REPUBLIC OF MAURITIUS

DEPARTMENT OF CIVIL AVIATION

Sir Seewoosagur Ramgoolam International Airport, Plaine Magnien

MAURITIUS CIVIL AVIATION REQUIREMENTS

MCAR-1
PART A

Approved Training Organisation
Pilot training

Issue 1 Rev 0
Dated 20 June 2015

Foreword

These requirements are published by the Authority pursuant to the provisions of Regulation 135 of the Civil Aviation Regulations 2007 as amended and shall be used for approval of training organizations that shall conduct courses in accordance with Mauritius Flight Crew Licensing Requirements (MFCL), Issue 3 dated 3rd March 2015.

Comments and suggestions for amendment and or revision to this publication should be forwarded to the DCA **Flight Operations Department**.

The is the First Edition of MCAR -1 PART A Approved Training Organizations for Flight Crew Licensing dated 1st June 2015.

Operators will have to show demonstration with the above requirements by 31st December 2015 and Part D of the Operations Manual should be amended to comply with these new requirements.

I.POKHUN
Ag Director of Civil Aviation

Amendment Record

Amendment	Date	Pages Affected	Date Entered	Initials
Original issue	20 June 2015			

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Definitions

(a) For the purposes of Part 1, the following definitions apply:

(1) "**Acceptable Means of Compliance (AMC)"** means non-binding standards adopted by the DCA to illustrate means to establish compliance with the requirements;

(2) **Approved training organisation**. An organisation approved by and operating under the supervision of the Department of Civil Aviation in accordance with the requirements of this Part in compliance with MFCL to perform approved aircrew training.

(3) "**Aerobatic flight**" means an intentional manoeuvre involving an abrupt change in an aircraft's attitude, an abnormal attitude, or abnormal acceleration, not necessary for normal flight or for instruction for licences or ratings other than the aerobatic rating.

(4) "**Aeroplane**" means an engine-driven fixed-wing aircraft heavier than air, which is supported in flight by the dynamic reaction of the air against its wings.

(5) "**Aeroplane required to be operated with a co-pilot**" means a type of aeroplane which is required to be operated with a co-pilot as specified in the flight manual or by the air operator certificate.

(6) "**Aircraft**" means any machine, which can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

(7) "**Airmanship**" means the consistent use of good judgement and well-developed knowledge, skills and attitudes to accomplish flight objectives.

(8) "**Airship**" means a power-driven lighter-than-air aircraft, with the exception of hot-air airships, which, for the purposes of this Part, are included in the definition of balloon.

(9) **Approved training**. Training conducted under curricula and supervision approved by the Department of Civil Aviation that, in the case of aviation personnel, is conducted in an approved training organisation.

(10) "**Balloon**" means a lighter-than-air aircraft, which is not engine-driven and sustains flight through the use of either gas or an

airborne heater. For the purposes of this Part, a hot-air airship, although engine-driven, is also considered a balloon.

(11) "**Basic Instrument Training Device**" (BITD) means a ground-based training device, which represents the student pilot's station of a class of aeroplanes. It may use screen-based instrument panels and spring-loaded flight controls, providing a training platform for at least the procedural aspects of instrument flight.

(12) "**Category of aircraft**" means a categorisation of aircraft according to specified basic characteristics, for example aeroplane, powered-lift, helicopter, airship, sailplane, free balloon

(13) "**Class of aeroplane**" means a categorisation of single-pilot aeroplanes not requiring a type rating

(14) "**Class of balloon**" means a categorisation of balloons taking into account the lifting means used to sustain flight.

(15) "**Commercial air transport**" means the transport of passengers, cargo or mail for remuneration or hire.

(16) "**Competency**" means a combination of skills, knowledge and attitude required to perform a task to the prescribed standard.

(17) "**Competency element**" means an action, which constitutes a task that, has a triggering event and a terminating event that clearly defines its limits, and an observable outcome.

(18) "Competency unit" means a discrete function consisting of a number of competency elements.

(19) "**Co-pilot**" means a pilot operating other than as pilot-in-command, on an aircraft for which more than one pilot is required, but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction for a licence or rating.

(20) "**Cross-country**" means a flight between a point of departure and a point of arrival following a pre-planned route, using standard navigation procedures.

(21) "**Cruise relief co-pilot**" means a pilot who relieves the co-pilot of his/her duties at the controls during the cruise phase of a flight in multi-pilot operations above FL 200.

(22) "**Dual instruction time**" means flight time or instrument ground time during which a person is receiving flight instruction from a properly authorised instructor.

(23) "**Error**" means an action or inaction taken by the flight crew, which leads to deviations from organisational or flight intentions or expectations.

(24) "**Error management**" means the process of detecting and responding to errors with counter measures, which reduce or eliminate the consequences of errors, and mitigate the probability of errors or undesired aircraft states.

(25) "**Full Flight Simulator**" (FFS) means a full size replica of a specific type or make, model and series aircraft flight deck, including the assemblage of all equipment and computer programmes necessary to represent the aircraft in ground and flight operations, a visual system providing an out-of-the-flight deck view, and a force cueing motion system.

(26) "**Flight time**":

for aeroplanes, touring motor gliders and powered-lift, it means the total time from the moment an aircraft first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight;

for helicopters, it means the total time from the moment a helicopter's rotor blades start turning until the moment the helicopter finally comes to rest at the end of the flight, and the rotor blades are stopped;

for airships, it means the total time from the moment an airship is released from the mast for the purpose of taking off until the moment the airship finally comes to rest at the end of the flight, and is secured on the mast;

for sailplanes, it means the total time from the moment the sailplane commences the ground run in the process of taking off until the moment the sailplane finally comes to a rest at the end of flight;

for balloons, it means the total time from the moment the basket leaves the ground for the purpose of taking off until the moment it finally comes to a rest at the end of the flight.

(27) "**Flight time under Instrument Flight Rules**" (IFR) means all flight time during which the aircraft is being operated under the Instrument Flight Rules.

(28) "**Flight Training Device**" (FTD) means a full size replica of a specific aircraft type's instruments, equipment, panels and controls in an open flight deck area or an enclosed aircraft flight deck, including the assemblage of equipment and computer software programmes necessary to represent the aircraft in ground and flight conditions to the extent of the systems installed in the device. It does not require a force cueing motion or visual system, except in the case of helicopter FTD levels 2 and 3, where visual systems are required.

(29) "**Flight and Navigation Procedures Trainer**" (FNPT) means a training device which represents the flight deck or cockpit environment, including the assemblage of equipment and computer programmes necessary to represent an aircraft type or class in flight operations to the extent that the systems appear to function as in an aircraft.

(30) "**Group of balloons**" means a categorisation of balloons, taking into account the size or capacity of the envelope.

(31) "**Helicopter**" means a heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

(32) "**Instrument flight time**" means the time during which a pilot is controlling an aircraft in flight solely by reference to instruments.

(33) "**Instrument ground time**" means the time during which a pilot is receiving instruction in simulated instrument flight, in flight simulation training devices (FSTD).

(34) "**Instrument time**" means instrument flight time or instrument ground time. "Multi-pilot operation":

for aeroplanes, it means an operation requiring at least 2 pilots using multi-crew cooperation in either multi-pilot or single-pilot aeroplanes;

for helicopters, it means an operation requiring at least 2 pilots using multi-crew cooperation on multi-pilot helicopters.

(35) "**Multi-crew cooperation" (MCC)** means the functioning of the flight crew as a team of cooperating members led by the pilot-in-command.

(36) "**Multi-pilot aircraft**":

for aeroplanes, it means aeroplanes certificated for operation with a minimum crew of at least two pilots;

for helicopters, airships and powered-lift aircraft, it means the type of aircraft which is required to be operated with a co-pilot as specified in the flight manual or by the air operator certificate or equivalent document.

(37) "**Night**" means the period between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise as may be prescribed by the appropriate authority, as defined by the Member State.

(38) "**Other training devices**" (OTD) means training aids other than flight simulators, flight training devices or flight and navigation procedures trainers which provide means for training where a complete flight deck environment is not necessary.

(39) "**Performance criteria**" means a simple, evaluative statement on the required outcome of the competency element and a description of the criteria used to judge if the required level of performance has been achieved.

(40) "**Pilot-in-command**" (PIC) means the pilot designated as being in command and charged with the safe conduct of the flight.

(41) "**Pilot-in-command under supervision**" (PICUS) means a co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command.

(42) "**Powered-lift aircraft**" means any aircraft deriving vertical lift and in flight propulsion/lift from variable geometry rotors or engines/propulsive devices attached to or contained within the fuselage or wings.

(43) "**Powered sailplane**" means an aircraft equipped with one or more engines having, with engines inoperative, the characteristics of a sailplane.

(44) "**Private pilot**" means a pilot who holds a licence, which prohibits the piloting of aircraft in operations for which

remuneration, is given, with the exclusion of instruction or examination activities, as established in this Part.

(45) "**Proficiency check**" means the demonstration of skill to revalidate or renew ratings, and including such oral examination as may be required.

(46) "**Renewal"** (of, e.g. a rating or certificate) means the administrative action taken after a rating or certificate has lapsed for the purpose of renewing the privileges of the rating or certificate for a further specified period consequent upon the fulfilment of specified requirements.

