**TRAINING MANUAL (TM) GUIDANCE**

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| --- | --- |
| **Scope** | **Training Manual (TM) published as a template in Word format, based on ORA.ATO.130/230.** |
| **Who is concerned** | **Training organisations wishing to establish a manual system in order to become an Approved Training Organisation (ATO).** |
| **Valid from** | **3 Nov 2022** |
| **Purpose** | **The purpose of this template is to assist an Approved Training Organisation (ATO) with guidance/information to compile their manual system. It covers the major aspects of the required structure and content of a Training Manual (TM) and has been developed on the basis of the CAAT.** |

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| **Prepared by** | **PEL/TO** |
| **Released by** | **PEL Manager** |
| **Distribution** | **Internal/External** |

**Completion guidance**

**The information provided solely represent a possible means of how to provide the required information. An organisation must add further information or adapt the template to their specific needs.**

**The content of this template is typically established for a non-commercial Pilot Licence ATO, either for Aeroplane or Helicopter including instrument flight. The content can easily be adjusted to any category of Aircraft (Sailplane and/or Balloon) and/or amended with specific topics, such as Area 100 KSA, TRI, SFI, etc. as required by a commercial Pilot Licence ATO.**

**The first pages of this Word template is to be deleted by the organisation when adapting this template.**

**Text shown in *blue* *italic* indicates where the organisation needs to provide its own specific information or data.**

**In addition, all references to manuals, chapters and sub-chapters are shown in blue and are to be verified to ensure compliance with the ATO specific and own documentation.**

Cover Page

ATO’S LOGO

**ATO’S NAME**

**TRAININGMANUAL (TM)**

**ISSUE NO. XX/REVISION NO. XX**

**APPROVED BY**

*CAAT’S STAMP*

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**(NAME OF CAAT-DG)**

**DATE of APPROVAL**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Volume no….**

***Second page***

ATO’S LOGO

**ATO’S NAME**

**TRAINING MANAUL (TM)**

ISSUE NO. XX/REVISION NO. XX

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| **Prepared by** | Head of Training | *Original Signature* | DD MMM YYYY |
| **Reviewed by** | CMM | *Original Signature* |  |
| **Accepted by** | Accountable Manager | *Original Signature* |  |

**LIST OF EFFECTIVE DATES**

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CAAT’s Stamp

**LoApp List of Appendices**

**This chapter should list the appendices used in this training manual.**

**List of effective syllabi**

|  |  |  |  |  |
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| **Index** | **Name/Labelling** | **Version** | **Revision** | **Effective Date** |
| ***S01*** | ***Light aircraft pilot licence LAPL(H)*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S02*** | ***Private pilot licence PPL(H)*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S03*** | ***Type rating single engine helicopter XX*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S04*** | ***Type rating multi engines helicopter XX*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S05*** | ***Night rating (H)*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S06*** | ***Light aircraft pilot licence LAPL(A)*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S07*** | ***Private pilot licence PPL(A)*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S08*** | ***Night rating (A)*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S09*** | ***Sailplane towing and banner towing*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S10*** | ***Class rating SEP(A) land*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S11*** | ***Class rating SEP(A) sea*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S12*** | ***Class rating TMG*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S13*** | ***Aerobatic rating*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S14*** | ***Class rating SET XX*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S15*** | ***Class rating MEP(A) land*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S16*** | **Type rating SPA(A) complex non HPA** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S17*** | ***Single-engine instrument rating IR(A) (modular)*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S18*** | ***Single-engine instrument rating IR(A) (CB)*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S19*** | ***Multi-engine instrument rating IR(A) (modular)*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S20*** | ***Multi-engine instrument rating IR(A) (CB)*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S21*** | ***Commercial pilot licence CPL(A) (modular)*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
| ***S22*** | ***Airline transport pilot licence ATPL(A) (theory modular)*** | ***01*** | ***00*** | ***dd.mm.yyyy*** |
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**List of effective forms**

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| ***F01*** | ***Qualifications-rapport FI-Trainee*** | ***01*** | ***02*** | ***dd.mm.yyyy*** |
| ***…*** |  |  |  |  |

**DISTRIBUTION LIST**

|  |  |  |  |
| --- | --- | --- | --- |
| **Volume** | **Holder** | **Type** | **Location** |
| 01 | CAAT | Electronic File | PEL Office |
| 02 | Accountable Manager |  |  |
| 10 | Library |  | Library |

This document should be made available to all personnel involved in the Approved Training Organisation. This does not mean that all personnel have to be in receipt of a manual but key personnel should have reasonable access to one. The following is a typical list of those who require access to the documents and is for *guidance only.*

*01 – CAAT*

*02 – Accountable Manager*

*03 – CMM*

*04 – Safety Manager*

*05 – Head of Training*

*06 – Chief Flight Instructor (if any)*

*07 – Chief Theoretical Knowledge Instructor (if any)*

*08 – Maintenance Manager*

*09 – Administration*

*10 – Library*

*Remark: Students shall be able to access to the relevant parts of training manual.*

