Australian Government
Civil Aviation Safety Authority

ADVISORY CIRCULAR

AC 66-07
Practical training options for aircraft type training and recording of recent work experience

v1.2 – August 2016

Advisory Circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the Regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.

Advisory Circulars should always be read in conjunction with the relevant regulations.

Audience

This Advisory Circular (AC) applies to:

- licenced aircraft maintenance engineers (LAMEs)
- Part 145 approved maintenance organisations (AMO)
- Part 147 maintenance training organisations (MTO)

Purpose

This AC provides Part 66 of the *Civil Aviation Safety Regulations 1998 (CASR)* guidance material pertaining to carrying out practical on course (POC) training and on-the-job training (OJT). Both of these practical training methodologies provide a way of satisfying the practical component of aircraft type rating training for B1 and B2 LAME licences. Another method is practical consolidation training (PCT), the details of which can be seen in AC 147-1.

This AC also provides guidance to LAMEs on the options available for the recording of evidence of their recent OJT work experience or maintenance tasks performed. This record may assist the LAMEs in verifying that their Part 66 licence remains valid.

For further information

For further information on this AC, contact the Civil Aviation Safety Authority's (CASA's) Maintenance Personnel Licensing branch (telephone 131 757).

Unless specified otherwise, all subregulations, regulations, divisions, subparts and parts referenced in this AC are references to the *Civil Aviation Safety Regulations 1998 (CASR)*.

Status

This version of the AC is approved by the Acting Manager, Airworthiness and Engineering Branch.

Note: Changes made in the current version are annotated with change bars.

Version	Date	Details
v1.2	August 2016	The following change has been made to this AC and is marked with a change bar: • addition of ATA 47 Nitrogen Generation Systems to the 'Practical on course' task list table in Appendix A.
v1.1	May 2016	The following changes have been made to this AC with all new additions annotated with shading: • clarification of the objective of practical training • clarification of the (Appendix A) practical on course task requirements that must be completed and assessed as part of the approved practical training.
(0)	July 2013	This is the first AC to be issued on this subject.

Contents

1 Reference material

1.1 Acronyms

The acronyms and abbreviations used in this AC are listed in the table below.

Acronym	Description
AC	Advisory Circular
AMC	Acceptable Means of Compliance
AMO	Approved Maintenance Organisation
ATA	Air Transport Association
CAR	*Civil Aviation Regulations 1988*
CASA	Civil Aviation Safety Authority
CASR	*Civil Aviation Safety Regulations 1998*
FADEC	Full Authority Digital Engine Control
GM	Guidance Material
POC	Practical On Course Training
PCT	Practical Consolidation Training
LAME	Licenced Aircraft Maintenance Engineer
MOS	Manual of Standards
MTO	Maintenance Training Organisation
OJT	On-the-Job Training
SOE	Schedule of Experience

1.2 Definitions

Terms that have specific meaning within this AC are defined in the table below.

Term	Definition
Supervising	A person (the **supervisor**) is **supervising** the carrying out of maintenance done by another person if the supervisor: • is physically present at the place that the maintenance is being carried out; • is observing the maintenance being carried out to the extent necessary to enable the supervisor to form an opinion as to whether the maintenance is being carried out properly; and • is available to give advice to, and answer questions about the maintenance from, the person carrying it out.

1.3 References

Regulations

Regulations are available on the Federal Register of Legislation https://www.legislation.gov.au/

Document	Title
Part 66	Continuing Airworthiness—aircraft engineer licences and ratings
Part 66 Manual of Standards (MOS)	Part 66 Manual of Standards
Part 147	Continuing Airworthiness—maintenance training organisations
Part 147 MOS	Part 147 Manual of Standards

Advisory material

CASA's Advisory Circulars are available at http://www.casa.gov.au/AC

Document	Title
Part 66 AMC/GM	Acceptable Means of Compliance (AMC) and Guidance Material (GM) CASR Part 66 Continuing Airworthiness—aircraft engineer licences and ratings
AC 147-1	Practical Consolidation Training

1.4 Forms

CASA’s forms are available at http://www.casa.gov.au/forms

Form number	Title
CASA Form 465	Part 147 Maintenance Training Organisation and Part 145 Approved Maintenance Organisation Notification of Training Outcomes
AMT logbook	Standard Aircraft Maintenance Technician’s logbook - an American logbook available for purchase at: http://www.actechbooks.com/subcategories/31/

2 Background

2.1 Overview

2.1.1 Under the previous regulation 31 of the *Civil Aviation Regulations 1988 (CAR)* licence system, the practical consolidation training (PCT) program was established to provide an alternative to schedules of experience (SOE) which would still satisfy the experience requirements for grant of aircraft type ratings. The way in which PCT programs are developed, approved and used can be seen in AC 147-1.

2.1.2 For a first rating either PCT or practical on course training (POC) is combined with an on-the-job training (OJT) program to provide the experience required for a licence rating in the B1 or B2 category. A licenced aircraft maintenance engineer (LAME) who already holds a B1 or B2 type rating may utilise PCT training to meet the practical requirements for their second or subsequent type rating in the same category as their first type rating, or their first type rating in the other licence category (as a pre-requisite they must first gain the underlying category). For example a B1 holder seeking their first B2 rating may utilise PCT training to fully meet the practical requirements for the aircraft type rating.