(47) "**Revalidation**" (of, e.g. a rating or certificate) means the administrative action taken within the period of validity of a rating or certificate which allows the holder to continue to exercise the privileges of a rating or certificate for a further specified period consequent upon the fulfilment of specified requirements.

(48) "**Route sector**" means a flight comprising take-off, departure, cruise of not less than 15 minutes, arrival, approach and landing phases.

(49) "**Sailplane**" means a heavier-than-air aircraft, which is supported in flight by the dynamic reaction of the air against its fixed lifting surfaces, the free flight of which does not depend on an engine.

(50) "**Single-pilot aircraft**" means an aircraft certificated for operation by one pilot.

(51) "**Skill test**" means the demonstration of skill for a licence or rating issue, including such oral examination as may be required.

(52) "**Solo flight time**" means flight time during which a student pilot is the sole occupant of an aircraft.

(53) "Student pilot-in-command" (SPIC) means a student pilot acting as pilot-in-command on a flight with an instructor where the latter will only observe the student pilot and shall not influence or control the flight of the aircraft.

(54) "**Threat**" means events or errors which occur beyond the influence of the flight crew, increase operational complexity and which must be managed to maintain the margin of safety.

(55) "**Threat management**" means the process of detecting and responding to the threats with countermeasures which reduce or eliminate the consequences of threats, and mitigate the probability of errors or undesired aircraft states.

(56) "**Touring Motor Glider**" (TMG) means a specific class of powered sailplane having an integrally mounted, non-retractable engine and a non-retractable propeller. It shall be capable of taking off and climbing under its own power according to its flight manual.

(57) "**Type of aircraft**" means a categorisation of aircraft requiring a type rating as determined in the operational suitability data established in accordance with MCAR Part-21, and which include all aircraft of the same basic design including all modifications thereto except those which result in a change in handling or flight characteristics.

Abbreviations

(a) The following abbreviations are used in Part 1.

(1) A – Aeroplane

(2) AMT – Aviation Maintenance Technician

(3) ATCO – Air Traffic Controller

(4) ATO – Approved Training Organisation

(5) ATPL – Airline Transport Pilot Licence

(6) CFI – Chief Flight Instructor

(7) CGI – Chief Ground Instructor

(8) CPL – Commercial Pilot Licence

(9) CRM – Crew Resource Management

(10) DCA – Department of Civil Aviation

(11) FE – Flight Engineer

(12) H – Helicopter

(13) HT-Head of Training

(14) IFR – Instrument Flight Rules

(15) ICAO – International Civil Aviation Organisation

(16) MMEL – Master Minimum Equipment List

(17) MPL – Multi-Crew Pilot Licence

(18) PIC – Pilot-in-Command

(19) PPL – Private Pilot Licence

(20) RT – Radiotelephony

(21) SPL – Student Pilot Licence

(22) VFR – Visual Flight Rules

Introduction

All ATOs intending to, or completing training in accordance with the requirements of MFCL must also meet all of the organisational requirements detailed in MFCL:

MFL.GEN.105; MFCL.GEN.115; MFCL.GEN.120; MFCL.GEN.125; MFCL.GEN.130; MFCL.GEN.135; MFCL.GEN.140; MFCL.GEN.150; MFCL.GEN.155; MFCL.GEN.160; MFCL.GEN.200; MFCL.GEN.205; MFCL.GEN.210; MFCL.GEN.215; MFCL.GEN.220, together with the associated AMCs and GM.

General

ORA.ATO.100 Scope

Part 1 prescribes the requirements establishes the requirements to be met by organisations providing training for pilot licences and associated ratings and certificates in accordance with MFCL.

GM1 MFCL.ATO.100 Scope

The content of this Section contains the requirements applicable to all ATOs providing training for pilot licences and the associated ratings and certificates.
It is applicable to ATOs providing training for:

(a) the LAPL, PPL, SPL and BPL and the associated ratings and certificates; and the commercial pilot licence (CPL), multi-crew pilot licence (MPL) and airline transport pilot licence (ATPL) and the associated ratings and certificates.

MFCL.ATO.105 Application

Applicants for the issue of a certificate as an approved training organisation (ATO) shall provide the competent authority with:

(1) the following information:

(i) name and address of the training organisation;

(ii) date of intended commencement of activity;

(iii) personal details and qualifications of the head of training (HT), the flight instructor(s), flight simulation training instructors and the theoretical knowledge instructor(s);

(iv) name(s) and address(es) of the aerodromes(s) and/or operating site(s) at which the training is to be conducted;

(v) list of aircraft to be operated for training, including their group, class or type, registration, owners and category of the certificate of airworthiness, if applicable

(vi) list of flight simulation training devices (FSTDs) that the training organisation intends to use, if applicable;

(vii) the type of training that the training organisation wishes to provide and the corresponding training programme; and

(2) the operations and training manuals.

(b) Flight test training organisations. Notwithstanding (a)(1)(iv) and (v), training organisations providing flight test training shall only need to provide:

(1) the name(s) and address(es) of the main aerodromes and/or operating site(s) at which the training is to be conducted; and

(2) a list of the types or categories of aircraft to be used for flight test training.

(c) In the case of a change to the certificate, applicants shall provide the competent authority with the relevant parts of the information and documentation referred to in (a).

AMC1 MFCL.ATO.105 Application (See DCA Flight crew ATO Application form)

APPLICATION FORM

Note 1: If answers to any of the above questions are incomplete, the applicant should provide full details of alternative arrangements separately.

Note 2: instrument flight rules (IFR), full flight simulator (FFS), flight and navigation procedures trainer (FNPT), flight training device (FTD), basic instrument training device (BITD)

I, (name), on behalf of (name of training organisation) certify that all the above named persons are in compliance with the applicable requirements and that all the above information given is complete and correct.

(Date) (Signature)

MFCL.ATO.110 Personnel requirements

(a) An HT shall be nominated. The HT shall have extensive experience as an instructor in the areas relevant for the training provided by the ATO and shall possess sound managerial capability.

(b) The HT's responsibilities shall include:

(1) ensuring that the training provided is in compliance with MFCL and, in the case of flight test training, that the relevant requirements of Part-MCAR 21 and the training programme have been established;

(2) ensuring the satisfactory integration of flight training in an aircraft or a flight simulation training device (FSTD) and theoretical knowledge instruction; and

(3) supervising the progress of individual students.

(c) Theoretical knowledge instructors shall have:

(1) practical background in aviation in the areas relevant for the training provided and have undergone a course of training in instructional techniques; or

(2) previous experience in giving theoretical knowledge instruction and an appropriate theoretical background in the subject on which they will provide theoretical knowledge instruction.

(d) Flight instructors and flight simulation training instructors shall hold the qualifications required by MFCL for the type of training that they are providing.

AMC1 MFCL.ATO.110(b) Personnel requirements

HEAD OF TRAINING

The nominated head of training (HT) should have the overall responsibility to ensure that the training is in compliance with the appropriate requirements. In an ATO providing training courses for different aircraft categories, the HT shall be assisted by one or more nominated deputy HT(s) for certain flight training courses.

AMC1 MFCL.ATO.110(c) Personnel requirements

THEORETICAL KNOWLEDGE INSTRUCTORS

Theoretical knowledge instructors should, before appointment, prove their competency by giving a test lecture based on material they have developed for the subjects they are to teach.

MFCL.ATO.120 Record-keeping

The following records shall be kept for a period of at least 3 years after the completion of the training:

(a) details of ground, flight, and simulated flight training given to individual students;

(b) detailed and regular progress reports from instructors including assessments, and regular progress flight tests and ground examinations; and

(c) information on the licences and associated ratings and certificates of the students, including the expiry dates of medical certificates and ratings.

AMC1 MFCL.ATO.120(a);(b) Record-keeping

ATOs PROVIDING TRAINING ONLY FOR THE LAPL, PPL, SPL OR BPL AND THE ASSOCIATED RATINGS AND CERTIFICATES

The details of ground, flight and flight instruction by using FSTD given to a specific individual student and the detailed progress reports from instructors may be kept also in a student's progress card. This progress card should contain all the exercises of the training syllabus. The instructor should sign this card if a certain exercise has been completed or a specific assessment has been conducted.

MFCL.ATO.125 Training programme

(a) A training programme shall be developed for each type of course offered.

(b) The training programme shall comply with the requirements of MFCL and, in the case of flight test training, the relevant requirements of MCAR Part-21.

AMC1 MFCL.ATO.125 Training programme

GENERAL

Flight training in an FSTD and theoretical knowledge instruction should be phased in such a manner as to ensure that students are able to apply to

flight exercises the knowledge gained on the ground. Arrangements should be made so that problems encountered during instruction can be resolved during subsequent training.

AMC2 MFCL.ATO.125 Training programme

TYPE RATING COURSES – AEROPLANES

(a) Introduction

(1) When developing the training programme for a type rating course, in addition to complying with the standards included in the operational suitability data (OSD), as established in accordance with by EASA for example, for the applicable type, or other suitable certification data and recommendations relating to training.

(2) The type rating course should, as far as possible, provide for a continual process of ground, FSTD and flight training to enable the student to assimilate the knowledge and skills required to operate a specific aircraft type safely and efficiently. The student's ability to do this should be determined by the demonstration of a satisfactory level of theoretical knowledge of the aircraft determined by progressive checking of knowledge and examination, progressive assessment by the ATO during flight training and the successful completion of a practical skill test with an examiner.

