



## **CIVIL AVIATION ADVISORY PUBLICATION CAAP 28**

### **UAE CAR-66 AIRCRAFT MAINTENANCE ENGINEER LICENCE (CAR66-AMEL)**

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#### *APPLICATION FOR UAE GCAA CAR 66 (Categories A, B1, B2 and C)*

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#### **1. INTRODUCTION**

In order to be authorized as competent to issue certificate of release to service (CRS) in respect of a UAE registered aircraft in accordance with GCAA requirements, one of the prerequisites is that such a person should hold a valid appropriate licence issued in accordance with UAE CAR – 66.

#### **2. PURPOSE**

This Civil Aviation Advisory Publication (CAAP) provides guidance and information to those individuals and/or their employers who wish to apply to the GCAA for a UAE CAR 66 - Aircraft Maintenance Engineer Licence (CAR 66 - AMEL) and to the holders of existing UAE aircraft maintenance engineer licences who wish to apply for conversion/extension of their licence into a CAR66 – AMEL.

#### **3. STATUS OF THIS CAAP**

This edition of CAAP 28, which has been revised to cater for implementation of UAE CAR - 66 and dated 3<sup>rd</sup> July 2011, will remain current until withdrawn or superseded. This CAAP is intended to elaborate the requirements and procedures for application to the GCAA for a CAR-66 Aircraft Maintenance Engineer Licence. In case of any conflict of information between this CAAP and Civil Aviation Regulations (CARs), CARs will take precedence.

#### **4. CANCELLATION.**

This revision of CAAP-28 cancels all previous revisions issued prior to July 1<sup>st</sup>, 2011.

#### **5. APPLICABILITY**

This guidance and policy material applies to all individuals who seek to apply to GCAA for a CAR66 – AMEL.

# REVISION HIGHLIGHTS

Effective Pages/paragraph	Brief Description
All	Second Edition

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## 7. REFERENCES

- (a) UAE Civil Aviation Regulations (CARs) Part II, Licensing regulations. (Chapter 7, CAR 66 – Aircraft Maintenance Engineer Licence).

## 8. CAR66 – AMEL PRIVILEGES AND CATEGORIES

The UAE GCAA CAR66–AMEL is broadly categorized into Mechanical and Avionics trades. Mechanical licenses are further divided into sub categories in view of the various technological combinations applicable to various aircraft types and two levels of authorizations privileges permitted by the license either to act as a line maintenance certifying mechanic or as a certifying engineer. The two levels of authorizations privileges depend on the complexity of the task and are supported by different standards of experience and knowledge. An individual may hold any combination of licence categories.

The categories within CAR 66 Aircraft Maintenance Engineer Licence are:

- Category A Line Maintenance Certifying Mechanic
- Category B1 Maintenance Certifying Engineer (Mechanical)
- Category B2 Maintenance Certifying Engineer (Avionics)
- Category C Base Maintenance Certifying Engineer

- (a) Subject to compliance with paragraph (b) below, the following privileges shall apply:
- (1) A category 'A' aircraft maintenance engineer licence permits the holder to issue certificates of release to service following minor scheduled line maintenance and simple defect rectification within the limits of tasks specifically endorsed on the authorisation. The certification privileges shall be restricted to work that the licence holder has personally performed in a CAR 145 organisation.
  - (2) A category B1 aircraft maintenance engineer licence shall permit the holder to issue certificates of release to service following maintenance, including aircraft structure, powerplant and mechanical and electrical systems. Replacement of avionic line replaceable units, requiring simple tests to prove their serviceability, shall also be included in the privileges. Category B1 shall automatically include the appropriate 'A' subcategory.

- (3) A category B2 Aircraft maintenance engineer licence shall permit the holder to issue certificates of release to service following maintenance on avionics and electrical systems.
  - (4) A category C Aircraft maintenance engineer licence shall permit the holder to issue certificates of release to service following base maintenance on aircraft. The privileges apply to the aircraft in its entirety in a Part-145 organisation.
- (b) The holder of an aircraft maintenance engineer licence may not exercise certification privileges unless:
- (1) In compliance with the applicable requirements of CAR V, CAR M (sub Part F) and/or CAR 145.
  - (2) In the preceding two-year period he/she has, either had six months of maintenance experience in accordance with the privileges granted by the aircraft maintenance engineer licence or, met the provision for the issue of the appropriate privileges.
  - (3) He/she is able to read, write and communicate to an understandable level in English language.
  - (4) He/she is in a physical and mental condition that renders them fit to exercise such privileges.
- (c) Category A: Category A is further divided into sub categories as follows:
- (1) A1 Aeroplanes Turbine
  - (2) A2 Aeroplanes Piston
  - (3) A3 Helicopters Turbine
  - (4) A4 Helicopters Piston
- (d) Category B1: The sub categories for Category B1 Line Maintenance Certifying Engineer/Base Maintenance Engineers are:
- (1) B1.1 Aeroplanes Turbine
  - (2) B1.2 Aeroplanes Piston
  - (3) B1.3 Helicopters Turbine
  - (4) B1.4 Helicopters Piston
- (e) Avionics B2: (no further sub categories).
- (f) Category C: The Category C licence permits the release of an aircraft to service in its entirety by a single certificate of release to service by one overall signatory, once all base maintenance work and checks have been completed in accordance with CAR 145. The Category C licence certifier will act primarily in a maintenance management

role managing the progress of aircraft maintenance work. A Category C licence alone does not permit the holder to act as a B1 or B2 certifier.

## 9. ELIGIBILITY

Acceptance of an application for the grant / extension of a licence requires that the applicant

- (a) Shall either be
  - (1) A UAE national or
  - (2) A legal employee of UAE approved organization with proper justification for a need to hold a UAE GCAA aircraft maintenance engineer licence or
  - (3) A graduate of a GCAA CAR 147 approved basic aircraft maintenance training organization. Applications of such applicants should be endorsed by a nominated person from his training organization and be forwarded with a covering letter.
- (b) Shall not be less than 18 years of age.
- (c) Shall be able to read, write and communicate in English Language.
- (d) Shall provide evidence of training courses related to the application.
- (e) Shall pay the appropriate fee.
- (f) Shall be conversant with the UAE GCAA requirements.
- (g) Shall provide acceptable evidence of recent experience. The experience provided should be arranged in ATA chapter wise format and should be a representative cross section of the maintenance tasks relevant to the category/rating applied for. The experience should be verified in a manner and by a person acceptable to the GCAA to verify such experience. Experience claimed for a licence should not be older than seven years out of which twelve (12) month for B1/B2 and six month for Category A licences should be within the last two years of the application.

In situations where experience acquired by graduates of GCAA approved training organizations is from foreign countries, GCAA approved practical assessors from their training organizations will have to assess their logbooks and recommend the same to GCAA if found acceptable.

Applicants for basic licences should also provide evidence of meeting the applicable knowledge requirements either by means of completing the appropriate GCAA examinations or by successfully completing appropriate basic training with a GCAA approved CAR 147 basic Maintenance Training Organization.

## 10. CATEGORY 'A' LICENCE

The Category A licence is a mechanical based licence and permits the holder, subject to compliance with all other applicable requirements, to issue certificates of release to service within the limits of tasks specifically endorsed on the authorisation, following minor scheduled line maintenance and simple defect rectification. The certification privileges are restricted to work that the authorization holder has personally performed in a CAR 145 organization.

(a) **EXPERIENCED APPLICANTS:** This section provides guidance on procedure that is applicable to applicants other than those from a GCAA approved CAR147 basic Maintenance Training Organization.

(1) **Experience Requirements:** An applicant for a category 'A' licence must have completed a minimum of three (03) years aircraft maintenance experience. This experience should include minor scheduled line maintenance and simple defect rectification on a civil registered operating aircraft appropriate to the category of licence for which application is made. A reduction in the 3 years experience requirement may be considered for applicants who can provide verifiable evidence of comparable experience gained on military aircraft. This reduction applies only to the three years experience requirements and does not entitle the applicant to exemptions from any examinations applicable to the licence category. Such candidates must also provide a minimum of six (06) months experience of minor scheduled line maintenance and simple defect rectification on a civil registered operating aircraft. The experience should be arranged, verified and presented to GCAA in an ATA chapter wise format as explained at Section of this CAAP.

(2) **Basic Knowledge requirements:** A Category 'A' applicant must demonstrate, by way of successfully qualifying applicable GCAA examinations, an adequate level of knowledge in the required subjects as detailed below in this section. Detailed requirements and procedure for application to GCAA for CAR 66 examinations are given at Para 17 of this CAAP. Knowledge level requirements are given in Appendix I to CAR – 66.

### A. Aeroplanes Turbine-Engines (A1.1)

Module 1	Mathematics
Module 2	Physics
Module 3	Electrical Fundamentals
Module 5	Digital Techniques/Electronic Instrument Systems
Module 6	Materials & Hardware
Module 7	Maintenance Practices
Module 8	Basic Aerodynamics
Module 9	Human Factors
Module 10	Aviation Legislation
Module 11	Aeroplanes Aerodynamics, Structures & Systems
Module 15	Gas Turbine Engines
Module 17	Propeller

## **B. Aeroplanes Piston-Engines (A1.2)**

Module 1	Mathematics
Module 2	Physics
Module 3	Electrical Fundamentals
Module 5	Digital Techniques/Electronic Instrument Systems
Module 6	Materials & Hardware
Module 7	Maintenance Practices
Module 8	Basic Aerodynamics
Module 9	Human Factors
Module 10	Aviation Legislation
Module 11	Aeroplanes Aerodynamics, Structures & Systems
Module 16	Piston Engine
Module 17	Propeller

## **C. Helicopter Turbine-Engines (A1.3)**

Module 1	Mathematics
Module 2	Physics
Module 3	Electrical Fundamentals
Module 5	Digital Techniques/Electronic Instrument Systems
Module 6	Materials & Hardware
Module 7	Maintenance Practices
Module 8	Basic Aerodynamics
Module 9	Human Factors
Module 10	Aviation Legislation
Module 12	Helicopter Aerodynamics, Structures & Systems
Module 15	Gas Turbine Engine

## **D. Helicopter Piston Engines (A1.4)**

Module 1	Mathematics
Module 2	Physics
Module 3	Electrical Fundamentals
Module 5	Digital Techniques/Electronic Instrument Systems
Module 6	Materials & Hardware
Module 7	Maintenance Practices
Module 8	Basic Aerodynamics
Module 9	Human Factors
Module 10	Aviation Legislation
Module 12	Helicopter Aerodynamics, Structures & Systems
Module 16	Piston Engine

## **E. Essay Examination**

In addition to the multiple-choice question papers relevant to the appropriate level and modules, essay examination must be taken. The



essay examination will comprise of questions drawn from the syllabus subjects covering Maintenance Practices (Module 7), Human Factors (Module 9) and Aviation Legislation (Module 10).

The purpose of the essay is to allow the GCAA to determine if candidates can express themselves in a clear and concise manner in the form of a written response, in a technical report format using the technical language of the aviation industry. The essay examinations also allow, in part, to assess the technical knowledge retained by the individual and with a practical application relevant to a maintenance scenario.

- (b) CAR-147 approved training route: An approved training can be undertaken with a GCAA CAR-147 approved basic training centre. The applicant is required to submit a copy of the Certificate of Recognition issued after successful completion of the course by the approved training school. The course must have included theoretical exams and practical skills assessments as part of the training.

The approved course must be followed by a minimum of 1 year's practical line maintenance experience duly verified by a GCAA approved practical assessor. The experience should be arranged, verified and presented to GCAA in an ATA chapter wise format as explained at Para 9(g) of this CAAP.

## **11. CATEGORY B1 LICENCE**

The B1 licence is a mechanical based licence and allows the holder, subject to compliance with all other applicable requirements, to issue certificates of release to service following maintenance, including aircraft structure, power plants and mechanical and electrical systems including replacement of avionics line replaceable units (LRUs) requiring simple tests without the use of test equipment to prove their serviceability. A Category B1 licence holder also has a role in base maintenance in supporting the Category C Base Maintenance Engineer who is the final CRS/SMI signatory.

A full CAR66 B1 licence issued in a particular sub-category also entitles the holder to exercise the privileges of a Category A licence for other aircraft types, not endorsed on the CAR-66 licence as type ratings, subject to the task training and authorisation requirements for those types being satisfied.

- (a) EXPERIENCED APPLICANTS: This section provides guidance on procedure that is applicable to applicants other than those from a GCAA approved basic CAR 147 Maintenance training organization.

(1) Experience Requirements:

- A. **Category B1.1 or B1.3** applicants, who have not attended a CAR 147 approved course of training, should have at least 5 years practical maintenance experience on operating aircraft. Experience claimed

towards a CAR 66 licence must meet the standards of CAR 145 and must be correctly authenticated in a manner acceptable to the GCAA.

- B. **Category B1.2 or B1.4** applicants, who have not attended a CAR 147 approved course of training, should have at least 3 years practical maintenance experience on operating aircraft. Experience claimed towards a CAR 66 licence must meet the standards of CAR 145 and must be correctly authenticated in a manner acceptable to the GCAA

A reduction in the above experience requirement may be considered for applicants who can provide verifiable evidence of comparable experience gained on military aircraft. This reduction applies only to the total experience requirements and does not entitle the applicant to exemptions from any examinations applicable to the licence category. Such candidates must also provide a minimum of one (01) year experience gained in civil aircraft maintenance environment on a civil registered operating aircraft.

- (2) **Basic Theoretical Knowledge requirements:** A Category B1 applicant must demonstrate, by way of successfully qualifying applicable GCAA examinations, an adequate level of knowledge in the required subjects as detailed below in this section. Detailed requirements and procedure for application to GCAA for CAR 66 examinations are given at Para 17 of this CAAP. Knowledge level requirements are given in Appendix I to CAR – 66.

**A. Aeroplanes Turbine-Engines (B1.1)**

Module 1	Mathematics
Module 2	Physics
Module 3	Electrical Fundamentals
Module 4	Electronic Fundamentals
Module 5	Digital Techniques/Electronic Instrument Systems
Module 6	Materials & Hardware
Module 7	Maintenance Practices
Module 8	Basic Aerodynamics
Module 9	Human Factors
Module 10	Aviation Legislation
Module 11	Aeroplanes Aerodynamics, Structures & Systems
Module 15	Gas Turbine Engines
Module 17	Propeller

**B. Aeroplanes Piston-Engines (B1.2)**

Module 1	Mathematics
Module 2	Physics
Module 3	Electrical Fundamentals

Module 4	Electronic Fundamentals
Module 5	Digital Techniques/Electronic Instrument Systems
Module 6	Materials & Hardware
Module 7	Maintenance Practices
Module 8	Basic Aerodynamics
Module 9	Human Factors
Module 10	Aviation Legislation
Module 11B	Aeroplanes Aerodynamics, Structures & Systems
Module 16	Piston Engine
Module 17	Propeller

**C. Helicopter Turbine-Engines (B1.3)**

Module 1	Mathematics
Module 2	Physics
Module 3	Electrical Fundamentals
Module 4	Electronic Fundamentals
Module 5	Digital Techniques/Electronic Instrument Systems
Module 6	Materials & Hardware
Module 7	Maintenance Practices
Module 8	Basic Aerodynamics
Module 9	Human Factors
Module 10	Aviation Legislation
Module 12	Helicopter Aerodynamics, Structures & Systems
Module 15	Gas Turbine Engine

**D. Helicopter Piston Engines (B1.4)**

Module 1	Mathematics
Module 2	Physics
Module 3	Electrical Fundamentals
Module 4	Electronic Fundamentals
Module 5	Digital Techniques/Electronic Instrument Systems
Module 6	Materials & Hardware
Module 7	Maintenance Practices
Module 8	Basic Aerodynamics
Module 9	Human Factors
Module 10	Aviation Legislation
Module 12	Helicopter Aerodynamics, Structures & Systems
Module 16	Piston Engine

**E. Essay Examination**

In addition to the multiple-choice question papers relating to appropriate level and modules required, an essay examination must be taken. The essay examination will comprise questions drawn from the

syllabus subjects covering Maintenance Practices (Module 7), Human Factors (Module 9) and Aviation Legislation (Module 10).

The purpose of the essay is to allow the GCAA to determine if candidates can express themselves in a clear and concise manner in the form of a written response, in a technical report format using the technical language of the aviation industry. The essay examination also allows, in part, to assess the technical knowledge retained by the individual and with a practical application relevant to a maintenance scenario.

- (b) CAR-147 approved training route: An approved training can be undertaken with a GCAA CAR-147 approved basic training centre. The course will consist of a minimum of 2400 hours instruction. The course must have included theoretical exams and practical skills assessments as part of the training. The applicant is required to submit a copy of the Certificate of Recognition issued after successful completion of the course by the approved training school.

The approved course must be followed by a minimum of two (02) year's relevant acceptable maintenance experience gained on civil registered aircraft in a CAR-145 approved maintenance organization. The experience should be duly authenticated by a GCAA approved practical assessor.

## 12. CATEGORY B2 LICENCE

The B2 licence is avionics based and allows the holder, subject to compliance with all other applicable requirements, to issue certificates of release to service, following line maintenance on avionics systems. A Category B2 licence holder also has a role in base maintenance in supporting the Category C Base Maintenance Engineer who is the final CRS/SMI signatory.

The B2 licence broadly covers the following areas:

- Instrument Systems
- Automatic Pilot Systems (fixed and rotary wing), including Auto-throttle and Auto-land Systems
- Radio Communication, Navigation and Radar Systems
- Electrical Power Generation and Distribution Systems

A CAR 66 B2 licence does not provide for any Category A licence authorization privileges. Where such privileges are desired, the applicant will have to obtain appropriate category A licence endorsement in accordance with relevant requirements.

- (a) EXPERIENCED APPLICANTS: This section provides guidance on procedure that is applicable to applicants other than those from a GCAA approved basic CAR-147 Maintenance training organization.

- (1) Experience Requirements: An applicant for a category B2 licence must have completed a minimum of 05 years aircraft maintenance experience. This

experience should include experience gained on a civil registered operating aircraft appropriate to the category of licence for which application is made. A reduction in the above experience requirement may be considered for applicants who can provide verifiable evidence of comparable experience gained on military aircraft. This reduction applies only to the total experience requirements and does not entitle the applicant to exemptions from any examinations applicable to the licence category. Such candidates must provide a minimum of 01 year experience gained in civil aircraft maintenance environment on a civil registered operating aircraft.

- (2) Basic Knowledge requirements: A Category B2 applicant must demonstrate, by way of successfully qualifying applicable GCAA examinations, an adequate level of knowledge in the required subjects as detailed below in this section. Detailed requirements and procedure for application to GCAA for CAR 66 examinations are given at Para 17 of this CAAP. Knowledge level requirements are given in Appendix I to CAR – 66.

**A. B2 Avionic**

Module 1	Mathematics
Module 2	Physics
Module 3	Electrical Fundamentals
Module 4	Electronic Fundamentals
Module 5	Digital Techniques/Electronic Instrument Systems
Module 6	Materials & Hardware
Module 7	Maintenance Practices
Module 8	Basic Aerodynamics
Module 9	Human Factors
Module 10	Aviation Legislation
Module 13	Aircraft Aerodynamics, Structures and Systems
Module 14	Propulsion

**E. Essay Examination**

In addition to the multi-choice question papers relevant to the appropriate level and modules, an essay examination must also be taken. The essay examination will comprise of questions drawn from the syllabus subjects covering Maintenance Practices (Module 7), Human Factors (Module 9) and Aviation Legislation (Module 10).

The purpose of the essay is to allow the GCAA to determine if candidates can express themselves in a clear and concise manner in the form of a written response, in a technical report format using the technical language of the aviation industry. The essay examination also allows, in part, to assess the technical knowledge retained by the individual and with a practical application relevant to a maintenance scenario.

- (b) CAR-147 approved training route: An approved training can be undertaken with a GCAA CAR-147 approved basic training centre. The course will consist of a minimum of 2400 hours instruction. The course must have included theoretical exams and practical skills assessments as part of the training. The applicant is required to submit a copy of the Certificate of Recognition issued after successful completion of the course by the approved training school.