2.1.3 POC, OJT and SOE may also be used in a standalone form to meet the practical requirements for a rating.

2.1.4 SOE compiled to meet the B1 and B2 type rating experience requirements are another acceptable means of compliance (AMC).[1]

2.2 Type/task training and ratings

2.2.1 Type training consists of theoretical training and examination and practical training and assessment and is described in sections 66.A.45, 66.A.50 and 66.A.55 of the Part 66 MOS.

2.2.2 The practical element of type training may be conducted simultaneously with the conduct of the theoretical element of type training or provided separately as a stand-alone element.[2]

2.2.3 Any practical training element, whether PCT, POC, OJT or SOE, consists of the performance of representative maintenance tasks drawn from the type training and examination syllabus, at the indicated level and to the assessment standards outlined in Clause B – Practical element – assessment standard of Subpart 4 of Appendix III to the Part 66 MOS.

2.2.4 Structured OJT is performed according to a type-specific program and includes training in maintenance of the aircraft, rigging, adjustments, replacement of line replaceable units, troubleshooting, rectification of minor defects and testing of systems covering each element of the course.

[1] For further details, see Appendix II of the CASR Part 66 AMC/ guidance material (GM) document.
[2] For further details, see Appendix III of the Part 66 MOS

2.3 Required amounts of PCT, POC and OJT

2.3.1 The percentage of tasks to be covered for different combinations of PCT, POC and OJT to satisfy the practical requirements of aircraft type training are provided in Appendix II of the Part 66 AMC/GM document, located on the Civil Aviation Safety Authority's (CASA) website.

2.4 Practical on course training

2.4.1 POC is the practical experience gained by a LAME through their participation in an aircraft type training course where the practical element of the training is run in conjunction with the theory training.

2.4.2 The objective of practical training is to gain the required competence in performing safe maintenance, inspections and routine work according to the maintenance manual and other relevant instructions and tasks, as appropriate for the type of aircraft. For example:

- troubleshooting
- repairs
- adjustments
- replacements
- rigging and functional checks.

It includes the awareness of the use of all technical literature and documentation for the aircraft, the use of specialist/special tooling and test equipment for performing removal and replacement of components and modules unique to type, including any on-wing maintenance activity.

2.4.3 The practical on course task list can be found in the table at Appendix A. At least 50% of the crossed items in the table, which are relevant to the particular aircraft type, must be completed and assessed as part of the approved practical training.

2.4.4 Tasks marked with a cross represent subjects that would be mandatory for practical training purposes to ensure that the operation, function, installation and safety significance of key maintenance tasks are adequately addressed; particularly where these cannot be fully explained by theoretical training alone.

2.4.5 Although the list details the minimum practical training subjects, other items may be added where applicable to the particular aircraft type. As per the requirements of Appendix III of the Part 66 MOS, tasks to be completed must be representative of the aircraft and systems both in complexity and in the technical input required to complete that task. While relatively simple tasks may be included, other more complex maintenance tasks shall also be incorporated and undertaken as appropriate to the aircraft type.

2.4.6 A type course developed to include the practical tasks outlined in the table at Appendix A is subject to the normal type course approval process described in the Part 66 MOS.

2.5 On-the-job-training

2.5.1 OJT is the aircraft maintenance experience gained by a LAME in the workplace. The objective of OJT is to gain the required competence and experience in performing safe maintenance. This type of training may or may not use structured learning processes.

2.5.2 OJT is usually delivered peer-to-peer and shall take place on the aircraft, or aeronautical product, or at the workplace involving actual work task performance. OJT may include both line and base maintenance tasks and must comply with the requirements of Appendix III of the Part 66 MOS.

2.5.3 As per the requirements of Appendix III of the Part 66 MOS, OJT needs to cover a cross section of tasks representative of the aircraft and systems both in complexity and in the technical input required to complete that task. While relatively simple tasks may be included, other more complex maintenance tasks shall also be incorporated and undertaken as appropriate to the aircraft type. Each task shall be signed off by the student, in addition to the workplace supervisor, peer or assessor. The tasks listed shall refer to an actual job card/work order etc. The following data is addressed on the OJT worksheets/logbook:

- trainee details (name, date of birth)
- approved maintenance organisation (AMO) and location
- name of supervisor and assessor (including licence number if applicable)
- description of task and job card/work order/tech log, date of task completion etc.
- aircraft type and aircraft registration
- licence rating applied for.

2.5.4 Type specific tasks may be substituted as applicable to the aircraft type concerned and licence category. OJT should demonstrate a variety and cross section of tasks both in terms of aircraft systems experience and in the complexity of the tasks performed. The design of the OJT program should consider which tasks for an aircraft will be mandatory irrespective of the experience reductions available by virtue of completing PCT or POC. There will be aircraft specific tasks that every LAME will need to carry out, irrespective of their experience.

2.5.5 Nomination of mandatory tasks

2.5.5.1 The AMO should nominate tasks from the tasks listed in Appendix B that will be applicable to all LAME; and those required for less experienced LAME.

2.5.6 OJT record keeping

2.5.6.1 Type experience should be demonstrated by the submission (to the AMO assessor) of OJT records or a logbook showing tasks performed by the applicant. The maintenance organisation should provide applicants a schedule or plan indicating a list of tasks for a type rating to be performed under supervision. A record of the tasks completed should be entered into a logbook, which should be designed such that each or a group of tasks may be countersigned by a workplace supervisor, peer or assessor.