(3) The type rating course should normally be conducted as a single, full-time course of study and training. However, in the situation where the course is intended to enable a pilot to fly a further aircraft type while continuing to fly a current type, such as to enable mixed fleet flying with the same operator, some elements of the theoretical knowledge course conducted by self-study may be undertaken while the student continues to fly the current type.

(b) Variants

(1) Familiarisation training: Where an aeroplane type rating also includes variants of the same aircraft type requiring familiarisation training, the additional familiarisation training may be included in the theoretical knowledge training of the initial type rating course. Flight training should be conducted on a single variant within the type.

(2) Differences training: Where an aeroplane type rating also includes variants of the same aircraft type for which difference training is required, the initial training course should be directed towards a single variant. Additional training to operate other variants within the same type rating should be completed after successful completion of the initial type rating course. However, elements of this differences training may be undertaken at appropriate stages of the initial course, with the agreement of the competent authority.

(c) Programme of theoretical knowledge and flight training

(1) The training programme should specify the time allocated to theoretical knowledge training, FSTD training and, if not approved for zero flight-time training (ZFTT), the aeroplane. The initial type rating course should be programmed on the basis that the student has the minimum licensing and experience requirements for entry to the course. For a first type rating on a multi-pilot aeroplane (MPA), the course should also provide for consolidation and type-specific training in those elements of basic multi-crew cooperation (MCC) training relevant to the type or variant.

(2) If the ATO wishes to provide a training course that includes credit for previous experience on similar types of aircraft, such as those with common systems or operating procedures with the new type, the entry requirements to such courses should be specified by the ATO and should define the minimum level of experience and qualification required of the flight crew member.

(3) The ATO is permitted to contract elements of training to a third party training provider. In such cases the contracted organisation should normally be approved to conduct such training. When the contracted organisation is not an ATO, the competent authority should, within the approval process of the ATO, include the contracted organisation and be satisfied that the standard of training intended to be given meets the requirements. The other obligations of the ATO, such as student progress monitoring and an adequate management system, can be exercised by the ATO seeking approval and which retains responsibility for the whole course.

(d) Syllabus

The ground training syllabus should provide for the student to gain a thorough understanding of the operation, function and, if appropriate, abnormal and emergency operation of all aircraft systems. This training should also include those systems essential to the operation of the aircraft, such as 'fly-by-wire' flight control systems, even if the flight crew have little or no control of their normal or abnormal operation.

(e) Theoretical knowledge instruction

The theoretical knowledge instruction training should meet the general objectives of (but not be limited to) giving the student:

(1) a thorough knowledge of the aircraft structure, powerplant and systems, and their associated limitations, including mass and balance, aircraft performance and flight planning considerations;

(2) a knowledge of the positioning and operation of the cockpit controls and indicators for the aircraft and its systems;

(3) an understanding of system malfunctions, their effect on aircraft operations and interaction with other systems; and

(4) the understanding of normal, abnormal and emergency procedures.

(f) Facilities and training aids

The ATO should provide adequate facilities for classroom instruction and have available appropriately qualified and experienced instructors. Training aids should enable students to gain practical experience of the operation of systems covered by the theoretical knowledge syllabus and, in the case of multi-pilot aeroplanes, enable such practical application of the knowledge to be carried out in a multi-crew environment. Facilities should be made available for student self-study outside the formal training programme.

(g) Computer-based training (CBT)

CBT provides a valuable source of theoretical instruction, enabling the students to progress at their own pace within specified time limits. Many such systems ensure that syllabus subjects are fully covered and progress can be denied until a satisfactory assimilation of knowledge has been demonstrated. Such systems may allow self-study or distance learning, if they incorporate adequate knowledge testing procedures. When CBT is used as part of the theoretical knowledge instruction phase, the student should also have access to a suitably qualified instructor able to assist with areas of difficulty for the student.

(h) Self-study and distance learning:

Elements of the theoretical knowledge syllabus may be adequately addressed by distance learning, if approved, or self-study, particularly when utilising CBT. Progress testing, either by self-assessed or instructor-evaluated means should be included in any self-study programme. If self-study or distance learning is included in the theoretical knowledge training, the course should also provide for an adequate period of supervised consolidation and knowledge testing.

(i) Progress tests and final theoretical knowledge examination:

(1) The theoretical knowledge training programme should provide for progressive testing of the assimilation of the required knowledge. This testing process should also provide for retesting of syllabus items so that a thorough understanding of the required knowledge is assured. This should be achieved by intervention by a qualified instructor or, if using CBT with a self-testing facility, and by further testing during the supervised consolidation phase of the ground course.

(2) The final theoretical knowledge examination should cover all areas of the theoretical knowledge syllabus. The final examination should be conducted as a supervised written (including computer-based) knowledge test without reference to course material. The pass mark of 75% assumes the achievement of satisfactory levels of knowledge during the progressive phase tests of the course. The student should be advised of any areas of lack of knowledge displayed during the examination and, if necessary, given remedial instruction. A successful pass of the theoretical knowledge course

and final examination should be a pre-requisite for progression to the flight training phase of the type rating course, unless otherwise determined in the OSD.

FLIGHT TRAINING

(j) Flight simulation training devices (FSTDs)

A type rating course for a multi-pilot aeroplane should include FSTD training.

The amount of training required when using FSTDs will depend on the complexity of the aeroplane concerned, and to some extent on the previous experience of the pilot. Except for those courses giving credit for previous experience (c.2.), a minimum of 32 hours of FSTD training should be programmed for a crew of a multi-pilot aeroplane, of which at least 16 hours should be in an FFS operating as a crew. FFS time may be reduced if other qualified FSTDs used during the flight training programme accurately replicate the cockpit environment, operation and aeroplane response. Such FSTDs may typically include flight management computer (FMC) training devices using hardware and computer programmes identical to those of the aeroplane.

(k) Aeroplane training with FFS

(1) with the exception of courses approved for ZFTT, certain training exercises normally involving take-off and landing in various configurations should be completed in the aeroplane rather than an FFS. For MPAs where the student pilot has more than 500 hours of MPA experience in aeroplanes of similar size and performance, these should include at least four landings of which at least one should be a full-stop landing, unless otherwise specified in the OSD when available. In all other cases the student should complete at least six landings. This aeroplane training may be completed after the student pilot has completed the FSTD training and has successfully undertaken the type rating skill test, provided it does not exceed 2 hours of the flight training course.

(2) courses approved for ZFTT

During the specific simulator session before line flying under supervision (LIFUS), consideration should be given to varying conditions, for example:

(i) runway surface conditions;

(ii) runway length;

(iii) flap setting;

(iv) power setting;

(v) crosswind and turbulence conditions; and

(vi) maximum take-off mass (MTOM) and maximum landing mass (MLM).

(3) the landings should be conducted as full-stop landings. The session should be flown in normal operation.

Special attention should be given to the taxiing technique:

(i) a training methodology should be agreed with the competent authority that ensures the trainee is fully competent with the exterior inspection of the aeroplane before conducting such an inspection un-supervised;

(ii) the LIFUS should be performed as soon as possible after the specific FFS session;

(iii) the licence endorsement should be entered on the licence after the skill test, but before the first four take-offs and landings in the aeroplane. At the discretion of the competent authority, provisional or temporary endorsement and any restriction should be entered on the licence.

Where a specific arrangement exists between the ATO and the commercial air transport operator, the operator proficiency check (OPC) and the ZFTT specific details should be conducted using the operator's standard operating procedures (SOPs).

(l) Aeroplane without FFS

(1) Flight training conducted solely in an aeroplane without the use of FSTDs cannot cover the crew resource management (CRM) and multi-crew cockpit (MCC) aspects of MPA flight training, and for safety reasons cannot cover all emergency and abnormal aircraft operation required for the training and skill test. In such cases, the ATO

should demonstrate to the competent authority that adequate training in these aspects can be achieved by other means. For training conducted solely on an MPA where two pilots are trained together without the use of an FSTD, a minimum of 8 hours of flight training as pilot flying (PF) for each pilot should normally be required. For training on a single-pilot aeroplane, 10 hours of flight training should normally be required. It is accepted that for some relatively simple single or multi-engine aircraft without systems such as pressurisation, flight management system (FMS) or electronic cockpit displays, this minimum may be reduced.

(2) Aeroplane training normally involves an inherent delay in achieving an acceptable flight situation and configuration for training to be carried out in accordance with the agreed syllabus. These could include ATC or other traffic delay on the ground prior to take-off, the necessity to climb to height or transit to suitable training areas and the unavoidable need to physically reposition the aircraft for subsequent or repeat manoeuvres or instrument approaches. In such cases it should be ensured that the training syllabus provides adequate flexibility to enable the minimum amount of required flight training to be carried out.

SKILL TEST

(m) Upon completion of the flight training, the pilot will be required to undergo a skill test with an examiner to demonstrate adequate competency of aircraft operation for issue of the type rating. The skill test should be separate from the flight training syllabus, and provision for it cannot be included in the minimum requirements or training hours of the agreed flight training programme. The skill test may be conducted in an FFS, the aeroplane or, in exceptional circumstances, a combination of both.

COURSE COMPLETION CERTIFICATE

(n) The HT, or a nominated representative, should certify that all training has been carried out before an applicant undertakes a skill test for the type rating to be included in the pilot's licence. If an ATO is unable to provide certain elements of the training that is required to be carried out on an aircraft the ATO may issue such a certificate confirming the completion of the ground training or the training in an FSTD.

