

STATE OF LIBYA  
GOVERNMENT OF LIBYA  
MINISTRY OF TRANSPORT  
CIVIL AVIATION AUTHORITY



دولة ليبيا  
الحكومة الليبية  
وزارة المواصلات  
مصلحة الطيران المدني

# LIBYA CIVIL AVIATION REGULATIONS – CONTINUING AIRWORTHINESS

AMC (Acceptable Means of Compliance) & GM (Guidance Material)

## Part 66 AIRCRAFT MAINTENANCE ENGINEER LICENCE

*Initial Issue – August 2016*

## INTRODUCTION

1. The LyCAA has adopted associated compliance or interpretative and guidance materials to all Continuing Airworthiness regulations which establishes technical requirements and administrative procedures to ensure the continuing airworthiness of aircraft and aeronautical products, parts and appliances, the approval of organisations and personnel involved in these tasks. The documents are based on EASA Acceptable Means of Compliance (AMCs) and Guidance Materials (GMs)
2. Unless specifically stated otherwise, clarification will be based on this material or other EASA documentation, therefore, reference to EASA in this document may still be used for clarification and guidance.
3. The information contained herein is subject to constant review in the light of changing regulations and requirements. No subscriber or other reader should act on the basis of any such information without also referring to the applicable laws and regulations and/or without taking appropriate professional advice when/as indicated/required. Although, every effort has been made to ensure accuracy, the Libyan Civil Aviation Authority, shall not be held responsible for loss or damage caused by errors, omissions, misprints or misinterpretation of the contents hereof.
4. Copies of this publication can be obtained from the following address:  
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Signed on 30 August 2016, by:



*30-8-16*  
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## SECTION A TECHNICAL REQUIREMENTS

### SUBPART A — AIRCRAFT MAINTENANCE ENGINEER LICENCE

#### GM 66.A.3 Licence categories

Individual aircraft maintenance engineer licence holders need to be restricted to a single category. Provided that each qualification requirement is satisfied, any combination of categories may be granted.

#### AMC 66.A.10 Application

1. Maintenance experience should be written up in a manner that the reader has a reasonable understanding of where, when and what maintenance constitutes the experience. A task by task account is not necessary but at the same time a bland statement 'X years maintenance experience completed' is not acceptable. A log book of maintenance experience is desirable. It is acceptable to cross refer in the LYCAA Form 19 to other documents containing information on maintenance.
2. Applicants claiming the maximum reduction in 66.A.30(a) total experience based upon having successfully completed 147.A.200 approved basic training should include the LYCAR.147 certificate of recognition for approved basic training.
3. Applicants claiming reduction in 66.A.30(a) total experience based upon having successfully completed technical training in an organisation or institute recognised by the LYCAA as a competent organisation or institute, should include the relevant certificate of successful completion of training.

#### AMC 66.A.15 Eligibility

1. Medical requirements: The holder of a licence or certificate issued under this Part shall not exercise the privileges of that licence or certificate while that person has a known medical deficiency, or aggravation of a known medical deficiency, which may affect the safe performance of her/his duties or constitute a risk to that person, other persons, or property.
2. Offences involving alcohol or drugs: A conviction for any offence relating to alcohol or drugs abuse, or refusal to submit to any lawful test for alcohol or drugs, shall be valid grounds to determine whether a person remains eligible to hold a licence. Such conviction may result in a refusal to grant a licence, suspend, or revoke an already granted licence.

#### GM 66.A.20(a) Privileges

1. The following definitions apply:

**Electrical system** means the aircraft electrical power supply source, plus the distribution system to the different components contained in the aircraft and relevant connectors. Lighting systems are also included in this definition. When working on cables and connectors which are part of these electrical systems, the following typical practices are included in the privileges:

- Continuity, insulation and bonding techniques and testing;
- Crimping and testing of crimped joints;
- Connector pin removal and insertion;
- Wiring protection techniques.

**Avionics system** means an aircraft system that transfers, processes, displays or stores analogue or digital data using data lines, data buses, coaxial cables, wireless or other data transmission medium, and includes the system's components and connectors. Examples of avionics systems include the following:

- Autoflight;

- Communication, Radar and Navigation;
- Instruments (see NOTE below);
- In Flight Entertainment Systems;
- On-Board Maintenance Systems;
- Information Systems;
- Fly by Wire Systems (related to ATA27 'Flight Controls');
- Fibre Optic Control Systems.

*NOTE: Instruments are formally included within the privileges of the B2 licence holders. However, maintenance on electromechanical and pitot-static components may also be released by a B1 license holder.*

**Simple test** means a test described in approved maintenance data and meeting all the following criteria:

- The serviceability of the system can be verified using aircraft controls, switches, Built-in Test Equipment (BITE), Central Maintenance Computer (CMC) or external test equipment not involving special training.
- The outcome of the test is a unique go – no go indication or parameter, which can be a single value or a value within an interval tolerance. No interpretation of the test result or interdependence of different values is allowed.
- The test does not involve more than 10 actions as described in the approved maintenance data (not including those required to configure the aircraft prior to the test, i.e. jacking, flaps down, etc, or to return the aircraft to its initial configuration). Pushing a control, switch or button, and reading the corresponding outcome may be considered as a single step even if the maintenance data shows them separated.

**Troubleshooting** means the procedures and actions necessary, using approved maintenance data, in order to identify the root cause of a defect or malfunction. It may include the use of BITE or external test equipment.

**Line maintenance** means any maintenance that is carried out before flight to ensure that the aircraft is fit for the intended flight. It may include:

- trouble shooting;
- defect rectification;
- component replacement with use of external test equipment, if required. Component replacement may include components such as engines and propellers;
- scheduled maintenance and/or checks including visual inspections that will detect obvious unsatisfactory conditions/discrepancies but do not require extensive in depth inspection. It may also include internal structure, systems and powerplant items which are visible through quick opening access panels/doors;
- minor repairs and modifications which do not require extensive disassembly and can be accomplished by simple means;
- for temporary or occasional cases (Airworthiness Directives, hereinafter AD; service bulletins, hereinafter SB) the quality manager may accept base maintenance tasks to be performed by a line maintenance organisation provided all requirements are fulfilled. LYCAA will prescribe the conditions under which these tasks may be performed.

**Base Maintenance** means any task falling outside the criteria that are given above for Line Maintenance.

***NOTE:*** Aircraft maintained in accordance with ‘progressive’ type programmes need to be individually assessed in relation to this paragraph. In principle, the decision to allow some ‘progressive’ checks to be carried out is determined by the assessment that all tasks within the particular check can be carried out safely to the required standards at the designated line maintenance station.

2. The category B3 licence does not include any A subcategory. Nevertheless, this does not prevent the B3 licence holder from releasing maintenance tasks typical of the A1.2 subcategory for piston-engine non-pressurized aeroplanes of 2 000 kg MTOM and below, within the limitations contained in the B3 licence.
3. The category C licence permits certification of scheduled base maintenance by the issue of a single certificate of release to service for the complete aircraft after the completion of all such maintenance. The basis for this certification is that the maintenance has been carried out by competent engineers and category B1, B2 and B3 support staff, as appropriate, have signed for the maintenance tasks under their respective specialisation. The principal function of the category C certifying staff is to ensure that all required maintenance has been called up and signed off by the category B1, B2 and B3 support staff, as appropriate, before issue of the certificate of release to service. Only category C personnel who also hold category B1, B2 or B3 qualifications may perform both roles in base maintenance.

### **AMC 66.A.20(b)2 Privileges**

The 6 months maintenance experience in 2 years should be understood as consisting of two elements, duration and nature of the experience. The minimum to meet the requirements for these elements may vary depending on the size and complexity of the aircraft and type of operation and maintenance.

#### 1. Duration:

Within an approved maintenance organization:

- 6 months continuous employment within the same organisation; or
- 6 months split up into different blocks, employed within the same or in different organisations.

The 6 months period can be replaced by 100 days of maintenance experience in accordance with the privileges, whether they have been performed within an approved organisation or as independent certifying staff according to M.A.801(b)2, or as a combination thereof.

#### 2. Nature of the experience:

Depending on the category of the aircraft maintenance licence, the following activities are considered relevant for maintenance experience:

- Servicing;
- Inspection;
- Operational and functional testing;
- Trouble-shooting;
- Repairing;
- Modifying;
- Changing component;
- Supervising these activities;
- Releasing aircraft to service.

For category A licence holders, the experience should include exercising the privileges, by means of performing tasks related to the authorization on at least one aircraft type for each licence subcategory. This means tasks as mentioned in AMC 145.A.30(g), including servicing, component changes and simple defect rectifications.

For category B1, B2 and B3, for every aircraft included in the authorization the experience should be on that particular aircraft or on a similar aircraft within the same licence (sub)category. Two aircraft can be considered as similar when they have similar technology, construction and comparable systems, which means equally equipped with the following (as applicable to the licence category):

- Propulsion systems (piston, turboprop, turbofan, turboshaft, jet-engine or push propellers); and
- Flight control systems (only mechanical controls, hydro-mechanically powered controls or electro-mechanically powered controls); and
- Avionic systems (analogue systems or digital systems); and
- Structure (manufactured of metal, composite or wood). For licences endorsed with (sub)group ratings:
  - In the case of B1 licence endorsed with (sub)group ratings (either manufacturer sub-group or full (sub)group) as defined in 66.A.45 the holder should show experience on at least one aircraft type per (sub)group and per aircraft structure (metal, composite, wood).
  - In the case of a B2 licence endorsed with (sub)group ratings (either manufacturer subgroup or full (sub)group) as defined in 66.A.45 the holder should show experience on at least one aircraft type per (sub)group.
  - In the case of a B3 licence endorsed with the rating 'piston-engine non-pressurized aeroplanes of 2000kg MTOM and below' as defined in 66.A.45, the holder should show experience on at least one aircraft type per aircraft structure (metal, composite, wooden).

For category C, the experience should cover at least one of the aircraft types endorsed on the licence.

For a combination of categories, the experience should include some activities of the nature shown in paragraph 2 in each category.

A maximum of 20% of the experience duration required may be replaced by the following relevant activities on an aircraft type of similar technology, construction and with comparable systems:

- Aircraft maintenance related training as an instructor/assessor or as a student;
- Maintenance technical support/engineering;
- Maintenance management/planning.

The experience should be documented in an individual log book or in any other recording system

(which may be an automated one) containing the following data:

- Date;
- Aircraft type;
- Aircraft identification i.e. registration;
- ATA chapter (optional);
- Operation performed i.e. 100 FH check, MLG wheel change, engine oil check and complement, SB embodiment, trouble shooting, structural repair, STC embodiment...;
- Type of maintenance i.e. base, line;
- Type of activity i.e. perform, supervise, release;
- Category used A, B1, B2, B3 or C.
- Duration in days or partial-days.

### **GM 66.A.20(b)2 Privileges**

The sentence '*met the provision for the issue of the appropriate privileges*' included in 66.A.20(b)2 means that during the previous 2 years the person has met all the requirements for the endorsement of the corresponding aircraft rating (for example, in the case of aircraft in Group 1, theoretical plus practical element plus, if applicable,

on-the-job training). This supersedes the need for 6 months of experience for the first 2 years. However, the requirement of 6 months of experience in the preceding 2 years will need to be met after the second year.

### **AMC 66.A.20(b)3 Privileges**

The wording '*has the adequate competence to certify maintenance on the corresponding aircraft*' means that the licence holder and, if applicable, the organisation where he/she is contracted/employed, should ensure that he/she has acquired the appropriate knowledge, skills, attitude and experience to release the aircraft being maintained. This is essential because some systems and technology present in the particular aircraft being maintained may not have been covered by the training/examination/experience required to obtain the licence and ratings.

This is typically the case, among others, in the following situations:

- Type ratings which have been endorsed on a licence in accordance with Appendix I to AMC to LYCAR.66

'List of Type Ratings' after attending type training/on-the-job training which did not cover all the models/variants included in such rating. For example, a licence endorsed with the rating Airbus A318/A319/A320/A321 (CFM56) after attending type training/on-the-job training covering only the Airbus 320 (CFM56).

- Type ratings which have been endorsed on a licence in accordance with Appendix I to AMC to LYCAR.66

'List of Type Ratings' after a new variant has been added to the rating in Appendix I, without performing difference training. For example, a licence endorsed with the rating Boeing 737-600/700/800/900 for a person who already had the rating Boeing 737-600/700/800, without performing any difference training for the 737-900.