The approved course must be followed by a minimum of 2 year's relevant acceptable maintenance experience gained on civil registered aircraft in a CAR-145 approved maintenance organization. The experience should be duly authenticated by a GCAA approved practical assessor.

### 13. CATEGORY 'C' LICENCE

The Category C licence allows the holder, subject to compliance with all other applicable requirements, to release an aircraft to service in its entirety with a single CRS following a base maintenance check by a single overall signatory, once all base maintenance work and check have been completed in accordance with GCAA requirements. The Category C licence holder will act primarily in a maintenance management role controlling the progress of aircraft maintenance work. A Category C licence alone does not permit the holder to act as a B1 or B2 certifier unless the license is appropriately endorsed for the respective B1 or B2 category.

A Category C licence may be obtained via one of two available routes: either by experience gained through holding a Category B1 or B2 licence, or as a graduate entrant with a degree that is considered to be acceptable to the GCAA (called here as academic route).

(a) EXPERIENCE REQUIREMENTS:

- (1) **Large Aircraft:** Three (03) years experience exercising B1.1, B1.3 or B2 privileges on large aircraft or as CAR-145 B1.1, B1.3 or B2 support staff, or a combination of both.

Five (05) years experience exercising B1.2 or B1.4 privileges on large aircraft or as CAR-145 B1.2 or B1.4 support staff, or a combination of both.

For the purpose of this paragraph, "large aircraft" means an aircraft, classified as an aeroplane with a maximum take-off mass of more than 5700 kg, or a multi-engine helicopter.

- (2) **Non Large Aircraft:** Three (03) years experience exercising B1 or B2 privileges on non- large aircraft or as CAR-145 B1 or B2 support staff, or a combination of both.
- (3) **Academic route for University graduates in Aeronautical Engineering (or equivalent)**

A university graduate holding a degree in aeronautical engineering, or an equivalent discipline that is considered acceptable by the GCAA for a Category C licence must have at least three (03) years experience in a civil aircraft maintenance environment including six (06) months of observation of base maintenance tasks. 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.

A person qualifying for a Category C licence via this route will not be entitled to a Category B1 or B2 licence unless the requirements for those categories are also separately met. The GCAA would need to conduct a detailed assessment of the course, which will require co-operation of the university concerned. All charges incurred on the assessment process will be borne by the applicant.

(b) BASIC KNOWLEDGE REQUIREMENTS:

Category C certifying staff with a mechanical background should meet the Category B1 basic knowledge levels. Category C certifying staff with an avionics background should meet the category B2 basic knowledge levels. Required basic knowledge levels for these categories are given in Appendix I to CAR-66.

Applicants following the academic route for direct issue of Category C must pass either the Category B1 or B2 full examinations.

#### 14. EXTENSION OF AN EXISTING CAR-66 LICENCE TO INCLUDE ANOTHER CATEGORY

(a) EXPERIENCE REQUIREMENTS:

The following minimum additional experience is required when applying for extension of existing licences to hold additional categories.

To From	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2
<b>A1</b>		6 Months	6 Months	6 Months	2 years	6 Months	2 years	1 year	2 years
<b>A2</b>	6 Months		6 Months	6 Months	2 years	6 Months	2 years	1 year	2 years
<b>A3</b>	6 Months	6 Months		6 Months	2 years	1 year	2 years	6 Months	2 years
<b>A4</b>	6 Months	6 Months	6 Months		2 years	1 year	2 years	6 Months	2 years
<b>B1.1</b>	None	6 Months	6 Months	6 Months		6 Months	6 Months	6 Months	1 year
<b>B1.2</b>	6 Months	None	6 Months	6 Months	2 years		2 years	6 Months	2 years
<b>B1.3</b>	6 Months	6 Months	None	6 Months	6 Months	6 Months		6 Months	1 year
<b>B1.4</b>	6 Months	6 Months	6 Months	None	2 years	6 Months	2 years		2 years
<b>B2</b>	6 Months	6 Months	6 Months	6 Months	1 year	1 year	1 year	1 year	

(b) BASIC KNOWLEDGE/EXAMINATION REQUIREMENTS:

The CAR-66 syllabus normally requires different levels of knowledge for different licence categories (A, B1 and B2) within a module; therefore, appropriate conversion examinations applicable to certain modules for licence holders wishing to include another category, have to be completed. The most common cases of category conversion are given in Appendix (I) to this CAAP.

Applicants are advised to apply for extension to include another category after removing maximum possible limitations from their existing categories as this would enable the GCAA to work out the additional differences modular requirements for the applicant expeditiously and accurately.

Applications to include further categories to an existing licence should be made in the same way as for initial application to GCAA Licensing section. GCAA will assess the application and advise the applicant of the modules/part modules, date and venue of the examination.

The GCAA, or its approved designated CAR 147 organization on its behalf, will conduct module/part module examinations for extension of an existing CAR-66 licence to have further categories.

## **15 TYPE RATING ENDORSEMENT**

Unless otherwise specified by GCAA, a basic B1 or B2 licence cannot be used to issue a CRS on a UAE registered aircraft unless it is appropriately endorsed for the type of aircraft and the holder is duly authorized as competent to issue such CRS. B1, B2 and Category C licence holders can apply to the GCAA for type rating endorsement if they meet all the requirements.

Category 'A' licences do not have any type ratings. However, the holder of a category A Aircraft maintenance engineer licence may only exercise certification privileges on a specific aircraft type after satisfactory completion of the relevant category A aircraft task training carried out by an appropriately approved CAR 145 or CAR 147 organisation and the holder is authorized by an approved CAR 145 organization as competent to issue such certification. The training shall include practical and theoretical training as appropriate for each task authorised. Satisfactory completion of training shall be demonstrated by an examination and/or by workplace assessment carried out by an appropriately approved CAR-145 or CAR-147organisation.

GCAA will endorse type ratings (individual as well as group) on basic B1, B2 or C CAR66-AMELs only for the type of aircraft that are currently on UAE civil aircraft register.

GCAA may endorse group type ratings on non-large aircraft in line with the guidance given below.

A group type rating does not automatically entitle the holder to certify work on an aircraft type with which he or she is not familiar. It is responsibility of the licence holder to first familiarise themselves with the general characteristics of the aircraft, the maintenance documentation system used by the manufacturer and the relevant airworthiness requirements that apply to the aircraft type.



- (a) **INDIVIDUAL TYPE RATINGS:** GCAA will endorse type ratings on basic B1, B2 or C CAR66-AMELs only for the type of aircraft that are currently on UAE civil aircraft register.
- (b) **GROUP RATINGS:** In accordance with the provision of CAR-66 as explained with the examples given below and subject to compliance with all other requirements, group type ratings may only be endorsed on licences either as Manufacturer Group ratings or Full Group Ratings with the following group headings:
- (1) **B1 OR C GROUPS:**
- A. Helicopter piston engine
  - B. Helicopter turbine engine
  - C. Aeroplane single piston engine — metal structure
  - D. Aeroplane multiple piston engines — metal structure
  - E. Aeroplane single piston engine — wooden structure
  - F. Aeroplane multiple piston engines — wooden structure
  - G. Aeroplane single piston engine — composite structure
  - H. Aeroplane multiple piston engines — composite structure
  - I. Aeroplane turbine — single engine
  - J. Aeroplane turbine — multiple engine
- (2) **B2 OR C GROUPS:**
- A. Aeroplane
  - B. Helicopter
- (3) **MANUFACTURER GROUP RATINGS:** Manufacturer group ratings may be granted after complying with the type rating requirements of two aircraft types, representative of the group from the same manufacturer.

**Example of manufacturer group ratings:**

<b>Type of aircraft endorsed on the license</b>	<b>Manufacturer Group rating endorsement eligibility</b>
Piper PA22 + Piper PA38	Piper – Aeroplane single piston engine – metal structure
Cessna 310 + Cessna 414	Cessna – Aeroplane multi piston engine – metal structure

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- (4) **FULL GROUP RATINGS:** Full group ratings may be granted after complying with the type rating requirements of three aircraft types, representative of the group from different manufacturers. However, no full group rating may be granted to B1 multiple turbine engine aeroplanes, where only manufacturer group rating applies.

**Example of full group ratings:**

Type of aircraft endorsed on the licence	Group rating endorsement eligibility
Piper PA22 + Cessna C175 + Beech 33	Group – Aeroplane single piston engine – metal structure

- (c) **PRE-REQUISITES FOR TYPE RATING ENDORSEMENTS:** GCAA will endorse type rating endorsements on CAR66 basic Aircraft Maintenance Engineer Licences provided the applicant has completed approved type training and meets the experience requirements given in the following paragraphs. Applications for type rating endorsements will not be considered if the basic license has limitations that severely limit the privileges of the basic license e.g. a B1 with limitation 10 or 11 etc. Holders of such licenses will be required to apply for removal of the limitations first before being allowed to apply for endorsement/addition of new types.

- (1) **Approved type course:** GCAA will accept only approved/recognized type trainings for the purpose of type rating endorsements. Operators should ensure that their maintenance staffs undergo type trainings only at GCAA approved type training organizations if it is intended to be for the purpose of type rating endorsement on UAE CAR 66 licences. Only type courses started and completed within three years prior to the date of application will be accepted for type rating endorsements.

- A. In situations where the training is to be performed at facilities that are not approved by the GCAA, the operator must ensure that the particular training has prior acceptance/recognition by the GCAA before the commencement of the training by applying on appropriate GCAA form and paying the applicable course evaluation fee. Following documents have to be submitted along with the application for type

course acceptance/recognition. Applications should reach GCAA at least thirty (30) days before the commencement of the proposed training.

- i. Application on appropriate GCAA Licensing form
- ii. Applicable Course evaluation fee
- iii. Copy of Certificate of Approval of the organization imparting the training
- iv. Copy of remote site approval if the training is being conducted at locations other than approved in MTOE
- v. Training needs analysis and a copy of training course material
- vi. Course plan, syllabus and timetable with dates of aircraft visits and phase examinations
- vii. Details of facilities with location map of proposed training site
- viii. List of the candidates nominated to attend the training
- ix. Bio Data of the course facilitator alongwith copy of his company authorization and evidence of his acceptability to the original authority of the training provider.
- x. Statement from the quality manager that the participants will be relieved from their routine maintenance duties and that the total theoretical training/practical training/work combination of any course participant will not exceed eight (08) hours in any given day throughout the duration of the training and that the training will take place during regular office hours.
- xi. A sample copy of course certificate to be awarded to successful candidates on completion of the course.

Only courses that conform to standards given at Appendix III to CAR 66 and requirements of CAR 147 will be considered for approval. GCAA may require undertaking audits during the course of the training to assess conformance to GCAA requirements. All costs incurred on such visits will be separately borne by the applicant and are not included in the initial application fee. A separate application will be required for every course. However, if the same type training is being conducted by the same training provider for the same organization within twenty four months from the date of first approval, the applicant does not need to provide all of the above documents again. Only details of the circumstances different from the previous application need to be provided. However, appropriate fee will be applicable every time separately.

- (2) Practical experience for type ratings: The following paragraphs detail the experience requirements for the issue of GCAA Type Licences.
- A. For the first type manufactures training course, the schedule of work experience must be completed evenly over a four month period for airframe and engine or electrical, instruments, autopilot, compass, radio and radar as appropriate.

- B. For an engine on its own it will be one month, for an airframe it will be three months.
- C. If the applicant can show experience and hold maintenance licences of comparable construction and systems on aircraft from same manufacturer, the schedule of work experience to be achieved by the applicant shall be as follows:
- i. Airframe/Engine: Thirty (30) working days.
  - ii. Engine: Fourteen (14) working days.
  - iii. Avionics: Twenty (20) working days.
  - iv. Differences Training: As required to complete all necessary tasks as directed by a Schedule of Type Experience, this would be in addition to any required engine experience.
- D. The GCAA strongly recommends that all operators develop schedules of Type Experience for each type of aircraft in their fleet and submit it to the GCAA for approval. The GCAA expects that schedule of practical experience will comprise the majority of the maintenance tasks listed in the Aircraft Maintenance Manual that are relevant to the scope of the applied rating. The experience should be in ATA (or equivalent) format. As an example, the formats given as Appendix (IVA) (for Airframe and Engines/B1) and Appendix (IVB) (for Avionics/B2) are typical tasks for large and medium sized commercial aircraft. These appendices are not exhaustive and may not apply in totality to every type of aircraft. They are typical of a medium sized aircraft type and are given for illustrative and guidance purposes only. They may not be applicable to every aircraft type on UAE civil aircraft register. Operators are advised to develop Schedules of inspections applicable to their aircraft type on the format and get it approved from GCAA. A typical format for helicopters (based on one particular helicopter type) is also given as Appendix (IV C) which, again, is for guidance purposes and not applicable to all types of helicopter on UAE registry.
- E. The GCAA may consider reduced practical experience durations on case-by-case basis, provided the experience was gained dedicatedly (full time) in accordance with an approved structured On the Job Training (OJT) schedule under supervision of a GCAA approved OJT assessor. Prior approval from GCAA is necessary for reduced duration of OJT and the trainees and assessor need to be relieved from their routine duties. This reduced duration should be reasonable and should allow the assessor sufficient time to adequately assess the applicants' knowledge/skills in each task in the schedule.
- F. The GCAA will not accept experience gained concurrently/ overlapping for more than one type of aircraft. Applicants applying for endorsement of more than one type of aircraft are expected to start their second aircraft schedule of work after the completion of the first type. This condition does not apply to different variants of the same type (regardless of the type of engine). For example: it is permissible to complete the approved schedule of practical experience within the four months stipulated above for all different variants of B777 aircraft if it is the first type rating for the applicant.

- G. All applications and schedules of inspections/ practical type experience submitted to GCAA along with applications for type rating endorsements should be duly authenticated by an approved GCAA practical assessor for the type of aircraft. Individual tasks in a schedule of inspection/OJT schedule may be signed/verified by any appropriately type rated engineer supervising the job. The role of the assessor will be to assess the applicant on a representative cross section of the tasks relevant to the rating and endorse/recommend the schedule to the GCAA for the applied rating.
- H. Practical experience/practical training/OJT for the purpose of type rating endorsement should normally start after the completion of the applicable theoretical type training or refresher course. Moreover, practical experience gained before issue of a UAE AME license will not be considered for type rating endorsement.

#### **16. CONVERSION OF EXISTING GCAA LICENCES (ISSUED IN ACCORDANCE WITH PREVIOUS CHAPTER 7, CAR PART II) TO CAR 66 - AMELs.**

This section provides guidelines on the procedure for conversion of existing UAE GCAA licences (issued in accordance with Chapter 7, CAR Part II) into a CAR66–Aircraft Maintenance Engineer Licence (CAR66–AMEL). All existing licence will be converted into either full or restricted CAR66–AMEL depending upon privileges held. To ensure that existing licence holders retain their entitlement to certification privileges that they hold by virtue of their existing licences/authorizations, applicants are requested to provide full details of certification privileges held by them on the application form alongwith acceptable documentary evidences. Categories/ratings held on the existing licences as well as all properly issued maintenance authorizations which do not exceed the basic scope of applicants’ UAE licences will be considered and will be reflected on the converted CAR66–AMEL. Where all combined qualifications/authorizations do not meet requirements of a full CAR66–AMEL, limitations as given in the following paragraph will apply. In case of maintenance authorizations that exceed the scope of basic UAE license and the applicant cannot provide verifiable evidence that he had ever held or holds similar privileges on his other ICAO signatory state licenses, appropriate limitations will be applied on his/her converted CAR 66 license. With these limitations on the converted license, the holder may continue to exercise the privileges of the maintenance authorizations as long as he/she continues to work with the organization that issued the authorization. However, the holder will lose the right to exercise the privileges upon leaving the organization.

Cut off date for conversion of the existing licences is **1<sup>st</sup> July 2015**. All existing licence holders will continue to exercise the privileges of old licences until this cut off date after which they will cease to hold the privileges unless converted onto a CAR66-AMEL in accordance with CAR 66 and guidelines of this CAAP. Applications received after this date for conversion of licences issued in accordance with the previous Chapter 7, CAR Part II into a CAR 66 licence will not be entertained. However, there is no time limit for removal of limitations on converted licences. Once a licence is converted into a CAR66-AMEL and the ratings, limitations and privileges on the new licences are accepted by the holder, previous 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 GCAA within

three (03) months of the date of conversion. Such objections can be submitted as a letter of appeal addressed to Director Licensing, GCAA Dubai office, P.O. Box 30500, Dubai, UAE.

Status of certification authorizations issued by CAR 145 organizations on the basis of existing UAE licenses that exceeded the basic scope of the license will become frozen as on 1<sup>st</sup> July 2011. However, privileges granted by CAR145 organizations prior to this date can be exercised. Further authorizations that exceed the basic scope of the license cannot be granted on the basis of unconverted licenses.

Note: Due large number of existing valid GCAA AME licenses and the amount of efforts involved in working out the equivalent CAR 66 AMEL, delays may be expected in the processing time of conversion of existing licenses into CAR 66 AMELs. Therefore, no FAST TRACK application will be entertained for license conversion

All converted licenses will be valid for eight (08) years from the date of conversion. Applicants will be charged the same amount as currently applicable for license renewal. However, they will be given fee credit for the remaining validity of their existing licenses on pro-rata full year basis. For example, if an existing license has three years and 'x' months remaining till expiry; the holder will get a fee credit for three years.

(a) LIMITATIONS ON CONVERTED LICENCES:

The following table lists the codes for limitation that may be applied on a converted CAR66–AMEL.

For the purpose of this CAAP, “limitation” means tasks that cannot be certified by the holder of the licence that carries the limitation code.

<b>Limitation Code</b>	<b>Translation of the code</b>
1	Excluding electrical power generation & distribution systems.
2	Excluding instrument systems, INS/IRS and Flight Directors systems
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 Systems
25	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
28	Excluding maintenance tasks on Wooden Structures and Fabric Coverings
29	Excluding compass compensation and adjustments.
30	Excluding all tasks with the exception of tasks included in pre-flight check
31	Excluding all tasks with the exception of aircraft refuelling

(b) CONVERSION OF A BASIC UAE GCAA AIRCRAFT MAINTENANCE ENGINEER LICENCE (LWTR) INTO A BASIC CAR66 – AMEL.

Basic ratings held on the existing UAE licences will be considered and will be reflected on the converted CAR66–AMEL. Where all combined ratings/authorizations do not meet requirements of a full relevant CAR66–AMEL category, applicable limitations as appropriate will be applied.

All applications for basic UAE licences that are currently under process will be dealt in accordance with CAR66. If an applicant has partially completed requirements for any category under the previous system, he/she will be allowed to complete the process in accordance with the provisions of section 17 of this CAAP and will be issued a CAR66-AMEL with applicable limitations as introduced in this CAAP unless modules/part modules required for removal of limitation are completed before issue of licence in the appropriate category.

If the licence holder qualifies for a B1 sub-category AMEL, the corresponding A sub-category AMEL will also be granted unless the licence carries limitation 10 or 11.

Part/full conversion examinations as appropriate to remove limitations may be taken after the conversion process of the license is complete. Additional experience may also be needed to be provided before qualifying for the full category or sub-category of a CAR66-AMEL.

A table covering the most common existing GCAA licences (Issued under Chapter 7, CAR Part II) to CAR-66 licence conversion scenarios can be found in Appendix (II)

(c) ISSUE OF A CATEGORY A LICENCE TO A PREVIOUSLY UNLICENSED MAINTENANCE STAFF OF CAR-145 APPROVED ORGANIZATIONS

Only Maintenance authorizations that have been properly issued and held for at least **two (02) years** by 1<sup>st</sup> July 2011 will be considered for grant of an equivalent category 'A' licence. Applicants applying for a Category 'A' licence on the basis of maintenance authorizations issued by a CAR-145 approved organization must provide evidence of the authorisation and copies of relevant training and experience certificates on the basis of which the authorization was granted. Since most authorization/approvals currently being held by unlicensed maintenance personnel under the jurisdiction of UAE GCAA do not hold any CRS/defect rectification privileges, the process of their evaluation for an equivalent Category A licence is expected to be time consuming and tedious, hence no FAST TRACK applications will be accepted for Category A licences to previously unlicensed maintenance authorization holders.