AMC3 MFCL.ATO.125 Training programme

TYPE RATING COURSES - HELICOPTERS

(a) Introduction

(1) when developing the training programme for a type rating course, in addition to complying with the standards included in the OSD for the applicable type, the ATO should also follow any further recommendations contained therein.

(2) the course should, as far as possible, provide for integrated ground, FSTD and flight training designated to enable the student to operate safely and qualify for the grant of a type rating. The course should be directed towards a helicopter type, but where variants exist, all flying and ground training forming the basis of the course should relate to a single variant.

(b) Variants

(1) Familiarisation training: where a helicopter type rating also includes variants of the same aircraft type requiring familiarisation training, the additional familiarisation training may be included in the theoretical knowledge training of the initial type rating course.

(2) Differences training: where a helicopter type rating also includes variants of the same aircraft type for which difference training is required, the initial training course should be directed towards a single variant. Additional training to operate other variants within the same type rating should be completed after successful completion of the initial type rating course, although elements of this differences training may be undertaken at appropriate stages of the initial course, with the agreement of the DCA.

(c) Training in helicopter and FSTDs

The training programme should specify the amounts of flight training in the helicopter type and in FSTDs (FFSs, flight training devices (FTDs), or other training devices (OTDs)). Where a suitable FFS is geographically remote from the normal training base, the competent authority may agree to some additional training being included in the programme at a remote facility.

(d) Skill test

The content of the flight training programme should be directed towards the skill test for that type. The practical training given in Part-FCL should be modified as necessary.

The skill test may be completed in a helicopter, in an FFS or partially in a helicopter and in an FSTD. The use of an FSTD for skill tests is governed by the level of approval of the flight simulator and the previous experience of the candidate. Where an FSTD is not available, abnormal operations of systems should not be practised in a helicopter other than as allowed for in the skill test form for the type.

(e) Phase progress tests and final theoretical knowledge examination

Prior to the final theoretical knowledge examination covering the whole syllabus, the training programme should provide for phase progress tests associated with each phase of theoretical knowledge instruction. The phase progress tests should assess the candidate's knowledge on completion of each phase of the training programme.

(f) Facilities: ground school equipment, training facilities and aids
The ATO should provide, as a minimum, facilities for classroom instruction. Additional classroom training aids and equipment including, where appropriate, computers, should reflect the content of the course and the complexity of the helicopter. For multi-engine and multi-pilot helicopters, the minimum level of ground training aids should include equipment that provides a realistic cockpit working environment. Task analysis and the latest state-of–the-art training technology is encouraged and should be fully incorporated into the training facilities wherever possible. Facilities for self and supervised testing should be available to the student.

(g) Training devices

An FTD or OTD may be provided to supplement classroom training in order to enable students to practice and consolidate theoretical instruction. Where suitable equipment is not available, or is not appropriate, a helicopter or flight simulator of the relevant variant should be available. If an FTD represents a different variant of the same helicopter type for which the student is being trained, then differences or familiarisation training is required.

(h) Computer-based training (CBT)

Where CBT aids are used as a training tool, the ATO should ensure that a fully qualified ground instructor is available at all times when such equipment is being used by course students. Other than for revision periods, CBT lessons should be briefed and debriefed by a qualified ground instructor.

(i) Theoretical knowledge instruction

The theoretical knowledge instruction training should meet the general objectives of giving the student:

(1) a thorough knowledge of the helicopter structure, transmissions, rotors and equipment, powerplant and systems, and their associated limitations;

(2) a knowledge of the positioning and operation of the cockpit controls and indicators for the helicopter and its systems;

(3) a knowledge of performance, flight planning and monitoring, mass and balance, servicing and optional equipment items;

(4) an understanding of system malfunctions, their effect on helicopter operations and interaction with other systems; and

(5) the understanding of normal, abnormal and emergency procedures and giving the student the understanding of potential control problems near the edge of the handling envelope. In particular, the phenomenon of 'servo transparency' (also known as 'jack stall') should be covered for those helicopter types where it is a known problem.

The amount of time and the contents of the theoretical instruction will depend on the complexity of the helicopter type involved and, to some extent, on the previous experience of the student.

(j) Flight training

(1) FSTDs

The level of qualification and the complexity of the type will determine the amount of practical training that may be accomplished in an FSTD, including completion of the skill test. Prior to undertaking the skill test, a student should demonstrate competency in the skill test items during the practical training.

(2) Helicopter (with FSTD)

With the exception of courses approved for ZFTT, the amount of flight time in a helicopter should be adequate for completion of the skill test.

(3) Helicopters (without FSTD)

Whenever a helicopter is used for training, the amount of flight time practical training should be adequate for the completion of the skill test. The amount of flight training will depend on the complexity of the helicopter type involved and, to some extent, on the previous experience of the applicant.

AMC4 MFCL.ATO.125 Training programme

FLIGHT TEST TRAINING COURSES – AEROPLANES AND HELICOPTERS

(a) Introduction

(1) The flight test training course should, as far as possible, provide for a continuous process of ground and flight training to enable the student to assimilate the knowledge and skills required to conduct flight testing safely and efficiently. The student's ability to do this should be determined by the demonstration of a satisfactory level of theoretical knowledge of flight-testing determined by progressive checking of knowledge and examination and progressive assessment by the ATO during flying training. There should be no difference in the level of knowledge or competency required of the student, irrespective of the intended role of the student as test pilot or other flight test personnel (for example, flight test engineer) within the flight crew.

(2) The flight test-training course should normally be conducted as a single, full-time course of study and training.

(b) Programme of theoretical knowledge and flight training

(c)

(1) The training programme should specify the time allocated to theoretical knowledge training and flying training.

(2) If the ATO wishes to provide a flight test-training course that includes credit for previous experience on flight-testing activity, the entry requirements to such courses should be specified by the ATO and should define the minimum level of experience and qualification required of the flight test crew member.

GROUND TRAINING

(d) Syllabus

(1) The ground-training syllabus should provide for the student to gain a thorough understanding of flight testing techniques.

(e) Theoretical knowledge instruction

(1) The theoretical knowledge instruction training should give the student a thorough knowledge of the academic requirements of flight-testing.

(f) Facilities and training aids

(1) The ATO should provide adequate facilities for classroom instruction and have available appropriately qualified and experienced instructors. Training aids should enable students to gain practical experience of flight testing covered by the theoretical knowledge syllabus and enable such practical application of the knowledge to be carried out in a multi-crew environment. Facilities should be made available for student self-study outside the formal training programme.

(g) Computer-based training (CBT)

(1) CBT provides a valuable source of theoretical instruction, enabling the student to progress at his/her own pace within specified time limits. Many such systems ensure that syllabus subjects are fully covered and progress can be denied until a satisfactory assimilation of knowledge has been demonstrated. Such systems may allow self-study or distance learning, if they incorporate adequate knowledge testing procedures. When CBT is used as part

of the theoretical knowledge instruction phase, the student should also have access to a suitably qualified instructor able to assist with areas of difficulty for the student.

(h) Self-study and distance learning

(1) Elements of the theoretical knowledge syllabus may be adequately addressed by distance learning, if approved, or self-study, particularly when utilising CBT. Progress testing, either by self-assessed or instructor-evaluated means, should be included in any self-study programme. If self-study or distance learning is included in the theoretical knowledge training, the course should also provide for an adequate period of supervised consolidation and knowledge testing prior to the commencement of flight training.

(i) Progress tests and final theoretical knowledge examination

(1) The theoretical knowledge training programme should provide for progressive testing of the assimilation of the required knowledge. This testing process should also provide for retesting of syllabus items so that a thorough understanding of the required knowledge is assured. This should be achieved by intervention by a qualified instructor or, if using CBT with a self-testing facility, and by further testing during the supervised consolidation phase of the ground course.

(2) The theoretical knowledge examinations should cover all areas of the theoretical knowledge syllabus. The examinations should be conducted as supervised written or oral knowledge tests without reference to course material. The pass mark (as defined by the ATO) assumes the achievement of satisfactory levels of knowledge during the progressive phase tests of the course. The student should be advised of any areas of lack of knowledge displayed during the examination and, if necessary, given remedial instruction.

FLIGHT TRAINING

(j) Aeroplane and helicopter training

(1) It is widely accepted that flying training normally involves inherent delay in achieving an acceptable flight situation and configuration for training to be carried out in

accordance with the agreed syllabus. These could include ATC or other traffic delay on the ground prior to take off, the necessity to climb to height or transit to suitable training areas and the unavoidable need to physically reposition the aircraft for subsequent or repeat manoeuvres or instrument approaches. In such cases it should be ensured that the training syllabus provides adequate flexibility to enable the minimum amount of required flight training to be carried out.

FINAL IN-FLIGHT EXERCISE

(k) Upon completion of the flight test training, the test pilot or flight test engineer will be required to undergo in-flight exercise with a flight test instructor (FTI) to demonstrate adequate competency of flight testing for issue of the flight test rating. The final in-flight exercise must be conducted in an appropriate aeroplane or helicopter (as applicable).

COURSE COMPLETION CERTIFICATE

(l) The HT is required to certify that the applicant has successfully completed the training course.

MFCL.ATO.130 Training manual and operations manual

(a) The ATO shall establish and maintain a training manual and operations manual containing information and instructions to enable personnel to perform their duties and to give guidance to students on how to comply with course requirements.