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List of Abbreviations

**The following abbreviations are used within this manual:**

| Abbreviation | Definition |
| --- | --- |
| AIP | Aeronautical Information Publication |
| APP | Appendix |
| ATO | Approved Training Organisation |
| ATT | Attachment |
| BPL | Balloon Pilot Licence |
| CAAT | The Civil Aviation Authority of Thailand |
| CBTA | Competency Based training and  assessment |
| CBT | Computer Based Training |
| CL | Certification Leaflet |
| dd.mm.yyyy | Date format - Day-Month-Year |
| DDL | Deferred Defect List |
| FCL | Flight Crew Licence |
| FSTD  GPL  HT | Flight Simulation Training Device  Glider pilot licence  Head of training |
|  |  |
| IR | Instrument Rating |
| LAPL | Light Aircraft Pilot Licence |
| LoA | Log of Abbreviations |
| LoAPP | List of Appendices |
| LoC | List of Effective Chapters |
| LoR | Log of Revisions |
| MEL | Minimum Equipment List |
| OM | Operations Manual |
| OMM | Organisation’s Management Manual |
| PPL | Private Pilot Licence |
| REV | Revision |
| TBD | To Be Defined |
| TKI | Theoretical Knowledge Instructor |
| TM | Training Manual |
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Introduction

The Training Manual (TM) is the main instrument by which ATO Name defines controls, provides and standardises training.

It has been developed with considerations of the applicable Annexes to the TCAR PEL Regulation and relevant Acceptable Means of Compliance (AMC) and Guidance Material (GM). Refer to OMM, Chapter 1.6 «Relevant Standards and Requirements».

Syllabi defining training courses are maintained in the appendices of the TM. For the applicable syllabi, refer to the Training Manual (TM), LoApp «List of Appendices», sub-chapter «List of effective syllabi».

The content of the Training Manual (TM), specifically all syllabi, are elements of the training course approval as documented on the attachment to the Approved Training Organisation Certificate.

The Training Plan (for each training programme)

The aim of the course

The aim of the course is a statement of what the student is expected to achieve as a result of the training, level of performance and the training constraints.

This chapter should also describe the privileges of the issued license rating or certificate if successful completion of the course and examination pass.

For statements defining the aim of all applicable training courses, refer to the respective syllabus.

Pre-entry requirements

Pre-entry requirements are qualifying criteria that must be met before commencing a specific training course.

For statements defining, the pre-entry requirements of all applicable training courses refer to the respective syllabus.

Credits for previous experience

Experience related to former licences, certificates, ratings and flight time may count as credit towards the concerned training course.

For statements defining, the credits for previous experience refer to the respective syllabus.

Training syllabi

A syllabus outlines, lists and summarises topics to be covered in a training course in compliance with the respective regulation. Individual syllabi defining training courses are subject to prior approval and are part of the certificate of the approved training organisation.

For the syllabi defining the applicable training courses refer to the Training Manual «LoApp List of Appendices».

The time scale

For time scales and schedules of all applicable training courses, refer to the respective syllabus.

Training programme

|  |  |
| --- | --- |
| The general arrangement of daily and weekly programmes | 1. For the guidance and method to coordinate and plan the daily and weekly programme, refer to OM A Chapter A.6 «Preparation of flying programme». |
| Bad weather constraints | 1. OM A Chapter A.6 «Preparation of flying programme»; 2. OM C Chapter C.4 «Weather minima (flying instructors)»; and 3. OM C Chapter C.5 «Weather minima (students - at various stages of training)». |

Programme constraints in terms of maximum student training times

Without prejudice of an approved training course, the following constraints in terms of maximum student training times apply:

|  |  |
| --- | --- |
| **Theoretical knowledge instruction** | [Recommendation] In general, a maximum of eight hours per day shall be considered when planning theoretical knowledge instructions |
| **FSTD session** | [Recommendation] Students shall not complete more than three simulator training hours per day. Four hours in case of type rating training with 2 students acting as a crew. |
| **Flight session** | OM A Chapter A.15 «Flying duty period and flight time limitations (students)» |

|  |  |
| --- | --- |
| Restrictions in respect of duty periods for students | Refer to OM A Chapter A.15 «Flying duty period and flight time limitations (students)». |
| Duration of dual and solo flights at various stages | For provisions, related to dual and solo flights refer to the respective training course syllabus. |
| Maximum number of flying hours in any day or night | Refer to OM A Chapter A.15 «Flying duty period and flight time limitations (students)» |
| Maximum number of training flights in any day or night |
| Minimum rest period between duty periods |

Training records

|  |  |
| --- | --- |
| Rules for security of records and documents | Refer to OMM Chapter 10.1 «Record Keeping and Archiving». |
| Attendance records | The attendance during a training course is recorded in the *syllabus / individual control sheet / etc.*  For the classroom attendance record refer to the Training Manual «*LoApp List of Appendices*» |
| 1The form of training records to be kept | Refer to OMM Chapter 10.1 «Record Keeping and Archiving» and OM A Chapter A.12 «Flight crew qualification records (licences and ratings)». |
| Persons responsible for checking records and students’ log books | «Process for checking of students’ training records and logbooks entries» - see table below |
| The nature and frequency of record checks |
| Standardisation of entries in training records |
| Rules concerning log book entries | Refer to OM A Chapter A.18 «Pilot’s log book» |