- Work being carried out on a model/variant for which the technical design and maintenance techniques have significantly evolved from the original model used in the type training/on-the-job training.
- Specific technology and options selected by each customer which may not have been covered by the type training/on-the-job training.
- Changes in the basic knowledge requirements of Appendix I to LYCAR.66 not requiring re-examination of existing licence holders (grandfathered privileges).
- The endorsement of group/subgroup ratings based on experience on a representative number of tasks/aircraft or based on type training/examination on a representative number of aircraft.
- Persons meeting the requirements of 6 months of experience every 2 years only on certain similar aircraft types as allowed by AMC 66.A.20(b)2.
- Persons holding a LYCAR. LYCAR.66 licence with limitations, obtained through conversion of qualifications (66.A.70), where such limitations are going to be lifted after performing the corresponding basic knowledge examinations. In this case, the type ratings endorsed in the licence may have been obtained without covering all the aircraft systems (because of the previous limitations) and there will be a need to assess and, if applicable, to train this person on the missing systems.

Additional information is provided in AMC 145.A.35(a).

### **GM 66.A.20(b)4 Privileges**

1. Holders of a LYCAR.66 aircraft maintenance engineer licence may not exercise certification privileges unless they have a general knowledge of the language used within the maintenance environment including knowledge of common aeronautical terms in the language. The level of knowledge should be such that the licence holder is able to:

- read and understand the instructions and technical manuals used for the performance of maintenance;
  - make written technical entries and any maintenance documentation entries, which can be understood by those with whom they are normally required to communicate;
  - read and understand the maintenance organisation procedures;
  - communicate at such a level as to prevent any misunderstanding when exercising certification privileges.
2. In all cases, the level of understanding should be compatible with the level of certification privileges exercised.

### **AMC 66.A.25 Basic knowledge requirements**

For an applicant being a person qualified by holding an academic degree in an aeronautical, mechanical or electronic discipline from a recognised university or other higher educational institute the need for any examination will depend upon the course taken in relation to Appendix I to LYCAR.66.

### **GM 66.A.25(a) Basic knowledge requirements**

The levels of knowledge for each licence (sub)category are directly related to the complexity of the certifications related to the corresponding licence (sub)category, which means that category A should demonstrate a limited but adequate level of knowledge, whereas category B1, B2 and B3 should demonstrate a complete level of knowledge in the appropriate subject modules.

### **AMC 66.A.30(a) Basic experience requirements**

1. For a category C applicant holding an academic degree the representative selection of tasks should include the observation of hangar maintenance, maintenance planning, quality assurance, record- keeping, approved spare parts control and engineering development.
2. While an applicant to a category C licence may be qualified by having 6 years experience as category B1 or B2 certifying staff only in line maintenance, it is however recommended that any applicant to a category C holding a B1 or B2 licence demonstrate at least 24 months experience as a B1 or B2 support staff.
3. Maintenance experience on operating aircraft:
  - Means the experience of being involved in maintenance tasks on aircraft which are being operated by airlines, owners, etc;
  - Should cover a wide range of tasks in length, complexity and variety;
  - Aims at gaining sufficient experience in the real environment of maintenance as opposed to only the training school environment.
  - May be gained within different types of maintenance organisations (LYCAR.145, EASA.Part-145, M.A. Subpart F, FAR-145, etc);
  - May be combined with LYCAR.147 approved training so that periods of training can be intermixed with periods of experience, similar to an apprenticeship.

### **AMC 66.A.30(d) Basic experience requirements**

To be considered as recent experience; at least 50% of the required 12-month recent experience should be gained within the 12 month period prior to the date of application for the aircraft maintenance licence. The remainder of the recent experience should have been gained within the 7-year period prior to application. It must be noted that the rest of the basic experience required by 66.A.30 must be obtained within the 10 years prior to the application as required by 66.A.30(f).

### **GM 66.A.40 Continued validity of the aircraft maintenance engineer licence**

The validity of the aircraft maintenance engineer licence is not affected by recency of maintenance experience whereas the validity of the 66.A.20 privileges is affected by maintenance experience as specified in 66.A.20(a).

### **GM 66.A.45(b) Endorsement with aircraft ratings**

An aircraft type rating includes all the aircraft models/variants listed in column 2 of Appendix I to AMC to LYCAR.66.

When a person already holds a type rating on the licence and such type rating is amended in the Appendix I to AMC to LYCAR.66 in order to include additional models/variants, there is no need for additional type training for the purpose of amending the type rating in the licence. The rating should be amended to include the new variants, upon request by the applicant, without additional requirements. However, it is the responsibility of the licence holder and, if applicable, the maintenance organisation where he/she is employed to comply with 66.A.20(b)3, 145.A.35(a) and M.A.607(a), as applicable, before he/she exercises certification privileges.

Similarly, type training courses covering certain, but not all the models/variants included in a type rating, are valid for the purpose of endorsing the full type rating.

### **AMC 66.A.45(e) Endorsement with aircraft ratings**

1. For the granting of manufacturer subgroup ratings for Group 2 aircraft, for B1 and C licence holders, the sentence 'at least two aircraft types from the same manufacturer which combined are representative of the applicable manufacturer subgroup' means that the selected aircraft types should cover the technologies relevant to the manufacturer subgroup in the following areas:
  - Flight control systems (mechanical controls/hydraulically powered controls / electromechanically powered controls); and
  - Avionic systems (analogue systems / digital systems); and
  - Structure (manufactured of metal / composite / wood).

In cases where there are very different aircraft types within the same manufacturer subgroup, it may be necessary to cover more than two aircraft types to ensure adequate representation.

For this purpose it may be possible to use aircraft types from the same manufacturer classified in Group 1 as long as the selected aircraft belong to the same licence subcategory for which the rating will be endorsed.

2. For the granting of full subgroup ratings for Group 2 aircraft, for B1 and C licence holders, the sentence 'at least three aircraft types from different manufacturers which combined are representative of the applicable subgroup' means that the selected aircraft types should cover all the technologies relevant to the manufacturer subgroup in the following areas:
  - Flight control systems (mechanical controls/hydraulically powered controls / electromechanically powered controls); and
  - Avionic systems (analogue systems / digital systems); and
  - Structure (manufactured of metal / composite / wood).

In cases where there are very different aircraft types within the same subgroup, it may be necessary to cover more than three aircraft types to ensure adequate representation.

For this purpose it may be possible to use aircraft types from different manufacturers classified in Group 1 as long as the selected aircraft belong to the same licence subcategory for which the rating will be endorsed.

3. For manufacturer subgroup ratings, the term ‘manufacturer’ means the TC holder defined in the certification data sheet, which is reflected in the list of type ratings in Appendix I to AMC to LYCAR.66.

In the case of an aircraft rating where the type rating refers to a TC holder made of a combination of two manufacturers which produce a similar aircraft (i.e. AGUSTA / BELL HELICOPTER TEXTRON or any case of aircraft similarly built by another manufacturer) this combination should be considered as one manufacturer.

As a consequence:

- When a licence holder gets a manufacturer type or a manufacturer subgroup rating made of a combination of manufacturers, it covers the combination of such manufacturers.
- When a licence holder who intends to endorse a full subgroup rating selects three aircraft from different manufacturers, this means from different combinations of manufacturers as applicable.

### **AMC 66.A.45(d), (e)3, (f)1 and (g)1 Endorsement with aircraft ratings**

1. The ‘practical experience’ should cover a representative cross section including at least 50% of tasks contained in Appendix II to AMC relevant to the licence category and to the applicable aircraft type ratings or aircraft (sub)group ratings being endorsed. This experience should cover tasks from each paragraph of the Appendix II list. Other tasks than those in the Appendix II may be considered as a replacement when they are relevant. In the case of (sub)group ratings, this experience may be shown by covering one or several aircraft types of the applicable (sub)group and may include experience on aircraft classified in group 1, 2 and/or 3 as long as the experience is relevant. The practical experience should be obtained under the supervision of authorised certifying staff.
2. In the case of endorsement of individual type ratings for Group 2 and Group 3 aircraft, for the second aircraft type of each manufacturer (sub)group the practical experience should be reduced to 30% of the tasks contained in Appendix II to AMC relevant to the licence category and to the applicable aircraft type. For subsequent aircraft types of each manufacturer (sub) group this should be reduced to 20%.
3. Practical experience should be demonstrated by the submission of records or a log book showing the Appendix II tasks performed by the applicant. Typical data to be recorded are similar to those described in AMC 66.A.20(b)2.

### **GM 66.A.45 Endorsement with aircraft ratings**

The following table shows a summary of the aircraft rating requirements contained in 66.A.45, 66.A.50 and Appendix III to LYCAR.66. The table contains the following:

- The different aircraft groups.
- For each licence (sub)category, which ratings are possible (at the choice of the applicant):
  - Individual type ratings.
  - Full and/or Manufacturer (sub)group ratings
- For each rating option, which are the qualification options.
- For the B1.2 licence (Group 3 aircraft) and for the B3 licence (piston-engine non-pressurized aeroplanes of 2 000 kg MTOM and below), which are the possible limitations to be included in the licence if not sufficient experience can be demonstrated in those areas.

*Note: OJT means ‘On-the-Job Training’ (Appendix III to LYCAR.66, Section 6) and is only required for the first aircraft rating in the licence (sub)category.*

Aircraft rating requirements			
Aircraft Groups	B1/B3 licence	B2 licence	C licence
<p>Group 1</p> <ul style="list-style-type: none"> <li>— Large Aircraft.</li> <li>— Multiple engine helicopters.</li> <li>— Aeroplanes certified above FL290.</li> <li>— Aircraft equipped with fly-by-wire.</li> <li>— Other aircraft when defined by the Agency.</li> </ul>	<p>(For B1)</p> <p>Individual TYPE RATING</p> <p>Type training:</p> <ul style="list-style-type: none"> <li>- Theory + examination</li> <li>- Practical + assessment</li> </ul> <p>PLUS OJT (for first aircraft in licence subcategory)</p>	<p>Individual TYPE RATING</p> <p>Type training:</p> <ul style="list-style-type: none"> <li>- Theory + examination</li> <li>- Practical + assessment</li> </ul> <p>PLUS OJT (for first aircraft in licence subcategory)</p>	<p>Individual TYPE RATING</p> <p>Type training:</p> <ul style="list-style-type: none"> <li>- Theory + examination</li> </ul>
<p>Group 2</p> <p>Subgroups: <u>2a</u>: single turboprop aeroplanes (*)</p> <p><u>2b</u>: single turbine engine helicopters (*)</p> <p><u>2c</u>: single piston engine helicopters (*)</p> <p>(*) Except those classified in Group 1.</p>	<p>(For B1.1, B1.3, B1.4)</p> <p>Individual TYPE RATING (type training + OJT) or (type examination + practical experience)</p> <p>Full SUBGROUP RATING (type training + OJT) or (type examination + practical experience) on at least 3 aircraft representative of that subgroup</p> <p>Manufacturer SUBGROUP RATING (type training + OJT) or (type examination + practical experience) on at least 2 aircraft representative of that manufacturer subgroup</p>	<p>Individual TYPE RATING (type training + OJT) or (type examination + practical experience)</p> <p>Full SUBGROUP RATING based on demonstration of practical experience</p> <p>Manufacturer SUBGROUP RATING based on demonstration of practical experience</p>	<p>Individual TYPE RATING type training or type examination</p> <p>Full SUBGROUP RATING type training or type examination on at least 3 aircraft representative of that subgroup</p> <p>Manufacturer SUBGROUP RATING type training or type examination on at least 2 aircraft representative of that manufacturer subgroup</p>

<p>Group3 Piston engine aeroplanes (except those classified in Group 1)</p>	<p>(For B1.2) Individual TYPE RATING (type training + OJT) or (type examination + practical experience)  Full GROUP 3 RATING based on demonstration of practical experience Limitations: <input type="checkbox"/> Pressurized aeroplanes <input type="checkbox"/> Metal aeroplanes <input type="checkbox"/> Composite aeroplanes <input type="checkbox"/> Wooden aeroplanes <input type="checkbox"/> Metal tubing &amp;</p>	<p>Individual TYPE RATING (type training + OJT) or (type examination + practical experience)  Full GROUP 3 RATING based on demonstration of appropriate experience</p>	<p>Individual TYPE RATING type training or type examination  Full GROUP 3 RATING based on demonstration of practical experience</p>
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Aircraft rating requirements			
Aircraft Groups	B1/B3 licence	B2 licence	C licence
Piston-engine non-pressurized aeroplanes of 2 000 kg MTOM and below	(For B3)  FULL RATING "Piston-engine non-pressurized aeroplanes of 2 000 kg MTOM and below"  based on demonstration of practical experience Limitations: <input type="checkbox"/> Metal aeroplanes <input type="checkbox"/> Composite aeroplanes <input type="checkbox"/> Wooden aeroplanes <input type="checkbox"/> Metal tubing &	Not applicable	Not applicable

**AMC 66.A.50(b) Limitations**

1. The appropriate experience required to remove the limitations referred in 66.A.45(f) and (g) should consist of the performance of a variety of tasks appropriate to the limitations under the supervision of authorised certifying staff. This should include the tasks required by a scheduled annual inspection. Alternatively, this experience may also be gained, if agreed by the LYCAA , by theoretical and practical training provided by the manufacturer, as long as an assessment is further carried out and recorded by this manufacturer.
2. It may be acceptable to have this experience on just one aircraft type, provided this type is representative of the (sub) group in relation to the limitation being removed.
3. The application for the limitation removal should be supported by a record of experience signed by the authorised certifying staff or by an assessment signed by the manufacturer after completion of the applicable theoretical and practical training.