2.5.6.2 The logbook format and its use should be clearly defined. A CASA SOE or a workplace ‘Recent work experience record’ worksheet can be utilised for the logging of OJT (refer

to Appendix C). This worksheet may be printed off and used by an individual LAME to record evidence of their OJT experience or maintenance tasks performed.

2.5.6.3 'Sample forms' for recording of an individual's personal information, including details of qualifications and training, authorisations and/or licences held and previous employment history are provided at Appendix D.

2.5.6.4 Another document that may be used by a LAME for the recording of evidence of their work experience or maintenance tasks performed is the Standard Aircraft Maintenance Technician's logbook, a United States of America publication, which meets regulatory requirements of the Federal Aviation Administration (refer to advisory materials table at section 1.3).

2.5.6.5 Additional information regarding AMC for use by a LAME for OJT can be found in the Part 66 AMC/GM document, located on the CASA website.

2.5.7 Conduct of OJT

2.5.7.1 It is acceptable for confirmation of individual OJT task completion to be undertaken by a direct supervisor. The Maintenance Training Organisation (MTO) Assessor or the AMO Quality Manager should conduct a final review of the tasks undertaken and provide confirmation of the completion of the required diversity, variety and quantity of OJT. During OJT, the supervisor is to oversee the complete process, including task completion and use of manuals and procedures during the performance of maintenance in an appropriately approved maintenance environment.

2.6 Assessment

2.6.1 Where the OJT and its assessment are conducted under the responsibility of a nominated Quality Manager within a Part 145 AMO, or an MTO assessor, an adjustment is required to the Part 145 approval to describe the process. These procedures should specify the requirements for assessor training and the assessment process and should identify the assessor by name and position within the organisation. The incorporation of an OJT program within an AMO's operations requires a significant change to the AMO's exposition procedures and requires CASA approval. Each OJT program for each aircraft type will also require approval by CASA.

2.6.2 The OJT record should be submitted to the MTO with which an arrangement has been made for assessment, or to the AMO Quality Manager. The final assessment of the OJT that has been satisfactorily completed to the requirements outlined above should be certified by either a Part 147 MTO assessor or the Part 145 Quality Manager.

2.6.3 When the OJT has been successfully completed, the MTO or the AMO Quality Manager should complete the appropriate section of CASA Form 465 (category A, B1 or B2) Notification to CASA of Training Outcome(s). The assessment may be performed task-by-task or conducted as a final assessment at the end of the practical training and/or OJT.

2.6.4 Assessment standards for the practical element of aircraft type training are detailed in Clause B of Subpart 4 of Appendix III to the Part 66 MOS.

Appendix A

Practical on course task list

ATA		B1/B2					
		locate	**Function/ operate test**	**Service Ground Handle**	**Remove Install**	**MEL**	**Trouble Shoot**
	Introduction Module						
5	Time Limits	X/X	—	—	—	—	—
6	Dimensions/Areas	X/X	—	—	—	—	—
7	Lifting and Shoring	X/X	—	—	—	—	—
8	Levelling and Weighing	X/X	—	X/X	—	—	—
9	Towing and Taxiing	X/X	—	X/X	—	—	—
10	Parking and Mooring	X/X	—	X/X	—	—	—
11	Placards and Markings	X/X	—	—	—	—	—
12	Servicing	X/X	—	X/X	—	—	—
20	Standard practices – type particular	X/X	—	X/X	—	—	—
	Airframe Systems						
21	Air Conditioning	X/X	X/X	X/X	—	X/X	X/X
21A	Air Supply	X/X	X/X	—	—	—	—
21B	Pressurization	X/X	X/X	—	—	X/X	X/X
21C	Safety and Warning Devices	X/X	—	X/X	—	—	—
22	Auto Flight	X/X	—/X	—/X	—/X	X/X	—/X
23	Communications	X/X	—/X	X/X	—/X	X/X	—/X
24	Electrical Power	X/X	X/X	X/X	X/X	X/X	X/X
25	Equipment & Furnishings	X/X	X/X	X/X	X/X	—	—
25A	Electronic Equipment including emergency equipment	X/X	X/X	X/X	X/X	—	—
26	Fire Protection	X/X	X/X	X/X	X/X	X/X	X/X
27	Flight Controls	X/X	X/X	X/—	X/—	X/—	X/—
27A	Flight Controls System Operation: Electrical/Fly-by-Wire	X/X	X/X	X/—	X/X	X/—	—/X
28	Fuel Systems	X/X	X/X	X/X	X/—	X/X	X/—
28A	Fuel Systems – monitoring and indicating	X/X	X/X	—	—/X	—	—/X
29	Hydraulic Power	X/X	X/X	X/X	X/—	X/X	X/—

