



Croatian Civil Aviation Agency

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# KRITERIJI ZA OSOBLJE DIO-147 ORGANIZACIJE / CRITERIA FOR PART-147 ORGANISATION PERSONNEL

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HRVATSKA AGENCIJA ZA CIVILNO ZRAKOPLOVSTVO  
ODJEL PLOVIDBENOSTI

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This document is published to ensure compliance with 147.A.105 of Commission Regulation EU No 1321/2014 and its amendments.

## 1. CRITERIA FOR PART-147 ORGANISATION PERSONNEL

With the exception of the Accountable Manager, an EASA Form 4 should be completed for each person nominated to hold a position required by 147.A.105 (b). The organisation may adopt different designations for such nominated person, as long as it documents how these relate to the relevant Part-147 designations.

The maintenance training organisation should have a nucleus of permanently employed qualified and competent staff to undertake the minimum amount of maintenance training proposed, but may contract, on a part-time basis, instructors for subjects which are only taught on an occasional basis.

### 1.1. Accountable Manager (AM)

The Accountable Manager must have the corporate authority of ensuring that all training commitments can be financed and carried out in accordance with Part-147 standards.

#### 1.1.1 Requirements

- a) Knowledge:
  - i. Understanding of the relevant EU regulation and its Implementing Rules (Part-66 & Part-147) and national regulation requirements.
  - ii. Understanding of the MTOE procedures
  
- b) Additional skills/competencies:
  - i. Managerial skills
  - ii. Communication skills
  - iii. Attitude appropriate to the position nominated to hold

## 1.2 Quality Manager (QM)

The Quality Manager has the responsibility of managing the quality system as specified in 147.A.130(b). The appointed person shall have direct access to the Accountable Manager to ensure that the Accountable Manager is kept properly informed on compliance matters.

### 1.2.1 Requirements

- a) Training/education:
  - i. Quality System Training
  - ii. Auditing Training
  
- b) Knowledge:
  - i. Knowledge and understanding of the relevant EU regulation and its Implementing Rules (Part-66 & Part-147) and national regulation requirements.
  - ii. Detailed knowledge and understanding of the MTOE procedures of the MTO including knowledge of the rules and procedures relevant to the exercise of his/her duties.
  
- c) Experience:
  - i. Five years' work experience, of which two years' experience in aircraft maintenance, or working in aircraft maintenance environment, or in Part-147 or other technical academic institution, or working in a NAA, or as an auditor or quality manager.
  
- d) Additional skills/competencies:
  - i. Managerial skills
  - ii. Communication skills
  - iii. Attitude appropriate to the position nominated to hold

Note: In the case of a smaller maintenance training organisation, this task may be exercised by the Accountable Manager provided he/she has demonstrated having the related competence for Quality Manager.

### 1.3. Training Manager (TM)

The Training Manager must have the authority of managing the Part-147 MTO on a day-to day basis. He must have the responsibility to ensure that all training performed is in compliance with the relevant regulatory requirements and in accordance to the approved MTOE procedures and to ensure satisfactory integration of practical training and theoretical knowledge instruction, also for supervising the progress of individual students.

#### 1.3.1 Requirements

- a) Training/education:
  - i. Degree at technical university or other higher technical educational institution (mechanical, electrical, aircraft engineering) or secondary education with appropriate aircraft maintenance experience (i.e. Certifying Staff)
- b) Knowledge:
  - i. Knowledge and understanding of the relevant EU regulation and its Implementing Rules (Part-66 & Part-147) and applicable AMC/GMs.
  - ii. Detailed knowledge and understanding of the MTOE procedures of the MTO including knowledge of the training and examination processes and procedures,
  - iii. Knowledge of instructional techniques (Instructional Techniques Training)
- c) Experience:
  - i. 5 years working experience in continuing airworthiness, maintenance or training environment, of which two years in an appropriate position
- d) Additional skills/competencies:
  - i. Managerial skills
  - ii. Communication skills
  - iii. Administrative skills
  - iv. Attitude appropriate to the position nominated to hold

## 1.4 Examination Manager (EM)

Examination Manager is a person who has the overall responsibility for process of examinations, which includes security of Examination Question Data Bank, creation, accuracy, knowledge level, amendment, and validation, quality and quantity to ensure a representative cross-section of the subject matter, selection of questions to produce examination papers, storage and archiving of examination records, declaring an examination void in the event of a significant breach of the integrity of the examination.

### 1.4.1 Requirements

#### a) Training/education:

- i. Degree at technical university or other higher technical educational institution (mechanical, electrical, aircraft engineering), or secondary education with appropriate aircraft maintenance experience (i.e. Certifying Staff)

#### b) Knowledge:

- i. Knowledge and understanding of the relevant EU regulation and its Implementing Rules (Part-66 & Part-147) and applicable AMC/GMs.
- ii. Detailed knowledge and understanding of the MTOE procedures of the MTO including knowledge of the training and examination processes and procedures,
- iii. Knowledge of the methodology of creating examination Multi Choice Questions (MCQ) and managing the Examination Question Data Bank (EQCB).

