32003R2042

28.11.2003 *IL-ĠURNAL UFFIĊJALI TA' L-UNJONI EWROPEA* L 315/1

IR-REGOLAMENT TAL-KUMMISSJONI (KE) Nru 2042/2003

ta' l-20 ta' Novembru 2003

dwar l-kapaċità kontinwata li jintużaw fl-ajru ta' inġenji ta' l-ajru u prodotti, partijiet u tagħmir ajrunawtiku, u dwar l-approvazzjoni ta' organizzazzjonijiet u persunal involut f'dan ix-xogħol

(Test b'relevanza għaż-ŻEE)

IL-KUMMISSJONI TAL-KOMUNITAJIET EWROPEJ,

Wara li kkunsidrat it-Trattat li jistabbilixxi l-Komunità Ewropea,

Wara li kkunsidrat ir-Regolament (KE) Nru 1592/2002 tal-Parlament Ewropew u tal-Kunsill tal-15 ta' Lulju 2002 dwar regoli komuni fil-kamp ta' l-avjazzjoni ċivili u li jistabbilixxi Aġenzija dwar is-Sigurtà fl-Avjazzjoni Ċivili ([1]), (hawnhekk iżjed 'il quddiem imsejjaħ "ir-Regolament bażi") u b'mod partikolari l-Artikolu 5 u 6 tiegħu,

Billi:

(1) Ir-Regolament bażiku jistabbilixxi ħtiġiet komuni essenzjali biex jipprovdi għal livell uniformi għoli ta' sigurtà fl-avjazzjoni ċivili u l-protezzjoni ta' l-ambjent; jeħtieġ lill-Kummissjoni li tadotta r-regoli ta' implimentazzjoni neċessarji biex tiżgura l-applikazzjoni uniformi tagħhom; jistabbilixxi l-Aġenzija dwar is-Sigurtà fl-Avjazzjoni Ċivili (hawnhekk iżjed 'il quddiem imsejħa "l-Aġenzija") biex tassisti lill-Kummissjoni fl-iżvilupp ta' dawk ir-regoli ta' implimentazzjoni.

(2) Il-ħtiġiet eżistenti dwar l-avjazzjoni fil-kamp tal-manutenzjoni kif elenkati fl-Anness tar-Regolament tal-Kunsill (KEE) Nru 3922/91 ([2]) ser jiġu revokati mit-28 ta' Settembru 2003.

(3) Huwa meħtieġ li jiġu adottati ħtiġiet tekniċi komuni u proċeduri amministrattivi biex jiżguraw il-kapaċità kontinwata li jintużaw fl-ajru ta' inġenji ta' l-ajru u prodotti, partijiet u tagħmir ajrunawtiku b'konformità mar-Regolament bażiku.

(4) L-organizzazzjonijiet u l-persunal involuti fil-manutenzjoni ta' prodotti, partijiet u tagħmir għandhom jiġu mġiegħla jikkonformaw ma' ċerti ħtiġiet tekniċi biex ikunu jistgħu juru l-kapaċitajiet tagħhom u l-mezzi biex iwettqu l-obbligi u l-privileġġi assoċjati tagħhom; il-Kummissjoni hi meħtieġa li tadotta miżuri biex jiġu speċifikati l-kondizzjonijiet tal-ħruġ, iż-żamma, l-emendi, is-sospensjoni u r-revoka ta' ċertifikati li jikkonfermaw dik il-konformità.

(5) Il-ħtieġa li tiġi żgurata l-uniformità fl-applikazzjoni ta' ħtiġiet tekniċi komuni fil-kamp tal-kapaċità kontinwata li jintużaw fl-ajru ta' partijiet u tagħmir ajrunawtiku titlob li jiġu segwiti proċeduri komuni mill-awtoritajiet kompetenti biex jivverifikaw l-osservanza ta' dawn il-ħtiġiet; l-Aġenzija għandha tiżviluppa speċifikazzjonijiet ta' ċertifikazzjoni biex tiffaċilita l-uniformità regolatorja neċessarja.

(6) Hu neċessarju li jingħata żmien biżżejjed lill-industrija arjunawtika u l-amministrazzjonijiet ta' l-Istati Membri biex jadattaw qafas regolatorju ġdid; hu neċessarju ukoll li tiġi rikonoxxuta l-validità kontinwata ta' ċertifikati maħruġa qabel il-bidu fis-seħħ ta' dan ir-Regolament, skond l-Artikolu 57 tar-Regolament bażiku.

(7) Il-miżuri previsti b'dan ir-Regolament huma bbażati fuq l-opinjoni maħruġa mill-Aġenzija ([3]) skond l-Artikoli 12(2)(b) u 14(1) tar-Regolament bażiku.

(8) Il-miżuri previsti b'dan ir-Regolament huma skond l-Opinjoni tal-Kumitat ta' l-Aġenzija dwar is-Sigurtà fl-Avjazzjoni Ewropea ([4]) stabbilit bl-Artikolu 54(3) tar-Regolament bażiku,

ADOTTAT DAN IR-REGOLAMENT:

Artikolu 1

Għan u kamp ta' applikazzjoni

1. Dan ir-Regolament jistabbilixxi l-ħtiġiet tekniċi komuni u l-proċeduri amministrattivi biex jiżguraw il-kapaċità kontinwata li jintużaw fl-ajru ta' inġenji ta' l-ajru, inkluż kull komponent li għandu jiġi mwaħħal miegħu, li huma:

(a) reġistrati fi Stat Membru; jew

(b) reġistrati f'pajiż terz u użati minn operatur li dwaru Stat Membru jiżgura superviżjoni ta' l-operazzjonijiet.

([1]) ĠU L 240, tas-7.9.2002 p. 1; ir-Regolament kif l-aħħar emendat bir-Regolament tal-Kummissjoni (KE) Nru 1701/2003 (ĠU L 243, tas-27.9.2003, p. 5).

([2]) ĠU L 373, tal-31.12.1991, p. 4; ir-Regolament kif l-aħħar emendat bir-Regolament tal-Kummissjoni (KE) Nru 2871/2000 (ĠU L 333, tad-29.12.2000, p. 47).

([3]) Opinjoni ta' l-Aġenzija dwar is-Sigurtà fl-Avjazzjoni Ewropea 1/2003, 1 ta' Settembru 2003.

([4]) Opinjoni tal-Kumitat ta' l-Aġenzija dwar is-Sigurtà fl-Avjazzjoni Ewropea, 23 ta' Settembru 2003.

2. Il-paragrafu 1 ma' għandux japplika għal inġenji ta' l-ajru li s-superviżjoni tas-sigurtà regolatorja tiegħu ġiet trasferita lil pajjiż terz u li ma humiex użati minn operatur komunitarju, jew għal inġenji ta' l-ajru msemmija fl-Anness II tar-Regolament bażiku.

3. Id-dispożizzjonijiet ta' dan ir-Regolament rigward it-trasport kummerċjali bl-ajru huma applikabbli għat-trasportaturi ta' l-ajru liċenzjati kif imfissra bid-dritt komunitarju.

Artikolu 2

Tifsiriet

Fl-iskop tar-Regolament bażiku, għandhom jgħoddu t-tifsiriet li ġejjin:

(a) "inġenju ta' l-ajru" tfisser kull makkinarju li jista' jikseb sostenn fl-atmosfera mir-reazzjonijiet ta' l-arja ħlief reazzjonijiet ta' l-arja kontra il-wiċċ ta' l-art;

(b) "persunal li jiċċertifika" tfisser persunal responsabbli għarrilaxx ta' inġenju ta' l-ajru jew ta' komponent wara l-manutenzjoni;

(ċ) "komponent" tfisser kull makna, skrejjen, parti jew tagħmir;

(d) "kontinwità li tista' tintuża fl-ajru" tfisser il-proċessi kollha li jiżguraw li, f'kull ħin tal-ħajja operattiva tiegħu, inġenju ta' l-ajru josserva l-ħtiġiet dwar il-kapaċità li jintuża fl-ajru li jkunu fis-seħħ u jkun f'kondizzjoni ta' operazzjoni mingħajr periklu;

(e) "JAA" tfisser "l-Awtoritajiet Konġunti dwar l-Avjazzjoni";

(f) "JAR" tfisser "il-Ħtiġiet Konġunti dwar l-Avjazzjoni";

(g) "inġenju ta' l-ajru kbir" tfisser inġenju ta' l-ajru, klassifikat bħala ajruplan b'massa massima għat-tluq ta' 5 700 kg, jew elikotteru b'ħafna makni;

(h) "manutenzjoni" tfisser waħda minn dawn li ġejjin jew kombinament tagħhom: l-eżami bir-reqqa, t-tiswija, l-ispezzjon, is-sostituzzjoni, l-modifika jew ir-rettifika ta' difett ta' inġenju ta' l-ajru jew komponent, ħlief l-ispezzjon ta' qabel titjira;

(i) "organizzazzjoni" tfisser persuna fiżika, persuna legali jew parti minn persuna legali. Organizzazzjoni bħal din tista' tkun stabbilita f'aktar minn sit wieħed kemm jekk dan ikun jew ma jkunx fit-territorju ta' l-Istati Membri;

(j) "ispezzjon ta' qabel titjira" tfisser l-ispezzjoni li ssir qabel it-titjira biex tiżgura li l-inġenju ta' l-ajru hu kapaċi jagħmel it-titjira maħsuba.

Artikolu 3

Ħtiġiet ta' kontinwità ta' kapaċita li jintuża fl-ajru

1. Il-kapaċità kontinwata li jintużaw fl-ajru ta' inġenji ta' l-ajru u komponenti għandha tiġi żgurata skond id-dispożizzjonijiet ta' l-Anness I.

2. L-organizzazzjonijiet u l-persunal involuti fil-kapaċità kontinwata li jintużaw fl-ajru ta' inġenji ta' l-ajru u komponenti, inkluża l-manutenzjoni, għandhom josservaw id-dispożizzjonijiet ta' l-Anness I u fejn xieraq dawk speċifikati fl-Artikoli 4 u 5.

3. B'deroga mill-paragrafu 1, il-kapaċità kontinwata li jintuża fl-ajru ta' inġenju ta' l-ajru li jkollu permess biex itir għandha, mingħajr preġudizzju għad-dritt komunitarju, tiġi żgurata fuq il-bażi ta' regolamenti nazzjonali ta' l-Istat ta' reġistrazzjoni.

Artikolu 4

Approvazzjoni ta' organizzazzjoni ta' manutenzjoni

1. L-organizzazzjonijiet involuti fil-manutenzjoni ta' inġenji ta' l-ajru kbar jew inġenji ta' l-ajru użati għat-trasport kummerċjali bl-ajru, u ta' komponenti maħsuba biex jitwaħħlu magħhom, għandhom jiġu approvati skond id-dispożizzjonijiet ta' l-Anness II.

2. L-approvazzjonijiet dwar il-manutenzjoni maħruġa jew rikonoxxuti minn Stat Membru skond il-ħtiġiet u l-proċeduri JAA u li jkunu validi qabel il-bidu fis-seħħ ta' dan ir-Regolament għandhom jitqiesu bħala li ġew maħruġa skond dan ir-Regolament. Għal dan il-għan, b'deroga mid-dispożizzjonijiet ta' 145.B.50(2) taħt l-Anness II, is-sejbiet ta' livell 2 assoċjati mad-differenzi bejn JAR 145 u l-Anness II jistgħu jingħalqu fi żmien sena. Iċ-ċertifikati ta' rilaxx għas-servizz u ċertifikati ta' rilaxx awtorizzat maħruġa minn organizzazzjoni approvata taħt il-ħtiġiet JAA matul dak il-perjodu ta' sena jitqiesu li jkunu nħarġu taħt dan ir-Regolament.

3. Il-persunal kwalifikat biex iwettaq u/jew jikkontrolla test dwar il-kapaċità kontinwata li jintuża fl-ajru ta' strutturi u/jew komponenti ta' inġenju ta' l-ajru u liema test ma jħarbatx dawk l-istrutturi u/jew komponenti, fuq il-bażi ta' xi *standard* rikonoxxut minn Stat Membru qabel il-bidu fis-seħħ ta' dan ir-Regolament bħala li jipprovdi livell ekwivalenti ta' kwalifika, jistgħu jkomplu jwettqu u/jew jikkontrollaw dawk it-testijiet.

Artikolu 5

Persunal li jiċċertifika

1. Il-persunal li jiċċertifika għandu jkun kwalifikat skond id-dispożizzjonijiet ta' l-Anness III, ħlief kif previst fi M.A.607(b) u M.A.803 ta' l-Anness I u fi 145.A.30(j) ta' u fl-Appendiċi IV ta' l-Anness II.

2. Kull liċenza għall-manutenzjoni ta' inġenji ta' l-ajru u, jekk ikun hemm, il-limitazzjonijiet tekniċi assoċjati ma' dik il-liċenza, maħruġa jew rikonoxxuti minn Stat Membru skond il-ħtiġiet u l-proċeduri JAA u li jkunu validi fil-ħin tal-bidu fis-seħħ ta' dan ir-Regolament, jiqiesu li jkunu ġew maħruġa skond dan ir-Regolament.

Artikolu 6

Ħtiġiet ta' organizzazzjonijiet li jipprovdu taħriġ

1. L-organizzazzjonijiet li huma involuti fit-taħriġ ta' persunal imsemmija fl-Artikolu 5 għandhom jiġu approvati skond l-Anness IV biex ikunu intitolati:

(a) imexxu korsijiet rikonoxxuti ta' taħriġ bażiku; u/jew

(b) imexxu taħriġ ta' tip rikonoxxut; u

(ċ) jagħmlu eżamijiet; u

(d) joħorġu ċertifikati ta' taħriġ.

2. Kull approvazzjoni għal organizzazzjoni ta' taħriġ fuq il-manutenzjoni maħruġa jew rikonoxxuta minn Stat Membru skond il-ħtiġiet u l-proċeduri JAA li tkun valida meta jibda' jseħħ dan ir-Regolament għandha titqies li tkun ġiet maħruġa skond dan ir-Regolament. Għal dan il-għan, b'deroga mid-dispożizzjonijiet ta' 147.B.130(b) taħt l-Anness IV, is-sejbiet tal-livell 2 assoċjati mad-differenzi bejn JAR 147 u l-Anness IV jistgħu jingħalqu fi żmien sena.

Artikolu 7

Dħul fis-seħħ

1. Dan ir-Regolament għandu jibda' jseħħ fil-ġurnata wara l-pubblikazzjoni tiegħu fil-*Ġurnal Uffiċjali ta' l-Unjoni Ewropea*.

2. B'deroga mill-paragrafu 1 id-dispożizzjonijiet ta' l-Anness I, ħlief ta' M.A.201(h)(2) u M.A.708(ċ) għandhom jgħoddu mit-28 ta' Settembru 2005.

3. B'deroga mill-paragrafu 1 u 2, l-Istati Membri jistgħu jagħżlu li ma japplikawx:

(a) id-dispożizzjonijiet ta' l-Anness I għal inġenji ta' l-ajru li m' humiex involuti fit-trasport kummerċjali bl-ajru, sat-28 ta' Settembru 2008;

(b) id-dispożizzjonijiet ta' l-Anness I(l) għal inġenji ta' l-ajru involuti fit-trasport kummerċjali bl-ajru, sat-28 ta' Settembru 2008;

(ċ) id-dispożizzjonijiet li ġejjin ta' l-Anness II, sat-28 ta' Settembru 2006:

- 145.A.30(e), elementi ta' fatturi umani,
- jaotise 145.A.30 punkt g, mida kohaldatakse suurte õhusõidukite suhtes suurima stardimassiga üle 145.A.30(g) kif applikabbli għal inġenji ta' l-ajru kbar b'massa ta' tluq massima ta' iżjed minn 5 700 kg, kg,
- 145.A.30(h)(1) kif applikabbli għal inġenji ta' l-ajru b'massa ta' tluq massima ta' iżjed minn 5 700 kg,
- 145.A.30(j)(1), Appendiċi IV,
- 145.A.30(j)(2), Appendiċi IV;

(d) id-dispożizzjonijiet li ġejjin ta' l-Anness II, sat-28 ta' Settembru 2008:

- 145.A.30(g) kif applikabbli għal inġenji ta' l-ajru b'massa ta' tluq massima ta' 5 700 kg jew inqas,
- 145.A.30(h)(1) kif applikabbli għal inġenji ta' l-ajru b'massa ta' tluq massima ta' 5 700 kg jew inqas,
- 145.A.30(h)(2);

(e) id-dispożizzjonijiet ta' l-Anness III, kif applikabbli għal inġenji ta' l-ajru b'massa ta' tluq massima ta' 5 700 kg sat-28 ta' Settembru 2005;

(f) id-dispożizzjonijiet ta' l-Anness III, kif applikabbli għal inġenji ta' l-ajru b'massa ta' tluq massima ta' 5 700 kg jew inqas sat-28 ta' Settembru 2006.

4. L-Istati Membru jistgħu joħorġu approvazzjonijiet rigward l-Anness II u l-Anness IV għal perjodu ta' żmien limitat sat-28 ta' Settembru 2005.

5. Meta Stat Membru jagħmel użu mid-dispożizzjonijiet tal-paragrafi 3 jew 4 għandu javża lill-Kummissjoni u lill-Aġenzija.

6. L-Aġenzija tista' tagħmel valutazzjoni ta' l-implikazzjoni tad-dispożizzjonijiet ta' l-Anness I ta' dan ir-Regolament bil-ħsieb li tissottometti opinjoni lill-Kummissjoni, inklużi emendi possibbli għalih, qabel it-28 ta' Marzu 2005.

Dan ir-Regolament għandu jorbot fl-intier tiegħu u japplika direttament fl-Istati Membri kollha.

Magħmul fi Brussel, fl-20 ta' Novembru 2003.

Għall-Kummissjoni

Il-President

Loyola DE PALACIO

ANNEX I

(Part-M)

M.1

For the purpose of this Part, the competent authority shall be:

1. for the oversight of the continuing airworthiness of individual aircraft and the issue of airworthiness review certificates the authority designated by the Member State of registry.

2. for the oversight of a maintenance organisation as specified in M.A. Subpart F,

   (i) the authority designated by the Member State where that organisation's principle place of business is located.

   (ii) the Agency if the organisation is located in a third country.

3. for the oversight of a continuing airworthiness management organisation as specified in M.A. Subpart G,

   (i) the authority designated by the Member State where that organisation's principle place of business is located if the approval is not included in an air operator's certificate.

   (ii) the authority designated by the Member State of the operator if the approval is included in an air operator's certificate.

   (iii) the Agency if the organisation is located in a third country.

4. for the approval of maintenance programmes,

   (i) the authority designated by the Member State of registry.

   (ii) in the case of commercial air transport, when the Member State of the operator is different from the State of registry, the authority agreed by the above two States prior to the approval of the maintenance programme.

SECTION A

TECHNICAL REQUIREMENTS

SUBPART A

GENERAL

M.A.101 Scope

This Section establishes the measures to be taken to ensure that airworthiness is maintained, including maintenance. It also specifies the conditions to be met by the persons or organisations involved in such continuing airworthiness management.

SUBPART B

ACCOUNTABILITY

M.A.201 Responsibilities

(a) The owner is responsible for the continuing airworthiness of an aircraft and shall ensure that no flight takes place unless:

   1. the aircraft is maintained in an airworthy condition, and;

   2. any operational and emergency equipment fitted is correctly installed and serviceable or clearly identified as unserviceable, and;

   3. the airworthiness certificate remains valid, and;

   4. the maintenance of the aircraft is performed in accordance with the approved maintenance programme as specified in M.A.302.

(b) When the aircraft is leased, the responsibilities of the owner are transferred to the lessee if:

1. the lessee is stipulated on the registration document, or;

2. detailed in the leasing contract.

When reference is made in this Part to the "owner", the term owner covers the owner or the lessee, as applicable.

(c) Any person or organisation performing maintenance shall be responsible for the tasks performed.

(d) The pilot-in-command or, in the case of commercial air transport, the operator shall be responsible for the satisfactory accomplishment of the pre-flight inspection. This inspection must be carried out by the pilot or another qualified person but need not be carried out by an approved maintenance organisation or by Part-66 certifying staff.

(e) In order to satisfy the responsibilities of paragraph (a) the owner of an aircraft may contract the tasks associated with continuing airworthiness to an approved continuing airworthiness management organisation as specified in M.A. Subpart G (continuing airworthiness management organisation hereinafter) in accordance with Appendix I. In this case, the continuing airworthiness management organisation assumes responsibility for the proper accomplishment of these tasks.

(f) In the case of large aircraft, in order to satisfy the responsibilities of paragraph (a) the owner of an aircraft shall ensure that the tasks associated with continuing airworthiness are performed by an approved continuing airworthiness management organisation. A written contract shall be made in accordance with Appendix I. In this case, the continuing airworthiness management organisation assumes responsibility for the proper accomplishment of these tasks.

(g) Maintenance of large aircraft, aircraft used for commercial air transport and components thereof shall be carried out by a Part-145 approved maintenance organisation.

(h) In the case of commercial air transport the operator is responsible for the continuing airworthiness of the aircraft it operates and shall:

1. be approved, as part of the air operator certificate issued by the competent authority, pursuant to M.A. Subpart G for the aircraft it operates; and

2. be approved in accordance with Part-145 or contract such an organisation; and

3. ensure that paragraph (a) is satisfied.

(i) When an operator is requested by a Member State to hold a certificate for its operational activities, other than for commercial air transport, it shall:

1. be appropriately approved, pursuant to M.A. Subpart G, for the management of the continuing airworthiness of the aircraft it operates or contract such an organisation; and

2. be appropriately approved in accordance with M.A. Subpart F or Part-145, or contract such organisations; and

3. ensure that paragraph (a) is satisfied.

(j) The owner/operator is responsible for granting the competent authority access to the organisation/aircraft to determine continued compliance with this Part.

M.A.202 Occurrence reporting

(a) Any person or organisation responsible under M.A.201 shall report to the State of registry, the organisation responsible for the type design or supplemental type design and, if applicable, the Member State of operator, any identified condition of an aircraft or component that hazards seriously the flight safety.

(b) Reports shall be made in a manner established by the Agency and contain all pertinent information about the condition known to the person or organisation.

(c) Where the person or organisation maintaining the aircraft is contracted by an owner or an operator to carry out maintenance, the person or the organisation maintaining the aircraft shall also report to the owner, the operator or the continuing airworthiness management organisation any such condition affecting the owner's or the operator's aircraft or component.

(d) Reports shall be made as soon as practicable, but in any case within 72 hours of the person or organisation identifying the condition to which the report relates.

SUBPART C

CONTINUING AIRWORTHINESS

M.A.301 Continuing airworthiness tasks

The aircraft continuing airworthiness and the serviceability of both operational and emergency equipment shall be ensured by:

1. the accomplishment of pre-flight inspections;

2. the rectification to an officially recognised standard of any defect and damage affecting safe operation taking into account, for all large aircraft or aircraft used for commercial air transport, the minimum equipment list and configuration deviation list if applicable to the aircraft type;

3. the accomplishment of all maintenance, in accordance with the M.A.302 approved aircraft maintenance programme;

4. for all large aircraft or aircraft used for commercial air transport the analysis of the effectiveness of the M.A.302 approved maintenance programme;

5. the accomplishment of any applicable:

   (i) airworthiness directive,

   (ii) operational directive with a continuing airworthiness impact,

   (iii) continued airworthiness requirement established by the Agency,

   (iv) measures mandated by the competent authority in immediate reaction to a safety problem;

6. the accomplishment of modifications and repairs in accordance with M.A.304;

7. for non-mandatory modifications and/or inspections, for all large aircraft or aircraft used for commercial air transport the establishment of an embodiment policy;

8. maintenance check flights when necessary.

M.A.302 Maintenance programme

(a) Every aircraft shall be maintained in accordance with a maintenance programme approved by the competent authority, which shall be periodically reviewed and amended accordingly.

(b) The maintenance programme and any subsequent amendments shall be approved by the competent authority.

(c) The maintenance programme must establish compliance with:

   1. instructions for continuing airworthiness issued by type certificate and supplementary type certificate holders and any other organisation that publishes such data in accordance with Part-21, or

   2. instructions issued by the competent authority, if they differ from subparagraph 1 or in the absence of specific recommendations, or

   3. instructions defined by the owner or the operator and approved by the competent authority if they differ from subparagraphs 1 and 2.

(d) The maintenance programme shall contain details, including frequency, of all maintenance to be carried out, including any specific tasks linked to specific operations. The programme must include a reliability programme when the maintenance programme is based:

   1. on Maintenance Steering Group logic, or;

   2. mainly on condition monitoring.

(e) When the aircraft continuing airworthiness is managed by an M.A. Subpart G organisation the maintenance programme and its amendments may be approved through a maintenance programme procedure established by such organisation (hereinafter called indirect approval).

M.A.303 Airworthiness directives

Any applicable airworthiness directive must be carried out within the requirements of that airworthiness directive, unless otherwise specified by the Agency.

M.A.304 Data for modifications and repairs

Damage shall be assessed and modifications and repairs carried out using data approved by the Agency or by an approved Part-21 design organisation, as appropriate.

M.A.305 Aircraft continuing airworthiness record system

(a) At the completion of any maintenance, the associated M.A.801 certificate of release to service shall be entered in the aircraft continuing airworthiness records. Each entry shall be made as soon as practicable but in no event more than 30 days after the day of maintenance action.

(b) The aircraft continuing airworthiness records shall consist of, as appropriate, an aircraft logbook, engine logbook(s) or engine module log cards, propeller logbook(s) and log cards, for any service life limited component and the operator's technical log.

(c) The aircraft type and registration mark, the date, together with total flight time and/or flight cycles and/or landings, as appropriate, shall be entered in the aircraft logbooks.

(d) The aircraft continuing airworthiness records shall contain the current:

1. status of airworthiness directives and measures mandated by the competent authority in immediate reaction to a safety problem;
2. status of modifications and repairs;
3. status of compliance with maintenance programme;
4. status of service life limited components;
5. mass and balance report;
6. list of deferred maintenance.

(e) In addition to the authorised release document, EASA Form 1 or equivalent, the following information relevant to any component installed shall be entered in the appropriate engine or propeller logbook, engine module or service life limited component log card:

1. identification of the component, and;
2. the type, serial number and registration of the aircraft to which the particular component has been fitted, along with the reference to the installation and removal of the component, and;
3. the particular component accumulated total flight time and/or flight cycles and/or landings and/or calendar time, as appropriate, and;
4. the current paragraph (d) information applicable to the component.

(f) The person responsible for the management of continuing airworthiness tasks pursuant to M.A. Subpart B, shall control the records as detailed in this paragraph and present the records to the competent authority upon request.

(g) All entries made in the aircraft continuing airworthiness records shall be clear and accurate. When it is necessary to correct an entry, the correction shall be made in a manner that clearly shows the original entry.

(h) An owner or operator shall ensure that a system has been established to keep the following records for the periods specified:

1. all detailed maintenance records in respect of the aircraft and any life-limited component fitted thereto, at least 24 months after the aircraft or component was permanently withdrawn from service, and;
2. the total time and flight cycles as appropriate, of the aircraft and all life-limited components, at least 12 months after the aircraft or component has been permanently withdrawn from service, and;
3. the time and flight cycles as appropriate, since last scheduled maintenance of the component subjected to a service life limit, at least until the component scheduled maintenance has been superseded by another scheduled maintenance of equivalent work scope and detail, and;
4. the current status of compliance with maintenance programme such that compliance with the approved aircraft maintenance programme can be established, at least until the aircraft or component scheduled maintenance has been superseded by other scheduled maintenance of equivalent work scope and detail, and;

5. the current status of airworthiness directives applicable to the aircraft and components, at least 12 months after the aircraft or component has been permanently withdrawn from service, and;

6. details of current modifications and repairs to the aircraft, engine(s), propeller(s) and any other component vital to flight safety, at least 12 months after they have been permanently withdrawn from service.

M.A.306 Operator's technical log system

(a) In the case of commercial air transport, in addition to the requirements of M.A.305, an operator shall use an aircraft technical log system containing the following information for each aircraft:

1. information about each flight, necessary to ensure continued flight safety, and;

2. the current aircraft certificate of release to service, and;

3. the current maintenance statement giving the aircraft maintenance status of what scheduled and out of phase maintenance is next due except that the competent authority may agree to the maintenance statement being kept elsewhere, and;

4. all outstanding deferred defects rectifications that affect the operation of the aircraft, and;

5. any necessary guidance instructions on maintenance support arrangements.

(b) The aircraft technical log system and any subsequent amendment shall be approved by the competent authority.

(c) An operator shall ensure that the aircraft technical log is retained for 36 months after the date of the last entry.

M.A.307 Transfer of aircraft continuing airworthiness records

(a) The owner or operator shall ensure when an aircraft is permanently transferred from one owner or operator to another that the M.A.305 continuing airworthiness records and, if applicable, M.A.306 operator's technical log are also transferred.

(b) The owner shall ensure, when he contracts the continuing airworthiness management tasks to a continuing airworthiness management organisation, that the M.A.305 continuing airworthiness records are transferred to the organisation.

(c) The time periods prescribed for the retention of records shall continue to apply to the new owner, operator or continuing airworthiness management organisation.

SUBPART D

MAINTENANCE STANDARDS

M.A.401 Maintenance data

(a) The person or organisation maintaining an aircraft shall have access to and use only applicable current maintenance data in the performance of maintenance including modifications and repairs.

(b) For the purposes of this Part, applicable maintenance data is:

1. any applicable requirement, procedure, standard or information issued by the competent authority,

2. any applicable airworthiness directive,

3. applicable instructions for continuing airworthiness, issued by type certificate holders, supplementary type certificate holders and any other organisation that publishes such data in accordance with Part 21.

4. any applicable data issued in accordance with 145.A.45(d).

(c) The person or organisation maintaining an aircraft shall ensure that all applicable maintenance data is current and readily available for use when required. The person or organisation shall establish a work card or worksheet system to be used and shall either transcribe accurately the maintenance data onto such work cards or worksheets or make precise reference to the particular maintenance task or tasks contained in such maintenance data.

M.A.402 Performance of maintenance

(a) All maintenance shall be performed by qualified personnel, following the methods, techniques, standards and instructions specified in the M.A.401 maintenance data. Furthermore, an independent inspection shall be carried out after any flight safety sensitive maintenance task unless otherwise specified by Part-145 or agreed by the competent authority.

(b) All maintenance shall be performed using the tools, equipment and material specified in the M.A.401 maintenance data unless otherwise specified by Part-145. Where necessary, tools and equipment shall be controlled and calibrated to an officially recognised standard.

(c) The area in which maintenance is carried out shall be well organised and clean in respect of dirt and contamination.

(d) All maintenance shall be performed within any environmental limitations specified in the M.A.401 maintenance data.

(e) In case of inclement weather or lengthy maintenance, proper facilities shall be used.

(f) After completion of all maintenance a general verification must be carried out to ensure the aircraft or component is clear of all tools, equipment and any other extraneous parts and material, and that all access panels removed have been refitted.

M.A.403 Aircraft defects

(a) Any aircraft defect that hazards seriously the flight safety shall be rectified before further flight.

(b) Only the authorised certifying staff, according to M.A.801(b)1, M.A.801(b)2 or Part-145 can decide, using M.A.401 maintenance data, whether an aircraft defect hazards seriously the flight safety and therefore decide when and which rectification action shall be taken before further flight and which defect rectification can be deferred. However, this does not apply when:

1. the approved minimum equipment list as mandated by the competent authority is used by the pilot; or,

2. aircraft defects are defined as being acceptable by the competent authority.

(c) Any aircraft defect that would not hazard seriously the flight safety shall be rectified as soon as practicable, after the date the aircraft defect was first identified and within any limits specified in the maintenance data.

(d) Any defect not rectified before flight shall be recorded in the M.A.305 aircraft maintenance record system or M.A.306 operator's technical log system as applicable.

SUBPART E

COMPONENTS

M.A.501 Installation

(a) No component may be fitted unless it is in a satisfactory condition, has been appropriately released to service on an EASA Form 1 or equivalent and is marked in accordance with Part 21 Subpart Q, unless otherwise specified in Part-145 and Subpart F.

(b) Prior to installation of a component on an aircraft the person or approved maintenance organisation shall ensure that the particular component is eligible to be fitted when different modification and/or airworthiness directive configurations may be applicable.

(c) Standard parts shall only be fitted to an aircraft or a component when the maintenance data specifies the particular standard part. Standard parts shall only be fitted when accompanied by evidence of conformity traceable to the applicable standard.

(d) Material being either raw material or consumable material shall only be used on an aircraft or a component when the aircraft or component manufacturer states so in relevant maintenance data or as specified in Part-145. Such material shall only be used when the material meets the required specification and has appropriate traceability. All material must be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement plus both the manufacturing and supplier source.

M.A.502 Component maintenance

(a) The maintenance of components shall be performed by appropriately approved Subpart F or Part-145 maintenance organisations.

(b) Maintenance on any component may be performed by M.A.801(b)2 certifying staff only whilst such components are fitted to the aircraft. Such components, nevertheless, can be temporarily removed for maintenance when such removal is expressly permitted by the aircraft maintenance manual to improve access.

M.A.503 Service life limited components

Installed service life limited components shall not exceed the approved service life limit as specified in the approved maintenance programme and airworthiness directives.

M.A.504 Control of unserviceable components

(a) A component shall be considered unserviceable in any one of the following circumstances:

1. expiry of the service life limit as defined in the maintenance program;

2. non-compliance with the applicable airworthiness directives and other continued airworthiness requirement mandated by the Agency;

3. absence of the necessary information to determine the airworthiness status or eligibility for installation;

4. evidence of defects or malfunctions;

5. involvement in an incident or accident likely to affect its serviceability.

(b) Unserviceable components shall be identified and stored in a secure location under the control of the M.A.502 approved organisation until a decision is made on the future status of such component.

(c) Components which have reached their certified life limit or contain a non-repairable defect shall be classified as unsalvageable and shall not be permitted to re-enter the component supply system, unless certified life limits have been extended or a repair solution has been approved according to M.A.304.

(d) Any person or organisation accountable under Part-M shall, in the case of a paragraph (c) unsalvageable components:

1. retain such component in the paragraph (b) location, or;

2. arrange for the component to be mutilated in a manner that ensures that it is beyond economic salvage or repair before relinquishing responsibility for such component.

e) Notwithstanding paragraph (d) a person or organisation accountable under Part-M may transfer responsibility of components classified as unsalvageable to an organisation for training or research without mutilation.

SUBPART F

MAINTENANCE ORGANISATION

M.A.601 Scope

This Subpart establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the maintenance of aircraft and components not listed in M.A.201(f) and (g).

M.A.602 Application

An application for issue or variation of a maintenance organisation approval shall be made on a form and in a manner established by the competent authority.

M.A.603 Extent of approval

(a) The grant of approval is indicated by the issue of a certificate (included in Appendix 5) by the competent authority. The M.A.604 approved maintenance organisation's manual must specify the scope of work deemed to constitute approval.

The Appendix 4 to this Part defines all classes and ratings possible under M.A. Subpart F.

(b) An approved maintenance organisation may fabricate, in conformity with maintenance data, a restricted range of parts for the use in the course of undergoing work within its own facilities, as identified in the maintenance organisation manual.

M.A.604 Maintenance organisation manual

(a) The maintenance organisation shall provide a manual containing at least the following information:

1. a statement signed by the accountable manager to confirm that the organisation will continuously work in accordance with Part-M and the manual at all times, and;
2. the organisation's scope of work, and;
3. the title(s) and name(s) of person(s) referred to in M.A.606(b), and;
4. an organisation chart showing associated chains of responsibility between the person(s) referred to in M.A.606(b), and;
5. a list of certifying staff, and;
6. a general description and location of the facilities, and;
7. procedures specifying how the maintenance organisation ensures compliance with this Part, and;
8. the maintenance organisation manual amendment procedure(s).

(b) The maintenance organisation manual and its amendments shall be approved by the competent authority.

(c) Notwithstanding paragraph (b) minor amendments to the manual may be approved through a procedure (hereinafter called indirect approval).

M.A.605 Facilities

The organisation shall ensure that:

(a) Facilities are provided for all planned work, specialised workshops and bays are segregated as appropriate, to ensure protection from contamination and the environment.

(b) Office accommodation is provided for the management of all planned work including in particular, the completion of maintenance records.

(c) Secure storage facilities are provided for components, equipment, tools and material. Storage conditions shall ensure segregation of unserviceable components and material from all other components, material, equipment and tools. Storage conditions shall be in accordance with the manufacturers' instructions and access shall be restricted to authorised personnel.