ATA		B1/B2					
		locate	**Function/ operate test**	**Service Ground Handle**	**Remove Install**	**MEL**	**Trouble Shoot**
29A	Hydraulic Power – monitoring and indicating	X/X	X/X	—	X/X	X/X	X/X
30	Ice & Rain Protection	X/X	X/X	X/X	—	X/X	X/X
31	Indicating/Recording Systems	X/X	X/X	X/X	X/X	X/X	X/X
31A	Instrument Systems	X/X	X/X	X/X	X/X	X/X	X/X
32	Landing Gear	X/X	X/X	X/X	X/X	X/X	X/—
32A	Landing Gear – monitoring and indicating	X/X	X/X	—	X/X	X/X	X/X
33	Lights	X/X	X/X	X/X	X/X	X/X	—
34	Navigation	X/X	—/X	X/X	—/X	X/X	—/X
35	Oxygen	X/—	X/X	X/X	X/—	—	—
36	Pneumatic	X/—	X/X	—	X/X	X/X	X/X
36A	Pneumatic – monitoring and indicating	X/X	X/X	X/X	X/X	X/X	X/X
37	Vacuum	X/—	X/—	—	X/—	X/—	X/—
38	Water/Waste	X/—	X/X	X/X	—	—	—
41	Water Ballast	X/—	—	—	—	—	—
42	Integrated Modular Avionics	X/X	—/X	—/X	—/X	—/X	—/X
44	Cabin Systems	X/X	—/X	—/X	—/X	—/X	—/X
45	On-Board Maintenance Systems	X/X	X/X	X/X	X/X	X/X	X/X
46	Information Systems	X/X	—/X	—	—/X	—/X	—/X
47	Nitrogen Generation System	X/X	X/—	X/—	—	X/—	X/—
50	Cargo & Accessory Compartments	X/X	—	X/—	—	—	—
	Airframe Structures						
51	Standard Practices and Structures (damage classification, assessment and repair)						
52	Fuselage Doors	X/X	X/—	X/X	—	—	—
53	Fuselage	X/—	—	—	—	—	X/—
54	Nacelles/Pylons	X/—	—	—	—	—	—

ATA		B1/B2					
		locate	**Function/ operate test**	**Service Ground Handle**	**Remove Install**	**MEL**	**Trouble Shoot**
55	Stabilisers	X/—	—	—	—	—	—
56	Windows	X/—	—	—	—	—	X/—
57	Wings	X/—	—	—	—	—	—
27A	Flight Control Surfaces	X/—	—	—	—	—	X/—
	Turbine and Piston Engine Modules						
70	Standard Practices – Engines – only type particular	—	—	X/X	—	—	—
70A	Constructional arrangement and operation (Installation Inlet, Compressors, Combustion Section, Turbine Section, Bearings and Seals, Lubrication Systems)	X/X	—	—	—	—	—
	Turbine Engines						
70B	Engine Performance	—	—	—	—	—	X/—
71	Power Plant	X/—	X/—	X/X	—	—	—
72	Engine Turbine / Turbo Prop / Ducted Fan / Unducted fan	X/—	—	—	—	—	—
73	Engine Fuel and Control	X/X	X/—	—	—	—	—
73A	Full Authority Digital Engine Control (FADEC) Systems	X/X	X/X	—	X/X	X/X	X/X
74	Ignition	X/X	X/X	—	—	—	—
75	Air	X/—	—	—	X/—	—	X/—
76	Engine Controls	X/—	X/—	—	—	—	X/—
77	Engine Indicating	X/X	X/X	—	—	X/X	X/X
78	Exhaust	X/—	X/—	—	—	X/—	—
79	Oil	X/—	—	X/—	X/—	—	—
80	Starting	X/—	X/—	—	—	X/—	X/—
82	Water Injection	X/—	X/—	—	—	—	—
83	Accessory Gearboxes	X/—	—	X/—	—	—	—
84	Propulsion Augmentation	X/—	X/—	—	—	—	—

ATA		B1/B2					
		locate	**Function/ operate test**	**Service Ground Handle**	**Remove Install**	**MEL**	**Trouble Shoot**
	Auxiliary Power Units (APU's)						
49	Auxiliary Power units (APU's)	X/X	X/X	X/X	—	—	X/—
	Piston Engines						
70B	Engine Performance	—	—	—	—	—	X/—
71	Power Plant	X/—	X/—	X/X	—	—	—
73	Engine Fuel and Control	X/X	X/—	—	—	—	—
73A	FADEC Systems	X/X	X/X	—/X	X/X	X/X	X/X
74	Ignition	X/X	X/X	—	—	—	—
76	Engine Control	X/—	X/—	—	—	—	X/—
77	Engine Indicating	X/X	X/X	—	—	X/X	X/X
78	Exhaust	X/—	X/—	—	—	X/—	X/—
79	Oil	X/—	—	X/—	X/—	—	—
80	Starting	X/—	X/—	—	—	X/—	X/—
81	Turbines	X/—	X/—	X/—	X/—	—	X/—
82	Water Injection	X/—	X/—	—	—	—	—
83	Accessory Gearboxes	X/—	—	X/—	X/—	—	—
84	Propulsion Augmentation	X/—	X/—	—	—	—	—
	Helicopters						
18	Vibration and Noise Analysis (blade tracking)	X/—	—	—	—	—	X/—
60	Standard Practices Rotor – only type specific	X/X	—	X/X	—	—	—
62	Rotors	X/—	—	X/—	X/—	—	X/—
62A	Rotors – monitoring and indicating	X/X	X/—	X/—	X/X	X/—	X/X
63	Rotor Drives	X/—	X/—	—	—	—	X/—
63A	Rotor Drives - monitoring and indicating	X/X	X/—	—	X/X	X/—	X/X
64	Tail Rotor	X/—	—	X/—	—	—	X/—
64A	Tail Rotor - monitoring and indicating	X/X	X/—	—	X/X	X/—	X/X