(b) The ATO shall make available to staff and, where appropriate, to students the information contained in the training manual, the operations manual and the ATO's approval documentation.

(c) In the case of ATOs providing flight test training, the operations manual shall comply with the requirements for the flight test operations manual, as established in MCAR Part-21.

(d) The operations manual shall establish flight time limitation schemes for flight instructors, including the maximum flying hours, maximum flying duty hours and minimum rest time between instructional duties.

MFCL.ATO.135 Training aircraft and FSTDs

(a) The ATO shall use an adequate fleet of training aircraft or FSTDs appropriate to the courses of training provided.

(b) The ATO shall only provide training in FSTDs when it demonstrates to the competent authority:

(1) the adequacy between the FSTD specifications and the related training programme;

(2) that the FSTDs used comply with the relevant requirements of MFCL;

(3) in the case of full flight simulators (FFSs), that the FFS adequately represents the relevant type of aircraft; and

(4) that it has put in place a system to adequately monitor changes to the FSTD and to ensure that those changes do not affect the adequacy of the training programme.

(c) If the aircraft used for the skill test is of a different type to the FFS used for the visual flight training, the maximum credit shall be limited to that allocated for flight and navigation procedures trainer II (FNPTII) for aeroplanes and FNPT II/III for helicopters in the relevant flight training programme.

(d) Flight test training organisations. Aircraft used for flight test training shall be appropriately equipped with flight testing instrumentation, according to the purpose of the training.

AMC1 MFCL.ATO.135 Training aircraft and FSTDs

ALL ATOs, EXCEPT THOSE PROVIDING FLIGHT TEST TRAINING

(a) The number of training aircraft may be affected by the availability of FSTDs.

(b) Each training aircraft should be:

(1) equipped as required in the training specifications concerning the course in which it is used;

(2) except in the case of balloons or single-seat aircraft, fitted with primary flight controls that are instantly accessible by both the student and the instructor (for example dual flight controls or a centre control stick). Swing-over flight controls should not be used.

(c) The fleet should include, as appropriate to the courses of training:

(1) aircraft suitably equipped to simulate instrument meteorological conditions (IMC) and for the instrument flight training required. For flight training and testing for the instrument rating, an adequate number of IFR-certificated aircraft should be available;

(2) in the case of aeroplanes and sailplanes, aircraft suitable for demonstrating stalling and spin avoidance;

(3) for the flight instructor (FI) training courses on aeroplanes and sailplanes, aircraft suitable for spin recovery at the developed stage;

(4) in the case of helicopters, helicopters suitable for autorotation demonstration;

(5) in the case of a non-complex ATO, one aircraft fulfilling all the required characteristics for a training aircraft might be sufficient;

(6) each FSTD should be equipped as required in the training specifications concerning the course in which it is used.

MFCL.ATO.140 Aerodromes and operating sites

When providing flight training on an aircraft, the ATO shall use aerodromes or operating sites that have the appropriate facilities and characteristics to allow training of the manoeuvres relevant, taking into account the training provided and the category and type of aircraft used.

AMC1 MFCL.ATO.140 Aerodromes and operating sites

GENERAL

(a) Except in the case of balloons, the base aerodrome or operating site and any alternative base aerodromes at which flight training is being conducted should have at least the following facilities:

(1) at least one runway or final approach and take-off area (FATO) that allows training aircraft to make a normal take-off or landing within the performance limits of all the aircraft used for the training flights.

(2) a wind direction indicator that is visible at ground level from the ends of each runway or at the appropriate holding points;

(3) adequate runway electrical lighting if used for night training;

(4) an air traffic service, except for uncontrolled aerodromes or operating sites where the training requirements may be satisfied safely by another acceptable means of air-to-ground communication.

(b) Except in the case of ATOs providing flight test training, in addition to (a), for helicopters, training sites should be available for:

(1) confined area operation training;

(2) simulated engine off autorotation; and

(3) sloping ground operation.

(c) In the case of balloons, the take-off sites used by the ATO should allow a normal take-off and clearing of all obstacles in the take-off flight path by at least 50 ft.

MFCL.ATO.145 Pre-requisites for training

(a) The ATO shall ensure that the students meet all the pre-requisites for training established in Part- Medical, Part- FCL, and, if applicable, as defined in the mandatory part of the operational suitability data.

(b) In the case of ATOs providing flight test training, the students shall meet all the pre-requisites for training.

AMC1 MFCL.ATO.145 Pre-requisites for training

ENTRANCE REQUIREMENTS

ATOs providing training for other than the LAPL, PPL, SPL or BPL and the associated ratings and certificates should establish entrance requirements for students in their procedures. The entrance requirements should ensure that the students have enough knowledge, particularly of physics and mathematics, to be able to follow the courses.

MFCL.ATO.150 Training in foreign countries

When the ATO is approved to provide training for the instrument rating (IR) in foreign countries:

(a) the training programme shall include acclimatisation flying in one of the foreign country before the IR skill test is taken; and

(b) the IR skill test shall be taken in one country.

SECTION II

Additional requirements for ATOs providing training for CPL, MPL and ATPL and the associated ratings and certificates

MFCL.ATO.210 Personnel requirements

(a) Head of training (HT). Except in the case of ATOs providing flight test training, the nominated HT shall have extensive experience in training as an instructor for professional pilot licences and associated ratings or certificates.

(b) Chief flight instructor (CFI). The ATO providing flight instruction shall nominate a CFI who shall be responsible for the supervision of flight and flight simulation training instructors and for the standardisation of all flight instruction and flight simulation instruction. The CFI shall hold the highest professional pilot licence and associated ratings related to the flight training courses conducted and hold an instructor certificate with the privilege to instruct for at least one of the training courses provided.

(c) Chief theoretical knowledge instructor (CTKI). The ATO providing theoretical knowledge instruction shall nominate a CTKI who shall be responsible for the supervision of all theoretical knowledge instructors and for the standardisation of all theoretical knowledge instruction. The CTKI shall have extensive experience as a theoretical knowledge instructor in the areas relevant for the training provided by the ATO.

AMC1 MFCL.ATO.210 Personnel requirements

GENERAL

(a) The management structure should ensure supervision of all grades of personnel by persons having the experience and qualities necessary to ensure the maintenance of high standards. Details of the management structure, indicating individual responsibilities, should be included in the ATOs operations manual.

(b) The ATO should demonstrate to the competent authority that an adequate number of qualified, competent staff is employed.

(c) In the case of an ATO offering integrated courses, the HT, the chief flying instructor (CFI) and the chief theoretical knowledge

instructor (CTKI) should be employed full- time or part-time, depending upon the scope of training offered.

(d) In the case of an ATO offering only one of the following:

(1) modular courses,

(2) type rating courses,

(3) theoretical knowledge instruction, the positions of HT, CFI and CTKI may be combined and filled by one or two persons with extensive experience in the training conducted by the training organisation, full- time or part-time, depending upon the scope of training offered.

(e) The ratio of all students to flight instructors, excluding the HT, should not exceed 6:1.

(f) Class numbers in ground subjects involving a high degree of supervision or practical work should not exceed 28 students.

THEORETICAL KNOWLEDGE INSTRUCTORS

(g) The theoretical knowledge instruction for type or class ratings should be conducted by instructors holding the appropriate type or class rating, or having appropriate experience in aviation and knowledge of the aircraft concerned.

(h) For this purpose, a flight engineer, a maintenance engineer or a flight operations officer should be considered as having appropriate experience in aviation and knowledge of the aircraft concerned.

AMC2 MFCL.ATO.210 Personnel requirements

QUALIFICATION OF HEAD OF TRAINING AND CHIEF FLIGHT INSTRUCTOR

(a) Head of training (HT)

The nominated HT should hold or have held in the 3 years prior to first appointment as HT, a professional pilot licence and associated ratings or certificates issued in accordance with Part-FCL, related to the flight training courses provided.

(b) Chief flight instructor (CFI)

(1) The CFI may delegate standardisation and supervision to the flight instructors. In all cases it is the CFI who is ultimately responsible for ensuring quality and standards.

(2) The CFI should, except in the case of ATOs providing flight test training, have completed 1 000 hours of flight time as pilot-in-command (PIC). At least 500 of those hours should be on flying instructional duties related to the flying courses provided, of which 200 hours may be instrument ground time.

MFCL.ATO.225 Training programme

(a) The training programme shall include a breakdown of flight and theoretical knowledge instruction, presented in a week-by-week or phase layout, a list of standard exercises and a syllabus summary.

(b) The content and sequence of the training programme shall be specified in the training manual.

MFCL.ATO.230 Training manual and operations manual

(a) The training manual shall state the standards, objectives and training goals for each phase of training that the students are required to comply with and shall address the following subjects:

- training plan,
- briefing and air exercises,
- flight training in an FSTD, if applicable,
- theoretical knowledge instruction.