**GM 66.A.70 Conversion provisions**

1. As described in point 66.A.70, the conversion provisions apply to the holder of a certifying staff qualification valid in an ICAO Contracting Member State prior to the date of entry into force of LYCAR.66. The sentence ‘the holder of a certifying staff qualification valid in an ICAO Contracting Member State ’ means any person who had a qualification valid in the ICAO Contracting Member State allowing that person the performance of activities identical to the privileges of ‘certifying staff’. This means that the signature of that person was sufficient to declare that the maintenance had been properly performed and the aircraft was ready for service and fit for flight in respect to such maintenance.

This should not been mistaken with the responsibilities linked to the airworthiness review, which was performed at different periods. This is an activity which is performed at very specific points of time and not after every maintenance activity. Since an airworthiness review is not performed after every maintenance event before the aircraft takes flight, an airworthiness review cannot be considered as a maintenance release. This means that the conversion provisions described in 66.A.70 are not applicable to persons performing airworthiness review functions unless their signature was required after every maintenance event before the aircraft can take flight.

2. The conversion applies to ‘certifying staff qualifications’ such as, for example:
- Holding a national licence (or completed the process to obtain such a national licence);
  - Holding a foreign licence in full compliance with ICAO Annex I;
  - Having completed a qualification process defined by the LYCAA to become certifying staff;
  - Having completed the qualification requirements for certifying staff within a maintenance organisation, as defined in their procedures.

This does not mean that in order to be entitled to a conversion process, the applicant has to be exercising certification privileges. A person may hold a ‘certifying staff qualification’ while not having certification privileges (or while exercising very limited certification privileges below his/her qualification) for different reasons such as, for example, the following:

- The person is working as ‘support staff’ in the base maintenance environment;
- The person has been authorised only for a very limited range of tasks (lower than what he/she would be entitled if his/her qualification is considered) since the person is working in a line station where the scope of tasks is very limited;
- The person holds a licence with a wider scope than the scope of the organisation where he/she is employed;
- The person is working outside the aviation industry or is temporarily on leave due to different reasons (medical, personal, etc).

These persons are entitled to have the conversion performed in accordance with the full scope of their qualification and the full privileges that they would be entitled to hold on the basis of such qualification.

3. As described in point 66.A.70, certifying staff qualifications eligible for conversion are those valid ‘prior to the date of entry into force of LYCAR.66’,.
4. Although only those certifying staff qualifications gained prior to the dates indicated above are eligible for conversion, this does not mean that the application for conversion has to be submitted prior to those dates. The applicant is entitled to have the conversion performed irrespective of when he/she applies for conversion.
5. A certifying staff qualification can be subject to more than one conversion process and can also be converted to more than one licence (with any applicable limitations). This could be the case, for example, of a person who already had the certifying staff qualification converted to a B1.2 licence with limitations linked to some missing elements of the LYCAR.66 Appendix I and II standard (following 66.A.70(c)). This person would be entitled to apply and have his/her certifying staff qualification converted to a B1.2 or a B3 licence on the basis of 66.A.70(d), which would mean no need to compare with the LYCAR.66 Appendix I and II standard, introducing only those limitations required in order to maintain the existing privileges.

### **GM 66.A.70(c) Conversion provisions**

For example, a limitation could be where a person holds a pre-existing certifying staff qualification which covered, to the standard of LYCAR.66 Appendix I and II, all the modules/subjects corresponding to the B1 licence except for electrical power systems. This person would be issued a LYCAR.66 aircraft maintenance licence in the B1 category with a limitation (exclusion) on electrical power systems.

For removal of limitations, refer to 66.A.50(c).

### **GM 66.A.70(d) Conversion provisions**

In the case of aircraft not involved in commercial air transport other than large aircraft, an example of limitations could be where a person holds a pre LYCAR.66 qualification which covered privileges to release work performed on aircraft structures, powerplant, mechanical and electrical systems but excluded privileges on aircraft equipped with turbine engine, aircraft above 2 000 kg MTOM, pressurized aircraft and aircraft equipped with retractable landing gear. This person would be issued a LYCAR.66 aircraft maintenance licence in the B1.2 or B3 (sub)category with the following limitations (exclusions):

- Aircraft involved in commercial air transport (this limitation always exists);
- Aircraft above 2 000 kg MTOM;
- Pressurized aircraft;
- Aircraft equipped with retractable landing gear.

**AMC TO APPENDICES TO LYCAR.66****AMC to Section 1 of Appendix III to LYCAR.66‘ Aircraft Type Training and Examination Standard.- On-the- Job training’**

## Aircraft Type Training

1. Aircraft type training may be sub-divided in airframe and/or powerplant and/or avionics/electrical systems type training courses.
  - Airframe type training course means a type training course including all relevant aircraft structure and electrical and mechanical systems excluding the powerplant.
  - Powerplant type training course means a type training course on the bare engine, including the build-up to a quick engine change unit.
  - The interface of the engine/airframe systems should be addressed by either airframe or powerplant type training course. In some cases, such as for general aviation, it may be more appropriate to cover the interface during the airframe course due to the large variety of aircraft that can have the same engine type installed.
  - Avionics/electrical systems type training course means type training on avionics and electrical systems covered by but not necessarily limited to ATA (Air Transport Association) Chapters 22, 23, 24, 25, 27, 31, 33, 34, 42, 44, 45, 46, 73 and 77 or equivalent.
2. Practical training may be performed either following or integrated with the theoretical elements. However, it should not be performed before theoretical training.
3. The content of the theoretical and practical training should:
  - address the different parts of the aircraft which are representative of the structure, the systems/components installed and the cabin; and
  - include training on the use of technical manuals, maintenance procedures and the interface with the operation of the aircraft.
  - Therefore it should be based on the following elements:
    - Type design including relevant type design variants, new technology and techniques;
    - Feedback from in-service difficulties, occurrence reporting, etc;
    - Significant applicable airworthiness directives and service bulletins;
    - Known human factor issues associated with the particular aircraft type;
    - Use of common and specific documentation, (when applicable, such as MMEL, AMM, MPD, TSM, SRM, WD, AFM, tool handbook), philosophy of the troubleshooting, etc.;
    - Knowledge of the maintenance on-board reporting systems and ETOPS maintenance conditions where applicable;
    - Use of special tooling and test equipment and specific maintenance practises including critical safety items and safety precautions; limitation items (ALI) including Critical Design Configuration Control Limitations (CDCCL), CMR and all ICA documentation such as MRB, MPD, SRM, AMM, etc., when applicable.
    - Significant and critical tasks/aspects from the MMEL, CDL, Fuel Tank Safety (FTS), airworthiness limitation items (ALI) including Critical Design Configuration Control Limitations (CDCCL), CMR and all ICA documentation such as MRB, MPD, SRM, AMM, etc., when applicable.
    - Maintenance actions and procedures to be followed as a consequence of specific certification requirements, such as, but not limited to, RVSM (Reduced Vertical Separation Minimum) and NVIS (Night Vision Imaging Systems);
    - Knowledge of relevant inspections and limitations as applicable to the effects of environmental factors or operational procedures such as cold and hot climates, wind, moisture, sand, de-icing / anti-icing, etc.

The type training does not necessarily need to include all possible customer options corresponding to the type rating described in the Appendix I to AMC to LYCAR.66.

4. Limited avionic system training should be included in the category B1 type training as the B1 privileges include work on avionics systems requiring simple tests to prove their serviceability.
5. Electrical systems should be included in both categories of B1 and B2 type training.

6. The theoretical and practical training should be complementary and may be:
  - Integrated or split
  - Supported by the use of training aids, such as trainers, virtual aircraft, aircraft components, synthetic training devices (STD), computer based training devices (CBT), etc.

### **AMC to Paragraph 3.1(d) of Appendix III to LYCAR.66 ‘Aircraft Type Training and Examination Standard. On-the-Job Training’**

Training Needs Analysis for the Theoretical Element of the Aircraft Type Training

1. The minimum duration for the theoretical element of the type rating training course, as described in Appendix III to LYCAR.66, has been determined based on:
  - generic categories of aircraft and minimum standard equipment fit
  - the estimated average duration of standard courses imparted in Europe
2. The purpose of the Training Needs Analysis (TNA) is to adapt and justify the duration of the course for a specific aircraft type. This means that the TNA is the main driver for determining the duration of the course, regardless of whether it is above or below the minimum duration described in Appendix III to LYCAR.66.

In the particular case of type training courses approved on the basis of the requirements valid before this Regulation comes in force, and having a duration for the theoretical element equal to or above the minimum duration contained in paragraph 3.1(c) of Appendix III to LYCAR.66, it is acceptable that the TNA only covers the differences introduced in paragraph 3.1(e) ‘Content’ and the criteria introduced in paragraph 3.1(d) ‘Justification of course duration’ related to the minimum attendance and the maximum number of training hours per day. This TNA may result in a change in the duration of the theoretical element.

3. The content and the duration deriving from this TNA may be supported by an analysis from the Type Certificate holder.
4. In order to approve a reduction of such minimum duration, the evaluation done by the LYCAA should be performed on a case-by-case basis appropriate to the aircraft type. For example, while it would be exceptional for a theoretical course for a large transport category aircraft such as an A330 or B757 to be below the minimum duration shown, it would not necessarily be exceptional in the case of a General Aviation (GA) business aircraft such as a Learjet 45 or similar. Typically the TNA for a GA aircraft course would demonstrate that a course of a shorter duration satisfies the requirements.
5. When developing the TNA the following should be considered:
  - (a) The TNA should include an analysis identifying all the areas and elements where there is a need for training as well as the associated learning objectives, considering the design philosophy of the aircraft type, the operational environment, the type of operations and the operational experience. This analysis should be written in a manner which provides a reasonable understanding of which areas and elements constitute the course in order to meet the learning objectives.
  - (b) As a minimum, the Training Need Analysis (TNA) should take into account all the applicable elements contained in paragraph 3.1 of LYCAR.66 Appendix III and associated AMCs.
  - (c) The TNA should set-up the course content considering the Appendix III objectives for each level of training and the prescribed topics in the theoretical element table contained in paragraph 3.1 of LYCAR.66 Appendix III.
  - (d) For each chapter described in the theoretical element table contained in paragraph 3.1 of LYCAR.66 Appendix III, the corresponding training time should be recorded.
  - (e) Typical documents to be used in order to identify the areas and elements where there is a need for training typically include, among others, the Aircraft Maintenance Manual, MRB report, CMRs, airworthiness limitations, Troubleshooting Manual, Structural Repair Manual, Illustrated Parts Catalogue, Airworthiness Directives and Service Bulletins.
  - (f) During the analysis of these documents:
    - Consideration should be given to the following typical activities:

- Activation/reactivation;
  - Removal/Installation;
  - Testing;
  - Servicing;
  - Inspection, check and repairs;
  - Troubleshooting / diagnosis.
- For the purpose of identifying the specific elements constituting the training course, it is acceptable to use a filtering method based on criteria such as:
- Frequency of the task;
  - Human factor issues associated to the task;
  - Difficulty of the task;
  - Criticality and safety impact of the task;
  - In-service experience;
  - Novel or unusual design features (not covered by LYCAR.66 Appendix I);
  - Similarities with other aircraft types;
  - Special tests and tools/equipment.
- It is acceptable to follow an approach based on:
- Tasks or groups of tasks, or
  - Systems or subsystems or components
- (g) The TNA should:
- Identify the learning objectives for each task, group of tasks, system, subsystem or component;
  - Associate the identified tasks to be trained to the regulatory requirements (table in Paragraph 3.1 of Appendix III to LYCAR.66);
  - Organise the training into modules in a logical sequence (adequate combination of chapters as defined in Appendix III of LYCAR.66);
  - Determine the sequence of learning (within a lesson and for the whole syllabus);
  - Identify the scope of information and level of detail with regard the minimum standard to which the topics of the TNA should be taught according to the set-up objectives.
  - Address the following:
    - Description of each system/component including the structure (where applicable);
    - System/component operation taking into account:
      - a) Complexity of the system (e.g. the need of further break down into subsystems, etc.);
      - b) Design specifics which may require more detailed presentation or may contribute to maintenance errors;
      - c) Normal and emergency functioning;
      - d) Troubleshooting;
      - e) Interpretation of indications and malfunctions;
      - f) Use of maintenance publications;
      - g) Identification of special tools and equipment required for servicing and maintaining the aircraft;
      - h) Maintenance Practices;
      - i) Routine inspections, functional or operational tests, rigging/adjustment, etc.
  - Describe the following:
    - The instructional methods and equipment, teaching methods and blending of the teaching methods in order to ensure the effectiveness of the training;
    - The maintenance training documentation/material to be delivered to the student;
    - Facilitated discussions, questioning session, additional practiced-oriented training, etc.;
    - The homework, if developed;
    - The training provider's resources available to the learner.
- (h) It is acceptable to differentiate between issues which have to be led by an instructor and issues which may be delivered through interactive simulation training devices and/or covered by web based elements. Overall time of the course will be allocated accordingly.