Appropriate limitations, most common of which are listed below, will apply.

**Conversion of Maintenance Authorizations of previously unlicensed personnel to CAR-66 Category A licence.**

<b>Company Authorisation issued prior to 1<sup>st</sup> July 2009.</b>	<b>Applicable CAR-66 Limitation(s)</b>	<b>Limitation means</b>
Unrestricted	Nil	Nil
Daily Check/Inspections	21	Excluding all tasks with the exception of minor scheduled line maintenance up to and including Daily Inspections
Cabin Maintenance	22	Excluding all tasks with the exception of Cabin Maintenance tasks
Replacement of IFE system	24	Excluding all systems with the exception of LRUs within In-flight Entertainment (IFE) Systems
Pre-flight inspection	30	Excluding all tasks with the exception of tasks included in pre-flight check
Aircraft refueling	31	Excluding all tasks with the exception of aircraft refuelling

Holders of the above authorizations will only be eligible to hold a Category 'A' licence with the appropriate limitations. To remove the limitations, the holder needs to fulfil the complete requirements of the applicable category 'A' licence. Similarly, for extension of these licences to include other categories, holders will be required to complete full examination and experience requirements of the desired CAR 66 AMEL category.

(d) CONVERSION OF GCAA TYPE RATINGS TO CAR-66 LICENCE

Aircraft types endorsed on the current copy of an applicant's existing GCAA licence will be transferred directly to a CAR-66 licence at the time of conversion. Only aircraft types currently on UAE aircraft register and held by the candidate on GCAA licence will be endorsed.



- (1) A & C (Mechanical) & Avionics X/R Type Ratings: Type ratings for individual aeroplanes or helicopters will be transferred as type ratings in Category B1 and B2 with any appropriate limitations.

Group ratings held on existing GCAA licence or individual type ratings qualifying for award of group rating according to CAR 66 provisions, at the time of conversion will be transferred to the replacement licence in the form of full group ratings or manufacturer group ratings.

- (2) Category C Ratings on Converted licences.

Category C type rated licences will be endorsed on the replacement/converted CAR66-AMEL if the existing GCAA type rated licences have either full set mechanical (Airframe and engine categories) or full set Avionics (X and R categories) type ratings endorsed on them for more than three years and the applicant can provide evidence that he/she is holding a valid company authorization for Scheduled Maintenance Inspection Certificate of Release to Service (SMI CRS) for the types of aircraft. To simplify these requirements, an applicant who desires to have category C type ratings transferred on to replacement licence has to provide evidence in support of the following:

- (a) Type ratings endorsements on GCAA licence and maintenance authorizations for at least three years in

Either (i) A + C Categories  
Or (ii) X + R categories

And

- (b) Company authorization for Scheduled Maintenance Inspection Certificate of Release to Service (SMI CRS)

(e) REMOVING LIMITATIONS FROM A BASIC LICENCE: Limitations on a converted/replacement B1/B2 CAR 66- AMEL licence may be removed by undertaking conversion examinations in appropriate Modules/part modules. There is no cut off date for removal of limitations on converted licenses. Existing licence holders are advised to apply for conversion of their licenses into CAR 66 AMELs prior to applying for full/part modular examinations for removal of anticipated limitations on the converted licences. Once holders receive their converted license, they can apply to GCAA for removal of limitations accordingly.

Also, license holders are advised to apply for removal of all limitations in a single application. Applications for removal of partial limitations will be rejected and the applicants will be advised to apply once ready for undertaking all applicable examinations for removing all limitations on the licence. Additionally, the applicants will be required to furnish evidence of experience related to additional examinations passed. After evaluation of the application

for removal of the limitations, the applicant may be advised to appear in the additional examinations conducted either by GCAA or its designated organization.

Please refer to Appendix (III) for applicable Modules/part module examinations required for removal of limitations.

Typically 06 months relevant additional experience including detailed evidence of competence in the relevant basic skills is required in the areas appropriate to the basic category/sub-category, which are not covered by previous qualifications/privileges.

(f) REMOVING LIMITATIONS FROM A TYPE RATING: Where the limitation applies only to the type rating, it can be removed by completing either an approved conversion course covering the differences or a full B1 or B2 type course as appropriate. This training must be conducted by an approved CAR-147 maintenance training organisation. The additional experience submitted should include all areas not covered due to the limitation.

## **17. GCAA CAR - 66 EXAMINATIONS**

With the implementation of CAR 66, all new applicants for a GCAA licence will have to undergo examination conducted in accordance with the modular syllabi of CAR 66.

(a) UNDER PROCESS EXAMINATIONS APPLICATIONS AT THE TIME OF CAR66 IMPLEMENTATION: All existing applicants who are in some stages of their examination process will be required to complete the requirements of the applied category as per the present modular format. Once they have completed the required modules for a particular category, GCAA will issue an equivalent CAR66–AMEL with applicable limitations in accordance with the conversion provision of this CAAP. All such candidates will be required to complete the remaining requirements for at least one basic category under the previous system within one year of the implementation CAR 66. No pass modules/essay will be held in credit after one year of the implementation of CAR 66 and the applicants will be advised to start afresh with a new application in accordance with CAR 66 if he/she fails to complete all requirements for at least one basic category under previous system (i.e. Cat 'A', 'C', 'X' or 'R') within this time.

Those candidates whose application is under process but have not yet started their examination process at the time of the implementation of CAR 66 or who do not have a single pass module will also be advised to start afresh with a new application in accordance with CAR 66. However, for candidates who have applied but not yet started the examination process, fee already paid will be kept in credit for new application.

(b) EXAMINATION SYLLABUS FOR CAR 66: CAR-66 examinations are based on the CAR-66 syllabus as set out in Appendix I to CAR-66 that employs a modular format. The contents of a module may vary in terms of the subjects covered within the module and depth of knowledge required according to the basic licence category applied.

Candidates may apply to take any number of the modules at a time when applying for examinations to GCAA. However, CAR-147 approved organisations may impose different

conditions according to their approved procedures for students undergoing training with them.

The examinations will consist of multiple choice and essay (for modules 7, 9 and 10) papers.

### **(1) Multi-Choice Papers**

Question paper for every module has a certain number of multiple choice questions. A typical question comprises of a question statement followed by three alternative answers designated as (A), (B) and (C) printed below. Candidates are required to choose the most correct answer to each question. Every question will have only one most correct answer as the other two answers may also be partially correct.

### **(2) Essay Examination**

After all modular multiple choice papers applicable to the applied category are successfully completed; essay examinations need to be passed in the following modules:

Module 7

Module 9

Module 10

(c) MODULES/PART-MODULES REQUIRED: All initial applications will have to apply for full modules. Modules/part modules examination requirements in case of applicant converting from existing GCAA licence /extension of licence to include another category or licence application on the basis of a foreign licence will be decided by the licence evaluating inspector in GCAA. Applicants will be informed through appropriate means about GCAA's decision on their applications after inspector's evaluation.

(d) CAR-66 MODULE EXAM RE-SITS: In accordance with CAR-66 Appendix II, Para1.11 a failed module may not be retaken for at least 90 days following the date of the failed module examination, except in the case of a CAR-147 approved maintenance training organisation which conducts a course of retraining tailored to the failed subjects in the particular module when the failed module may be retaken after 30 days.

This rule applies to all candidates alike i.e. self-study students, candidates undertaking exam module training only and candidates undertaking a full approved course.

Candidates applying to re-sit failed modules at an approved CAR-147 organisations must adhere to the 90 day rule as mentioned above, unless they have undertaken a further tailored course of training with that organisation. Candidates who attempt to violate the 90 days rule by taking the exams at different organizations/venue may render themselves to severe punitive action including debarring from future examinations.

(e) EXAMINATION PASS STANDARDS AND VALIDITY PERIODS: Passing marks in a CAR-66 module or sub module or essay examination is 75% of the marks allocated to that examination. All Part-66 modules that make up a complete CAR 66 Aircraft Maintenance Engineer Licence category or subcategory must be passed within a **four (04) years** time period of passing the first module except in the case of modules that are common to more than one category.

A failed module may not be retaken for at least 90 days following the date of the failed module examination, except in the case of a CAR 147 approved maintenance training organisation which conducts a course of retraining tailored to the failed subjects in the particular module when the failed module may be retaken after 30 days.

Modules/part modules taken to remove limitations imposed as a result of conversion from previous GCAA licence do not have validity and the applicant can apply to GCAA for removal of the limitations once all applicable modules/part modules have been completed successfully.

The above four (04) years time period also does not apply to those modules which are common to more than one Part-66 Aircraft Maintenance Engineer Licence category or subcategory and which were previously passed as part of another such category or subcategory already held by the applicant.

## **18 TEMPORARY VALIDATION OF A FOREIGN LICENCE**

To permit a foreign licence holder to exercise the privileges of their licence in the U.A.E. a foreign licence can be validated by issuance of a letter of validation in the form of Validation/Temporary Authorization with initial validity of ninety (90) days and may be further extended for another 90 days under extenuating circumstances only.

Only those foreign aircraft maintenance licenses that meet the intent of ICAO Annex 1 and whose scope of privileges are considered commensurate with B1 or B2 licenses under CAR 66, will be considered for further evaluation for grant of temporary validation. Validation for grant of privileges of Category A license under CAR 66 will not be considered. Licenses issued by ICAO signatory states that have not furnished any response to ICAO for compliance with Annex 1 or who have filed major differences on the requirements of Annex 1 will also be not considered for grant of temporary validation. This also applies to states that have major findings against them in the latest ICAO audit of their national civil aviation authorities.

Organizations requiring a validation for longer than 90 days should apply for a UAE licence. In such cases, the initial application for a temporary validation must be accompanied by an application for a UAE CAR 66 Aircraft Maintenance Engineer Licence. No extension to the original 90 days will be granted if an application for permanent GCAA licence is not received with application for validation/temporary authorization. GCAA will arrange the required examinations for holders of validations/temporary authorization on priority basis. If the candidate fails to attend the examination for reasons other than extreme personal circumstances such as hospitalization/family emergencies, no application for extension in

validation/temporary authorization will be entertained. GCAA will not accept for an extension in temporary validation if the holder has asked for re-scheduling his examination for reasons such as work commitments or non-availability of the applicant for examination due to vocation etc.

It is the responsibility of the operator and foreign licence holder to ensure the foreign licence on basis of which the Validation/temporary authorizations is granted remains current and valid.

The provision of Temporary Validations of foreign licenses is purely a privilege allowed by GCAA to allow optimum utilization of newly inducted certifying staff of UAE organization during the time taken to complete the examination and other formalities for issuing a UAE CAR66 AMEL. Temporary Validations should not be treated as a right of a foreign license holder or his/her employer.

Temporary Validation cannot be used to satisfy the requirements of other GCAA regulations. All UAE organizations are expected to have good manpower planning and human resource management in place at all times and are not expected to resort to Temporary Validations as a means out of crisis situations created due to poor manpower and human resource planning.

This validation will automatically be cancelled when any of these requirements are no longer met, or when a UAE licence is issued, or the holder fails the written examination.

For licences that are not equivalent to CAR 66 licences, limitation, similar to those given in the common conversion scenarios in Appendix II, will be applied.

It is the responsibility of the applicant to provide all supporting evidence in support of their applications that the original licence was issued against equivalent/comparable standards and requirements. The GCAA would need to conduct a detailed assessment of the standards and requirements against which the original licence was issued, which may require co-operation of the concerned issuing regulatory authority. In cases where GCAA finds it difficult to assess the standards of the issuing authority, the application will be rejected. Because of the detailed evaluation and assessment of applications involving foreign licences, applicants are advised not to request FAST TRACK service for such application. All applications will be treated as routine application regardless if the fee paid is for fast track.

(a) PRE-REQUISITES AND ELIGIBILITY CRITERIA FOR VALIDATION/ TEMPORARY AUTHORIZATION: The prerequisites for issuing the Temporary Authorization are as follows;

(1) **Type rated licence holders from ICAO contracting states that issue type rated Aircraft Maintenance Engineer Licences:**

Candidates from ICAO contracting states that issue type rated Aircraft Maintenance Engineer Licence, following pre-requisites are applicable:

- A. Must have an ICAO Contracting State (as per Annex 1, Para 4.2), type rated AME licence equivalent to the applicable CAR 66 AMEL category and a Company Authorisation to certify particular types of aircraft for more than two years,
- B. Licence verification letter from the issuing authority.
- C. Copy of previous employer's maintenance authorization.
- D. Proof from the Company/State that the candidate was certifying aircraft for two years or more.
- E. Training Course Certificate related to the certification qualification.
- F. Evidence of having completed the GCAA approved air legislation course

(2) **Basic licence holders from ICAO contracting states that do not issue type rated Aircraft Maintenance Engineer Licences:**

Candidates from ICAO contracting states that do not issue type rated Aircraft Maintenance Engineer Licence, but issues basic licenses comparable to either CAR 66 B1 or B2 licenses, following pre-requisites are applicable

- A. Candidates must have a Basic Aircraft Maintenance Engineer Licence comparable and equivalent to the applicable CAR 66 AMEL B1 or B2 category from an ICAO contracting state.
- B. Maintenance/certification authorization issued by an approved aircraft maintenance organizations to issue Certificate of Release to Service (CRS) following scheduled/unscheduled maintenance, defect rectification etc for at least (05) five years. Scopes of the authorization held should be commensurate with knowledge and skill levels required for the applied B1 or B2 category in accordance with CAR 66.
- C. Licence and authorization verification letter from the issuing authority. The regulatory authority of company that issued the maintenance authorization should attest/verify that the maintenance authorization issued by the company comply with ICAO aircraft maintenance personnel licensing standards.
- D. Training Course Certificate related to the certification qualification.
- E. Evidence of having completed the GCAA approved air legislation course.

(b) **ISSUANCE PROCEDURES:** GCAA licensing section will review and evaluate the application to ensure the above requirements are met. Once the applicant meets the above highlighted requirements, the inspector will recommend the application to Manager Engineering Licensing for issuance of a Temporary Validation/ Authorization.

The Temporary Validation is issued by the Manager Engineering Licensing (or his authorized deputy) with the validity period of upto ninety days.

The Temporary Authorization will highlight the basic and type ratings, the holder is authorized to certify with any appropriate applicable limitations.

(c) **RESPONSIBILITIES OF THE EMPLOYER**

Among other applicable responsibilities, the employers of a Temporary Validation/authorization holder have the following responsibilities:

- (1) Ensure that all documents submitted to GCAA for the purpose of Temporary validation/authorization are genuine, up to date, valid and free from any kind of falsification
- (2) Ensure the applicant is fully knowledgeable in all aspects of GCAA rules and regulations related to aircraft airworthiness and maintenance
- (3) Ensure that the validity of the original licence and ratings on the basis of which GCAA had granted the validation/authorization.
- (4) Ensure that the applicant is legally allowed to work in the UAE or country of deployment
- (5) Ensure that the applicant is duly assessed and authorized as competent to exercise the privileges of the validation/authorization in accordance with the company's approved procedures
- (6) Ensure that the company maintenance authorization is immediately withdrawn upon failure in any GCAA examination.
- (7) Ensure that the scope and validity of the validation/authorization are adhered to.

## **19 APPLICATION FOR GCAA CAR – 66 LICENCE ON THE BASIS OF A FOREIGN LICENCE**

GCAA may consider grant of exemptions on examination and/or experience requirements for a UAE CAR 66 AMEL on the basis of another ICAO contracting state's aircraft maintenance engineer licence of the applicant if he/she meets the eligibility criteria as mentioned above for grant of Temporary validation/authorization.

The reviewing licensing inspector will thoroughly evaluate the application and workout equivalence of the foreign licence with appropriate category of CAR66–AMEL. If such an application for grant of licence is approved, the candidate will be required to successfully qualify GCAA Air Legislation modular examination comprising of multiple choice and essay examination and other full/part modular examinations considered necessary by GCAA to convert the foreign licence to an unrestricted GCAA CAR66–AMEL. Requests for a licence on the basis of a foreign licence with unreasonably large number of limitations or with limitations that severely restricts the corresponding CAR 66 privileges will not be entertained.

It is the responsibility of the applicant to provide all supporting evidence in support of the application that the original licence was issued against equivalent/comparable standards and requirements. The GCAA would need to conduct a detailed assessment of the standards and requirements against which the original licence was issued, which will require co-operation of the regulatory authority concerned. In cases where GCAA finds it difficult to assess the standards of the issuing authority, the application will be rejected and the applicant will be requested to raise a fresh application IAW CAR 66. Because of the detailed evaluation and assessment of applications involving foreign licences, applicants are advised

not request FAST TRACK service for such application. All applications will be treated as routine application regardless if the fee paid is for fast track.

Upon successful completion of the applicable examinations, the candidate will be required to apply for issue of a CAR 66 licence. Generally, ratings held by the individual on his foreign licence will be endorsed on the licence if the types of aircraft are available on UAE Civil aircraft register. For licences that are not equivalent to CAR 66 licences, limitation similar to those given in the common conversion scenarios in Appendix II will be applied.

## **20 CAR 66 – AMEL VALIDITY AND RENEWAL PROCEDURE**

CAR-66 licences are valid for 8 years from the date of issue or last renewal. Applicants need to apply for licence renewal to GCAA at least 30 days before expiry date on appropriate form alongwith the original licence and a covering letter from the present/current employer. GCAA will continue to renew licences as long as the holders are working in relevant aviation environment. This also applies to those licence holders who have ceased to work with UAE based, GCAA approved organizations. If the application is found satisfactory, GCAA will re-issue licence with renewed expiry date.

## **21 GCAA APPROVED PRACTICAL ASSESSORS**

It is a requirement that all practical experience submitted to GCAA for the purpose of licence issue or type rating endorsement be verified by a GCAA approved practical assessor. An approved practical assessor assumes the role of a GCAA designated examiner for assessment of the practical aspects of a candidate's suitability for issue/endorsement of a licence.

CAR 145 or CAR 147 organisations will nominate persons holding appropriate qualifications and experience for approval as practical assessors and apply to GCAA for their approval using appropriate GCAA licensing form. GCAA Licensing section will evaluate the applications and call the applicant for a personal interview if the submitted application and documents are found satisfactory. Applicants for OJT assessor are expected to have a high level of understanding of CAR 66 and this CAAP. After their approval by the GCAA licensing section, approved person(s) have to be assessed by the appropriate sections within their organizations such as quality assurance for their suitability for the role. If they are considered suitable for the role, they need to be issued with a statement of authorization with clearly stated scopes and their names included in that organisation's exposition.

Persons nominated to GCAA for approval as practical assessor will normally be senior licensed aircraft maintenance engineers with appropriate licence coverage commensurate with the applied scope.

Individual entries/tasks in type schedule of inspections/practical experience may be signed by any appropriately qualified engineer on the type supervising the task. Majority of the items/tasks in the GCAA recommended schedule of inspections/OJT schedules, given as appendices to this CAAP, are "discuss/review" which means that the verifier (who may be



any appropriately rated engineer) has to satisfy him/herself by means of discussion that the candidate is knowledgeable in the task before signing/stamping the task. However, the completed schedule of inspection needs to be verified and recommended to GCAA for license issue/rating extension by an approved assessor after satisfying him/her that the applicant is competent in representative cross sections of maintenance tasks relevant to the applied categories/ratings.

GCAA expects a high level of professionalism from approved assessors and expects that the applicant has a satisfactory level of knowledge in the subject verified by the assessor. GCAA may conduct random interviews/assessment on applicants for license issue/type rating endorsements for verification of their practical skills. Unsatisfactory outcome of such an interview may result in rejection of the application for type rating endorsement and/or withdrawal of the GCAA assessor's approval, among other possible actions in accordance with GCAA regulations.