M.A.606 Personnel requirements

(a) The organisation shall appoint an accountable manager, who has corporate authority for ensuring that all maintenance required by the customer can be financed and carried out to the standard required by this Part.

(b) A person or group of persons shall be nominated with the responsibility of ensuring that the organisation is always in compliance with this Subpart. Such person(s) shall be ultimately responsible to the accountable manager.

(c) All paragraph (b) persons shall be able to show relevant knowledge, background and appropriate experience related to aircraft and/or component maintenance.

(d) The organisation shall have appropriate staff for the normal expected contracted work. The use of temporarily subcontracted staff is permitted in the case of higher than normally expected contracted work and only for personnel not issuing a certificate of release to service.

(e) The qualification of all personnel involved in maintenance shall be demonstrated and recorded.

(f) Personnel who carry out specialised tasks such as welding, non-destructive testing/inspection other than colour contrast shall be qualified in accordance with an officially recognised standard.

(g) The maintenance organisation shall have sufficient certifying staff to issue M.A.612 and M.A.613 certificates of release to service for aircraft and components. They shall comply with the requirements of Part-66.

M.A.607 Certifying staff

(a) In addition to M.A.606(g), certifying staff can only exercise their privileges, if the organisation has ensured:

1. that certifying staff can demonstrate that in the preceding two-year period they have either had six months of relevant maintenance experience or, met the provision for the issue of the appropriate privileges; and,
2. that certifying staff have an adequate understanding of the relevant aircraft and/or aircraft component(s) to be maintained together with the associated organisation procedures.

(b) In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff is available, the maintenance organisation contracted to provide maintenance support may issue a one-off certification authorisation:

1. to one of its employees holding type qualifications on aircraft of similar technology, construction and systems; or

2. to any person with not less than five years maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification provided there is no organisation appropriately approved under this Part at that location and the contracted organisation obtains and holds on file evidence of the experience and the licence of that person.

All such cases must be reported to the competent authority within seven days of the issuance of such certification authorisation. The approved maintenance organisation issuing the one-off certification authorisation shall ensure that any such maintenance that could affect flight safety is re-checked.

(c) The approved maintenance organisation shall record all details concerning certifying staff and maintain a current list of all certifying staff.

M.A.608 Components, equipment and tools

(a) The organisation shall:

1. hold the equipment and tools specified in the M.A.609 maintenance data or verified equivalents as listed in the maintenance organisation manual as necessary for day-to-day maintenance within the scope of the approval; and,

2. demonstrate that it has access to all other equipment and tools used only on an occasional basis.

(b) Tools and equipment shall be controlled and calibrated to an officially recognised standard. Records of such calibrations and the standard used shall be kept by the organisation.

(c) The organisation shall inspect, classify and appropriately segregate all incoming components.

M.A.609 Maintenance data

The approved maintenance organisation shall hold and use applicable current maintenance data specified in M.A.401 in the performance of maintenance including modifications and repairs. In the case of customer provided maintenance data, it is only necessary to have such data when the work is in progress.

M.A.610 Maintenance work orders

Before the commencement of maintenance a written work order shall be agreed between the organisation and the customer to clearly establish the maintenance to be carried out.

M.A.611 Maintenance standards

All maintenance shall be carried out in accordance with the requirements of M.A. Subpart D.

M.A.612 Aircraft certificate of release to service

At the completion of all required aircraft maintenance in accordance with this Subpart an aircraft certificate of release to service shall be issued according to M.A.801.

M.A.613 Component certificate of release to service

(a) At the completion of all required component maintenance in accordance with this Subpart a component certificate of release to service shall be issued according to M.A.802, EASA Form 1 shall be issued except for those components fabricated in accordance with M.A.603(b).

(b) The component certificate release to service document, EASA Form 1 may be generated from a computer database.

M.A.614 Maintenance records

(a) The approved maintenance organisation shall record all details of work carried out. Records necessary to prove all requirements have been met for issuance of the certificate of release to service including the sub-contractor's release documents shall be retained.

(b) The approved maintenance organisation shall provide a copy of each certificate of release to service to the aircraft owner, together with a copy of any specific approved repair/modification data used for repairs/modifications carried out.

(c) The approved maintenance organisation shall retain a copy of all maintenance records and any associated maintenance data for three years from the date the aircraft or aircraft component to which the work relates was released from the approved maintenance organisation.

1. The records shall be stored in a manner that ensures protection from damage and theft.

2. All computer hardware used to ensure backup shall be stored in a different location from that containing the working data in an environment that ensures they remain in good condition.

3. Where an approved maintenance organisation terminates its operation, all retained maintenance records covering the last two years shall be distributed to the last owner or customer of the respective aircraft or component or shall be stored as specified by the competent authority.

M.A.615 Privileges of the organisation

The organisation may:

1. maintain any aircraft and/or component for which it is approved at the locations specified in the approval certificate and in the manual.

2. maintain any aircraft and/or component for which it is approved at any other location subject to such maintenance being only necessary to rectify arising defects.

3. issue certificates of release to service on completion of maintenance, in accordance with M.A.612 or M.A.613.

M.A.616 Organisational review

To ensure that the approved maintenance organisation continues to meet the requirements of this Subpart, it shall organise, on a regular basis, organisational reviews.

M.A.617 Changes to the approved maintenance organisation

In order to enable the competent authority to determine continued compliance with this Part, the approved maintenance organisation shall notify it of any proposal to carry out any of the following changes, before such changes take place:

1. the name of the organisation;

2. the location of the organisation;

3. additional locations of the organisation;

4. the accountable manager;

5. any of the persons specified in paragraph M.A.606(b);

6. the facilities, equipment, tools, material, procedures, work scope and certifying staff that could affect the approval.

In the case of proposed changes in personnel not known to the management beforehand, these changes shall be notified at the earliest opportunity.

M.A.618 Continued validity of approval

(a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:

1. the organisation remaining in compliance with this Part, in accordance with the provisions related to the handling of findings as specified under M.A.619, and;

2. the competent authority being granted access to the organisation to determine continued compliance with this Part, and;

3. the approval not being surrendered or revoked;

(b) Upon surrender or revocation, the approval certificate shall be returned to the competent authority.

M.A.619 Findings

(a) A level 1 finding is any significant non-compliance with Part-M requirements which lowers the safety standard and hazards seriously the flight safety.

(b) A level 2 finding is any non-compliance with the Part-M requirements which could lower the safety standard and possibly hazard the flight safety.

(c) After receipt of notification of findings according to M.B.605, the holder of the maintenance organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority.

SUBPART G

CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION

M.A.701 Scope

This Subpart establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the management of aircraft continuing airworthiness.

M.A.702 Application

An application for issue or variation of a continuing airworthiness management organisation approval shall be made on a form and in a manner established by the competent authority.

M.A.703 Extent of approval

(a) The grant of approval is indicated by the issue of the certificate included in Appendix VI by the competent authority. The M.A.704 approved continuing airworthiness management exposition must specify the scope of work deemed to constitute approval.

(b) Notwithstanding paragraph (a), for commercial air transport, the approval shall be part of the air operator certificate issued by the competent authority, for the aircraft operated.

M.A.704 Continuing airworthiness management exposition

(a) The continuing airworthiness management organisation shall provide a continuing airworthiness management exposition containing the following information:

1. a statement signed by the accountable manager to confirm that the organisation will work in accordance with this Part and the exposition at all times, and;
2. the organisation's scope of work, and;
3. the title(s) and name(s) of person(s) referred to in M.A.706(b) and M.A.706(c), and;
4. an organisation chart showing associated chains of responsibility between the person(s) referred to in M.A.706(b) and M.A.706(c), and;
5. a list of M.A.707 airworthiness review staff, and;
6. a general description and location of the facilities, and;
7. procedures specifying how the continuing airworthiness management organisation ensures compliance with this Part, and;
8. the continuing airworthiness management exposition amendment procedures.

(b) The continuing airworthiness management exposition and its amendments shall be approved by the competent authority.

Notwithstanding paragraph (b) minor amendments to the exposition may be approved through an exposition procedure (hereinafter called indirect approval).

M.A.705 Facilities

The continuing airworthiness management organisation shall provide suitable office accommodation at appropriate locations for the personnel specified in M.A.706.

M.A.706 Personnel requirements

(a) The organisation shall appoint an accountable manager, who has corporate authority for ensuring that all continuing airworthiness management activities can be financed and carried out in accordance with this Part.

(b) For commercial air transport the paragraph (a) accountable manager shall be the person who also has corporate authority for ensuring that all the operations of the operator can be financed and carried out to the standard required for the issue of an air operator's certificate.

(c) A person or group of persons shall be nominated with the responsibility of ensuring that the organisation is always in compliance with this Subpart. Such person(s) shall be ultimately responsible to the accountable manager.

(d) For commercial air transport, the accountable manager shall designate a nominated post holder. This person shall be responsible for the management and supervision of continuing airworthiness activities, pursuant to paragraph (c).

(e) The nominated post holder referred to in paragraph (d) shall not be employed by a Part-145 approved organisation under contract to the operator, unless specifically agreed by the competent authority.

(f) The organisation shall have sufficient appropriately qualified staff for the expected work.

(g) All paragraph (c) and (d) persons shall be able to show relevant knowledge, background and appropriate experience related to aircraft continuing airworthiness.

(h) The qualification of all personnel involved in continuing airworthiness management shall be recorded.

M.A.707 Airworthiness review staff

(a) To be approved to carry out airworthiness reviews, an approved continuing airworthiness management organisation shall have appropriate airworthiness review staff to issue M.A. Subpart I airworthiness review certificates or recommendations. In addition to M.A.706 requirements, these staff shall have acquired:

1. at least five years experience in continuing airworthiness, and;
2. an appropriate Part-66 licence or an aeronautical degree or equivalent, and;
3. formal aeronautical maintenance training, and;
4. a position within the approved organisation with appropriate responsibilities.

(b) Airworthiness review staff nominated by the approved continuing airworthiness organisation can only be issued an authorisation by the approved continuing airworthiness organisation when formally accepted by the competent authority after satisfactory completion of an airworthiness review under supervision.

(c) The organisation shall ensure that aircraft airworthiness review staff can demonstrate appropriate recent continuing airworthiness management experience.

(d) Airworthiness review staff shall be identified by listing each person in the continuing airworthiness management exposition together with their airworthiness review authorisation reference.

(e) The organisation shall maintain a record of all airworthiness review staff, which shall include details of any appropriate qualification held together with a summary of relevant continuing airworthiness management experience and training and a copy of the authorisation. This record shall be retained until two years after the airworthiness review staff have left the organisation.

M.A.708 Continuing airworthiness management

(a) All continuing airworthiness management shall be carried out according to the prescriptions of M.A Subpart C.

(b) For every aircraft managed, the approved continuing airworthiness management organisation shall:

1. develop and control a maintenance programme for the aircraft managed including any applicable reliability programme,
2. present the aircraft maintenance programme and its amendments to the competent authority for approval and provide a copy of the programme to the owner of non commercially operated aircraft,
3. manage the approval of modification and repairs,
4. ensure that all maintenance is carried out in accordance with the approved maintenance programme and released in accordance with M.A. Subpart H,
5. ensure that all applicable airworthiness directives and operational directives with a continuing airworthiness impact, are applied,
6. ensure that all defects discovered during scheduled maintenance or reported are corrected by an appropriately approved maintenance organisation,
7. ensure that the aircraft is taken to an appropriately approved maintenance organisation whenever necessary,

8. coordinate scheduled maintenance, the application of airworthiness directives, the replacement of service life limited parts, and component inspection to ensure the work is carried out properly,

9. manage and archive all continuing airworthiness records and/or operator's technical log.

10. ensure that the mass and balance statement reflects the current status of the aircraft.

(c) In the case of commercial air transport, when the operator is not appropriately approved to Part-145, the operator shall establish a written maintenance contract between the operator and a Part-145 approved organisation or another operator, detailing the functions specified under M.A.301-2, M.A.301-3, M.A.301-5 and M.A.301-6, ensuring that all maintenance is ultimately carried out by a Part-145 approved maintenance organisation and defining the support of the quality functions of M.A.712(b). The aircraft base, scheduled line maintenance and engine maintenance contracts, together with all amendments, shall be approved by the competent authority. However, in the case of:

1. an aircraft requiring unscheduled line maintenance, the contract may be in the form of individual work orders addressed to the Part-145 maintenance organisation.

2. component maintenance, including engine maintenance, the contract as referred to in paragraph (c) may be in the form of individual work orders addressed to the Part-145 maintenance organisation.

M.A.709 Documentation

The approved continuing airworthiness management organisation shall hold and use applicable current M.A.401 maintenance data in the performance of M.A.708 continuing airworthiness tasks.

M.A.710 Airworthiness review

(a) To satisfy the requirement for an M.A.902 airworthiness review of an aircraft, a full documented review of the aircraft records shall be carried out by the approved continuing airworthiness management organisation in order to be satisfied that:

1. airframe, engine and propeller flying hours and associated flight cycles have been properly recorded, and;

2. the flight manual is applicable to the aircraft configuration and reflects the latest revision status, and;

3. all the maintenance due on the aircraft according to the approved maintenance programme has been carried out, and;

4. all known defects have been corrected or, when applicable, carried forward in a controlled manner, and;

5. all applicable airworthiness directives have been applied and properly registered, and;

6. all modifications and repairs applied to the aircraft have been registered and are approved according to Part-21, and;

7. all service life limited components installed on the aircraft are properly identified, registered and have not exceeded their approved service life limit, and;

8. all maintenance has been released in accordance with this Part, and;

9. the current mass and balance statement reflects the configuration of the aircraft and is valid, and;

10. the aircraft complies with the latest revision of its type design approved by the Agency.

(b) The approved continuing airworthiness management organisation's airworthiness review staff shall carry out a physical survey of the aircraft. For this survey, airworthiness review staff not appropriately qualified to Part-66 shall be assisted by such qualified personnel.

(c) Through the physical survey of the aircraft, the airworthiness review staff shall ensure that:

1. all required markings and placards are properly installed, and;

2. the aircraft complies with its approved flight manual, and;

3. the aircraft configuration complies with the approved documentation, and;

4. no evident defect can be found that has not been addressed according to M.A.404, and;

5. no inconsistencies can be found between the aircraft and the paragraph (a) documented review of records.

(d) By derogation to M.A.902(a) the airworthiness review can be anticipated by a maximum period of 90 days without loss of continuity of the airworthiness review pattern, to allow the physical review to take place during a maintenance check.

(e) An M.A.902 airworthiness review certificate (EASA Form 15b) or a recommendation is issued by appropriately authorised M.A.707 airworthiness review staff on behalf of the approved continuing airworthiness management organisation when satisfied that the airworthiness review has been properly carried out.

(f) A copy of any airworthiness review certificate issued or extended for an aircraft shall be sent to the Member State of Registry of that aircraft within 10 days.

(g) Airworthiness review tasks shall not be sub-contracted.

(h) Should the outcome of the airworthiness review be inconclusive, the competent authority shall be informed.

M.A.711 Privileges of the organisation

(a) An approved continuing airworthiness management organisation, may:

1. manage the continuing airworthiness of non-commercial air transport aircraft as listed on the approval certificate.

2. manage the continuing airworthiness of commercial air transport aircraft when listed on its air operator certificate.

3. arrange to carry out any task of continuing airworthiness within the limitation of its approval with another organisation that is working under its quality system.

(b) An approved continuing airworthiness management organisation, may additionally be approved to:

1. issue an airworthiness review certificate, or;

2. make a recommendation for the airworthiness review to a Member State of Registry.

(c) An organisation shall be registered in one of the Member States to be granted the privilege pursuant to paragraph (b).

M.A.712 Quality system

(a) To ensure that the approved continuing airworthiness management organisation continues to meet the requirements of this Subpart, it shall establish a quality system and designate a quality manager to monitor compliance with, and the adequacy of, procedures required to ensure airworthy aircraft. Compliance monitoring shall include a feedback system to the accountable manager to ensure corrective action as necessary.

(b) The quality system shall monitor M.A. Subpart G activities. It shall at least include the following functions:

1. monitoring that all M.A. Subpart G activities are being performed in accordance with the approved procedures, and;

2. monitoring that all contracted maintenance is carried out in accordance with the contract, and;

3. monitoring the continued compliance with the requirements of this Part.

(c) The records of these activities shall be stored for at least two years.

(d) Where the approved continuing airworthiness management organisation is approved in accordance with another Part, the quality system may be combined with that required by the other Part.

(e) In case of commercial air transport the M.A. Subpart G quality system shall be an integrated part of the operator's quality system.

(f) In the case of a small M.A. Subpart G organisation that does not have the privileges granted under M.A.711(b), the quality system can be replaced by performing organisational reviews on a regular basis.

M.A.713 Changes to the approved continuing airworthiness organisation

In order to enable the competent authority to determine continued compliance with this Part, the approved continuing airworthiness management organisation shall notify it of any proposal to carry out any of the following changes, before such changes take place:

1. the name of the organisation.

2. the location of the organisation.

3. additional locations of the organisation.

4. the accountable manager.

5. any of the persons specified in M.A.706(c).

6. the facilities, procedures, work scope and staff that could affect the approval.

In the case of proposed changes in personnel not known to the management beforehand, these changes shall be notified at the earliest opportunity.

M.A.714 Record-keeping

(a) The continuing airworthiness management organisation shall record all details of work carried out. The records required by M.A.305 and if applicable M.A.306 shall be retained.

(b) If the continuing airworthiness management organisation has the privilege of M.A.711(b), it shall retain a copy of each airworthiness review certificate and recommendation issued, together with all supporting documents.

(c) The continuing airworthiness management organisation shall retain a copy of all records listed in paragraph (b) until two years after the aircraft has been permanently withdrawn from service.

(d) The records shall be stored in a manner that ensures protection from damage, alteration and theft.

(e) All computer hardware used to ensure backup shall be stored in a different location from that containing the working data in an environment that ensures they remain in good condition.

(f) Where continuing airworthiness management of an aircraft is transferred to another organisation or person, all retained records shall be transferred to the said organisation or person. The time periods prescribed for the retention of records shall continue to apply to the said organisation or person.

(g) Where a continuing airworthiness management organisation terminates its operation, all retained records shall be transferred to the owner of the aircraft.

M.A.715 Continued validity of approval

(a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:

1. the organisation remaining in compliance with this Part, in accordance with the provisions related to the handling of findings as specified under M.B.705 and;

2. the competent authority being granted access to the organisation to determine continued compliance with this Part, and;

3. the approval not being surrendered or revoked.

(b) Upon surrender or revocation, the approval certificate shall be returned to the competent authority.

M.A.716 Findings

(a) A level 1 finding is any significant non-compliance with Part-M requirements which lowers the safety standard and hazards seriously the flight safety.

(b) A level 2 finding is any non-compliance with the Part-M requirements which could lower the safety standard and possibly hazard the flight safety.

(c) After receipt of notification of findings according to M.B.705, the holder of the continuing airworthiness management organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority.

SUBPART H

CERTIFICATE OF RELEASE TO SERVICE — CRS

M.A.801 Aircraft certificate of release to service

(a) Except for aircraft released to service by a Part-145 organisation, the certificate of release to service shall be issued according to this Subpart.

(b) A certificate of release to service shall be issued before flight at the completion of any maintenance. When satisfied that all maintenance required has been properly carried out, a certificate of release to service shall be issued:

1. By appropriate certifying staff on behalf of the M.A. Subpart F approved maintenance organisation; or

2. Except for complex maintenance tasks listed in Appendix 7, by certifying staff in compliance with the requirements of Part-66; or

3. By the M.A.803 pilot-owner.

(c) In the case of a release to service under (b)2 the certifying staff may be assisted in the execution of the maintenance tasks by one or more persons under his direct and continuous control.

(d) A certificate of release to service shall contain basic details of the maintenance carried out, the date such maintenance was completed and:

1. the identity including approval reference of the M.A. Subpart F approved maintenance organisation and certifying staff issuing such a certificate; or

2. in the case of subparagraph (b)2 certificate of release to service, the identity and if applicable licence number of the certifying staff issuing such a certificate.

(e) Notwithstanding paragraph (b) in the case of incomplete maintenance, such fact shall be entered in the aircraft certificate of release to service before the issue of such certificate.

(f) A certificate of release to service shall not be issued in the case of any known non-compliance which hazards seriously the flight safety.

M.A.802 Component certificate of release to service

(a) A certificate of release to service shall be issued at the completion of any maintenance on an aircraft component whilst off the aircraft.

(b) The authorised release certificate identified as EASA Form 1 for the Member States constitutes the aircraft component certificate of release to service.

M.A.803 Pilot-owner authorisation

(a) The pilot-owner is the person who owns or jointly owns the aircraft being maintained and holds a valid pilot licence with the appropriate type or class rating.

(b) For any privately operated aircraft of simple design with a maximum take-off mass of less than 2 730 kg, glider and balloon, the pilot-owner may issue the certificate of release to service after limited pilot owner maintenance listed in Appendix VIII.

(c) Limited pilot owner maintenance shall be defined in the M.A.302 aircraft maintenance programme.

(d) The certificate of release to service must be entered in the logbooks and contain basic details of the maintenance carried out, the date such maintenance was completed and the identity and pilot licence number of the pilot-owner issuing such a certificate.

SUBPART I

AIRWORTHINESS REVIEW CERTIFICATE

M.A.901 Aircraft airworthiness review

To ensure the validity of the aircraft airworthiness certificate an airworthiness review of the aircraft and its continuing airworthiness records must be carried out periodically.

(a) An airworthiness review certificate is issued in accordance with Appendix III (EASA Form 15a or 15b) on completion of a satisfactory airworthiness review and is valid one year.

(b) An aircraft in a controlled environment is an aircraft continuously managed by an M.A. Subpart G approved continuing airworthiness management organisation, which has not changed organisations in the previous 12 months, and which is maintained by approved maintenance organisations. This includes M.A.803(b) maintenance carried out and released to service according to M.A.801(b)2 or M.A.801(b)3.

(c) If an aircraft is within a controlled environment, the continuing airworthiness management organisation managing the aircraft may if appropriately approved:

1. issue the airworthiness review certificate in accordance with M.A.710, and;

2. for airworthiness review certificates it has issued, when the aircraft has remained within a controlled environment, extend twice the validity of the airworthiness review certificate for a period of one year each time. An airworthiness review certificate shall not be extended if the organisation is aware or has reason to believe that the aircraft is unairworthy.

(d) If an aircraft is not within a controlled environment, or managed by an M.A. Subpart G approved continuing airworthiness management organisation that does not hold the privilege to carry out airworthiness reviews, the airworthiness review certificate shall be issued by the competent authority following a satisfactory assessment based on a recommendation made by an appropriately approved continuing airworthiness management organisation sent together with the application from the owner or operator. This recommendation shall be based on an airworthiness review carried out in accordance with M.A.710.

(e) Whenever circumstances show the existence of a potential safety threat, the competent authority may decide to carry out the airworthiness review and issue the airworthiness review certificate itself. In this case, the owner or operator shall provide the competent authority with:

– the documentation required by the competent authority,

– suitable accommodation at the appropriate location for its personnel, and

– when necessary the support of personnel appropriately qualified in accordance with Part-66.

M.A.902 Validity of the airworthiness review certificate

(a) An airworthiness review certificate becomes invalid if:

1. suspended or revoked; or

2. the airworthiness certificate is suspended or revoked; or

3. the aircraft is not on the aircraft register of a Member State; or

4. the type certificate under which the airworthiness certificate was issued is suspended or revoked.

(b) An aircraft must not fly if the airworthiness certificate is invalid or if:

1. the continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of this Part, or;

2. the aircraft does not remain in conformity with the type design approved by the Agency; or

3. the aircraft has been operated beyond the limitations of the approved flight manual or the airworthiness certificate, without appropriate action being taken; or

4. the aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without subsequent appropriate action to restore airworthiness; or

5. a modification or repair has not been approved in accordance with Part-21.

(c) Upon surrender or revocation, the airworthiness review certificate shall be returned to the competent authority

M.A.903 Transfer of aircraft registration within the EU

(a) When transferring an aircraft registration within the EU, the applicant shall:

1. inform the former Member State in which Member State it will be registered, then;

2. apply to the new Member State for the issuance of a new airworthiness certificate in accordance with Part 21.

(b) Notwithstanding M.A.902(a)(3), the former airworthiness review certificate shall remain valid until its expiry date.

M.A.904 Airworthiness review of aircraft imported into the EU

(a) When importing an aircraft onto a Member State register from a third country, the applicant shall:

1. apply to the Member State of registry for the issuance of a new airworthiness certificate in accordance with Part-21; and

2. have an airworthiness review carried out by an appropriately approved continuing airworthiness management organisation; and

3. have all maintenance as requested by the continuing airworthiness management organisation carried out.

(b) When satisfied that the aircraft is in compliance with the relevant requirements, the continuing airworthiness management organisation shall send a documented recommendation for the issuance of an airworthiness review certificate to the Member State of registry.

(c) The owner shall allow access to the aircraft for inspection by the Member State of registry.

(d) A new airworthiness certificate will be issued by the Member State of registry when it is satisfied the aircraft complies with the prescriptions of Part-21.

(e) The Member State shall also issue the airworthiness review certificate valid normally for one year unless the Member State has safety reason to limit the validity.

M.A.905 Findings

(a) A level 1 finding is any significant non-compliance with Part-M requirements which lowers the safety standard and hazards seriously the flight safety.

(b) A level 2 finding is any non-compliance with the Part-M requirements which could lower the safety standard and possibly hazard the flight safety.

(c) After receipt of notification of findings according to M.B.303, the person or organisation accountable according to M.A.201 shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority including appropriate corrective action to prevent reoccurrence of the finding and its root cause.

SECTION B

PROCEDURE FOR COMPETENT AUTHORITIES

SUBPART A

GENERAL

M.B.101 Scope

This Section establishes the administrative requirements to be followed by the competent authorities in charge of the application and the enforcement of Section A of this Part.

M.B.102 Competent authority

(a) *General*

A Member State shall designate a competent authority with allocated responsibilities for the issuance, continuation, change, suspension or revocation of certificates and for the oversight of continuing airworthiness. This competent authority shall establish documented procedures and an organisational structure.

(b) *Resources*

The number of staff shall be appropriate to carry out the requirements as detailed in this Section B.

(c) *Qualification and training*

All staff involved in Part-M activities shall be appropriately qualified and have appropriate knowledge, experience, initial training and continuation training to perform their allocated tasks.

(d) *Procedures*

The competent authority shall establish procedures detailing how compliance with this Part is accomplished.

The procedures shall be reviewed and amended to ensure continued compliance.

M.B.103 Acceptable means of compliance

The Agency shall develop acceptable means of compliance that the Member States may use to establish compliance with this Part. When the acceptable means of compliance are complied with, the related requirements of this Part shall be considered as met.

M.A.104 Record-keeping

(a) The competent authorities shall establish a system of record-keeping that allows adequate traceability of the process to issue, continue, change, suspend or revoke each certificate.

(b) The records for the oversight of Part-M approved organisations shall include as a minimum:

1. the application for an organisation approval.
2. the organisation approval certificate including any changes.
3. a copy of the audit program listing the dates when audits are due and when audits were carried out.
4. the competent authority continued oversight records including all audit records.
5. copies of all relevant correspondence.
6. details of any exemption and enforcement actions.
7. any report from other competent authorities relating to the oversight of the organisation.
8. organisation exposition or manual and amendments.
9. copy of any other document directly approved by the competent authority.

(c) The retention period for the paragraph (b) records shall be at least four years.

(d) The minimum records for the oversight of each aircraft shall include, at least, a copy of:

1. aircraft certificate of airworthiness,
2. airworthiness review certificates,
3. Section A Subpart G organisation recommendations,
4. reports from the airworthiness reviews carried out directly by the Member State,
5. all relevant correspondence relating to the aircraft,
6. details of any exemption and enforcement action(s),
7. any document directly approved by the competent authority as referred to in M.B. Subpart B.

(e) The records specified in paragraph (d) shall be retained until two years after the aircraft has been permanently withdrawn from service.

(f) All records specified in M.B.104 shall be made available upon request by another Member State or the Agency.

M.A.105 Mutual exchange of information

(a) In order to contribute to the improvement of air safety, the competent authorities shall participate in a mutual exchange of all necessary information in accordance with Article 11 of the basic Regulation.

(b) Without prejudice to the competencies of the Member States, in the case of a potential safety threat involving several Member States, the concerned competent authorities shall assist each other in carrying out the necessary oversight action.

SUBPART B

ACCOUNTABILITY

M.B.201 Responsibilities

The competent authorities as specified in M.1 are responsible for conducting inspections and investigations in order to verify that the requirements of this Part are complied with.

SUBPART C

CONTINUING AIRWORTHINESS

M.B.301 Maintenance programme

(a) The competent authority shall verify that the maintenance programme is in compliance with M.A.302.

(b) Except where stated otherwise in M.A.302(e) the maintenance programme and its amendments shall be approved directly by the competent authority.

(c) In the case of indirect approval, the maintenance programme procedure shall be approved by the competent authority through the continuing airworthiness management exposition.

(d) In order to approve a maintenance programme according to paragraph (b), the competent authority shall have access to all the data required in M.A.302(c) and (d).

M.B.302 Exemptions

All exemptions granted in accordance with Article 10(3) of the basic Regulation shall be recorded and retained by the competent authority.

M.B.303 Aircraft continuing airworthiness monitoring

(a) Every competent authority shall develop a survey programme to monitor the airworthiness status of the fleet of aircraft on its register.

(b) The survey programme shall include sample product surveys of aircraft.

(c) The programme shall be developed taking into account the number of aircraft on the register, local knowledge and past surveillance activities.

(d) The product survey shall focus on a number of key risk airworthiness elements and identify any findings. Furthermore, the competent authority shall analyse each finding to determine its root cause.

(e) All findings shall be confirmed in writing to the person or organisation accountable according to M.A.201.

(f) The competent authority shall record all findings, closure actions and recommendations.

(g) If during aircraft surveys evidence is found showing non-compliance to a Part-M requirement, the competent authority shall take actions in accordance with M.B.903.

(h) If the root cause of the finding identifies a non-compliance with any Subpart or with another Part, the non-compliance shall be dealt with as prescribed by the relevant Part.

M.B.304 Revocation, suspension and limitation

The competent authority shall:

(a) suspend an airworthiness review certificate on reasonable grounds in the case of potential safety threat, or;

(b) suspend, revoke or limit an airworthiness review certificate pursuant to M.B.303(g).

SUBPART D

MAINTENANCE STANDARDS

(to be developed as appropriate)

SUBPART E

COMPONENTS

(to be developed as appropriate)

SUBPART F

MAINTENANCE ORGANISATION

M.B.601 Application

Where maintenance facilities are located in more than one Member State the investigation and continued oversight of the approval shall be carried out in conjunction with the competent authorities designated by the Member States in whose territory the other maintenance facilities are located.

M.B.602 Initial Approval

(a) Provided the requirements of M.A.606(a) and (b) are complied with, the competent authority shall formally indicate its acceptance of the M.A.606(a) and (b) personnel to the applicant in writing.

(b) The competent authority shall establish that the procedures specified in the maintenance organisation manual comply with M.A Subpart F and ensure the accountable manager signs the commitment statement.

(c) The competent authority shall verify that the organisation is in compliance with the Part-M.A Subpart F requirements.

(d) A meeting with the accountable manager shall be convened at least once during the investigation for approval to ensure that he/she fully understands the significance of the approval and the reason for signing the commitment of the organisation to compliance with the procedures specified in the manual.

(e) All findings shall be confirmed in writing to the applicant organisation.

(f) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.

(g) For initial approval all findings shall be corrected by the organisation and closed by the competent authority before the approval can be issued.

M.B.603 Issue of approval

(a) The competent authority shall issue to the applicant an EASA Form 3 approval certificate (Appendix V) which includes the extent of approval, when the maintenance organisation is in compliance with the applicable paragraphs of this Part.

(b) The competent authority shall indicate the conditions attached to the approval on the EASA Form 3 approval certificate.

(c) The reference number shall be included on the EASA Form 3 approval certificate in a manner specified by the Agency.

M.B.604 Continuing oversight

(a) The competent authority shall keep and update a program listing for each M.A Subpart F approved maintenance organisations under its supervision, the dates when audit visits are due and when such visits were carried out.

(b) Each organisation shall be completely audited at periods not exceeding 24 months.

(c) All findings shall be confirmed in writing to the applicant organisation.

(d) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.

(e) A meeting with the accountable manager shall be convened at least once every 24 months to ensure he/she remains informed of significant issues arising during audits.

M.B.605 Findings

(a) When during audits or by other means evidence is found showing non-compliance to the Part-M requirement, the competent authority shall take the following actions:

1. For level 1 findings, immediate action shall be taken by the competent authority to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the maintenance organisation approval, until successful corrective action has been taken by the organisation.

2. For level 2 findings, the competent authority shall grant a corrective action period appropriate to the nature of the finding that shall not be more than three months. In certain circumstances, at the end of this first period and subject to the nature of the finding, the competent authority can extend the three month period subject to a satisfactory corrective action plan.

(b) Action shall be taken by the competent authority to suspend in whole or part the approval in case of failure to comply within the timescale granted by the competent authority.

M.B.606 Changes

(a) In the case of direct approval of amendments of the maintenance organisation manual, the competent authority shall verify that the procedures specified in the manual are in compliance with Part-M before formally notifying the approved organisation of the approval.

(b) In the case of indirect approval of amendments of the maintenance organisation manual, the competent authority shall ensure that it has an adequate control over the approval of all manual amendments.

(c) The competent authority may prescribe the conditions under which the M.A. Subpart F approved maintenance organisation may operate during such changes unless it determines that the approval should be suspended.

M.B.607 Revocation, suspension and limitation of an approval

The competent authority shall:

(a) suspend an approval on reasonable grounds in the case of potential safety threat, or;

(b) suspend, revoke or limit an approval pursuant to M.B.605.

SUBPART G

CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION

M.B.701 Application

(a) For commercial air transport the competent authority shall receive for approval with the initial application for the air operator's certificate and where applicable any variation applied for and for each aircraft type to be operated:

1. the continuing airworthiness management exposition;

2. the operator's aircraft maintenance programmes;

3. the aircraft technical log;

4. where appropriate the technical specification of the maintenance contracts between the operator and Part-145 approved maintenance organisation.

(b) Where facilities are located in more than one Member State the investigation and continued oversight of the approval shall be carried out in conjunction with the competent authorities designated by the Member States in whose territory the other facilities are located.

M.B.702 Initial approval

(a) Provided the requirements of M.A.706(a), (c), (d) and M.A.707 are complied with, the competent authority shall formally indicate its acceptance of the M.A.706(a), (c), (d) and M.A.707 personnel to the applicant in writing.

(b) The competent authority shall establish that the procedures specified in the continuing airworthiness management exposition comply with Part-M.A. Subpart G and ensure the accountable manager signs the commitment statement.

(c) The competent authority shall verify the organisation's compliance with M.A. Subpart G requirements.

(d) A meeting with the accountable manager shall be convened at least once during the investigation for approval to ensure that he/she fully understands the significance of the approval and the reason for signing the exposition commitment of the organisation to compliance with the procedures specified in the continuing airworthiness management exposition.

(e) All findings shall be confirmed in writing to the applicant organisation.

(f) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.

(g) For initial approval all findings shall be corrected by the organisation and closed by the competent authority before the approval can be issued.

M.B.703 Issue of approval

(a) The competent authority shall issue to the applicant an EASA Form 14 approval certificate (Appendix VI) which includes the extent of approval, when the continuing airworthiness management organisation is in compliance with M.A. Subpart G.

(b) The competent authority shall indicate the validity of the approval on the EASA Form 14 approval certificate.

(c) The reference number shall be included on the Form 14 approval certificate in a manner specified by the Agency.

(d) In the case of commercial air transport, the information contained on an EASA Form 14 will be included on the air operator's certificate.

M.B.704 Continuing oversight

(a) The competent authority shall keep and update a program listing for each M.A. Subpart G approved continuing airworthiness organisations under its supervision, the dates when audit visits are due and when such visits were carried out.

(b) Each organisation shall be completely audited at periods not exceeding 24 months.

(c) A relevant sample of the aircraft managed by the M.B. Subpart G approved organisation shall be surveyed in every 24 month period. The size of the sample will be decided by the competent authority based on the result of prior audits and earlier product surveys.

(d) All findings shall be confirmed in writing to the applicant organisation.

(e) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.

(f) A meeting with the accountable manager shall be convened at least once every 24 months to ensure he/she remains informed of significant issues arising during audits.