ATA		B1/B2					
		locate	**Function/ operate test**	**Service Ground Handle**	**Remove Install**	**MEL**	**Trouble Shoot**
65	Tail Rotor Drive	X/—	X/—	—	—	—	X/—
65A	Tail Rotor Drive- monitoring and indicating	X/X	X/—	—	X/X	X/—	X/X
66	Folding Blades / Pylon	X/—	X/—	X/—	—	—	X/—
67	Rotors Flight Controls	X/—	X/—	X/—	—	X/—	X/—
53	Airframe Structure (Helicopter) Note: covered under Airframe structures	—	—	—	—	—	—
25	Emergency Flotation Equipment	X/X	X/X	X/X	X/—	X/—	X/—
	Propellers						
60A	Standard Practices - Propellers	—	—	—	X/—	—	—
61	Propellers/Propulsion	X/X	X/—	X/—	—	X/—	X/—
61A	Propeller Construction	X/X	—	X/—	—	—	—
61B	Pitch Control	X/—	X/—	—	X/—	X/—	X/—
61C	Synchronising	X/—	X/—	—	—	—/X	X/—
61D	Electronic Control	X/X	X/X	X/X	X/X	X/X	X/X
61E	Ice Protection	X/—	X/—	—	X/—	X/—	X/—
61F	Maintenance	X/X	X/X	X/X	X/X	X/X	X/X

Appendix B

Aircraft type practical experience and on-the-job training list of tasks

B.1 Acronyms used in this appendix

Acronym	Description
ABC	Automatic Boost Control
ADF	Automatic Direction Finder
ADI	Attitude Direction Indicator
AMC	Automatic Mixture Control
AMM	Aircraft Maintenance Manual
APU	Auxiliary Power Unit
ATA	Air Transport Association
ATC	Air Traffic Control
AVM	Avionics Monitor
CFDIU	Centralised Fault Display Interface Unit
CMU	Communication Management Unit
DME	Distance Measuring Equipment
ECU	Engine Control Unit
EIS	Electronic Instrument System
ELT	Emergency Locator Transmitter
ESDS	Emergency Shut Down System
FADEC	Full Authority Digital Engine Control
FCU	Flight Control Unit
FDR	Flight Data Recorder
GPS	Global Positioning System
HIRF	High Intensity Radio Frequency
HP	High Pressure
HSI	Horizon Situation Indicator
LRU	Line Replaceable Unit (avionic)
PRT	Power Recovery Turbine
PTU	Parallel Transfer Unit
RPM	Revolutions per Minute
SelCal	Selective Calling System
TAT	Turbine Air Temperature
TCAS	Traffic Alert and Collision Avoidance System
THS	Trimmable Horizontal Stabilizer
VOR	VHF Omni-directional Radio Range

Acronym	Description
VSWR	Voltage Standing Wave Ratio

B.2 ATA 5 Time limits/Maintenance Checks

100 hour check (general aviation aircraft)

“B” or “C” check (transport category aircraft)

Assist carrying out a scheduled maintenance check i.a.w. the Aircraft Maintenance Manual (AMM)

Review Aircraft Maintenance Log for correct completion

Review records for compliance with airworthiness directives

Review records for compliance with aeronautical product life limits

Procedure for inspection following heavy landing

Procedure for inspection following lightning strike

ATA 6 Dimensions/Areas

Locate aeronautical product(s) by zone/station number

Perform symmetry check

ATA 7 Lifting and Shoring

Assist in:

- jack aircraft nose or tail wheel;
- jack complete aircraft; and
- sling or trestle major aeronautical product.

ATA 8 Levelling/Weighing

Level aircraft

Weigh aircraft

Prepare weight and balance amendment

Check aircraft against equipment list

ATA 9 Towing and Taxiing

Prepare aircraft for towing

Tow aircraft

Be part of aircraft towing team

ATA 10 Parking and Mooring

Tie down aircraft

Park, secure and cover aircraft

Position aircraft in maintenance dock

Secure rotor blades

ATA 11 Placards and Markings

Check aircraft for correct placards

Check aircraft for correct markings

ATA 12 Servicing

Refuel aircraft

Defuel aircraft

Carry out tank to tank fuel transfer

Check/adjust tire pressures

Check/replenish oil level

Check/replenish hydraulic fluid level

Check/replenish accumulator pressure

Charge Pneumatic System

Grease aircraft

Connect ground power

Service toilet/potable water system

Perform pre-flight/daily check

ATA 18 Vibration and Noise Analysis

Analyse helicopter vibration problem

Analyse noise spectrum

Analyse engine vibration

ATA 21 Air Conditioning

Replace combustion heater

Replace flow control valve

Replace outflow valve

Replace safety valve

Replace vapour cycle unit

Replace air cycle unit

Replace cabin blower

Replace heat exchanger

Replace pressurisation controller

Clean outflow valves

Deactivate/reactivate cargo isolation valve

Deactivate/reactivate avionics ventilation components

Check operation of Air Conditioning/Heating System

Check operation of Pressurisation System

Troubleshoot faulty system

ATA 22 Auto Flight

Install servos

Rig bridle cables

Replace controller

Replace amplifier

Replacement of the Auto Flight System Line Replaceable Unit (LRUs) in case of the fly-by-wire aircraft