**Process for checking of students’ training records and logbooks entries**

| **Nature** | **Task** | **Frequency** | **Responsibility** |
| --- | --- | --- | --- |
| Flight training session/units | Establishing, amending and revising individual training records | Continuously | Instructor |
| Progress test/check | Check student progress and performance | According to approved syllabus | Assigned instructor |
| Test/check/examination | Check completeness and correctness of the training performed  Verify the training records accurateness and completeness  Recommendation/registration for check  student file management | Completion of training | Head of Training |
| Management review and standardisation | Review information provided, training records entries for:  compliance with internal and external standards;  accurateness;  readability;  intelligibility.  Consider results for the next standardisation training and for the ATO personal standard evaluation. | Yearly | Head of Training |

Safety training

|  |
| --- |
| Individual responsibilities |
| Essential exercises |
| Emergency drills (frequency) |
| Dual checks |
| Requirement before first solo day, night or navigation etc. |

Safety training is the skill acquisition for the handling of abnormal and emergency situations. Training details for abnormal and emergency procedures, practices and manoeuvers are to be found in individual session plans/air exercises in the syllabus of the applicable training course.

As relevant to the session progress and the student’s needs:

1. additional explanations and/or instructions shall be provided; and/or
2. single exercises repeated or extensively practiced.

ATO thru its SMS must define for each demanding exercises the conditions for a safe conduct of the training (e.g environment constraints, weather conditions, safe altitude, how to simulate a failure, how to proceed in case of a real failure occurs during exercises)

Instructors are to ensure, that the:

1. provided training for abnormal and emergency procedures, practices and manoeuvers is according to the content of the applicable syllabus and associated session plans;
2. provided training for abnormal and emergency procedures, practices and manoeuvers is according to the safety conditions defined by the ATO SMS and
3. student fulfils prerequisites, experience requirements and passed tests/checks as applicable to the syllabus and intended session.

Assessments, tests and examination

Flying

|  |  |  |  |
| --- | --- | --- | --- |
| **Checks and tests** | | | **Requirements** |
| **Flying training** | Progress check | A progress test is a method to evaluate the student’s level of achieved knowledge and skill measured against defined learning objectives/standards of performance of the applicable training course. | Refer to TM Part 4 Chapter 4.5 «Progress testing» |
| Skill test | Skill test means the demonstration of skill for a licence or rating issue including oral examination as required. | Refer to CAAT Examiner Guide |

Theoretical knowledge

|  |  |  |  |
| --- | --- | --- | --- |
| **Tests and examinations** | | | **Requirements** |
| **Theoretical knowledge instruction** | Progress test | A progress test is a method to evaluate the student’s level of achieved theoretical knowledge measured against the defined learning objectives of the applicable training course. | Refer to TM Part 2 Chapter 2.5 «Progress testing» |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Theoretical knowledge examination | The formal Part FCL examination of the candidate’s theoretical knowledge and proficiency for the issue of a specific licence or rating measured against the applicable learning objectives. | 1. students must have completed the appropriate elements of the theoretical knowledge instruction to a satisfactory standard; 2. applicants shall take the entire set of theoretical knowledge examinations as applicable to the concerned licence and/or rating; 3. all the required subjects shall be completed within a period of 18 months counted from the end of the calendar month when the applicant first attempted an examination; 4. applicants shall only take the theoretical knowledge examination when recommended by the Head of Training (HT). |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Area 100 KSA assessment | An ATO that delivers theoretical knowledge instruction for professional pilot licences should ensure that for the learning objectives (LOs) in topics 100 02 and 100 03 of Area 100 KSA there are at least two summative assessments and at least one formative assessment. The summative assessments are to be documented in the student’s training records. Both the summative assessments and the formative assessment(s) should be debriefed. | 1. The Area 100 KSA formative assessment(s) and summative assessments may include but not be limited to: written planning exercises combining multiple subjects; practical exercises using training devices (if available); scenario-based oral board (viva voce); scenario-based communications exercises; written assignments or project work; and preparation and delivery of group or individual presentations. |

1. **For all categories of licences, applicants shall sit the respective Part FCL theoretical knowledge examination with CAAT. The successful completion of the examinations will be valid:**

|  |  |  |
| --- | --- | --- |
| **Licence / Rating** | **Period** | **Counted from** |
| LAPL, PPL  BPL, LAPL | 24 months | the day when the pilot successfully completes the theoretical knowledge examination. |
| CPL, IR, CB-IR | 36 months |
| ATPL | 7 years | the last validity date of an IR entered in the licence |