M.B.705 Findings

(a) When during audits or by other means evidence is found showing non-compliance to the Part-M requirement, the competent authority shall take the following actions:

1. For level 1 findings, immediate action shall be taken by the competent authority to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the continuing airworthiness management organisation approval, until successful corrective action has been taken by the organisation.

2. For level 2 findings, the competent authority shall grant a corrective action period appropriate to the nature of the finding that shall not be more than three months. In certain circumstances, at the end of this first period, and subject to the nature of the finding the competent authority can extend the three month period subject to a satisfactory corrective action plan.

(b) Action shall be taken by the competent authority to suspend in whole or part the approval in case of failure to comply within the timescale granted by the competent authority.

M.B.706 Changes

(a) In the case of direct approval of the amendments of continuing airworthiness management exposition, the competent authority shall verify that the procedures specified in the exposition are in compliance with Part-M before formally notifying the approved organisation of the approval.

(b) In the case of indirect approval of amendments of the continuing airworthiness management exposition, the competent authority shall ensure that it has an adequate control over the approval of all exposition amendments.

(c) The competent authority shall prescribe the conditions under which M.A. Subpart G approved continuing airworthiness management organisation may operate during such changes.

M.B.707 Revocation, suspension and limitation of an approval

The competent authority shall:

(a) suspend an approval on reasonable grounds in the case of potential safety threat, or;

(b) suspend, revoke or limit an approval pursuant to M.B.705.

SUBPART H

CERTIFICATE OF RELEASE TO SERVICE — CRS

(to be developed as appropriate)

SUBPART I

AIRWORTHINESS REVIEW CERTIFICATE

M.B.901 Assessment of recommendations

Upon receipt of an application and associated airworthiness review certificate recommendation in accordance with M.A.902(d):

1. Appropriate qualified personnel from the competent authority shall verify that the compliance statement contained in the recommendation demonstrates that a complete M.A.710 airworthiness review has been carried out.

2. The competent authority shall investigate and may request further information to support the assessment of the recommendation.

M.B.902 Airworthiness review by the competent authority

(a) When the competent authority decides to carry out the airworthiness review and issue the airworthiness review certificate EASA Form 15a (Appendix III), the competent authority shall carry out an airworthiness review in accordance with the prescriptions of M.A.710.

(b) The competent authority shall have appropriate airworthiness review staff to carry out the airworthiness reviews. These staff shall have acquired:

   1. at least five years experience in continuing airworthiness, and;

   2. an appropriate Part-66 licence or an aeronautical degree or equivalent, and;

   3. formal aeronautical maintenance training, and;

   4. a position with appropriate responsibilities.

(c) The competent authority shall maintain a record of all airworthiness review staff, which shall include details of any appropriate qualification held together with a summary of relevant continuing airworthiness management experience and training.

(d) The competent authority shall have access to the applicable data as specified in M.A.305, M.A.306 and M.A.401 in the performance of the airworthiness review.

M.B.903 Findings

If during aircraft surveys or by other means evidence is found showing non-compliance to a Part-M requirement, the competent authority shall take the following actions:

1. for level 1 findings, the competent authority shall require appropriate corrective action to be taken before further flight and immediate action shall be taken by the competent authority to revoke or suspend the airworthiness review certificate.

2. for level 2 findings, the corrective action required by the competent authority shall be appropriate to the nature of the finding.

Appendix I

Continuing Airworthiness Arrangement

1. When an owner contracts an M.A. Subpart G approved continuing airworthiness organisation in accordance with M.A.201 to carry out continuing airworthiness management tasks, upon request by the competent authority a copy of the arrangement shall be sent by the owner to the competent authority of the Member State of registry once it has been signed by both parties.

2. The arrangement shall be developed taking into account the requirements of Part M and shall define the obligations of the signatories in relation to continuing airworthiness of the aircraft.

3. It shall contain as a minimum the:

   — aircraft registration,

   — aircraft type,

   — aircraft serial number,

   — aircraft owner or registered lessee's name or company details including the address,

   M.A. Subpart G approved continuing airworthiness organisation details including the address.

4. 'It shall state the following:

   The owner entrusts to the approved organisation the management of the continuing airworthiness of the aircraft, the development of a maintenance programme that shall be approved by the airworthiness authorities of the Member State where the aircraft is registered, and the organisation of the maintenance of the aircraft according to said maintenance programme in an approved organisation.

   According to the present arrangement, both signatories undertake to follow the respective obligations of this arrangement.

   The owner certifies, to the best of their belief that all the information given to the approved organisation concerning the continuing airworthiness of the aircraft is and will be accurate and that the aircraft will not be altered without prior approval of the approved organisation.

   In case of any non-conformity with this arrangement, by either of the signatories, it will become null. In such a case, the owner will retain full responsibility for every task linked to the continuing airworthiness of the aircraft and the owner will undertake to inform the competent authorities of the Member State of registry within two full weeks.'

5. When an owner contracts an M.A. Subpart G approved continuing airworthiness organisation in accordance with M.A.201 the obligations of each party shall be shared as follows:

5.1. Obligations of the approved organisation:

   1. have the aircraft's type in the scope of its approval;
   2. respect the conditions to maintain the continuing airworthiness of the aircraft listed below:
      — develop a maintenance programme for the aircraft, including any reliability programme developed,
      — organise the approval of the aircraft's maintenance programme,
      — once it has been approved, give a copy of the aircraft's maintenance programme to the owner,
      — organise a bridging inspection with the aircraft's prior maintenance programme,
      — organise for all maintenance to be carried out by an approved maintenance organisation,
      — organise for all applicable airworthiness directives to be applied,
      — organise for all defects discovered during scheduled maintenance or reported by the owner to be corrected by an approved maintenance organisation,
      — coordinate scheduled maintenance, the application of airworthiness directives, the replacement of life limited parts, and component inspection requirements,
      — inform the owner each time the aircraft shall be brought to an approved maintenance organisation,
      — manage all technical records,
      — archive all technical records;
   3. organise the approval of all and any modification to the aircraft according to Part-21 before it is embodied;
   4. organise the approval of all and any repair to the aircraft according to Part-21 before it is carried out;

5. inform the airworthiness Member State of registry whenever the aircraft is not presented to the approved maintenance organisation by the owner as requested by the approved organisation;
6. inform the airworthiness authorities of the Member State of registry whenever the present arrangement has not been respected;
7. carry out the airworthiness review of the aircraft when necessary and fill the airworthiness review certificate or the recommendation to the Member State of registry;
8. carry out all occurrence reporting mandated by applicable regulations;
9. inform the authorities of the Member State of registry whenever the present arrangement is denounced by either party.

5.2. Obligations of the owner:

1. have a general understanding of the approved maintenance programme;
2. ta peab olema üldiselt teadlik M osa sisust;
3. present the aircraft to the approved maintenance organisation agreed with the approved organisation at the due time designated by the approved organisation's request;
4. not modify the aircraft without first consulting the approved organisation;
5. inform the approved organisation of all maintenance exceptionally carried out without the knowledge and control of the approved organisation;
6. report to the approved organisation through the logbook all defects found during operations;
7. inform the authorities of the Member State of registry whenever the present arrangement is denounced by either party;
8. inform the authorities of the Member State of registry and the approved organisation whenever the aircraft is sold;
9. carry out all occurrence reporting mandated by applicable regulations.

Appendix II

EASA Form 1

Use of the EASA Form 1 for maintenance

1. GENERAL

The certificate shall comply with the format attached including block numbers in that each block must be located as per the layout. The size of each block may however be varied to suit the individual application, but not to the extent that would make the certificate unrecognisable. The overall size of the certificate may be significantly increased or decreased so long as the certificate remains recognisable and legible. If in doubt consult your Member State.

All printing shall be clear and legible to permit easy reading.

The certificate shall either be pre-printed or computer generated but in either case the printing of lines and characters must be clear and legible. Pre-printed wording is permitted in accordance with the attached model but no other certification statements are permitted.

English and, where relevant, the language(s) of the Member State concerned are acceptable.

Completion of the certificate maybe in English when it is used for export purposes, otherwise it can be completed in the official language(s) of the Member State concerned.

The details to be entered on the certificate can be either machine/computer printed or handwriting using block letters and must permit easy reading.

Abbreviations must be restricted to a minimum.

The space remaining on the reverse side of the certificate may be used by the originator for any additional information but must not include any certification statement.

The original certificate must accompany the items and correlation must be established between the certificate and the items. A copy of the certificate must be retained by the organisation that manufactured or maintained the item. Where the certificate format and data is entirely computer generated, subject to acceptance by the Member State, it is permissible to retain the certificate format and data on a secure database.

Where a single certificate was used to release a number of items and those items are subsequently separated out from each other, such as through a parts distributor, then a copy of the original certificate must accompany such items and the original certificate must be retained by the organisation that received the batch of items. Failure to retain the original certificate could invalidate the release status of the items.

NOTE: There is no restriction in the number of copies of the certificate sent to the customer or retained by the originator.

The certificate that accompanies the item may be attached to the item by being placed in an envelope for durability.

2. COMPLETION OF THE RELEASE CERTIFICATE BY THE ORIGINATOR

Except as otherwise stated, there must be an entry in all blocks to make the document a valid certificate.

Block 1 The name and country of the Member State under whose approval the certificate was issued. This information may be pre-printed.

Block 2 Pre-printed "Authorised Release certificate/EASA Form 1".

Block 3 A unique number shall be pre-printed in this block for certificate control and traceability purposes except that in the case of a computer generated document, the unique number need not be pre-printed where the computer is programmed to produce the number.

Block 4 The full name and address plus mailing address if different of the approved organisation releasing the items covered by this certificate. This block may be pre-printed. Logos, etc., are permitted if the logo can be contained within the block.

Block 5 Its purpose is to reference work order/contract/invoice or any other internal organisational process such that a fast traceability system can be established.

Block 6 This block is provided for the convenience of the organisation issuing the certificate to permit easy cross-reference to the "Remarks" Block 13 by the use of item numbers. Completion is not mandatory.

Where a number of items are to be released on the certificate, it is permissible to use a separate listing cross-referring certificate and list to each other.

Block 7 The name or description of the item shall be given. Preference shall be given to use of the Illustrated Parts Catalogue (IPC) designation.

Block 8 State the Part Number. Preference shall be given to use of the IPC number designation.

Block 9 Used to indicate the Type-Approved products for which the released items are eligible for installation. Completion of block is optional but if used, the following entries are permitted:

(a) The specific or series aircraft, engine, propeller or auxiliary power unit model, or a reference to a readily available catalogue or manual which contains such information, for example: "Cessna 150".

(b) "Various", if known to be eligible for installation on more than one model of Type-Approved product, unless the originator wishes to restrict usage to a particular model installation when it shall so state.

(c) "Unknown", if eligibility is unknown, this category being primarily for use by maintenance organisations

NOTE: Any information in Block 9 does not constitute authority to fit the item to a particular aircraft, engine, propeller or auxiliary power unit. The User/installer shall confirm via documents such as the Parts Catalogue, Service Bulletins, etc. that the item is eligible for the particular installation.

Block 10 State the number of items being released.

Block 11 State the item Serial Number and/or Batch Number if applicable, if neither is applicable, state "N/A".

Block 12 The following words in quotation marks, with their definitions, indicate the status of the item being released. One or a combination of these words shall be stated in this block:

1. OVERHAULED

   The restoration of a used item by inspection, test and replacement in conformity with an approved standard (*) to extend the operational life.

2. INSPECTED/TESTED

   The examination of an item to establish conformity with an approved standard (*).

3. MODIFIED

   The alteration of an item in conformity with an approved standard (*).

4. REPAIRED

   The restoration of an item to a serviceable condition in conformity with an approved standard (*).

5. RETREADED

   The restoration of a used tyre in conformity with an approved standard (*).

6. REASSEMBLED

   The reassembly of an item in conformity with an approved standard (*).

   Example: A propeller after transportation.

   NOTE: This provision shall only be used in respect of items which were originally fully assembled by the manufacturer in accordance with manufacturing requirements such as, but not limited to, Part-21.

(*) Approved standard means a manufacturing/design/maintenance/quality standard approved by the competent authority.

The above statements shall be supported by reference in Block 13 to the approved data/manual/specification used during maintenance.

Block 13 It is mandatory to state any information in this block either direct or by reference to supporting documentation that identifies particular data or limitations relating to the items being released that are necessary for the User/installer to make the final airworthiness determination of the item. Information shall be clear, complete, and provided in a form and manner which is adequate for the purpose of making such a determination.

Each statement shall be clearly identified as to which item it relates.

If there is no statement, state "None".

Some examples of the information to be quoted are as follows:

– The identity and issue of maintenance documentation used as the approved standard.
– Airworthiness Directives carried out and/or found carried out, as appropriate.
– Repairs carried out and/or found carried out, as appropriate.
– Modifications carried out and/or found carried out, as appropriate.
– Replacement parts installed and/or parts found installed, as appropriate.
– Life limited parts history.
– Deviations from the customer work order.
– M.A. Subpart F approval reference.
– Identity of other regulation if not Part-145 or Part-M Subpart F.
– Release statements to satisfy a foreign maintenance requirement.
– Release statements to satisfy the conditions of an international maintenance agreement such as, but not limited to, the Canadian Technical Arrangement Maintenance and the USA Bilateral Aviation Safety Agreement — Maintenance Implementation Procedure.

Blocks 14, 15, 16, 17 & 18: Must not be used for maintenance tasks by M.A. Subpart F approved maintenance organisations. These blocks are specifically reserved for the release/certification of newly manufactured items in accordance with Part 21 and national aviation regulations in force prior to Part 21 becoming fully effective.

Block 19 Contains the required release to service statement for all maintenance by M.A. Subpart F approved maintenance organisations. When non Part-M maintenance is being released block 13 shall specify the particular national regulation. In any case the appropriate box shall be "ticked" to validate the release.

The certification statement "except as otherwise specified in block 13" is intended to address the following situations;

(a) The case where the maintenance could not be completed.

(b) The case where the maintenance deviated from the standard required by Part-M.

(c) The case where the maintenance was carried out in accordance with a non Part-M requirement.

Whichever case or combination of cases shall be specified in block 13.

Block 20 For the signature of the certifying staff authorised by the M.A. Subpart F approved maintenance organisation. This signature can be computer printed subject to the Member State being satisfied that only the signatory can direct the computer and that a signature is not possible on a blank computer generated form.

Block 21 The M.A. Subpart F approved maintenance organisation reference number given by the Member State.

Block 22 The printed name of the Block 20 signatory and personal authorisation reference.

Block 23 The date of signing the Block 19 release to service. (d/m/y). The month shall appear in letters e.g. Jan, Feb, Mar etc. The release to service shall be signed at the "completion of maintenance".

Please note the User Responsibility Statements are on the reverse of this certificate. These statements may be added to the front of the certificate below the bottom line by reducing the depth of the form.

1. **Approving Competent Authority / Country**	2. **AUTHORISED RELEASE CERTIFICATE** EASA FORM 1	3. Form Tracking Number
4. Approved Organisation Name and Address:		5. Work Order/Contract/ Invoice

6. Item	7. Description	8. Part No	9. Eligibility *	10. Qty.	11. Serial/Batch No	12. Status/Work

13. Remarks

14. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 13		19. ☐ Part-145.A.50 Release to Service ☐ Other regulation specified in block 13 Certifies that unless otherwise specified in block 13, the work identified in block 12 and described in block 13, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.	
15. Authorised Signature	16. Approval/ Authorisation Number	20. Authorised Signature	21. Certificate/Approval Ref. No.
17. Name	18. Date (d/m/y)	22. Name	23. Date (d/m/y)

EASA Form 1 - Issue 1

* Installer must cross-check eligibility with applicable technical data

Authorised release certificate

EASA Form 1

USER/INSTALLER RESPONSIBILITIES

NOTE:

1. It is important to understand that the existence of the Document alone does not automatically constitute authority to install the part/component/assembly
2. Where the user/installer works in accordance with the national regulations of an Airworthiness Authority different from the Airworthiness Authority specified in block 1 it is essential that the user/installer ensures that his/her Airworthiness Authority accepts parts/components/assemblies from the Airworthiness Authority specified in block 1.
3. Statements 14 and 19 do not constitute installation certification. In all cases the aircraft maintenance record must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

Appendix III

Airworthiness Review certificate

Approving Member State A member of the European Aviation Safety Agency	**AIRWORTHINESS REVIEW CERTIFICATE**	ARC REFERENCE: AA-G1-000

Pursuant to Regulation (EC) No 1592/2002 of the European Parliament and of the Council for the time being in force,

[COMPANY NAME] PART M SECTION A SUBPART G ORGANISATION

REFERENCE: MS-G1-000

has performed an airworthiness review according to M.A.710 on the following aircraft:

Aircraft manufacturer: .....

Manufacturer's designation: .....

Aircraft registration: .....

Aircraft serial Number: .....

The aircraft is considered to be airworthy at the time of the review.

Date of issue: ..... Date of expiry: .....

Signed: ..... Authorisation No: .....

1st Extension: The aircraft has remained in a controlled environment according to M.A.901 for the last year. The aircraft is considered to be airworthy at the time of the issue.

Date of issue: ..... Date of expiry: .....

Signed: ..... Authorisation No: .....

2nd Extension: The aircraft has remained in a controlled environment according to M.A.901 for the last year. The aircraft is considered to be airworthy at the time of the issue.

Date of issue: ..... Date of expiry: .....

Signed: ..... Authorisation No: .....

EASA Form 15b

MEMBER STATE

a member of the
European Aviation Safety Agency

AIRWORTHINESS REVIEW CERTIFICATE

ARC REFERENCE:

Pursuant to Regulation (EC) No 1592/2002 of the European Parliament and of the Council for the time being in force, the Member State hereby certifies that the following aircraft:

Aircraft manufacturer: .....

Manufacturer's designation: .....

Aircraft registration: .....

Aircraft serial Number: .....

is considered to be airworthy at the time of the issue.

Date of issue: ..... Date of expiry: .....

Signed:..... Authorisation No: .....

EASA Form 15a

Appendix IV

Approval Ratings

ORGANISATION APPROVAL CLASS AND RATING SYSTEM

1. Except as stated otherwise for the smallest organisation in paragraph 11, Table 1 outlines the full extent of approval possible under M.A. Subpart F in a standardised form. An organisation must be granted an approval ranging from a single class and rating with limitations to all classes and ratings with limitations.

2. In addition to Table 1 the M.A. Subpart F approved maintenance organisation is required by Subpart-F to indicate scope of work in the maintenance organisation exposition. See also paragraph 10.

3. Within the approval class(es) and rating(s) granted by the Member State, the scope of work specified in the maintenance organisation exposition defines the exact limits of approval. It is therefore essential that the approval class(es) and rating(s) and the organisation's scope of work are compatible.

4. A category A class rating means that the M.A. Subpart F approved maintenance organisation may carry out maintenance on the aircraft and any component (including engines/APUs) only whilst such components are fitted to the aircraft except that such components can be temporarily removed for maintenance when such removal is expressly permitted by the aircraft maintenance manual to improve access for maintenance subject to a control procedure in the maintenance organisation exposition acceptable to the Member State The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.

5. A category B class rating means that the M.A. Subpart F approved maintenance organisation may carry out maintenance on the uninstalled engine/APU ("Auxiliary Power Unit") and engine/APU components only whilst such components are fitted to the engine/APU except that such components can be temporarily removed for maintenance when such removal is expressly permitted by the engine/APU manual to improve access for maintenance. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A M.A. Subpart F approved maintenance organisation with a category B class rating may also carry out maintenance on an installed engine during "base" and "line" maintenance subject to a control procedure in the maintenance organisation exposition. The maintenance organisation exposition scope of work shall reflect such activity where permitted by the Member State.

6. A category C class rating means that the M.A. Subpart F approved maintenance organisation may carry out maintenance on uninstalled components (excluding engines and APUs) intended for fitment to the aircraft or engine/APU. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A Subpart-F approved maintenance organisation with a category C class rating may also carry out maintenance on an installed component during base and line maintenance or at an engine/APU maintenance facility subject to a control procedure in the maintenance organisation exposition. The maintenance organisation exposition scope of work shall reflect such activity where permitted by the Member State.

7. A category D class rating is a self contained class rating not necessarily related to a specific aircraft, engine or other component. The D1 — Non-Destructive Testing (NDT) rating is only necessary for a Subpart-F approved maintenance organisation that carries out NDT as a particular task for another organisation. A M.A. Subpart F approved maintenance organisation with a class rating in A or B or C category may carry out NDT on products it is maintaining subject to the maintenance organisation exposition containing NDT procedures, without the need for a D1 class rating.

8. The "limitation" section is intended to give the Member State maximum flexibility to customise the approval to a particular organisation. Table 1 specifies the types of limitation possible and whilst maintenance is listed last in each class rating it is acceptable to stress the maintenance task rather than the aircraft or engine type or manufacturer, if this is more appropriate to the organisation. An example could be avionic systems installations and maintenance.

9. Table 1 makes reference to series, type and group in the limitation section of class A and B. Series means a specific type series such as Cessna 150 or Cessna 172 or Beech 55 series or continental O-200 series etc. Type means a specific type or model such as Cessna 172RG type. Any number of series or types may be quoted. Group means for example Cessna single piston engined aircraft or Lycoming non-supercharged piston engines etc.

10. When a lengthy capability list is used which could be subject to frequent amendment, then such amendment shall be in accordance with a procedure acceptable to the Member State and included in the maintenance organisation exposition. The procedure shall address the issues of who is responsible for capability list amendment control and the actions that need to be taken for amendment. Such actions include ensuring compliance with Subpart-F for products or services added to the list.

11. A M.A. Subpart F approved maintenance organisation which employs only one person to both plan and carry out all maintenance can only hold a limited scope of approval rating. The maximum permissible limits are:-

CLASS AIRCRAFT	RATING A2 AEROPLANES	PISTON ENGINED 5 700 KG AND BELOW
CLASS AIRCRAFT	RATING A3 SINGLE ENGINED HELICOPTERS	PISTON ENGINED 3 175 KG AND BELOW
CLASS AIRCRAFT	RATING A4 AIRCRAFT OTHER THAN A1, A2 AND A3	NO LIMITATION
CLASS ENGINES	RATING B2 PISTON	LESS THAN 450 HP
CLASS COMPONENTS RATING OTHER THAN COMPLETE ENGINES OR APUs	C1 TO C20	AS PER CAPABILITY LIST
CLASS SPECIALISED	D1 NDT	NDT METHOD(S) TO BE SPECIFIED

It should be noted that such an organisation may be further limited by the competent authority in the scope of approval dependent upon the capability of the particular organisation.

Table 1

CLASS	RATING	LIMITATION
AIRCRAFT	A2 Aeroplanes 5 700 kg and below	Will state aeroplane manufacturer or group or series or type and/or the maintenance tasks
	A3 Single engined Helicopters	Will state helicopter manufacturer or group or series or type and/or the maintenance task(s)
	A4 Aircraft other than A1, A2 and A3	Will state aircraft series or type and/or the maintenance task(s)
ENGINES	B1 Turbine	Will state engine series or type and/or the maintenance task(s)
	B2 Piston	Will state engine manufacturer or group or series or type and/or the maintenance task(s)
	B3 APU	Will state engine manufacturer or series or type and/or the maintenance task(s)

COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	Will state aircraft type or aircraft manufacturer or component manufacturer or the particular component and/or cross refer to a capability list in the exposition and/or the maintenance task(s)
	C2 Auto Flight	
	C3 Comms and Nav	
	C4 Doors — Hatches	
	C5 Electrical Power	
	C6 Equipment	
	C7 Engine — APU	
	C8 Flight Controls	
	C9 Fuel — Airframe	
	C10 Helicopter — Rotors	
	C11 Helicopter — Trans	
	C12 Hydraulic	
	C13 Instruments	
	C14 Landing Gear	
	C15 Oxygen	
	C16 Propellers	
	C17 Pneumatic	
	C18 Protection ice/rain/fire	
	C19 Windows	
	C20 Structural	
SPECIALISED SERVICES	D1 Non-Destructive Testing	Will state particular NDT method(s)

Appendix V

Approval Certificate PART-M Section A Subpart F Maintenance Organisation

Page 1 of

MEMBER STATE

a member of the

European Aviation Safety Agency

APPROVAL CERTIFICATE

REFERENCE:

Pursuant to Commission Regulation (EC) No 2042/2003 for the time being in force and subject to the conditions specified below, the Member State hereby certifies

[COMPANY NAME] MAINTENANCE ORGANISATION

as a maintenance organisation as referred to in Part-M Section A Subpart F approved to maintain the products listed in the attached approval schedule and issue related certificates of release to service using the above reference.

CONDITIONS:

1. This approval is limited to that specified in the scope of approval section of the approved maintenance organisation manual, and
2. This approval requires compliance with the procedures specified in the approved maintenance organisation manual, and
3. This approval is valid whilst the approved maintenance organisation remains in compliance with Part-M.
4. Subject to compliance with the foregoing conditions, this approval shall remain valid unless the approval has previously been surrendered, superseded, suspended or revoked.

Date of issue: ..... Signed: .....

Date of attached schedule of Approval: ..... For the competent authority

EASA Form 3

Page 2 of

APPROVAL SCHEDULE

Organisation name: **[COMPANY NAME] MAINTENANCE ORGANISATION**

Reference:

CLASS	RATING	LIMITATION
AIRCRAFT	A2: Aeroplanes /	DHC-6 Twin Otter Series
	A3: Sinlge engined helicopters	Robinson R44
ENGINES	B1: Turbine	PT6A Series
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1: Air Cond. & Press	DHC-6
	C2: Auto Flight	Sperry
	C5: Electrical Power	DHC-6
	C6: Equipment	DHC-6 Emergency
	C7: Engine — APU	PT6A Fuel Control
	C16: Propellers	Fixed pitch and DHC-6
SPECIALISED SERVICES	D1: Non-Destructive Inspection	All Types

This approval schedule is limited to those products and activities specified in the scope of approval section contained in Part-M Section A Subpart F approved maintenance organisation manual,

Reference: .....

Date of issue: .....

Signed: .....

For Member State

Appendix VI

Approval Certificate PART-M Section A Subpart G Continuing Airworthiness Management Organisation

MEMBER STATE

member of the
European Aviation Safety Agency

APPROVAL CERTIFICATE

REFERENCE:

Pursuant to Commission Regulation (EC) No 2042/2003 for the time being in force and subject to the conditions specified below, the Member State hereby certifies

[COMPANY NAME] CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION

as a continuing airworthiness management organisation as referred to in Part-M Section A Subpart G approved to manage the continuing airworthiness of the following aircraft and to issue recommendations or Airworthiness Review Certificates after an Airworthiness Review as specified in M.A.710 when stipulated:

Aircraft type	Approved maintenance programme reference	Airworthiness review authorised	Organisation(s) working under the quality system
	, as revised	Yes	
	, as revised	Yes	
	, as revised	Yes	
	, as revised	Yes	
	, as revised	No	
	, as revised	No	
	, as revised	No	
	, as revised	No	
	, as revised	Yes	
	, as revised	No	

EASA Form 14

CONDITIONS:

1. This approval is limited to that specified in the scope of approval section of the approved continuing airworthiness management exposition as referred to in Part-M Section A Subpart G, and

2. This approval requires compliance with the procedures specified in the approved continuing airworthiness management organisation exposition, and

3. This approval is valid whilst the approved continuing airworthiness management organisation remains in compliance with Part-M.

4. Subject to compliance with the foregoing conditions, this approval shall remain valid unless the approval has previously been surrendered, superseded, suspended or revoked.

If this form is also used for AOC holders, the AOC number shall be used as the reference and the following extra conditions shall be added:

5. This approval does not constitute an authorisation to operate the types of aircraft listed above. The authorisation to operate the aircraft is the Air Operator Certificate (AOC).

6. This approval is limited to the aircraft registrations specified in the AOC.

7. This approval is valid whilst the Operator remains in compliance with Part-M Section A Subpart G and that the applicable aircraft maintenance programme, M.E.L. and aircraft log-books remain approved.

8. Subject to compliance with the foregoing conditions, this approval shall remain valid unless the approval has previously been suspended or revoked.

9. Where the technical services organisation is different to the Operator, this approval remains valid subject to such organisation(s) fulfilling applicable contractual obligations.

10. Termination, suspension or revocation of the AOC automatically invalidates the present approval.

Date of issue: ..... Signed .....

Date of revision: ..... For the competent authority .....

Appendix VII

Complex Maintenance Tasks

The following constitutes the complex maintenance tasks referred to in M.A.801(b), 2

1. The modification, repair or replacement by riveting, bonding, laminating, or welding of any of the following airframe parts:
   (a) a box beam;
   (b) a wing stringer or chord member;
   (c) a spar;
   (d) a spar flange;
   (e) a member of a truss-type beam;
   (f) the web of a beam;
   (g) a keel or chine member of a flying boat hull or a float;
   (h) a corrugated sheet compression member in a wing or tail surface;
   (i) a wing main rib;
   (j) a wing or tail surface brace strut;
   (k) an engine mount;
   (l) a fuselage longeron or frame;
   (m) a member of a side truss, horizontal truss or bulkhead;
   (n) a seat support brace or bracket;
   (o) a seat rail replacement;
   (p) a landing gear strut or brace strut;
   (q) an axle;
   (r) a wheel; and
   (s) a ski or ski pedestal, excluding the replacement of a low-friction coating.
2. The modification or repair of any of the following parts:
   (a) aircraft skin, or the skin of an aircraft float, if the work requires the use of a support, jig or fixture;
   (b) aircraft skin that is subject to pressurization loads, if the damage to the skin measures more than 15 cm (6 inches) in any direction;
   (c) a load-bearing part of a control system, including a control column, pedal, shaft, quadrant, bell crank, torque tube, control horn and forged or cast bracket, but excluding
      (i) the swaging of a repair splice or cable fitting, and
      (ii) the replacement of a push-pull tube end fitting that is attached by riveting; and
   (d) any other structure, not listed in (1), that a manufacturer has identified as primary structure in its maintenance manual, structural repair manual or instructions for continuing airworthiness.

Appendix VIII

Limited Pilot Owner Maintenance

The following constitutes the limited pilot maintenance referred to in M.A.803 provided it does not involve complex maintenance tasks and is carried out in accordance with M.A.402:

1. Removal, installation of wheels.

2. Replacing elastic shock absorber cords on landing gear.

3. Servicing landing gear shock struts by adding oil, air, or both.

4. Servicing landing gear wheel bearings, such as cleaning and greasing.

5. Replacing defective safety wiring or cotter keys.

6. Lubrication not requiring disassembly other than removal of non-structural items such as cover plates, cowlings, and fairings.

7. Making simple fabric patches not requiring rib stitching or the removal of structural parts or control surfaces. In the case of balloons, the making of small fabric repairs to envelopes (as defined in, and in accordance with, the balloon manufacturers' instructions) not requiring load tape repair or replacement.

8. Replenishing hydraulic fluid in the hydraulic reservoir.

9. Refinishing decorative coating of fuselage, balloon baskets, wings tail group surfaces (excluding balanced control surfaces), fairings, cowlings, landing gear, cabin, or cockpit interior when removal or disassembly of any primary structure or operating system is not required.

10. Applying preservative or protective material to components where no disassembly of any primary structure or operating system is involved and where such coating is not prohibited or is not contrary to good practices.

11. Repairing upholstery and decorative furnishings of the cabin, cockpit, or balloon basket interior when the repairing does not require disassembly of any primary structure or operating system or interfere with an operating system or affect the primary structure of the aircraft.

12. Making small simple repairs to fairings, non-structural cover plates, cowlings, and small patches and reinforcements not changing the contour so as to interfere with proper air flow.

13. Replacing side windows where that work does not interfere with the structure or any operating system such as controls, electrical equipment, etc.

14. Replacing safety belts.

15. Replacing seats or seat parts with replacement parts approved for the aircraft, not involving disassembly of any primary structure or operating system.

16. Trouble shooting and repairing broken circuits in landing light wiring circuits.

17. Replacing bulbs, reflectors, and lenses of position and landing lights.

18. Replacing wheels and skis where no weight and balance computation is involved.

19. Replacing any cowling not requiring removal of the propeller or disconnection of flight controls.

20. Replacing or cleaning spark plugs and setting of spark plug gap clearance.

21. Replacing any hose connection except hydraulic connections.

22. Replacing prefabricated fuel lines.

23. Cleaning or replacing fuel and oil strainers or filter elements.

24. Replacing and servicing batteries.

25. Cleaning of balloon burner pilot and main nozzles in accordance with the balloon manufacturer's instructions.

26. Replacement or adjustment of non-structural standard fasteners incidental to operations.

27. The interchange of balloon baskets and burners on envelopes when the basket or burner is designated as interchangeable in the balloon type certificate data and the baskets and burners are specifically designed for quick removal and installation.

28. The installations of anti-misfuelling devices to reduce the diameter of fuel tank filler openings provided the specific device has been made a part of the aircraft type certificate data by the aircraft manufacturer, the aircraft manufacturer has provided instructions for installation of the specific device, and installation does not involve the disassembly of the existing tank filler opening.

29. Removing, checking, and replacing magnetic chip detectors.

30. Removing and replacing self-contained, front instrument panel-mounted navigation and communication devices that employ tray-mounted connectors that connect the unit when the unit is installed into the instrument panel, (excluding automatic flight control systems, transponders, and microwave frequency distance measuring equipment (DME)). The approved unit must be designed to be readily and repeatedly removed and replaced, not require specialist test equipment and pertinent instructions must be provided. Prior to the unit's intended use, an operational check must be performed.

31. Updating self-contained, front instrument panel-mounted Air Traffic Control (ATC) navigational software databases (excluding those of automatic flight control systems, transponders, and microwave frequency distance measuring equipment (DME)) provided no disassembly of the unit is required and pertinent instructions are provided. Prior to the unit's intended use, an operational check must be performed.

32. Replacement of wings and tail surfaces and controls, the attachment of which are designed for assembly immediately before each flight and dismantling after each flight.

33. Replacement of main rotor blades that are designed for removal where specialist tools are not required.

ANNEX II

(Part-145)

145.1 General

For the purpose of this Part, the competent authority shall be:

1. for organisations having their principal place of business in a Member State, the authority designated by that Member State, or;

2. for organisations having their principal place of business located in a third country, the Agency.

SECTION A

145.A.10 Scope

This Section establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the maintenance of aircraft and components.

145.A.15 Application

An application for the issue or variation of an approval shall be made to the competent authority in a form and manner established by such authority.

145.A.20 Terms of approval

The organisation shall specify the scope of work deemed to constitute approval in its exposition (Appendix II to this Part contains a table of all classes and ratings).

145.A.25 Facility requirements

The organisation shall ensure that:

(a) 1. For base maintenance of aircraft, aircraft hangars are both available and large enough to accommodate aircraft on planned base maintenance;

2. For component maintenance, component workshops are large enough to accommodate the components on planned maintenance.

(b) Office accommodation is provided for the management of the planned work referred to in paragraph (a), and certifying staff so that they can carry out their designated tasks in a manner that contributes to good aircraft maintenance standards.

(c) The working environment including aircraft hangars, component workshops and office accommodation is appropriate for the task carried out and in particular special requirements observed. Unless otherwise dictated by the particular task environment, the working environment must be such that the effectiveness of personnel is not impaired:

1. temperatures must be maintained such that personnel can carry out required tasks without undue discomfort.

2. dust and any other airborne contamination are kept to a minimum and not be permitted to reach a level in the work task area where visible aircraft/component surface contamination is evident. Where dust/other airborne contamination results in visible surface contamination, all susceptible systems are sealed until acceptable conditions are re-established.

3. lighting is such as to ensure each inspection and maintenance task can be carried out in an effective manner.

4. noise shall not distract personnel from carrying out inspection tasks. Where it is impractical to control the noise source, such personnel are provided with the necessary personal equipment to stop excessive noise causing distraction during inspection tasks.

5. where a particular maintenance task requires the application of specific environmental conditions different to the foregoing, then such conditions are observed. Specific conditions are identified in the maintenance data.

6. the working environment for line maintenance is such that the particular maintenance or inspection task can be carried out without undue distraction. Therefore where the working environment deteriorates to an unacceptable level in respect of temperature, moisture, hail, ice, snow, wind, light, dust/other airborne contamination, the particular maintenance or inspection tasks must be suspended until satisfactory conditions are re-established.

(d) Secure storage facilities are provided for components, equipment, tools and material. Storage conditions ensure segregation of serviceable components and material from unserviceable aircraft components, material, equipment and tools. The conditions of storage are in accordance with the manufacturer's instructions to prevent deterioration and damage of stored items. Access to storage facilities is restricted to authorised personnel.

