure switch, R18 relay, fuel pump, or control wiring.		
Certifies that the work specified except as otherwise specified was carried out in accordance with the requirement of the Air Navigation Act and in respect to that work the aircraft/engine/aircraft component is considered ready for release to service.		(Name & signature) Certified by (Signature) Date: dd/mmm/yyyy	

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Task Card 1	From Technical Log	Technical log #	Page
	Aircraft Regn		Reported by
	Date	dd/mmm/yyyy	

S/N	MAINTENANCE REQUIRED/DEFECT DESCRIPTION	RESOLUTION	RESOLVED BY/ DATE
Certifies that the work specified except as otherwise specified was carried out in accordance with the requirement of the Air Navigation Act and in respect to that work the aircraft/engine/aircraft component is considered ready for release to service.		(Name & signature) Certified by (Signature) Date: dd/mmm/yyyy	

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Task Card 2	From Technical Log	Technical log #	Page
Carry out AD: WSC-NAA–2026–2232	Aircraft Regn		Reported by
	Date	dd/mmm/yyyy	

S/N	MAINTENANCE REQUIRED/DEFECT DESCRIPTION	RESOLUTION	RESOLVED BY/DATE
Certifies that the work specified except as otherwise specified was carried out in accordance with the requirement of the Air Navigation Act and in respect to that work the aircraft/engine/aircraft component is considered ready for release to service.		(signature) Certified by (Signature) Date: dd/mmm/yyyy	

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AGENCY: National Aviation Authority (NAA)

PART 39 – AIRWORTHINESS DIRECTIVES "AD"

Ref: WSC-NAA–2026–2232

DATES: This AD is effective September 22, 2026.

Summary

The NAA is adopting this airworthiness directive (AD) for the "Aircraft Integrated Troubleshooting Trainer".

This AD was prompted by reports of stiff flight control movements.

This AD requires replacement of the No. 4 control rod and No. 5 control rod and lubricating the new control rods eye-end bearings.

The NAA is issuing this AD to address the unsafe condition of the flight control rods