Authorisation for test

| **Step** | **Task** | | **Reference** | **Responsibility** |
| --- | --- | --- | --- | --- |
| Review for initial or resit | Part FCL Examination | 1. Evaluate that the student has: 2. achieved the required level of knowledge; 3. completed all the appropriate subjects and in the case of resit, successfully completed remedial training; 4. passed all the progress tests. 5. Ensure that the examination can be passed successfully in all applicable subjects. | TM Part 2 Chapter 2.4 «Student progress» | Head of Training |
| Skill test | 1. Ensure that: 2. all subjects of the applicable syllabus are completed; 3. in case of resit the remedial and corrective training is successfully completed; 4. the appropriate experience requirements are achieved and all training course requirements and time constraints are fulfilled;   if applicable, the theoretical knowledge examination has been passed and within the validity period;  the candidate has achieved the required knowledge and skill and can be recommended for skill test.  Complete the student’s training records and ensure accurateness and completeness. | TM Part 4 Chapter 4.5 «Student progress» | Assigned instructor |
| TM Part 1 Chapter 1.9.2 «Theoretical knowledge» |
| TM Part 1 Chapter 1.7 «Training records» |
| Application Administration | 1. Fill in the applicable application/registration form. | | TM Part 1 Chapter 1.9.5 «Test reports and records» | Student |
| 1. Check application/registration form for accurateness and completeness. | | Assigned instructor |
| Verification | 1. Check completeness and correctness of the training performed. 2. Verify the training records for accurateness and completeness. | | TM Part 1 Chapter 1.7 «Training records» | Head of Training |
| Authorisation | 1. Verify the registration form for accurateness and completeness. 2. Sign registration form and confirm training course completion. 3. The recommendation for theoretical knowledge examination shall be valid for 12 months. 4. Perform student file management. 5. Ensure that the student training records are available/accessible to the examiner. | |

Rules concerning refresher training before retest

1. Refer to:
2. TM Part 4 Chapter 4.6 «Review procedure»; and
3. CAAT Examiner Guide

Test and assessment reports and records

|  |  |
| --- | --- |
| **Test** | **Applicable form, records and reports** |
| Progress test record | Student training record/syllabus of the applicable training course |
| Application forms for Part FCL examination for all categories of licences | CAAT Application forms for theory examinations  Forms are available on the CAAT homepage |
| Examination results per attempt and subject |
| Skill test application and result | CAAT Application and report form:  Forms are available on the CAAT homepage:  Training course specific requirements:  CAAT Examiner Guide |

|  |  |
| --- | --- |
| Procedure for examination paper preparation, type of question and assessment, standard required for «pass» | 1. For all categories of licences, CAAT is responsible for the arrangements, procedures and conduct of the related Part FCL theoretical knowledge examinations. Therefore, CAAT is also responsible for the administrative requirements, organisational matters and preparation of these examination papers. |
| Procedure for question analysis and review and for raising replacement papers |

Examination resit procedures

|  |  |  |
| --- | --- | --- |
| **Test** | | **Resit requirements** |
| **Theoretical knowledge instruction** | Progress test | 1. Before resitting a progress test or an examination attempt, the applicant shall undertake further training. 2. Refer to TM Part 2 Chapter 2.6 «Review procedure». 3. An applicant of a Part FCL examination shall resit: 4. one or more failed subject(s) of the attempt; 5. the complete set of examination if: 6. failed to pass one of the subjects within 4 attempts; or 7. failed to pass all subjects within a period of 18 months; and 8. additionally for ATPL, CPL, IR, CB/IR when failed to pass all subjects in 6 sittings. 9. An examination resit must be authorised by the Head of Training (HT). Refer to TM Part 1 Chapter 1.9.3 «Authorisation for tests» |
| Part FCL examination |
| **Flying training** | Progress check | 1. Before the re-take of a progress check, the student shall undertake a remedial training in the area where improvement is needed. 2. Refer also to TM Part 4 Chapter 4.7 «Progress test». |
| Skill test | 1. As applicable, an applicant shall resit a partially passed or failed skill test. 2. CAAT Examiner Guide 3. Before the resit of a skill test, the applicant shall undertake remedial training in the area where improvement is needed. The assigned instructor shall: 4. identify failed subject(s)/section(s); 5. request the student’s self-judgement and evaluate reason and root cause of the failure(s); 6. define and provide remedial and corrective training by applying appropriate instructional methods. Refer to TM Part 4 Chapter 4.6 «Instructional method». 7. A skill test resit must be authorised by the Head of Training (HT). Refer to TM Part 1 Chapter 1.9.3 «Authorisation for tests». |

Training effectiveness

Students shall receive an effective and regulatory compliant training. For this purpose, training courses are regularly analysed to determine whether a training course has met its objectives in an effective and efficient manner and seeks to detect training deficiencies.