145.A.30 Personnel requirements

(a) The organisation shall appoint an accountable manager who has corporate authority for ensuring that all maintenance required by the customer can be financed and carried out to the standard required by this Part. The accountable manager shall:

1. ensure that all necessary resources are available to accomplish maintenance in accordance with 145.A.65(b) to support the organisation approval.

2. establish and promote the safety and quality policy specified in 145.A.65(a).

3. demonstrate a basic understanding of this Part.

(b) The organisation shall nominate a person or group of persons, whose responsibilities include ensuring that the organisation complies with this Part. Such person(s) shall ultimately be responsible to the accountable manager.

1. The person or persons nominated shall represent the maintenance management structure of the organisation and be responsible for all functions specified in this Part.

2. The person or persons nominated shall be identified and their credentials submitted in a form and manner established by the competent authority.

3. The person or persons nominated shall be able to demonstrate relevant knowledge, background and satisfactory experience related to aircraft or component maintenance and demonstrate a working knowledge of this Part.

4. Procedures shall make clear who deputises for any particular person in the case of lengthy absence of the said person.

(c) The accountable manager under paragraph (a) shall appoint a person with responsibility for monitoring the quality system, including the associated feedback system as required by 145.A.65(c). The appointed person shall have direct access to the accountable manager to ensure that the accountable manager is kept properly informed on quality and compliance matters.

(d) The organisation shall have a maintenance man-hour plan showing that the organisation has sufficient staff to plan, perform, supervise, inspect and quality monitor the organisation in accordance with the approval. In addition the organisation shall have a procedure to reassess work intended to be carried out when actual staff availability is less than the planned staffing level for any particular work shift or period.

(e) The organisation shall establish and control the competence of personnel involved in any maintenance, management and/or quality audits in accordance with a procedure and to a standard agreed by the competent authority. In addition to the necessary expertise related to the job function, competence must include an understanding of the application of human factors and human performance issues appropriate to that person's function in the organisation. 'Human factors' means principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration of human performance. 'Human performance' means human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

(f) The organisation shall ensure that personnel who carry out and/or control a continued airworthiness non-destructive test of aircraft structures and/or components are appropriately qualified for the particular non-destructive test in accordance with the European or equivalent Standard recognised by the Agency. Personnel who carry out any other specialised task shall be appropriately qualified in accordance with officially recognised Standards. By derogation to this paragraph those personnel specified in paragraphs (g) and (h)(1) and (h)(2), qualified in Part-66 category B1 may carry out and/or control colour contrast dye penetrant tests.

(g) Any organisation maintaining aircraft, except where stated otherwise in paragraph (j), shall in the case of aircraft line maintenance, have appropriate aircraft type rated certifying staff qualified as category B1 and B2 in accordance with Part-66 and 145.A.35.

In addition such organisations may also use appropriately task trained certifying staff qualified as category A in accordance with Part-66 and 145.A.35 to carry out minor scheduled line maintenance and simple defect rectification. The availability of such category A certifying staff shall not replace the need for Part-66 category B1 and B2 certifying staff to support the category A certifying staff. However, such Part-66 category B1 and B2 staff need not always be present at the line station during minor scheduled line maintenance or simple defect rectification.

(h) Any organisation maintaining aircraft, except where stated otherwise in paragraph (j) shall:

1. in the case of base maintenance of large aircraft, have appropriate aircraft type rated certifying staff qualified as category C in accordance with Part-66 and 145.A.35. In addition the organisation shall have sufficient aircraft type rated staff qualified as category B1 and B2 in accordance with Part-66 and 145.A.35 to support the category C certifying staff.

   (i) B1 and B2 support staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C certifying staff issues the certificate of release to service.

   (ii) The organisation shall maintain a register of any such B1 and B2 support staff.

   (iii) The category C certifying staff shall ensure that compliance with paragraph (i) has been met and that all work required by the customer has been accomplished during the particular base maintenance check or work package, and shall also assess the impact of any work not carried out with a view to either requiring its accomplishment or agreeing with the operator to defer such work to another specified check or time limit.

2. in the case of base maintenance of aircraft other than large aircraft have either:

   (i) appropriate aircraft type rated certifying staff qualified as category B1 and B2 in accordance with Part-66 and 145.A.35 or,

   (ii) appropriate aircraft type rated certifying staff qualified in category C assisted by B1 and B2 support staff as specified in paragraph (1).

(i) Component certifying staff shall comply with Part-66.

(j) By derogation to paragraphs (g) and (h), the organisation may use certifying staff qualified in accordance with the following provisions:

1. For organisation facilities located outside the Community territory certifying staff may be qualified in accordance with the national aviation regulations of the State in which the organisation facility is registered subject to the conditions specified in Appendix IV to this Part.

2. For line maintenance carried out at a line station of an organisation which is located outside the Community territory, the certifying staff may be qualified in accordance with the national aviation regulations of the State in which the line station is based, subject to the conditions specified in Appendix IV to this Part.

3. For a repetitive pre-flight airworthiness directive which specifically states that the flight crew may carry out such airworthiness directive, the organisation may issue a limited certification authorisation to the aircraft commander and/or the flight engineer on the basis of the flight crew licence held. However, the organisation shall ensure that sufficient practical training has been carried out to ensure that such aircraft commander or flight engineer can accomplish the airworthiness directive to the required standard.

4. In the case of aircraft operating away from a supported location the organisation may issue a limited certification authorisation to the commander and/or the flight engineer on the basis of the flight crew licence held subject to being satisfied that sufficient practical training has been carried out to ensure that the commander or flight engineer can accomplish the specified task to the required standard. The provisions of this paragraph shall be detailed in an exposition procedure.

5. In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff are available, the organisation contracted to provide maintenance support may issue a one-off certification authorisation:

   (i) to one of its employees holding equivalent type authorisations on aircraft of similar technology, construction and systems; or

(ii) to any person with not less than five years maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification provided there is no organisation appropriately approved under this Part at that location and the contracted organisation obtains and holds on file evidence of the experience and the licence of that person.

All such cases as specified in this subparagraph shall be reported to the competent authority within seven days of the issuance of such certification authorisation. The organisation issuing the one-off authorisation shall ensure that any such maintenance that could affect flight safety is re-checked by an appropriately approved organisation.

145.A.35 Certifying staff and category B1 and B2 support staff

(a) In addition to the appropriate requirements of 145.A.30(g) and (h), the organisation shall ensure that certifying staff and category B1 and B2 support staff have an adequate understanding of the relevant aircraft and/or components to be maintained together with the associated organisation procedures. In the case of certifying staff, this must be accomplished before the issue or re-issue of the certification authorisation.

'Category B1 and B2 support staff' means those category B1 and B2 staff in the base maintenance environment who do not hold necessarily certification privileges. 'Relevant aircraft and/or components', means those aircraft or components specified in the particular certification authorisation. 'Certification authorisation' means the authorisation issued to certifying staff by the organisation and which specifies the fact that they may sign certificates of release to service within the limitations stated in such authorisation on behalf of the approved organisation.

(b) Excepting those cases listed in 145.A.30(j) the organisation may only issue a certification authorisation to certifying staff in relation to the basic categories or subcategories and any type rating listed on the aircraft maintenance licence listed in Part 66, subject to the licence remaining valid throughout the validity period of the authorisation and the certifying staff remaining in compliance with Part 66.

(c) The organisation shall ensure that all certifying staff and category B1 and B2 support staff are involved in at least six months of actual relevant aircraft or component maintenance experience in any consecutive two year period. For the purpose of this paragraph 'involved in actual relevant aircraft or component maintenance' means that the person has worked in an aircraft or component maintenance environment and has either exercised the privileges of the certification authorisation and/or has actually carried out maintenance on at least some of the aircraft type systems specified in the particular certification authorisation.

(d) The organisation shall ensure that all certifying staff and category B1 and B2 support staff receive sufficient continuation training in each two year period to ensure that such staff have up-to-date knowledge of relevant technology, organisation procedures and human factor issues.

(e) The organisation shall establish a programme for continuation training for certifying staff and category B1 and B2 support staff, including a procedure to ensure compliance with the relevant paragraphs of 145.A.35 as the basis for issuing certification authorisations under this Part to certifying staff, and a procedure to ensure compliance with Part 66.

(f) Except where any of the unforeseen cases of 145.A.30(j)(5) apply, the organisation shall assess all prospective certifying staff for their competence, qualification and capability to carry out their intended certifying duties in accordance with a procedure as specified in the exposition prior to the issue or re-issue of a certification authorisation under this Part.

(g) When the conditions of paragraphs (a), (b), (d), (f) and, where applicable, paragraph (c) have been fulfilled by the certifying staff, the organisation shall issue a certification authorisation that clearly specifies the scope and limits of such authorisation. Continued validity of the certification authorisation is dependent upon continued compliance with paragraphs (a), (b), (d), and where applicable, paragraph (c).

(h) The certification authorisation must be in a style that makes its scope clear to the certifying staff and any authorised person who may require to examine the authorisation. Where codes are used to define scope, the organisation shall make a code translation readily available. 'Authorised person' means the officials of the competent authorities, the Agency and the Member State who has responsibility for the oversight of the maintained aircraft or component.

(i) The person responsible for the quality system shall also remain responsible on behalf of the organisation for issuing certification authorisations to certifying staff. Such person may nominate other persons to actually issue or revoke the certification authorisations in accordance with a procedure as specified in the exposition.

(j) The organisation shall maintain a record of all certifying staff and category B1 and B2 support staff.

The staff records shall contain:

1. details of any aircraft maintenance licence held under Part-66;

2. all relevant training completed

3. the scope of the certification authorisations issued, where relevant, and

4. particulars of staff with limited or one-off certification authorisations.

The organisation shall retain the record for at least two years after the certifying staff or B1 or B2 support staff have ceased employment with the organisation or as soon as the authorisation has been withdrawn. In addition, upon request, the maintenance organisation shall furnish certifying staff with a copy of their record on leaving the organisation.

The certifying staff shall be given access on request to their personal records as detailed above.

(k) The organisation shall provide certifying staff with a copy of their certification authorisation in either a documented or electronic format.

(l) Certifying staff shall produce their certification authorisation to any authorised person within 24 hours.

(m) The minimum age for certifying staff and category B1 and B2 support staff is 21 years.

145.A.40 Equipment, tools and material

(a) The organisation shall have available and use the necessary equipment, tools and material to perform the approved scope of work.

1. Where the manufacturer specifies a particular tool or equipment, the organisation shall use that tool or equipment, unless the use of alternative tooling or equipment is agreed by the competent authority via procedures specified in the exposition.

2. Equipment and tools must be permanently available, except in the case of any tool or equipment that is so infrequently used that its permanent availability is not necessary. Such cases shall be detailed in an exposition procedure.

3. An organisation approved for base maintenance shall have sufficient aircraft access equipment and inspection platforms/docking such that the aircraft can be properly inspected.

(b) The organisation shall ensure that all tools, equipment and particularly test equipment, as appropriate, are controlled and calibrated according to an officially recognised standard at a frequency to ensure serviceability and accuracy. Records of such calibrations and traceability to the standard used shall be kept by the organisation.

145.A.42 Acceptance of components

(a) All components shall be classified and appropriately segregated into the following categories:

1. Components which are in a satisfactory condition, released on an EASA Form 1 or equivalent and marked in accordance with Part-21 Subpart Q.

2. Unserviceable components which shall be maintained in accordance with this section.

3. Unsalvageable components which are classified in accordance with 145.A.42(d).

4. Standard parts used on an aircraft, engine, propeller or other aircraft component when specified in the manufacturer's illustrated parts catalogue and/or the maintenance data.

5. Material both raw and consumable used in the course of maintenance when the organisation is satisfied that the material meets the required specification and has appropriate traceability. All material must be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement plus both the manufacturing and supplier source.

(b) Prior to installation of a component, the organisation shall ensure that the particular component is eligible to be fitted when different modification and/or airworthiness directive standards may be applicable.

(c) The organisation may fabricate a restricted range of parts to be used in the course of undergoing work within its own facilities provided procedures are identified in the exposition.

(d) Components which have reached their certified life limit or contain a non-repairable defect shall be classified as unsalvageable and shall not be permitted to re-enter the component supply system unless certified life limits have been extended or a repair solution has been approved according to Part-21.

145.A.45 Maintenance data

(a) The organisation shall hold and use applicable current maintenance data in the performance of maintenance, including modifications and repairs. 'Applicable' means relevant to any aircraft, component or process specified in the organisation's approval class rating schedule and in any associated capability list.

In the case of maintenance data provided by an operator or customer, the organisation shall hold such data when the work is in progress, with the exception of the need to comply with 145.A.55(c).

(b) For the purposes of this Part, applicable maintenance data shall be any of the following:

1. Any applicable requirement, procedure, operational directive or information issued by the authority responsible for the oversight of the aircraft or component;

2. Any applicable airworthiness directive issued by the authority responsible for the oversight of the aircraft or component;

3. Instructions for continuing airworthiness, issued by type certificate holders, supplementary type certificate holders, any other organisation required to publish such data by Part-21 and in the case of aircraft or components from third countries the airworthiness data mandated by the authority responsible for the oversight of the aircraft or component;

4. Any applicable standard, such as but not limited to, maintenance standard practices recognised by the Agency as a good standard for maintenance;

5. Any applicable data issued in accordance with paragraph (d).

(c) The organisation shall establish procedures to ensure that if found, any inaccurate, incomplete or ambiguous procedure, practice, information or maintenance instruction contained in the maintenance data used by maintenance personnel is recorded and notified to the author of the maintenance data.

(d) The organisation may only modify maintenance instructions in accordance with a procedure specified in the maintenance organisation's exposition. With respect to those changes, the organisation shall demonstrate that they result in equivalent or improved maintenance standards and shall inform the type-certificate holder of such changes. Maintenance instructions for the purposes of this paragraph means instructions on how to carry out the particular maintenance task: they exclude the engineering design of repairs and modifications.

(e) The organisation shall provide a common work card or worksheet system to be used throughout relevant parts of the organisation. In addition, the organisation shall either transcribe accurately the maintenance data contained in paragraphs (b) and (d) onto such work cards or worksheets or make precise reference to the particular maintenance task or tasks contained in such maintenance data. Work cards and worksheets may be computer generated and held on an electronic database subject to both adequate safeguards against unauthorised alteration and a back-up electronic database which shall be updated within 24 hours of any entry made to the main electronic database. Complex maintenance tasks shall be transcribed onto the work cards or worksheets and subdivided into clear stages to ensure a record of the accomplishment of the complete maintenance task.

Where the organisation provides a maintenance service to an aircraft operator who requires their work card or worksheet system to be used then such work card or worksheet system may be used. In this case, the organisation shall establish a procedure to ensure correct completion of the aircraft operators' work cards or worksheets.

(f) The organisation shall ensure that all applicable maintenance data is readily available for use when required by maintenance personnel.

(g) The organisation shall establish a procedure to ensure that maintenance data it controls is kept up to date. In the case of operator/customer controlled and provided maintenance data, the organisation shall be able to show that either it has written confirmation from the operator/customer that all such maintenance data is up to date or it has work orders specifying the amendment status of the maintenance data to be used or it can show that it is on the operator/customer maintenance data amendment list.

145.A.47 Production planning

(a) The organisation shall have a system appropriate to the amount and complexity of work to plan the availability of all necessary personnel, tools, equipment, material, maintenance data and facilities in order to ensure the safe completion of the maintenance work.

(b) The planning of maintenance tasks, and the organising of shifts, shall take into account human performance limitations.

(c) When it is required to hand over the continuation or completion of maintenance tasks for reasons of a shift or personnel changeover, relevant information shall be adequately communicated between outgoing and incoming personnel.

145.A.50 Certification of maintenance

(a) A certificate of release to service shall be issued by appropriately authorised certifying staff on behalf of the organisation when it has been verified that all maintenance ordered has been properly carried out by the organisation in accordance with the procedures specified in 145.A.70, taking into account the availability and use of the maintenance data specified in 145.A.45 and that there are no non-compliances which are known that hazard seriously the flight safety.

(b) A certificate of release to service shall be issued before flight at the completion of any maintenance.

(c) New defects or incomplete maintenance work orders identified during the above maintenance shall be brought to the attention of the aircraft operator for the specific purpose of obtaining agreement to rectify such defects or completing the missing elements of the maintenance work order. In the case where the aircraft operator declines to have such maintenance carried out under this paragraph, paragraph (e) is applicable.

(d) A certificate of release to service shall be issued at the completion of any maintenance on a component whilst off the aircraft. The authorised release certificate or airworthiness approval tag identified as EASA Form 1 in Appendix I to this Part constitutes the component certificate of release to service. When an organisation maintains a component for its own use, an EASA Form 1 may not be necessary depending upon the organisation's internal release procedures defined in the exposition.

(e) By derogation to paragraph (a), when the organisation is unable to complete all maintenance ordered, it may issue a certificate of release to service within the approved aircraft limitations. The organisation shall enter such fact in the aircraft certificate of release to service before the issue of such certificate.

(f) By derogation to paragraph (a) and 145.A.42, when an aircraft is grounded at a location other than the main line station or main maintenance base due to the non-availability of a component with the appropriate release certificate, it is permissible to temporarily fit a component without the appropriate release certificate for a maximum of 30 flight hours or until the aircraft first returns to the main line station or main maintenance base, whichever is the sooner, subject to the aircraft operator agreement and said component having a suitable release certificate but otherwise in compliance with all applicable maintenance and operational requirements. Such components shall be removed by the above prescribed time limit unless an appropriate release certificate has been obtained in the meantime under paragraph (a) and 145.A.42.

145.A.55 Maintenance records

(a) The organisation shall record all details of maintenance work carried out. As a minimum, the organisation shall retain records necessary to prove that all requirements have been met for issuance of the certificate of release to service, including subcontractor's release documents.

(b) The organisation shall provide a copy of each certificate of release to service to the aircraft operator, together with a copy of any specific approved repair/modification data used for repairs/modifications carried out.

(c) The organisation shall retain a copy of all detailed maintenance records and any associated maintenance data for two years from the date the aircraft or component to which the work relates was released from the organisation.

1. Records under this paragraph shall be stored in a safe way with regard to fire, flood and theft.

2. Computer backup discs, tapes etc. shall be stored in a different location from that containing the working discs, tapes etc., in an environment that ensures they remain in good condition.

3. Where an organisation approved under this Part terminates its operation, all retained maintenance records covering the last two years shall be distributed to the last owner or customer of the respective aircraft or component or shall be stored as specified by the competent authority.

145.A.60 Occurrence reporting

(a) The organisation shall report to the competent authority, the state of registry and the organisation responsible for the design of the aircraft or component any condition of the aircraft or component identified by the organisation that has resulted or may result in an unsafe condition that hazards seriously the flight safety.

(b) The organisation shall establish an internal occurrence reporting system as detailed in the exposition to enable the collection and evaluation of such reports, including the assessment and extraction of those occurrences to be reported under paragraph (a). This procedure shall identify adverse trends, corrective actions taken or to be taken by the organisation to address deficiencies and include evaluation of all known relevant information relating to such occurrences and a method to circulate the information as necessary.

(c) The organisation shall make such reports in a form and manner established by the Agency and ensure that they contain all pertinent information about the condition and evaluation results known to the organisation.

(d) Where the organisation is contracted by a commercial operator to carry out maintenance, the organisation shall also report to the operator any such condition affecting the operator's aircraft or component.

(e) The organisation shall produce and submit such reports as soon as practicable but in any case within 72 hours of the organisation identifying the condition to which the report relates.

145.A.65 Safety and quality policy, maintenance procedures and quality system

(a) The organisation shall establish a safety and quality policy for the organisation to be included in the exposition under 145.A.70.

(b) The organisation shall establish procedures agreed by the competent authority taking into account human factors and human performance to ensure good maintenance practices and compliance with this Part which shall include a clear work order or contract such that aircraft and components may be released to service in accordance with 145.A.50.

1. The maintenance procedures under this paragraph apply to 145.A.25 to 145.A.95.

2. The maintenance procedures established or to be established by the organisation under this paragraph shall cover all aspects of carrying out the maintenance activity, including the provision and control of specialised services and lay down the standards to which the organisation intends to work.

3. With regard to aircraft line and base maintenance, the organisation shall establish procedures to minimise the risk of multiple errors and capture errors on critical systems, and to ensure that no person is required to carry out and inspect in relation to a maintenance task involving some element of disassembly/reassembly of several components of the same type fitted to more than one system on the same aircraft during a particular maintenance check. However, when only one person is available to carry out these tasks then the organisation's work card or worksheet shall include an additional stage for re-inspection of the work by this person after completion of all the same tasks.

4. Maintenance procedures shall be established to ensure that damage is assessed and modifications and repairs are carried out using data approved by the Agency or by an approved Part-21 design organisation, as appropriate.

(c) The organisation shall establish a quality system that includes the following:

1. Independent audits in order to monitor compliance with required aircraft/aircraft component standards and adequacy of the procedures to ensure that such procedures invoke good maintenance practices and airworthy aircraft/aircraft components. In the smallest organisations the independent audit part of the quality system may be contracted to another organisation approved under this Part or a person with appropriate technical knowledge and proven satisfactory audit experience; and

2. A quality feedback reporting system to the person or group of persons specified in 145.A.30(b) and ultimately to the accountable manager that ensures proper and timely corrective action is taken in response to reports resulting from the independent audits established to meet paragraph (1).

145.A.70 Maintenance organisation exposition

(a) 'Maintenance organisation exposition' means the document or documents that contain the material specifying the scope of work deemed to constitute approval and showing how the organisation intends to comply with this Part. The organisation shall provide the competent authority with a maintenance organisation exposition, containing the following information:

1. A statement signed by the accountable manager confirming that the maintenance organisation exposition and any referenced associated manuals define the organisation's compliance with this Part and will be complied with at all times. When the accountable manager is not the chief executive officer of the organisation then such chief executive officer shall countersign the statement;

2. the organisation's safety and quality policy as specified by 145.A.65;

3. the title(s) and name(s) of the persons nominated under 145.A.30(b);

4. the duties and responsibilities of the persons nominated under 145.A.30(b), including matters on which they may deal directly with the competent authority on behalf of the organisation;

5. an organisation chart showing associated chains of responsibility between the persons nominated under 145.A.30(b);

6. a list of certifying staff and B1 and B2 support staff;

7. a general description of manpower resources;

8. a general description of the facilities located at each address specified in the organisation's approval certificate;

9. a specification of the organisation's scope of work relevant to the extent of approval;

10. the notification procedure of 145.A.85 for organisation changes;

11. the maintenance organisation exposition amendment procedure;

12. the procedures and quality system established by the organisation under 145.A.25 to 145.A.90;

13. a list of commercial operators, where applicable, to which the organisation provides an aircraft maintenance service;

14. a list of subcontracted organisations, where applicable, as specified in 145.A.75(b);

15. a list of line stations, where applicable, as specified in 145.A.75(d);

16. a list of contracted organisations, where applicable.

(b) The exposition shall be amended as necessary to remain an up-to-date description of the organisation The exposition and any subsequent amendment shall be approved by the competent authority.

(c) Notwithstanding paragraph (b) minor amendments to the exposition may be approved through an exposition procedure (hereinafter called indirect approval).

145.A.75 Privileges of the organisation

In accordance with the exposition, the organisation shall be entitled to carry out the following tasks:

(a) Maintain any aircraft and/or component for which it is approved at the locations identified in the approval certificate and in the exposition;

(b) Arrange for maintenance of any aircraft or component for which it is approved at another organisation that is working under the quality system of the organisation. This refers to work being carried out by an organisation not itself appropriately approved to carry out such maintenance under this Part and is limited to the work scope permitted under 145.A.65(b) procedures. This work scope shall not include a base maintenance check of an aircraft or a complete workshop maintenance check or overhaul of an engine or engine module;

(c) Maintain any aircraft or any component for which it is approved at any location subject to the need for such maintenance arising either from the unserviceability of the aircraft or from the necessity of supporting occasional line maintenance, subject to the conditions specified in the exposition;

(d) Maintain any aircraft and/or component for which it is approved at a location identified as a line maintenance location capable of supporting minor maintenance and only if the organisation exposition both permits such activity and lists such locations;

(e) Issue certificates of release to service in respect of completion of maintenance in accordance with 145.A.50.

145.A.80 Limitations on the organisation

The organisation shall only maintain an aircraft or component for which it is approved when all the necessary facilities, equipment, tooling, material, maintenance data and certifying staff are available.

145.A.85 Changes to the organisation

The organisation shall notify the competent authority of any proposal to carry out any of the following changes before such changes take place to enable the competent authority to determine continued compliance with this Part and to amend, if necessary, the approval certificate, except that in the case of proposed changes in personnel not known to the management beforehand, these changes must be notified at the earliest opportunity:

1. the name of the organisation;

2. the main location of the organisation;

3. additional locations of the organisation;

4. the accountable manager;

5. any of the persons nominated under 145.A.30(b);

6. the facilities, equipment, tools, material, procedures, work scope or certifying staff that could affect the approval.

145.A.90 Continued validity

(a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:

   1. the organisation remaining in compliance with this Part, in accordance with the provisions related to the handling of findings as specified under 145.B.40; and

   2. the competent authority being granted access to the organisation to determine continued compliance with this Part; and

   3. the certificate not being surrendered or revoked.

(b) Upon surrender or revocation, the approval shall be returned to the competent authority.

145.A.95 Findings

(a) A level 1 finding is any significant non-compliance with Part-145 requirements which lowers the safety standard and hazards seriously the flight safety.

(b) A level 2 finding is any non-compliance with the Part-145 requirements which could lower the safety standard and possibly hazard the flight safety.

(c) After receipt of notification of findings according to 145.B.50, the holder of the maintenance organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority.

SECTION B

PROCEDURE FOR COMPETENT AUTHORITIES

145.B.01 Scope

This section establishes the administrative procedures which the competent authority shall follow when exercising its tasks and responsibilities regarding issuance, continuation, change, suspension or revocation of Part-145 maintenance organisation approvals.

145.B.10 Competent authority

1. *General*

   The Member State shall designate a competent authority with allocated responsibilities for the issuance, continuation, change, suspension or revocation of a maintenance approval. This competent authority shall establish documented procedures and an organisational structure.

2. *Resources*

The number of staff must be appropriate to carry out the requirements as detailed in this section.

3. *Qualification and training*

All staff involved in Part-145 approvals must:

(a) be appropriately qualified and have all necessary knowledge, experience and training to perform their allocated tasks.

(b) have received training/continuation training on Part-145 where relevant, including its intended meaning and standard.

4. *Procedures*

The competent authority shall establish procedures detailing how compliance with this Section B is accomplished.

The procedures must be reviewed and amended to ensure continued compliance.

145.B.15 Organisations located in several Member States

Where maintenance facilities are located in more than one Member State the investigation and continued oversight of the approval must be carried out in conjunction with the competent authorities from the Member States in whose territory the other maintenance facilities are located.

145.B.17 Acceptable means of compliance

The Agency shall develop acceptable means of compliance that the Member States may use to establish compliance with this Part. When the acceptable means of compliance are complied with, the related requirements of this Part shall be considered as met.

145.B.20 Initial approval

1. Provided the requirements of 145.A.30(a) and (b) are complied with, the competent authority shall formally indicate its acceptance of the personnel, specified in 145.A.30(a) and (b), to the applicant in writing.

2. The competent authority shall verify that the procedures specified in the maintenance organisation exposition comply with Part-145 and verify that the accountable manager signs the commitment statement.

3. The competent authority shall verify that the organisation is in compliance with the requirements of Part-145.

4. A meeting with the accountable manager shall be convened at least once during the investigation for approval to ensure that he/she fully understands the significance of the approval and the reason for signing the exposition commitment of the organisation to compliance with the procedures specified in the exposition.

5. All findings must be confirmed in writing to the organisation.

6. The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations

7. For initial approval all findings must be corrected before the approval can be issued.

145.B.25 Issue of approval

1. The competent authority shall formally approve the exposition and issue to the applicant a Form 3 approval certificate, which includes the approval ratings. The competent authority shall only issue a certificate when the organisation is in compliance with Part-145.

2. The competent authority shall indicate the conditions of the approval on the Form 3 approval certificate.

3. The reference number shall be included on the Form 3 approval certificate in a manner specified by the Agency.

145.B.30 Continuation of an approval

The continuation of an approval shall be monitored in accordance with the applicable 'initial approval' process under 145.B.20. In addition:

1. The competent authority shall keep and update a program listing the approved maintenance organisations under its supervision, the dates when audit visits are due and when such visits were carried out.

2. Each organisation must be completely reviewed for compliance with Part-145 at periods not exceeding 24 months.

3. A meeting with the accountable manager shall be convened at least once every 24 months to ensure he/she remains informed of significant issues arising during audits.

145.B.35 Changes

1. The competent authority shall receive notification from the organisation of any proposed change as listed in 145.A.85.

   The competent authority shall comply with the applicable elements of the initial process paragraphs for any change to the organisation.

2. The competent authority may prescribe the conditions under which organisation may operate during such changes unless it determines that the approval should be suspended.

145.B.40 Maintenance organisation exposition (MOE) amendments

1. In the case of direct approval of the amendments of the exposition, the competent authority shall verify that the procedures specified in the exposition are in compliance with Part-145 before formally notifying the approved organisation of the approval.

2. In the case of indirect approval of amendments of the exposition, the competent authority shall ensure that it has an adequate control over the approval of all exposition amendments.

145.B.45 Revocation, suspension and limitation of approval

The competent authority shall:

(a) suspend an approval on reasonable grounds in the case of potential safety threat; or

(b) suspend, revoke or limit an approval pursuant to 145.B.50.

145.B.50 Findings

(a) When during audits or by other means evidence is found showing non-compliance with the requirements of Part-145, the competent authority shall take the following actions:

   1. For level 1 findings, immediate action shall be taken by the competent authority to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the maintenance organisation approval, until successful corrective action has been taken by the organisation.

   2. For level 2 findings, the corrective action period granted by the competent authority must be appropriate to the nature of the finding but in any case initially must not be more than three months. In certain circumstances and subject to the nature of the finding the competent authority may extend the three month period subject to a satisfactory corrective action plan agreed by the competent authority.

(b) Action shall be taken by the competent authority to suspend in whole or part the approval in case of failure to comply within the timescale granted by the competent authority

145.B.55 Record-keeping

1. The competent authority shall establish a system of record-keeping with minimum retention criteria that allows adequate traceability of the process to issue, continue, change, suspend or revoke each individual organisation approval.

2. The records shall include as a minimum:

   (a) the application for an organisation approval, including the continuation thereof.

   (b) the competent authority continued oversight program including all audit records.

   (c) the organisation approval certificate including any change thereto.

   (d) a copy of the audit program listing the dates when audits are due and when audits were carried out.

(e) copies of all formal correspondence including Form 4 or equivalent.

(f) details of any exemption and enforcement action(s).

(g) any other competent authority audit report forms.

(h) maintenance organisation expositions.

3. The minimum retention period for the above records shall be four years.

4. The competent authority may elect to use either a paper or computer system or any combination of both subject to appropriate controls.

145.B.60 Exemptions

All exemptions granted in accordance with Article 10(3) of the basic Regulation shall be recorded and retained by the competent authority

Appendix I

Use of the EASA Form 1 for maintenance

1. GENERAL

The certificate shall comply with the format attached including block numbers in that each block must be located as per the layout. The size of each block may however be varied to suit the individual application, but not to the extent that would make the certificate unrecognisable. The overall size of the certificate may be significantly increased or decreased so long as the certificate remains recognisable and legible. If in doubt consult your Member State.

All printing shall be clear and legible to permit easy reading.

The certificate shall either be pre-printed or computer generated but in either case the printing of lines and characters must be clear and legible. Pre-printed wording is permitted in accordance with the attached model but no other certification statements are permitted.

English and, where relevant, the language(s) of the Member State concerned are acceptable.

Completion of the certificate may be in English when it is used for export purposes, otherwise it can be completed in the official language(s) of the Member State concerned.

The details to be entered on the certificate can be either machine/computer printed or handwriting using block letters and must permit easy reading.

Abbreviations must be restricted to a minimum.

The space remaining on the reverse side of the certificate may be used by the originator for any additional information but must not include any certification statement.

The original certificate must accompany the items and correlation must be established between the certificate and the items. A copy of the certificate must be retained by the organisation that manufactured or maintained the item. Where the certificate format and data is entirely computer generated, subject to acceptance by the Member State, it is permissible to retain the certificate format and data on a secure database.

Where a single certificate was used to release a number of items and those items are subsequently separated out from each other, such as through a parts distributor, then a copy of the original certificate must accompany such items and the original certificate must be retained by the organisation that received the batch of items. Failure to retain the original certificate could invalidate the release status of the items.

NOTE: There is no restriction in the number of copies of the certificate sent to the customer or retained by the originator.

The certificate that accompanies the item may be attached to the item by being placed in an envelope for durability.

2. COMPLETION OF THE RELEASE CERTIFICATE BY THE ORIGINATOR

Except as otherwise stated, there must be an entry in all blocks to make the document a valid certificate.

Block 1 The name and country of the Member State under whose approval the certificate was issued. This information may be pre-printed.

Block 2 Pre-printed 'Authorised Release certificate/EASA Form 1'.

Block 3 A unique number shall be pre-printed in this block for certificate control and traceability purposes except that in the case of a computer generated document, the unique number need not be pre-printed where the computer is programmed to produce the number.

Block 4 The full name and address plus mailing address if different of the approved organisation releasing the items covered by this certificate. This block may be pre-printed. Logos, etc., are permitted if the logo can be contained within the block.

Block 5 Its purpose is to reference work order/contract/invoice or any other internal organisational process such that a fast traceability system can be established.

Block 6 This block is provided for the convenience of the organisation issuing the certificate to permit easy cross-reference to the 'Remarks' Block 13 by the use of item numbers. Completion is not mandatory.

Where a number of items are to be released on the certificate, it is permissible to use a separate listing cross-referring certificate and list to each other.

Block 7 The name or description of the item shall be given. Preference shall be given to use of the Illustrated Parts Catalogue (IPC) designation.

Block 8 State the Part Number. Preference shall be given to use of the IPC number designation.

Block 9 Used to indicate the Type-Approved products for which the released items are eligible for installation. Completion of block is optional but if used, the following entries are permitted:

(a) The specific or series aircraft, engine, propeller or auxiliary power unit model, or a reference to a readily available catalogue or manual which contains such information, for example: 'A300'.

(b) 'Various', if known to be eligible for installation on more than one model of Type-Approved product, unless the originator wishes to restrict usage to a particular model installation when it shall so state.

(c) 'Unknown', if eligibility is unknown, this category being primarily for use by maintenance organisations.

NOTE: Any information in Block 9 does not constitute authority to fit the item to a particular aircraft, engine, propeller or auxiliary power unit. The User/installer shall confirm via documents such as the Parts Catalogue, Service Bulletins, etc. that the item is eligible for the particular installation.

Block 10 State the number of items being released.

Block 11 State the item Serial Number and/or Batch Number if applicable, if neither is applicable, state 'N/A'.

Block 12 The following words in quotation marks, with their definitions, indicate the status of the item being released. One or a combination of these words shall be stated in this block:

1. 'OVERHAULED'

   The restoration of a used item by inspection, test and replacement in conformity with an approved standard (*) to extend the operational life.

2. 'INSPECTED/TESTED'

   The examination of an item to establish conformity with an approved standard (*).

3. 'MODIFIED'

   The alteration of an item in conformity with an approved standard (*).

4. 'REPAIRED'

   The restoration of an item to a serviceable condition in conformity with an approved standard (*).

5. 'RETREADED'

   The restoration of a used tyre in conformity with an approved standard (*).

6. 'REASSEMBLED'

   The reassembly of an item in conformity with an approved standard (*).

   Example: A propeller after transportation.

   NOTE: This provision shall only be used in respect of items which were originally fully assembled by the manufacturer in accordance with manufacturing requirements such as, but not limited to, Part-21.

(*) Approved Standard means a manufacturing/design/maintenance/quality standard approved by the competent authority.

The above statements shall be supported by reference in Block 13 to the approved data/manual/specification used during maintenance.

Block 13 It is mandatory to state any information in this block either direct or by reference to supporting documentation that identifies particular data or limitations relating to the items being released that are necessary for the User/installer to make the final airworthiness determination of the item. Information shall be clear, complete, and provided in a form and manner which is adequate for the purpose of making such a determination.

Each statement shall be clearly identified as to which item it relates.