#### c) Experience:

- i. 3 years minimum working experience in continuing airworthiness, maintenance, or training environment.

## 1.5. Instructor

Instructor is a person designated by the MTO who delivers theoretical and/or practical training to the trainees in accordance with the approved MTOE procedures using the training material and equipment determined by the MTO.

### 1.5.1 General Requirements for instructors

#### a) Training/education:

- i. Degree at technical university or other higher technical educational institution (mechanical, electrical, aircraft engineering), or secondary education with appropriate aircraft maintenance experience (i.e. Certifying Staff)
- ii. Instructional Techniques Training ('Professional Skills for the Instructors' or similar)

#### b) Knowledge:

- i. Knowledge of instructional techniques,
- ii. Knowledge of instructional tools to use,
- iii. Knowledge of human performance and safety culture,
- iv. Knowledge of the subject to be trained,
- v. Detailed knowledge of the MTOE and associated training procedures,

- vi. Sound understanding of the relevant EU regulation and its Implementing Rules (Part-66 & Part-147) and applicable AMC/GMs.

c) Experience:

- i. Practical background in aviation for modules relevant to the training provided (with the exception for Basic training modules: Module 1 – Mathematics, Module 2 – Physics, Module 3 - Electrical Fundamentals and Module 4 - Electronic Fundamentals. However practical experience in aircraft maintenance, design or production activities is advantageous; the advantage for the instructor is to understand the practical applications of a scientific knowledge and therefore to better appreciate the knowledge that the student must receive.)
- ii. Previous experience in giving theoretical knowledge instruction or successfully passed the organisations internal instructor training including the final practical assessment by the MTO in accordance with the approved MTOE procedure.

d) Additional skills/competencies:

- i. Communication skills
- ii. Attitude appropriate to the function

In order to be initially accepted as instructor, the prospective instructor should attend a number of lessons/practical training sessions during the regular conducted courses on the subject(s) he/she is going to deliver. The instructor should then prepare and deliver a training session in a monitored environment, attended and assessed either by the training manager or his delegated representative as part of the MTO's assessment process, prior to the instructor being authorised to deliver a course.

### 1.5.2 Aircraft Type Training Instructor Requirements

In addition to the General Requirements for Instructors the aircraft Type Training Instructor must also be either of the following:

- a) hold an aircraft maintenance licence endorsed with the type rating relevant to the corresponding type course OR
- b) hold an aeronautical / electrical or mechanical engineering degree and undergo a type course specific to the category and corresponding type OR
- c) have evidence of previous employment as an Aircraft Type Training instructor and undergo a type course specific to the category and corresponding type.

### 1.5.3 Basic Knowledge Training Instructor Requirements

In addition to the General Requirements for Instructors the Basic Knowledge Training Instructor must also be either of the following:

- a) hold an aircraft maintenance licence applicable to the relevant category/sub-category being taught, OR

- b) Provide evidence of previous employment as a Basic Knowledge Training Instructor, OR
- c) Have practical background in aviation for modules relevant to the training provided and have previous experience in giving theoretical knowledge instruction or successfully passed the organisations internal instructor training including the final practical assessment by the MTO in accordance with the approved MTOE procedure.

## 1.6. Knowledge Examiner/ Practical Assessor

The function of the Knowledge Examiner is to examine the theoretical knowledge of the trainees in accordance with the approved MTOE examination procedures.

The function of the Practical Assessor is to assess the practical knowledge, skills and attitude of the trainees in accordance with the approved MTOE practical assessment procedures.

### 1.6.1 Knowledge Examiner Requirements

- a) Training/education:
  - i. Degree at technical university or other higher technical educational institution (mechanical, electrical, aircraft engineering), or secondary education with appropriate aircraft maintenance experience (i.e. Certifying Staff)
- b) Knowledge:
  - i. Familiar with the Aircraft Basic Training or Type Training course/s for which examination is to be held,
  - ii. Familiar with the Part-66 syllabus that details the number and knowledge level of questions per module
  - iii. Should be able to compile both written and multi choice question papers and, in the case of the essay questions, supply a model answer sheet detailing the marking guide
  - iv. Able to mark and analyse the student's responses and provide feedback to the instructor / training manager, detailing any inconsistencies with the examination results or process.
  - v. Practical working knowledge of the MTOE and relevant training and examination procedures,
  - vi. Sound understanding of the relevant EU regulation and its Implementing Rules (Part-66 & Part-147) and applicable AMC/GMs.
- c) Additional skills/competencies:
  - i. Professionalism, sincerity, objectivity and neutrality
  - ii. Attitude appropriate to the function

Note: Knowledge Examiner shall not issue an examination paper or invigilate an examination in a subject area where he/she has acted as an instructor.