Individual responsibilities

General assessment

Liaison between departments

Identification of unsatisfactory progress

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Identification of unsatisfactory progress* | Student | Refer to:   1. TM Part 2 Chapter 2.4 «Student progress»; 2. TM part 4 Chapter 4.5 «Student progress»; 3. TM Part 1 Chapter 1.9 «Assessments, tests and examinations» | event based | assigned instructor |

Action to correct unsatisfactory progress

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Action to correct unsatisfactory progress* | Student | Refer to:   1. TM Part 2 Chapter 2.6 «Review procedures»; 2. TM Part 4 Chapter 4.5 «Student progress»; 3. TM Part 1 Chapter 1.9 «Assessments, tests and examinations» | event based | assigned instructor |

Procedure for changing assigned instructor

The assigned instructor is the instructor, who is assigned to a student and who is responsible for all aspects of the instructional process during the student’s applicable training. When changing the assigned instructor, the following applies:

|  |  |
| --- | --- |
| **General principles** | 1. A change of an assigned instructor shall not hinder the student’s learning and progress; 2. shall not interrupt the course of training; 3. Alteration of instructors for the purpose to conduct progress checks shall not count as an instructor change; 4. Student may demand a specific instructor; 5. Instructors/students may refuse an assigned person; 6. The ratio of all students to flight instructors, excluding the HT, should not exceed 6:1. Consequently, an instructor may not be assigned to more than 6 students at the same period of time; 7. A student may not have more than *X* assigned instructor changes during the applicable training course. |

| **Step** | **Reason / Need** | **Action** | **Responsibility** |
| --- | --- | --- | --- |
| Unscheduled   1. Short term - interim | 1. The assigned instructor is indisposed due to illness or other significant reason(s); 2. Substantial change in the organisations daily flying programme; 3. As instructional method to activate/support/correct the student’s learning/progress 4. … | 1. Accept an assignment only, if the appropriate licence, certificate, rating and medical for the intended training are valid; 2. Determine the student training status and progress in depth, 3. Review with the student the previous session(s) in detail; 4. Contact the assigned instructor for questions, in case of lack of clarity or doubts; 5. Provide feedback to the assigned instructor; 6. Ensure, that the HT is informed about the short term change; | Instructor |

|  |  |  |  |
| --- | --- | --- | --- |
| Scheduled   1. Long term - permanent | 1. ATO organisational factors and management need; 2. Individual concerns in respect of conflict in the student – instructor relationship; 3. Gaining better interpersonal relationship, to ease learning and to prevent learning difficulties or learning progress; 4. Corrective measure during continued unsatisfactory progress; 5. … | 1. Student and/or instructor shall report an individual concern; 2. The HT decides on the instructor change by considering: 3. The proposed instructor has the necessary and valid licence, certificates, ratings and medical certificates for the respective training; 4. The maximum number of assigned students; 5. The maximum instructor changes during the applicable training course: 6. The availability of the instructor; 7. The agreement between both, the student and the instructor; 8. … | HT |

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| 1. Student transfer |  | 1. Arrange a student transfer to the proposed new instructor. 2. The new assigned instructor shall receive information on: 3. Reasons for change; 4. Student training status and in-depth progress; 5. Major strengths and weaknesses; 6. Areas of improvements 7. Student’s learning interests, commitment and judgement 8. Status of training records and forms; 9. … | Instructors involved |
| Recording | For the purpose to monitor long term - permanent instructor changes, transfers are to be documented. | 1. Student file: 2. Create a note/memo in the student’s training record/form; 3. Amend the «Record of assigned instructors» accordingly; 4. Instructor file 5. Amend the «Record of assigned students» accordingly. | Administration office |

Maximum number of instructor changes per students

**Define the maximum number of instructor change per students**

Internal feedback system for detecting training deficiencies

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| --- | --- | --- | --- | --- |
| **Interdepended components** | | | | **References** |
| **Feedback** |  | **Management** | 1. Management System | 1. Organisation Management Manual (OMM) |
| 1. Training standard evaluation and continuous improvement | 1. TM Part 1 Chapter 1.10 «Training effectiveness» |
| 1. Feedback system 2. Student evaluation and feedback 3. … | 1. OMM Chapter 6.1 «Reporting- and feedback- system» |
|  | **Instructors** | 1. Results out of: 2. ATO personnel standard evaluation; | 1. OM Chapter D.7 «ATO personnel standard evaluation» |
| 1. refresher training; | 1. OM Chapter D.3 «Refresher / recurrent training» |
| 1. Number of instructor changes and related reasons | 1. TM Part 1 Chapter 1.10.6 «Procedure for changing assigned instructor» |
| 1. Student feedback; 2. … | 1. Briefings - TM Part 4 Chapter 4.6 «Instructional methods» |

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|  |  | **Students** | 1. Training progress with achieved/failed learning objectives; | 1. Training course syllabus, session and lesson plans |
| 1. tests and examinations results; | 1. TM Part 1 Chapter 1.9 «Assessments, tests and examinations» |
| 1. required review procedure; | 1. TM Part 2 Chapter 2.6 «Review procedure» |
| 1. teaching materials used; | 1. TM Part 2 Chapter 2.3 «Teaching materials» |
| 1. instructional methods and techniques applied; 2. … | 1. TM Part 4 Chapter 4.6 «Instructional methods» |

Procedures for suspending a student from training

Refer to OM Chapter A.4 «Student discipline and disciplinary action»

Disciplinary actions

Refer to OM Chapter A.4 «Student discipline and disciplinary action»

Reporting and documentation

Standards and level of performance at various stages

Individual responsibilities

Defined standards and level of performance as well as the related standardisation requirements and procedures are documented throughout the organisation documentation including training course syllabi, lesson and session plans.