## **22 APPLICATION PROCEDURE**

Application should be made on appropriate GCAA licensing form along with all applicable supporting documents.

Note: All new applications for basic category examination have to meet the requirements for the complete category. GCAA will not issue a licence unless the applicable examinations for a category are successfully completed. Only the following licences may have limitations on them:

- (a) Converted CAR 66 licences issued on the basis of old GCAA licences,
- (b) Licences converted as result of the completion of examination started under the previous system or
- (c) Licences issued on the basis of foreign licence may have limitations on them.

**COMMON SCENARIOS OF EXTENSION TO LICENCES**

**Extension of a CAR66 – B2 licence to include Mechanical Category A**

**Note:** Module 7 is common to all Category ‘A’ sub-categories. Modules 11 to 17 must be taken as shown according to the sub-category required.

**Examples:** Requirements for conversion of full B2 to include Category A1 are:

Modules 7.8 – 7.13 and 7.19b (Required for any applied Category A in addition to the particular requirements of the category applied) – 35 Questions

+

Modules 11.2 – 11.4, 11.7, 11.8, 11.10 – 11.13, 11.15 – 11.17 – 70 Questions

+

Full Modules 15 – 50 Questions

+

Full Module 17 – 20 Questions

Category/Limitation Held	Applied Category	Modules or part modules required	No of questions
Full B2 or B2 with limitation 3 (excluding autopilot systems on aeroplanes) or 4(excluding autopilot systems on helicopters)	Any category A	Mod 7.8 to 7.13 , 7.19b	35
Full B2 or B2 with limitation 4 (excluding autopilot systems on helicopters)	A1,A2	Mod 11.2 to 11.4 , 11.7, 11.8, 11.10 to 11.13, 11.15 to 11.17	70
Full B2 or B2 with limitation 3 (excluding autopilot systems on aeroplanes)	A3, A4	Mod 12.1 to 12.6, 12.9 to 12.14 , 12.16	70
Full B2 or B2 with limitation 3 (excluding autopilot systems on aeroplanes) or 4(excluding autopilot systems on helicopters)	A1,A3	15	60
Full B2 or B2 with limitation 3 (excluding autopilot systems on aeroplanes) or 4(excluding autopilot systems on helicopters)	A2,A4	16	50
Full B2 or B2 with limitation 4 (excluding autopilot systems on helicopters)	A1,A2	17	20

### Extension of Category B1 to include Category B2

The following table normally applies to full Category B1 AMEL holders. If the licence holder has only one limitation that excludes Avionics LRUs only, full B2 level Module 5 examination will be required instead of the Module 5 conversion examination as shown below. Successful qualification of Module 5 in this case will qualify the holder for removal of the Avionics LRU limitation from B1 category.

If B1 licence holder previously held X Electrical Basic GCAA licence, Module 4 will not be required and the applicant must apply for exemption on application for B2 and a copy of the old licence should be attached with the application.

### Modular requirements for extension of B1 to include B2 category

Category Held	Modules	Modules or part modules required	No of Questions
<b>B1.1 or B1.2 or B1.3 or B1.4</b>	4	Module 4.1.1b, 4.1.2, 4.1.3b, 4.2, 4.3b	20
	5	Module 5.1 to 5.3, 5.6b, 5.7 to 5.10, Module 7.4	40
	13	Module 13.1c, 13.3 & 13.4, 13.6, 13.8	100

### Extension of Category B2 to include Category B1

The following table is applicable only to Category B2 AMEL holders without any limitations. Licence holders with any limitations should apply for removal of the limitation first.

To Category	Module	Modules or part module required	No of Questions
<b>B1.1</b>	2	Module 2.2.1, 2.2.2, 2.2.3, 2.2.4 b	18
	6	Module 6.3.b, 6.4 b, 6.5.4, 6.6.b, 6.7, 6.10	20
	7	Module 7.6, 7.8, 7.9 to 7.15, 7.16 b, 7.18 b & c, 7.19 b	40
	11	Module 11.1 to 11.4, 11.7 to 11.13, 11.15 to 11.17	90
	15	Module 15.1 to 15.13, 15.15 to 15.22	70
	17	Module 17	30
<b>B1.2</b>	2	Module 2.2.1, 2.2.2, 2.2.3, 2.2.4 b	18
	6	Module 6.3.b, 6.4 b, 6.5.4, 6.6.b, 6.7, 6.10	20
	7	Module 7.6, 7.8, 7.9 to 7.15, 7.16 b, 7.18 b & c, 7.19 b	40
	11	Module 11.1 to 11.4, 11.7 to 11.13, 11.15 to 11.17	90
	16	Module 16.1 to 16.9, 16.11 to 16.13	55
	17	Module 17	30

<b>B1.3</b>	2	Module 2.2.1, 2.2.2, 2.2.3, 2.2.4 b	18
	6	Module 6.3.b, 6.4 b, 6.5.4, 6.6.b, 6.7, 6.10	20
	7	Module 7.6, 7.8, 7.9 to 7.15, 7.16 b, 7.18 b & c , 7.19 b	40
	12	Module 12.1 to 12.6 , 12.9 to 12.14 , 12.16	80
	15	Module 15.1 to 15.13, 15.15 to 15.22	70
<b>B1.4</b>	2	Module 2.2.1, 2.2.2, 2.2.3, 2.2.4 b	18
	6	Module 6.3.b, 6.4 b, 6.5.4, 6.6.b, 6.7, 6.10	20
	7	Module 7.6, 7.8, 7.9 to 7.15, 7.16 b, 7.18 b & c , 7.19 b	40
	12	Module 12.1 to 12.6, 12.9 to 12.14, 12.16.	80
	16	Module 16.1 to 16.9, 16.11 to 16.13	55

### **Extension of any Category A to include Category B1 or B2**

Full examination applicable to the relevant category B1 or B2 will apply.

**COMMON CAR-66 CONVERSION SCENARIOS**

The following tables give most common licence conversion scenarios. Applicants, whose applications do not fall into any of the common scenario as given, need to personally take up their case with the GCAA licensing section by requesting personal interview.

Holders of a B1 sub category will automatically be issued with a Category A licence in the same sub category except where the applicant receives Limitation 10 or 11 on the B1 licence.

GCAA will determine CAR 66 licence category and sub-category into which the present licence will be converted on the basis of ratings already held by the applicant on his precious/present licence.

**GCAA Mechanical Licences**

<b>GCAA Licence Excludes</b>	<b>Applicable CAR-66 Limitation(s)</b>	<b>Limitation means</b>
Airframe	10	Excluding airframe
Engine	11	Excluding engine
Electrical	1	Excluding electrical power generation & distribution systems
Electrical	25	Excluding electrical power generation and distribution systems on aircraft above 5700 kg MTOW
Avionic Extension	9	Excluding avionic LRUs
Avionic Extension	26	Excluding Avionic LRU replacement and BITE checks on aircraft above 5700 kg MTOM

**GCAA Avionics Licence**

<b>Existing Licence Excludes</b>	<b>Applicable CAR-66 Limitation(s)</b>	<b>Limitation means</b>
Electrical	1	Excluding electrical power generation and distribution systems
Instrument Systems	2	Excluding instrument systems, INS/IRS and Flight Directors systems
Autopilot Systems (Aeroplanes)	3	Excluding autopilot systems on aeroplanes
Autopilot Systems (Helicopters)	4	Excluding autopilot systems on helicopters
Combined Category	5	Excluding automatic landing and auto throttle systems on aeroplanes
Radio Communication/Navigation & Radar Systems	6	Excluding radio communication/navigation and radar systems
Radio Radar (only)	7	Excluding radio radar systems

**If Limitation 3 is applied Limitation 5 is also applicable. Use either limitation 6 or 7.**

## APPENDIX (III)

### REMOVAL OF LIMITATIONS FROM A CAR - 66 CATEGORY B LICENCE

#### Removal of Limitations from a CAR - 66 Category B1 Licence

Ratings held on Existing GCAA LICENCE	B1 Sub-cat	CAR-66 Limitation to be applied	CAR 66 Modules and/or Part-Modules Required (F = Full Modules)												
			3	4	5	6	7	8	11	12	15	16	17		
Aeroplanes 2 + Turb-Eng (Aeros) + Av Ext	B1.1	1	3.9 to 3.18	F				7.7			11.5 11.6 11.14				
Aeroplanes 2 + Turb-Eng (Aeros) + Electrical	B1.1	9			F										
Aeroplanes 2 + Turb-Eng (Aeros)	B1.1	1,9	3.9 to 3.18	F	F			7.7			11.5 11.6 11.14				
Aeroplanes 2 Jet/Turb-Eng (Aeros)	B1.1	1,9,20	3.9 to 3.18	F	F			7.7			11.5 11.6 11.14				F
Aeroplanes 2	B1.1	1,9,11, 20	3.9 to 3.18	F	F			7.7		F	11.5 11.6 11.8 11.101 11.14		F		F
Turb-Eng (Aeros)	B1.1	1,9,10	3.9 to 3.18	F	F			7.4 7.7 7.8 7.14 7.16 to 7.19		F	F				
Aeroplanes 1 + Pist-Eng (Aeros) + Av Ext	B1.2	1	3.9 to 3.18	F				7.7			11.5 11.6 11.14				
Aeroplanes 1 + Pist-Eng (Aeros) + Electrical	B1.2	9			F										
Aeroplanes 1 + Pist-Eng (Aeros)	B1.2	1,9	3.9 to 3.18	F	F			7.7			11.5 11.6 11.14				
Pist Eng (Aeros)	B1.2	1,9,10	3.9 to 3.18	F	F			7.4 7.7 7.8 7.14		F	F(11B)				

							7.16 to 7.19						
Aeroplanes 1	B1.2	1,9,11	3.9 to 3.18	F	F		7.7		11.5 11.6 11.8 11.101 11.14			F	F
A&C (Heli): Turb-Eng Av Ext	B1.3	1	3.9 to 3.18	F		6.3.2 6.3.3	7.7			12.8 12.15			
A & C (Heli): Turb-Eng Electrical	B1.3	9			F	6.3.2 6.3.3							
A & C (Heli): Turb-Eng	B1.3	1,9	3.9 to 3.18	F	F	6.3.2 6.3.3	7.7			12.8 12.15			
A & C (Heli): Pist-Eng Av Ext	B1.4	1	3.9 to 3.18	F		6.3.2 6.3.3	7.7			12.8 12.15			
A&C (Heli): Pist-Eng Electrical	B1.4	9			F	6.3.2 6.3.3							
A & C (Heli): Pist-Eng	B1.4	1,9	3.9 to 3.18	F	F	6.3.2 6.3.3	7.7			12.8 12.15			

## Removal of Limitations from a CAR-66 Category B2 Licence

Existing GCAA Licences	CAR-66 Limitations	CAR 66 Modules and/or Part-Modules Required (F = Full Modules)						
		4	5	8	9	10	13	14
Radio Comm/Nav Radio Radar	1,2,3,4,5,29			F			13.1 13.3 to 13.5 13.7 to 13.9	F
Combined Cat (Inst/Autopilots)	1,2,3,4,6,29						13.1 13.3 to 13.6 13.8,13.9	
Radio Comm/Nav	1,2,3,4,5,7,29			F			13.1 13.3 to 13.9	F
Autopilots (Heli)	1,2,3,5,6,29						13.1 13.3 to 13.8	F
Autopilots (Aeros) Radio Comm/Nav Radio Radar	1,2,4,5,29						13.1 13.3 to 13.6 13.8 13.9	F
Autopilots (Aeros)	1,2,4,5,6,29						13.1 13.3 to 13.9	F
Instruments	1,3,4,5,6,29			F			13.1 13.3 to 13.9	
Instruments Radio Comm/Nav Radio Radar	1,3,4,5,29			F			13.1 13.3 13.5 to 13.9	
Instruments Autopilots (Heli)	1,3,5,6,29						13.1 13.3 13.4 to 13.9	
Instruments Autopilots (Aeros) Radio Comm/Nav Radio Radar	1,4,5,29						13.1 13.3 13.5 13.6 13.8 13.9	
Instruments Autopilots (Aeros)	1,4,5,6,29						13.1 13.3 13.4 to 13.6 13.8 13.9	
Electrical	2,3,4,5,29			F			13.1	F



Radio Comm/Nav Radio Radar							13.3 13.4 13.7 13.8	
Electrical	2,3,4,5,6,29		F	F			13.1 13.3 13.4 13.6 to 13.8	F
Electrical Autopilots (Heli)	2,3,5,6,29						13.1 13.3 13.4 13.6 to 13.8	F
Electrical Autopilots (Aeros) Radio Comm/Nav Radio Radar	2,4,5,29						13.1 13.3 13.8	F
Electrical Autopilots (Aeros)	2,4,5,6,29						13.1 13.3 13.4 13.6 13.8	F
Electrical Instruments Radio Comm/Nav Radio Radar	3,4,5,29			F			13.1 13.3 13.7 13.8	
Electrical Instruments	3,4,5,6,29			F			13.1 13.3 13.4 13.6 13.7 13.8	
Electrical Instruments Autopilots (Heli) Radio Comm/Nav Radio Radar	3,5,29						13.1 13.3 13.7 13.8	
Electrical Instruments Autopilots (Heli)	3,5,6,29						13.1 13.3 13.4 13.6,13.7 13.8	
Electrical Instruments	4,29						13.1 13.3	

Combined Cat (inst/autopilots) Radio Comm/Nav Radio Radar							13.8	
Electrical Instruments Autopilots (Aeros) Radio Comm/Nav Radio Radar	4,5,29						13.1 13.3 13.8	
Electrical Instruments Autopilots (Aeros)	4,5,6,29						13.1 13.3 13.4 13.6 13.8	
Electrical Combined Cat (inst/autopilots)	4,6,29						13.1 13.3 13.4 13.6 13.8	
Electrical Instruments Autopilots (Aeros) Autopilots (Heli)	5,6,29						13.3 13.4 13.6 13.8	
Electrical Combined Cat (inst/autopilots) Autopilots (Heli)	6,29						13.4 13.6 13.8	
Electrical Combined Cat (inst/autopilots) Autopilots (Heli) Radio Comm/Nav	7,29						13.4 13.8	

## APPENDIX (IVA)

### TYPICAL SCHEDULE OF INSPECTION/OJT SCHEDULE FOR B1 (Airframe/Powerplant)

**Note:** The experience should be in ATA (or equivalent) format as follows. This format is typical of a particular medium sized aircraft and is given for illustrative and guidance purposes only. It may not be applicable to every aircraft type on UAE civil aircraft register. Operators are advised to develop Schedules of inspections applicable to their aircraft type on the format and get it approved from GCAA.

#### **INTRODUCTION ATA 00**

Discuss/review maintenance manual procedures on the identification of effectivity numbers.

#### **TIME LIMITS ATA 05**

Carry out inspection after hard or overweight landings.  
Carry out inspection after brakes overheat.  
Carry out inspection after flight through sand dust conditions.  
Discuss/review non-revenue flight requirements following maintenance actions.  
Discuss/review troubleshooting procedures for excessive vibrations  
Discuss/review lightning strike inspections  
Discuss/review bird strike inspections.

#### **DIMENSIONS AND AREAS ATA 06**

Discuss/review zoning diagrams.  
Discuss/review station diagrams.

#### **LIFTING AND SHORING ATA 07**

Carry out jacking of aircraft for maintenance operations.  
Carry out jacking for wheel change.

#### **LEVELING AND WEIGHING ATA 08**

Carry out the leveling and weighing procedure in accordance with approved procedures.

#### **TOWING AND TAXING ATA 09**

Carry out both forward and backward normal towing.  
Locate, identify and install landing gear ground lockpins.

#### **PARKING AND MOORING ATA 10**

Carry out a parking procedure for aircraft.

#### **SERVICING ATA 12**

Carry out an automatic aircraft fuelling.  
Discuss/review magnetic level indications.  
Discuss/review manual fuelling.  
Discuss/review overwing fuelling.  
Discuss/review defuelling.  
Carry out a hydraulic fluid replenishing.  
Carry out a potable water systems servicing.  
Discuss/review a main/nose shock strut servicing.  
Discuss/review servicing brake system.  
Carry out a landing gear tyre servicing.  
Carry out a waste tank servicing: vacuum system.  
Carry out a fluid sampling for analysis.  
Carry out fuel sampling for water contamination.

#### **AIRFRAME STANDARD PRACTICES ATA 20**

Discuss/review installation and repair of tubing.

#### **AIR CONDITIONING ATA 21**

Locate and identify air conditioning main distribution components.

Locate and identify flight compartments and electronic racks air distribution.

Locate and identify cockpit air ventilation distribution components.

Remove/install pack flow control valve.

Remove/install flow sensor.

Remove/install cabin fan.

Locate and identify air conditioning distribution components.

Locate and identify electronic racks air extraction components.

Remove/install of extract fan.

Deactivation/reactivation overboard extract fan IAW MEL.

Adjustment/test of electronic racks air extraction.

Locate and identify lavatory and galley ventilation components.

Operational/functional/system test of lavatory and galley ventilation system.

Remove/install lavatory and galley fan.

Remove/install differential pressure switch.

Locate and identify cargo compartment ventilation.

Locate and identify pressurization control system components.

Operational/functional/system test of pressurization control system components.

Remove/install cabin pressure controller.

Remove/install cabin pressure outflow valve.

Locate and identify cabin pressure safety relief valve.

Inspection/check of cabin pressure safety relief valve.

Deactivation/reactivation and cabin pressure controller IAW MEL.

Locate and identify cooling pack system components.

Inspection/check of cooling pack system components.

Remove/install water injector.

Remove/install water extractor.

Remove/install pack discharge temperature sensor.

Remove/install Air conditioning pack (ACM)

Remove/install air inlet door actuator.

Adjustment/test of cooling pack system.

Locate and identify cooling pack temperature indicating components

Adjustment/test of cooling pack temperature indication.

Locate and identify emergency ram air system components.

Inspection/check of emergency ram air system components.

Remove/install emergency ram air inlet actuator.

Remove/install ground cooling unit.

Remove/install ground cooling fan unit.  
Deactivate/reactivate ground cooling valve.  
Operational/functional/system test of cooling pack temperature control system. Remove/install by-pass valve.  
Deactivation/reactivation of by-pass valve IAW MEL.  
Deactivation/reactivation of ram/air inlet IAW MEL.  
Operational/functional/system test of trim air control and overheat monitoring.  
Remove/Install trim air supply valve.  
Operational/functional/system test of flight and cabin compartment temperature control  
Remove/install pressure regulating trim valve.  
Operational/functional/system test of cargo compartment temperature control.  
Deactivation/reactivation of trim air valve.

#### **AUTO FLIGHT ATA 22**

Locate and identify AFS controls and indications  
Operation of true north reference selection.  
Operational test of AP engagement and locking devices.  
Perform autothrust disconnection check.  
Perform autothrust control unit check.  
Operation of autothrust isolation test.  
Perform FM menu data entry.  
Perform Flight Management Dataloading/crossloading.  
Operational test of FM source switching .  
Operational test of back up Nav function.  
Perform flight plan entry procedure.  
Perform AFS system test.

#### **COMMUNICATION ATA 23**

Locate and identify radio and cockpit communications equipment.  
Locate and identify cabin communication equipment.  
Operational test of HF system.  
Perform HF current status/system test.  
Operational test of VHF system.  
Perform VHF system test.  
Operational test of ACARS.  
Perform ACARS MCDU menu data entry.  
Perform ACARS system test.  
Operation and test of SAT COM system.  
Perform PES system test.  
Operational test of mechanic call.  
Operational test of service interphone.  
Operation of audio management system.  
Operational test of ACP switching.  
Operational test of oxygen mask microphone.  
Operational test of AIS  
Perform visual inspection of static discharges.  
Operational test of CVR  
Operational test of CVR recording logic.  
Operational test of CVR erase function.  
Perform operation of FAP and PIM.  
Operational test of cabin and flight crew interphone system.  
Operational test of PA system.  
Operational test of passenger call system.  
Operational test of passenger lighted signs.  
Operational test of cabin signs and loudspeakers  
Perform cabin layout and zone programming.  
Operational test of RMP.  
Perform PMP system test.