- (i) The maximum number of training hours per day for the theoretical element of type training should not be more than 6 hours. A training hour means 60 minutes of tuition excluding any breaks, examination, revision, preparation and aircraft visit. In exceptional cases, the LYCAA may allow deviation from this standard when it is properly justified that the proposed number of hours follows pedagogical and human factors principles. These principles are especially important in those cases where:
  - Theoretical and practical training are performed at the same time;
  - Training and normal maintenance duty/apprenticeship are performed at the same time.
- (j) The minimum participation time for the trainee in order to meet the objectives of the course should not be less than 90 % of the tuition hours of the theoretical training course. Additional training may be provided by the training organisation in order to meet the minimum participation time. If the minimum participation defined for the course is not met, a certificate of recognition should not be issued.
- (k) The TNA is a living process and should be reviewed/updated based on operation feedback, maintenance occurrences, airworthiness directives, major service bulletins impacting maintenance activities or requiring new competencies for mechanics, alert service bulletins, feedback from trainees or customer satisfaction, evolution of the maintenance documentation such as MRBs, MPDs, MMs, etc. The frequency at which the TNA should be reviewed/updated is left to the discretion of the organisation conducting the course.

***NOTE:*** *The examination is not part of the TNA. However, it should be prepared in accordance with the learning objectives described in the TNA.*

### **AMC to Paragraphs 1(b), 3.2 and 4.2 of Appendix III to LYCAR.66‘Aircraft Type Training and Examination Standard. On-the-Job Training’**

#### Practical Element of the Aircraft Type Training

1. The practical training may include instruction in a classroom or in simulators but part of the practical training should be conducted in a real maintenance or manufacturer environment.
2. The tasks should be selected because of their frequency, complexity, variety, safety, criticality, novelty, etc. The selected tasks should cover all the chapters described in the table contained in paragraph 3.2 of Appendix III to LYCAR.66.
3. The duration of the practical training should ensure that the content of training required by paragraph 3.2 of Appendix III to LYCAR.66 is completed. Nevertheless, for aeroplanes with a MTOM equal or above 30 000kg, the duration for the practical element of a type rating training course should not be less than two weeks unless a shorter duration meeting the objectives of the training and taking into account pedagogical aspects (maximum duration per day) is justified to the LYCAA .
4. The organisation providing the practical element of the type training should provide trainees a schedule or plan indicating the list of tasks to be performed under instruction or supervision. A record of the tasks completed should be entered into a logbook which should be designed such that each task or group of tasks may be countersigned by the designated assessor. The logbook format and its use should be clearly defined.
5. In paragraph 4.2 of Appendix III to LYCAR.66, the term ‘designated assessors appropriately qualified’ means that the assessors should demonstrate training and experience on the assessment process being undertaken and be authorised to do so by the organisation. Further guidance about the assessment and the designated assessors is provided in Appendix III to AMC to LYCAR.66.
6. The practical element (for powerplant and avionic systems) of the Type Rating Training may be subcontracted by the approved LYCAR.147 organisation under its quality system according to the provisions of 147.A.145(d)3 and the corresponding Guidance Material.

### **AMC to Paragraph 1(c) of Appendix III to LYCAR.66‘Aircraft Type Training and Examination Standard. On- the-Job Training’**

#### Differences Training

Approved difference training is not required for different variants within the same aircraft type rating (as specified in Appendix I to AMC to LYCAR.66) for the purpose of type rating endorsement on the aircraft maintenance licence.

However, this does not necessarily mean that no training is required before a certifying staff authorisation can be issued by the maintenance organisation (refer to AMC 66.A.20(b)3).

## **AMC to Section 5 of Appendix III to LYCAR.66‘Aircraft Type Training and Examination Standard. On-the- Job Training’**

### Type Examination Standard

This Section 5 ‘Type Examination Standard’ does not apply to the examination performed as part of type training. This Section only applies to those cases where type examination is performed as a substitute for type training.

AMC to Section 6 of Appendix III to LYCAR.66‘Aircraft Type Training and Examination Standard. On-the- Job Training’

### On-the-Job Training (OJT)

1. ‘A maintenance organisation appropriately approved for the maintenance of the particular aircraft type’ means a LYCAR.145 or LYCAR.M.A. Subpart F approved maintenance organisation holding an A rating for such aircraft.
2. The OJT should include one to one supervision and should involve actual work task performance on aircraft/components, covering line and/or base maintenance tasks.
3. The use of simulators for OJT should not be allowed.
4. The OJT should cover at least 50% of the tasks contained in Appendix II to AMC to LYCAR.66. Some tasks should be selected from each paragraph of the Appendix II list. Tasks should be selected among those applicable to the type of aircraft and licence (sub)category applied for. Other tasks than those in the Appendix II may be considered as a replacement when they are relevant. Typically, in addition to the variety and the complexity, the OJT tasks should be selected because of their frequency, safety, novelty, etc.
5. Up to 50% of the required OJT may be undertaken before the aircraft theoretical type training starts.
6. The organisation providing the on-the-job training should provide trainees a schedule or plan indicating the list of tasks to be performed under supervision. A record of the tasks completed should be entered into a logbook which should be designed such that each task or group of tasks is countersigned by the corresponding supervisor. The logbook format and its use should be clearly defined.
7. Regarding the day-to-day supervision of the OJT programme in the approved maintenance organisation and the role of the supervisor(s), the following should be considered:
  - It is sufficient that the completion of individual OJT tasks is confirmed by the direct supervisor(s), without being necessary the direct evaluation of the assessor.
  - During the day-to-day OJT performance, the supervision aims at overseeing the complete process, including task completion, use of manuals and procedures, observance of safety measures, warnings and recommendations and adequate behaviour in the maintenance environment.
  - The supervisor(s) should personally observe the work being performed to ensure the safe completeness and should be readily available for consultation, if needed during the OJT performance.
  - The supervisor(s) should countersign the tasks and release the maintenance tasks as the trainee is still not qualified to do so.
  - The supervisor(s) should therefore:
    - have certifying staff or support staff privileges relevant to the OJT tasks;
    - be competent for the selected tasks;
    - be safety-orientated;
    - be capable to coach (setting objectives, giving training, performing supervision, evaluating, handling trainee’s reactions and cultural issues, managing objectively and

- positively debriefing sessions, determining the need for extra training or reorientate the training, reporting, etc.);
- be designated by the approved maintenance organisation to carry out the supervision.
8. Regarding the assessor, the following should be considered:
- The function of the assessor, as described in Section 6 of Appendix III to LYCAR.66, is to conduct the final assessment of the completed OJT. This assessment should include confirmation of the completion of the required diversity and quantity of OJT and should be based on the supervisor(s) reports and feedback.
  - In Section 6 of Appendix III to LYCAR.66, the term ‘designated assessor appropriately qualified’ means that the assessor should demonstrate training and experience on the assessment process being undertaken and should be authorised to do so by the organisation. Further guidance about the assessment and the designated assessors is provided in Appendix III to AMC to LYCAR.66.
9. The procedures for OJT should be included into the Exposition Manual of the approved maintenance organisation (chapter 3.15, as indicated in AMC 145.A.70(a))

### **AMC to Appendix III to LYCAR.66 ‘Aircraft Type Training and Examination Standard.**

#### **On-the-Job Training’**

##### Aircraft Type Training and On-the-Job Training

The theoretical and practical training providers, as well as the OJT provider, may contract the services of a language translator in the case where training is imparted to students not conversant in the language of the training material. Nevertheless, it remains essential that the students understand all the relevant maintenance documentation.

During the performance of examinations and assessments, the assistance of the translator should be limited to the translation of the questions, but should not provide clarifications or help in relation to those questions.

**APPENDIX I**  
**AIRCRAFT TYPE RATINGS**  
**FOR LYCAR.66 AIRCRAFT MAINTENANCE ENGINEERS LICENCES**

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
AIRBUS	A300 B1 A300 B2-1A A300 B2-1C A300 B2-202 A300 B2-203 A300 B2K-3C A300 B4-102 A300 B4-103 A300 B4-203 A300 B4-2C A300 C4-203 A300 F4-203		Airbus A300 basic model (GE CF6)
	A300 B2-320 A300 B4-120 A300 B4-220		Airbus A300 basic model (PW JT9D)
	A300 B4-601 A300 B4-603 A300 B4-605 R A300 C4-605 R Variant F A300 F4-605 R		Airbus A300-600 (GE CF6)
	A300 B4-622 A300 B4-622 R A300 F4-622 R		Airbus A300-600 (PW 4000)
	A300 B4-620		Airbus A300-600 (PW JT9D)
	A300 C4-620		
	A310-203 A310-203 C A310- 221 A310-304 A310-308		Airbus A310 (GE CF6)
	A310-324 A310-325		Airbus A310 (PW 4000)
	A310-204 A310-222 A310-322		Airbus A310 (PW JT9D)
	A318-120 series		Airbus A318 (PW 6000)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
	A318-110 series A319-110 series A320-111 A320-210 series A321-110 series		Airbus A318/A319/A320/A321 (CFM56)
	A319-130 series A320-230 series A321-130 series A321-230 series		Airbus A319/A320/A321 (IAE V2500)
	A319-170 A320-270	A319 NEO A320 NEO	Airbus A319/A320/A321 (IAE PW1100G)
	A321-270	A321 NEO	
	A319-150 A320-250 A321-250	A319 NEO A320 NEO A321 NEO	Airbus A319/A320/A321 (CFM LEAP-1A)
	A330-200 series A330-300 series		Airbus A330 (GE CF6)
	A330-220 series A330-320 series		Airbus A330 (RPW 4000)
	A330-240 series A330-340 series		Airbus A330 (RR RB 211 Trent 700)
	A340-210 series A340-310 series		Airbus A340 (CFM56)
	A340-540 series A340-640 series		Airbus A340 (RR RB 211 Trent 500)
	A350-900 series		Airbus A350 (RR Trent XWB)
	A380-860 series		Airbus A380 (EA GP7200)
	A380-840 series		Airbus A380 (RR RB 211 Trent 900)
AIRCRAFT INDUSTRIES	L-410 M/UVP L-410 UVP-E L-410 UVP-E20 L-410 UVP-E20 CARGO	Turbolet Turbolet Turbolet Turbolet	Let L-410 (Walter M601)
	L-410 UVP-E9 L-410 UVP-E-LW L-410 UVP-LW	Turbolet Turbolet Turbolet	
	L-410 UVP-E20 L-410 UVP-E20 CARGO	Turbolet Turbolet	Let L-410 (GE H80)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
	L-420		Let L-420 (Walter M601)
ALENIA ALFA ROMEO	C-27J		Alenia C-27 (Allison/RR AE2100)
ANTONOV	AN-26 <del>AN-26B</del>		Antonov AN26 (Ivchenko AI-24)
ATR-GIE deTransport Régional	ATR 42-200 ATR 42-300 ATR 42-320		ATR 42-200/300 series (PWC PW120)
	ATR 42-400 ATR 42-500 ATR 42-500 ATR 72-212 A ATR 72-212 A	42-500 42-600 72-500 72-600	ATR 42-400/500/72-212A (PWC PW120)
	ATR 72-101 ATR 72-102 ATR 72-201 ATR 72-202 ATR 72-211 <del>ATR 72-212</del>		ATR 72-100/200 series (PWC PW120)
BAE SYSTEMS (OPERATIONS) Ltd	AVRO 146-RJ100 AVRO 146-RJ115 AVRO 146-RJ70 AVRO 146-RJ85 BAe 146 Series100 BAe 146 Series200 BAe 146 Series300		BAe 146/AVRO 146-RJ (Honeywell ALF500 Series)
	Jetstream 200		Jetstream 200 (Turbomeca Astazou)
	Jetstream 3100 Jetstream 3200	Jetstream 31 Jetstream 32/32EP	Jetstream 31/32 (Honeywell TPE331)
	Jetstream 4100		Jetstream 41 (Honeywell TPE331)
BEECHCRAFT Corporation	200/A200 200C/A200C 200CT/A200CT 200T B200 B200C B200CGT	King Air	Beech 200 Series (PWC PT6)