If there is no statement, state 'None'.

Some examples of the information to be quoted are as follows:

— The identity and issue of maintenance documentation used as the approved standard.

— Airworthiness Directives carried out and/or found carried out, as appropriate.

— Repairs carried out and/or found carried out, as appropriate.

— Modifications carried out and/or found carried out, as appropriate.

— Replacement parts installed and/or parts found installed, as appropriate.

— Life limited parts history.

— Deviations from the customer work order.

— Identity of other regulation if not Part-145.

— Release statements to satisfy a foreign maintenance requirement.

— Release statements to satisfy the conditions of an international maintenance agreement such as, but not limited to, the Canadian Technical Arrangement Maintenance and the USA Bilateral Aviation Safety Agreement — Maintenance Implementation Procedure.

NOTE: The latter two statements allow the possibility of dual release against both Part-145 and a foreign maintenance requirement or the single release by a Part-145 approved maintenance organisation against a foreign maintenance requirement. However care should be exercised to tick the relevant box(es) in block 19 to validate the release. It should also be noted that the dual release requires the approved data to be approved/accepted by both the Member State and the appropriate foreign State and the single release requires the approved data to be approved/accepted only by the appropriate foreign State.

Blocks 14, 15, 16, 17 & 18: Must not be used for maintenance tasks by Part-145 approved maintenance organisations. These blocks are specifically reserved for the release/certification of newly manufactured items in accordance with Part 21 and national aviation regulations in force prior to Part-21 becoming fully effective.

Block 19 Contains the required release to service statement for all maintenance by Part 145 approved maintenance organisations. When non Part-145 maintenance is being released block 13 shall specify the particular national regulation. In any case the appropriate box shall be 'ticked' to validate the release.

The certification statement 'except as otherwise specified in block 13' is intended to address the following situations;

(a) The case where the maintenance could not be completed.

(b) The case where the maintenance deviated from the standard required by Part-145.

(c) The case where the maintenance was carried out in accordance with a non Part-145 requirement.

Whichever case or combination of cases shall be specified in block 13.

Block 20 For the signature of the certifying staff authorised by the Part-145 approved maintenance organisation. This signature can be computer printed subject to the Member State being satisfied that only the signatory can direct the computer and that a signature is not possible on a blank computer generated form.

Block 21 The Part-145 approved maintenance organisation reference number given by the Member State.

Block 22 The printed name of the Block 20 signatory and personal authorisation reference.

Block 23 The date of signing the Block 19 release to service. (d/m/y). The month shall appear in letters e.g. Jan, Feb, Mar etc. The release to service shall be signed at the 'completion of maintenance'.

Please note the User Responsibility Statements are on the reverse of this certificate. These statements may be added to the front of the certificate below the bottom line by reducing the depth of the form.

1. **Approving Competent Authority / Country**	2. **AUTHORISED RELEASE CERTIFICATE** **EASA FORM 1**	3. Form Tracking Number
4. Approved Organisation Name and Address:		5. Work order/Contract/ Invoice

6. Item	7. Description	8. Part No	9. Elegibility *	10. Qty.	11. Serial/Batch No	12. Status/Work

13. Remarks

14. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 13		19. ☐ Part-145.A.50 Release to Service ☐ Other regulation specified in block 13 Certifies that unless otherwise specified in block 13, the work identified in block 12 and described in block 13, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.	
15. Authorised Signature	16. Approval/ Authorisation Number	20. Authorised Signature	21. Certificate/Approval Ref. No
17. Name	18. Date (d/m/y)	22. Name	23. Date (d/m/y)

EASA Form 1 - Issue 1

* Installer must cross-check eligibility with applicable technical data

Authorised release certificate

EASA Form 1

USER/INSTALLER RESPONSIBILITIES

Note:

1. It is important to understand that the existence of the Document alone does not automatically constitute authority to install the part/component/assembly

2. Where the user/installer works in accordance with the national regulations of an Airworthiness Authority different from the Airworthiness Authority specified in block 1 it is essential that the user/installer ensures that his/her Airworthiness Authority accepts parts/components/assemblies from the Airworthiness Authority specified in block 1.

3. Statements 14 and 19 do not constitute installation certification. In all cases the aircraft maintenance record must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

Appendix II

Organisations approval class and rating system

1. Except as stated otherwise for the smallest organisation in paragraph 12, Table 1 outlines the full extent of approval possible under Part-145 in a standardised form. An organisation must be granted an approval ranging from a single class and rating with limitations to all classes and ratings with limitations.

2. In addition to Table 1 the Part-145 approved maintenance organisation is required by 145.A.20 to indicate scope of work in the maintenance organisation exposition. See also paragraph 11.

3. Within the approval class(es) and rating(s) granted by the Member State, the scope of work specified in the maintenance organisation exposition defines the exact limits of approval. It is therefore essential that the approval class(es) and rating(s) and the organisation's scope of work are compatible.

4. A category A class rating means that the Part-145 approved maintenance organisation may carry out maintenance on the aircraft and any component (including engines/APUs) only whilst such components are fitted to the aircraft except that such components can be temporarily removed for maintenance when such removal is expressly permitted by the aircraft maintenance manual to improve access for maintenance subject to a control procedure in the maintenance organisation exposition acceptable to the Member State The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.

5. A category B class rating means that the Part-145 approved maintenance organisation may carry out maintenance on the uninstalled engine/APU ('Auxiliary Power Unit') and engine/APU components only whilst such components are fitted to the engine/APU except that such components can be temporarily removed for maintenance when such removal is expressly permitted by the engine/APU manual to improve access for maintenance. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A Part-145 approved maintenance organisation with a category B class rating may also carry out maintenance on an installed engine during 'base' and 'line' maintenance subject to a control procedure in the maintenance organisation exposition. The maintenance organisation exposition scope of work shall reflect such activity where permitted by the Member State.

6. A category C class rating means that the Part-145 approved maintenance organisation may carry out maintenance on uninstalled components (excluding engines and APUs) intended for fitment to the aircraft or engine/APU. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A Part-145 approved maintenance organisation with a category C class rating may also carry out maintenance on an installed component during base and line maintenance or at an engine/APU maintenance facility subject to a control procedure in the maintenance organisation exposition. The maintenance organisation exposition scope of work shall reflect such activity where permitted by the Member State.

7. A category D class rating is a self contained class rating not necessarily related to a specific aircraft, engine or other component. The D1 — Non-Destructive Testing (NDT) rating is only necessary for a Part-145 approved maintenance organisation that carries out NDT as a particular task for another organisation. A Part-145 approved maintenance organisation with a class rating in A or B or C category may carry out NDT on products it is maintaining subject to the maintenance organisation exposition containing NDT procedures, without the need for a D1 class rating.

8. Category A class ratings are subdivided into 'Base' or 'Line' maintenance. A Part-145 approved maintenance organisation may be approved for either 'Base' or 'Line' maintenance or both. It should be noted that a 'Line' facility located at a main base facility requires a 'Line' maintenance approval.

9. The 'limitation' section is intended to give the Member State maximum flexibility to customise the approval to a particular organisation. Table 1 specifies the types of limitation possible and whilst maintenance is listed last in each class rating it is acceptable to stress the maintenance task rather than the aircraft or engine type or manufacturer, if this is more appropriate to the organisation. An example could be avionic systems installations and maintenance.

10. Table 1 makes reference to series, type and group in the limitation section of class A and B. Series means a specific type series such as Airbus 300 or 310 or 319 or Boeing 737-300 series or RB211-524 series etc. Type means a specific type or model such as Airbus 310-240 type or RB 211-524 B4 type etc. Any number of series or types may be quoted. Group means for example Cessna single piston engined aircraft or Lycoming non-supercharged piston engines etc.

11. When a lengthy capability list is used which could be subject to frequent amendment, then such amendment shall be in accordance with a procedure acceptable to the Member State and included in the maintenance organisation exposition. The procedure shall address the issues of who is responsible for capability list amendment control and the actions that need to be taken for amendment. Such actions include ensuring compliance with Part-145 for products or services added to the list.

12. A Part-145 approved maintenance organisation which employs only one person to both plan and carry out all maintenance can only hold a limited scope of approval rating. The maximum permissible limits are:

CLASS AIRCRAFT	RATING A2 AEROPLANES	PISTON ENGINED LINE & BASE 5 700 KG AND BELOW
CLASS AIRCRAFT	RATING A2 AEROPLANES	TURBINE ENGINED LINE 5 700 KG AND BELOW
CLASS AIRCRAFT	RATING A3 HELICOPTERS	SINGLE ENGINED LINE & BASE LESS THAN 3 175 KG
CLASS AIRCRAFT	RATING A4 AIRCRAFT OTHER THAN A1, A2 AND A3	NO LIMITATION
CLASS ENGINES	RATING B2 PISTON	LESS THAN 450 HP
CLASS COMPONENTS RATING OTHER THAN COMPLETE ENGINES OR APUs	C1 TO C20	AS PER CAPABILITY LIST
CLASS SPECIALISED	D1 NDT	NDT METHOD(S) TO BE SPECIFIED

It should be noted that such an organisation may be further limited by the competent authority in the scope of approval dependent upon the capability of the particular organisation.

Table 1

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT	A1 Aeroplanes/ above 5 700 kg	Will state aeroplane/series or type and/or the maintenance task(s)		
	A2 Aeroplanes/ 5 700 kg and below	Will state aeroplane/manufacturer or group or series or type and/or the maintenance tasks		
	A3 Helicopters	Will state helicopter manufacturer or group or series or type and/or the maintenance task(s)		
	A4 Aircraft other than A1, A2 and A3	Will state aircraft series or type and/or the maintenance task(s)		
ENGINES	B1 Turbine	Will state engine series or type and/or the maintenance task(s)		
	B2 Piston	Will state engine manufacturer or group or series or type and/or the maintenance task(s)		
	B3 APU	Will state engine manufacturer or series or type and/or the maintenance task(s)		

CLASS	RATING	LIMITATION	BASE	LINE
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	Will state aircraft type or aircraft manufacturer or component manufacturer or the particular component and/or cross refer to a capability list in the exposition and/or the maintenance task(s)		
	C2 Auto Flight			
	C3 Comms and Nav			
	C4 Doors — Hatches			
	C5 Electrical Power			
	C6 Equipment			
	C7 Engine — APU			
	C8 Flight Controls			
	C9 Fuel — Airframe			
	C10 Helicopter — Rotors			
	C11 Helicopter — Trans			
	C12 Hydraulic			
	C13 Instruments			
	C14 Landing Gear			
	C15 Oxygen			
	C16 Propellers			
	C17 Pneumatic			
	C18 Protection ice/ rain/fire			
	C19 Windows			
	C20 Structural			
SPECIALISED SERVICES	D1 Non-Destructive Testing	Will state particular NDT method(s)		

Appendix II

Page 1 of

MEMBER STATE

a member of the

European Aviation Safety Agency

APPROVAL CERTIFICATE

REFERENCE:

Pursuant to Commission Regulation (EC) No 2042/2003 for the time being in force and subject to the conditions specified below, the Member State hereby certifies:

[COMPANY NAME] MAINTENANCE ORGANISATION

as a Part-145 maintenance organisation approved to maintain the products listed in the attached approval schedule and issue related certificates of release to service using the above reference.

CONDITIONS:

1. This approval is limited to that specified in the scope of approval section of the Part-145 approved maintenance organisation exposition, and
2. This approval requires compliance with the procedures specified in the Part-145 approved maintenance organisation exposition, and
3. This approval is valid whilst the approved maintenance organisation remains in compliance with Part-145.
4. Subject to compliance with the foregoing conditions, this approval shall remain valid for an unlimited duration until the approval is surrendered, superseded, suspended or revoked.

Date of issue: ..... Signed: .....

Date of attached schedule of Approval: .... (optional) ..... For the competent authority

EASA Form 3 *Page 2 of*

APPROVAL SCHEDULE

Organisation name: **[COMPANY NAME] MAINTENANCE ORGANISATION**

Reference: **M/S.001**

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT	A1 aeroplanes /above 5 700 kg	Airbus A310-200 Series	X	X
	A2 aeroplanes /airships 5 700 kg and below	DHC-6 Twin Otter Series	X	
ENGINES	B1 Turbine	PT6A Series		
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	Airbus A310-200		
	C2 Auto Flight	Sperry		
	C5 Electrical Power	Airbus A310-200 & DHC-6		
	C6 Equipment	Airbus & DHC-6 Emergency		
	C7 Engine – APU	PT6A Fuel Control		
	C16 Propellors	Fixed pitch and DHC-6		
SPECIALISED SERVICES	D1 Non-Destructive Inspection	All Types		

This approval schedule is limited to those products and activities specified in the scope of approval section contained in Part-145 approved maintenance organisation exposition,

Reference: .....

Date of issue: .....

Signed: .....

For the competent authority

Appendix IV

Conditions for the use of staff not qualified to Part-66 in accordance with 145A.30(J)1 and 2

1. Certifying staff in compliance with the following conditions will meet the intent of 145.A.30(j)(1) and (2):

   (a) The person shall hold a licence or a certifying staff authorisation issued under the country's National regulations in compliance with ICAO Annex 1.

   (b) The scope of work of the person shall not exceed the scope of work defined by the National licence/certifying staff authorisation.

   (c) The person shall demonstrate he has received training on human factors and airworthiness regulations as detailed in Part-66.

   (d) The person shall demonstrate five years maintenance experience for line maintenance certifying staff and eight years for base maintenance certifying staff. However, those persons whose authorised tasks do not exceed those of a Part-66 category A certifying staff, need to demonstrate three years maintenance experience only.

   (e) Line maintenance certifying staff and base maintenance support staff shall receive type training at a level corresponding to Part-66 Appendix III level 3 for every aircraft on which they are authorised to make certification. However those persons whose authorised tasks do not exceed those of a Part-66 category A certifying staff may receive task training in lieu of complete type training.

   (f) Base maintenance certifying staff must receive type training at a level corresponding to at least Part-66 Appendix III level 1 for every aircraft on which they are authorised to make certification.

2. Protected rights

   (a) 145.A.30(j)(1) and (2) personnel before the entry into force of Part-66 may continue to exercise their privileges without the need to comply with paragraph 1(c) to 1(f).

   (b) However after that date any certifying staff willing to extend the scope of their authorisation to include additional privileges shall comply with paragraph 1 above.

   (c) Notwithstanding subparagraph 2(b) above, in the case of additional type training, compliance with paragraph 1(c) and 1(d) is not required.

ANNEX III

(Part-66)

66.1

For the purpose of this Part, the competent authority shall be the authority designated by the Member State to whom a person applies for the issuance of an aircraft maintenance licence.

SECTION A

SUBPART A

AIRCRAFT MAINTENANCE LICENCE AEROPLANES AND HELICOPTERS

66.A.1 Scope

(a) This section establishes the requirements for the issue of an aircraft maintenance licence and conditions of its validity and use, for aeroplanes and helicopters of the following categories:

— Category A

— Category B1

— Category B2

— Category C

(b) Categories A and B1 are subdivided into subcategories relative to combinations of aeroplanes, helicopters, turbine and piston engines. The subcategories are:

— A1 and B1.1 Aeroplanes Turbine

— A2 and B1.2 Aeroplanes Piston

— A3 and B1.3 Helicopters Turbine

— A4 and B1.4 Helicopters Piston

66.A.10 Application

An application for an aircraft maintenance licence or amendment to such licence shall be made on EASA Form 19 and in a manner established by the competent authority and submitted thereto. An application for the amendment to an aircraft maintenance licence shall be made to the competent authority that issued the aircraft maintenance licence.

66.A.15 Eligibility

An applicant for an aircraft maintenance licence shall be at least 18 years of age.

66.A.20 Privileges

(a) Subject to compliance with paragraph (b), the following privileges shall apply:

1. A category A aircraft maintenance 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 Part-145 organisation.

2. A category B1 aircraft maintenance 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 licence shall permit the holder to issue certificates of release to service following maintenance on avionic and electrical systems.

4. A category C aircraft maintenance 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 licence may not exercise certification privileges unless:

1. in compliance with the applicable requirements of Part-M and/or Part-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 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 the language(s) in which the technical documentation and procedures necessary to support the issue of the certificate of release to service are written.

66.A.25 Basic knowledge requirements

(a) An applicant for an aircraft maintenance licence or the addition of a category or subcategory to such an aircraft maintenance licence shall demonstrate, by examination, a level of knowledge in the appropriate subject modules in accordance with Appendix I to this Part.

The basic knowledge examinations shall be conducted by a training organisation appropriately approved under Part-147 or by the competent authority.

(b) Full or partial credit against the basic knowledge requirements and associated examination shall be given for any other technical qualification considered by the competent authority to be equivalent to the knowledge standard of this Part. Such credits shall be established in accordance with Section B, Subpart E of this Part.

66.A.30 Experience requirements

(a) An applicant for an aircraft maintenance licence shall have acquired:

1. for category A and subcategories B1.2 and B1.4:

(i) three years of practical maintenance experience on operating aircraft, if the applicant has no previous relevant technical training; or

(ii) two years of practical maintenance experience on operating aircraft and completion of training considered relevant by the competent authority as a skilled worker, in a technical trade; or

(iii) one year of practical maintenance experience on operating aircraft and completion of a Part-147 approved basic training course.

2. for category B2 and subcategories B1.1 and B1.3:

(i) five years of practical maintenance experience on operating aircraft if the applicant has no previous relevant technical training; or

(ii) three years of practical maintenance experience on operating aircraft and completion of training considered relevant by the competent authority as a skilled worker, in a technical trade; or

(iii) two years of practical maintenance experience on operating aircraft and completion of a Part -147 approved basic training course.

3. for category C with respect to large aircraft:

(i) three years of experience exercising category B1.1, B1.3 or B2 privileges on large aircraft or as Part-145 B1.1, B1.3 or B2 support staff, or, a combination of both; or

(ii) five years of experience exercising category B1.2 or B1.4 privileges on large aircraft or as Part-145 B1.2 or B1.4 support staff, or a combination of both; or

4. for category C with respect to non large aircraft:

three years of experience exercising category B1 or B.2 privileges on non large aircraft or as Part-145 B1 or B.2 support staff, or a combination of both; or

5. for category C obtained through the academic route:

an applicant holding an academic degree in a technical discipline, from a university or other higher educational institution recognised by the competent authority, three years of experience working in a civil aircraft maintenance environment on a representative selection of tasks directly associated with aircraft maintenance including six months of observation of base maintenance tasks.

(b) An applicant for an extension to an aircraft maintenance licence shall have a minimum civil aircraft maintenance experience requirement appropriate to the additional category or subcategory of licence applied for as defined in Appendix IV to this Part.

(c) For category A, B1 and B2 the experience must be practical which means being involved with a representative cross section of maintenance tasks on aircraft.

(d) For all applicants, at least one year of the required experience must be recent maintenance experience on aircraft of the category/subcategory for which the initial aircraft maintenance licence is sought. For subsequent category/subcategory additions to an existing aircraft maintenance licence, the additional recent maintenance experience required may be less than one year, but must be at least three months. The required experience must be dependent upon the difference between the licence category/subcategory held and applied for. Such additional experience must be typical of the new licence category/subcategory sought.

(e) Notwithstanding paragraph (a), aircraft maintenance experience gained outside a civil aircraft maintenance environment shall be accepted when such maintenance is equivalent to that required by this Part as established by the competent authority. Additional experience of civil aircraft maintenance shall, however, be required to ensure understanding of the civil aircraft maintenance environment.

66.A.40 Continued validity of the aircraft maintenance licence

(a) The aircraft maintenance licence becomes invalid five years after its last issue or amendment, unless the holder submits his/her aircraft maintenance licence to the competent authority that issued it, in order to verify that the information contained in the licence is the same as that contained in the competent authority records, pursuant to 66. B.120.

(b) Any certification privileges based upon a aircraft maintenance licence becomes invalid as soon as the aircraft maintenance licence is invalid.

(c) The aircraft maintenance licence is only valid when issued and/or amended by the competent authority and when the holder has signed the document.

66.A.45 Type/task training and ratings

(a) The holder of a category A aircraft maintenance licence may only exercise certification privileges on a specific aircraft type following the satisfactory completion of the relevant category A aircraft task training carried out by an appropriately approved Part-145 or Part-147 organisation. The training shall include practical hands on training 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 Part-145 or Part-147 organisation.

(b) Except as otherwise specified in paragraph (g), the holder of a category B1, B2 or C aircraft maintenance licence shall only exercise certification privileges on a specific aircraft type when the aircraft maintenance licence is endorsed with the appropriate aircraft type rating.

(c) Except as otherwise specified in paragraph (h), ratings shall be granted following satisfactory completion of the relevant category B1, B2 or C aircraft type training approved by the competent authority or conducted by an appropriately approved Part-147 maintenance training organisation.

(d) Category B1 and B2 approved type training shall include theoretical and practical elements and consist of the appropriate course in relation to the 66.A.20(a) privileges. Theoretical and practical training shall comply with Appendix III to this Part.

(e) Category C approved type training shall comply with Appendix III to this Part. In the case of a category C person qualified by holding an academic degree as specified in 66.A.30(a), (5), the first relevant aircraft type theoretical training shall be at the category B1 or B2 level. Practical training is not required.

(f) Completion of approved aircraft type training, as required by paragraphs (b) to (e), shall be demonstrated by an examination. The examination shall comply with Appendix III to this Part. The examinations in respect of category B1 or B2 or C aircraft type ratings shall be conducted by training organisations appropriately approved under Part-147, the competent authority, or the training organisation conducting the approved type training course.

(g) Notwithstanding paragraph (b), for aircraft other than large aircraft, the holder of a category B1 or B2 aircraft maintenance licence may also exercise certification privileges, when the aircraft maintenance licence is endorsed with the appropriate group ratings, or manufacturer group ratings, unless the Agency has determined that the complexity of the aircraft in question requires a type rating.

1. 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.

2. 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.

3. The groups shall consist of the following:

(i) for category B1 or C:

— helicopter piston engine

— helicopter turbine engine

— aeroplane single piston engine — metal structure

— aeroplane multiple piston engines — metal structure

— aeroplane single piston engine — wooden structure

— aeroplane multiple piston engines — wooden structure

— aeroplane single piston engine — composite structure

— aeroplane multiple piston engines — composite structure

— aeroplane turbine — single engine

— aeroplane turbine — multiple engine

(ii) for category B2 or C:

— aeroplane

— helicopter

(h) Notwithstanding paragraph (c), ratings on aircraft other than large aircraft may also be granted, subject to satisfactory completion of the relevant category B1, B2 or C aircraft type examination and demonstration of practical experience on the aircraft type, unless the Agency has determined that the aircraft is complex, where paragraph 3 approved type training is required.

In the case of a category C ratings on aircraft other than large aircraft, for a person qualified by holding an academic degree as specified in 66.A.30 (a), (5), the first relevant aircraft type examination shall be at the category B1 or B2 level.

1. Category B1, B2 and C approved type examinations must consist of a mechanical examination for category B1 and an avionics examination for category B2 and both mechanical and avionics examination for category C.

2. The examination shall comply with Appendix III to this Part. The examination shall be conducted by training organisations appropriately approved under Part-147, or by the competent authority.

3. Aircraft type practical experience shall include a representative cross section of maintenance activities relevant to the category.

66.A.70 Conversion provisions

(a) The holder of a certifying staff qualification valid in a Member State, prior to the date of entry into force of this Part shall be issued an aircraft maintenance licence without further examination subject to the conditions specified in 66.B.300.

(b) A person undergoing a qualification process valid in a Member State, prior to the date of entry into force of this Part may continue to be qualified. The holder of a qualification gained following such qualification process shall be issued an aircraft maintenance licence without further examination subject to the conditions specified in 66.B.300

(c) Where necessary, the aircraft maintenance licence shall contain technical limitations in relation to the scope of the pre-existing qualification.

SUBPART B

AIRCRAFT OTHER THAN AEROPLANES AND HELICOPTERS

66.A.100 General

Until such time as this Part specifies a requirement for certifying staff of aircraft other than aeroplanes and helicopters, the relevant Member State regulation shall apply.

SUBPART C

COMPONENTS

66.A.200 General

Until such time as this Part specifies a requirement for certifying components, the relevant Member State regulation shall apply.

SECTION B

PROCEDURE FOR COMPETENT AUTHORITIES

SUBPART A

GENERAL

66.B.05 Scope

This section establishes the administrative requirements to be followed by the competent authorities in charge of the application and the enforcement of Section A of this Part.

66.B.10 Competent authority

(a) *General*

A Member State shall designate a competent authority with allocated responsibilities for the issuance, continuation, amendment, suspension or revocation of licences. This competent authority shall establish documented procedures and an organisational structure.

(b) *Resources*

The competent authority shall be appropriately staffed to carry out the requirements of this Part.

(c) *Procedures*

The competent authority shall establish procedures detailing how compliance with this Part is accomplished.

The procedures shall be reviewed and amended to ensure continued compliance.

66.B.15 Acceptable means of compliance

The Agency shall develop acceptable means of compliance that the Member States may use to establish compliance with this Part. When the acceptable means of compliance are complied with, the related requirements of this Part shall be considered as met.

66.B.20 Record-keeping

(a) The competent authority shall establish a system of record-keeping that allows adequate traceability of the process to issue, revalidate, amend, suspend or revoke each aircraft maintenance licence.

(b) The records for the oversight of the Part shall include:

1. the application for an aircraft maintenance licence or change to that licence, including all supporting documentation;
2. a copy of the aircraft maintenance licence including any changes;
3. copies of all relevant correspondence;
4. details of any exemption and enforcement actions;
5. any report from other competent authorities relating to the aircraft maintenance licence holder;
6. records of examinations conducted by the competent authority;
7. aircraft maintenance licence conversion reports;
8. examination credit reports.

(c) Records referred to in paragraph (b), 1. to 5. shall be kept at least five years after the end of the licence validity.

(d) Records referred to in paragraph (b), 6. shall be kept at least five years.

(e) Records referred to in paragraph (b), 7. and 8. shall be kept for an unlimited period.

66.B.25 Mutual exchange of information

(a) In order to contribute to the improvement of air safety, the competent authorities shall participate in a mutual exchange of all necessary information in accordance with Article 11 of the basic Regulation.

(b) Without prejudice to the competencies of the Member States, in the case of a potential safety threat involving several Member States, the concerned competent authorities shall assist each other in carrying out the necessary oversight action.

66.B.30 Exemptions

All exemptions granted in accordance with Article 10, 3. of the basic Regulation shall be recorded and retained by the competent authority.

SUBPART B

ISSUE OF AN AIRCRAFT MAINTENANCE LICENCE

This Subpart provides the procedures to be followed by the competent authority to issue or vary or to permit continuity of the aircraft maintenance licence.

66.B.100 Procedure for the issue of an aircraft maintenance licence by the competent authority

(a) On receipt of EASA Form 19 and any supporting documentation, the competent authority shall verify EASA Form 19 for completeness and ensure that the experience claimed meets the requirement of this Part.

(b) The competent authority shall verify an applicant's examination status and/or confirm the validity of any credits to ensure that all required modules of Appendix 1 have been met as required by this Part.

(c) When satisfied that the applicant meets the standards of knowledge and experience required by this Part, the competent authority shall issue the relevant aircraft maintenance licence to the applicant. The same information shall be kept on competent authority file.

66.B.105 Procedure for the issue of an aircraft maintenance licence via the Part-145 approved maintenance organisation

(a) A Part-145 maintenance organisation which has been authorised to carry out this activity by the competent authority may prepare the aircraft maintenance licence on behalf of the competent authority or make recommendations to the competent authority regarding the application from an individual for a aircraft maintenance licence so that the competent authority may prepare and issue such licence.

(b) The Part-145 maintenance organisation shall ensure compliance with 66.B.100 (a) and (b). In all cases, the competent authority shall issue the aircraft maintenance licence to the applicant.

66.B.110 Procedure for the amendment of an aircraft maintenance licence to include an additional basic category or subcategory

(a) In addition to the documents required under 66.B.100 or 66.B.105, as appropriate, the applicant for additional basic categories or subcategories to an aircraft maintenance licence shall submit his/her current original aircraft maintenance licence to the competent authority together with EASA Form 19.

(b) At the completion of the procedure as specified in 66.B.100 or 66.B.105, the competent authority shall endorse the additional basic category or subcategory on the aircraft maintenance licence by stamp and signature or reissue the licence. The competent authority file shall be amended accordingly.

(c) Where the applicant for amendment of the basic categories qualifies for such variation via 66.B.100 in a Member State other than the Member State in which he/she first qualified, the application shall be sent to the Member State of first qualification.

(d) Where the applicant for amendment of the basic categories qualifies for such variation via 66.B.105 in a Member State other than the Member State in which he/she first qualified, the Part-145 approved maintenance organisation shall send the aircraft maintenance licence together with EASA Form 19 to the Member State of first qualification for Member State stamp and signature of the amendment or reissue of the licence.

66.B.115 Procedure for the amendment of an aircraft maintenance licence to include an aircraft type or group

On receipt of a satisfactory EASA Form 19 and any supporting documentation demonstrating compliance with the applicable type rating and/or group rating requirements and the accompanying aircraft maintenance licence, the competent authority shall either endorse the applicant's aircraft maintenance licence with the aircraft type or group or reissue the said licence to include the aircraft type or group. The competent authority file shall be amended accordingly.

66.B.120 Procedure for the renewal of an aircraft maintenance licence validity

(a) The holder of an aircraft maintenance licence shall complete the relevant parts of EASA Form 19 and submit it with the holder's copy of the licence to the competent authority that issued the original aircraft maintenance licence, unless the Part-145 approved maintenance organisation has a procedure in its exposition whereby such organisation may submit the necessary documentation on behalf of the aircraft maintenance licence holder.

(b) The competent authority shall compare the holder's aircraft maintenance licence with the competent authority file and verify any pending revocation, suspension or variation action pursuant to 66.B.500. If the documents are identical and no action is pending pursuant to 66. B.500, the holder's copy shall be renewed for five years and the file endorsed accordingly.

(c) If the competent authority file is different from the aircraft maintenance licence held by the licence holder:

1. the competent authority shall investigate the reasons for such differences and may choose not to renew the aircraft maintenance licence.

2. the competent authority shall inform both the licence holder and any known Part-145 or Part-M approved maintenance organisation affected of such fact and shall, if necessary, take action under paragraph 66.B.155 to revoke, suspend or amend the licence in question.

SUBPART C

EXAMINATIONS

This Subpart provides the procedure for examinations conducted by the competent authority.

66.B.200 Examination by the competent authority

(a) All examination questions shall be kept in a secure manner prior to an examination, to ensure that candidates will not know which particular questions will form the basis of the examination. The competent authority shall nominate those persons who control the questions to be used for each examination.

(b) The competent authority shall appoint examiners who shall be present during all examinations to ensure the integrity of the examination.

(c) Basic examinations shall follow the standard specified in Appendix I and II to this Part.

(d) Type examinations must follow the standard specified in Appendix III to this Part.

(e) New essay questions shall be raised at least every six months and used questions withdrawn or rested from use. A record of the questions used shall be retained in the records for reference.

(f) All examination papers shall be handed out at the start of the examination to the candidate and handed back to the examiner at the end of the allotted examination time period. No examination paper may be removed from the examination room during the allotted examination time period.

(g) Apart from specific documentation needed for type examinations, only the examination paper may be available to the candidate during the examination.

(h) Examination candidates shall be separated from each other so that they cannot read each other's examination papers. They may not speak to any person other than the examiner.

(i) Candidates who are proven to be cheating shall be banned from taking any further examination within 12 months of the date of the examination in which they were found cheating.

SUBPART D

CONVERSION OF NATIONAL QUALIFICATIONS

This Subpart provides the requirements for converting national qualifications to aircraft maintenance licences.

66.B.300 General

(a) The competent authority may only perform the conversion specified in 66.A.70 in accordance with a conversion report prepared pursuant to paragraph 66.B.305 or 66.B.310, as applicable.

(b) The conversion report shall be either developed by the competent authority or approved by the competent authority.

66.B.305 Conversion report for national qualifications

The report shall describe the scope of each type of qualification and show to which aircraft maintenance licence it will be converted, which limitation will be added and the Part-66 module/subjects on which examination is needed to ensure conversion to the aircraft maintenance licence without limitation, or to include an additional (sub-) category. The report shall include a copy of the existing regulation defining the licence categories and scopes.

66.B.310 Conversion report for approved maintenance organisations authorisations

For each approved maintenance organisation concerned, the report shall describe the scope of each type of authorisation and show to which aircraft maintenance licence it will be converted, which limitation will be added and the module/subjects on which examination is needed to convert to the licence, or to include an additional (sub-) category. The report shall include a copy of the relevant approved maintenance organisation's procedures for the qualification of certifying staff, on which the conversion process is based.

SUBPART E

EXAMINATION CREDITS

This Subpart provides the requirements for granting examination credits in accordance with 66.A.25(b).

66.B.400 General

(a) The competent authority may only grant examination credit on the basis of an examination credit report prepared in accordance with 66.B.405.

(b) The examination credit report must be either developed by the competent authority or approved by the competent authority.

66.B.405 Examination credit report

(a) For each technical qualification concerned the report shall identify the subject matter and knowledge levels contained in Appendix I to this Part relevant to the particular category being compared.

(b) The report shall include a statement of compliance against each subject stating where, in the technical qualification, the equivalent standard can be found. If there is no equivalent standard for the particular subject, the report shall state such facts.

(c) Based upon paragraph (b) comparison, the report shall indicate for each technical qualification concerned the Appendix I subject matters subject to examination credits.

(d) Where the national qualification standard is changed, the report shall be amended as necessary.

SUBPART F

REVOCATION, SUSPENSION OR LIMITATION OF THE AIRCRAFT MAINTENANCE LICENCE

66.B.500 Revocation, suspension or limitation of the aircraft maintenance licence

The competent authority shall suspend, limit or revoke the aircraft maintenance licence where it has identified a safety issue or if it has clear evidence that the person has carried out or been involved in one or more of the following activities:

1. obtaining the aircraft maintenance licence and/or the certification privileges by falsification of submitted documentary evidence.

2. failing to carry out requested maintenance combined with failure to report such fact to the organisation or person who requested the maintenance.

3. failing to carry out required maintenance resulting from own inspection combined with failure to report such fact to the organisation or person for whom the maintenance was intended to be carried out.

4. negligent maintenance.

5. falsification of the maintenance record.

6. issuing a certificate of release to service knowing that the maintenance specified on the certificate of release to service has not been carried out or without verifying that such maintenance has been carried out.

7. carrying out maintenance or issuing a certificate of release to service when adversely affected by alcohol or drugs.

8. issuing certificate of release to service while not in compliance with this Part

Appendix I

Basic knowledge requirements

1. KNOWLEDGE LEVELS — CATEGORY A, B1, B2 AND C AIRCRAFT MAINTENANCE LICENCE

Basic knowledge for categories A, B1 and B2 are indicated by the allocation of knowledge levels indicators (1, 2 or 3) against each applicable subject. Category C applicants must meet either the category B1 or the category B2 basic knowledge levels.

The knowledge level indicators are defined as follows:

LEVEL 1

A familiarisation with the principal elements of the subject.

Objectives: The applicant should be familiar with the basic elements of the subject.

The applicant should be able to give a simple description of the whole subject, using common words and examples.

The applicant should be able to use typical terms.

LEVEL 2

A general knowledge of the theoretical and practical aspects of the subject.

An ability to apply that knowledge.

Objectives: The applicant should be able to understand the theoretical fundamentals of the subject.

The applicant should be able to give a general description of the subject using, as appropriate, typical examples.

The applicant should be able to use mathematical formulae in conjunction with physical laws describing the subject.

The applicant should be able to read and understand sketches, drawings and schematics describing the subject.

The applicant should be able to apply his knowledge in a practical manner using detailed procedures.

LEVEL 3

A detailed knowledge of the theoretical and practical aspects of the subject.

A capacity to combine and apply the separate elements of knowledge in a logical and comprehensive manner.

Objectives: The applicant should know the theory of the subject and interrelationships with other subjects.

The applicant should be able to give a detailed description of the subject using theoretical fundamentals and specific examples.

The applicant should understand and be able to use mathematical formulae related to the subject.

The applicant should be able to read, understand and prepare sketches, simple drawings and schematics describing the subject.

The applicant should be able to apply his knowledge in a practical manner using manufacturer's instructions.

The applicant should be able to interpret results from various sources and measurements and apply corrective action where appropriate.