## 1.6.2 Practical Assessor Requirements

### a) Training/education:

- i. Hold a current aircraft type authorisation, issued by a Part-145 organisation, on the subject aircraft type for which the assessment is to be held and successfully completed a formal instructional / facilitators techniques course and completed an organisations internal assessor training course, OR
- ii. Hold a supervisory position or, a position of responsibility, as an avionic or mechanical engineer within a Part-145 maintenance environment and can prove practical experience of 6 months within the last 24 months.

### b) Knowledge:

- i. Knowledge of human performance and safety culture,
- ii. Knowledge of instructional tools to use,
- iii. Understanding of the objective and the content of the practical elements of the training that is being assessed
- iv. Practical working knowledge of the MTOE including associated training and examination procedures,
- v. Sound understanding of the relevant EU regulation and its Implementing Rules (Part-66 & Part-147) and applicable AMC/GMs.

### c) Experience:

- i. 2 years of practical experience in the areas relevant to the assessment provided

### d) Additional skills/competencies:

- i. Training/coaching/testing skills
- ii. Interpersonal skills to manage the assessment process (professionalism, sincerity, objectivity and neutrality, analysis skills, sense of judgement, flexibility, capability of evaluating the supervisor's or instructor's reports, handling of trainee's reactions to failing assessment with the cultural environment, being constructive, etc.)

## 1.6.3 Invigilators

Training organisations may delegate the invigilation of an examination to staff not listed as examiner for the particular subject.

These "invigilators" do not need to be qualified to the same extent as an examiner, and in particular they don't need to demonstrate specialty knowledge, as long as their duty is strictly limited to the invigilation itself and excludes any participation to the preparation of the examination papers or to their grading.

Invigilators must be trained to the organisation's examination procedures with a specific emphasis on the exam's integrity aspects and on the handling of cheating or misconduct cases.

Such staff should be listed by the organisation and records of their training be kept in the individual's file.

## 1.7 Assessing the competency of Instructors, Knowledge Examiner and Practical Assessor

The assessment of the competency and the subsequent nomination of instructional staff are key-steps and must be conducted in accordance with a procedure to be described into the MTOE.

The procedure should indicate the persons responsible for such assessment as well as the criteria used by the organisation to determine the eligibility of a candidate to a specific position of instructor, knowledge examiner or practical assessor.

The procedure should include a face-to-face interview of the candidate and a review of his/her credentials such as training certificates or experience records. Where necessary, it shall be completed by an in-situation evaluation of the candidate (simulated training session or real class-teaching under supervision).

Where appropriate, the procedure should also consider a period of "OJT" (instruction under supervision) allowing a fine-tuned assessment before confirming the nomination of a candidate as an instructor, examiner or assessor. This is for instance in order to verify specific abilities or to verify the adherence to the organisation's training / examination procedures.

The assessment should be verifiable by the CCAA and therefore be documented. Supporting documents (training certificates, working experience records, etc...) should be kept in the staff file.

Note: The competency assessment is not a pre-employment interview usually based on credentials. The evaluation must in effect confirm that the candidate is familiar with the organisation's procedures, instructional methods and techniques. It is also the opportunity to verify the candidate's attitude and teaching abilities, and to ensure that he/she will deliver a quality course in-line with the organisation's values and practices.

### Important:

It is often noted that organisations have a robust selection process for their own permanently employed staff, but do not apply the same rigor to occasional external staff. The role played by those in the overall quality of a course should however not be underestimated, and an adequate assessment of their competencies should equally be enforced. The process can be tailored to better fit a particular category of staff, for instance an MRO technician proposed as a practical instructor & assessor could be evaluated more on the robustness of his/her working experience than on his/her pedagogical skills credentials.

An instructor or examiner previously -and recently- employed by another Part 147 organisation should equally be systematically assessed for his/her competency, although the assessment process could be lighter and consider credits due to his/her past experience.

In any case, the staff should be trained and assessed against their knowledge of the training's organisation instruction & assessment procedures & documents.

The preceding principles should be equally applied for the extension of an existing scope of instruction, examination or assessment held by a staff already exercising such activities within the company. A lighter assessment process essentially centered on the specialty knowledge would however be appropriate.

## 1.7 Nomination and acceptance of Instructors, Knowledge Examiner and Practical Assessor

The use of CCAA Form 4 is not required, but the acceptance of Instructors, Knowledge Examiner and Practical Assessor shall be performed through the MTO's 'List of instructors, examiners and assessors' and approved through MTOE. The MTO shall inform the CCAA of any changes regarding the 'List of instructors, examiners and assessors' in due time.