#### **ELECTRICAL POWER ATA 24**

Carry out energizing of the aircraft electrical circuits from the external power.  
Locate and identify main electrical power panels in cockpit.  
Locate and identify main distribution panels and components in electrical compartment.  
Locate and identify electrical power controls and indications.  
Locate and identify electrical power components.  
Perform IDG oil level and differential pressure indicator check.  
Discuss dispatch of aircraft with one IDG inop.  
Operation test of bus tie isolation (side 1 & side 2).  
Locate and identify GLC, BTC and SIC contactors.  
Perform APU GCU system test.  
Perform operational test of emergency generation system.  
Operation of emergency generator manual connection.  
Perform emergency GCU system test.  
Operational test of AC essential generation switching.  
Operational test of static inverter and DC essential bus supply.  
Perform ECMU system test.  
Perform operational test of DC main generation switching and TR reset.  
Perform operational test of DC essential bus switching and TR reset.  
Perform BCL system test.  
Energize the aircraft electrical circuits from the APU generator.  
Perform GCU, GPCU system test.  
Energize the ground service network.  
Operational test of commercial load shedding.  
Operational test of land recovery configuration.  
Perform CBMU system test.

#### **EQUIPMENT AND FURNISHING ATA 25**

Remove/install flight deck seats.  
Inspection/check of heat and sound insulation.  
Discuss/review repairs to cargo linings.  
Remove/install ceiling panels.  
Remove/install upper sidewall panels.  
Remove/install lower sidewall panels.  
Remove/install captain and first officer foot heating panels.  
Remove/install first class seat assembly.  
Remove/install business class seat assembly  
Remove/install economy class seat assembly.  
Remove/install sidewall overhead stowage compartment.  
Remove/install centre overhead stowage compartment.  
Remove/install passenger service unit.  
Remove/install forward galley unit.  
Remove/install aft galley unit.  
Locate and identify all wardrobes and stowage.  
Locate and identify all toilet locations.  
Locate and identify cargo compartments.  
Locate and identify cargo loading components.  
Operational/functional/system fuel test of cargo loading system.  
Remove/install power drive unit.  
Review/discuss aft cargo compartment drain system.  
Carry out physical check of all safety and emergency equipment IAW check sheets.

Locate and identify passenger compartment escape facilities.  
Locate and identify flight deck escape facilities.  
Carry out removal/installation of door mounted escape slide/raft.  
Review/discuss rapid decompression system.  
Review/discuss principles of fire detection.

#### **FIRE PROTECTION ATA 26**

Operational/functional/system test of engine fire and overheat detection.  
Remove/install engine fire sensing elements.  
Operational/functional/ system test of APU fire and overheat detection.  
Remove/install principle of avionic compartment smoke detection.  
Review /discuss cargo compartment smoke detection.  
Remove/install cargo smoke detection.  
Locate and identify lavatory smoke detection components.  
Locate and identify engine, APU, cargo fire extinguishing components.  
Remove/install engine fire extinguisher bottle.  
Discuss/review testing of engine fire bottles extinguishing lines  
Carry out weight check of APU fire extinguisher bottle.  
Discuss/review cargo compartment extinguisher system.  
Remove/install pressure reducing valve.  
Remove/install portable fire extinguisher.  
Remove/install lavatory fire extinguisher.

#### **FLIGHT CONTROLS ATA 27**

Locate and identify flight control system electronic units.  
Deactivation/reactivation of side stick potentiometer.  
Remove/install side stick assembly.  
Remove/install control column assembly.  
Remove/install control column pressure transducer.  
Adjustment/test side stick.  
Locate and identify aileron system components.  
Inspection/check aileron components in wheel wells.  
Deactivation/reactivation of outboard aileron servo control.  
Operational/functional/system test of aileron system.  
Remove/install aileron servo control.  
Discuss/review aileron surface position indicating.  
Locate and identify rudder system components.  
Operational/functional/system test of rudder system.  
Locate and identify rudder trim components.  
Operational/functional/system test of rudder trim.  
Remove/install rudder trim actuator.  
Locate and identify artificial feel and rudder travel limiting system. Operational/functional/system test of rudder travel limiting system.  
Adjustment/test of rudder hydraulic actuation system.  
Adjustment/test of rudder control system position indication system.  
Locate and identify elevator/system components.  
Locate and identify elevator hydraulic actuation components.  
Adjustment/test of elevator control surface position indication system.  
Locate and identify trimmable horizontal stabilizer components.

Adjustment/test cable tensions on THS system.  
Operational/functional/system test of THS.  
Remove/install THS actuator unit.  
Remove/install THS actuator oil filler, bayonet and oil draining plugs.  
Remove/install THS hydraulic motor.  
Deactivation/reactivation of Trimmable Horizontal Stabilizer Actuator electrical motor Locate and identify THS surface position indicating system.  
Adjustment/test of Pressure off Brake.  
Locate and identify flap system mechanical components.  
Remove/install inboard flap.  
Remove/install outboard flap.  
Deactivation/reactivation of flap track fairings IAW CDL.  
Adjustment/test of flaps mechanical and electrical control.  
Remove/install feedback position pick-off unit.  
Locate and identify flap hydraulic actuation and power transmission.  
Operational/functional system of flap system.  
Remove/install flaps power control unit.  
Remove/install flap torque limiter.  
Discuss/review maintenance practices of flap transmission shafts.  
Carry out reset of flap screwjack torque limiter.  
Remove/install flap screwjack.  
Remove/install flap carriage.  
Inspection/check of flap carriage.  
Inspection/check of flap screwjack.  
Remove/install flap PCU pressure-off brake.  
Remove/install inboard flap PCU valve block.  
Remove/install flap PCU hydraulic motor.  
Discuss/review flap positioning indication system.  
Remove/install flap instrumentation position pick-off unit.  
Discuss/review flap asymmetry monitoring.  
Locate and identify spoiler and speedbrake electrical and mechanical control components.  
Discuss/review speed brake, roll spoiler, ground spoiler and spoiler extension comments.  
Operational/functional/system test of spoiler/speed brake system. Deactivation/reactivation of spoiler control system IAW MEL.  
Remove/install spoiler surface.  
Remove/install spoiler/speedbrake servo.  
Review/discuss spoiler/speedbrake control surface position indication system. Remove/install slat  
Adjustment/test of slat transmission zero.  
Review/discuss slats mechanical and electrical control.  
Deactivation/reactivation of sealing shutters in accordance with CDL.  
Operational/functional/system test of slat system.  
Locate and identify hydraulic actuation and power transmission components.  
Inspection/check of slat tracks and rollers.  
Remove/install slats power control unit.  
Remove/install slat PCU pressure off brake.  
Remove/install slat PCY hydraulic motor.  
Discuss/review slat position indication system.  
Discuss/review slat asymmetry and power transmission monitoring Remove/install wing tip brake.

#### **FUEL ATA 28**

Discuss /review fuel tank access and working areas.

Locate and identify fuel tank components.  
 Inspection/checks of fuel tanks.  
 Operational/functional/system test of water scavenge system.  
 Deactivation/reactivation of trim tank.  
 Remove/install water drain valves.  
 Locate and identify fuel vent system components.  
 Inspection/check of fuel vent system.  
 Remove/install vent surge tank overpressure protector safety disk.  
 Discuss/review center box ventilating system.  
 Locate and identify fuel distribution components.  
 Remove/install tank booster pump.  
 Remove/install tank booster pump canister.  
 Remove/install Crossfeed valve.  
 Discuss/review LP fire shut-off valve system.  
 Operational/functional/system test of LP fire shut-off valve.  
 Carry out fuel transfer.  
 Remove/install refuel/Defuel valve.  
 Deactivation/reactivation of outer tank inlet valve. IAW MEL.  
 Remove/install fuel inlet valve.  
 Discuss/review fuel transfer system.  
 Remove/install valve inlet.  
 Locate and identify fuel transfer system.  
 Operational/functional/system test of fuel transfer system.  
 Discuss/review fuel quantity indicating system.

#### **HYDRAULIC POWER ATA 29**

Locate and identify the various hydraulic system components.  
 Remove install engine driven pump.  
 Carry out nitrogen charging of accumulators.  
 Operational/functional/system test of hydraulic fire valves.  
 Remove/install reservoir return filter.  
 Remove/install engine pump case drain filter.  
 Carry out hydraulic reservoir depressurization and pressurization.  
 Remove/install green electric pump.  
 Remove/install yellow auxiliary pump.  
 Remove/install yellow system hand pump.  
 Operational/functional/system test of RAT.  
 Discuss r/review hydraulic indication systems.

#### **ICE AND RAIN PROTECTION ATA 30**

Locate and identify wing anti-ice system components.  
 Operational/functional system of wing anti-ice.  
 Deactivation/reactivation of wing anti-ice valve.  
 Remove/install wing anti-ice valve.  
 Locate and identify engine air intake ice protection.  
 Remove/install pressure regulating valve.  
 Deactivation/reactivation of nacelle anti-ice valve.  
 Discuss/review probe ice protection.  
 Discuss/review windshield panel anti iceing and defogging .  
 Operational/functional system test of wind shield panel antiice and defogging. Discuss/review windshield rain removal system.  
 Remove/install rain repellent fluid can.  
 Remove/install windshield wipers.  
 Discuss/review drain mast ice protection.  
 Remove/install drain mast.  
 Discuss/review water servicing panels heating.

#### **IND/RECORDING SYSTEMS ATA 31**

Locate and identify flight compartment instruments/panels.  
 Discuss/review aircraft recorders.  
 Discuss/review ECAM/EICAS system.  
 Locate and identify indicating/recording system controls and indications in cockpit.  
 Locate and identify indicating/recording system components throughout aircraft. Perform electrical clock setting.  
 Perform system test of DFDRS ground scanning.  
 Perform operational test of DFDRS playback.  
 Carry out ACMS general operation  
 Perform ACMS MCDU menu data entry.  
 Carry out ACMS parameter call up.  
 Perform QAR/DAR servicing.  
 Perform operational test of DMU.  
 Carry out EIS switching.  
 Carry out system test of FWS.  
 Perform operational test of auto call out.  
 Perform EIS start up procedure.  
 Carry out general operation of EFIS/ECAM control panel.  
 Perform EIS DU identify adjustment.  
 Perform DMC system test.  
 Perform DMC switching test.  
 Perform removal/installation of DU.  
 Discuss/review MEL implications of WCAM DMC switching selector.

#### **LANDING GEAR ATA 32**

Discuss/review maintenance practices for downloads of landing gear.  
 Remove/install landing gear groundlock pins.  
 Locate and identify main gear components.  
 Inspection/check of main gear components.  
 Remove/install main gear shock absorber.  
 Inspection/check of bogie beam.  
 Remove/install pitch trimmer.  
 Adjustment/test of main gear doors.  
 Locate and identify nose gear components.  
 Inspection/check of nose gear components.  
 Remove/install nose gear shocks absorber.  
 Adjustment test of nose gear doors.  
 Operational/functional/system test of normal extension and retraction system.  
 Operational/functional/system test of emergency extension system.  
 Discuss/review normal extension and retraction system.  
 Remove/install landing gear selector valve.  
 Remove/install main landing gear door ground opening bypass valve.  
 Remove/install nose gear door uplock assembly.  
 Remove/install nose gear door actuating cylinder.  
 Remove/install return isolation check valve.  
 Remove/install nose gear uplock assembly.  
 Remove/install nose gear actuating cylinder.  
 Remove/install main gear door uplock assembly.  
 Remove/install main gear door actuating cylinder.  
 Remove/install main gear supply line check valve.  
 Remove/install main gear uplock assembly.  
 Remove/install main gear actuating cylinder assembly.  
 Discuss/review free fall extension system.  
 Restoration to normal after free fall extension.

Discuss/review normal brake operation.  
 Locate and identify normal brake components.  
 Deactivation/reactivation of normal brake system IAW MEL.  
 Remove/install brake selector valve.  
 Remove/install automatic selector valve.  
 Remove/install normal brake manifold assy.  
 Remove/install brake unit.  
 Restoration of safety valve after operation.  
 Remove/install normal brake servo valve.  
 Discuss/review alternate brake with anti-skid operations.  
 Discuss/review alternate brake with no anti-skid operations.  
 Operational/functional/system test of normal and alt. brake systems.  
 Discuss/review parking emergency brake system.  
 Discuss/review maintenance practices.  
 Discuss/review brake temperature indication system.  
 Discuss/review brake cooling system.  
 Discuss/review TPIS.  
 Locate and identify nose steering components.  
 Operational/functional/system test of nose steering.  
 Inspection/check of nose steering components.  
 Deactivation/reactivation of nose wheel steering controlsystem  
 Remove/install nose wheel steering gear box.  
 Discuss/review indication and warning system.  
 Deactivation/reactivation of indication and warning system.

### **LIGHTS ATA 33**

Locate and identify flight component lighting controls.  
 Locate and identify passenger compartment lighting control and loading lights.  
 Locate and identify cargo and service compartment lighting controls.  
 Locate and identify exterior lighting controls.  
 Locate and identify emergency lighting controls.

### **NAVIGATION ATA 34**

Carry out a thorough visual check of navigation systems controls & indications in cockpit.  
 Locate and identify navigation systems components.  
 Perform ADIRS start procedure.  
 Perform inertial reference align procedure.  
 Discuss/review MEL implications of unserviceable IRS.  
 Perform operational test of Air data switching.  
 Perform operational test of ATT/HDG switching.  
 Perform ADR interface test.  
 Perform ADR system test.  
 Select and read ADR current status readout.  
 Perform ALT/CAS dynamic slew tests.  
 Perform AOA sensor test.  
 Perform RAT airspeed signal generation.  
 Perform operational test of VMO/MMO selection.  
 Perform IR interface test.  
 Perform IR system test.  
 Select and read IR current status readout.  
 Perform standby compass operational test.  
 Perform ILS test through RMP & MCDU.  
 Perform ILS system test.  
 Carry out ground operation of weather radar.  
 Perform weather radar system test.  
 Perform radio altimeter system test.  
 Perform radio altimeter ramp test.

Discuss the MEL implications of an unserviceable radio altimeter.  
 Perform TCAS operational test.  
 Perform TCAS system test.  
 Perform GPWS ground vocabulary test.  
 Perform GPWC system test.  
 Perform VOR/DME test through RMP & MCDU.  
 Perform DME system test.  
 Perform ATC system test.  
 Perform ADF test through RMP & MCDU.  
 Perform ADF system test.  
 Perform VOR/MKR system test.  
 Perform GPS system test.

### **OXYGEN ATA 35**

Deactivation/reactivation of crew oxygen cylinder.  
 Crew oxygen storage description operation.  
 Remove/install oxygen HP transmitter/pressure regulator.  
 Remove/install crew quick downing oxygen mask.  
 Discuss/review crew oxygen indicating system.  
 Locate and identify passenger oxygen system.  
 Remove/install emergency oxygen generator.  
 Locate/install portable oxygen.

### **PNEUMATIC ATA 36**

Locate and identify pneumatic system component.  
 Discuss/review engine bleed air supply.  
 Operational/functional/system test of engine bleed supply.  
 Remove/install HP valve.  
 Deactivation/reactivation of HP valve IAW MEL.  
 Remove/install IP check valve.  
 Remove/install bleed valve.  
 Deactivation/reactivation bleed valve IAW MEL.  
 Adjustment/test bleed valve. PRV  
 Remove/install bleed air precooler.  
 Remove/install fan air valve.  
 Remove/install over pressure valve.  
 Remove/install pressure service check valve.  
 Deactivation/reactivation high stage temperature sensor IAW MEL.  
 Discuss/review pneumatic controller.  
 Locate and identify APU bleed supply & crossbleed components. Operational/functional/system test of APU bleed supply and crossbleed components.  
 Remove/install crossfeed valve.  
 Deactivation/reactivation of crossfeed valve.  
 Inspection/check APU bleed check valve.  
 Locate and identify wind leading edge air cooling components.  
 Discuss/review bleed air pressure and temperature indicating system.  
 Discuss/review manifold air leak detection system.  
 Remove/install overheat sensing element.

### **WATER/WASTE ATA 38**

Locate/identify water/waste components.  
 Remove/install wash basin faucet.  
 Discuss/review water quantity indicating system.  
 Carry out water drain.  
 Locate/identify recirculation toilet system components.  
 Remove/install flushing valve.  
 Locate/identify vacuum toilet system components.

Remove/install vacuum blower.  
Remove/install waste drain valve.  
Remove/install flush valve.  
Locate/identify air supply components.  
Adjustment/test of air supply system.  
Remove/install air filter.  
Remove/install air compressor.

#### **ONBOARD MAINTENANCE SYSTEMS ATA 45**

Locate and identify OMS components.  
Carry out CMS general operations.  
Perform CMC manual switching.  
Perform CMC switching operational test.  
Perform CLASS 3 report access procedure.  
Perform CMC system test.  
Perform uploading procedure with MDDU including FMGEC.  
Perform MDDU system test.  
Carry out printer general operation.  
Perform printer system test.

#### **STRUCTURES ATA 51**

Standard practices.  
Discuss/review standard composites repairs.  
Discuss/review cleaning after hydraulic fluid spillage.

#### **DOORS ATA 52**

Locate/identify entry and service doors.  
Deactivation/reactivation of door IAW MEL.  
Discuss/review safety precautions when operating door.  
Deactivation/reactivation of passenger exit stop fittings.  
Adjustment/test of girt bar fittings.  
Remove/install door damper and emergency operation  
Cylinder  
Discuss/review escape slide release mechanism,.  
Carry out opening of emergency exit.  
Discuss/review escape slide release mechanism.  
Locate/identify forward cargo door components.  
Locate/identify aft bulk cargo door component.  
Locate/identify cargo door hydraulic system component.  
Remove/install latching/locking mechanism.  
Discuss/review cargo door hydraulic control system.  
Locate/identify access doors.  
Inspection/check of equipment compartment exterior doors.  
Adjustment/test of flight compartment door.  
Discuss/review door warning system.  
Discuss/review residual pressure warning system.

#### **FUSELAGE ATA 53**

Locate and identify primary and auxiliary fuselage structure.  
Remove/install floor panels.  
Inspection/check floor panels.  
Inspection/check of radome  
Remove/install radome.  
Locate and identify pylon components.  
Inspection/check nacelle strut structural components.  
Inspection/check pylon to wing attach fittings.  
Inspection/check of fairing panel and doors.

#### **STABILISER ATA 55**

Locate and identify horizontal stabilizer structural components.  
Locate and identify vertical stabilizer structural components.

#### **WINDOWS ATA 56**

Locate and identify flight component windows.  
Inspection/check of flight compartment windows.  
Remove/install windshield.  
Remove/install sliding windows.  
Remove/install passenger cabin windows.

#### **WINGS ATA 57**

Locate and identify wing structural components.  
Inspection/check of wing structural components.  
Locate and identify wing LE devices.  
Inspection check of wing LE devices attach fittings.  
Locate and identify wing TE devices.  
Inspection check of wing TE devices attach fittings.

#### **ROUTINE INSPECTION CHECKS**

Carry out Pre-Flight Check.  
Carry out Transit Check.  
Carry out ETOPS Departure Supplement Check.  
Carry out Daily Check.  
Carry out Weekly Check/Service check.



## **POWERPLANT**

### **TIME LIMITS/MAINTENANCE CHECKS – ATA 5**

Carry out an inspection after hard/overweight landing.  
Carry out inspection after engine failure.  
Carry out inspection on engine following bird strike/slush ingestion.  
Carry out inspection of engine and pylon areas following lightning strike  
Carry out inspection of engine after side loads.  
Carry out inspection of engine after flight dust storm/volcanic ash or severe condition on ground  
Carry out inspection after engine wind milling (after engine in flight shut down).  
Carry out inspection of engine after flight in excessive or unusual turbulence or in excess of VMO.