Check operation of auto-pilot

Check operation of auto-throttle/auto-thrust

Check operation of yaw damper

Check and adjust servo clutch

Perform autopilot gain adjustments

Perform mach trim functional check

Troubleshoot faulty system

Check Autoland System

Check Flight Management Systems

Check Stability Augmentation System

ATA 23 Communications

Replace VHF com unit

Replace HF com unit

Replace existing antenna

Replace static discharge wicks

Check operation of radios

Perform antenna Voltage Standing Wave Ratio (VSWR) check

Perform Selective Calling System (SelCal) operational check

Perform operational check of Passenger Address (PA) System

Functionally check Audio Integrating System

Repair coaxial cable

Troubleshoot faulty system

ATA 24 Electrical Power

Charge lead/acid battery

Charge Ni-Cad battery

Check battery capacity

Deep-cycle Ni-Cad battery

Replace integrated drive/generator/alternator

Replace switches

Replace circuit breakers

Adjust voltage regulator

Change voltage regulator

Amend electrical load analysis report

Repair/replace electrical feeder cable

Troubleshoot faulty system

Perform functional check of integrated drive/generator/alternator

Perform functional check of voltage regulator

Perform functional check of Emergency Generation System

ATA 25 Equipment/Furnishings

Replace carpets

Replace crew seats

Replace passenger seats

Check inertia reels

Check seats/belts for security

Check emergency equipment

Check Emergency Locator Transmitter (ELT) for compliance with regulations

Repair toilet waste container

Remove and install ceiling and sidewall panels

Repair upholstery

Change cabin configuration

Replace Cargo Loading System actuator

Test Cargo Loading System

Replace escape slides/ropes

ATA 26 Fire Protection

Check fire bottle contents

Check/test operation of Fire/Smoke Detection and Warning System

Check cabin fire extinguisher contents

Check Lavatory Smoke Detector System

Check cargo panel sealing

Install new fire bottle

Replace fire bottle squib

Troubleshoot faulty system

Inspect Engine Fire Wire Detection Systems

ATA 27 Flight Controls

Inspect primary flight controls and related aeronautical products i.a.w AMM

Extending/retracting flaps and slats

Replace horizontal stabiliser

Replace spoiler/lift dumper

Replace elevator

Deactivation/reactivation of aileron servo control

Replace aileron

Replace rudder

Replace trim tabs

Install control cable and fittings

Replace slats

Replace flaps

Replace powered flying control unit

Replace flap actuator

Rig primary flight controls

Adjust trim tab

Adjust control cable tension

Check control range and direction of movement

Check for correct assembly and locking

Troubleshoot faulty system

Functional test of primary flight controls

Functional test of Flap System

Operational test of the side stick assembly

Operational test of the Trimmable Horizontal Stabilizer (THS)

THS System wear check

ATA 28 Fuel

Water Drain System (operation)

Replace booster pump

Replace fuel selector

Replace fuel tank cells

Replace/test fuel control valves

Replace magnetic fuel level indicators

Replace water drain valve

Check / calculate fuel contents manually

Check filters

Flow Check System

Check calibration of fuel quantity gauges

Check operation feed/selectors

Check operation of Fuel Dump/Jettison System

Fuel transfer between tanks

Pressure de-fuel

Pressure re-fuel (manual control)

Deactivation / reactivation of the fuel valves (transfer de-fuel, X-feed, re-fuel)

Troubleshoot faulty system

ATA 29 Hydraulics

Replace engine driven pump

Check/replace case drain filter

Replace standby pump

Replace hydraulic motor pump/generator

Replace accumulator

Check operation of shut off valve

Check filters/clog indicators

Check Indicating Systems

Perform functional checks

Pressurisation/depressurisation of the Hydraulic System

Parallel Transfer Unit (PTU) operation

Replacement of PTU

Troubleshoot faulty system

ATA 30 Ice and Rain Protection

Replace pump

Replace timer

Inspect repair propeller deice boot

Test Propeller De-icing System

Inspect/test wing leading edge de-icer boot

Replace anti-ice/deice valve

Install wiper motor

Check operation of systems

Operational test of the pitot-probe ice protection

Operational test of the Turbine Air Temperature (TAT) ice protection

Operational test of the Wing Ice Protection System

Assistance to the operational test of the engine air-intake ice protection (engines in operation)

Troubleshoot faulty system

ATA 31 Indicating/Recording Systems

Replace Flight Data Recorder (FDR)

Replace cockpit voice recorder

Replace clock

Replace master caution unit

Replace FDR

Perform FDR data retrieval

Troubleshoot faulty system

Implement Emergency Shut Down System (ESDS) procedures

Inspect for High Intensity Radio Frequency (HIRF) requirements

Start/stop Electronic Instrument System (EIS) procedure

Bite test of the Centralised Fault Display Interface Unit (CFDIU)

Ground scanning of the Central Warning System

ATA 32 Landing Gear

Build up wheel

Replace main wheel

Replace nose wheel

Replace steering actuator

Replace truck tilt actuator

Replace gear retraction actuator

Replace uplock/downlock assembly

Replace shimmy damper

Rig nose wheel steering

Functional test of the Nose Wheel Steering System

Replace shock strut seals

Servicing of shock strut

Replace brake unit

Replace brake control valve

Bleed brakes

Replace brake fan

Test anti-skid unit

Test gear retraction

Change bungees

Adjust micro switches/sensors

Charge struts with oil and air

Troubleshoot faulty system

Test Auto-Brake System

Replace rotorcraft skids

Replace rotorcraft skid shoes

Pack and check floats

Flotation equipment

Check/test emergency blowdown (emergency landing gear extension)