GROUP 1 AEROPLANES				
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement	
	B200CT B200GT B200T			
	1900 1900C 1900D	Airliner Airliner Airliner	Beech 1900 (PWC PT6)	
	300 300LW B300 B300C	Super King Air Super King Air Super King Air 350 Super King Airv350C	Beech 300 Series (PWC PT6)	
BOEING COMPANY (THE)	B707-200 B707-200B B707-300 Series		Boeing 707 (PW JT4)	
	B707-400 Series		Boeing 707 (RR Conway)	
	B707-100 B707-100B B707-100B B707-300B Series B707-300C Series B720 B720B	Long Body Long Body Short Body		Boeing 707/720 (PW JT3D)
	B727 Series B727-100 Series B727-100C Series B727-200 Series B727C Series			Boeing 727 (PW JT8D)
	B737-100 B737-200 B737-200C			Boeing 737-100/200 (PW JT8D)
	B737-300 B737-400 B737-500			Boeing 737-300/400/500 (CFM56)
	B737-600 B737-700 B737-800 B737-900 B737-900ER			Boeing 737-600/700/800/900 (CFM56)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
	B747-100		Boeing 747-100 (PW JT9D)
	B747-200B B747-200C B747-200F B747-300		Boeing 747-200/300 (GE CF6)
	B747-200B B747-200C B747-200F B747-300		Boeing 747-200/300 (PW JT9D)
	B747-200B B747-200C B747-200F B747-300		Boeing 747-200/300 (RR RB211)
	B747-400 B747-400F/SF(BCF)		Boeing 747-400 (GE CF6)
	B747-400 B747-400F/SF(BCF)		Boeing 747-400 (PW 4000)
	B747-400		Boeing 747-400 (RR RB211)
	B747-400F/SF(BCF)		
	B747-8F B747-8I	Freighter Intercontinental	Boeing 747-8 (GE GENx)
	B757-200 B757-200PF B757-300		Boeing 757-200/300 (PW 2000)
	B757-200 B757-200PF B757-300		Boeing 757-200/300 (RR RB211)
	B767-200 B767-300 B767-300BCF		Boeing 767-200/300 (PW 4000)
	B767-200 B767-300 B767-300BCF		Boeing 767-200/300 (PW JT9D)
	B767-200 B767-300 B767-300F B767-300BCF		Boeing 767-200/300/400 (GE CF6)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
	B767-400ER		
	B767-300		Boeing 767-300 (RR RB211)
	B777-200 B777-200LR B777-300ER		Boeing 777-200/300 (GE 90)
	B777F	Freighter	
	B777-200 B777-300		Boeing 777-200/300 (PW 4000)
	B777-200 B777-300		Boeing 777-200/300 (RR RB211 Trent 800)
	B787-8 B787-9	Dreamliner	Boeing 787-8/-9 (GE GEnx)
	B787-8 B787-9	Dreamliner	Boeing 787-8/-9 (RR RB 211 Trent 1000)
	BOMBARDIER	BD-100-1A10	Challenger 300 Challenger 350
BD-500-1A10 BD-500-1A11		CSeries CS100 CSeries CS300	Bombardier BD-500 Series (PW PW1500G) Bombardier BD-500 Series (PW PW1500G)
BD-700-1A10 BD-700-1A11		Global Express Global 6000 Global 5000 Global 5000 GVFD	Bombardier BD-700 Series (RRD BR710)
CL600-1A11		Challenger 600	Bombardier CL-600-1A11 (Honeywell ALF502)
CL-600-2A12 (601 Variant) CL-600-2B16 (601-3A Variant) CL-600-2B16 (601-3R Variant)		Challenger 601 Challenger 601-3A Challenger 601-3R	Bombardier CL-600-2A12/-2B16 (variant CL601/601-3A/3R) (GE CF34)
CL-600-2B16 (CL604 Variant) CL-600-2B16 (CL604 Variant)		Challenger-604 (MSN < 5701) Challenger-605 (MSN > 5701)	Bombardier CL-600-2B16 (variant CL 604) (GE CF34)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
	CL-600-2B19	Regional Jet Series 100	Bombardier CL-600-2B19 (GE CF34)
	CL-600-2C10 CL-600-2D15 CL-600-2D24 CL-600-2E25	Regional Jet Series 700/701/702 Regional Jet Series 705 Regional Jet Series 900 Regional Jet Series 1000	Bombardier CL-600-2C10/-2D15/-2D24/-2E25 (GE CF34)
	DHC-8-102 DHC-8-103 DHC-8-106 DHC-8-201 DHC-8-202 DHC-8-301 DHC-8-311 DHC-8-314 DHC-8-315	DHC-8 Series 100 DHC-8 Series 100 DHC-8 Series 100 DHC-8 Series 200 DHC-8 Series 200 DHC-8 Series 300 DHC-8 Series 300 DHC-8 Series 300 DHC-8 Series 300	Bombardier DHC-8-100/200/300 (PWC PW120)
	DHC-8-401 DHC-8-402	DHC-8 Series 400 DHC-8 Series 400	Bombardier DHC-8-400 (PWC PW150)
	CL-215-1A10		Canadair CL-215 (PW R2800)
	CL-215-6B11 (CL-215T Variant)		Canadair CL-215 (PWC PW120)
	CL-215-6B11 (CL-415 Variant)		Canadair CL-415 (PWC PW123)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
CESSNA AIRCRAFT Company	401/402 404 411 414 421		Cessna 400 Series (Continental)
	500 501	Citation/ Citation I Citation I	Cessna 500/ 501 (PWC JT15D)
	510		Cessna 510 (PWC PW615)
	525 525A	Citation Jet CJ1 Citation M2 Citation Jet CJ2	Cessna 525/525A (Williams FJ 44)
	525B	Citation Jet CJ3	Cessna 525B (Williams FJ 44)
	525C	Citation Jet CJ4	Cessna 525C (Williams FJ 44)
	550 560 560 S550 551	Citation II Citation V Citation Ultra S/II Citation II	Cessna 550/551/560 (PWC JT15D)
	550	Citation Bravo	Cessna 550/560 (PWC PW530/535)
	560 560	Citation Encore Citation Encore	
	560 XL 560 XL 560 XL	Citation XLS Citation XLS+ Citation Excel	Cessna 560XL/XLS (PWC PW545)
650 650	Citation III, VI Citation VII	Cessna 650 (Honeywell TFE731)	
680	Sovereign Sovereign+	Cessna 680 (PWC PW306)	
750	Citation X	Cessna 750 (RR Corp AE3007C)	
Fan Jet Falcon Series C Fan Jet Falcon Series D Fan Jet Falcon Series E Fan Jet Falcon Series F	(Basic) Fan Jet Falcon	Falcon 20 (GE CF700)	