### **PARKING AND MOORING - ATA 10**

Carry out the necessary engine and associated system blanking.  
Discuss/review procedures for short terms and long terms aircraft/engine storage.

### **SERVICING – ATA 12**

Carry out engine oil system replenishing.  
Carry out engine starter servicing.  
Electrical Power Servicing (IDG)  
Carry out Auxiliary Power Unit (APU) servicing.  
Discuss/review engine oil complete draining and servicing.  
Discuss/review engine starter oil complete servicing.  
Discuss/review Auxiliary Power Unit (APU) oil system complete servicing. Discuss/review Engine/APU cold weather maintenance.

### **ELECTRICAL POWER – ATA 24**

Locate and identify main electrical power panels in cockpit.  
Energize the aircraft electrical systems using external power supply.  
Remove/install Integrated Drive Generator.  
Carry out maintenance practices on IDG filter.  
Remove/install IDG QAD ring (coupling).  
Remove/install IDG air/oil Heat Exchanger.  
Remove/install IDG air/oil Heat Exchanger Dust Seal.  
Locate and identify IDG oil temperature sensor.  
Locate and identify IDG power feeder cable.  
Remove/install APU generator.  
Energize the aircraft electrical systems using APU generator.  
Carry out operational test of IDG disconnect/connect function.

### **FIRE PROTECTION – ATA 26**

Locate and identify the Engine fire detectors.  
Locate and identify APU fire detectors.  
Remove/install Engine fire extinguishing bottles.  
Remove/install APU fire extinguishing bottles.  
Carry out operational test APU fire and overheat detection test.  
Carry out operational test APU fire and overheat detection test.  
Locate and identify Engine fire extinguishing bottle.  
Locate and identify Engine fire control module.  
Locate and identify APU/Cargo fire control module.

### **FUEL – ATA 28**

Locate and identify Fuel Panel.  
Locate and identify refuel valve.  
Locate and identify Refuel panel access door proximity switch.  
Locate and identify refuel panel.  
Locate and identify Main Fuel tank boost pumps.  
Locate and identify Fuel scavenge jet pump.  
Locate and identify Water scavenge jet pump.  
Locate and identify APU fuel pump FWD/AFT.  
Locate and identify APU fuel isolation valve actuator.  
Defuel valve actuator.  
Review/discuss engine fuel feed system test.  
Locate and identify Engine fuel LP valve and adapter/shaft.  
Locate and identify Engine fuel/LP valve actuator.  
Locate and identify fuel Crossfeed valve.  
Locate and identify Engine fuel feed manifold and coupling.  
Review/discuss APU fuel feed system.  
Remove/install APU fuel shut off valve.  
Remove/install APU fuel shut off valve actuator.  
Remove/install APU fuel isolation valve.  
Remove/install APU fuel isolation valve actuator.  
Remove/install APU fuel supply line and shroud.  
Review/discuss procedures for defuelling.  
Locate and identify fuel jettison valve actuator.  
Locate and identify fuel jettison valve actuator.  
Locate and identify fuel sump driven valves.

### **HYDRAULIC POWER – ATA 29**

Review discuss maintenance practice procedures for main hydraulic system. Remove/install engine driven pump (EDPs).  
Remove/install engine driven pump (EDPs) supply shut off valve.  
Remove/install engine driven pumps (EDPs) pressure and case drain filter module. Locate and identify hydraulic system pressure transducer.  
Locate and identify reservoir pressure switch.  
Locate and identify reservoir temperature transducer.  
Locate and identify reservoir quantity transmitter.

### **ICE AND RAIN PROTECTION – ATA 30**

Remove/install engine anti-ice valve.  
Carry out engine anti-ice system test with engine running.  
Remove/install EAI duct.

### **INDICATING/RECORDING SYSTEM – ATA 31**

Locate and identify Cockpits display units. Display select panels, clocks.

### **LANDING GEAR – ATA 32**

Discuss/review procedures of landing gear ground door release system operation. Discuss/review procedures of aircraft parking brake system.

### **PNEUMATIC – ATA 36**

Carry out engine air supply operational test.  
Carry out engines air supply valve operational test.  
Carry out air supply system decay test.  
Locate and identify the following items Engine air supply pneumatic duct.

Locate and identify intermediate pressure check valve.  
 Locate and identify high pressure valve.  
 Locate and identify high pressure fan air controller.  
 Locate and identify pressure regulating valve.  
 Locate and identify precooler.  
 Locate and identify fan air modulating valve.  
 Locate and identify pressure regulating and shutoff valve controller.  
 Locate and identify fan air supply pneumatic duct.  
 Locate and identify air supply and cabin pressure controller.  
 Locate and identify high pressure ground connector.  
 Locate and identify Air supply distribution pressure duct.  
 Locate and identify supply duct insulation blanket,  
 Locate and identify pressure sensor.  
 Locate and identify intermediate pressure sensor.  
 Locate and identify exchanger outlet temp sensor.

#### **AIRBORNE AUXILIARY POWER – ATA 49**

Discuss/review APU maintenance practice procedures.  
 Remove/install APU.  
 Carry out maintenance practice procedures for APU doors.  
 Locate and identify air inlet door position switch.  
 Locate and identify air inlet plenums flange seal.  
 Locate and identify air inlet flap.  
 Locate and identify air inlet flap actuator.  
 Locate and identify air inlet door seal.  
 Locate and identify APU drains and vents.  
 Remove/install the oil filter element.  
 Remove/install elec chip det.  
 Remove/install air/oil cooler.  
 Remove/install lube pump module.  
 Remove/install oil heater assembly  
 Locate and identify low oil pressure switch.  
 Locate and identify oil pressure switch.  
 Locate and identify oil temperatures gen hot snsr.  
 Remove/install the fuel filter element.  
 Remove/install fuel nozzles.  
 Remove/install fuel manifolds.  
 Remove/install fuel FCU  
 Locate and identify fuel filter differential pressure switch.  
 Locate and identify fuel temperature sensor.  
 Remove/install electric starter motor.  
 Remove/install inlet guide vane actuator.  
 Remove/install APU check valve.  
 Locate and identify APU speed sensor.  
 Locate and identify APU inlet temperature sensor.  
 Locate and identify APU controller.  
 Locate and identify APU data memory module.  
 Remove/install APU exhaust duct.  
 Remove/install exhaust duct insulation blanket.  
 Locate and identify oil quantity/sump temperature sensor.  
 Locate and identify oil level sight page.  
 Discuss/review APU MEL maintenance procedure.

#### **ENGINE STANDARD PRACTICES – ATA 70**

Discuss in detail removal/installation of the powerplant.  
 Carry out engine dry motor procedure.  
 Carry out engine wet motor procedure.  
 Carry out engine start.  
 Carry out engine test/adjustment.  
 Carry out engine emergency stop.  
 Remove/install inlet cowl.

Remove/install fan cowl.  
 Remove/install front mount.  
 Remove/install rear mount.  
 Carry out fan cowl panels maintenance practices.  
 Remove/install drain collector tank.  
 Remove/install fuel drain tank ejector.

#### **ENGINE – ATA 72**

Discuss/review maintenance practice procedures for LP, IP and HP system.  
 Discuss/review engine boroscope inspection procedures.  
 Locate/identify boroscope plugs.  
 Remove/install gas generator fairings.  
 Remove/install interservices fairings.  
 Remove/install air intake spinner assembly.  
 Remove/install LP compressor blades.  
 Discuss/review LP compressor case inspection/check.  
 Discuss/review intermediate compressor inspection/check.

#### **ENGINE FUEL AND CONTROL – ATA 73**

Remove/install LP fuel filter element.  
 Remove/install Hp fuel filter.  
 Remove/install fuel manifold.  
 Remove/install fuel pump.  
 Remove/install fuel spray nozzles.  
 Discuss/review MEL maintenance procedures.  
 Locate/identify FADEC.  
 Locate/identify EEC.  
 Locate/identify data entry plug.  
 Remove/install FMU.  
 Remove/install dedicated alternator.  
 Locate and identify electrical power control unit.  
 Locate and identify fuel temperature thermocouple.  
 Locate and identify HP compressor exit thermocouple.  
 Locate and identify Overspeed protection unit.  
 Locate and identify engine data interface unit.  
 Locate and identify fuel flow transmitter.  
 Locate and identify fuel filter differential pressure aircraft.

#### **IGNITION – ATA 74**

Review/discuss ignition system audible test.  
 Locate/identify ignition units.  
 Locate and identify ignition leads.  
 Locate and identify ignitor plugs.  
 Remove/install ignitor plugs.

#### **AIR – ATA 75**

Discuss/review engine cooling and sealing inspection and check.  
 Remove/install air cooled oil cooler.  
 Remove/install TIC solenoid valve.  
 Remove/install TIC actuating arm.  
 Remove/install TIC valve.  
 Remove/install VSV actuator.  
 Remove/install bleed valve controller.  
 Remove/install IP bleed valves.  
 Remove/install HP bleed valves.  
 Remove/install IP bleed valve controller.

#### **ENGINE CONTROL – ATA 76**

Review/locate/identify components of power control system.

Review/locate/identify components of control system and control rigging.  
Carry out engine control system adjustment/test.  
Locate and identify the following units Thrust levers.  
Locate and identify TLA resolver.  
Locate and identify engine fuel control module.  
Locate and identify control stand rails, covers and seals.  
Locate and identify throttle artificial feel unit.  
Locate and identify throttle control unit (TCU functional test).  
Locate and identify lever assembly.  
Locate and identify components in the engine master control (HP & LP fuel shut off valve control Locate and identify the LP turbine speed prob.

#### **ENGINE INDICATION – ATA 77**

Review/discuss MEL maintenance procedure.  
Locate and identify EGT indicating system.  
Locate and identify EGT thermocouple assembly.  
Locate and identify EGT harness.  
Locate and identify IP turbine overheat.  
Locate and identify vibration transducer.  
Locate and identify vibration junction box.  
Locate and identify vibration leads.

#### **EXHAUST – ATA 78**

Discuss/review thrust reverser MEL maintenance procedures.  
Remove/install turbine exhaust plug.  
Carry out all tasks as described in thrust reverser maintenance practice procedure.  
Carry out thrust reverser operational.  
Carry out thrust reverser operational test (engine not in operation).  
Carry out thrust reverser operational test (engine in operation).  
Remove/install thrust reverser assembly.  
Carry out thrust reverser deactivation/reactivation.  
Remove/install thrust reverser tension latches.  
Remove/install thrust reverser RVT.  
Remove/install thrust reverser directional control unit.  
Remove/install pivoting door actuator.  
Remove/install pivoting door.  
Remove/install door primary lock.  
Remove/install T/R latches.  
Remove/install pivoting door deflector plates.  
Carry out inspection of buffer fitting assembly.  
Remove/install thrust reverser isolation control unit.  
Locate and identify thrust reverser hydraulic actuator.  
Locate and identify thrust reverser directional control unit.  
Locate and identify Thrust reverser isolation control unit  
Locate and identify thrust reverser hydraulic pressure switch (hydraulic system)  
Locate and identify thrust reverser RVDT.  
Remove/install T/R cowl door hold open rods.  
Remove/identify T/R opening actuator cooling air tube.  
Inspection of T/R opening/actuator tubes.  
Operational test of the secondary and tertiary locking system.

#### **OIL – ATA 79**

Discuss/review MEL maintenance procedures.

Carry out inspection/check of MCD, scavenge and pressure filter assemblies.

Carry out engine oil system check for contamination.  
Discuss/review procedure for preservation of main line bearings.  
Remove/install oil pump and pressure filter housing.  
Remove/install pressure oil filter element.  
Remove/install scavenge oil filter element.  
Remove/install magnetic chip detectors.  
Locate and identify fuel cooled oil cooler.  
Locate and identify air oil heat exchanger.  
Locate and identify oil system tubes.  
Locate and identify oil quantity transmitter.  
Locate and identify oil temperature thermocouple.  
Locate and identify oil pressure transmitter.  
Locate and identify oil filter pressure differential switch.  
Locate and identify scavenge filter differential pressure switch.

#### **STARTING – ATA 80**

Discuss/review MEL maintenance procedure.  
Remove/install pneumatic starter assembly.  
Remove/install starter QAD adapter.  
Remove/install starter control valve.

#### **ENGINE RUN-UP**

##### **ENGINE RUN-UP SESSION**

Engine Run experience participation accomplished.

**APPENDIX (IVB)****TYPICAL SCHEDULE OF INSPECTION/OJT SCHEDULE FOR B 2.1 (Avionics)**

**Note:** The experience should be in ATA (or equivalent) format as follows. This format is typical of a particular medium sized aircraft and is given for illustrative and guidance purposes only. It may not be applicable to every aircraft type on UAE civil aircraft register. Operators are advised to develop Schedules of inspections applicable to their aircraft type on the format and get it approved from GCAA.

**STANDARD AIRFRAME PRACTICES ATA 20**

Wiring and plug/receptacle repair/replacement.

**AIRCONDITIONING ATA 21**

Locate and identify air conditioning controls/indications in cockpit.

Operational test of air conditioning system through CMS/MCDU.

Locate and identify cockpit air ventilation components.

Operational test of air conditioning bay ventilation system.

Deactivation/activation of overboard extract valve.

Operational test of ditching configuration.

Operational test of low flow warning.

Operational test of blower override function.

Operational test of cooling effect detector.

Operational test of avionics equipment ventilation system through MCDU. Deactivation/activation of cargo compartment isolation valve.

Locate and identify pressure control and monitoring components.

Operational test of pressure control and monitoring system through MCDU.

Deactivation/activation of safety valve.

Operational test of pressure control module.

Locate and identify air cooling system components.

Deactivation/activation of pack flow control valve.

Operational test of flow control and indication system.

Locate and identify air conditional pack components.

Deactivation/activate temperature control valve.

Operational test of pack control and indication system.

Locate and identify emergency ram air inlet components.

Operational test of emergency ram air inlet system.

Locate and identify cockpit and cabin temperature control system components. Deactivate/activate trim air valve.

Deactivate/activate trim air pressure valve.

System test of cockpit and cabin temperature control system

Operational test of cockpit and cabin temperature control system.

Temperature control specific data readout.

Locate and identify cockpit and cabin temperature sensors.

**AUTOFLIGHT ATA 22**

Locate and identify AFS controls and indications.

Operation of true north reference selection.

Operational test of AP engagement and locking devices.

Perform autothrust disconnection check.

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Perform autothrust control unit check.

Perform autothrust isolation test.

Perform FM MCDU menu data entry

Perform FMGEC crossloading.

Operational test of MCDU transfer

Operational test of FM source switching.

Operational test of back up nav function.

Perform flight plan entry procedure.

Perform AFS system test.

Perform AFS land CAT 3 capability test.

**COMMUNICATION ATA 23**

Locate and identify radio and cockpit communications equipment.

Locate and identify cabin communications equipment.

Operational test of HF system.

Perform HF current status/system test.

Operational test of VHF system.

Perform VHF system test.

Operational test of ACARS.

Perform ACARS MCDU menu data entry.

Perform ACARS system test.

Operation and test of SATCOM system.

Operational test of PES music and PSS systems.

Perform PES system test.

Operational test of PVIS system.

Operational test of PES video system.

Operational test of mechanic call.

Operational test of service interphone.

Operation of audio management system.

Operational test of ACP switching.

Operational test of oxygen mask microphone.

Operational test of AIS.

Perform visual inspection of static discharges.

Operational test of CVR.

Operational test of CVR recording logic.

Operational test of CVR erase function.

Perform operation of FAP and PIM.

Operational test of cabin and flight crew interphone system.

Operational test of PA system.

Operational test of passenger call system.

Operational test of passenger lighted signs.

Operational test of cabin signs and loudspeakers through MCDU

Operational of CIDS interface and power up test/ground scan.

Perform cabin layout and zone programming.

Operational test of CPMS.

Perform CPMS system test.

Operational test of RMP

Perform PMP system test.

#### **ELECTRICAL POWER ATA 24**

Locate and identify electrical power controls and indications.

Locate and identify electrical power components.

Perform IDG oil level and differential pressure indicator check

Discuss dispatch of aircraft with one IDG inop.

Operational test of bus tie isolation (side 1 & side 2)

Locate and identify GLC, BTC and SIC contactors.

Perform APU GCU system test.

Perform operational test of emergency generation system.

Operation of emergency generator manual connection.

Perform emergency GCU system test.

Operational test of AC essential generation switching.

Operational test of static inverter and DC essential bus supply.

Perform ECMU system test.

Perform operational test of DC main generation switching and TR reset.

Perform operational test of DC essential bus switching and TR reset

Perform BCL system test

Energize the aircraft electrical circuits from the APU generator.

Perform GCU, GPCU system test.

Energize the ground service network.

Operational test of commercial load shedding.

Operational test of land recovery configuration.

Perform CBMU system test

#### **EQUIPMENT AND FURNISHINGS AT 25**

Operational test of crew seats.

Removal/installation of ceiling panels.

Removal/installation of PSUs/PIU

Locate and identify galley equipment.

Locate and identify lavatory equipment.

Locate and identify cargo loading system components.

Operational test of cargo door sill latches.

Locate and identify cabin equipment.

Locate and identify passenger compartment escape facilities.

Locate and identify flight deck escape facilities.

#### **FIRE PROTECTION ATA 26**

Locate and identify fire detection and extinguishing controls in the cockpit.

Perform operational test of engine fire detection.

Locate and identify fire detection components.

Operational test of ENG FDU through MCDU.

Operational test of APU fire detection system.

Locate and identify APU fire detection system components.

Operational test of APU FDU through MCDU.

Locate and identify avionics smoke detection system components.

Operational test of avionics smoke detection system.

Operational test of smoke detection system.

Operational test of avionics compartment smoke detection system through MCDU

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Operational test of lavatory smoke detector through MCDU.

Locate and identify extinguishing components.

Discuss/review engine agent discharge lights.

Locate and identify engine fire extinguishing components.

Operational test of APU fire extinguishing system.

Locate and identify APU fire extinguishing components.

Carry out APU fire test.

Operational test of system and low pressure indicating circuit

Locate and identify portable fire extinguishing components.

Locate and identify lavatory fire extinguishing components.

#### **FLIGHT CONTROLS ATA 27**

Locate and identify flight controls and indicating components in the cockpit.

Perform operational test of CMS/MCDU operation.

Locate and identify aileron components.

Perform ailerons operational test.

Locate and identify rudder components.

Perform rudder trim actuation operational unit.

Perform rudder operational test.

Perform operational test of Yaw Damper.

Operational test of Yaw damper servo actuator servoloop.

Operational test of back up Yaw damper through MCDU.

Locate and identify elevator system components.

Perform elevator operational test.

Locate and identify THS components.

Perform operational test of THS.

Discuss/review THS electrical motor deactivation

Locate and identify flap system components.

Carry out extension/retraction of flap/slat system.

Perform SFCC WTB reset for flaps.

Perform WTB engagement test.

Perform SFCC system test

Locate and identify spoiler system components.

Locate and identify slat system components.

Perform operational test of take over and priority function

Perform EFCS system test.

Perform operational test of rudder travel limitation unit return to low speed.

#### **FUEL ATA 28**

Locate and identify fuel system controls and indications.

Perform operation test of fuel system through CMS/MCDU.

Locate and identify fuel system components.

Perform operation of main and standby fuel pumps.

Perform operation of APU FWD/AFT fuel feed pump.

Operational test of fuel Crossfeed valve motors.

Operational test of Engine LP fuel valve.

Perform fuel transfer from tank to tank.

Operational test of APU fuel isolation valve.

Check of the tank quantity when the quantity indication is unserviceable

FCMC activate/deactivate.

Perform system test of FCMS.

Perform FMCS valve test.

Perform FCMS level sense test.

