**SUBPART ATO. APPROVED TRAINING ORGANIZATIONS**

 **Section I. General**

***GM 1.* ORA. 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*

***b )*** the Commercial Pilot Licence ( CPL ), Multi - crew Pilot Licence ( MPL ) and

Airline Transport Pilot Licence ( ATPL ) and the associated Ratings and Certificates.

***AMC 1.* ORA. ATO. 105 Application**

 *APPLICATION FORM*

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| --- |
|  **APPLICATION FORM for an ATO CERTIFICATE** |
| **N 0** |  ***Question*** |  ***Supplementary Information*** |
|  **1.** | Name of Training Organization under which the activity is to take place  | address : Fax number : E-mail : URL :  |
|  **2.** | Training Courses offered | theory *and / or* flight training |
|  **3.** | Name of Head of Training  |  |
|  **3a** | Type and Number of Licence  | full / part - time |
|  **4.** | Name of Chief Flight Instructor |  |
|  **4a** | Type and Number of Licence  |  |
|  **5.** | Name of Chief Theoretical Knowledge Instructor  | as ( 3 ) |
|  **6.** | Name of Flight Instructor(s), *where applicable* |  |
|  **7.** | Aerodrome(s) / Operating Site(s) to be used :  | IFR Approaches, Night Flying, *if applicable* Air Traffic Control flight testing facilities, *if applicable* data reply facilities, *if applicable*  |
|  **8.** | Flight Operations accommodation  | location, number and size of rooms |
|  **9.** | Theoretical instruction facilities  | location, number and size of rooms |
| **10.** | Description of Training Devices *( as applicable )*  | FFS, FNPT I, II and III, FTD 1, 2 and 3, and BITD |
| **11.** | Description of Aircraft  | Class / Type(s) of A / C registration, of A / C IFR equipped, *if applicable* Flight test instrumentation, *if applicable*  |
| **12.** | Proposed administration and Manuals :( submit with application *if required* )  | *( a )* course programmes*( b )* training records*( c )* operations manual*( d )* training manual  |
| **13.** | Details of proposed compliance monitoring system  |  |
| I, *\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_*  on behalf of \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ *name name of training organization*   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 )* |

***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 )*

***AMC 1*. ORA. 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.

***AMC 1.* ORA. 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.

***AMC 1*. ORA. 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.

***AMC 1*. ORA. 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.

***AMC 2.* ORA. 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 CR-EC 1702 / 2003 for the applicable type, the ATO should also follow any further recommendations contained therein ;

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 ) Familiarization Training : where an aeroplane type rating also includes variants of the same aircraft type requiring familiarization training, the additional familiarization 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 GDCA.

*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 organization should normally be approved to conduct such training. When the contracted organization is not an ATO, the GDCA should, within the approval process of the ATO, include the contracted organization 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.

 ***GROUND TRAINING***

*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, power-plant 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 utilizing 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 established in accordance with CR - EC 1702 / 2003.

 ***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* ***4*** *(four)* landings of which *at least* ***1*** *( one ) should be a full-stop landing*, unless otherwise specified in the OSD established in accordance with CR-EC 1702 / 2003, 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 GDCA 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 GDCA, 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 pressurization, 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 maneuvers 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.

***AMC 3.* ORA. 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 as established in accordance with CR-EC 1702 / 2003 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 ) *Familiarization Training* : where a helicopter type rating also includes variants of the same aircraft type requiring familiarization training, the additional familiarization 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 GDCA.

*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 GDCA 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 practiced 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 familiarization 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, power-plant 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.

***AMC 4.* ORA. 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*.

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***

*c ) Syllabus.*

The ground training syllabus should provide for the student to gain a thoroughunderstanding of flight testing techniques ;

*d ) Theoretical Knowledge Instruction.*

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

*e ) 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 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.

*f ) Computer - based Training ( CBT ).*

CBT provides a valuable source of theoretical instruction, enabling the student to progress at his / her own pace within specified time limits. Many such systemsensure that syllabus subjects are fully covered and progress can be denied untila satisfactory assimilation of knowledge has been demonstrated. Such systemsmay allow self-study or distance learning, if they incorporate adequateknowledge testing procedures. When CBT is used as part of the theoreticalknowledge instruction phase, the student should also have access to a suitably

qualified instructor able to assist with areas of difficulty for the student.

*g ) 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 utilizing 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.

*h ) 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***

*i ) Aeroplane and Helicopter Training.*

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 maneuvers 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***

*j ) 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***

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

***AMC 1.*  ORA. 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.

***AMC 1.*  ORA. 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.

***AMC 1*. ORA. 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.

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 **Section II. Additional Requirements for ATOs Providing Training for CPL,**

 **MPL and ATPL and the Associated Ratings and Certificates**

***AMC 1*. ORA. 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 GDCA 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 fulltime 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 organization, fulltime 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.

***AMC 2.* ORA. 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 standardization 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.

***AMC 1.* ORA. 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 the course  *( 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 | (i) minimum age, educational requirements *( including language ),*  medical requirements ; (ii) any individual State requirements.  |
| **3**. Credits for previous  experience | To be obtained from the GDCA before training begins. |
| **4**. Training syllabi  | As applicable, the flying syllabus *( single- 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 max. 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) max. flying hours in any day or night ; (vii) max. number of training flights in any day or night ;(viii) min. 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) standardization of entries in training records ; (vii) rules concerning log book entries. |
| **8**. Safety Training  | (i) individual responsibilities ;(ii) essential exercises ;(iii) emergency drills *( frequency )* ; (iv) dual checks *( frequency at various stages )* ;(v) requirement before first solo day, night or navigation etc.  if applicable. |

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| **9**. Tests and  Examinations | (i) Flying :  (A) progress checks ; (B) skill tests.(ii) Theoretical Knowledge : (A) progress tests ; (B) theoretical knowledge examinations. (iii) Authorization for Test ;(iv) Rules concerning Refresher Training before retest ;(v) Test Reports and Records ;(vi) Procedures for Examination paper preparation, type of  question and assessment, standard required for “ pass “ ; (vii) Procedure for question analysis and review and for raising  replacement papers ;(viii) Examination re-sit procedures.  |
| **10.** Training  effectiveness  | (i) Individual responsibilities ;(ii) General assessment ;(iii) Liaison between departments ;(iv) Identification of unsatisfactory progress *( individual students )* (v) Actions to correct unsatisfactory progress ;(vi) Procedure for changing instructors ;(vii) Maximum number of instructor changes per student ;(viii) Internal feedback system for detecting training deficiencies ;(ix) Procedure for suspending a student from training ;(x) Discipline ; (xi) Reporting and documentation. |
| **11.** Standards and level  of performance at  various stages  | (i) Individual responsibilities ;(ii) Standardization ;(iii) Standardization requirements and procedures ; (iv) Application of test criteria. |

 ***b )*** *Briefing and Air Exercises :*

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| **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 andfor 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, authorization 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 :*

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| **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 organization 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 organization 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. |

***AMC 1.* ORA. 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 authorization 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 ) standardization training ;

5 ) proficiency checks ;

6 ) upgrading training ;

7 ) ATO personnel standards evaluation.

 **Section III. Additional Requirements for ATOs Providing Specific**

 **Types of Training**

 **Chapter 1. Distance Learning Course**

***AMC 1.* ORA. 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 Part - FCL 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 Part - FCL theoretical examinations with a good prospect of success ;

7 ) if the ATO provides the distance learning by help of IT solutions, for example the Internet, instructors should monitor students’ progress by appropriate means.

 **Chapter 2. Zero Flight - Time Training** ( ZFTT )

***AMC 1.* ORA. 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.