	Fan Jet Falcon Series G Mystère Falcon 200 Mystère Falcon 20GF		Falcon 200 (Honeywell ATF 3-6)
	Falcon 2000		Falcon 2000 (CFE 738)
	Falcon 2000EX		Falcon 2000EX (PWC PW308)
	Falcon 2000EX	F2000EX EASy F2000DX F2000LX F2000LXS F2000S	Falcon 2000EX EASy (PWC PW308)
	Mystère Falcon 20- C5 Mystère Falcon 20- D5 Mystère Falcon 20- E5 Mystère Falcon 20- F5		Falcon 20-5 (Honeywell TFE731)
	Mystère Falcon 50		Falcon 50 (Honeywell TFE731)
	Mystère Falcon 50	F50 EX	Falcon 50EX (Honeywell TFE731)
	Falcon 7X		Falcon 7X (PWC PW307A)
	Mystère Falcon 900 Mystère Falcon 900	F900B	Falcon 900 (Honeywell TFE731)
	Mystère Falcon 900	F900C	Falcon 900C (Honeywell TFE731)
	Falcon 900EX		Falcon 900EX (Honeywell TFE731)
	Falcon 900EX Falcon 900EX Falcon 900EX	F900EX EASy F900DX F900LX	Falcon 900EX EASy (Honeywell TFE731)
EMBRAER	ERJ 170-100 LR ERJ 170-100 STD ERJ 170-200 LR ERJ 170-200STD	ERJ-170 ERJ-170 ERJ-175 ERJ-175	Embraer ERJ-170 Series (GE CF34)
	ERJ190-100 ECJ ERJ190-100 IGW ERJ 190-100 LR ERJ 190-100 SR ERJ 190-100 STD ERJ 190-200 IGW ERJ 190-200 LR ERJ 190-200 STD	Lineage 1000 ERJ-190 AR ERJ-190 ERJ-190 ERJ-190 ERJ-195 AR ERJ-195 ERJ-195	Embraer ERJ-190 Series (GE CF34)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
FOKKER SERVICES	F27 Mark 100 F27 Mark 200 F27 Mark 300 F27 Mark 400 F27 Mark 500 F27 Mark 600 F27 Mark 700	Friendship	Fokker F27/Fairchild F-27/FH-227 Series (RRDDart)
	F27 Mark 050 F27 Mark 0502 F27 Mark 0604	Fokker 50 Fokker 50 Fokker 60	Fokker 50/60 Series (PWC PW 125/127)
	F28 Mark 0070 F28 Mark 0100	Fokker 70 Fokker 100	Fokker 70/100 (RRD Tay)
	F28 Mark 1000 F28 Mark 1000C F28 Mark 2000 F28 Mark 3000 F28 Mark 3000C F28 Mark 3000R F28 Mark 3000RC F28 Mark 4000	Fellowship Fellowship Fellowship Fellowship Fellowship Fellowship Fellowship Fellowship	Fokker F28 Series (RRD Spey)
GULFSTREAM AEROSPACE Corporation	G-1159 G-1159A G-1159B	Gulfstream II Gulfstream IIB Gulfstream III	Gulfstream G-1159 Series (RRD Spey)
	G-159	Gulfstream I	Gulfstream G-159 (RRD Dart)
	GIV (G300) GIV (G400) G- IV/GIV-SP	Gulfstream G300 Gulfstream G400 Gulfstream G- IV/GIV-SP	Gulfstream G-IV Series (RRD Tay)
	GIV-X (G350) GIV-X (G450)	Gulfstream G350 Gulfstream G450	Gulfstream GIV-X Series (RRD Tay)
	GV	Gulfstream GV	Gulfstream GV basic model (RRD BR710)
	GV-SP (G500) GV-SP (G550)	Gulfstream G500 Gulfstream G550	Gulfstream GV-SP Series (RRD BR710)
	GVI	G650	Gulfstream GVI (RRD BR725)
GULFSTREAM AEROSPACE LP (GALP) c/o Israel	1125 Westwind Astra		Gulfstream (IAI) 100/1125/Astra SPX (Honeywell TFE731)
Aircraft Industries	Astra SPX G100	Gulfstream 100	
	Gulfstream	Galaxy 200	Gulfstream (IAI) 200/Galaxy (PWC PW306)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
	200/IAI Galaxy		
	Gulfstream G150	Gulfstream G150	Gulfstream (IAI) G150 (Honeywell TFE731)
	Gulfstream G280	Gulfstream G280	Gulfstream (IAI) G280 (Honeywell AS907)
	BAe.125 series 1000A/B		BAe 125 Series 1000 (PWC PW305)
LEARJET	31/31A		Learjet 31 (Honeywell TFE731)
	35/35A 36/36A		Learjet 35/36 (Honeywell TFE731)
	55/55B/55C		Learjet 55 (Honeywell TFE731)
	Learjet 60	LJ60 LJ60 XR	Learjet 60 (PWC PW305)
	Learjet 40 Learjet 45 Learjet 70 Learjet 75	LJ45 LJ40XR LJ45 LJ 45XR LJ 70 LJ 75	Learjet Model 45 (Honeywell TFE731)
McDONNELL DOUGLAS Corporation BOEING COMPANY	DC-10-10 DC-10-30 DC-10-30F		DC-10/MD-10 (GE CF6)
	DC-8 Series 70 DC-8 Series 70F		DC-8 (CFM56)
	DC-8 Series 50 DC-8 Series 60 DC-8 Series 0F DC-8F		DC-8 (PW JT3D)
	DC-8 Series 40		DC-8 (RR Conway)
	DC-9-10 Series DC-9-20 Series DC-9-30 Series DC-9-40 Series DC-9-50 Series		DC-9 (PW JT8D)
	717-200		MD 717-200 (RRD BR700-715)
	MD-11 MD-11F		MD-11 (GE CF6)
	MD-11		MD-11 (PW 4000)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
	DC-9-81 (MD-81) Series DC-9-82 (MD-82) Series DC-9-83 (MD-83) Series DC-9-87 (MD-87) Series MD-88	MD-81 MD-82 MD-83 MD-87	MD-80 Series (PW JT8D)
	MD-90 Series		MD-90 (IAE V2500)
PILATUS AIRCRAFT	PC-12 PC-12/45 PC-12/47 PC-12/47E		Pilatus PC-12 (PWC PT6)
PIPER AIRCRAFT	PA31T to T3	Cheyenne	Piper PA-31T Series (PWC PT6)
	PA-42-1000	Cheyenne 400LS	Piper PA-42 (Honeywell TPE-331)
	PA-42 PA-42-720 PA-42-720R	Cheyenne III Cheyenne IIIA	Piper PA-42 (PWC PT6)
	PA-46-500TP	Malibu Meridian	Piper PA-46-500TP (PWC PT6)
RUAG Aerospace Services GmbH	DO 28 D-6 Dornier 128-6		Dornier Do 28 Series (PWC PT6)
	228-100 series 228-200 series		Dornier 228 (Honeywell TPE331)
SAAB AB, SAAB Aerosystems	340A(SF340A) 340B	Saab-Fairchild 340A	Saab (SF) 340 (GE CT7)
	2000		Saab 2000 (RR Corp AE2100)
(Bombardier) (DeHavilland)	DHC-6-100/110 DHC-6-200/210 DHC-6-300/310/320 DHC-6-400		De Havilland DHC-6 (PWC PT6)
AGUSTA WESTLAND	A109E A109N A109S AW109 SP		Agusta A109 Series (PWC PW206/207)
	A109 A109A A109AII A109C		Agusta A109 Series (RR Corp 250)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
	A109K2		Agusta A109 (Turbomeca Arriel 1)
	A109E A109LUH		Agusta A109 Series (Turbomeca Arrius 2)
	AB139 AW139		Agusta AB139/AW139 (PWC PT6)
	EH101-500 Series EH101-510 Series EH101-300		Agusta/Westland EH-101 (GE CT7)
	AW169		AW169 (PWC 210)
	AW189		AW189 (GE CT7)
	AB 212		
BELL HELICOPTER TEXTRON, INC.	212		Bell 212/Agusta AB212 (PWC PT6)
AGUSTA	AB 204 B Series AB 205 A1		Agusta AB204, AB205/Bell 204, 205 (Honeywell T53)
BELL HELICOPTER TEXTRON, INC.	204B 205A-1		
BELL HELICOPTER TEXTRON, INC	412 412EP 412CF		Bell 412/Agusta AB412 (PWC PT6)
AGUSTA	AB 412 AB 412 EP		
BELL HELICOPTER TEXTRON	214B 214B-1		Bell 214 (Honeywell T5508)
	214ST		Bell 214ST(GE CT7)
BELL HELICOPTER CANADA	222 222B 222U		Bell 222 (Honeywell LTS 101)
	230 230 230	230 Executive 230 Utility 230 EMS	Bell 230 (RR Corp 250)
	427		Bell 427 (PWC PW207D)
	429		Bell 429 (PWC PW207D)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
	430		Bell 430 (RR Corp 250)
AGUSTA WESTLAND	A109E A109N A109S AW109 SP		Agusta A109 Series (PWC PW206/207)
	A109 A109A A109All A109C		Agusta A109 Series (RR Corp 250)
	A109K2		Agusta A109 (Turbomeca Arriel 1)
	A109E A109LUH		Agusta A109 Series (Turbomeca Arrius 2)
	AB139 AW139		Agusta AB139/AW139 (PWC PT6)
	EH101-500 Series EH101-510 Series EH101-300		Agusta/Westland EH-101 (GE CT7)
	AW169		AW169 (PWC 210)
	AW189		AW189 (GE CT7)
	AB 212		
	BELL HELICOPTER TEXTRON, INC.	212	
AGUSTA	AB 204 B Series AB 205 A1		Agusta AB204, AB205/Bell 204, 205 (Honeywell T53)
BELL HELICOPTER TEXTRON, INC.	204B 205A-1		
BELL HELICOPTER TEXTRON, INC	412 412EP 412CF		Bell 412/Agusta AB412 (PWC PT6)
AGUSTA	AB 412 AB 412 EP		
BELL HELICOPTER TEXTRON	214B 214B-1		Bell 214 (Honeywell T5508)
	214ST		Bell 214ST(GE CT7)
BELL HELICOPTER	222 222B		Bell 222 (Honeywell LTS 101)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
CANADA	222U		
	230	230 Executive	Bell 230 (RR Corp 250)
	230	230 Utility	
	230	230 EMS	
	427		Bell 427 (PWC PW207D)
	429		Bell 429 (PWC PW207D)
430		Bell 430 (RR Corp 250)	
AIRBUS HELICOPTERS	SA 330 J		Eurocopter SA 330 (Turbomeca Turmo)
	AS 332 C AS 332 L AS 332 C1 AS 332 L1		Eurocopter AS 332 (Turbomeca Makila 1A/1A1)
	AS 332 L2		Eurocopter AS 332 L2 (Turbomeca Makila 1A2)
	AS 355 E AS 355 F AS 355 F1 AS 355 F2		Eurocopter AS 355 (RR Corp 250)
	AS 355 N AS 355 NP		Eurocopter AS 355 (Turbomeca Arrius 1)
	SA 365 N SA 365 N1 AS 365 N2	Dauphin Dauphin	Eurocopter SA 365 N/N1, AS 365 N2 (Turbomeca Arriel 1)
	AS 365 N3	Dauphin	Eurocopter AS 365 N3 (Turbomeca Arriel 2C)
	EC 155 B EC 155 B1		Eurocopter EC 155 (Turbomeca Arriel 2)
	EC 175 B		Eurocopter EC 175 (PWC PT6C)
	AIRBUS HELICOPTERS  DEUTSCHLAND GmbH	EC 225 LP	
SA 365 C SA 365 C1 SA 365 C2 SA 365 C3		Dauphin Dauphin Dauphin Dauphin	Eurocopter SA 365 C Series (Turbomeca Arriel 1)
SA 366 G1		Dauphin	Eurocopter SA 366 G1 Series (Lycoming LTS101)
BO 105 A BO 105 C BO 105 D Series BO 105 LS A-1			

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
	BO 105 LS A-3 BO 105 S		
	EC 135 P1 EC 135 P2 EC 135 2 EC 135 P3 EC 635 2+ EC 635 P3		Eurocopter EC 135 (PWC PW206)
	EC 135 T1 EC 135 T2		Eurocopter EC 135 (Turbomeca Arrius 2B)
	EC 135 T2+ EC 135 T3 EC 635 T1 EC 635 T2+ EC 635 T3		
	MBB-BK 117 A Series MBB-BK 117 B Series		Eurocopter MBB-BK 117 A/B (Honeywell LTS 101)
	MBB-BK 117 C1		Eurocopter MBB-BK 117 C1 (Turbomeca Arriel 1)
	MBB-BK 117 C2	EC145	Eurocopter MBB-BK 117 C2 (Turbomeca Arriel 1)
	MBB-BK 117 D2	EC145 T2 H145	Eurocopter MBB-BK 117 D2 (Turbomeca Arriel 2)
AGUSTA	AS61N AS61NI		Agusta AS61N/Sikorsky S-61N (GE CT58)
SIKORSKY AIRCRAFT	S-61N		
	S-61NM		
	S-58 BT to JT		Sikorsky S-58 (PWC PT6T)
	S-76A		Sikorsky S-76A (RR Corp 250)
	S-76A S-76A	S-76A+ S-76A++	Sikorsky S-76 (Turbomeca Arriel 1)
	S-76B	S-76B	Sikorsky S-76B (PWC PT6)
	S-76C		Sikorsky S-76C (Turbomeca Arriel 1)
	S-76C S-76C	S-76C+ S-76C++	Sikorsky S-76C (Turbomeca Arriel 2)
	S-76D		Sikorsky S-76D (PW210S)

GROUP 1 AEROPLANES			
TC holder	Model	Commercial designation	LYCAR.66 Type rating endorsement
	S-92A		Sikorsky S-92A (GE CT7-8)

SUBGROUP 2a: SINGLE TURBO-PROPELLER ENGINE AEROPLANES (Other than those in Group 1)	
TC holder	LYCAR.66 Type rating endorsement
AERO VODOCHODY	Aero Ae-270 (PWC PT6)
AIR TRACTOR	Air Tractor AT-302 (Lycoming LTP-101)
	Air Tractor AT-400/500/600 Series (PWC PT6)
ALENIA AERMACCHI	Aermacchi SF260 (RR Corp 250)

SUBGROUP 2a: SINGLE TURBO-PROPELLER ENGINE AEROPLANES (Other than those in Group 1)	
TC holder	LYCAR.66 Type rating endorsement
CESSNA AIRCRAFT Company	Cessna (Soloy) 206/207 (RR Corp 250)
	Cessna 208 Series (PWC PT6)
	Cessna 210 (RR Corp 250)
PILATUS AIRCRAFT	Pilatus PC-6 Series (Turbomeca Astazou)
	Pilatus PC-6 (PWC PT6)
	Pilatus PC-6 Series (Honeywell TPE 331)

SUBGROUP 2b: SINGLE TURBINE ENGINE HELICOPTERS (Other than those in Group 1)			
TC holder	Model	Commercial Designation	LYCAR.66 Type rating endorsement
AGUSTA	A119 AW119 MkII	Koala Koala	Agusta A119/ Agusta AW119MkII (PWC PT6)
BELL HELICOPTER CANADA	407		Bell 407 (RR Corp 250)
AGUSTA	AB 206A AB 206B		Agusta AB206/Bell 206 (RR Corp 250)
BELL HELICOPTER TEXTRON CANADA LIMITED	206 Series From A to L		
THE ENSTROM HELICOPTER CORPORATION	480/480B		Enstrom 480 (RR Corp 250)
AIRBUS HELICOPTERS	AS 350 B AS 350 B1 AS 350 B2 AS 350 BA AS 350 BB	Écureuil	Eurocopter AS 350 (Turbomeca Arriel 1)
	AS 350 B3		Eurocopter AS 350 (Turbomeca Arriel 2)

SUBGROUP 2b: SINGLE TURBINE ENGINE HELICOPTERS (Other than those in Group 1)			
TC holder	Model	Commercial Designation	LYCAR.66 Type rating endorsement
	AS 350 D		Eurocopter AS 350 (Honeywell LTS 101)
	EC 120 B	Colibri	Eurocopter EC 120 (Turbomeca Arrius 2F)
	EC 130 B4 EC 130 T2		Eurocopter EC 130 (Turbomeca Arriel 2)
	SA 315 B	Lama	Eurocopter SA 315B (Turbomeca Artouste)
	SA 3180 SA 318 SA 318	Alouette- Astazou	Eurocopter SA 318 (Turbomeca Astazou)
	SA 319 B	Alouette III	Eurocopter SA 319 (Turbomeca Astazou XIV)
	SA 341 G	Gazelle	Eurocopter SA 341 (Turbomeca Astazou)
	SA 342 J	Gazelle	Eurocopter SA 342 J (Turbomeca Astazou XIV)
	SE 3160 SA 316 SA 316	Alouette III	Eurocopter SA 316 B/SA 316 C (Turbomeca Artouste)