Operational test of the landing gear doors

ATA 33 Lights

Repair/replace rotating beacon

Repair/replace landing lights

Repair/replace navigation lights

Repair/replace interior lights

Replace ice inspection lights

Repair/replace logo lights

Repair/replace Emergency Lighting System

Perform Emergency Lighting System checks

Troubleshoot faulty system

ATA 34 Navigation

Calibrate magnetic direction indicator

Replace airspeed indicator

Replace altimeter

Replace air data computer

Replace VHF Omni-directional Radio Range (VOR) unit

Replace Attitude Direction Indicator (ADI)

Replace Horizontal Situation Indicator (HSI)

Check Pitot Static System for leaks

Check operation of directional gyroscope

Functional check Weather Radar

Functional check Doppler

Functional check Traffic Alert and Collision Avoidance System (TCAS)

Functional check Distance Measuring Equipment (DME)

Functional check Air Traffic Control (ATC) Transponder

ATA 34 Navigation (continued)

Functional check Flight Director System

Functional check Inertial Navigation System

Complete quadrangle error correction of Automatic Direction Finder (ADF) System

Update Flight Management System database

Check calibration of pitot static instruments

Check calibration of Pressure Altitude Reporting System

Troubleshoot faulty system

Check Marker Systems

Compass replacement direct/indirect

Check Satcom

Check Global Positioning System (GPS)

Test Avionics Monitor (AVM)

ATA 35 Oxygen

Inspect on board oxygen equipment

Purge and recharge Oxygen System

Replace regulator

Replace oxygen generator

Test crew Oxygen System

Perform Auto Oxygen System deployment check

Troubleshoot faulty system

ATA 36 Pneumatic Systems

Replace filter

Replace air shut off valve

Replace pressure regulating valve

Replace compressor

Recharge dessicator

Adjust regulator

Check for leaks

Troubleshoot faulty system

ATA 37 Vacuum Systems

Inspect the Vacuum System i.a.w AMM

Replace vacuum pump

Check/replace filters

Adjust regulator

Troubleshoot faulty system

ATA 38 Water/Waste

Replace water pump

Replace tap

Replace toilet pump

Perform water heater functional check

Troubleshoot faulty system

Inspect waste bin flap closure

ATA 45 Central Maintenance System

Retrieve data from the Communication Management Unit (CMU)

Replace CMU

Perform Bite check

Troubleshoot faulty system

ATA 49 Auxiliary Power Unit (APU)

Removal/installation of the APU

Removal/installation of the inlet guide-vane actuator

Operational test of the APU emergency shut-down test

Operational test of the APU

ATA 51 Structures

Assessment of damage

Sheet metal repair

Fibre glass repair

Wooden repair

Fabric repair

Recover fabric control surface

Treat corrosion

Apply protective treatment

ATA 52 Doors

Inspect passenger door i.a.w AMM

Rig/adjust locking mechanism

Adjust Air Stair System

Check operation of emergency exits

Test Door Warning System

Troubleshoot faulty system

Remove and install passenger door i.a.w. AMM

Remove and install emergency exit i.a.w. AMM

Inspect cargo door i.a.w. AMM

ATA 56 Windows

Replace windshield

Replace direct vision window

Replace cabin window

Repair transparency

ATA 57 Wings

Skin repair

Recover fabric wing

Replace tip

Replace rib

Replace integral fuel tank panel

Check incidence/rig

ATA 61 Propeller

Assemble prop after transportation

Replace propeller

Replace governor

Adjust governor

Perform static functional checks

Check operation during ground run

Check track

Check setting of micro switches

Assessment of blade damage i.a.w. AMM

Dynamically balance prop

Troubleshoot faulty system

ATA 62 Main Rotors

Install rotor assembly

Replace blades

Replace damper assembly

Check track

Check static balance

Check dynamic balance

Troubleshoot

ATA 63 Rotor Drive

Replace mast

Replace drive coupling

Replace clutch/freewheel unit

Replace drive belt

Install main gearbox

Overhaul main gearbox

Check gearbox chip detectors

ATA 64 Tail Rotors

Install rotor assembly

Replace blades

Troubleshoot

ATA 65 Tail Rotor Drive

Replace bevel gearbox

Replace universal joints

Overhaul bevel gearbox

Install drive assembly

Check chip detectors

Check/install bearings and hangers

Check/service/assemble flexible couplings

Check alignment of drive shafts

Install and rig drive shafts

ATA 67 Rotorcraft Flight Controls

Install swash plate

Install mixing box

Adjust pitch links

Rig Collective System

Rig Cyclic System

Rig Anti-Torque System

Check controls for assembly and locking

Check controls for operation and sense

Troubleshoot faulty system

ATA 71 Power Plant

Build up Engine Control unit (ECU)

Replace engine

Repair cooling baffles

Repair cowling

Adjust cowl flaps

Repair faulty wiring

Troubleshoot

Assist in dry motoring check

Assist in wet motoring check

Assist in engine start (manual mode)