The appointment for of any new Instructor, Knowledge Examiner or Practical Assessor by the MTO shall be followed by the written notification to the CCAA including the CV for any new Knowledge Examiner or Practical Assessor and any other relevant supporting evidences on his/her qualification and experience.

Knowledge Examiner, Practical Assessor and Instructor may combine the roles; these other roles must be clearly identified against the individual within the relevant MTOE.

## 2. PROCEDURE FOR THE ACCEPTANCE OF PART-147 PERSONNEL

### 2.1. Applicable form

Applicable Form: *Details of management personnel – Form 4 (QSM-FRM-108)*.

Details of management personnel – Form 4 shall be used for Quality Manager, Training Manager or any other person nominated to hold a management position required by 147.A.105 (b) (such as, but not limited to Training Coordinator, Instructor Coordinator, Chief Instructor, Chief Knowledge Examiner, Chief Practical Assessor, etc.)

The organisation may adopt different designations for such nominated person, as long as it documents how these relate to the relevant Part-147 designations.

One Form shall be completed for one nominated person and one function, because one person can be approved for one function within the organisation, but there may be reason to be not approved for some other function.

Relevant appendices / supporting documentation shall be attached to the Form as described in the form itself such as (as deemed appropriate and depending on the function of person):

- i. Nomination of the person for the function by Accountable Manager or any other Organisation's authorised person, as applicable;
- ii. Detailed CV;
- iii. Appropriate diplomas and certificates and other eligible evidences supporting the qualification and experience;
- iv. Any other document proving qualification, experience and expertise of the nominated person;
- v. If the nominated person is not the Croatian citizen, contact relevant CAA to check his/her qualification and to check the activities in other organisation (if any and if relevant to the nominated position/function);
- vi. Evidence on the employment within the organisation (as appropriate);

The Form 4 must be sent to the CCAA headquarters supplemented by the relevant supporting documentation.

## 2.2. Evaluation

- i. Qualified inspector approval/ acceptance will be based on:
- ii. Fulfilling the requirements (qualification, experience & expertise);
- iii. Previous cooperation of this person with the CCAA (as appropriate);

## 2.3 Acceptance

If the candidate has satisfied all the requirements and qualified inspector decided that he/she is suitable candidate for the position, the CCAA shall approve Form 4 and inform the Training Organization in written.

Prior to the acceptance, the CCAA may invite the nominated management personnel for an interview or call for additional evidence of their suitability before deciding upon their acceptability.

The person shall not commence its work within the Part-147 organisation unless officially informed by the CCAA on his acceptance.

Note: NO Form 4 is to be submitted for the acceptance of instructional & examination staffs.

## 3. DELEGATION OF APPROVAL OF THE LIST OF INSTRUCTORS, EXAMINERS & PRACTICAL ASSESSORS

Once the CCAA is satisfied with the efficiency of the organisation's procedures and with the oversight performed by the internal Quality Assurance department, then a delegation of approval of the amendments to the list may be granted to the training organisation. Such "indirect approval" process should be described in the MTOE.

The delegation of approval will normally not take place during the first "oversight cycle" (2 years following the initial approval of the organisation).

The assessment and the nomination of the candidates is then carried out under the responsibility of the training organisation. The CCAA will perform sample checks during routine audits. These may include interviews of instructors or the attendance to part of a lesson or examination. Would the sample checks reveal that the instructor is not fully qualified, the revocation or the limitation of the instruction/ assessment privileges granted by the organisation may be requested by the CCAA and the delegation will be re-considered.

#### 4. CONTINUED QUALIFICATION

The training organisation must develop and document a program to maintain the qualifications of nominated instructors, examiners and assessors. The recurrent training program shall as a minimum comply with Part 147.A.105 Personnel requirements:

“(h) Instructors and knowledge examiners shall undergo updating training at least every 24 months relevant to current technology, practical skills, human factors and the latest training techniques appropriate to the knowledge being trained or examined.”

The continued qualification should be documented and periodically verified by the Training Organisation.

The continued qualification program should be efficient and therefore be customized to each category of instructional staff so to better emphasize the areas relevant to the individuals. For instance, recurrent training on Human Factors could be emphasized for Type Training practical instructors whereas it could be considered as being of a limited added value for a Basic Training Module 1 instructor, for which an emphasis on instructional techniques or pedagogy would be considered as more valuable.

The program should consider the need for practical instructors and assessors to maintain their own proficiency in performing maintenance on the product they are instructing. This could be achieved by the regular and documented participation to actual maintenance events in a real maintenance environment. Although active participation would be beneficial, it is not required that the staff performs maintenance tasks himself/herself but at least attend such events as an observer.