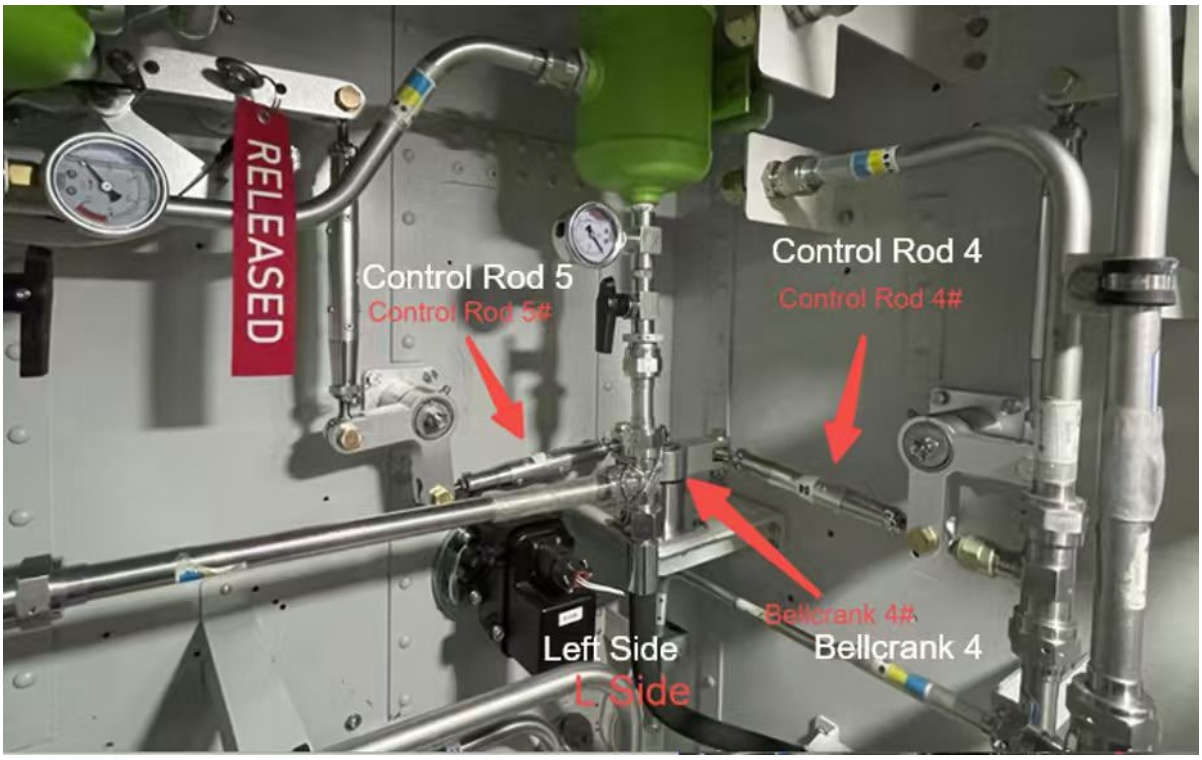


Figure above: Left side of fuselage. Laterally opposite for Right side of fuselage.

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Costs of Compliance

The replacement of Control Rod No. 4 and Control Rod No. 5 and for lubricating the eye-end bearings will take approximately 0.75 workhour.

Required Actions

Within 100 hours time-in-service (TIS) after the effective date of this AD and thereafter before the flight of each day.

1. Replace the control rods and lubricate the new eye-end bearings.
2. Inform Experts to verify rigging and freedom of operation, upon completing the AD.
3. Complete the documentation.

Compliance

Comply with this AD within the compliance times specified, unless already done.

Tools and Consumables

NAME	PN	QTY
Control Rod No.4	ISTCR300845-27	1
Control Rod No.5	ISTCR300845-28	1

References

Aircraft Integrated Troubleshooting Trainer Maintenance Manual.

27-12 Transmission Systems Components

- 27-12-00 Transmission System Components General
- 27-12-01 Transmission System Component Locations
- 27-12-02 Transmission System Maintenance
- 27-12-03 Transmission System Replacement
- 27- 12-04 Transmission System Test

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Appendix 1: Aviation material requisition form

Fill in the aviation material requisition form and collect them with this form.

#	DESCRIPTION	PART NUMBER	QTY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Task Card Number			
Collected by			
Date			

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Appendix 2: Aviation material requisition form (continued)

Fill in the aviation material requisition form and collect them with this form.

#	DESCRIPTION	PART NUMBER	QTY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Task Card Number			
Collected by			
Date	dd/mmm/yyyy		

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worldskills	AIRCRAFT TECHNICAL LOG		REGISTRATION #	CAPTAIN	Samson	PAGE SEQUENCE
			(Expert to fill)	SIGNATURE	Samson	123456

FLIGHT DETAILS	LEG	DATE	TIME UP (UTC)	TIME DOWN (UTC)	AIRTIME	FROM	TO
	1	22.09.2026	13:00	14:00	01:00	STN 1	STN 2
	2	22.09.2026	15:30	16:45	01:15	STN 2	STN 3
TIME	TOTAL TIME B/F FLIGHT		1000	TOTAL AIRTIME	02:15	TOTAL TIME	14.15

DEFECT/MAINT				
	Left fuel tank pump "Low-pressure" light illuminated.		REPORTED BY	Samson
	WORK ORDER SUMMARY #	If applicable	DATE:	22.09.2026

RESOLUTION							
					RESOLVED BY	(Signature)	
					DATE:	dd/mmm/yyyy	
	P/N		DEFERRAL #		☐ Function Check	Independent Check accomplished before Maintenance Release by	Certifies that the work specified except as otherwise specified was carried out in accordance with the requirement of the Air Navigation Act and in respect to that work the aircraft/engine/aircraft component is considered ready for release to service
	S/N ON		MEL		☐ Leak Check		
	S/N OFF		CAT	A/B/C/D/P	☐ Independent Check	Signature Date	(Signature) Date
	BATCH #				☐ Others		

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