2. MODULARISATION

Qualification on basic subjects for each Part-66 aircraft maintenance licence category or subcategory should be in accordance with the following matrix. Applicable subjects are indicated by an 'X':

Subject modules	A or B1 aeroplane with:		A or B1 helicopter with:		B2
	Turbine engine(s)	Piston engine(s)	Turbine engine(s)	Piston engine(s)	Avionics
1	X	X	X	X	X
2	X	X	X	X	X
3	X	X	X	X	X
4	X	X	X	X	X

Subject modules	A or B1 aeroplane with:		A or B1 helicopter with:		B2
	Turbine engine(s)	Piston engine(s)	Turbine engine(s)	Piston engine(s)	Avionics
5	X	X	X	X	X
6	X	X	X	X	X
7	X	X	X	X	X
8	X	X	X	X	X
9	X	X	X	X	X
10	X	X	X	X	X
11	X	X			
12			X	X	
13					X
14					X
15	X		X		
16		X		X	
17	X	X			

MODULE 1. MATHEMATICS

	Level		
	A	B1	B2
1.1 **Arithmetic**	1	2	2
Arithmetical terms and signs, methods of multiplication and division, fractions and decimals, factors and multiples, weights, measures and conversion factors, ratio and proportion, averages and percentages, areas and volumes, squares, cubes, square and cube roots.			
1.2 **Algebra**			
(a)	1	2	2
Evaluating simple algebraic expressions, addition, subtraction, multiplication and division, use of brackets, simple algebraic fractions;			
(b)	—	1	1
Linear equations and their solutions;			
Indices and powers, negative and fractional indices;			
Binary and other applicable numbering systems;			
Simultaneous equations and second degree equations with one unknown;			
logarithms;			
1.3 **Geometry**			
(a)	—	1	1
Simple geometrical constructions;			
(b)	2	2	2
Graphical representation; nature and uses of graphs, graphs of equations/functions;			
(c)	—	2	2
Simple trigonometry; trigonometrical relationships, use of tables and rectangular and polar coordinates.			

MODULE 2. PHYSICS

	Level		
	A	B1	B2
2.1 **Matter**	1	1	1
Nature of matter: the chemical elements, structure of atoms, molecules;			
Chemical compounds.			
States: solid, liquid and gaseous;			
Changes between states.			
2.2 **Mechanics**			
2.2.1 *Statics*	1	2	1
Forces, moments and couples, representation as vectors;			
Centre of gravity.			
Elements of theory of stress, strain and elasticity: tension, compression, shear and torsion;			

	Level		
	A	B1	B2
Nature and properties of solid, fluid and gas; Pressure and buoyancy in liquids (barometers).			
2.2.2 *Kinetics*	1	2	1
Linear movement: uniform motion in a straight line, motion under constant acceleration (motion under gravity); Rotational movement: uniform circular motion (centrifugal/ centripetal forces); Periodic motion: pendular movement; Simple theory of vibration, harmonics and resonance; Velocity ratio, mechanical advantage and efficiency.			
2.2.3 *Dynamics*			
(a)	1	2	1
Mass Force, inertia, work, power, energy (potential, kinetic and total energy), heat, efficiency;			
(b)	1	2	2
Momentum, conservation of momentum; Impulse; Gyroscopic principles; Friction: nature and effects, coefficient of friction (rolling resistance).			
2.2.4 *Fluid dynamics*			
(a)	2	2	2
Specific gravity and density;			
(b)	1	2	1
Viscosity, fluid resistance, effects of streamlining; effects of compressibility on fluids; Static, dynamic and total pressure: Bernoulli's Theorem, venturi.			
2.3 **Thermodynamics**			
(a)	2	2	2
Temperature: thermometers and temperature scales: Celsius, Fahrenheit and Kelvin; Heat definition.			
(b)	—	2	2
Heat capacity, specific heat; Heat transfer: convection, radiation and conduction; Volumetric expansion; First and second law of thermodynamics;			

	Level		
	A	B1	B2
Gases: ideal gases laws; specific heat at constant volume and constant pressure, work done by expanding gas; Isothermal, adiabatic expansion and compression, engine cycles, constant volume and constant pressure, refrigerators and heat pumps; Latent heats of fusion and evaporation, thermal energy, heat of combustion.			
2.4 **Optics (Light)** Nature of light; speed of light; Laws of reflection and refraction: reflection at plane surfaces, reflection by spherical mirrors, refraction, lenses; Fibre optics.	—	2	2
2.5 **Wave Motion and Sound** Wave motion: mechanical waves, sinusoidal wave motion, interference phenomena, standing waves; Sound: speed of sound, production of sound, intensity, pitch and quality, Doppler effect.	—	2	2

MODULE 3. ELECTRICAL FUNDAMENTALS

	Level		
	A	B1	B2
3.1 **Electron Theory** Structure and distribution of electrical charges within: atoms, molecules, ions, compounds; Molecular structure of conductors, semiconductors and insulators.	1	1	1
3.2 **Static Electricity and Conduction** Static electricity and distribution of electrostatic charges; Electrostatic laws of attraction and repulsion; Units of charge, Coulomb's Law; Conduction of electricity in solids, liquids, gases and a vacuum.	1	2	2
3.3 **Electrical Terminology** The following terms, their units and factors affecting them: potential difference, electromotive force, voltage, current, resistance, conductance, charge, conventional current flow, electron flow.	1	2	2

	Level		
	A	B1	B2
3.4 **Generation of Electricity** Production of electricity by the following methods: light, heat, friction, pressure, chemical action, magnetism and motion.	1	1	1
3.5 **DC Sources of Electricity** Construction and basic chemical action of: primary cells, secondary cells, lead acid cells, nickel cadmium cells, other alkaline cells; Cells connected in series and parallel; Internal resistance and its effect on a battery; Construction, materials and operation of thermocouples; Operation of photo-cells.	1	2	2
3.6 **DC Circuits** Ohms Law, Kirchoff's Voltage and Current Laws; Calculations using the above laws to find resistance, voltage and current; Significance of the internal resistance of a supply.	—	2	2
3.7 **Resistance/Resistor**			
(a) Resistance and affecting factors; Specific resistance; Resistor colour code, values and tolerances, preferred values, wattage ratings; Resistors in series and parallel; Calculation of total resistance using series, parallel and series parallel combinations; Operation and use of potentiometers and rheostats; Operation of Wheatstone Bridge.	—	2	2
(b) Positive and negative temperature coefficient conductance; Fixed resistors, stability, tolerance and limitations, methods of construction; Variable resistors, thermistors, voltage dependent resistors; Construction of potentiometers and rheostats; Construction of Wheatstone Bridge;	—	1	1

	Level		
	A	B1	B2
3.8 **Power**	—	2	2
Power, work and energy (kinetic and potential);			
Dissipation of power by a resistor;			
Power formula;			
Calculations involving power, work and energy.			
3.9 **Capacitance/Capacitor**	—	2	2
Operation and function of a capacitor;			
Factors affecting capacitance area of plates, distance between plates, number of plates, dielectric and dielectric constant, working voltage, voltage rating;			
Capacitor types, construction and function;			
Capacitor colour coding;			
Calculations of capacitance and voltage in series and parallel circuits;			
Exponential charge and discharge of a capacitor, time constants;			
Testing of capacitors.			
3.10 **Magnetism**			
(a)	—	2	2
Theory of magnetism;			
Properties of a magnet;			
Action of a magnet suspended in the Earth's magnetic field;			
Magnetisation and demagnetisation;			
Magnetic shielding;			
Various types of magnetic material;			
Electromagnets construction and principles of operation;			
Hand clasp rules to determine: magnetic field around current carrying conductor.			
(b)	—	2	2
Magnetomotive force, field strength, magnetic flux density, permeability, hysteresis loop, retentivity, coercive force reluctance, saturation point, eddy currents;			
Precautions for care and storage of magnets.			

	Level		
	A	B1	B2
3.11 **Inductance/Inductor**	—	2	2
Faraday's Law;			
Action of inducing a voltage in a conductor moving in a magnetic field;			
Induction principles;			
Effects of the following on the magnitude of an induced voltage: magnetic field strength, rate of change of flux, number of conductor turns;			
Mutual induction;			
The effect the rate of change of primary current and mutual inductance has on induced voltage;			
Factors affecting mutual inductance: number of turns in coil, physical size of coil, permeability of coil, position of coils with respect to each other;			
Lenz's Law and polarity determining rules;			
Back emf, self induction;			
Saturation point;			
Principle uses of inductors;			
3.12 **DC Motor/Generator Theory**	—	2	2
Basic motor and generator theory;			
Construction and purpose of components in DC generator;			
Operation of, and factors affecting output and direction of current flow in DC generators;			
Operation of, and factors affecting output power, torque, speed and direction of rotation of DC motors;			
Series wound, shunt wound and compound motors;			
Starter Generator construction.			
3.13 **AC Theory**	1	2	2
Sinusoidal waveform: phase, period, frequency, cycle;			
Instantaneous, average, root mean square, peak, peak to peak current values and calculations of these values, in relation to voltage, current and power			
Triangular/Square waves;			
Single/3 phase principles.			

	Level		
	A	B1	B2
3.14 **Resistive (R), Capacitive (C) and Inductive (L) Circuits**	—	2	2
Phase relationship of voltage and current in L, C and R circuits, parallel, series and series parallel;			
Power dissipation in L, C and R circuits;			
Impedance, phase angle, power factor and current calculations;			
True power, apparent power and reactive power calculations.			
3.15 **Transformers**	—	2	2
Transformer construction principles and operation;			
Transformer losses and methods for overcoming them;			
Transformer action under load and no-load conditions;			
Power transfer, efficiency, polarity markings;			
Calculation of line and phase voltages and currents;			
Calculation of power in a three phase system;			
Primary and Secondary current, voltage, turns ratio, power, efficiency;			
Auto transformers.			
3.16 **Filters**	—	1	1
Operation, application and uses of the following filters: low pass, high pass, band pass, band stop.			
3.17 **AC Generators**	—	2	2
Rotation of loop in a magnetic field and waveform produced;			
Operation and construction of revolving armature and revolving field type AC generators;			
Single phase, two phase and three phase alternators;			
Three phase star and delta connections advantages and uses;			
Permanent Magnet Generators.			
3.18 **AC Motors**	—	2	2
Construction, principles of operation and characteristics of: AC synchronous and induction motors both single and polyphase;			
Methods of speed control and direction of rotation;			
Methods of producing a rotating field: capacitor, inductor, shaded or split pole.			

MODULE 4. ELECTRONIC FUNDAMENTALS

	Level		
	A	B1	B2
4.1 **Semiconductors**			
4.1.1 **Diodes**			
(a)	—	2	2
Diode symbols;			
Diode characteristics and properties;			
Diodes in series and parallel;			
Main characteristics and use of silicon controlled rectifiers (thyristors), light emitting diode, photo conductive diode, varistor, rectifier diodes;			
Functional testing of diodes.			
(b)	—	—	2
Materials, electron configuration, electrical properties;			
P and N type materials: effects of impurities on conduction, majority and minority characters;			
PN junction in a semiconductor, development of a potential across a PN junction in unbiased, forward biased and reverse biased conditions;			
Diode parameters: peak inverse voltage, maximum forward current, temperature, frequency, leakage current, power dissipation;			
Operation and function of diodes in the following circuits: clippers, clampers, full and half wave rectifiers, bridge rectifiers, voltage doublers and triplers;			
Detailed operation and characteristics of the following devices: silicon controlled rectifier (thyristor), light emitting diode, Shottky diode, photo conductive diode, varactor diode, varistor, rectifier diodes, Zener diode.			
4.1.2 **Transistors**			
(a)	—	1	2
Transistor symbols;			
Component description and orientation;			
Transistor characteristics and properties.			
(b)	—	—	2
Construction and operation of PNP and NPN transistors;			
Base, collector and emitter configurations;			
Testing of transistors.			

	Level		
	A	B1	B2
Basic appreciation of other transistor types and their uses. Application of transistors: classes of amplifier (A, B, C); Simple circuits including: bias, decoupling, feedback and stabilisation; Multistage circuit principles: cascades, push-pull, oscillators, multivibrators, flip-flop circuits.			
4.1.3 **Integrated Circuits**			
(a)	—	1	—
Description and operation of logic circuits and linear circuits/operational amplifiers.			
(b)	—	—	2
Description and operation of logic circuits and linear circuits; Introduction to operation and function of an operational amplifier used as: integrator, differentiator, voltage follower, comparator; Operation and amplifier stages connecting methods: resistive capacitive, inductive (transformer), inductive resistive (IR), direct; Advantages and disadvantages of positive and negative feedback.			
4.2 **Printed Circuit Boards**	—	1	2
Description and use of printed circuit boards.			
4.3 **Servomechanisms**			
(a)	—	1	—
Understanding of the following terms: Open and closed loop systems, feedback, follow up, analogue transducers; Principles of operation and use of the following synchro system components/features: resolvers, differential, control and torque, transformers, inductance and capacitance transmitters.			
(b)	—	—	2
Understanding of the following terms: Open and closed loop, follow up, servomechanism, analogue, transducer, null, damping, feedback, deadband; Construction operation and use of the following synchro system components: resolvers, differential, control and torque, E and I transformers, inductance transmitters, capacitance transmitters, synchronous transmitters; Servomechanism defects, reversal of synchro leads, hunting.			

MODULE 5. DIGITAL TECHNIQUES ELECTRONIC INSTRUMENT SYSTEMS

	Level			
	A	B1.1 B1.3	B1.2 B1.4	B2
5.1 **Electronic Instrument Systems**	1	2	2	3
Typical systems arrangements and cockpit layout of electronic instrument systems.				
5.2 **Numbering Systems**	—	1	—	2
Numbering systems: binary, octal and hexadecimal;				
Demonstration of conversions between the decimal and binary, octal and hexadecimal systems and vice versa.				
5.3 **Data Conversion**	—	1	—	2
Analogue Data, Digital Data;				
Operation and application of analogue to digital, and digital to analogue converters, inputs and outputs, limitations of various types.				
5.4 **Data Buses**	—	2	—	2
Operation of data buses in aircraft systems, including knowledge of ARINC and other specifications.				
5.5 **Logic Circuits**				
(a)	—	2	—	2
Identification of common logic gate symbols, tables and equivalent circuits;				
Applications used for aircraft systems, schematic diagrams.				
(b)	—	—	—	2
Interpretation of logic diagrams.				
5.6 **Basic Computer Structure**				
(a)	1	2	—	—
Computer terminology (including bit, byte, software, hardware, CPU, IC, and various memory devices such as RAM, ROM, PROM);				
Computer technology (as applied in aircraft systems).				
(b)	—	—	—	2
Computer related terminology;				
Operation, layout and interface of the major components in a micro computer including their associated bus systems;				
Information contained in single and multiaddress instruction words;				
Memory associated terms;				
Operation of typical memory devices;				
Operation, advantages and disadvantages of the various data storage systems.				

	Level			
	A	B1.1 B1.3	B1.2 B1.4	B2
5.7 **Microprocessors** Functions performed and overall operation of a microprocessor; Basic operation of each of the following microprocessor elements: control and processing unit, clock, register, arithmetic logic unit.	—	—	—	2
5.8 **Integrated Circuits** Operation and use of encoders and decoders; Function of encoder types; Uses of medium, large and very large scale integration.	—	—	—	2
5.9 **Multiplexing** Operation, application and identification in logic diagrams of multiplexers and demultiplexers.	—	—	—	2
5.10 **Fibre Optics** Advantages and disadvantages of fibre optic data transmission over electrical wire propagation; Fibre optic data bus; Fibre optic related terms; Terminations; Couplers, control terminals, remote terminals; Application of fibre optics in aircraft systems.	—	1	1	2
5.11 **Electronic Displays** Principles of operation of common types of displays used in modern aircraft, including Cathode Ray Tubes, Light Emitting Diodes and Liquid Crystal Display.	—	2	—	2
5.12 **Electrostatic Sensitive Devices** Special handling of components sensitive to electrostatic discharges; Awareness of risks and possible damage, component and personnel anti-static protection devices.	1	2	2	2
5.13 **Software Management Control** Awareness of restrictions, airworthiness requirements and possible catastrophic effects of unapproved changes to software programmes.	—	2	1	2

	Level			
	A	B1.1 B1.3	B1.2 B1.4	B2
5.14 **Electromagnetic Environment**	—	2	2	2
Influence of the following phenomena on maintenance practices for electronic system:				
EMC-Electromagnetic Compatibility				
EMI-Electromagnetic Interference				
HIRF-High Intensity Radiated Field				
Lightning/lightning protection				
5.15 **Typical Electronic/Digital Aircraft Systems**	—	2	2	2
General arrangement of typical electronic/digital aircraft systems and associated BITE				
(Built In Test Equipment) testing such as:				
ACARS-ARINC Communication and Addressing and Reporting System				
ECAM-Electronic Centralised Aircraft Monitoring				
EFIS-Electronic Flight Instrument System				
EICAS-Engine Indication and Crew Alerting System				
FBW-Fly by Wire				
FMS-Flight Management System				
GPS-Global Positioning System				
IRS-Inertial Reference System				
TCAS-Traffic Alert Collision Avoidance System				

MODULE 6. MATERIALS AND HARDWARE

	Level		
	A	B1	B2
6.1 **Aircraft Materials — Ferrous**			
(a)	1	2	1
Characteristics, properties and identification of common alloy steels used in aircraft;			
Heat treatment and application of alloy steels;			
(b)	—	1	1
Testing of ferrous materials for hardness, tensile strength, fatigue strength and impact resistance.			
6.2 **Aircraft Materials — Non-Ferrous**			
(a)	1	2	1
Characteristics, properties and identification of common non-ferrous materials used in aircraft;			
Heat treatment and application of non-ferrous materials;			
(b)	—	1	1
Testing of non-ferrous material for hardness, tensile strength, fatigue strength and impact resistance.			
6.3 **Aircraft Materials — Composite and Non-Metallic**			
6.3.1 *Composite and non-metallic other than wood and fabric*			
(a)	1	2	2
Characteristics, properties and identification of common composite and non-metallic materials, other than wood, used in aircraft;			
Sealant and bonding agents.			
(b)	1	2	—
The detection of defects/deterioration in composite and non-metallic material.			
Repair of composite and non-metallic material.			
6.3.2 *Wooden structures*	1	2	—
Construction methods of wooden airframe structures;			
Characteristics, properties and types of wood and glue used in aeroplanes;			
Preservation and maintenance of wooden structure;			
Types of defects in wood material and wooden structures;			
The detection of defects in wooden structure;			
Repair of wooden structure.			

	Level		
	A	B1	B2
6.3.3 *Fabric covering*	1	2	—
Characteristics, properties and types of fabrics used in aeroplanes;			
Inspections methods for fabric;			
Types of defects in fabric;			
Repair of fabric covering.			
6.4 **Corrosion**			
(a)	1	1	1
Chemical fundamentals;			
Formation by, galvanic action process, microbiological, stress;			
(b)	2	3	2
Types of corrosion and their identification;			
Causes of corrosion;			
Material types, susceptibility to corrosion.			
6.5 **Fasteners**			
6.5.1 *Screw threads*	2	2	2
Screw nomenclature;			
Thread forms, dimensions and tolerances for standard threads used in aircraft;			
Measuring screw threads;			
6.5.2 *Bolts, studs and screws*	2	2	2
Bolt types: specification, identification and marking of aircraft bolts, international standards;			
Nuts: self locking, anchor, standard types;			
Machine screws: aircraft specifications;			
Studs: types and uses, insertion and removal;			
Self tapping screws, dowels.			
6.5.3 *Locking devices*	2	2	2
Tab and spring washers, locking plates, split pins, pal-nuts, wire locking, quick release fasteners, keys, circlips, cotter pins.			

	Level		
	A	B1	B2
6.5.4. *Aircraft rivets* Types of solid and blind rivets: specifications and identification, heat treatment.	1	2	1
6.6 **Pipes and Unions**			
(a) Identification of, and types of rigid and flexible pipes and their connectors used in aircraft;	2	2	2
(b) Standard unions for aircraft hydraulic, fuel, oil, pneumatic and air system pipes.	2	2	1
6.7 **Springs** Types of springs, materials, characteristics and applications.	—	2	1
6.8 **Bearings** Purpose of bearings, loads, material, construction; Types of bearings and their application.	1	2	2
6.9 **Transmissions** Gear types and their application; Gear ratios, reduction and multiplication gear systems, driven and driving gears, idler gears, mesh patterns; Belts and pulleys, chains and sprockets.	1	2	2
6.10 **Control Cables** Types of cables; End fittings, turnbuckles and compensation devices; Pulleys and cable system components; Bowden cables; Aircraft flexible control systems.	1	2	1
6.11 **Electrical Cables and Connectors** Cable types, construction and characteristics; High tension and co-axial cables; Crimping; Connector types, pins, plugs, sockets, insulators, current and voltage rating, coupling, identification codes.	1	2	2

MODULE 7. MAINTENANCE PRACTICES

	Level		
	A	B1	B2
7.1 **Safety Precautions-Aircraft and Workshop**	3	3	3
Aspects of safe working practices including precautions to take when working with electricity, gases especially oxygen, oils and chemicals.			
Also, instruction in the remedial action to be taken in the event of a fire or another accident with one or more of these hazards including knowledge on extinguishing agents.			
7.2 **Workshop Practices**	3	3	3
Care of tools, control of tools, use of workshop materials;			
Dimensions, allowances and tolerances, standards of workmanship;			
Calibration of tools and equipment, calibration standards.			
7.3 **Tools**	3	3	3
Common hand tool types;			
Common power tool types;			
Operation and use of precision measuring tools;			
Lubrication equipment and methods.			
Operation, function and use of electrical general test equipment;			
7.4 **Avionic General Test Equipment**	—	2	3
Operation, function and use of avionic general test equipment.			
7.5 **Engineering Drawings, Diagrams and Standards**	1	2	2
Drawing types and diagrams, their symbols, dimensions, tolerances and projections;			
Identifying title block information;			
Microfilm, microfiche and computerised presentations;			
Specification 100 of the Air Transport Association (ATA) of America;			
Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL;			
Wiring diagrams and schematic diagrams.			

	Level		
	A	B1	B2
7.6 **Fits and Clearances** Drill sizes for bolt holes, classes of fits; Common system of fits and clearances; Schedule of fits and clearances for aircraft and engines; Limits for bow, twist and wear; Standard methods for checking shafts, bearings and other parts.	1	2	1
7.7 **Electrical Cables and Connectors** Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding.	1	2	2
7.8 **Riveting** Riveted joints, rivet spacing and pitch; Tools used for riveting and dimpling; Inspection of riveted joints.	1	2	—
7.9 **Pipes and Hoses** Bending and belling/flaring aircraft pipes; Inspection and testing of aircraft pipes and hoses; Installation and clamping of pipes.	1	2	—
7.10 **Springs** Inspection and testing of springs.	1	2	—
7.11 **Bearings** Testing, cleaning and inspection of bearings; Lubrication requirements of bearings; Defects in bearings and their causes.	1	2	—

	Level		
	A	B1	B2
7.12 **Transmissions**	1	2	—
Inspection of gears, backlash;			
Inspection of belts and pulleys, chains and sprockets;			
Inspection of screw jacks, lever devices, push-pull rod systems.			
7.13 **Control Cables**	1	2	—
Swaging of end fittings;			
Inspection and testing of control cables;			
Bowden cables; aircraft flexible control systems.			
7.14 **Material handling**			
7.14.1 *Sheet Metal*	—	2	—
Marking out and calculation of bend allowance;			
Sheet metal working, including bending and forming;			
Inspection of sheet metal work.			
7.14.2 *Composite and non-metallic*	—	2	—
Bonding practices;			
Environmental conditions			
Inspection methods			
7.15 **Welding, Brazing, Soldering and Bonding**			
(a)	—	2	2
Soldering methods; inspection of soldered joints.			
(b)	—	2	—
Welding and brazing methods;			
Inspection of welded and brazed joints;			
Bonding methods and inspection of bonded joints.			
7.16 **Aircraft Weight and Balance**			
(a)	—	2	2
Centre of Gravity/Balance limits calculation: use of relevant documents;			
(b)	—	2	—
Preparation of aircraft for weighing;			
Aircraft weighing;			

	Level		
	A	B1	B2
7.17 **Aircraft Handling and Storage**	2	2	2
Aircraft taxiing/towing and associated safety precautions;			
Aircraft jacking, chocking, securing and associated safety precautions;			
Aircraft storage methods;			
Refuelling/defuelling procedures;			
De-icing/anti-icing procedures;			
Electrical, hydraulic and pneumatic ground supplies.			
Effects of environmental conditions on aircraft handling and operation.			
7.18 **Disassembly, Inspection, Repair and Assembly Techniques**			
(a)	2	3	2
Types of defects and visual inspection techniques.			
Corrosion removal, assessment and reprotection.			
(b)	—	2	—
General repair methods, Structural Repair Manual;			
Ageing, fatigue and corrosion control programmes;			
(c)	—	2	1
Non destructive inspection techniques including, penetrant, radiographic, eddy current, ultrasonic and boroscope methods.			
(d)	2	2	2
Disassembly and re-assembly techniques.			
(e)	—	2	2
Trouble shooting techniques			
7.19 **Abnormal Events**			
(a)	2	2	2
Inspections following lightning strikes and HIRF penetration.			
(b)	2	2	—
Inspections following abnormal events such as heavy landings and flight through turbulence.			

	Level		
	A	B1	B2
7.20 **Maintenance Procedures**	1	2	2
Maintenance planning;			
Modification procedures;			
Stores procedures;			
Certification/release procedures;			
Interface with aircraft operation;			
Maintenance Inspection/Quality Control/Quality Assurance;			
Additional maintenance procedures.			
Control of life limited components			

MODULE 8. BASIC AERODYNAMICS

	Level		
	A	B1	B2
8.1 **Physics of the Atmosphere**	1	2	2
International Standard Atmosphere (ISA), application to aerodynamics.			
8.2 **Aerodynamics**	1	2	2
Airflow around a body;			
Boundary layer, laminar and turbulent flow, free stream flow, relative airflow, upwash and downwash, vortices, stagnation;			
The terms: camber, chord, mean aerodynamic chord, profile (parasite) drag, induced drag, centre of pressure, angle of attack, wash in and wash out, fineness ratio, wing shape and aspect ratio;			
Thrust, Weight, Aerodynamic Resultant;			
Generation of Lift and Drag: Angle of Attack, Lift coefficient, Drag coefficient, polar curve, stall;			
Aerofoil contamination including ice, snow, frost.			

	Level		
	A	B1	B2
8.3 **Theory of Flight**	1	2	2
Relationship between lift, weight, thrust and drag;			
Glide ratio;			
Steady state flights, performance;			
Theory of the turn;			
Influence of load factor: stall, flight envelope and structural limitations;			
Lift augmentation.			
8.4 **Flight Stability and Dynamics**	1	2	2
Longitudinal, lateral and directional stability (active and passive).			

MODULE 9. HUMAN FACTORS

	Level		
	A	B1	B2
9.1 **General**	1	2	2
The need to take human factors into account;			
Incidents attributable to human factors/human error;			
'"Murphy's" law.'			
9.2 **Human Performance and Limitations**	1	2	2
Vision;			
Hearing;			
Information processing;			
Attention and perception;			
Memory;			
Claustrophobia and physical access.			
9.3 **Social Psychology**	1	1	1
Responsibility: individual and group;			
Motivation and de-motivation;			
Peer pressure;			
'Culture' issues;			
Team working;			
Management, supervision and leadership.			

	Level		
	A	B1	B2
9.4 **Factors Affecting Performance**	2	2	2
Fitness/health;			
Stress: domestic and work related;			
Time pressure and deadlines;			
Workload: overload and underload;			
Sleep and fatigue, shiftwork;			
Alcohol, medication, drug abuse.			
9.5 **Physical Environment**	1	1	1
Noise and fumes;			
Illumination;			
Climate and temperature;			
Motion and vibration;			
Working environment.			
9.6 **Tasks**	1	1	1
Physical work;			
Repetitive tasks;			
Visual inspection;			
Complex systems.			
9.7 **Communication**	2	2	2
Within and between teams;			
Work logging and recording;			
Keeping up to date, currency;			
Dissemination of information.			
9.8 **Human Error**	1	2	2
Error models and theories;			
Types of error in maintenance tasks;			
Implications of errors (i.e accidents)			
Avoiding and managing errors.			
9.9 **Hazards in the Workplace**	1	2	2
Recognising and avoiding hazards;			
Dealing with emergencies.			

MODULE 10. AVIATION LEGISLATION

	Level		
	A	B1	B2
10.1 **Regulatory Framework**	1	1	1
Role of International Civil Aviation Organisation;			
Role of EASA;			
Role of the Member States;			
Relationship between Part-145, Part-66, Part-147 and Part-M;			
Relationship with other Aviation Authorities.			
10.2 **Part-66 — Certifying Staff — Maintenance**	2	2	2
Detailed understanding of Part-66.			
10.3 **Part-145 — Approved Maintenance Organisations**	2	2	2
Detailed understanding of Part-145.			
10.4 **JAR-OPS — Commercial Air Transportation**	1	1	1
Air Operators Certificates;			
Operators Responsibilities;			
Documents to be Carried;			
Aircraft Placarding (Markings);			
10.5 **Aircraft Certification**			
(a) *General*	—	1	1
Certification rules: such as EACS 23/25/27/29;			
Type Certification;			
Supplemental Type Certification;			
Part-21 Design/Production Organisation Approvals.			
(b) *Documents*	—	2	2
Certificate of Airworthiness;			
Certificate of Registration;			
Noise Certificate;			
Weight Schedule;			
Radio Station Licence and Approval.			
10.6 **Part-M**	2	2	2
Detailed understanding of Part-M.			

	Level		
	A	B1	B2
10.7 **Applicable National and International Requirements for (if not superseded by EU requirements)**			
(a)	1	2	2
Maintenance Programmes, Maintenance checks and inspections;			
Master Minimum Equipment Lists, Minimum Equipment List, Dispatch Deviation Lists;			
Airworthiness Directives;			
Service Bulletins, manufacturers service information;			
Modifications and repairs;			
Maintenance documentation: maintenance manuals, structural repair manual, illustrated parts catalogue, etc.;			
(b)	—	1	1
Continuing airworthiness;			
Test flights;			
ETOPS, maintenance and dispatch requirements;			
All Weather Operations, Category 2/3 operations and minimum equipment requirements.			

MODULE 11A. TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

	Level		
	A	B1.1	B2
11.1 **Theory of Flight**			
11.1.1 *Aeroplane Aerodynamics and Flight Controls*	1	2	—
Operation and effect of:			
— roll control: ailerons and spoilers;			
— pitch control: elevators, stabilators, variable incidence stabilisers and canards;			
— yaw control, rudder limiters;			
Control using elevons, ruddervators;			
High lift devices, slots, slats, flaps, flaperons;			

	Level		
	A	B1.1	B2
Drag inducing devices, spoilers, lift dumpers, speed brakes;			
Effects of wing fences, saw tooth leading edges;			
Boundary layer control using, vortex generators, stall wedges or leading edge devices;			
Operation and effect of trim tabs, balance and antibalance (leading) tabs, servo tabs, spring tabs, mass balance, control surface bias, aerodynamic balance panels;			
11.1.2 *High Speed Flight*	1	2	—
Speed of sound, subsonic flight, transonic flight, supersonic flight,			
Mach number, critical Mach number, compressibility buffet, shock wave, aerodynamic heating, area rule;			
Factors affecting airflow in engine intakes of high speed aircraft;			
Effects of sweepback on critical Mach number.			
11.2 **Airframe Structures — General Concepts**			
(a)	2	2	—
Airworthiness requirements for structural strength;			
Structural classification, primary, secondary and tertiary;			
Fail safe, safe life, damage tolerance concepts;			
Zonal and station identification systems;			
Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue;			
Drains and ventilation provisions;			
System installation provisions;			
Lightning strike protection provision.			
Aircraft bonding			
(b)	1	2	—
Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning, anti-corrosive protection, wing, empennage and engine attachments;			

	Level		
	A	B1.1	B2
Structure assembly techniques: riveting, bolting, bonding; Methods of surface protection, such as chromating, anodising, painting; Surface cleaning. Airframe symmetry: methods of alignment and symmetry checks.			
11.3 **Airframe Structures — Aeroplanes**			
11.3.1 *Fuselage (ATA 52/53/56)* Construction and pressurisation sealing; Wing, stabiliser, pylon and undercarriage attachments; Seat installation and cargo loading system; Doors and emergency exits: construction, mechanisms, operation and safety devices; Windows and windscreen construction and mechanisms.	1	2	—
11.3.2 *Wings (ATA 57)* Construction; Fuel storage; Landing gear, pylon, control surface and high lift/drag attachments.	1	2	—
11.3.3 *Stabilisers (ATA 55)* Construction; Control surface attachment.	1	2	—
11.3.4 *Flight Control Surfaces (ATA 55/57)* Construction and attachment; Balancing — mass and aerodynamic.	1	2	—
11.3.5 *Nacelles/Pylons (ATA 54)* Construction; Firewalls; Engine mounts.	1	2	—
11.4 **Air Conditioning and Cabin Pressurisation (ATA 21)**			
11.4.1 *Air supply* Sources of air supply including engine bleed, APU and ground cart;	1	2	—

	Level		
	A	B1.1	B2
11.4.2 *Air Conditioning*	1	3	—
Air conditioning systems;			
Air cycle and vapour cycle machines;			
Distribution systems;			
Flow, temperature and humidity control system.			
11.4.3 *Pressurisation*	1	3	—
Pressurisation systems;			
Control and indication including control and safety valves;			
Cabin pressure controllers.			
11.4.4 *Safety and warning devices*	1	3	—
Protection and warning devices.			
11.5 **Instruments/Avionic Systems**			
11.5.1 *Instrument Systems (ATA 31)*	1	2	—
Pitot static: altimeter, air speed indicator, vertical speed indicator;			
Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator;			
Compasses: direct reading, remote reading;			
Angle of attack indication, stall warning systems;			
Other aircraft system indication.			
11.5.2 *Avionic Systems*	1	1	—
Fundamentals of system lay-outs and operation of;			
Auto Flight (ATA 22);			
Communications (ATA 23);			
Navigation Systems (ATA 34).			
11.6 **Electrical Power (ATA 24)**	1	3	—
Batteries Installation and Operation;			
DC power generation;			
AC power generation;			
Emergency power generation;			
Voltage regulation;			
Power distribution;			
Inverters, transformers, rectifiers;			
Circuit protection.			
External/Ground power;			

	Level		
	A	B1.1	B2
11.7 **Equipment and Furnishings (ATA 25)**			
(a)	2	2	—
Emergency equipment requirements;			
Seats, harnesses and belts.			
(b)	1	1	—
Cabin lay-out;			
Equipment lay-out;			
Cabin Furnishing Installation;			
Cabin entertainment equipment;			
Galley installation;			
Cargo handling and retention equipment;			
Airstairs.			
11.8 **Fire Protection (ATA 26)**	1	3	—
(a)			
Fire and smoke detection and warning systems;			
Fire extinguishing systems;			
System tests.			
(b)			
Portable fire extinguisher	1	1	—
11.9 **Flight Controls (ATA 27)**	1	3	—
Primary controls: aileron, elevator, rudder, spoiler;			
Trim control;			
Active load control;			
High lift devices;			
Lift dump, speed brakes;			
System operation: manual, hydraulic, pneumatic, electrical, fly-by-wire;			
Artificial feel, Yaw damper, Mach trim, rudder limiter, gust locks systems;			
Balancing and rigging;			
Stall protection/warning system.			

	Level		
	A	B1.1	B2
11.10 **Fuel Systems (ATA 28)**	1	3	—
System lay-out;			
Fuel tanks;			
Supply systems;			
Dumping, venting and draining;			
Cross-feed and transfer;			
Indications and warnings;			
Refuelling and defuelling;			
Longitudinal balance fuel systems.			
11.11 **Hydraulic Power (ATA 29)**	1	3	—
System lay-out;			
Hydraulic fluids;			
Hydraulic reservoirs and accumulators;			
Pressure generation: electric, mechanical, pneumatic;			
Emergency pressure generation;			
Pressure Control;			
Power distribution;			
Indication and warning systems;			
Interface with other systems.			
11.12 **Ice and Rain Protection (ATA 30)**	1	3	—
Ice formation, classification and detection;			
Anti-icing systems: electrical, hot air and chemical;			
De-icing systems: electrical, hot air, pneumatic and chemical;			
Rain repellant;			
Probe and drain heating.			
Wiper systems			
11.13 **Landing Gear (ATA 32)**	2	3	—
Construction, shock absorbing;			
Extension and retraction systems: normal and emergency;			
Indications and warning;			
Wheels, brakes, antiskid and autobraking;			
Tyres;			
Steering.			