| **Attainments** | | **References** | **Responsibilities** |
| --- | --- | --- | --- |
| Standardisation  Standards and level of performance | 1. Defined philosophies and policies 2. Specified training instructions, procedures and guidance 3. Published aircraft operating procedures | 1. Organisation Management Manual (OMM) 2. Operations Manual (OM) 3. Training Manual (TM) | OMM Chapter 2.3.1 «Responsibility matrix» |
| 1. Training course: 2. Specified learning objectives and standards of performance; 3. Selected instructional methods and techniques. | 1. Individual syllabi, lesson and session plans | HT |
| Standardisation requirements and procedures | 1. Initial training provided to instructors in order to gain the required knowledge, skills and certificate to conduct the duties of an instructor | 1. OM Chapter D.2 «Initial training» |
| 1. Standardisation training for the purpose to develop and implement a common understanding, level of knowledge and behaviour to reach a mutual consistent understanding during the daily training activity | 1. OM Chapter 4D4 «Standardisation training» |

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|  | 1. Refresher training means to refresh and increase knowledge as well as to maintain the abilities in order to remain qualified and competent to conduct the duties of an instructor | 1. OM Chapter D.3 «Refresher/ recurrent training» |  |
| 1. Management system basic training for all employees | 1. OMM Chapter 8.1 «Management System Basic Training» | |
| 1. Management system advanced training for management personnel | 1. OMM Chapter 8.2 « Management System Advanced Training » | |
| 1.11.4 Application of test criteria | 1. Competence evaluation | 1. OM Chapter D.7 «ATO personnel standards evaluation» | |

Theoretical knowledge instruction

Structure and method of a 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.

The method, structure, content, distribution and allocation of time constraints, including sequence of theoretical knowledge instruction is subject of individual syllabi and associated session plans. Refer to the syllabus of the concerned training course.

Distance learning

*Distance learning courses should include instructions of the material to be studied for individual elements of the course.*

*If distance learning is available for a specific training course, refer to CL OM/TM chapter 4.4.1.1 «Distance learning»*

*If distance learning is not available for a specific training course, include the following statement:*

1. Not applicable.

Lesson plan

The lesson plan is subject to the concerned syllabus it includes 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.

Teaching materials

Specification of the training aids to be used (for example study materials, course manual references, exercises, self-study materials, demonstration equipment).

For teaching material used during a specific training course, refer to the associated syllabus and lesson plans.

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.

Students shall receive theoretical knowledge instruction according to the lesson plans of the applicable syllabus. Statements of goals/learning objectives and what the students are supposed to learn are prescribed in the lesson plans. Students shall enter the Part FCL theoretical knowledge examination only if they have:

1. achieved the required level of knowledge;
2. attained at least *xx* % of the required classroom instruction;
3. completed all the appropriate subjects;
4. passed all the progress tests; and
5. it is predictable that the examination can be passed successfully.
6. Refer also to TM Chapter 1.9.3 «Authorisation for tests».

Progress testing

The organisation of progress testing in each subject, including topics covered, evaluation methods and documentation.

Progress tests are specified in the syllabus of the training courses. Students shall pass the applicable progress tests with a minimum pass grade of 75%.

For the organisation and conduct of progress tests, the following guideline applies:

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| --- | --- | --- | --- |
| **Step** | **Task** | **Frequency** | **Responsibility** |
| Preparation | Production of examination questions shall:   1. be related to learning objectives; 2. be based on the specified course/training material; 3. have different degrees of difficulty as relevant to the learning objective of the topic; 4. be defined and appropriately distributed for all applicable topics of the subject. | Initial issue, amendment and revision | TKI |
| Release of progress test | Submit progress test to HT for approval | HT if applicable |
| Notification/Scheduling | 1. Explain the types, purposes, contents and the schedule of progress tests 2. Explain the rules and regulations | First classroom instruction | TKI |
| Conduct | 1. Prepare progress test, classroom and seating 2. Clarify the rules and regulations 3. Invigilation of the conduct of the test 4. Timekeeping | Single progress test:   1. per subject; 2. prior to the Part FCL examination |

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| --- | --- | --- | --- |
| Evaluation and grading | 1. Mark/review questionnaire, evaluate and calculate the results 2. Grade the test answers – minimum grade of 75% required to pass 3. Identify failed learning objectives individually and collectively 4. Provide feedback to students and explain area of improvements |  |  |
| Administration | Complete:   1. attendance record and progress test report form; 2. the student’s training record/form.   Submit progress test report form to HT and provide feedback concerning the student’s performance and pass grade. |

Review procedures

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.