GROUP 3: PISTON-ENGINE AEROPLANES (Other than those in Group 1)				
TC holder	LYCAR.66 Type rating endorsement	Type of structure	MTOM	
			2T and BELOW	ABOVE 2T
AIR TRACTOR	Air Tractor AT-250/300 (PW R985)	Metal		X
	Air Tractor AT-301/401/501 (PW R1340)	Metal		X
	Air Tractor AT-401 (PZL-3S)	Metal		X

GROUP 3: PISTON-ENGINE AEROPLANES (Other than those in Group 1)				
TC holder	LYCAR.66 Type rating endorsement	Type of structure	MTOM	
			2T and BELOW	ABOVE 2T
BEEHCRAFT Corporation	Beech 36 Series (Continental)	Metal	X	
	Beech 50 Series (Lycoming)	Metal		X
	Beech 55 Series (Continental)	Metal		X
	Beech 56 Series (Lycoming)	Metal		X
	Beech 58 Series (Continental)	Metal		X
	Beech 58P (Continental)	Metal + Pressurised		X
	Beech 58TC (Continental)	Metal		X
	Beech 60 Series (Lycoming)	Metal		X
	Beech 65-80 Series (Lycoming)	Metal		X
	Beech 76 (Lycoming)	Metal	X	
	Beech 77 (Lycoming)	Metal	X	
	Beech 95 Series (Lycoming)	Metal	X	
	Beech 95 Series (Continental)	Metal		X
	Beech A23 (Continental)	Metal	X	

GROUP 3: PISTON-ENGINE AEROPLANES (Other than those in Group 1)					
TC holder	LYCAR.66 endorsement	Type rating	Type of structure	MTOM	
				2T and BELOW	ABOVE 2T
CESSNA Comany	AIRCRAFT	Cessna 175 Series(Continental)	Metal	X	
		Cessna 177 Series (Lycoming)	Metal	X	
		Cessna 180 Series(Continental)	Metal	X	
		Cessna 185 Series(Continental)	Metal	X	
		Cessna 188 (Continental)	Metal	X	
		Cessna 206 Series(Continental)	Metal	X	
		Cessna 206 Series (Lycoming)	Metal	X	
		Cessna 207 Series(Continental)	Metal	X	
		Cessna 210 Series(Continental)	Metal	X	
		Cessna P210 (Continental)	Metal + Pressurised	X	
		Cessna 310/320 Series (Continental)	Metal		X
		Cessna 321 (Continental)	Metal	X	
		Cessna 335 (Continental)	Metal + Pressurised		X
		Cessna 336 (Continental)	Metal	X	
		Cessna 340 (Continental)	Metal + Pressurised		X
		Cessna T303 (Continental)	Metal		X
		Cessna/Reims-Cessna 150/F150 Series (Continental)	Metal	X	
		Cessna/Reims-Cessna 152/F152 Series (Lycoming)	Metal	X	
		Cessna/Reims-Cessna 172/F172 Series (Continental)	Metal	X	
		Cessna/Reims-Cessna 172/F172 Series (Lycoming)	Metal	X	
Cessna/Reims-Cessna 182/F182 Series (Continental)	Metal	X			
Cessna/Reims-Cessna 182/F182 Series (Lycoming)	Metal	X			

	Cessna/Reims- Cessna 337 Series (Continental) (not pressurised)	Metal		X
	Cessna/Reims- Cessna 337Series (Continental) (pressurised)	Metal + Pressurised		X
	Cessna C300/C350/C400 (Continental)	Composite	X	

GROUP 3: PISTON-ENGINE AEROPLANES (Other than those in Group 1)					
TC holder	LYCAR.66 endorsement	Type rating	Type of structure	MTOM	
				2T and BELOW	ABOVE 2T
DIAMOND AIRCRAFT Industries	Diamond DA20/DV20 (Rotax)		Composite	X	
	Diamond DA40 (Austro Engine)		Composite	X	
	Diamond DA40 (Lycoming)		Composite	X	
	Diamond DA40 D (Technify)		Composite	X	
	Diamond DA42 Series (Austro Engine)		Composite	X	
	Diamond DA42 Series (Technify)		Composite	X	
	Diamond DA62 (Austro Engine)		Composite	X	
	Aerocommander 100 (Lycoming)		Metal	X	

GROUP 3: PISTON-ENGINE AEROPLANES (Other than those in Group 1)					
TC holder	LYCAR.66 endorsement	Type rating	Type of structure	MTOM	
				2T and BELOW	ABOVE 2T
	Piper PA-28 Series (Continental)		Metal	X	
	Piper PA-28 Series (Lycoming)		Metal	X	
	Piper PA-28 Series (Thielert)		Metal		
	Piper PA-30 Series (Lycoming)		Metal	X	
	Piper PA-31 Series (Lycoming)		Metal		X
	Piper PA-31P (Lycoming)		Metal + Pressurised		X
	Piper PA-32 Series (Lycoming)		Metal	X	
	Piper PA-34 Series (Continental)		Metal	X	
	Piper PA-34 Series (Lycoming)		Metal	X	
	Piper PA-36 Series (Continental)		Metal	X	
	Piper PA-36 Series (Lycoming)		Metal	X	
	Piper PA-38 Series (Lycoming)		Metal	X	
	Piper PA-39/40 Series (Lycoming)		Metal	X	
	Piper PA-44 Series (Lycoming)		Metal	X	
	Piper PA-46 Pressurised (Continental)		Metal + Pressurised	X	
	Piper PA-46 Pressurised (Lycoming)		Metal + Pressurised	X	
	Piper PA-46 Series (Lycoming)		Metal	X	

## APPENDIX II

### Aircraft Type Practical Experience and On-the-Job Training

#### List of Tasks/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. AMM. Review Aircraft maintenance log for correct completion.  
 Review records for compliance with Airworthiness Directives.  
 Review records for compliance with component life limits.  
 Procedure for inspection following heavy landing.  
 Procedure for inspection following lightning strike.  
 Dimensions/Areas  
 Locate component(s) by zone/station number.  
 Perform symmetry check.  
 Lifting and Shoring  
 Assist in:  
 Jack aircraft nose or tail wheel. Jack complete aircraft.  
 Sling or trestle major component.  
 Levelling/Weighing  
 Level aircraft. Weigh aircraft.  
 Prepare weight and balance amendment.  
 Check aircraft against equipment list.  
 Towing and Taxiing  
 Prepare for aircraft towing. Tow aircraft.  
 Be part of aircraft towing team.  
 Parking and mooring  
 Tie down aircraft.  
 Park, secure and cover aircraft. Position aircraft in dock.  
 Secure rotor blades.  
 Placards and Markings  
 Check aircraft for correct placards. Check aircraft for correct markings.  
 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/water system Perform pre-flight/daily check.

#### Vibration and Noise Analysis

Analyse helicopter vibration problem. Analyse noise spectrum.

Analyse engine vibration.

#### 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.

#### Auto flight

Install servos. Rig bridle cables

Replace controller. Replace amplifier.

Replacement of the auto flight system LRUs in case of 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.

#### Communications

Replace VHF com unit. Replace HF com unit. Replace existing antenna.

Replace static discharge wicks. Check operation of radios. Perform antenna VSWR check. Perform Selcal operational check.

Perform operational check of passenger address system.

Functionally check audio integrating system. Repair co-axial cable.

Troubleshoot faulty system.

#### 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.

#### Equipment/Furnishings

Replace carpets Replace crew seats. Replace passenger seats. Check inertia reels.  
 Check seats/belts for security.  
 Check emergency equipment.  
 Check 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.  
 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.

#### Flight Controls

Inspect primary flight controls and related components i.a.w. AMM. Extending/retracting flaps & slats.  
 Replace horizontal stabiliser. Replace spoiler/lift damper. 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 flat 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 THS. THS system wear check.  
 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 defuel.  
 Pressure refuel (manual control).  
 Deactivation/reactivation of the fuel valves (transfer defuel, X-feed, refuel). Troubleshoot faulty system.  
 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.  
 Power Transfer Unit (PTU) operation.  
 Replacement of PTU.  
 Troubleshoot faulty system.  
 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 TAT ice protection. Operational test of the wing ice protection system.

Assistance to the operational test of the engine air-intake ice protection (with engines operating).

Troubleshoot faulty system.

Indicating/recording systems

Replace flight data recorder. Replace cockpit voice recorder. Replace clock.

Replace master caution unit. Replace FDR.

Perform FDR data retrieval. Troubleshoot faulty system. Implement ESDS procedures. Inspect for HIRF requirements. Start/stop EIS procedure.

Bite test of the CFDIU.

Ground scanning of the central warning system.

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.

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.

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

Navigation

Calibrate magnetic direction indicator. Replace airspeed indicator.

Replace altimeter.

Replace air data computer. Replace VOR unit.

Replace ADI. Replace HSI.

Check pitot static system for leaks.

Check operation of directional gyro. Functional check weather radar. Functional check doppler.

Functional check TCAS. Functional check DME.

Functional check ATC Transponder Functional check flight director system. Functional check inertial nav system.

Complete quadrantal error correction of 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 GPS. Test AVM.

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.

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.

Vacuum systems

Inspect the vacuum system i.a.w. AMM. Replace vacuum pump.

Check/replace filters. Adjust regulator. Troubleshoot faulty system.

Water/Waste

Replace water pump. Replace tap.

Replace toilet pump.

Perform water heater functional check. Troubleshoot faulty system.

Inspect waste bin flap closure.

Central Maintenance System

Retrieve data from CMU. Replace CMU.

Perform Bite check. Troubleshoot faulty system.	Overhaul main gearbox.
Airborne Auxiliary power	Check gearbox chip detectors.
Install APU.	Tail Rotors
Inspect hot section. Troubleshoot faulty system.	Install rotor assembly. Replace blades.
Structures	Troubleshoot.
Assessment of damage. Sheet metal repair.	Tail Rotor Drive
Fibre glass repair. Wooden repair.	Replace bevel gearbox. Replace universal joints. Overhaul bevel gearbox. Install drive assembly. Check chip detectors.
Fabric repair.	Check/install bearings and hangers.
Recover fabric control surface. Treat corrosion.	Check/service/assemble flexible couplings.
Apply protective treatment.	Check alignment of drive shafts. Install and rig drive shafts.
Doors	Rotorcraft flight controls
Inspect passenger door i.a.w. AMM. Rig/adjust locking mechanism. Adjust air stair system.	Install swash plate. Install mixing box. Adjust pitch links.
Check operation of emergency exits. Test door warning system. Troubleshoot faulty system.	Rig collective system. Rig cyclic system.
Remove and install passenger door i.a.w. AMM.	Rig anti-torque system.
Remove and install emergency exit i.a.w. AMM.	Check controls for assembly and locking. Check controls for operation and sense. Troubleshoot faulty system.
Inspect cargo door i.a.w. AMM.	Power Plant
Windows	Build up ECU. Replace engine.
Replace windshield.	Repair cooling baffles.
Replace direct vision window. Replace cabin window.	Repair cowling. Adjust cowl flaps. Repair faulty wiring. Troubleshoot.
Repair transparency.	Assist in dry motoring check. Assist in wet motoring check.
Wings	Assist in engine start (manual mode).
Skin repair.	Piston Engines
Recover fabric wing. Replace tip.	Remove/install reduction gear. Check crankshaft run-out. Check tappet clearance.
Replace rib.	Check compression.
Replace integral fuel tank panel. Check incidence/rig.	Extract broken stud. Install helicoil. Perform ground run.
Propeller	Establish/check reference RPM. Troubleshoot.
Assemble prop after transportation. Replace propeller.	Turbine Engines
Replace governor.	Replace module. Replace fan blade.
Adjust governor.	Hot section inspection/boroscope check. Carry out engine/compressor wash.
Perform static functional checks. Check operation during ground run. Check track.	Carry out engine dry cycle.
Check setting of micro switches. Assessment of blade damage i.a.w. AMM. Dynamically balance prop.	Engine ground run. Establish reference power.
Troubleshoot faulty system.	Trend monitoring/gas path analysis.
Main Rotors	Troubleshoot.
Install rotor assembly. Replace blades.	Fuel and control, piston
Replace damper assembly. Check track. Check static balance. Check dynamic balance. Troubleshoot.	Replace engine driven pump. Adjust AMC.
Rotor Drive	Adjust ABC.
Replace mast.	Install carburettor/injector. Adjust carburettor/injector. Clean injector nozzles. Replace primer line.
Replace drive coupling. Replace clutch/freewheel unit. Replace drive belt.	
Install main gearbox.	