The operations manual shall provide relevant information to particular groups of personnel, as flight instructors, flight simulation training instructors, theoretical knowledge instructors, operations and maintenance personnel, and shall include general, technical, route and staff training information

AMC1 MFCL.ATO.230(a) Training manual and operations manual

TRAINING MANUAL

Training manuals for use at an ATO conducting integrated or modular flight training courses should include the following:

(a) The training plan:

(1) The aim of thecourse (ATP, CPL/IR, CPL, etc. as applicable)	A statement of what the student is expected to do as a result of the training, the level of performance, and the training constraints to be observed.
(2) Pre-entry requirements	Minimum age, educational requirements (including language), medical requirements; (ii) Any individual Member State requirements.
(3) Credits for previous experience	To be obtained from the competent authority before training begins.
(4) Training syllabi	As applicable, the flying syllabus (single-engine or multi-engine, as applicable), the flight simulation training syllabus and the theoretical knowledge training syllabus.
(5) The time scale and scale, in weeks, for each syllabus	Arrangements of the course and the integration of syllabi time.
(6) Training programme	(i) The general arrangements of daily and weekly programmes for flying, theoretical knowledge training and training in FSTDs, if applicable; (ii) Bad weather constraints; (iii) Programme constraints in terms of maximum student training times, (flying, theoretical knowledge, on FSTDs), for example per day, week or month; (iv) Restrictions in respect of duty periods for students; (v) Duration of dual and solo flights at various stages; (vi) Maximum flying hours in any day or night; (vii) Maximum number of training flights in any day or night; (viii) Minimum rest period between duty periods.
(7) Training records	(i) Rules for security of records and documents; (ii) Attendance records; (iii) The form of training records to be kept; (iv) Persons responsible for checking records and students' log books; (v) The nature and frequency of record checks; (vi) Standardisation of entries in training records;

(b) Briefing and air exercises:

(1) Air exercise	A detailed statement of the content specification of all the air exercises to be taught, arranged in the sequence to be flown with main and subtitles.

(2) Air exercise reference list	An abbreviated list of the above exercises giving only main and subtitles for quick reference, and preferably in flip-card form to facilitate daily use by instructors.
(3) Course structure: phase of training	A statement of how the course will be divided into phases, indication of how the above air exercises will be divided between the phases and how they will be arranged to ensure that they are completed in the most suitable learning sequence and that essential (emergency) exercises are repeated at the correct frequency. Also, the syllabus hours for each phase and for groups of exercises within each phase should be stated and when progress tests are to be conducted, etc.
(4) Course structure: integration of syllabi	The manner in which theoretical knowledge and flight training in an aircraft or an FSTD will be integrated so that as the flying training exercises are carried out students will be able to apply the knowledge gained from the associated theoretical knowledge instruction and flight training.
(5) Student progress	The requirement for student progress and include a brief but specific statement of what a student is expected to be able to do and the standard of proficiency he/she must achieve before progressing from one phase of air exercise training to the next. Include minimum experience requirements in terms of hours, satisfactory exercise completion, etc. as necessary before significant exercises, for example night flying.
(6) Instructional methods	The ATO requirements, particularly in respect of pre- and post-flying briefing, adherence to syllabi and training specifications, authorisation of solo flights, etc.
(7) Progress tests	The instructions given to examining staff in respect of the conduct and documentation of all progress tests.
(8) Glossary of terms	Definition of significant terms as necessary.
(9) Appendices	(i) Progress test report forms; (ii) Skill test report forms; (iii) ATO certificates of experience, competence, etc. as required.

(c) Flight training in an FSTD, if applicable: Structure generally as for (b)

(d) Theoretical knowledge instruction:

(1) Structure of the theoretical knowledge course	A statement of the structure of the course, including the general sequence of the topics to be taught in each subject, the time allocated to each topic, the breakdown per subject and an example of a course schedule. Distance learning courses should include instructions of the material to be studied for individual elements of the course.
(2) Lesson plans	A description of each lesson or group of lessons including teaching materials, training aids, progress test organisation and inter-connection of topics with other subjects.
(3) Teaching materials	Specification of the training aids to be used (for example study materials, course manual references, exercises, self- study materials, demonstration equipment).
(4) Student progress	The requirement for student progress, including a brief but specific statement of the standard that must be achieved and the mechanism for achieving this, before application for theoretical knowledge examinations.
(5) Progress testing	The organisation of progress testing in each subject, including topics covered, evaluation methods and documentation.
(6) Review procedure	The procedure to be followed if the standard required at any stage of the course is not achieved, including an agreed action plan with remedial training if required.

AMC1 MFCL.ATO.230 (b) Training manual and operations manual

ALL ATOs, EXCEPT THOSE PROVIDING FLIGHT TEST TRAINING OPERATIONS MANUAL

The operations manual for use at an ATO conducting integrated or modular flight training courses should include the following:

(a) General:

(1) a list and description of all volumes in the operations manual;

(2) administration (function and management);

(3) responsibilities (all management and administrative staff);

(4) student discipline and disciplinary action;

(5) approval or authorisation of flights;

(6) preparation of flying programme (restriction of numbers of aircraft in poor weather);

(7) command of aircraft;

(8) responsibilities of the PIC;

(9) carriage of passengers;

(10) aircraft documentation;

(11) retention of documents;

(12) flight crew qualification records (licences and ratings);

(13) revalidation (medical certificates and ratings);

(14) flight duty period and flight time limitations (flying instructors);

(15) flight duty period and flight time limitations (students);

(16) rest periods (flight instructors);

(17) rest periods (students);

(18) pilots' log books;

(19) flight planning (general);

(20) safety (general): equipment, radio listening watch, hazards, accidents and incidents (including reports), safety pilots etc.

(b) Technical:

(1) aircraft descriptive notes;

(2) aircraft handling (including checklists, limitations, maintenance and technical logs, in accordance with relevant requirements, etc.);

(3) emergency procedures;

(4) radio and radio navigation aids;

(5) allowable deficiencies (based on the master minimum equipment list (MMEL), if available).

(c) Route:

(1) performance (legislation, take-off, route, landing etc.);

(2) flight planning (fuel, oil, minimum safe altitude, navigation equipment etc.);

(3) loading (load sheets, mass, balance and limitations);

(4) weather minima (flying instructors);

(5) weather minima (students – at various stages of training);

(6) training routes or areas.

(d) Personnel training

(1) appointments of persons responsible for standards/competence of flight personnel;
(2) initial training;
(3) refresher training;
(4) standardisation training;
(5) proficiency checks;
(6) upgrading training;
(7) ATO personnel standards evaluation.

SECTION III

Additional requirements for ATO'S providing specific types of training

Chapter 1

Distance Learning Courses

MFCL.ATO.300 General

The ATO may be approved to conduct modular course programmes using distance learning in the following cases:

(a) modular courses of theoretical knowledge instruction;

(b) courses of additional theoretical knowledge for a class or type rating; or

(c) courses of approved pre-entry theoretical knowledge instruction for a first type rating for a multi-engined helicopter.

AMC1 MFCL.ATO.300 General

DISTANCE LEARNING

(a) A variety of methods is open to ATOs to present course material. It is, however, necessary for ATOs to maintain comprehensive records in order to ensure that students make satisfactory

academic progress and meet the time constraints laid down in MFCL for the completion of modular courses.

(b) The following are given as planning guidelines for ATOs developing the distance learning element of modular courses:

(1) an assumption that a student will study for at least 15 hours per week;

(2) an indication throughout the course material of what constitutes a week's study;

(3) a recommended course structure and order of teaching;

(4) one progress test for each subject for every 15 hours of study, which should be submitted to the ATO for assessment. Additional self-assessed progress tests should be completed at intervals of five to 10 study hours;

(5) appropriate contact times throughout the course when a student can have access to an instructor by telephone, fax, email or the Internet;

(6) measurement criteria to determine whether a student has satisfactorily completed the appropriate elements of the course to a standard that, in the judgement of the HT, or CGI, will enable them to be entered for the MFCL theoretical examinations with a good prospect of success;
if the ATO provides the distance learning by help of IT solutions, for example the Internet, instructors should monitor students' progress by appropriate means

MFCL.ATO.305 Classroom instruction

(a) An element of classroom instruction shall be included in all subjects of modular distance learning courses.

(b) The amount of time spent in actual classroom instruction shall not be less than 10 % of the total duration of the course.

(c) To this effect, classroom accommodation shall be available either at the principal place of business of the ATO or within a suitable facility elsewhere.

MFCL.ATO.310 Instructors

All instructors shall be fully familiar with the requirements of the distance learning course programme.

Chapter 2

Zero Flight-Time Training

MFCL.ATO.330 General

(a) Approval for zero flight-time training (ZFTT), as specified in MFCL, shall only be given to ATOs that also have the privileges to conduct commercial air transport operations or ATOs having specific arrangements with commercial air transport operators.

(b) Approval for ZFTT shall only be given if the operator has at least 90 days of operational experience on the aeroplane type.

(c) In the case of ZFTT provided by an ATO having a specific arrangement with an operator, the 90 days of operational experience requirements will not apply if the type rating instructor (TRI(A)) involved in the additional take-offs and landings, as required has operational experience on the aeroplane type.

AMC1 MFCL.ATO.330 General

INITIAL APPROVAL

For an initial approval to conduct ZFTT, the operator should have held an air operator's certificate for commercial air transport for at least 1 year. This period may be reduced where the operator and the ATO have experience of type rating training.

MFCL.ATO.335 Full flight simulator

(a) The FFS approved for ZFTT shall be serviceable according to the management system criteria of the ATO.

(b) The motion and the visual system of the FFS shall be fully serviceable, in accordance with the applicable certification specifications for FSTD as mentioned in MFCL.FSTD.205.