	Level		
	A	B1.1	B2
11.14 **Lights (ATA 33)** External: navigation, anti-collision, landing, taxiing, ice; Internal: cabin, cockpit, cargo; Emergency.	2	3	—
11.15 **Oxygen (ATA 35)** System lay-out: cockpit, cabin; Sources, storage, charging and distribution; Supply regulation; Indications and warnings;	1	3	—
11.16 **Pneumatic/Vacuum (ATA 36)** System lay-out; Sources: engine/APU, compressors, reservoirs, ground supply; Pressure control; Distribution; Indications and warnings; Interfaces with other systems.	1	3	—
11.17 **Water/Waste (ATA 38)** Water system lay-out, supply, distribution, servicing and draining; Toilet system lay-out, flushing and servicing; Corrosion aspects.	2	3	—
11.18 **On Board Maintenance Systems (ATA 45)** Central maintenance computers; Data loading system; Electronic library system; Printing; Structure monitoring (damage tolerance monitoring).	1	2	—

MODULE 11B. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Note: The scope of this Module should reflect the technology of aeroplanes pertinent to the A2 and B1.2 subcategory.

	Level		
	A2	B1.2	B2
11.1 **Theory of Flight**			
11.1.1 *Aeroplane Aerodynamics and Flight Controls*	1	2	—
Operation and effect of:			
— roll control: ailerons and spoilers;			
— pitch control: elevators, stabilators, variable incidence stabilisers and canards;			
— yaw control, rudder limiters;			
Control using elevons, ruddervators;			
High lift devices, slots, slats, flaps, flaperons;			
Drag inducing devices, spoilers, lift dumpers, speed brakes;			
Effects of wing fences, saw tooth leading edges;			
Boundary layer control using, vortex generators, stall wedges or leading edge devices;			
Operation and effect of trim tabs, balance and antibalance (leading) tabs, servo tabs, spring tabs, mass balance, control surface bias, aerodynamic balance panels;			
11.1.2 *High Speed Flight* — N/A	—	—	—
11.2 **Airframe Structures — General Concepts**			
(a)	2	2	—
Airworthiness requirements for structural strength;			
Structural classification, primary, secondary and tertiary;			
Fail safe, safe life, damage tolerance concepts;			
Zonal and station identification systems;			
Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue;			
Drains and ventilation provisions;			
System installation provisions;			
Lightning strike protection provision.			
Aircraft bonding			

	Level		
	A2	B1.2	B2
(b)	1	2	—
Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning, anti-corrosive protection, wing, empennage and engine attachments;			
Structure assembly techniques: riveting, bolting, bonding;			
Methods of surface protection, such as chromating, anodising, painting;			
Surface cleaning;			
Airframe symmetry: methods of alignment and symmetry checks.			
11.3 **Airframe Structures — Aeroplanes**			
11.3.1 *Fuselage (ATA 52/53/56)*	1	2	—
Construction and pressurisation sealing;			
Wing, tail-plane pylon and undercarriage attachments;			
Seat installation;			
Doors and emergency exits: construction and operation;			
Window and windscreen attachment.			
11.3.2 *Wings (ATA 57)*	1	2	—
Construction;			
Fuel storage;			
Landing gear, pylon, control surface and high lift/drag attachments.			
11.3.3 *Stabilisers (ATA 55)*	1	2	—
Construction;			
Control surface attachment.			
11.3.4 *Flight Control Surfaces (ATA 55/57)*	1	2	—
Construction and attachment;			
Balancing — mass and aerodynamic.			
11.3.5 *Nacelles/Pylons (ATA 54)*			
(a)	1	2	—
Nacelles/Pylons:			
— Construction;			
— Firewalls;			
— Engine mounts.			

	Level		
	A2	B1.2	B2
11.4 **Air Conditioning and Cabin Pressurisation (ATA 21)**	1	3	—
Pressurisation and air conditioning systems;			
Cabin pressure controllers, protection and warning devices.			
11.5 **Instruments/Avionic Systems**			
11.5.1 *Instrument Systems (ATA 31)*	1	2	—
Pitot static: altimeter, air speed indicator, vertical speed indicator;			
Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator;			
Compasses: direct reading, remote reading;			
Angle of attack indication, stall warning systems.			
Other aircraft system indication.			
11.5.2 *Avionic Systems*	1	1	—
Fundamentals of system lay-outs and operation of:			
— Auto Flight (ATA 22);			
— Communications (ATA 23);			
— Navigation Systems (ATA 34).			
11.6 **Electrical Power (ATA 24)**	1	3	—
Batteries Installation and Operation;			
DC power generation;			
Voltage regulation;			
Power distribution;			
Circuit protection;			
Inverters, transformers.			
11.7 **Equipment and Furnishings (ATA 25)**			
(a)	2	2	—
Emergency equipment requirements;			
Seats, harnesses and belts.			
(b)	1	1	—
Cabin lay-out;			
Equipment lay-out;			
Cabin Furnishing Installation (level 2);			
Cabin entertainment equipment;			
Galley installation;			
Cargo handling and retention equipment;			
Airstairs.			

	Level		
	A2	B1.2	B2
11.8 **Fire Protection (ATA 26)**			
(a)	1	3	—
Fire extinguishing systems;			
Fire and smoke detection and warning systems;			
System tests.			
(b)	1	3	—
Portable fire extinguisher.			
11.9 **Flight Controls (ATA 27)**	1	3	—
Primary controls: aileron, elevator, rudder;			
Trim tabs;			
High lift devices;			
System operation: manual;			
Gust locks;			
Balancing and rigging;			
Stall warning system.			
11.10 **Fuel Systems (ATA 28)**	1	3	—
System lay-out;			
Fuel tanks;			
Supply systems;			
Cross-feed and transfer;			
Indications and warnings;			
Refuelling and defuelling.			
11.11 **Hydraulic Power (ATA 29)**	1	3	—
System lay-out;			
Hydraulic fluids;			
Hydraulic reservoirs and accumulators;			
Pressure generation: electric, mechanical;			
Pressure Control;			
Power distribution;			
Indication and warning systems.			

	Level		
	A2	B1.2	B2
11.12 **Ice and Rain Protection (ATA 30)**	1	3	—
Ice formation, classification and detection;			
De-icing systems: electrical, hot air, pneumatic and chemical;			
Probe and drain heating;			
Wiper systems.			
11.13 **Landing Gear (ATA 32)**	2	3	—
Construction, shock absorbing;			
Extension and retraction systems: normal and emergency;			
Indications and warning;			
Wheels, brakes, antiskid and autobraking;			
Tyres;			
Steering.			
11.14 **Lights (ATA 33)**	2	2	—
External: navigation, anti collision, landing, taxiing, ice;			
Internal: cabin, cockpit, cargo;			
Emergency.			
11.15 **Oxygen (ATA 35)**	1	3	—
System lay-out: cockpit, cabin;			
Sources, storage, charging and distribution;			
Supply regulation;			
Indications and warnings;			
11.16 **Pneumatic/Vacuum (ATA 36)**	1	3	—
System lay-out;			
Sources: engine/APU, compressors, reservoirs, ground supply;			
Pressure control;			
Distribution;			
Indications and warnings;			
Interfaces with other systems.			

	Level		
	A2	B1.2	B2
11.17 **Water/Waste (ATA 38)** Water system lay-out, supply, distribution, servicing and draining; Toilet system lay-out, flushing and servicing; Corrosion aspects.	2	3	—

MODULE 12. HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS

	Level		
	A3 A4	B1.3 B1.4	B2
12.1 **Theory of Flight — Rotary Wing Aerodynamics** Terminology; Effects of gyroscopic precession; Torque reaction and directional control; Dissymmetry of lift, Blade tip stall; Translating tendency and its correction; Coriolis effect and compensation; Vortex ring state, power settling, overpitching; Auto-rotation; Ground effect.	1	2	—
12.2 **Flight Control Systems** Cyclic control; Collective control; Swashplate; Yaw control: Anti-Torque Control, Tail rotor, bleed air; Main Rotor Head: Design and Operation features; Blade Dampers: Function and construction; Rotor Blades: Main and tail rotor blade construction and attachment; Trim control, fixed and adjustable stabilisers; System operation: manual, hydraulic, electrical and fly-by-wire; Artificial feel; Balancing and Rigging.	2	3	—

	Level		
	A3 A4	B1.3 B1.4	B2
12.3 **Blade Tracking and Vibration Analysis**	1	3	—
Rotor alignment;			
Main and tail rotor tracking;			
Static and dynamic balancing;			
Vibration types, vibration reduction methods;			
Ground resonance.			
12.4 **Transmissions**	1	3	—
Gear boxes, main and tail rotors;			
Clutches, free wheel units and rotor brake.			
12.5 **Airframe Structures**			
(a)	2	2	—
Airworthiness requirements for structural strength;			
Structural classification, primary, secondary and tertiary;			
Fail safe, safe life, damage tolerance concepts;			
Zonal and station identification systems;			
Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue;			
Drains and ventilation provisions;			
System installation provisions;			
Lightning strike protection provision.			
(b)	1	2	—
Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning and anti-corrosive protection.			
Pylon, stabiliser and undercarriage attachments;			
Seat installation;			
Doors: construction, mechanisms, operation and safety devices;			
Windows and windscreen construction;			
Fuel storage;			
Firewalls;			
Engine mounts;			
Structure assembly techniques: riveting, bolting, bonding;			

	Level		
	A3 A4	B1.3 B1.4	B2
Methods of surface protection, such as chromating, anodising, painting;			
Surface cleaning.			
Airframe symmetry: methods of alignment and symmetry checks.			
12.6 **Air Conditioning (ATA 21)**			
12.6.1 *Air supply*	1	2	—
Sources of air supply including engine bleed and ground cart;			
12.6.2 *Air Conditioning*	1	3	—
Air conditioning systems;			
Distribution systems;			
Flow and temperature control systems;			
Protection and warning devices.			
12.7 **Instruments/Avionic Systems**			
12.7.1 *Instrument Systems (ATA 31)*	1	2	—
Pitot static:altimeter, air speed indicator, vertical speed indicator;			
Gyroscopic:artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator;			
Compasses: direct reading, remote reading;			
Vibration indicating systems — HUMS;			
Other aircraft system indication.			
12.7.2 *Avionic Systems*	1	1	—
Fundamentals of system layouts and operation of:			
Auto Flight (ATA 22);			
Communications (ATA 23);			
Navigation Systems (ATA 34).			
12.8 **Electrical Power (ATA 24)**	1	3	—
Batteries Installation and Operation;			
DC power generation, AC power generation;			
Emergency power generation;			
Voltage regulation, Circuit protection.			
Power distribution;			
Inverters, transformers, rectifiers;			
External/Ground power.			
12.9 **Equipment and Furnishings (ATA 25)**			
(a)	2	2	—
Emergency equipment requirements;			

	Level		
	A3 A4	B1.3 B1.4	B2
Seats, harnesses and belts;			
Lifting systems.			
(b)	1	1	—
Emergency flotation systems;			
Cabin lay-out, cargo retention;			
Equipment lay-out;			
Cabin Furnishing Installation.			
12.10 **Fire Protection (ATA 26)**	1	3	—
Fire and smoke detection and warning systems;			
Fire extinguishing systems;			
System tests.			
12.11 **Fuel Systems (ATA 28)**	1	3	—
System lay-out;			
Fuel tanks;			
Supply systems;			
Dumping, venting and draining;			
Cross-feed and transfer;			
Indications and warnings;			
Refuelling and defuelling.			
12.12 **Hydraulic Power (ATA 29)**	1	3	—
System lay-out;			
Hydraulic fluids;			
Hydraulic reservoirs and accumulators;			
Pressure generation: electric, mechanical, pneumatic;			
Emergency pressure generation;			
Pressure Control;			
Power distribution;			
Indication and warning systems;			
Interface with other systems.			

	Level		
	A3 A4	B1.3 B1.4	B2
12.13 **Ice and Rain Protection (ATA 30)**	1	3	—
Ice formation, classification and detection;			
Anti-icing and de-icing systems: electrical, hot air and chemical;			
Rain repellant and removal;			
Probe and drain heating.			
12.14 **Landing Gear (ATA 32)**	2	3	—
Construction, shock absorbing;			
Extension and retraction systems: normal and emergency;			
Indications and warning;			
Wheels, tyres, brakes;			
Steering;			
Skids, floats.			
12.15 **Lights (ATA 33)**	2	3	—
External: navigation, landing, taxiing, ice;			
Internal: cabin, cockpit, cargo;			
Emergency.			
12.16 **Pneumatic/Vacuum (ATA 36)**	1	3	—
System lay-out;			
Sources: engine, compressors, reservoirs, ground supply.;			
Pressure control;			
Distribution;			
Indications and warnings;			
Interfaces with other systems.			

MODULE 13. AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS

	Level		
	A	B1	B2
13.1 **Theory of Flight**			
(a) *Aeroplane Aerodynamics and Flight Controls*	—	—	1
Operation and effect of:			
— roll control: ailerons and spoilers;			
— pitch control: elevators, stabilators, variable incidence stabilisers and canards;			
— yaw control, rudder limiters;			

	Level		
	A	B1	B2
Control using elevons, ruddervators;			
High lift devices: slots, slats, flaps;			
Drag inducing devices: spoilers, lift dumpers, speed brakes;			
Operation and effect of trim tabs, servo tabs, control surface bias.			
(b) *High Speed Flight*	—	—	1
Speed of sound, subsonic flight, transonic flight, supersonic flight,			
Mach number, critical Mach number.			
(c) *Rotary Wing Aerodynamics*	—	—	1
Terminology;			
Operation and effect of cyclic, collective and anti-torque controls.			
13.2 **Structures — General Concepts**			
(a)	—	—	1
Fundamentals of structural systems.			
(b)	—	—	2
Zonal and station identification systems;			
Electrical bonding;			
Lightning strike protection provision.			
13.3 **Autoflight (ATA 22)**	—	—	3
Fundamentals of automatic flight control including working principles and current terminology;			
Command signal processing;			
Modes of operation: roll, pitch and yaw channels;			
Yaw dampers;			
Stability Augmentation System in helicopters;			
Automatic trim control;			

	Level		
	A	B1	B2
Autopilot navigation aids interface; Autothrottle systems. Automatic Landing Systems: principles and categories, modes of operation, approach, glideslope, land, go-around, system monitors and failure conditions.			
13.4 **Communication/Navigation (ATA 23/34)**	—	—	3
Fundamentals of radio wave propagation, antennas, transmission lines, communication, receiver and transmitter; Working principles of following systems: — Very High Frequency (VHF) communication; — High Frequency (HF) communication; — Audio; — Emergency Locator Transmitters; — Cockpit Voice Recorder; — Very High Frequency omnidirectional range (VOR); — Automatic Direction Finding (ADF); — Instrument Landing System (ILS); — Microwave Landing System (MLS); — Flight Director systems; Distance Measuring Equipment (DME); — Very Low Frequency and hyperbolic navigation (VLF/Omega); — Doppler navigation; — Area navigation, RNAV systems; — Flight Management Systems; — Global Positioning System (GPS), Global Navigation Satellite Systems (GNSS); — Inertial Navigation System; — Air Traffic Control transponder, secondary surveillance radar; — Traffic Alert and Collision Avoidance System (TCAS); — Weather avoidance radar; — Radio altimeter; — ARINC communication and reporting;			
13.5 **Electrical Power (ATA 24)**	—	—	3
Batteries Installation and Operation; DC power generation; AC power generation; Emergency power generation;			

	Level		
	A	B1	B2
Voltage regulation;			
Power distribution;			
Inverters, transformers, rectifiers;			
Circuit protection;			
External/Ground power.			
13.6 **Equipment and Furnishings (ATA 25)**	—	—	3
Electronic emergency equipment requirements;			
Cabin entertainment equipment.			
Flight Controls (ATA 27)			
(a)	—	—	1
Primary controls: aileron, elevator, rudder, spoiler;			
Trim control;			
Active load control;			
High lift devices;			
Lift dump, speed brakes;			
System operation: manual, hydraulic, pneumatic;			
Artificial feel, Yaw damper, Mach trim, rudder limiter, gust locks.			
Stall protection systems.			
(b)	—	—	2
System operation: electrical, fly by wire.			
13.8 **Instrument Systems (ATA 31)**	—	—	2
Classification;			
Atmosphere;			
Terminology;			
Pressure measuring devices and systems;			
Pitot static systems;			
Altimeters;			
Vertical speed indicators;			
Airspeed indicators;			
Machmeters;			
Altitude reporting/alerting systems;			
Air data computers;			
Instrument pneumatic systems;			
Direct reading pressure and temperature gauges;			
Temperature indicating systems;			
Fuel quantity indicating systems;			

	Level		
	A	B1	B2
Gyroscopic principles;			
Artificial horizons;			
Slip indicators;			
Directional gyros;			
Ground Proximity Warning Systems;			
Compass systems;			
Flight Data Recording systems;			
Electronic Flight Instrument Systems;			
Instrument warning systems including master warning systems and centralised warning panels;			
Stall warning systems and angle of attack indicating systems;			
Vibration measurement and indication.			
13.9 **Lights (ATA 33)**	—	—	3
External: navigation, landing, taxiing, ice;			
Internal: cabin, cockpit, cargo;			
Emergency.			
13.10 **On board Maintenance Systems (ATA 45)**	—	—	2
Central maintenance computers;			
Data loading system;			
Electronic library system;			
Printing;			
Structure monitoring (damage tolerance monitoring).			

MODULE 14 PROPULSION

	Level		
	A	B1	B2
14.1 **Turbine Engines**			
(a)	—	—	1
Constructional arrangement and operation of turbojet, turbofan, turboshaft and turbopropeller engines;			
(b)	—	—	2
Electronic Engine control and fuel metering systems (FADEC).			

	Level		
	A	B1	B2
14.2 **Engine Indicating Systems**	—	—	2
Exhaust gas temperature/Interstage turbine temperature systems;			
Engine speed;			
Engine Thrust Indication: Engine Pressure Ratio, engine turbine discharge pressure or jet pipe pressure systems;			
Oil pressure and temperature;			
Fuel pressure, temperature and flow;			
Manifold pressure;			
Engine torque;			
Propeller speed.			

MODULE 15. GAS TURBINE ENGINE

	Level		
	A	B1	B2
15.1 **Fundamentals**	1	2	—
Potential energy, kinetic energy, Newton's laws of motion, Brayton cycle;			
The relationship between force, work, power, energy, velocity, acceleration;			
Constructional arrangement and operation of turbojet, turbofan, turboshaft, turboprop.			
15.2 **Engine Performance**	—	2	—
Gross thrust, net thrust, choked nozzle thrust, thrust distribution, resultant thrust, thrust horsepower, equivalent shaft horsepower, specific fuel consumption;			
Engine efficiencies;			
By-pass ratio and engine pressure ratio;			
Pressure, temperature and velocity of the gas flow;			
Engine ratings, static thrust, influence of speed, altitude and hot climate, flat rating, limitations.			

	Level		
	A	B1	B2
15.3 **Inlet**	2	2	—
Compressor inlet ducts			
Effects of various inlet configurations;			
Ice protection.			
15.4 **Compressors**	1	2	—
Axial and centrifugal types;			
Constructional features and operating principles and applications;			
Fan balancing;			
Operation:			
Causes and effects of compressor stall and surge;			
Methods of air flow control: bleed valves, variable inlet guide vanes, variable stator vanes, rotating stator blades;			
Compressor ratio.			
15.5 **Combustion Section**	1	2	—
Constructional features and principles of operation.			
15.6 **Turbine Section**	2	2	—
Operation and characteristics of different turbine blade types;			
Blade to disk attachment;			
Nozzle guide vanes;			
Causes and effects of turbine blade stress and creep.			
15.7 **Exhaust**	1	2	—
Constructional features and principles of operation;			
Convergent, divergent and variable area nozzles;			
Engine noise reduction;			
Thrust reversers.			
15.8 **Bearings and Seals**	—	2	—
Constructional features and principles of operation.			
15.9 **Lubricants and Fuels**	1	2	—
Properties and specifications;			
Fuel additives;			
Safety precautions.			

	Level		
	A	B1	B2
15.10 **Lubrication Systems**	1	2	—
System operation/lay-out and components.			
15.11 **Fuel Systems**	1	2	—
Operation of engine control and fuel metering systems including electronic engine control (FADEC);			
Systems lay-out and components.			
15.12 **Air Systems**	1	2	—
Operation of engine air distribution and anti-ice control systems, including internal cooling, sealing and external air services.			
15.13 **Starting and Ignition Systems**	1	2	—
Operation of engine start systems and components;			
Ignition systems and components;			
Maintenance safety requirements.			
15.14 **Engine Indication Systems**	1	2	—
Exhaust Gas Temperature/Interstage Turbine Temperature;			
Engine Thrust Indication: Engine Pressure Ratio, engine turbine discharge pressure or jet pipe pressure systems;			
Oil pressure and temperature;			
Fuel pressure and flow;			
Engine speed;			
Vibration measurement and indication;			
Torque;			
Power.			
15.15 **Power Augmentation Systems**	—	1	—
Operation and applications;			
Water injection, water methanol;			
Afterburner systems.			
15.16 **Turbo-prop Engines**	1	2	—
Gas coupled/free turbine and gear coupled turbines;			
Reduction gears;			
Integrated engine and propeller controls;			
Overspeed safety devices.			

	Level		
	A	B1	B2
15.17 **Turbo-shaft engines** Arrangements, drive systems, reduction gearing, couplings, control systems.	1	2	—
15.18 **Auxiliary Power Units (APUs)** Purpose, operation, protective systems.	1	2	—
15.19 **Powerplant Installation** Configuration of firewalls, cowlings, acoustic panels, engine mounts, anti-vibration mounts, hoses, pipes, feeders, connectors, wiring looms, control cables and rods, lifting points and drains.	1	2	—
15.20 **Fire Protection Systems** Operation of detection and extinguishing systems.	1	2	—
15.21 **Engine Monitoring and Ground Operation** Procedures for starting and ground run-up; Interpretation of engine power output and parameters; Trend (including oil analysis, vibration and boroscope) monitoring; Inspection of engine and components to criteria, tolerances and data specified by engine manufacturer; Compressor washing/cleaning; Foreign Object Damage.	1	3	—
15.22 **Engine Storage and Preservation** Preservation and depreservation for the engine and accessories/systems.	—	2	—

MODULE 16. PISTON ENGINE

	Level		
	A	B1	B2
16.1 **Fundamentals** Mechanical, thermal and volumetric efficiencies; Operating principles — 2 stroke, 4 stroke, Otto and Diesel; Piston displacement and compression ratio; Engine configuration and firing order.	1	2	—
16.2 **Engine Performance** Power calculation and measurement; Factors affecting engine power; Mixtures/leaning, pre-ignition.	1	2	—

	Level		
	A	B1	B2
16.3 **Engine Construction**	1	2	—
Crank case, crank shaft, cam shafts, sumps;			
Accessory gearbox;			
Cylinder and piston assemblies;			
Connecting rods, inlet and exhaust manifolds;			
Valve mechanisms;			
Propeller reduction gearboxes.			
16.4 **Engine Fuel Systems**			
16.4.1 *Carburettors*	1	2	—
Types, construction and principles of operation;			
Icing and heating.			
16.4.2 *Fuel injection systems*	1	2	—
Types, construction and principles of operation.			
16.4.3 *Electronic engine control*	1	2	—
Operation of engine control and fuel metering systems including electronic engine control (FADEC);			
Systems lay-out and components.			
16.5 **Starting and Ignition Systems**	1	2	—
Starting systems, pre-heat systems;			
Magneto types, construction and principles of operation;			
Ignition harnesses, spark plugs;			
Low and high tension systems.			
16.6 **Induction, Exhaust and Cooling Systems**	1	2	—
Construction and operation of: induction systems including alternate air systems;			
Exhaust systems, engine cooling systems — air and liquid.			
16.7 **Supercharging/Turbocharging**	1	2	—
Principles and purpose of supercharging and its effects on engine parameters;			
Construction and operation of supercharging/ turbocharging systems;			
System terminology;			
Control systems;			
System protection.			

	Level		
	A	B1	B2
16.8 **Lubricants and Fuels** Properties and specifications; Fuel additives; Safety precautions.	1	2	—
16.9 **Lubrication Systems** System operation/lay-out and components.	1	2	—
16.10 **Engine Indication Systems** Engine speed; Cylinder head temperature; Coolant temperature; Oil pressure and temperature; Exhaust Gas Temperature; Fuel pressure and flow; Manifold pressure.	1	2	—
16.11 **Powerplant Installation** Configuration of firewalls, cowlings, acoustic panels, engine mounts, anti-vibration mounts, hoses, pipes, feeders, connectors, wiring looms, control cables and rods, lifting points and drains.	1	2	—
16.12 **Engine Monitoring and Ground Operation** Procedures for starting and ground run-up; Interpretation of engine power output and parameters; Inspection of engine and components: criteria, tolerances, and data specified by engine manufacturer.	1	3	—
16.13 **Engine Storage and Preservation** Preservation and depreservation for the engine and accessories/systems.	—	2	—

MODULE 17. PROPELLER

	Level		
	A	B1	B2
17.1 **Fundamentals** Blade element theory; High/low blade angle, reverse angle, angle of attack, rotational speed; Propeller slip; Aerodynamic, centrifugal, and thrust forces; Torque; Relative airflow on blade angle of attack; Vibration and resonance.	1	2	—

	Level		
	A	B1	B2
17.2 **Propeller Construction** Construction methods and materials used in wooden, composite and metal propellers; Blade station, blade face, blade shank, blade back and hub assembly; Fixed pitch, controllable pitch, constant speeding propeller; Propeller/spinner installation.	1	2	—
17.3 **Propeller Pitch Control** Speed control and pitch change methods, mechanical and electrical/electronic; Feathering and reverse pitch; Overspeed protection.	1	2	—
17.4 **Propeller Synchronising** Synchronising and synchrophasing equipment.	—	2	—
17.5 **Propeller Ice Protection** Fluid and electrical de-icing equipment.	1	2	—
17.6 **Propeller Maintenance** Static and dynamic balancing; Blade tracking; Assessment of blade damage, erosion, corrosion, impact damage, delamination; Propeller treatment/repair schemes; Propeller engine running.	1	3	—
17.7 **Propeller Storage and Preservation** Propeller preservation and depreservation	1	2	—

Appendix II

Basic Examination Standard

1. *Standardisation Basis For Examinations*

1.1. All basic examinations must be carried out using the multi-choice question format and essay questions as specified below.

1.2. Each multi-choice question must have three alternative answers of which only one must be the correct answer and the candidate must be allowed a time per module which is based upon a nominal average of 75 seconds per question.

1.3. Each essay question requires the preparation of a written answer and the candidate must be allowed 20 minutes to answer each such question.

1.4. Suitable essay questions must be drafted and evaluated using the knowledge syllabus in Part-66 Appendix I Modules 7, 9 and 10.

1.5. Each question will have a model answer drafted for it, which will also include any known alternative answers that may be relevant for other subdivisions.

1.6. The model answer will also be broken down into a list of the important points known as Key Points.

1.7. The pass mark for each Part-66 module and sub-module multi-choice part of the examination is 75 %.

1.8. The pass mark for each essay question is 75 % in that the candidates answer must contain 75 % of the required key points addressed by the question and no significant error related to any required key point.

1.9. If either the multi-choice part only or the essay part only is failed, then it is only necessary to retake the multichoice or essay part, as appropriate.

1.10. Penalty marking systems must not be used to determine whether a candidate has passed.

1.11. All Part-66 modules that make up a complete Part-66 aircraft maintenance licence category or subcategory must be passed within a 5 year time period of passing the first module except in the case specified in paragraph 1.12. 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 Part-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.

1.12. The 5 year time period specified in paragraph 1.11 does not apply to those modules which are common to more than one Part-66 aircraft maintenance licence category or subcategory and which were previously passed as part of another such category or subcategory examination.

2. *Question Numbers for the Part-66 Appendix I Modules*

2.1. Subject Module 1 Mathematics:

Category A-16 multi-choice and 0 essay questions. Time allowed 20 minutes.

Category B1-30 multi-choice and 0 essay questions. Time allowed 40 minutes.

Category B2-30 multi-choice and 0 essay questions. Time allowed 40 minutes.

2.2. Subject Module 2 Physics:

Category A-30 multi-choice and 0 essay questions. Time allowed 40 minutes.

Category B1-50 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B2-50 multi-choice and 0 essay questions. Time allowed 65 minutes.

2.3. Subject Module 3 Electrical Fundamentals:

Category A- 0 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B1-50 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B2-50 multi-choice and 0 essay questions. Time allowed 65 minutes.

2.4. Subject Module 4 Electronic Fundamentals:

Category A-None.

Category B1-20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B2-40 multi-choice and 0 essay questions. Time allowed 50 minutes.

2.5. Subject Module 5 Digital Techniques/Electronic Instrument Systems:

Category A-16 multi-choice and 0 essay questions. Time allowed 20 minutes.

Category B1.1 & B1.3-40 multi-choice and 0 essay questions. Time allowed 50 minutes.

Category B1.2 & B1.4-20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B2-70 multi-choice and 0 essay questions. Time allowed 90 minutes.

2.6. Subject Module 6 Materials and Hardware:

Category A-50 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B1-70 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B2-60 multi-choice and 0 essay questions. Time allowed 75 minutes.

2.7. Subject Module 7 Maintenance Practices:

Category A-70 multi-choice and 2 essay questions. Time allowed 90 minutes plus 40 minutes.

Category B1-80 multi-choice and 2 essay questions. Time allowed 100 minutes plus 40 minutes.

Category B2-60 multi-choice and 2 essay questions. Time allowed 75 minutes plus 40 minutes.

2.8. Subject Module 8 Basic Aerodynamics:

Category A-20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B1-20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B2-20 multi-choice and 0 essay questions. Time allowed 25 minutes.

2.9. Subject Module 9 Human factors:

Category A-20 multi-choice and 1 essay question. Time allowed 25 minutes plus 20 minutes.

Category B1-20 multi-choice and 1 essay question. Time allowed 25 minutes plus 20 minutes.

Category B2-20 multi-choice and 1 essay question. Time allowed 25 minutes plus 20 minutes.

2.10. Subject Module 10 Aviation Legislation:

Category A-30 multi-choice and 1 essay question. Time allowed 40 minutes plus 20 minutes.

Category B1-40 multi-choice and 1 essay question. Time allowed 50 minutes plus 20 minutes.

Category B2-40 multi-choice and 1 essay question. Time allowed 50 minutes plus 20 minutes.

2.11. Subject Module 11a Turbine Aeroplane Aerodynamics, Structures and Systems:

Category A-100 multi-choice and 0 essay questions. Time allowed 125 minutes.

Category B1-130 multi-choice and 0 essay questions. Time allowed 165 minutes.

Category B2-None.

2.12. Subject Module 11b Piston Aeroplane Aerodynamics, Structures and Systems:

Category A-70 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B1-100 multi-choice and 0 essay questions. Time allowed 125 minutes.

Category B2-None.

2.13. Subject Module 12 Helicopter Aerodynamics, Structures and Systems:

Category A-90 multi-choice and 0 essay questions. Time allowed 115 minutes.

Category B1-115 multi-choice and 0 essay questions. Time allowed 145 minutes.

Category B2-None.

2.14. Subject Module 13 Aircraft Aerodynamics, Structures and Systems:

Category A-None.

Category B1-None.

Category B2-130 multi-choice and 0 essay questions. Time allowed 165 minutes.

2.15. Subject Module 14 Propulsion:

Category A-None.

Category B1-None.

Category B2-25 multi-choice and 0 essay questions. Time allowed 30 minutes.

2.16. Subject Module 15 Gas Turbine Engine:

Category A-60 multi-choice and 0 essay questions. Time allowed 75 minutes.

Category B1-90 multi-choice and 0 essay questions. Time allowed 115 minutes.

Category B2-None.

2.17. Subject Module 16 Piston Engine:

Category A-0 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B1-0 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B2-None.

2.18. Subject Module 17 Propeller:

Category A-0 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B1-30 multi-choice and 0 essay questions. Time allowed 40 minutes.

Category B2-None.

Appendix III

Type training and Examination Standard

1. *Type training levels*

The three levels listed below define the objectives that a particular level of training is intended to achieve.

Level 1 General familiarisation

A brief overview of the airframe, systems and powerplants as outlined in the Systems Description Section of the Aircraft Maintenance Manual.

1. Course objectives: Upon completion of the course, the student will be able to identify safety precautions related to the airframe, its systems and powerplant
2. Identify maintenance practices important to the airframe, its systems and powerplant
3. Define the general layout of the aircraft's major systems
4. Define the general layout and characteristics of the powerplant
5. Identify special tooling and test equipment used with the aircraft

Level 2 Ramp and transit

Basic system overview of controls, indicators, principal components including their location and purpose, servicing and minor troubleshooting.

Course objectives: In addition to the information contained in the Level 1 General Familiarisation course, at the completion of this Level 2 Ramp and Transit training, the student will be able to:

1. Recall the safety precautions to be observed when working on or near the aircraft, powerplant and systems.
2. Demonstrate knowledge of the main ramp and transit (through-flight) activities of the following:
   (a) Doors, windows and hatches.
   (b) Electrical power supplies.
   (c) Fuel.
   (d) Auxiliary power unit.
   (e) Powerplant.
   (f) Fire protection.
   (g) Environmental Control Systems.
   (h) Hydraulic power.
   (i) Landing gear.
   (j) Flight controls.
   (k) Water/waste.
   (l) Oxygen.
   (m) Flight and service interphone.
   (n) Avionics.
   (o) Cabin equipment/furnishings.
3. Describe systems and aircraft handling particularly access, power availability and sources.
4. Identify the locations of the principal components.
5. Explain the normal functioning of each major system, including terminology and nomenclature.
6. Perform the procedures for ramp and transit servicing associated with the aircraft for the following systems: Fuel, Power Plants, Hydraulics, Landing Gear, Water/Waste, Oxygen.
7. Demonstrate proficiency in use of crew reports and on-board reporting systems (minor troubleshooting) and determine aircraft airworthiness per the MEL/CDL.

8. Identify and use appropriate documentation.

9. Locate those procedures for replacement of components for ramp and transit activities identified in objective 2.

Level 3 Line and base maintenance training

Detailed description, operation, component location, removal/installation and bite and troubleshooting procedures to maintenance manual level.

Course objectives: In addition to the information contained in Level 1 and Level 2 training, at the completion of Level III Line and Base Maintenance training, the student will be able to:

(a) Perform system, engine, component and functional checks as specified in the maintenance manual.

(b) Correlate information for the purpose of making decisions in respect of fault diagnosis and rectification to maintenance manual level.

(c) Describe procedures for replacement of components unique to aircraft type.

2. *Type training standard*

Type training must include a theoretical and practical element.

2.1. Theoretical element

As a minimum the elements in the Syllabus below that are specific to the aircraft type must be covered. Additional elements introduced due to technological changes shall also be included.

Training levels are those levels defined in paragraph 1 above.

After the first type course for category C certifying staff all subsequent courses need only be to level 1.