Check carburettor float setting. Troubleshoot faulty system.	Exhaust, turbine
Fuel and control, turbine	Change jet pipe.
Replace FCU.	Change shroud assembly. Install trimmers.
Replace Engine Electronic Control Unit (FADEC). Replace Fuel Metering Unit (FADEC).	Inspect/replace thrust reverser. Replace thrust reverser component. Deactivate/reactivate thrust reverser. Operational test of the thrust reverser system.
Replace engine driven pump.	Oil
Clean/test fuel nozzles. Clean/replace filters. Adjust FCU.	Change oil. Check filter(s).
Troubleshoot faulty system. Functional test of FADEC.	Adjust pressure relief valve. Replace oil tank.
Ignition systems, piston	Replace oil pump.
Change magneto.	Replace oil cooler.
Change ignition vibrator. Change plugs.	Replace firewall shut off valve. Perform oil dilution test. Troubleshoot faulty system.
Test plugs.	Starting
Check H.T. leads. Install new leads. Check timing.	Replace starter. Replace start relay.
Check system bonding. Troubleshoot faulty system.	Replace start control valve.
Ignition systems, turbine	Check cranking speed.
Perform functional test of the ignition system.	Troubleshoot faulty system.
Check glow plugs/ignitors.	Replace PRT.
Check H.T. leads.	Replace turbo-blower.
Check ignition unit.	Replace heat shields.
Replace ignition unit. Troubleshoot faulty system.	Replace waste gate.
Engine Controls	Adjust density controller.
Rig thrust lever. Rig RPM control. Rig mixture HP cock lever. Rig power lever.	Engine water injection
Check control sync (multi-eng).	Replace water/methanol pump.
Check controls for correct assembly and locking.	Flow check water/methanol system.
Check controls for range and direction of movement. Adjust pedestal micro-switches.	Adjust water/methanol control unit.
Troubleshoot faulty system.	Check fluid for quality.
Engine Indicating	Troubleshoot faulty system
Replace engine instruments(s). Replace oil temperature bulb. Replace thermocouples.	Accessory gear boxes
Check calibration. Troubleshoot faulty system.	Replace gearbox. Replace drive shaft.
Exhaust, piston	Inspect magnetic chip detector.
Replace exhaust gasket. Inspect welded repair.	APU
Pressure check cabin heater muff.	Removal/installation of the APU.
Troubleshoot faulty system.	Removal/installation of the inlet guide-vane actuator.
	Operational test of the APU emergency shut-down test.
	Operational test of the APU

## APPENDIX III

### Evaluation of the competence: assessment and assessors

This Appendix applies to the competence assessment performed by the designated assessors (and their qualifications).

#### 1) What does 'competence' mean and areas of focus for assessment

The assessment should aim at measuring the competence by evaluating three major factors associated to the learning objectives:

- Knowledge;
- Skills;
- Attitude;

Generally, knowledge is evaluated by examination. The purpose of this document is not to describe the examination process: this material mainly addresses the evaluation of 'skills' and 'attitude' after training containing practical elements. Nevertheless, the trainee needs to demonstrate to have sufficient knowledge to perform the required tasks.

'Attitude' is indivisible from the 'skill' as this greatly contributes to the safe performance of the tasks.

The evaluation of the competence should be based on the learning objectives of the training, in particular:

- the (observable) desired performance. This covers what the trainee is expected to be able to do and how the trainee is expected to behave at the end of the training;
- the (measurable) performance standard that must be attained to confirm the trainee's level of competence in the form of tolerances, constraints, limits, performance rates or qualitative statements; and
- the conditions under which the trainee will demonstrate competence. Conditions consist of the training methods, the environmental, situational and regulatory factors.

The assessment should focus on the competencies relevant to the aircraft type and its maintenance such as, but not limited to:

- Environment awareness (act safely, apply safety precautions and prevent dangerous situations);
- Systems integration (demonstrate understanding of aircraft systems interaction – identify, describe, explain, plan, execute);
- Knowledge and understanding of areas requiring special emphasis or novelty (areas peculiar to the aircraft type, domains not covered by LYCAR.66 Appendix I, practical training elements that cannot be imparted through simulation devices, etc.);
- Using reports and indications (the ability to read and interpret);
- Aircraft documentation finding and handling (identify the appropriate aircraft documentation, navigate, execute and obey the prescribed maintenance procedures);  
Perform maintenance actions (demonstrate safe handling of aircraft, engines, components and tools);
- Aircraft final/close-up and report (apply close up, initiate appropriate actions/follow-up/records of testing, establish and sign maintenance records/logbooks).

#### 2) How to assess

As far as feasible, the objectives of the assessment should be associated with the learning objectives and the passing level; it means that observable criteria should

be set in order to measure the performance and should remain as objective as possible.

The general characteristics of effective assessment are: objective, flexible, acceptable, comprehensive, constructive, organised and thoughtful. At the conclusion, the trainee should have no doubt about what he/she did well, what he/she did poorly and how he/she can improve.

The following is a non-exhaustive list of questions that may be posed to assist assessment:

- What are the success factors for the job?
- What are typical characteristics of a correct behaviour for the task?
- What criteria should be observed?
- What level of expertise is expected?
- Is there any standard available?
- What is the pass mark? For example:
  - Go-no go' situation;
  - How to allocate points? Minimum amount to succeed;
  - Must know or execute' versus 'Good to know or execute' versus 'Don't expect the candidate to be an expert'.
- Minimum or maximum time to achieve? Use time effectively and efficiently.
- What if the trainee fails? How many times is the trainee allowed to fail?
- When and how should the trainee be prepared for the assessment?
- What proportion of judgment by the instructor out of collaboration with the trainee is needed during the evaluation stage?

The assessment may be:

- diagnostic (prior to a course), formative (re-orientate the course on areas where there is a need to reinforce) or summative (partial or final evaluation);
- performed task-by-task, as a group of tasks or as a final assessment;

One method might be an initial assessment to be performed by the trainee himself, then discussing

areas where the perceptions of the trainee's performance by the assessors differ in order to:

- develop the self-assessment habits;
- make the assessment more acceptable and understandable to both parties.

A 'box-ticking' exercise would be pointless. Experience has shown that assessment sheets have largely evolved over time into assessment of groups of 'skills' because in practice such things eventually detracted from the training and assessment that it was intended to serve: evaluate at a point of time, encourage and orientate the training needs, improve safety and ultimately qualify people for their duties.

In addition, many other aspects should be appropriately considered during the assessment process such as stress and environmental conditions, difficulty of the test, history of evaluation (such as tangible progresses or sudden and unexpected poor performance made by the trainee), amount of time necessary to build competence, etc. All these reasons place more emphasis on the assessor and highlight the function of the

organisation's approval.

### 3) Who should assess

In order to qualify, the assessor should:

- Be proficient and have sufficient experience or knowledge in:
  - human performance and safety culture;
  - the aircraft type (necessary to have the certifying staff privileges in case of CRS issuances);
  - training/coaching/testing skills;
  - instructional tools to use;
- Understand the objective and the content of the practical elements of the training that is being assessed;
- Have interpersonal skills to manage the assessment process (professionalism, sincerity, objectivity and neutrality, analysis skills, sense of judgement, flexibility, capability of evaluating the supervisor's or instructor's reports, handling of trainee's reactions to failing assessment with the cultural environment, being constructive, etc.);
- Be ultimately designated by the organisation to carry out the assessment. The roles may be combined for:
  - the assessor and the instructor for the practical elements of the Type Rating Training; or
  - the assessor and the supervisor for the On-the-Job Training.

provided that the objectives associated to each role are clearly understood and that the competence and qualification criteria according to the company's procedures are met for both functions. Whenever possible (depending on the size of the organisation), it is recommended to split the roles (two different persons) in order to avoid any conflicts of interests.

When the functions are not combined, the role of each function should be clearly understood.

## APPENDIX I: to LYCAR.66.70 - CONVERSION REPORT

### Conversion of Existing LYCAA Licences/Basic Aircraft Maintenance Engineering Certificate

- (a) This report provides guidelines on the procedure for conversion of the existing LIBYAN CAA licences/ Basic Aircraft Maintenance Engineering Certificate into a LYCAR.66 Aircraft Maintenance Engineer Licence.
- (b) All existing LIBYAN CAA licence/Basic Aircraft Maintenance Engineering Certificate will be converted into either full or restricted LYCAR.66 depending upon privileges held.
- (c) To ensure that existing LIBYAN CAA licence/Basic Aircraft Maintenance Engineering Certificate holders retain their entitlement to certification privileges that they hold by virtue of their existing LIBYAN CAA licence/Basic Aircraft Maintenance Engineering Certificate/authorisations, applicants are requested to provide full details of certification privileges held by them on the application form along with acceptable documentary evidences.
- (d) Categories/ratings/privileges held on the existing licences/Basic Aircraft Maintenance Engineering Certificate as well as all properly issued maintenance authorisations by LYCAA which do not exceed the basic scope of applicants' LIBYAN licences will be considered and will be reflected on the converted LYCAR.66.
- (e) Where all combined qualifications/authorisations do not meet requirements of a full LYCAR.66, limitations as given in the following paragraph will apply. In case of maintenance authorisations that exceed the scope of basic LIBYAN licence and the applicant cannot provide verifiable evidence that he had ever held or holds similar privileges on his other ICAO signatory state licences, appropriate limitations will be applied on his/her converted LYCAR.66 licence.
- (f) (f) With these limitations on the converted licence, the holder may continue to exercise the privileges of the maintenance authorisations as long as he/she continues to work with the organisation that issued the authorisation. However, the holder will lose the right to exercise the privileges upon leaving the organisation.
- (g) The Cutoff date for conversion of the existing licences/ Basic Aircraft Maintenance Engineering Certificate issued by LYCAA is **31<sup>st</sup> December 2025**. All existing licence holders will continue to exercise the privileges of previous licences until this cutoff date after which they will cease to hold the privileges unless converted onto a LYCAR.66 in accordance with LYCAR.66. Applications received after this date for conversion of licences issued in accordance with the existing LYCAR.66 into a LYCAR.66 licence will not be processed.
- (h) There is no time limit for removal of limitations on converted licences. Once a licence is converted into a LYCAR.66 and the ratings, limitations and privileges on the new licences are accepted by the holder, existing licence can no longer be used for certifying purposes. All converted licences will be considered accepted by their holders if no written objection is received by LYCAA.

The following table lists the codes for limitation that may be applied on a converted to LYCAR.66.

Limitation Code	Translation of the code
1	Excluding electrical power generation & distribution systems.
2	<b>Excluding instrument systems, INS/IRS and Flight Directors systems</b>
3	Excluding autopilot systems on aeroplanes
4	Excluding autopilot systems on helicopters
5	Excluding automatic landing and auto throttle systems on aeroplanes
6	Excluding radio communication/navigation and radar systems
7	Excluding radio radar systems
8	Reserved.
9	Excluding avionic LRUs
10	Excluding airframe
11	Excluding engine
12	Excluding all pressurised aeroplanes
13	Reserved
14	Excluding pressurised aeroplanes above 5700 Kg MTOM
15	Excluding supercharged piston engines in aeroplanes
16	Excluding navigational and electronic instrument systems, FDR, GPWS and vibration monitoring systems
17	Excluding radio-coupled autopilot systems in aeroplanes
18	Excluding radio-coupled autopilot systems in helicopters
19	Excluding all tasks with the exception of Compass Compensation and adjustment only
20	Excluding propeller-turbine engines
21	Excluding all tasks with the exception of minor scheduled line maintenance up to and including Daily Inspections
22	Excluding all tasks with the exception of Cabin Maintenance tasks
23	Excluding all tasks with the exception of DC electrical components in mechanical systems
24	Excluding all systems with the exception of LRUs within In-flight Entertainment
25	Systems Excluding electrical power generation and distribution systems on aircraft above 5700 kg MTOM
26	Excluding Avionic LRU replacement and BITE checks on aircraft above 5700 Kg MTOM
27	Excluding Antenna and Antenna Feeder Systems relating to radio and radar systems

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28	Excluding maintenance tasks on Wooden Structures and Fabric Coverings
29	Excluding compass compensation and adjustments.