If a student has not completed the appropriate elements of the theoretical knowledge instruction for the required standard by failing progress tests, examinations and/or not acquiring the required level of knowledge, the following procedure applies:

|  |  |  |  |
| --- | --- | --- | --- |
| **Step** | **Task** | | **Responsibility** |
| Evaluation | Verify and determine the individual deficiencies and main weakness by considering: |  | TKI |
| 1. Failed progress test: 2. Pass grade; 3. Number of failed progress tests and/or subjects. | 1. Refer to «Remedial training after failed tests / examinations» |
| 1. The instructors’ standard and performance; | 1. Refer to TM Chapter 1.10.4 «Procedure for changing assigned instructor » |

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| --- | --- | --- | --- |
|  | 1. Possible learning difficulties/disabilities; 2. Incomplete and/or insufficient attendance of classroom instruction; 3. Amount of self-study/homework done; 4. … | 1. Pick-up/address concerns about progression as early as possible and in an appropriate manner 2. Evaluate root cause 3. Encourage conversation and listen attentively to the student’s concerns and needs 4. Review student’s self-judgement 5. Motivate the student’s learning, interests and commitment 6. … |  |
| Remedial training and action plan | 1. Define next steps and scope of the remedial training 2. Devise an agreed action plan with the student | 1. Determine area of improvements 2. Specify objectives 3. Define remedies and corrective actions 4. Create a schedule |
| 1. Obtain an agreement and commitment to the defined remedies and action plan | | Student |
| Administration | 1. Create a note/memo, amend student’s training record/form 2. Inform HT and assigned instructor regarding the defined remedial training and agreed action plan | | TKI |

Remedial training after failed test/examinations

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| --- | --- | --- |
| **Grade** | **Remedial training** | **Instructors support and activities** |
| 70 - 74% | Self-study in the area of improvements | 1. Identify failed learning objectives |
| 50 - 69% | Define a set of additional theoretical knowledge instructions and/or explanations according to the student’s needs in the area of improvements. | 1. Identify and name the major weakness 2. Analyse and explain root causes 3. Explain areas of improvement, remedies and corrective actions 4. Provide additional explanations and/or instructions |
| <50% | The student shall repeat/review the complete failed subject. |

Appendices

**2.7.1 Examples of Area 100 KSA summative assessments**

**See related GM ORA.ATO.230(a)**

**2.7.2 Area 100 KSA mental math test example**

**See related GM ORA.ATO.230(a)**

Flight training in a FSTD

*If the applicable training courses include flight training in a flight simulation training device (FSTD), include the following statement:*

1. Structure, content and sequence related to flight training in a flight simulation training device (FSTD) is subject of the syllabus of the specific training course.
2. Refer to the syllabus of the concerned training course.

*If the applicable training courses do not include flight training in a flight simulation training device (FSTD), include the following statement:*

1. Not applicable.

Briefing and air exercises

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.

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.

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.

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.

The definition of theoretical knowledge instruction and the manner in which theoretical topics are integrated in practical instruction, are subject of the concerned syllabus and associated content of the individual flight and/or simulator session plans.

As the instructor monitors the student’s performance and progress continuously, and as part of a single flight and/or simulator session, the instructor may vary the theoretical instruction individually to the student’s need, progress and ability.

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.

Training course requirements and learning objectives/standard of performance that must be achieved for a satisfactory training progress are prescribed in the associated syllabus.

For a successful course progress, the student must achieve the required knowledge, skills and experience requirements and pass defined tests, checks and/or examinations, as defined for the applicable training course.

Instructional methods

The ATO requirements, particularly in respect of pre- and postflying briefing, adherence to syllabi and training specifications, authorisation of solo flights, etc.

Students shall receive an effective training by following prescribed training courses. Instructors are to ensure, that the provided training is according to the content of the applicable syllabus and that the required instructional methods and techniques are applied.

A typical and effective training includes the following method of instructions:

| **Instructional process** | | **Task, student practice and evaluation** | **Reference** |
| --- | --- | --- | --- |
| **Session preparation** | Training status | 1. Determine the training progress and status 2. Review the previous session including results and performance | Syllabus/training record |
| Session review | 1. Determine the intended session’s main objectives 2. Vary the session programme according to the actual conditions, student training status, performance and needs | Session plan |
| Prerequisites | 1. Verify that the student fulfils the prerequisites for the intended session 2. If applicable, issue the approval/authorisation of flight 3. Ensure compliance with flight time limitations and rest requirements | 1. Syllabus and session plan 2. OM Chapter A.5 «Approval/Authorisation of flights» |
| **Pre-flight briefing** | Operational/Technical | 1. Determine technical status of the aircraft including MEL | 1. OM Chapter B.2.9 «Minimum equipment list » |
| 1. Weather 2. Review the interpretation of meteorological information and volcanic ash, as applicable | 1. OM Chapter C.4 «Weather minima (flying instructor)» 2. OM Chapter C.5 «Weather minima (student)» |
| Aerodromes / operating sites | 1. OM Chapter C.2 «Flight planning (fuel / energy, oil, minimum safe altitude, navigation)» 2. OM Chapter C.6 «Training routes or areas» |
| 1. Training routes and areas | 1. OM Chapter C.6 «Training routes or areas» |
| 1. Flight planning 2. Review of flight planning | 1. OM Chapter A.19 «Flight planning (general)» 2. OM Chapter C.2 «Flight planning (fuel / energy, oil, minimum safe altitude, navigation)» |
| 1. Fuel / energy 2. Review fuel / energy calculation | 1. OM Chapter C.2 «Flight planning (fuel / energy, oil, minimum safe altitude, navigation)» |
| 1. Loading 2. Review mass and balance calculation | 1. OM Chapter C.3 «Loading (load sheet, mass, balance and limitations)» |
| 1. Performance 2. Review performance calculation | 1. OM Chapter C.1 «Performance (legislation, take-off, route, loading, etc.)» |
| **…** | **…** |
| Session content  Long briefing | 1. Explanation 2. Explain session programme, training subjects, exercises and manoeuvres including learning objectives and targets. 3. Provide theoretical knowledge instruction as relevant to the content of the intended session. | 1. Session plan 2. TM Part 4 Chapter 4.4 «Course structure: integration of syllabi» |
| 1. Evaluation 2. Ensure that the student understands the details of the intended session programme and will be able to apply the knowledge during the practical training and to acquire the associated skills. | Session plan |
| **Practical training** | Practice | 1. Demonstration 2. Demonstrate training subject/exercise 3. Student participation 4. Practice 5. Adaption 6. Repetition 7. Drill 8. Assessment 9. Assess the skill and performance of the student continuously 10. Clarify and correct student errors 11. Vary the programme as required | Session plan |
| **Post-flight briefing** | Student self-assessment | 1. Self-judgement 2. Overall performance 3. Achieved/failed learning objectives 4. Area of improvements 5. … | 1. Syllabus/training record |
| Instructor debriefing | 1. Review student’s self-judgement 2. Identify achieved/failed learning objectives 3. Name the major strength 4. Name the major weakness 5. Analyse and explain root causes 6. Define and explain area of improvements, remedies and corrective actions 7. Provide additional explanations and/or instruction as relevant to the session progress and results or student needs 8. … | 1. Syllabus/training record |
| Administration | 1. Complete the student’s training record/form | 1. Syllabus/training record |
| 1. Pilot’s log book | 1. OM Chapter A.18 «Pilot’s log book» |
| 1. **…** | 1. **…** |

Progress testIng

The instructions given to examining staff in respect of the conduct and documentation of all progress tests.

Following a training course, students shall pass all progress tests as applicable in the respective syllabus.

An instructor shall suggest a student for a progress test only, if the prerequisites including experience requirements are fulfilled, and it is predictable, that the candidate has the level of knowledge and skills to pass the intended progress test.

| **Phase** | **Task** | | **Reference** |
| --- | --- | --- | --- |
| **Planning** | 1. Training status determined 2. Progress test prerequisites and content reviewed 3. Student prerequisites including experiences fulfilled 4. Flight programme details determined/verified | | 1. Syllabus/training record |
| 1. Head of Training/Chief Flight Instructor notified | | 1. Any means of communication |
| 1. Approval/authorisation of flight issued | | 1. OM Chapter A.5 «Approval/Authorisation of flights» |
| **Notification** | 1. Progress test content and objectives explained 2. Flight programme details communicated 3. Organisational issues notified (date, aircraft etc.) 4. Student understanding and expectations verified | | 1. Syllabus/training record 2. Briefing |
| **Preparation** | 1. Students preparation reviewed 2. Appropriate flight preparation 3. Operational, situational and environmental judgement and awareness 4. Basis of decisions and decision-making, problem solving 5. Workload management and communicative competence 6. … | | 1. Session preparation and pre-flight briefing 2. TM Part 4 Chapter 4.6 «Instructional methods» |
| **Completion** | 1. Monitoring the progress test completion 2. Active 3. Passive | | 1. Progress test specification |
| 1. Debriefing and test decision | | 1. TM Part 4 Chapter 4.6 «Instructional methods» |
| 1. Appropriate completion of post-flight and administration tasks reviewed 2. Student’s first experience/impression report received 3. Student’s self-judgement/assessment completed | |
| 1. Passed | 1. Progress test programme completed 2. Level of required knowledge and skills demonstrated |
| 1. Not passed | 1. Content of the progress test not completed 2. Level of knowledge and skill not demonstrated 3. Failure to take corrective actions 4. Wrong and/or unsafe decisions 5. Unsafe airmanship 6. … |

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| --- | --- | --- |
| **Administration** | 1. Progress test administration | 1. Syllabus/training record |
| 1. Student’s training record/form completed |
| 1. Pilot’s log book completed | 1. OM Chapter A.18 «Pilot’s log book» |
| 1. Student file amended/revised | 1. OM Chapter A.12 «Flight crew qualification records (licences and ratings)» |
| 1. Head of Training/Chief Flight Instructor notified | 1. Any means of communication |

Glossary of terms

Where required, terms specific to the operations and training manual content are explained in the concerned chapter and/or sub-chapter.

Refer to applicable teaching materials, aircraft manufacturer provided manuals and documentations, AIP and/or commercially produced route and aerodrome information/documentation or other aviation literature for basic terminology and abbreviations used in aviation.

For the list of abbreviations as relevant to the operations and training manual, refer to «List of abbreviation».

Appendices

Syllabi, lesson and session plans, forms and records are part of the organisation’s documentation and maintained as appendices. For the applicable appendices, refer to «LoApp List of Appendices».

Progress test report forms;

Skill test report forms;

ATO certificates of experience, competence, etc. as required.