APPROVED TRAINING ORGANISATION CERTIFICATE (Appendix 1)

ATO-0XXX

xxxxxxxx (as amended) and subject to the conditions specified below, the Department of Civil Aviation hereby certifies

XXXXXXXXXXXXXX LIMITED

ADDRESS
ADDRESS
ADDRESS
ADDRESS

as an Approved Training Organisation with the privilege to provide MFCL training courses, including the use of FSTDs, as listed in the attached course approval.

CONDITIONS:

1. This certificate is limited to the privileges and the scope of providing the training courses, including the use of FSTDs, as listed in the attached training course approval.
2. This certificate is valid whilst the approved organisation remains in compliance with MFCL and other applicable requirements.
3. Subject to compliance with the foregoing conditions, this certificate shall remain valid unless the certificate has been surrendered, superseded, limited, suspended or revoked.

Date of issue: xx March 2015
Date of re-issue: xx March 2016

Signed

For the Department of Civil Aviation

APPROVED TRAINING ORGANISATION CERTIFICATE (Appendix 1)

Attachment to ATO Certificate Number:

ATO-0XXXX

XXXXXXXXXXXXXXXX LIMITED

has obtained the privilege to provide and conduct the following training courses and to use the following FSTDs:

Training Course	Used FSTD(s)
LPC Type Rating Renewal Training for: • Airbus A319/A320 series • ATR 72	List of FSTDS
IR Renewal Training for: • Airbus A319/A320 series • ATR 72	List of FSTDS
Extension of IR privileges for LV privileges: • Airbus A319/A320 series • ATR 72	List of FSTDS
Type Rating Training course for Take-Off and Landing Requirements: • Airbus A319/A320 series • ATR 72	Nil

This training course approval is valid as long as:

(a) the ATO certificate has not been surrendered, superseded, limited, suspended or revoked, and
(b) all operations are conducted in compliance with MFCL, other regulations, and, when relevant, with the procedures in the organisation's documentation as approved by the DCA.

Date of issue: 19 March 20XX
Date of re-issue: 16 January 20XX

Signed

For the Department of Civil Aviation

Department of Civil Aviation
SSR International Airport
Plaine Magnien
MAURITIUS

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Application for Initial approval, revalidation and change to course of approvals in accordance with the DCA Approved Training Organisation (Flight crew) Requirements

Please read attached Guidance notes on page 11 before completing this form.

1. APPLICANT TYPE

Limited Liability Partnership	Complete Section 2. (a)	Individual (Sole Traders)	Complete Section 2. (c)
Limited Company	Complete Section 2. (a)	Partnership	Complete Section 2. (c)
Public Educational Establishment University/College	Complete Section 2. (b)	Private Clubs	Nominated Representative to Complete Section 2. (c)

2. APPLICANT DETAILS (The Applicant is the person responsible for payment of DCA charges)

a) A Company

Registered Company Name (in full):.....

Registered Company Number: .....

Country of Company Registration: ..... Registered Office Address:

.....

..... Postcode: .....

Telephone: ..... Fax: .....

Email: .....

Trading Name:(if applicable): .....

Trading Address (primary site):.....

..... Postcode: .....

Web site address:.....

Authorised Representative of Company This application is to be signed by either a Director or Company Secretary or a person authorized by the board to act on behalf of the Company, and who is deemed to be the Accountable Manager in respect of applications.

Title: ..... Forename: ..... Surname: .....

Position in Company: .....

Telephone No: ..... Email: .....

If you are an a Director or Company Secretary and have been authorized to sign the application form on behalf of the Company, proof of that authority must be provided with the completed application form.

This application will be considered in respect of and, if appropriate, granted to, the Company Name as registered under the Company details provided on this form.

or b) An Unincorporated Association or other body

Name of Unincorporated Association or other body:.....

Address: .....

..... Postcode: .....

Telephone: ..... Fax: .....

Email: ..... Mobile Telephone: .....

Website address: .....

Authorised Representative

This application is to be signed by a person authorized by the body named above to act on behalf of it, and who is deemed to be the Accountable Manager in respect of applications under MFCL.

Title: ..... Forename: ..... Surname: .....

Position: .....

Charity Number (if applicable):.....

or c) Individual (including sole traders and partnerships)

Title: ..... Forename: ..... Surname: .....

Address: .....

..... Postcode: .....

Telephone: ..... Fax: .....

Email: ..... Mobile Telephone: .....

Trading Name:(if applicable) .....

Website address: .....

A photocopy of your valid Passport or valid photo Driving Licence must accompany your application as proof of identification. Failure to supply proof of identification may result in a delay to the application processing time.

In the case of a partnership, please complete details of all partners. Continued on a separate sheet (if applicable)

3. TRAINING ORGANISATION DCA REFERENCE if known (please complete one field only where applicable-existing organisation).

ATO	

4. APPLICATION **(NB: All Applications must be made a minimum of 12 weeks in advance of the commencement date given below.)**

Type of Application	Initial Approval	☐	Change to	☐	Approval	Approval ☐
Revalidation						

Proposed Date Training is to		Total number of sites, to be approved:	

5a. ACCOMMODATION / FACILITIES (please tick relevant site and complete address field)

Main Training Site Address (if not the address detailed in Part 2)	....
or: Training Site Address(where a change to the Organisation approval is to include a new site or to include additional courses to an existing site).	Postcode: ..... Country / State.....

5b. ACCOMMODATION / FACILITIES (continued)
Please complete the following in respect of accommodation ticked in section 5a.

- All Training Sites, should be audited for suitability in advance of any training by the applicant organisation, and the audit reports are to be made available at the time of any DCA audit or forwarded for review when requested by the nominated inspector.
- A Floor Plan, including details of the purpose of individual rooms with relevant dimensions should be submitted with appropriate photos of each individual site / facility.

Facilities	Location, Size, Number of Rooms, Maximum capacity
a) Details of Tenure of premises	
b) Lecture rooms /CBT Rooms	
c) Briefing cubicles	
d) Head of Training's office	
e) Chief Flight Instructor's office	
f) Chief Theoretical Knowledge Instructor's office	
g) Chief Synthetic Flight Instructor's office	
h) Flight Simulator Training Device bays	
i) Staff Room(s)	
j) Operations Room	
k) Flight Planning room(s)	
l) Student Rest Room(s)	
m) Lavatories Wash Room(s)	
n) Room(s) for administrative staff	
o) Library	
p) Examination room(s)	
q) Other amenities i.e. Syndicate rooms, laboratory etc.	

6. AERODROMEPARTICULARS

a) Name of Aerodrome and ICAO Designator	
b) Type of licence	
c) Hours of operation	
d) Night flying permitted	Yes No
e) Air Traffic Services provided	
f) Navigation Aids (not required for FI (Restricted courses)	
g) Availability and scope of Meteorology information (regulation and Display)	
h) Airways Entry point (not required for FI restricted courses)	

7a. TRAINING COURSE SREQUESTED:AEROPLANES AND HELICOPTERS

- **Site No.1** will always be the Main / Primary Training site and the address and contact details for this site should be clearly identified in section 2 (or Section 5a if different to the addresses in Section 2)
- **Additional sites (i.e. Site Numbers 2 and onwards)** should be numbered in order of size / scale / scope of training at the site and Appendix A of the application form completed for each of these sites.
- **New Site only (Variation to approval at 5a):** Please enter capital letter 'V' under Site Number column in tables below to reflect which courses are being requested for the new Site / Base (or where more than one new site being applied for, please enter V1 for first site variation, V2 for second site variation etc.).
  N.B. Res=Residential course, DL=Distance Learning course

Course Name	Tick if Req.	Please tick Aeroplane or Helicopter etc. (where no already specified)	Site No. (see above)	Max. No. Students
LAPL		A H		
LAPL extension course		A H		
PPL		A H		
LAPL to PPL upgrade		A H		
LAPL Inc. TMG to PPL upgrade		Aeroplane		
MPL		Aeroplane		
ATPL/IR Integrated		A H		
ATPL VFR Integrated		Helicopter		
ATPL Modular Flight		A H		
ATPL Modular Theoretical Knowledge		A H (VFR) H (inc.IR) Res* DL*		
CPL/IR Integrated		A H		
CPL Integrated		A H		
CPL Modular Flight Training		A H		
CPL Modular Theoretical Knowledge		A H Res* DL*		
IR Modular Flight Training		Aeroplane		
IR Modular Theoretical Knowledge				
IR Modular Flight Training		Helicopter		
IR Modular Theoretical Knowledge				
Class Rating: Single Pilot Multi Engine Piston		Aeroplane		
MCC(Modular)		A H		
MCC combined with Type Rating(s) (see Part 7f)				
Class/Type specific courses (see Part 7f)				
Aerobatic Rating		Aeroplane		
Sail plane Towing Rating				
Banner Towing Rating		A H		
Night Rating		A H		
Mountain Rating (Aeroplane or TMG)		Aeroplane TMG		
Other (please specify):				

7b. TRAINING COURSES REQUESTED: FLIGHT TEST RATING COURSES				
Course Name (continued)	**Tick if Required**	**Category (Please specify 1, 2, 3 or 4)**	**Site No. (See 7a)**	**Maximum No. Students**
Flight Test Rating				
Flight Test Rating extension course		**Category 2 to Category 1**		
Flight Test Instructor				

7c. TRAINING COURSES REQUESTED: AEROPLANE AND HELICOPTER INSTRUCTOR COURSES				
Course Name	**Tick if Required**	**Please tick Aeroplane or Helicopter (where not already specified)**	**Site No. (See7a)**	**Maximum No. Students**
Flight Instructor		A H		
Class Rating Instructor SE		Aeroplane		
Class Rating Instructor ME				
Instrument Rating Instructor		A H		
Multi-Crew Cooperation Instructor		A H		
Mountain Rating Instructor		Aeroplane		
Class/Type Rating Single Pilot Aeroplane		Seaplane		
Other(please specify):				

Instructor Courses continued: (type or class specific)	**Tick if Required**	**Type and Category (state Aircraft or FSTD where appropriate note comment below)**	**Site No. (See7a)**	**Maximum No. Students**
Type Rating Instructor SPA				
Type Rating Instructor MPA				
Type Rating Instructor (H)				
Synthetic Flight Instructor				
Other(please specify)				

• Please use the EASA aeroplane and helicopter lists in respect of Class / Type / Variant / Series etc.