**HYDRAULIC POWER ATA 29**

Locate and identify hydraulic controls and indications.  
 Perform operational test of hydraulic system using electric pump  
 Locate and identify hydraulic system components.  
 Locate and identify hydraulic system service panels.  
 Perform ground operation of electric pumps.  
 Perform electric pump phase unbalance test.  
 Carry out extension/retraction of RAT

**ICE AND RAIN PROTECTION ATA 30**

Locate and identify ice and rain protection controls and indications in the cockpit  
 Operational test of Ice and rain protection components.  
 Perform operational test of wing ice protection system.  
 Locate and identify engine ice protection components.  
 Discuss/review MEL implications of engine ice protection valves.  
 Locate and identify probe ice protection components.  
 Discuss/review MEL implications of probe heat computer .  
 Perform operational test of probe ice protection through MCDU.  
 Locate and identify window/windshield/door ice and rain protection components.  
 Perform operational test of windshield anti ice and defogging systems through MCDU.  
 Perform operational test of escape slide locking mechanism ice protection.  
 Perform operational potable water ice protection via CIDS ground scanning/test.  
 Locate and identify ice detection components.  
 Perform system test of ice detection system.

**INDICATING AND RECORDING SYSTEMS ATA 31**

Locate and identify indicating/recording system controls & indications in cockpit.  
 Locate and identify indicating/recording system components throughout aircraft.  
 Perform electrical clock setting.  
 Perform system test of DFDRS ground scanning.  
 Perform operational test of FDDR playback.  
 Carry out ACMS general operation.  
 Perform ACMS MCDU menu data entry.  
 Carry out ACMS parameter call up.  
 Perform QAR/DAR servicing.  
 Perform operational test of DMU.  
 Carry out EIS switching.  
 Perform system test of FWS.  
 Perform operational test of auto call out.  
 Perform EIS start up procedure.  
 Carry out general operation of EFIS/ECAM control panel.  
 Perform EIS DU intensity adjustment.  
 Perform DMC system test.  
 Perform DMC switching test.  
 Perform removal/installation of DU.  
 Discuss/review MEL implications of ECAM DMC switching selector.

**LANDING GEAR ATA 32**

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Carry out a thorough visual check of landing gear system controls & indications in the cockpit  
 Locate & identify MLG & door components.  
 Perform opening/closing of gear doors on the ground.  
 Locate & identify NLG & door components.  
 Perform opening/closing of NLG doors on the ground.  
 Carry out a thorough visual check of wheel & brake components  
 Perform operational test of normal brake system.  
 Perform alternate braking system test.  
 Perform operational test of parking brake.  
 Perform BSCU system test.  
 Perform normal braking system test.  
 Perform operational test of brake cooling system.  
 Perform operational test of landing gear NOT DOWN warning through MCDU.  
 Discuss/review MEL implications of deactivation of red landing gear NOT DOWN light. )  
 Carry out simulation of flight with aircraft on ground.  
 Perform landing gear system test (LGCIU).

**LIGHTS ATA 33**

Perform removal/installation of bulb & pushbutton body.  
 Locate and identify cockpit lights components.  
 Perform operational test of cockpit lights.  
 Perform annunciator lights test and dimming.  
 Locate and identify cabin lights components.  
 Perform operational test of cabin general illumination.  
 Carry out removal/installation of cabin light filaments and fluorescent tubes  
 Perform operational test of night lights.  
 Perform passenger reading lights system test.  
 Perform operational test of passenger reading lights & attendant call lights  
 Perform operational test of lavatory lighted signs.  
 Perform operation of cargo & service lights.  
 Locate and identify exterior lights components.  
 Perform operational test of exterior lights.  
 Locate and identify emergency lighting components.  
 Perform operational test of emergency lighting through MCDU.  
 Perform operational test of emergency lighting system.  
 Perform EPSU localized system test.  
 Carry out EPSU load programming procedure.

**NAVIGATION ATA 34**

Carry out a thorough visual check of navigation systems controls & indications in cockpit.  
 Locate and identify navigation systems components.  
 Perform ADIRS start procedure.  
 Perform inertial reference align procedure.  
 Discuss/review MEL implications of unserviceable IRS.  
 Perform operational test of Air data switching.  
 Perform operational test of ATT/HDG switching.  
 Perform ADR interface test.  
 Perform ADR system test.  
 Select and read ADR current status readout.  
 Perform ALT/CAS dynamic slew tests.  
 Perform AOA sensor test.  
 Perform RAT airspeed signal generation.

Discuss the MEL implications of an unserviceable radio altimeter

Perform TCAS operational test.

Perform TCAS system test.

Perform GPWS ground vocabulary test.

Perform GPWC system test.

Perform VOR/DME test through RMP & MCDU.

Perform DME system test.

Perform ATC system test.

Perform ADF test through RMP & MCDU.

Perform ADF system test.

Perform VOR/MKR system test.

Perform GPS system test.

#### **OXYGEN ATA 35**

Locate and identify system controls and indications in the cockpit.

Perform operational test of crew oxygen system.

Determine the minimum pressure for MEL dispatch.

Locate and identify passenger oxygen system components.

Perform operational test of the manual door release.

Perform a visual inspection of the smoke hood tamper proof seal

Locate and identify portable oxygen equipment.

#### **PNEUMATICS ATA 36**

Locate and identify pneumatic system controls and indications in cockpit

Perform operational test of pneumatic system through CMS/MCDU.

Locate and identify engine bleed air supply components.

Perform BMC system test.

Perform bleed air system CURRENT DATA readout.

Locate and identify APU bleed air supply and crossbleed system components.

Perform operational test of APU pneumatic system.

Perform operational test of crossbleed valve manual mode.

Locate and identify pneumatic leak detection system components

#### **WATER AND WASTE ATA 38**

Locate and identify CIDS water/waste indication.

Locate and identify potable water system components.

Perform potable water heater reset functional test.

Perform potable water draining.

Locate and identify waste water system components.

Perform operational test of vacuum system controller from CMS/MCDU

#### **ONBOARD MAINTENANCE SYSTEMS ATA 45**

Locate and identify OMS components.

Carry out CMS general operations.

Perform CMC manual switching.

Perform CMC automatic switching operational test.

Perform CLASS 3 report access procedure.

Perform CMC system test.

Perform uploading procedure with MDDU including FMGEC.

Perform MDDU system test.

Carry out printer general operation.

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Perform printer system test.

Carry out printer servicing.

#### **APU ATA 49**

Locate and identify APU controls and indications in the cockpit

Locate and identify APU components.

Carry out APU start/shutdown procedure.

Perform APU ECB system test.

Locate and identify APU emergency shutdown devices.

Perform operational test of APU emergency shutdown circuit.

#### **DOORS ATA 52**

Carry out opening/closing of passenger doors.

Perform check to ensure escape slide disarming when opening door for outside

Discuss and carry out special precaution before performing work on pax doors

Perform opening/closing of fwd/aft cargo doors in normal and manual.

Perform opening/closing of bulk cargo door.

Perform operational test of door warning system.

Carry out deactivation/reactivation of PSCU/proximity switch using brake out panel.

Perform operational test of door indications on ECAM.

Carry out operational test of pax/cargo door indications.

Perform PSCU system test.

Perform PSCU door warning test.

Perform ASPSU localized test.

#### **FUSELAGE ATA 53**

Carry out opening/closing of radome.

#### **WINDOWS ATA 56**

Carry out opening/closing of cockpit sliding windows.

#### **POWERPLANT ATA 71**

Carry out opening/closing of engine cowlings.

Locate and identify engine controls and indications in the cockpit.

Familiarization with main engine layout and component location.

#### **ENGINE FUEL AND CONTROL ATA 73**

Locate and identify engine fuel and control components.

Perform system test of FADEC system.

Perform MCDU EIVMU system test.

Retrieve EVIMU specific data read out.

#### **IGNITION ATA 74**

Perform MCDU ignition test.

Locate and identify ignition system components.

Discuss/review implication of unserviceable ignition indication system.

#### **ENGINE AIR ATA 76**

Locate and identify air system components.

#### **ENGINE INDICATION ATA 77**

Perform a thorough visual inspection of engine indications and indicating components.  
Discuss/review MEL implications of unserviceable EPR indications.

**EXHAUST ATA 78**

Locate and identify thrust reverser system components.  
Perform operational test of thrust reverser through MCDU.

**OIL ATA 79**

Perform visual inspection of oil system components.  
Discuss/review MEL implications of unserviceable oil quantity indications.  
Locate and identify oil quantity indicating system components.

Locate and identify oil pressure indication system components.

**STARTING ATA 80**

Locate and identify starting system components.  
Discuss/review MEL implications of start valve position indicating system.

**ROUTINE INSPECTION CHECKS**

Carry out weekly/service check.



## APPENDIX (IVC)

**TYPICAL SCHEDULE OF INSPECTION/OJT SCHEDULE FOR HELICOPTERS**

**Note:** The experience should be in ATA (or equivalent) format as follows. This format is typical of a particular type of helicopter and is given for illustrative and guidance purposes only. It may not be applicable to every helicopter type on UAE civil aircraft register. Operators are advised to develop Schedules of inspections applicable to their helicopters type on the format and get it approved from GCAA.

**ATA 07 Lifting and Jacking**

Correct equipment installed for aircraft weighing procedure  
Discuss/ review lifting complete helicopter (main rotor hub installed)  
Discuss/ review lifting complete helicopter (transmission removed)  
Discuss/ review lifting complete helicopter (mast removed)  
Discuss/ review lifting tail boom only  
Discuss/ review the special tools required for jacking  
Discuss/ review/ carry out aircraft jacking

**ATA 08 Weight and Balance**

Correct equipment utilized for mass and balance  
Weight and balance calculations recordings  
Discuss/ review/ carry out weight and balance  
Discuss/ review/ carry out levelling helicopter  
Discuss/ review/ carry out weighing procedures  
Discuss/ review/ carry out in determining centre of gravity location  
Discuss/ review/ carry out determining amount of ballast required  
Discuss/ review/ carry out weight empty centre of gravity charts — kits  
Removal and inspection of nose and cabin ballast (weight)  
Removal and inspection of tail ballast (weight)

**ATA 09 Towing**

Correct towing procedures and knowledgeable on towing tug  
Discuss/ review Maintenance Manual procedure taxing safety procedures and rules  
Discuss/ review and the installation & removal process of ground handling wheels installation  
Discuss/ review and carry out towing operations

**ATA 10 Parking and Mooring**

Discuss/ review for the correct equipment used during normal conditions  
Discuss/ review for the correct equipment used during turbulent conditions  
Discuss/ review for the correct equipment used during high wind conditions  
Correct parking procedures and storage covers used  
Correct mooring rings and straps used and positioned  
Removal and inspection of all storage covers and correct stowage  
Discuss/ review/ carry out folding/unfolding (using droop restraint tube assembly)  
Discuss/ review helicopter storage procedures

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Discuss/ review colour schemes  
Discuss/ review/ carry out installation of Decals  
Discuss /review all exterior markings and placards  
Correct language installed per Regulation  
Discuss/ review all interior markings and placards

**ATA 12 Servicing**

Discuss/ review use of all ground support and equipment  
Discuss/ review different types of fuel and oils used in aircraft  
Carried out fuel sampling (purging)  
Carried out Main fuel system fuelling & de-fuelling  
Discuss/ review long range fuel tanks  
Carried out oil replenishing in transmission system  
Remove and installation all Tail rotor & intermediate gear box oils  
Discuss/ review the changing of oil brands  
Discuss/ review hydraulic fluids used and replenished systems  
Carried out rotor brake servicing  
Carried out lubrication restrictions  
Carried out aircraft cleaning external

**ATA 18 Vibrations and Noise Analysis**

Discuss/ review use of correct rotor vibration measurement instrumentation  
Carried out and tested vibration analysis inspections  
Discuss/ review noise limits internal  
Discuss/ review noise limits external  
Discuss/ review/ carry out rotor tracking and balancing  
Discuss/ review/ carry out tail rotor track and balance  
Adjustment of Pitch Links for flight path alignment  
Remove and installation all of RADS equipment  
Adjustment of Trim Tabs  
Removal & installation of hub balance weights  
Discuss/ review/ carry out product balance  
Discuss/ review/ carry out setting autorotation RPM  
Discuss/ review/ carry out Control of Main Rotor 2/Rev  
Discuss/ review/ carry out Control of Main Rotor 4/rev

**ATA 21 Air Distribution (Ventilation)**

Correct ground support equipment available for gassing air con system  
Removal & installation of Bleed air shut off valves  
Removal & installation of variable control mixing valve  
Removal & installation of Noise Suppressor  
Removal & installation of Heat/Defrost Control Lever  
Removal & installation of Heat/Vent Air Ducts  
Removal & installation of Ventilation Blower  
Removal and installation of compressor assembly

Discuss/ review distribution system  
 Discuss/ review the cooling system  
 Correct operation of temperature control  
 Discuss/ review location of sensors and controllers

**ATA 25 Equipment and Furnishings**

Inspection of equipment & furnishings  
 Inspection / Removal and installation of crew and passenger seats  
 Inspection / Removal and installation of crew seat vertical adjustment cable  
 Inspection / Removal and installation of Passenger Seat Restraint Assembly  
 Inspection / Removal and installation of outboard facing passenger seat  
 Inspection / Removal and installation of map and data case  
 Inspection / Removal and installation of cabin upholstery  
 Inspection / Removal and installation of flight compartments  
 Inspection / Removal and installation of ELT  
 Inspection of cargo compartments  
 Removal & installation of emergency floatation gear  
 Inspection of cabin insulation  
 Inspection of external release load carrying equipment  
 Inspection & operation of indicating equipment

**ATA 26 Fire Protection**

Inspect/ Discuss/ review of Fire protection system  
 Inspect/ Discuss/ review of Fire detection system  
 Inspection / Removal and installation of Engine Upper Fire Detection Sensing Elements  
 · Inspection / Removal and installation of Engine Firewall Fire Detection Sensing Elements  
 Inspection / Removal and installation of baggage compartment smoke detection system  
 Baggage Compartment Smoke Detector-Operational Check  
 Inspection / Removal and installation of Engine Compartment Fire Extinguishers  
 Inspection / Removal and installation Portable Fire Extinguishers and Brackets  
 Discuss/ review fire sensing & warning system  
 Inspection of extinguishing system

**ATA 28 Fuel System**

Inspection & c/o Cleaning process  
 Inspection of contamination process  
 Inspection / Removal and installation Forward Interconnect Valve  
 Inspection / Removal and installation Aft Interconnect Valve  
 Inspection / Removal and installation Sump Assemblies  
 Inspection / Removal and installation low fuel level warning switches  
 Inspection / Removal and installation Defueling Valves  
 Inspection / Removal and installation Boost Pumps  
 Inspection / Removal and installation Canister Type Boost Pumps  
 Inspection / Removal and installation Sump Interconnect Valves  
 Inspection / Removal and installation Sump Drain Valves  
 Inspection / Removal and installation Flow Switches

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Inspection / Removal and installation Cell Inlet/Outlet Fittings  
 Removal & Installation fuel tanks Auxiliary Fuel Capped Connector  
 Inspection/ Removal & Installation flapper valves  
 Discuss/ review ejector pumps  
 Inspection / Removal and installation cell crash resistant vent valves  
 Discuss/ review fuel storage and distribution system  
 Inspection / Removal and installation shutoff valves  
 Inspection / Removal and installation Cross feed Valve  
 Inspection / Removal and installation Fuel Pressure Transmitters  
 Inspection / Removal and installation tank fuel covers  
 Inspection / Removal and installation fuel quantity probe

**ATA 29 Hydraulic System**

Discuss/ review ground support equipment  
 Discuss/ review flushing process  
 Discuss/ review Operational Checks — Using Test Stand  
 Discuss/ review Operational Checks — Using Helicopter Power  
 Discuss/ review Hydraulic Pump  
 Inspection / Removal and installation Hydraulic Reservoir  
 Inspection / Removal and installation Filter Assembly  
 Carry out Hydraulic Filter Assemblies — Cleaning  
 Inspection / Removal and installation pressure switch  
 Inspection / Removal and installation hydraulic accumulator  
 Inspection / Removal and installation Hydraulic Check Valve  
 Inspection / Removal and installation Pressure Transmitter

**ATA 30 Ice and Rain Protection**

Discuss/ review Ice & Rain Protection  
 Inspection / Removal and installation Windshield Wiper Blade  
 Inspection / Removal and installation Windshield Wiper Arm  
 Inspection / Removal and installation Windshield Wiper Head Guard  
 Inspection of water lines  
 Discuss/ review anti-icing, de-icing and snow removal  
 Inspection / Removal and installation Windshield Wiper Converter and Motor

**ATA 32 Landing Gear**

Discuss/ review type of landing gear fitted  
 Inspection / Removal and installation landing gear assembly  
 Inspection / Removal and installation skid tubes  
 Inspection / Removal and installation skid shoes  
 Inspection / Removal and installation fixed step  
 Inspection / Removal and installation eyebolt (ground handling wheels attach points)  
 Inspection / Removal and installation landing gear Cross tube assemblies  
 Inspection / Removal and installation AFT Cross tube support beam  
 Inspection / Removal and installation Crosstube Forward Supports

Inspection / Removal and installation Aft Cross tube Supports

Inspection / Removal and installation AAI Cross tube Aft Clamp Assembly

Inspection / Removal and installation tail skid

Inspection / Removal and installation passenger step

Discuss/ review ground handling wheels-lubrication

Inspection ground handling wheels

Inspection / Removal and installation tubeless tire

#### **ATA 52 Doors and Windows**

Discuss/ review Installation Requirements for Access Doors, Panels, Cowlings, Fairings, and Covers

Inspection & Removal / installation Crew Doors

Windshields — Cleaning

Crew door — operational check

Inspection & Removal / installation Crew Door Latches

Inspection & Removal / installation Crew Door Hinges

Inspection & Removal / installation Passenger/Cargo Door

Inspection & Removal / installation Passenger/Cargo Door Latches

Inspection & Removal / installation Cargo Hinged Panels

Inspection & Removal / installation Cargo Hinged Panel

Latching Mechanism

Inspection & Removal / installation Baggage Compartment Door

Inspection & Removal / installation

Inspection & Removal / installation Baggage Compartment Door

Inspection & Removal / installation Nose Access Doors

Inspection & Removal / installation Tail Rotor Driveshaft Access Covers

Inspection & Removal / installation Cabin Roof Windows

Inspection & Removal / installation Upper Crew Door Windows

Inspection & Removal / installation Forward Crew Door Windows

Inspection & Removal / installation Lower Crew Door Windows

Inspection & Removal / installation Passenger Door Windows

Inspection & Removal / installation Lower Nose Section Windows

Inspection & Removal / installation Crew Door Jettison Mechanism

#### **ATA 53 Fuselage**

Discuss/ review structure

Inspection & Removal / installation of Fuel Cell Cover

Inspection & Removal / installation of Crew Seat Tracks

Inspection & Removal / installation of Tension Rod Assembly

Inspection & Removal / installation of Tail boom

Inspection & Removal / installation of Tail boom Attaching Bolts

Inspection of Tail Rotor Gearbox Support Fitting — Damage and Corrosion Limits

#### **ATA 62 Main Rotor**

Inspection & Removal / installation of main rotor blades

Inspection Main Rotor Blades — Cleaning

Inspection & Removal / installation of Polyurethane Protective Tape

Inspection & Removal / installation and cleaning of Main Rotor Hub

Inspection & Removal / installation of Hub and Sleeve Assembly

Inspection & Removal / installation of Re-phasing Levers

Inspection & Removal / installation of Drive Link Assembly

Inspection & Removal / installation of Swash plate Link Assembly

Inspection & Removal / installation of Collective Pitch Drive Plate Set

Inspection & Removal / installation of 62-46 Collective Lever Assembly

#### **ATA 63 Main Rotor Drive System**

Discuss/ review Main Rotor Drive Train

Metal Particle Contamination — Identification and inspection to be carried out

Inspection & Removal / installation of Engine-to-Transmission (Main) Driveshaft

Lubrication process of Engine-to-Transmission (Main) Driveshaft

Balancing process of Engine-to-Transmission (Main) Driveshaft

Inspection & Removal / installation of Engine-to-Driveshaft Curvic Coupling Adapter