ATA 72 Piston Engines

Remove/install reduction gear

Check crankshaft run-out

Check tappet clearance

Check compression

Extract broken stud

Install helicoil

Perform ground run

Establish/check reference RPM

Troubleshoot

ATA 72 Turbine Engines

Replace module

Replace fan blade

Hot section inspection/boroscope check

Carry out engine/compressor wash

Carry out engine dry cycle

Engine ground run

Establish reference power

Trend monitoring/gas path analysis

Troubleshoot

ATA 73 Fuel and Control, Piston

Replace engine driven pump

Adjust Automatic Mixture Control (AMC)

Adjust Automatic Boost Control (ABC)

Install carburettor/injector

Adjust carburettor/injector

Clean injector nozzles

Replace primer line

Check carburettor float setting

Troubleshoot faulty system

ATA 73 Fuel and Control, Turbine

Replace Flight Control Unit (FCU)

Replace Engine Electronic Control Unit - Full Authority Digital Engine Control (FADEC)

Replace Fuel Metering Unit (FADEC)

Replace engine driven pump

Clean/test fuel nozzles

Clean/replace filters

Adjust FCU

Troubleshoot faulty system

Functional test of FADEC

ATA 74 Ignition Systems, Piston

Change magneto

Change ignition vibrator

Change plugs

Test plugs

Check H.T. leads

Install new leads

Check timing

Check system bonding

Troubleshoot faulty system

ATA 74 Ignition Systems, Turbine

Perform functional test of the Ignition System

Check glow plugs/ignitors

Check H.T. leads

Check ignition unit

Replace ignition unit

Troubleshoot faulty system

ATA 76 Engine Controls

Rig thrust lever

Rig RPM control

Rig mixture High Pressure (HP) cock lever

Rig power lever

Check control sync (multi-eng)

Check controls for correct assembly and locking

Check controls for range and direction of movement

Adjust pedestal micro-switches

Troubleshoot faulty system

ATA 77 Engine Indicating

Replace engine instruments(s)

Replace oil temperature bulb

Replace thermocouples

Check calibration

Troubleshoot faulty system

ATA 78 Exhaust, Piston

Replace exhaust gasket

Inspect welded repair

Pressure check cabin heater muff

Troubleshoot faulty system

ATA 78 Exhaust, Turbine

Change jet pipe

Change shroud assembly

Install trimmers

Inspect/replace thrust reverser

Replace thrust reverser component

Deactivate/reactivate thrust reverser

Operational test of the Thrust Reverser System

ATA 79 Oil

Change oil

Check filter(s)

Adjust pressure relief valve

Replace oil tank

Replace oil pump

Replace oil cooler

Replace firewall shut off valve

Perform oil dilution test

Troubleshoot faulty system

ATA 80 Starting

Replace starter

Replace start relay

Replace start control valve

Check cranking speed

Troubleshoot faulty system

ATA 81 Turbines, Piston Engines

Replace Power Recovery Turbine (PRT)

Replace turbo-blower

Replace heat shields

Replace waste gate

Adjust density controller

ATA 82 Engine Water Injection

Replace water/methanol pump

Flow check Water/Methanol System

Adjust water/methanol control unit

Check fluid for quality

Troubleshoot faulty system

ATA 83 Accessory Gear Boxes

Replace gearbox

Replace drive shaft

Check inspect magnetic chip detector

Appendix C

Recent work experience record

				LOCATION		TYPE OF ACTIVITY						
TASK	**DATE**	**CATEGORY A / B1 / B2 /**	**A/C TYPE & A/C REGO**	**BASE**	**LINE**	**PERFOM**	**SUPERVISE**	**RELEASE**	**EMPLOYER**	**SUPERVISOR / ASSESSOR / PEER**		**Lic No: (if applicable)**
										SURNAME	**SIGNATURE**	

Note: To knowingly make a false statement is an offence against the *Criminal Code Act 1995*.

I hereby declare that the information given on this form true in every respect.

Signature ……..... Date .....

Appendix D

SAMPLE
OJT experience record log book

OJT experience record - log book

Personal details

SURNAME			
GIVEN NAME(S)			
DATE OF BIRTH			
NATIONALITY			
ADDRESS			
STATE		**POSTCODE**	

Change of address

ADDRESS			
STATE		**POSTCODE**	

ADDRESS			
STATE		**POSTCODE**	

ADDRESS			
STATE		**POSTCODE**	

Qualifications / training

QUALIFICATION/COURSE TITLE	TRAINING ORGANISATION/SCHOOL	START DATE	FINISH DATE
REMARKS			
CERTIFIED BY			

Authorisations / licences

AUTHORISATION / LICENCE	AUTHORISING / LICENSING ORGANISATION	DATE ISSUED

Employment history

EMPLOYER NAME			
ACN No. (if applicable)			
ADDRESS			
TELEPHONE			
START DATE		**FINISH DATE**	
BRIEF DESCRIPTION OF EMPLOYMENT			
SIGNATURE (COMPANY ENDORSED DELEGATE)			

EMPLOYER NAME			
ACN No. (if applicable)			
ADDRESS			
TELEPHONE			
START DATE		**FINISH DATE**	
BRIEF DESCRIPTION OF EMPLOYMENT			
SIGNATURE (COMPANY ENDORSED DELEGATE)			

EMPLOYER NAME			
ACN No. (if applicable)			
ADDRESS			
TELEPHONE			
START DATE		**FINISH DATE**	
BRIEF DESCRIPTION OF EMPLOYMENT			
SIGNATURE (COMPANY ENDORSED DELEGATE)			