EASA Type rating endorsement list

7d. TRAINING COURSES REQUESTED: AEROPLANE AND HELICOPTER EXAMINER COURSES				
Examiner Courses continued (type or class specific)	**Tick if Required**	**Type / Class (please specify)**	**Site No. (See 7a)**	**Maximum No. Students**
TRE(A)				
TRE(H) SPME				
TRE(H) MPME				
TRE(H) SP to MP upgrade				

• Please use the EASA aeroplane and helicopter lists in respect of Class / Type / Variant / Series etc.

EASA Type rating endorsement list

7e. TRAINING COURSES REQUESTED: ASSESS OR OF LANGUAGE PROFICIENCY IN ENGLISH			
Course Name	**Tick if Required**	**Site No. (See7a)**	**Maximum No. Students**
Assess or of Language Proficiency in English			

7f TRAINING COURSES REQUESTED:CLASSTYPE RATING SPECIFIC COURSES
Where insufficient space to complete all bases and types, please photocopy this page and complete, clearly annotating number of pages)

- **Please use the EASA aeroplane and helicopter lists in respect of Class / Type/ Variant / Series etc.**
  EASA Type rating endorsement list
- **Please complete information requested, ticking where relevant.**
  NB: Appendix A does not need to be completed where only Class and Type rating courses are to be conducted, as this form will suffice, providing Floor Plans with Dimensions and relevant details of the purpose of rooms, etc. are submitted for each site)

Full Name Address of Site, Base / or Location of Course (including Postcode and Telephone number)	Class / Type / Variants	Single Pilot	Multi Pilot	With Combined MCC	With ZFTT	Differences course		CCQ / STAR Course		Maximum number of students	
						From	To	From	Top		
1.											
2.											
3.											
4.											

8. TRAININGAIRCRAFT

(Please indicate those equipped with ADF and/or VOR and tick those with AI or TC, where AI*=Attitude Indicator and TC*=Turn Coordinator)

- **Where insufficient space to complete all training aircraft, please photocopy this page and complete, clearly annotating the number of pages**
- **Please mark as N/A any items that do not apply to your application**

Type	Reg.	ADF/VOR	AI*	TC*		Type	Reg.	ADF/VOR	AI*	TC*		Type	Reg.	ADF/VOR	AI*	TC*

9. SYNTHETICFLIGHTTRAINING

- **Where there is insufficient space to complete all Flight Simulation Training Devices, please continue on Appendix B tick box if additional sheet is attached.**
- **Please mark as N/A any items that do not apply to your application**

Course FSTD used on	Base	Manufacturer	Operator (where different to applicant)	Serial No./ Approval No.	Level (i.e. FNPT 1, FNPT 2, BITD or Simulator A, B, C, D)	Aircraft Represented (FNPT only)	Number of Hours of FSTD Training	Number of Sessions

10. GROUND INSTRUCTION EQUIPMENT

- **Please mark as N/A any items that do not apply to your application**

Types oft raining equipment available e.g. model aircraft, overhead projector, sectioned instruments, audio/recording equipment	
Availability of reference publications	Electronic format ✔ ☐ Hardcopy ☐

11. STAFFING AND INSTRUCTION
(where there is insufficient space to complete all instructors, please photocopy the form and submit the additional pages, clearly annotating number of pages)

- Please tick or indicate all/which courses the individuals will be instructing on.
- DCA Form **NOMINATION'OF'ATO'PERSONNEL** **[**should also be downloaded and completed for all key NOMINATED PERSONS indicated below (*)]

Post / Position	Last name	First name	DCA Ref No. (or licence or authorisation held; state of licence issue)	Base / Site	Full/ Part-time (indicate FT or PT)	Ground Instructor	CPL Flight Instructor	IR Flight Instructor	Type Rating Instructor (TRIPowered Lift) (specify type)	MCC Instructor (MCCI)	PPL/LAPL Instructor	Other Instructor (please specify)
Accountable Manager*												
Head of Training*												
Deputy Head of Training*												
Chief Flight Instructor*												
Chief Theoretical Knowledge Instructor*												
Compliance Monitoring Manager*												
SMS Manager*												
Chief/Principal Tutor*												

- **An Instructor/ Subject Coverage List should additionally attached for Theoretical Knowledge Course Instructors.**

APPENDIX A: ADDITIONAL TRAINING SITES AEROPLANE AND HELICOPTER COURSES Continuation sheet
For Sections 5c. For Flight Training Courses, Theoretical Knowledge Courses and Flight Test Courses, but not Class/Type Rating courses.

- Please photocopy and complete if more than one additional site, annotating number of pages in respect of Appendix A

- All Training Sites should be audited for suitability in advance of any training by the applicant organisation, and the audit reports are to be made available at the time to the DCA auditor and forwarded for review when requested by the nominated inspector.

Site Number	Full Name Address of Training Site, Base or Location of Course (including Postcode and Telephone number)	Maximum student number capacity

- **Site No.1** will always be the Main / Primary Training site and the address and contact details for this site should be clearly identified in Section 2 of the application form (or Section 5a if different to the addresses in Section 2).
- Additional sites (i.e. Site Numbers 2 and onwards) should be numbered above for each of these sites (for Flight Training courses, Theoretical Knowledge courses and Flight-test courses). Where an organisation offers only Class / Type Rating training, please use Section 7f.
- **Change to approval to add a New Site only:** Where more than one new site being applied for, please enter V1 for first site variation, V2 for second site variation etc., in the Site number box above).

Name of Aerodrome and ICAO Designator (where applicable)	

- A Floor Plan, clearly identifying name of site and including details of the purpose of individual rooms with relevant dimensions should be submitted with appropriate photos of each individual site / facility.

Facilities	Location, Size, Number of Rooms, Maximum capacity
a) Details of Tenure of premises	
b) Lecture rooms / CBT Rooms	
c) Briefing cubicles	
d) Head of Training's office	
e) Chief Flight Instructor's office	
f) Chief Theoretical Knowledge Instructor's office	
g) Chief Synthetic Flight instructor's office	
h) Flight Simulator Training Device bays	
i) Staff Room(s)	
j) Operations Room	
k) Flight Planning room(s)	
l) Student Rest Room(s)	
m) Lavatories Wash Room(s)	
n) Room(s) for administrative staff	
o) Library	
p) Examination room(s)	
q) Other amenities	

Appendix B: SYNTHETIC FLIGHT TRAINING DEVICES
Continuation sheet for Section 9

(Please complete details of all Flight Simulation Training Devices In this form should be photocopied multiple times where necessary and annotated to state number of pages in respect of Appendix (B))

Course FSTD used on	Base	Manufacturer	Operator where not the applicant	Serial No. Approval No.	Level i.e.FNPT1, FNPT2, BITD Or Simulator (A, B, C, D)	Number of hours of FSTD training	Number of sessions

12. SUBMISSION INSTRUCTIONS

When you have completed this Form, please send it with attachments as listed below to:

Department of Civil Aviation
SSR International Airport
Plaine Magnien
MAURITIUS

Checklist for submission (All applicants): Please tick or complete as requested items

Applicable Charge/Fee	☐
This application form fully completed	☐
DCA ATO Form for the nomination of key persons	☐
Floor Plan and Photos (per site)	☐
Number of pages, for Class and Type rating courses (marked 7f)	☐
Number of Appendix- A pages completed for each Additional Site	☐
(except for Class / Type Rating training bases)	☐
Instructor / Subject Coverage List	☐
Number of Staffing and Instruction pages	☐
Operations Manual (inc. Checklist)	☐
Training Manual in separate sections per course (inc. Checklist)	☐
Safety Management System Manual (inc Compliance System & Checklist)	☐
Number of copies of FSTD Qualification Certificates	☐
Letter of Agreement from Airport Manager for Training Operations to commence	☐
Photocopy of PHOTO ID (Passport or Driving Licence for Individuals)	☐

Guidance notes

Section 2: Applicant Details:

- Registered Company Name and Number: this is the legal name and reference number of the company as registered with Companies House or as detailed on the Company Certificate of Incorporation.
- Trading Name and Address: Where the company uses a name other than the above for trading / instructional purposes, this name should be annotated accordingly and the main base for training should also be detailed.
- Authorised Representative of the Company: The Accountable Manager of the company may wish to delegate responsibility for the completion of application forms to another Director of the company or to the designated Head of Training. Details of the nominee should be completed and relevant correspondence verifying this agreement should be forwarded from the Accountable Manager.