Inspection & Removal / installation & cleaning of Main Rotor Mast

Inspection & Removal / installation of Transmission

Discuss/ review & Inspection of Electric Chip Detectors

Inspection & Removal / installation of mast bearing electric chip detector

Inspection & Removal / installation of Main Input Gear Quill Electric Chip Detector

Inspection & Removal / installation of Sump Case Electric Chip Detector

Discuss/ review Transmission Oil System Components

Inspection & Removal / installation of Planetary Oil Jets, 1 to 7

Inspection & Removal / installation of Oil Pressure Regulating Valve

Inspection & Removal / installation of Oil Temperature Manifold

Inspection & Removal / installation of Oil Pressure Transmitter

Inspection & Removal / installation of Oil Pressure Switch

Inspection & Removal / installation of Oil Pressure Manifold

Cleaning, Inspection & Removal / installation of Filler Neck, Scupper, and Mounting Bracket

Inspection & Removal / installation of Oil Pump

Inspection & Removal / installation of Oil Pump Inlet Screen

Inspection & Removal / installation of Sump Case Internal Filter

Inspection & Removal / installation of Full Flow Debris Monitor

Inspection & Removal / installation of Sight Glasses

Cleaning, Inspection & Removal / installation of External Oil Filter

Inspection & Removal / installation of Thermal Bypass Valve  
 Inspection & Removal / installation of Oil Drain Valves  
 Inspection & Removal / installation of Transmission Oil Cooler and Blower  
 Inspection & Removal / installation of Main Input Quill  
 Inspection & Removal / installation of Transmission Quill Port Covers  
 Inspection & Removal / installation of Aft Isolation Mount and Friction Dampers  
 Inspection & Removal / installation of Forward Isolation Mounts  
 Inspection & Removal / installation of Lift Link & fitting Serviceability Checks — Transmission, Tail Rotor Gearbox, and Intermediate Gearbox  
 Inspection & carry out Rotor Brake System Bleeding  
 Inspection & Removal / installation of Master Cylinder  
 Inspection & Removal / installation of Brake Assembly & brake discs

**ATA 64 Tail Rotor**

Discuss/ review & Inspection of Tail Rotor Hub and Blade Assembly and Controls  
 Inspection & Removal / installation of Tail Rotor Hub and Blade Assembly  
 Discuss/ review & Inspection of Tail Rotor Controls  
 Inspection & Removal / installation of Counterweight Link  
 Inspection & Removal / installation of Pitch Control Links  
 Inspection & Removal / installation of Control Tube  
 Inspection & Removal / installation of Control Housing  
 Inspection & Removal / installation of Tail Rotor Lever  
 Inspection & Removal / installation of Control Link  
 Inspection & Removal / installation of Idler  
 Inspection & Removal / installation of Crosshead Controls  
 Minor repair, Inspection & Removal / installation of Tail Rotor Blades

**ATA 65 Tail Rotor Drive System**

Discuss/ review & Inspection of Tail Rotor Drive System  
 Inspection & Removal / installation of Driveshaft Hanger Assemblies  
 Lubrication of Tail Rotor Driveshaft and Hangers  
 Inspection & Removal / installation of Intermediate Gearbox  
 Inspection & Removal / installation of Sight Glass  
 Inspection & Removal / installation of Electrical Chip Detector  
 Inspection & Removal / installation of Oil Filler Cap  
 Flexible Couplings — Inspection and Lubrication  
 Inspection & Removal / installation of Tail Rotor Gearbox  
 Discuss/ review Alternate Run-In Test of Tail Rotor Gearbox  
 Inspection & Removal / installation of Tail Rotor Gearbox Electrical Chip Detector

**ATA 67 Flight Controls**

Discuss/ review ground support & equipment  
 Discuss/ review Flight Control Rigging  
 Discuss/ review Anti-Torque Controls  
 Discuss/ review Aerodynamically Actuated Elevator

Inspection & Removal / installation of Hydraulic Servo Cylinder Boot  
 Inspection & Removal / installation of Hydraulic Cylinder Extension Tube  
 Inspection & Removal / installation of Hydraulic Cylinder Extension Universal  
 Inspection & Removal / installation of Piston Rod Clevis  
 Inspection & Removal / installation of Servo Valve Balance Spring  
 Inspection & Removal / installation of Collective Flight Control Cylinder  
 Inspection & Removal / installation of Left Cyclic and Collective Boost Support  
 Inspection & Removal / installation of Adjustable Rod End Tube  
 Discuss/ review Adjustable Rod End Tube  
 Inspection & Removal / installation of Pitch Control Bellcrank  
 Inspection & Removal / installation of Collective Force Gradient  
 Inspection & Removal / installation of Collective Bellcrank  
 Inspection & Removal / installation of Collective Link  
 Inspection & Removal / installation of Collective Rotary Actuator  
 Inspection & Removal / installation of Adjustable Collective Control Tube  
 Inspect freedom of collective movement  
 Inspection & Removal / installation of Control Lever and Stop Assembly  
 Inspection & Removal / installation of Pilot Collective Boot  
 Inspection & Removal / installation of Collective Jackshaft  
 Inspection & Removal / installation of Collective Transducers  
 Inspection & Removal / installation of Friction Clamp  
 Discuss/ review Cyclic Controls  
 Inspection & Removal / installation of Hydraulic Cylinder Extension Tube  
 Inspection & Removal / installation of Hydraulic Servo Cylinder Boot  
 Inspection & Removal / installation of Hydraulic Cylinder Extension Universal  
 Inspection & Removal / installation of Left Cyclic Piston Rod Clevis  
 Inspection & Removal / installation of Right Cyclic Piston Rod Clevis  
 Inspection & Removal / installation of Left/Right Cyclic Flight Control Cylinder  
 Inspection & Removal / installation of Right Cyclic Boost Cylinder Support  
 Inspection & Removal / installation of Mixing Lever Assembly  
 Inspection & Removal / installation of Fore and Aft Proximity and Lateral Switch  
 Inspection & Removal / installation of Lateral, Longitudinal and rotary Series Actuators  
 Inspection & Removal / installation of Transducers  
 Inspection & Removal / installation of Jackshaft (Fore and Aft) Tube and Lever Assembly (Left Side)  
 Inspection & Removal / installation of Cyclic Stick Boot  
 Discuss/ review Anti-Torque Controls

Inspection & Removal / installation of Pitch Change Control Bellcrank  
 Inspection & Removal / installation of Flight Control Tubes and Bellcranks  
 Inspection & Removal / installation of Walking Beam Support Assembly  
 Inspection & Removal / installation of Magnetic Brake  
 Inspection & Removal / installation of Pedal Adjuster Assembly  
 Inspection & Removal / installation of pedals  
 Inspection & Removal / installation of Aerodynamically Actuated Elevator  
 Inspection & Removal / installation of Elevator Control Tube  
 Discuss/ review Digital AFCS Flight Controls  
 Discuss/ review/ carry out Flight Controls Rigging  
 Discuss/ review/ carry out Collective Controls  
 Discuss/ review/ carry out Cyclic Controls  
 Discuss/ review/ carry out Anti-Torque Controls  
 Inspection & Removal / installation of Cyclic Controls  
 Inspection & Removal / installation of Rotary Actuator (Fore and Aft Cyclic)  
 Inspection & Removal / installation of Rotary Actuator (Lateral Cyclic)  
 Inspection & Removal / installation of Anti-Torque Controls  
 Inspection & Removal / installation of Anti-Torque Transducers

#### **ATA 71 Power Plant**

Discuss/ review/ carry out Priming — Power Plant Lubrication System  
 Discuss/ review/ carry out Priming — Power Plant Fuel System  
 Discuss/ review/ carry out Wet Motoring Run — Power Plant  
 Discuss/ review/ carry out Compressor Wash  
 Inspection & Removal / installation of engine twin pack  
 Inspection & Removal / installation of (Combining) Gearbox  
 Discuss/ review Engine Cowlings fitted  
 Inspection & Removal / installation of Forward and Aft Pylon Fairings  
 Inspection & Removal / installation of Transmission Fairings and Engine Air Inlet Cowlings  
 Inspection & Removal / installation of Reduction (Combing) Gearbox Cowlings  
 Inspection & Removal / installation of Oil Cooler Air scoop Cowling  
 Inspection & Removal / installation of Forward Mount & fittings  
 Inspection & Removal / installation of Aft Left Mount Tripod  
 Inspection & Removal / installation of Aft Left and Right Mount Engine Bearings.  
 Inspection & Removal / installation of Air Inlet Cowling Firewall Assembly  
 Inspection & Removal / installation of Middle, Centre and AFT Firewall Assembly  
 Inspection & Removal / installation of Gas Producer Tachometer Generator

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Inspection & Removal / installation of Power Turbine Tachometer Generator  
 Inspection & Removal / installation of Differential Pressure Indicator  
 Inspection & Removal / installation of Torque Pressure Transmitters  
 Inspection & Removal / installation of Reduction (Combining) Gearbox Oil Pressure Switch  
 Inspection & Removal / installation of Reduction (Combining) Gearbox Oil Temperature Bulb  
 Inspection & Removal / installation of Starter-Generator  
 Inspection & Removal / installation of Air Management System Ejectors  
 Inspection & Removal / installation of Air Management System Transition Ducts  
 Inspection & Removal / installation of Air Management System Valve Assembly  
 Inspection & Removal / installation of Air Management System Induction Baffles  
 Inspection & Removal / installation of Air Management System Exhaust Ducts

#### **ATA 76 Engine Controls**

Discuss/ review/ carry out Engine Controls  
 Discuss/ review/ carry out Power Lever (N1) Control Rigging  
 Discuss/ review/ carry out Engine Torque Transmitter Adjustment and Functional Check  
 Discuss/ review/ carry out Maximum Torque Check and Control Limit Setting  
 Discuss/ review/ carry out Automatic Fuel Control Idle Speed Check  
 Discuss/ review/ carry out Automatic Mode Maximum Gas Producer Speed Check and AFCU Maximum N1 Stop adjustment  
 Discuss/ review/ carry out Engine Idle Speed Adjustment  
 Discuss/ review droop compensator  
 Inspection & Removal / installation of Linear Actuator  
 Inspection & Removal / installation of ITT Actuator (ENG 2 Actuator)  
 Inspection & Carry out N2 Control Rigging  
 Inspection & Removal / installation of Droop Compensator and Cable  
 Inspection & Removal / installation of Droop Compensator Linkage

#### **ATA 79 Engine Oil System**

Discuss/ review engine storage  
 Discuss/ review distribution system  
 Inspection of engine oil cooler  
 Inspection & Removal / installation of Check valves  
 Inspection & Removal / installation of Drain Valves  
 Inspection & Removal / installation of oil cooler blower  
 Check indicating system  
 Inspect pressure system  
 Inspect temperature system  
 Inspect warning system  
 Inspection and replacements of chip detection system

#### **ATA 95 Instrument System**

Discuss/ review instruments fitted

Inspection & Removal / installation of Panel Mounted Instruments  
 Inspection & Removal / installation of Instrument Panel  
 Discuss/ review, Inspect, Remove & Install of Attitude Director Indicator (ADI)  
 Discuss/ review, Inspect, Remove & Install of Electronic Attitude Director Indicator (EADI)  
 Discuss/ review, Inspect, Remove & Install of Standby Attitude Indicator  
 Discuss/ review, Inspect, Remove & Install of Radar Altimeter Indicator  
 Leak Check — Pitot-Static System  
 Operational Check — Pitot-Static System  
 Discuss Draining Instructions — Pitot and Static Lines  
 Discuss/ review, Inspect, Remove & Install of Pitot Tube and Static Port Heaters  
 Cleaning — Static Port Heater System  
 Inspect, Remove & Install of Airspeed Indicator  
 Inspect, Remove & Install of Altimeter  
 Inspect, Remove & Install of Vertical Speed Indicator  
 Inspect, Remove & Install of Horizontal Situation Indicator (HSI)  
 Inspect, Remove & Install of Electronic Horizontal Situation Indicator (EHSI)  
 Inspect, Remove & Install of Distance Measuring Equipment (DME) Indicator  
 Inspect, Remove & Install of Course Select Indicator  
 Inspect, Remove & Install of Marker Beacon Indicators  
 Inspect, Remove & Install of Standby Magnetic Compass  
 Discuss Initial Setup — Compass Swing  
 Inspect, Remove & Install of Triple Torque Pressure Indicator  
 Inspect, Remove & Install of Fuel Pressure Indicators  
 Inspect, Remove & Install of Fuel Quantity Indicator  
 Inspect, Remove & Install of Gearbox Oil Pressure and Temperature Indicator  
 Inspect, Remove & Install of Triple Tachometer Indicator  
 Inspect, Remove & Install of Interturbine Temperature (ITT) Indicators  
 Inspect, Functional check, Remove & Install of Digital Clock  
 Operational Check — Igniters

#### ATA 96 Electrical System

Inspect wiring harnesses for chafing  
 Discuss/ review Inspect, Primary and Secondary Electrical Power Systems  
 Discuss/ review Inspect, Emergency DC/AC Power  
 Operational Checks — Electrical Systems  
 Inspection & Removal / installation of Control Panels — Electrical  
 Inspection & Removal / installation of Circuit Breakers  
 Operational Check Battery System  
 Inspection & Removal / installation of Battery  
 Inspection & Removal / installation of External Power Receptacle  
 Operational Check — Generator No. 1 & 2 System  
 Operational Check — Voltage Control Paralleling Adjustment  
 Inspection & Removal / installation of Starter and Igniter Systems

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Inspect, Functional check of Air Data Command Display (DAFCS)  
 Inspection & Removal / installation of Power Diodes  
 Inspection & Removal / installation of AC Indicator Systems  
 Inspection & Removal / installation of Fuel Pressure Indicator Systems  
 Inspection & Removal / installation of Transmission Oil Pressure Indicator System  
 Inspection & Removal / installation of Triple Tachometer Indicator Systems  
 Inspection & Removal / installation of Fuel Quantity Indicator System  
 Testing and Calibration of Fuel Quantity Indicator System  
 Inspection & Removal / installation of Mast Torque Measurement System  
 Mast Torque Indication Check  
 Inspection & Removal / installation of Standby Attitude Indicator  
 Operational Check Engine Hour meter System  
 Operational Check Turn and Slip  
 Inspection & Removal / installation of Interior Lighting System  
 Operational Check Cockpit Lights System  
 Operational Check Dome Lights System  
 Operational Check, Inspection & Removal / installation of Instrument Panel Lights System  
 Operational Check, Inspection & Removal / installation of Pedestal Lights System  
 Operational Check of Exterior Lighting Systems  
 Operational Check — Utility Light System  
 Operational Check, Anti-collision Lights System  
 Operational Check, Landing Light System  
 Operational Check, Caution and Warning System  
 Operational Test – Master Caution Light System  
 Operational Check – Generator No. 1 and No. 2 Overheat Caution Light Systems.  
 Operational Check – Transmission Oil Temperature Caution Light Systems  
 Operational Check – Combining Gearbox Oil Temperature Caution Light Systems  
 Operational Check – Engine Chip Detector Caution Light System  
 Operational Check – Forty-Two/Ninety Degree (42x/90x) Gearbox Chip Detector Caution Light Systems  
 Operational Check – Fuel Boost Caution Light System  
 Operational Check – Fuel Filter Caution Light System  
 Operational Check – Fuel Low Caution Light Systems  
 Operational Check – Fuel Interconnect Caution Light Systems  
 Operational Check – Hydraulic Caution Light System  
 Operational Check – Battery Sensor Temperature Caution Light System  
 Operational Check, Sump Drain System  
 Operational Check, RPM Limit Warning Systems  
 Operational Check, Engine Low RPM Warning Check and Alignment  
 Operational Check Engine No. 1& 2 Fire Detection Warning  
 Operational Check, Hydraulic Filter Clogged Warning System  
 Discuss/ review Engine Control and Accessories Systems

Operational Check, Fuel Control Heater  
Operational Check, Fuel Boost Pump System  
Operational Check, Fuel Transfer Pump Systems  
Operational Check, Fuel Shutoff Valve Systems  
Operational Check, Fuel Crossfeed Valve System  
Operational Check – No. 1 Autopilot and No. 2 Autopilot  
Caution Light Systems  
Operational Check, Idle Stop Release Solenoid System  
Operational Check, Inspection & Removal / installation of  
Discuss/ review Inspect, Flight Control Systems  
Operational Check Hydraulic Control Systems  
Discuss/ review Inspect, Heating Systems  
Operational Check, Inspection of Clogged Hydraulic Filters  
Operational Check, Cabin Temperature Control Group &  
rigging  
Operational Check, Vent Blower System  
Windshield Wiper Systems — Operational Check  
Operational Check, Engine Fire Extinguisher Systems  
Inspection & Removal / installation of Weight-On-Gear  
Switch  
Operational Check, Emergency Float (Kit)  
Discuss/ review Inspect, Flight Data Recorder (FDR) System  
Discuss/ review Inspect, Integrated Flight Control System  
(IFCS)  
Discuss/ review Inspect, Digital Automatic Flight Control  
System (DAFCS)  
Inspect, Remove & Install Air Data Sensor  
Operational Check, Flight Director Control Functions  
Functional Test — DAFCS  
Operational Check — Flight Director  
Operational Check, Electronic Flight Instrument System  
(EFIS)

#### ATA 97 Avionics

Discuss/ review of Energizing Power Buses for Functional  
Tests  
Discuss/ review Avionics Systems  
Discuss/ review Intercommunication System (ICS)  
Inspect, Remove & Install Intercom Control Unit  
Inspect, Remove & Install Cyclic Stick Switches  
Discuss/ review Inspect, VHF/AM Communication System  
Discuss/ review Inspect, Transmitter Test Communication  
Check  
Inspect, Remove & Install VHF COMM Transceiver (No. 1  
and No. 2)  
Inspect, Remove & Install, 97-47 VHF COMM Control Unit  
(No. 1 and No. 2)  
Inspect, Remove & Install, VHF Communication Antenna  
No. 1&2  
Discuss/ review, 97-53 Gyro magnetic Compass System(s)  
Functional Test — Gyro magnetic Compass System(s)  
Discuss/ review/ carry out Standby Magnetic Compass  
Swing Procedure  
Inspect, Remove & Install AHRS Components  
Discuss/ review/ carry out Calibration Procedures — AHRS  
Inspect, Remove & Install Attitude Heading and Reference  
System  
Discuss/ review/ Remove & Install ATC Transponder  
System  
Mode C Transponder System — Functional Check  
Discuss/ review/ Remove & Install VHF Navigation  
(VOR/LOC/GS) System

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Discuss/ review/ Remove & Install ADF Navigation System  
Discuss/ review/ Remove & Install Marker Beacon System  
Discuss/ review/ Remove & Install Radar Altimeter  
Navigation System  
Discuss/ review/ Remove & Install DME Navigation System  
Discuss/ review Avionics System Wiring Diagrams

#### ATA 98 Wiring Diagrams

Discuss/ review Wiring Diagrams  
Discuss/ review Wiring Identification  
Discuss/ review Wiring Identification Code  
Discuss/ review Electrical and Electronic Symbols Chart  
Discuss/ review 4-Axis Flight Director Kit  
Discuss/ review Baggage Compartment Fire Detection  
Discuss/ review Electrical Power Distribution Schematic  
Discuss/ review AC/DC Load Analysis Chart  
Discuss/ review Battery and External Power  
Discuss/ review Engine Start  
Discuss/ review RPM Limit Warning Detector  
Discuss/ review Engine Fire Detection System  
Discuss/ review Torque Indicator Systems  
Discuss/ review Mast Torque Indicating Systems  
Discuss/ review Fuel Quantity Indicating System  
Discuss/ review Fuel Control No. 1& 2  
Discuss/ review Master Caution Panel  
Discuss/ review Overhead Console Lights  
Discuss/ review Hydraulic Systems  
Discuss/ review symbols

#### ATA 99 KITS

Discuss/ review external hoist installation  
Discuss/ review cockpit voice recorder  
Discuss/ review inst of voice recorder  
Inspect correct inst of kits