Introduction Module Title	
General Aircraft (dimensions/weights MTOW etc) Time limits/maintenance checks Levelling and weighing Towing and taxiing Parking/mooring Servicing Standard practices-only type particular B2 module-safety items/mechanical interface B1 module-safety items/avionics interface	

	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
	B1	C	B1	C	B1	C	B1	C	B2
Blade tracking and vibration analysis	—	—	—	—	3	1	3	1	—
Transmissions	—	—	—	—	3	1	3	1	—
Airframe structure	—	—	—	—	3	1	3	1	1
Main rotor	—	—	—	—	3	1	3	1	—
Tail rotor/rotor drive	—	—	—	—	3	1	3	1	—
Rotor flight control	—	—	—	—	3	1	3	1	—
Airframe Structure	3	1	3	1	—	—	—	—	1
Fuselage Doors	3	1	3	1	—	—	—	—	—
Fuselage	3	1	3	1	—	—	—	—	—
Fuselage Windows	3	1	3	1	—	—	—	—	—
Wings	3	1	3	1	—	—	—	—	—
Stabilisers	3	1	3	1	—	—	—	—	—
Flight Control Surfaces	3	1	3	1	—	—	—	—	—
Nacelles/Pylons	3	1	3	1	—	—	—	—	—

	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
	B1	C	B1	C	B1	C	B1	C	B2
Zonal & Station Identification Systems	1	1	1	1	1	1	1	1	1
Air Supply	3	1	3	1	3	1	3	1	1
Air Conditioning	3	1	3	1	3	1	3	1	1
Pressurisation	3	1	—	—	—	—	—	—	1
Safety & Warning Devices	3	1	—	—	—	—	—	—	1
Instrument Systems	3	1	3	1	3	1	3	1	3
Avionics Systems	2	1	2	1	2	1	2	1	3
Electrical Power	3	1	3	1	3	1	3	1	3
Equipment & Furnishings	3	1	3	1	3	1	3	1	—
Electronic Emergency Equip. Requir. & Cabin Entertainment Equipment	—	1	—	—	—	—	—	—	3
Fire Protection	3	1	3	1	3	1	3	1	1
Flight Controls	3	1	3	1	3	1	3	1	2
Sys. Operation: Electrical/Fly-by-Wire	3	1	—	—	—	—	—	—	3
Fuel Systems	3	1	3	1	3	1	3	1	1
Hydraulic Power	3	1	3	1	3	1	3	1	1
Ice & Rain Protection	3	1	3	1	3	1	3	1	1
Landing Gear	3	1	3	1	3	1	3	1	1
Lights	3	1	3	1	3	1	3	1	3
Oxygen	3	1	3	1	—	—	—	—	1
Pneumatic/Vacuum	3	1	3	1	3	1	3	1	1
Water/Waste	3	1	3	1	—	—	—	—	1
On-board Maintenance Systems	3	1	3	1	—	—	—	—	3
Turbine Engines:									
Constructional arrangement and operation	—	—	—	—	—	—	—	—	1
Engine Performance	3	1	—	—	3	1	—	—	1
Inlet	3	1	—	—	3	1	—	—	—
Compressors	3	1	—	—	3	1	—	—	—
Combustion Section	3	1	—	—	3	1	—	—	—
Turbine Section	3	1	—	—	3	1	—	—	—
Exhaust	3	1	—	—	3	1	—	—	—
Bearings and Seals	3	1	—	—	3	1	—	—	—
Lubricants and Fuels	3	1	—	—	3	1	—	—	—
Lubrication Systems	3	1	—	—	3	1	—	—	—

	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
	B1	C	B1	C	B1	C	B1	C	B2
Fuel Systems	3	1	—	—	3	1	—	—	1
Engine controls	3	1	—	—	3	1	—	—	1
FADEC	2	1	—	—	2	1	—	—	3
Air Systems	3	1	—	—	3	1	—	—	—
Starting & Ignition Systems	3	1	—	—	3	1	—	—	—
Engine Indicating Systems	3	1	—	—	3	1	—	—	3
Power Augmentation Systems	3	1	—	—	—	—	—	—	—
Turbo-prop Engines	3	1	—	—	—	—	—	—	—
Turbo-shaft Engines	—	—	—	—	3	1	—	—	—
Auxiliary Power Units (APUs)	3	1	—	—	—	—	—	—	1
Powerplant Installation	3	1	—	—	3	1	—	—	—
Fire Protection Systems	3	1	—	—	3	1	—	—	1
Engine Monitoring and Ground Operation	3	1	—	—	3	1	—	—	—
Engine Storage and Preservation	3	1	—	—	3	1	—	—	—
Piston Engines:									
Engine Performance	—	—	3	1	—	—	3	1	1
Engine Construction	—	—	3	1	—	—	3	1	1
Engine Fuel Systems	—	—	3	1	—	—	3	1	1
Carburettors	—	—	3	1	—	—	3	1	—
Fuel injection systems	—	—	3	1	—	—	3	1	—
Engine controls	3	1	—	—	3	1	—	—	1
FADEC	—	—	2	1	—	—	2	1	3
Starting and Ignition Systems	—	—	3	1	—	—	3	1	—
Induction, Exhaust and Cooling Systems	—	—	3	1	—	—	3	1	—
Supercharging/Turbocharging	—	—	3	1	—	—	3	1	—
Lubricants and Fuels	—	—	3	1	—	—	3	1	—
Lubrication Systems	—	—	3	1	—	—	3	1	—
Engine Indication Systems	—	—	3	1	—	—	3	1	3
Powerplant Installation	—	—	3	1	—	—	3	1	—
Engine Monitoring and Ground Operation	—	—	3	1	—	—	3	1	—
Engine Storage and Preservation	—	—	3	1	—	—	3	1	—

	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
	B1	C	B1	C	B1	C	B1	C	B2
Propellers:									
Propeller — General	3	1	3	1	—	—	—	—	1
Propeller Construction	3	1	3	1	—	—	—	—	—
Propeller Pitch Control	3	1	3	1	—	—	—	—	—
Propeller Synchronising	3	1	3	1	—	—	—	—	—
Propeller Electronic control	2	1	2	1	—	—	—	—	3
Propeller Ice Protection	3	1	3	1	—	—	—	—	—
Propeller Maintenance	3	1	3	1	—	—	—	—	—

2.2. Practical element

The practical training element must consist of the performance of representative maintenance tasks and their assessment, in order to meet the following objectives:

(a) Ensure safe performance of maintenance, inspections and routine work according to the maintenance manual and other relevant instructions and tasks as appropriate for the type of aircraft, for example troubleshooting, repairs, adjustments, replacements, rigging and functional checks such as engine run, etc, if required.

(b) Correctly use all technical literature and documentation for the aircraft.

(c) Correctly use specialist/special tooling and test equipment, perform removal and replacement of components and modules unique to type, including any on-wing maintenance activity.

3. *Type training examination standard*

Where aircraft type training is required, the examination must be written and comply with the following:

1. Format of the examination is of the multiple-choice type. Each multiple-choice question must have three alternative answers of which only one must be the correct answer. The time for answering is based upon a nominal average of 120 seconds per level 3 question and 75 seconds per level 1 or 2 question.

2. The examination must be of the closed book type. No reference material is permitted. An exception will be made for the case of examining a B1 or B2 candidate's ability to interpret technical documents.

3. The number of questions must be at least one question per hour of instruction subject to a minimum of two questions per Syllabus subject. The competent authority of the Member State will assess number and level of questions on a sampling basis when approving the course.

4. The examination pass mark is 75 %.

5. Penalty marking is not to be used to determine whether a candidate has passed.

6. End of module phase examinations cannot be used as part of the final examination unless they contain the correct number and level of questions required.

4. *Type examination standard*

Where type training is not required, the examination must be oral, written or practical assessment based, or a combination thereof.

Oral examination questions must be open.

Written examination questions must be essay type or multiple-choice questions.

Practical assessment must determine a person's competence to perform a task.

Examination subjects must be on a sample of subjects drawn from paragraph 2 type training/examination syllabus, at the indicated level.

The examination must ensure that the following objectives are met:

(a) Properly discuss with confidence the aircraft and its systems.

(b) Ensure safe performance of maintenance, inspections and routine work according to the maintenance manual and other relevant instructions and tasks as appropriate for the type of aircraft, for example troubleshooting, repairs, adjustments, replacements, rigging and functional checks such as engine run, etc, if required.

(c) Correctly use all technical literature and documentation for the aircraft.

(d) Correctly use specialist/special tooling and test equipment, perform removal and replacement of components and modules unique to type, including any on-wing maintenance activity.

A written report must be made by the examiner to explain why the candidate has passed or failed.

Appendix IV

Experience requirements for extending a Part-66 Aircraft Maintenance Licence

The table below shows the experience requirements for adding a new category or subcategory to an existing Part-66 licence.

The experience must be practical maintenance experience on operating aircraft in the subcategory relevant to the application.

The experience requirement will be reduced by 50 % if the applicant has completed an approved Part-147 course relevant to the subcategory.

From: \ To:	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2
A1		6 months	6 months	6 months	2 years	6 months	2 years	1 year	2 years
A2	6 months		6 months	6 months	2 years	6 months	2 years	1 year	2 years
A3	6 months	6 months		6 months	2 years	1 year	2 years	6 months	2 years
A4	6 months	6 months	6 months		2 years	1 year	2 years	6 months	2 years
B1.1	Puuduvad	6 months	6 months	6 months		6 months	6 months	6 months	1 year
B1.2	6 months	None	6 months	6 months	2 years		2 years	6 months	2 years
B1.3	6 months	6 months	Puuduvad	6 months	6 months	6 months		6 months	1 year
B1.4	6 months	6 months	6 months	Puuduvad	2 years	6 months	2 years		2 years
B2	6 months	6 months	6 months	6 months	1 year	1 year	1 year	1 year	

Appendix V

Application Form and Example of Licence Format

This appendix contains an example of the Part-66 aircraft maintenance licence and the relevant application form for such licence.

The competent authority of the Member State may modify the EASA Form 19 to include additional information necessary to support the case where the National requirements permit or require the Part-66 aircraft maintenance licence to be used outside the Part-145 requirement for non-commercial air transport purposes.

APPLICATION FOR INITIAL / AMENDMENT / RENEWAL OF PART-66 AIRCRAFT MAINTENANCE LICENCE (AML)	EASA FORM 19

APPLICANTS DETAILS:

Name: .....

Address: .....

.....

Nationality: ..... Date and Place of Birth .....

Part-66 AML DETAILS (if applicable):

Licence No: ..... Date of Issue: .....

EMPLOYERS DETAILS:

Name: .....

Address: .....

.....

AMO Approval Reference: .....

..... Fax: .....

APPLICATION FOR: (Tick (V) relevant box(es))

Initial AML ☐ Amendment of AML ☐ Renewal of AML ☐

Rating	A	B1	B2	C
Aeroplane Turbine	☐	☐		
Aeroplane Piston	☐	☐		
Helicopter Turbine	☐	☐		
Helicopter Piston	☐	☐		
Reserved	☐	☐		
Reserved	☐	☐		
Avionics			☐	
Aircraft				☐

Type endorsements (if applicable):

.....

.....

.....

.....

I wish to apply for initial / amendment / renewal of Part-66 AML as indicated and confirm that the information contained in this form was correct at the time of application.

I herewith confirm that:

1. I am not holding any Part-66 AML issued in another Member State,

2. I have not applied for any Part-66 AML in another Member State and

3. I never had a Part-66 AML issued in another Member State which was revoked or suspended in any other Member State.

I also understand that any incorrect information could disqualify me from holding a Part-66 AML.

Signed: ..... Name: .....

Date: .....

APPLICATION FOR INITIAL / AMENDMENT / RENEWAL OF PART–66 AIRCRAFT MAINTENANCE LICENCE (AML)	EASA FORM 19

I wish to claim the following credits (if applicable):

Experience credit due Part-147 training

Examination credit due equivalent exam certificates

Enclose relevant certificates

Recommendation (if applicable): It is hereby certified that the applicant has met the relevant maintenance knowledge and experience requirements of Part-66 and it is recommended that the competent authority grants or endorses the Part-66 AML.

Signed: ..... Name: .....

Position: ..... Date: .....

PART-66 AIRCRAFT MAINTENANCE LICENCE

1. An example of the Part-66 aircraft maintenance licence can be found on the following pages.

2. The document must be printed in the standardised form shown but may be reduced in size to accommodate its computer generation if desired. When the size is reduced care should be exercised to ensure sufficient space is available in those places where official seals/stamps are required. Computer generated documents need not have all the boxes incorporated when any such box remains blank so long as the document can clearly be recognised as the Part-66 aircraft maintenance licence.

3. The document may be printed in the English or the official language of the Member State concerned, except that if the official language of the Member State concerned is used, a second English copy must be attached for any licence holder that works outside that Member State to ensure understanding for the purpose of mutual recognition.

4. Each licence holder must have a unique licence number based upon a National identifier and an alpha-numeric designator.

5. The document may have the pages in any order and need not have some or any divider lines as long as the information contained is positioned such that each page layout can clearly be identified with the format of the example Part-66 aircraft maintenance licence contained herein. The aircraft type rating page need not be issued until the first type endorsement is included.

6. The document may be prepared by the competent authority of the Member State or by any Part-145 approved maintenance organisation in accordance with a procedure approved by the Member State and contained in the Part-145 maintenance organisation exposition except that in all cases the competent authority of the Member State will issue the document.

7. The preparation of any variation to an existing Part-66 aircraft maintenance licence may be carried out by the competent authority of the Member State or by any Part-145 approved maintenance organisation in accordance with a procedure approved by the competent authority of the Member State and contained in the Part-145 maintenance organisation exposition except that in all cases the competent authority of the Member State will issue the document with the variation.

8. The Part-66 aircraft maintenance licence once issued is required to be kept by the person to whom it applies in good condition and who shall remain accountable for ensuring that no unauthorised entries are made.

9. Failure to comply with paragraph 8 may invalidate the document and could lead to the holder not being permitted to hold any Part-145 certification authorisation and may result in prosecution under National law.

10. The Part-66 aircraft maintenance licence is recognised in all Member States and it is not necessary to exchange the document when working in another Member State.

11. The annex to EASA Form 26 is optional and may only be used to include National Privileges not covered by Part-66, where such privileges were covered by the national regulation in force prior to the implementation of Part-66.

12. For information the actual Part-66 aircraft maintenance licence issued by the competent authority of the Member State may have the pages in a different order and may not have the divider lines.

13. With regard to the aircraft type rating page the competent authority of the Member State may choose not to issue this page until the first aircraft type rating needs to be endorsed and will need to issue more than one aircraft type rating page when there are a number to be listed.

14. Notwithstanding 13, each page issued will be in this format and contain the specified information for that page.

15. If there are no limitations applicable, the LIMITATIONS page will be issued stating "No limitations".

16. Where a pre-printed format is used, any category, subcategory or type rating box which does not contain a rating entry shall be marked to show that the rating is not held.

EUROPEAN UNION

STATE

AUTHORITY NAME & LOGO

Part-66

AIRCRAFT MAINTENANCE LICENCE

THIS LICENCE IS RECOGNISED BY ALL EU MEMBERS

EASA FORM 26

Conditions:

1. This licence must be signed by the holder and be accompanied by an identity document containing a photograph of the licence holder.
2. Endorsement of any (sub)categories on the page(s) entitled Part-66 (SUB)CATEGORIES **only**, does **not** permit the holder to issue a certificate of release to service for an aircraft.
3. This licence when endorsed with an aircraft type rating meets the intent of ICAO annex 1.
4. The privileges of the holder of this licence are prescribed by Part-66 and the applicable requirements of Part-M and Part-145.
5. This licence remains valid until the date specified on the limitation page unless previously suspended or revoked.
6. The privileges of this licence may not be exercised unless in the preceding two year period the holder has had either six months of maintenance experience in accordance with the privileges granted by the licence, or met the provision for the issue of the appropriate privileges.

1. State of issue
2. Licence No:
3. Full name of holder:
4. Date and place of birth:
5. Address of holder:
6. Nationality:
7. Signature of holder:
8. Signature of issuing officer & date:
9. Seal or stamp of issuing Authority:

Part-66 (SUB)CATEGORIES

	A	B1	B2	C
Aeroplanes Turbine			n/a	n/a
Aeroplanes Piston			n/a	n/a
Helicopters Turbine			n/a	n/a
Helicopters Piston			n/a	n/a
Avionics	n/a	n/a		n/a
Aircraft	n/a	n/a	n/a	
Reserved				

Lic No:

Part-66 AIRCRAFT TYPE RATINGS		
A/C Type or Group	Category	Official Stamp & Date
LIC NO:		

Part-66 LIMITATIONS
Valid until:
LIC NO:

Annex to EASA Form 26

National privileges outside the scope of Part 66, in accordance with [National Legislation] (Valid only in *[Member State]*)

Official Stamp & Date

LIC NO:

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ANNEX IV

(Part-147)

147.1

For the purpose of this Part, the competent authority shall be:

1. for the organisations having their principle place of business located in the territory of a Member State, the authority designated by that Member State;

2. for the organisations having their principle place of business located in a third country, the Agency.

SECTION A

SUBPART A

GENERAL

147.A.05 Scope

This section establishes the requirements to be met by organisations seeking approval to conduct training and examination as specified in Part-66.

147.A.10 General

A training organisation shall be an organisation or part of an organisation registered as a legal entity.

147.A.15 Application

An application for an approval or for the amendment of an existing approval shall be made on a form and in a manner established by the competent authority.

SUBPART B

ORGANISATIONAL REQUIREMENTS

147.A.100 Facility requirements

(a) The size and structure of facilities shall ensure protection from the prevailing weather elements and proper operation of all planned training and examination on any particular day.

(b) Fully enclosed appropriate accommodation separate from other facilities shall be provided for the instruction of theory and the conduct of knowledge examinations.

   1. The maximum number of students undergoing knowledge training during any training course shall not exceed 28.

   2. The size of accommodation for examination purposes shall be such that no student can read the paperwork or computer screen of any other student from his/her position during examinations.

(c) The paragraph (b) accommodation environment shall be maintained such that students are able to concentrate on their studies or examination as appropriate, without undue distraction or discomfort.

(d) In the case of a basic training course, basic training workshops and/or maintenance facilities separate from training classrooms shall be provided for practical instruction appropriate to the planned training course. If, however, the organisation is unable to provide such facilities, arrangements may be made with another organisation to provide such workshops and/or maintenance facilities, in which case a written agreement shall be made with such organisation specifying the conditions of access and use thereof. The competent authority shall require access to any such contracted organisation and the written agreement shall specify this access.

(e) In the case of an aircraft type/task training course access, shall be provided to appropriate facilities containing examples of aircraft type as specified in 147.A.115(d).

(f) The maximum number of students undergoing practical training during any training course shall not exceed 15 per supervisor or assessor.

(g) Office accommodation shall be provided for instructors, knowledge examiners and practical assessors of a standard to ensure that they can prepare for their duties without undue distraction or discomfort.

(h) Secure storage facilities shall be provided for examination papers and training records. The storage environment shall be such that documents remain in good condition for the retention period as specified in 147.A.125. The storage facilities and office accommodation may be combined, subject to adequate security.

(i) A library shall be provided containing all technical material appropriate to the scope and level of training undertaken.

147.A.105 Personnel requirements

(a) The organisation shall appoint an accountable manager who has corporate authority for ensuring that all training commitments can be financed and carried out to the standard required by this Part.

(b) A person or group of persons, whose responsibilities include ensuring that the maintenance training organisation is in compliance the requirements of this Part, shall be nominated. Such person(s) must be responsible to the accountable manager. The senior person or one person from the group of persons may also be the accountable manager subject to meeting the requirements for the accountable manager as defined in paragraph (a).

(c) The maintenance training organisation shall contract sufficient staff to plan/perform knowledge and practical training, conduct knowledge examinations and practical assessments in accordance with the approval.

(d) By derogation to paragraph (c), when another organisation is used to provide practical training and assessments, such other organisation's staff may be nominated to carry out practical training and assessments.

(e) Any person may carry out any combination of the roles of instructor, examiner and assessor, subject to compliance with paragraph (f).

(f) The experience and qualifications of instructors, knowledge examiners and practical assessors shall be established as an officially recognised standard.

(g) The knowledge examiners and practical assessors shall be specified in the organisation exposition for the acceptance of such staff.

(h) Instructors and knowledge examiners shall undergo updating training at least every 24 months relevant to current technology, practical skills, human factors and the latest training techniques appropriate to the knowledge being trained or examined.

147.A.110 Records of instructors, examiners and assessors

(a) The organisation shall maintain a record of all instructors, knowledge examiners and practical assessors. These records shall reflect the experience and qualification, training history and any subsequent training undertaken.

(b) Terms of reference shall be drawn up for all instructors, knowledge examiners and practical assessors.

147.A.115 Instructional equipment

(a) Each classroom shall have appropriate presentation equipment of a standard that ensures students can easily read presentation text/drawings/diagrams and figures from any position in the classroom.

Presentation equipment shall include representative synthetic training devices to assist students in their understanding of the particular subject matter where such devices are considered beneficial for such purposes.

(b) The basic training workshops and/or maintenance facilities as specified in 147.A.100(d) must have all tools and equipment necessary to perform the approved scope of training.

(c) The basic training workshops and/or maintenance facilities as specified in 147.A.100(d) must have an appropriate selection of aircraft, engines, aircraft parts and avionic equipment.

(d) The aircraft type training organisation as specified in 147.A.100(e) must have access to the appropriate aircraft type. Synthetic training devices may be used when such synthetic training devices ensure adequate training standards.

147.A.120 Maintenance training material

(a) Maintenance training course material shall be provided to the student and cover as applicable:

1. the basic knowledge syllabus specified in Part-66 for the relevant aircraft maintenance licence category or subcategory and,

2. the type course content required by Part-66 for the relevant aircraft type and aircraft maintenance licence category or subcategory.

(b) Students shall have access to examples of maintenance documentation and technical information of the library as specified in 147.A.100(i).

147.A.125 Records

The organisation shall keep all student training, examination and assessment records for at least five years following completion of the particular student's course.

147.A.130 Training procedures and quality system

(a) The organisation shall establish procedures acceptable to the competent authority to ensure proper training standards and compliance with all relevant requirements in this Part.

(b) The organisation shall establish a quality system including:

1. an independent audit function to monitor training standards, the integrity of knowledge examinations and practical assessments, compliance with and adequacy of the procedures, and

2. a feedback system of audit findings to the person(s) and ultimately to the accountable manager referred to in 147.A.105(a) to ensure, as necessary, corrective action.

147.A.135 Examinations

(a) The examination staff shall ensure the security of all questions.

(b) Any student found during a knowledge examination to be cheating or in possession of material pertaining to the examination subject other than the examination papers and associated authorised documentation shall be disqualified from taking the examination and may not take any examination for at least 12 months after the date of the incident. The competent authority shall be informed of any such incident together with the details of any enquiry within one calendar month.

(c) Any examiner found during a knowledge examination to be providing question answers to any student being examined shall be disqualified from acting as an examiner and the examination declared void. The competent authority must be informed of any such occurrence within one calendar month.

147.A.140 Maintenance training organisation exposition

(a) The organisation shall provide an exposition for use by the organisation describing the organisation and its procedures and containing the following information:

1. a statement signed by the accountable manager confirming that the maintenance training organisation exposition and any associated manuals define the maintenance training organisation's compliance with this Part and shall be complied with at all times.

2. the title(s) and name(s) of the person(s) nominated in accordance with 147.A.105(b).

3. the duties and responsibilities of the person(s) specified in subparagraph 2, including matters on which they may deal directly with the competent authority on behalf of the maintenance training organisation.

4. a maintenance training organisation chart showing associated chains of responsibility of the person(s) specified in paragraph (a)(2).

5. a list of the training instructors, knowledge examiners and practical assessors.

6. a general description of the training and examination facilities located at each address specified in the maintenance training organisation's approval certificate, and if appropriate any other location, as required by 147.A.145(b).

7. a list of the maintenance training courses which form the extent of the approval.

8. the maintenance training organisation's exposition amendment procedure.

9. the maintenance training organisation's procedures, as required by 147.A.130(a).

10. the maintenance training organisation's control procedure, as required by 147.A.145(c), when authorised to conduct training, examination and assessments in locations different from those specified in 147.A.145(b).

11. a list of the locations pursuant to 147.A.145(b).

12. a list of organisations, if appropriate, as specified in 147.A.145(d).

(b) The maintenance training organisation's exposition and any subsequent amendments shall be approved by the competent authority.

(c) Notwithstanding paragraph (b) minor amendments to the exposition may be approved through an exposition procedure (hereinafter called indirect approval).

147.A.145 Privileges of the maintenance training organisation

(a) The maintenance training organisation may carry out the following as permitted by and in accordance with the maintenance training organisation exposition:

1. basic training courses to the Part-66 syllabus, or part thereof.

2. aircraft type/task training courses in accordance with Part-66.

3. the examinations on behalf of the competent authority, including the examination of students who did not attend the basic or aircraft type training course at the maintenance training organisation.

4. the issue of certificates in accordance with Appendix III following successful completion of the approved basic or aircraft type training courses and examinations specified in subparagraphs (a)(1), (a)(2) and (a)(3), as applicable.

(b) Training, knowledge examinations and practical assessments may only be carried out at the locations identified in the approval certificate and/or at any location specified in the maintenance training organisation exposition.

(c) By derogation to paragraph (b), the maintenance training organisation may only conduct training, knowledge examinations and practical assessments in locations different from the paragraph (b) locations in accordance with a control procedure specified in the maintenance training organisation exposition. Such locations need not be listed in the maintenance training organisation exposition.

(d) 1. The maintenance training organisation may subcontract the conduct of basic theoretical training, type training and related examinations to a non maintenance training organisation only when under the control of the maintenance training organisation quality system.

2. The subcontracting of basic theoretical training and examination is limited to Part-66, Appendix I, Modules 1, 2, 3, 4, 5, 6, 8, 9 and 10.

3. The subcontracting of type training and examination is limited to powerplant and avionic systems.

(e) An organisation may not be approved to conduct only examinations unless approved to conduct training.

147.A.150 Changes to the maintenance training organisation

(a) The maintenance training organisation shall notify the competent authority of any proposed changes to the organisation that affect the approval before any such change takes place, in order to enable the competent authority to determine continued compliance with this Part and to amend if necessary the maintenance training organisation approval certificate.

(b) The competent authority may prescribe the conditions under which the maintenance training organisation may operate during such changes unless the competent authority determines that the maintenance training organisation approval must be suspended.

(c) Failure to inform the competent authority of such changes may result in suspension or revocation of the maintenance training organisation approval certificate backdated to the actual date of the changes.

147.A.155 Continued validity

(a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:

1. the organisation remaining in compliance with this Part, in accordance with the provisions related to the handling of findings as specified under 147.B.130; and

2. the competent authority being granted access to the organisation to determine continued compliance with this Part; and

3. the certificate not being surrendered or revoked.

(b) Upon surrender or revocation, the approval shall be returned to the competent authority.

147.A.160 Findings

(a) A level 1 finding is one or more of the following:

1. any significant non-compliance with the examination process which would invalidate the examination(s),
2. failure to give the competent authority access to the organisation's facilities during normal operating hours after two written requests,
3. the lack of an accountable manager,
4. a significant non-compliance with the training process.

(b) A level 2 finding is any non-compliance with the training process other than level 1 findings.

(c) After receipt of notification of findings according to 147.B.130, the holder of the maintenance training organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority.

SUBPART C

THE APPROVED BASIC TRAINING COURSE

147.A.200 The approved basic training course

(a) The approved basic training course shall consist of knowledge training, knowledge examination, practical training and a practical assessment.

(b) The knowledge training element shall cover the subject matter for a category or subcategory A, B1 or B2 aircraft maintenance licence as specified in Part-66.

(c) The knowledge examination element shall cover a representative cross section of subject matter from the paragraph (b) training element.

(d) The practical training element shall cover the practical use of common tooling/equipment, the disassembly/assembly of a representative selection of aircraft parts and the participation in representative maintenance activities being carried out relevant to the particular Part-66 complete module.

(e) The practical assessment element shall cover the practical training and determine whether the student is competent at using tools and equipment and working in accordance with maintenance manuals.

(f) The duration of basic training courses shall be in accordance with Appendix I.

(g) The duration of conversion courses between (sub)categories shall be determined through an assessment of the basic training syllabus and the related practical training needs.

147.A.205 Basic knowledge examinations

Basic knowledge examinations shall:

(a) be in accordance with the standard defined in Part-66.

(b) be conducted without the use of training notes.

(c) cover a representative cross section of subjects from the particular module of training completed in accordance with Part-66.

147.A.210 Basic practical assessment

(a) Basic practical assessments shall be carried out during the basic maintenance training course by the nominated practical assessors at the completion of each visit period to the practical workshops/maintenance facility.

(b) The student shall achieve an assessed pass with respect to 147.A.200(e).

SUBPART D

AIRCRAFT TYPE/TASK TRAINING

147.A.300 Aircraft type/task training

A maintenance training organisation shall be approved to carry out Part-66 aircraft type and/or task training subject to compliance with the standard specified in 66.A.45.

147.A.305 Aircraft type examinations and task assessments

A maintenance training organisation approved in accordance with 147.A.300 to conduct aircraft type training shall conduct the aircraft type examinations or aircraft task assessments specified in Part-66 subject to compliance with the aircraft type and/or task standard specified in Part-66.A.45.

SECTION B

PROCEDURE FOR COMPETENT AUTHORITIES

SUBPART A

GENERAL

147.B.05 Scope

This section establishes the administrative requirements to be followed by the competent authorities in charge of the application and the enforcement of Section A of this Part.

147.B.10 Competent Authority

(a) *General*

The Member State shall designate a competent authority with allocated responsibilities for the issuance, continuation, change, suspension or revocation of Part-147 certificates. This competent authority shall establish documented procedures and an organisational structure.

(b) *Resources*

The competent authority shall be appropriately staffed to carry out the requirements of this Part.

(c) *Procedures*

The competent authority shall establish procedures detailing how compliance with this Part is accomplished.

The procedures shall be reviewed and amended to ensure continued compliance.

147.B.15 Acceptable means of compliance

The Agency shall develop acceptable means of compliance that the competent authority may use to establish compliance with this Part. When the acceptable means of compliance are complied with, the related requirements of this Part shall be considered as met.

147.B.20 Record-keeping

(a) The competent authority shall establish a system of record-keeping that allows adequate traceability of the process to issue, renew, continue, vary, suspend or revoke each approval.

(b) The records for the oversight of maintenance training organisations shall include as a minimum:

1. the application for an organisation approval.
2. the organisation approval certificate including any changes.
3. a copy of the audit program listing the dates when audits are due and when audits were carried out.
4. continued oversight records including all audit records.
5. copies of all relevant correspondence.
6. details of any exemption and enforcement actions.
7. any report from other competent authorities relating to the oversight of the organisation.
8. organisation exposition and amendments.

(c) The minimum retention period for the paragraph (b) records shall be four years.

147.B.25 Exemptions

(a) The competent authority may exempt a State education department school from:

1. being an organisation as specified in 147.A.10.

2. having an accountable manager, subject to the limitation that the department appoint a senior person to manage the training organisation and such person has a budget sufficient to operate the organisation to the standard of Part-147.

3. having recourse to the independent audit part of a quality system subject to the department operating an independent schools inspectorate to audit the maintenance training organisation at the frequency required by this Part.

(b) All exemptions granted in accordance with Article 10(3) of the basic Regulation shall be recorded and retained by the competent authority.

SUBPART B

ISSUE OF AN APPROVAL

This Subpart provides the requirements to issue or vary the maintenance training organisation approval.

147.B.100 General

(a) An application for maintenance training organisation initial approval or variation of an maintenance training organisation approval shall be made on a form and in a manner established by the competent authority.

(b) The maintenance training organisation approval shall be granted to the organisation by the competent authority.

(c) Notwithstanding the above, an organisation not registered as an EU legal person shall make an application for initial approval or variation of a maintenance training organisation approval on a form and in a manner established by the Agency.

147.B.105 Application for an approval or variation

An application for an approval or variation shall include the following information:

1. the registered name and address of the applicant,

2. the address requiring the approval or variation,

3. the intended scope of approval or variation,

4. the name and signature of the accountable manager,

5. the date of application.

147.B.110 Approval procedure

(a) The competent authority shall:

1. review the maintenance training organisation exposition, and

2. verify the organisation's compliance with the Part-147 requirement.

(b) All findings identified during an audit visit shall be recorded and confirmed in writing to the applicant.

(c) All findings shall be closed in accordance with 147.B.130 before the approval is issued.

(d) The reference number shall be included on the approval certificate in a manner specified by the Agency.

147.B.115 Variation procedure

The variation procedure is 147.B.110, restricted to the extent of the variation.

147.B.120 Continued validity procedure

(a) Each organisation must be completely audited for compliance with this Part at periods not exceeding 24 months.

(b) Findings shall be processed in accordance with 147.B.130.

147.B.125 Maintenance training organisation approval certificate

The maintenance training organisation approval certificate format shall be as detailed in Appendix II.

147.B.130 Findings

(a) Failure to complete the rectification of any level 1 finding within three days of written notification shall entail revocation, suspension or limitation by the competent authority, of the maintenance training organisation approval in whole or in part.

(b) Action shall be taken by the competent authority to revoke, limit or suspend in whole or part the approval in case of failure to comply within the time scale granted by the competent authority in the case of a level 2 finding.

SUBPART C

REVOCATION, SUSPENSION AND LIMITATION OF THE MAINTENANCE TRAINING ORGANISATION APPROVAL

147.B.200 Revocation, suspension and limitation of the maintenance training organisation approval

The competent authority shall:

(a) suspend an approval on reasonable grounds in the case of potential safety threat; or

(b) suspend, revoke or limit an approval pursuant to 147.B.130.

Appendix I

Basic Training Course Duration

Minimum duration of complete basic courses

Basic Course	Duration (in hours)	Theoretical training ratio (in %)
A1	800	30 to 35
A2	650	30 to 35
A3	800	30 to 35
A4	800	30 to 35
B1.1	2 400	50 to 60
B1.2	2 000	50 to 60
B1.3	2 400	50 to 60
B1.4	2 400	50 to 60
B2	2 400	50 to 60

Appendix II

Approval Certificat

European Union

Competent authority

APPROVAL CERTIFICATE

REFERENCE:

Pursuant to the EU Regulations for the time being in force and subject to the conditions specified below, the [competent authority] hereby certifies

NAME OF ORGANISATION

ADDRESS OF ORGANISATION

as a Part-147 maintenance training organisation approved to provide training and conduct examinations listed in the attached approval schedule and issue related certificates of recognition to students.

CONDITIONS:

1. This approval is limited to that specified in the scope of approval section of the Part-147 approved maintenance training organisation exposition, and
2. This approval requires compliance with the procedures specified in the Part-147 approved maintenance training organisation exposition, and
3. This approval is valid whilst the Part-147 approved maintenance training organisation remains in compliance with Part-147.
4. Subject to compliance with the foregoing conditions, this approval shall remain valid unless the approval has previously been surrendered, superseded, suspended or revoked.

Date of issue: ..... Signed: .....

Date of attached schedule of Approval: …… (optional) ..... For the Member State/EASA

EASA Form 11

TRAINING / EXAMINATION APPROVAL SCHEDULE

Organisation: .....

Approval Reference: .....

CLASS	RATING		LIMITATIONS
BASIC	-B1	TB1.1	AEROPLANES TURBINE
		TB1.2	AEROPLANES PISTON
		TB1.3	HELICOPTERS TURBINE
		TB1.4	HELICOPTERS PISTON
	-B2	TB2	AVIONICS
	A	TA.1	AEROPLANES TURBINE
		TA.2	AEROPLANES PISTON
		TA.3	HELICOPTERS TURBINE
		TA.4	HELICOPTERS PISTON
TYPE/TASKS	B1	T1	QUOTE AIRCRAFT TYPE
	B2	T2	QUOTE AIRCRAFT TYPE
	A	T3	QUOTE AIRCRAFT TYPE
	C	T4	QUOTE AIRCRAFT TYPE

This training / examination approval schedule is valid when working in accordance with Part-147 approved maintenance training organisation exposition: .....

Date of issue: .....

Signed: .....

For the Member State/EASA

EASA Form 11

Appendix III

Example of Training Certificate

CERTIFICATE OF RECOGNITION

PART-147 APPROVED BASIC TRAINING COURSE OR BASIC EXAMINATION

This Certificate of recognition is issued to:

NAME

DATE, PLACE OF BIRTH

By (may be pre-printed) .....,

an organisation approved to the requirements of Part-147 by

(may be pre-printed) .....,

approval reference.....)

This Certificate confirms that the above named person either successfully passed the approved basic training course or the basic examination stated below;

SPECIFY BASIC TRAINING COURSE or BASIC EXAMINATION AND DATE COMPLETED or PASSED

Signed: ..... Certificate No: .....

For: (may be pre-printed) ..... Date: .....

Type training certificate

The Part-147 training certificate as detailed below may be used for recognition of completion of either the theoretical element or both the theoretical and practical elements.

The appropriate references should be deleted as applicable and the course type box should detail whether only the theoretical elements were covered or whether theoretical and practical elements were covered.

The training certificate must clearly identify if the course is a complete course or a reduced course based upon the applicant previous experience (e.g. A340 course for A320 technicians).

CERTIFICATE OF RECOGNITION

PART-147 APPROVED BASIC TRAINING COURSE OR BASIC EXAMINATION

This Certificate of recognition is issued to:

NAME

DATE, PLACE OF BIRTH

By (may be pre-printed) .....,

an organisation approved to the requirements of Part-147 by

(may be pre-printed) .....,

approval reference.....)

This Certificate confirms that the above named person either successfully passed the approved basic training course or the basic examination stated below;

SPECIFY BASIC TRAINING COURSE or BASIC EXAMINATION AND DATE COMPLETED or PASSED

Signed: ..... Certificate No: .....

For: (may be pre-printed) ..... Date: .....