

Safety and Airspace Regulation Group
Licensing and Training Standards



Standards Document 80_Version 1

Alternative Training and Qualification Programme (ATQP)

Industry Guidance

Please note that this document is for guidance purposes only. The latest version of this document can be viewed the CAA website – www.caa.co.uk/standardsdocuments

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1. Introduction

- 1.1. This document sets out the minimum regulatory standards for UK operators to establish and run an ATQP. It gives guidance on how to interpret the regulations to realise the safety and training benefits of an ATQP while ensuring the integrity of the operation.
- 1.2. It is recognised that most operators run informal training programmes over and above Part ORO.FC.A requirements. The guidance in this document allows credit to be given for this and for these programmes to be formalised under an ATQP. It also recognises that operators will seek to keep their established training standards and methodologies and only make changes where the regulations demand it.
- 1.3. The FAA introduced the Advanced Qualification Programme in 1990 as an alternative framework for the conduct of initial and recurrent training. The European equivalent was introduced in 2006 under JAR-OPS 1.978 which has evolved through EU-OPS 1.978 to Part ORO.FC.A.245 under EASA.
- 1.4. An ATQP allows operators to provide a more effective and more operator-specific recurrent training and checking package for its crews. The Programme ensures a higher level of civil aviation safety by utilising improved training and evaluation over the current system. The Programme is a company and type specific alternative to traditional training. Ongoing data collection can be developed into a responsive programme that can adapt to an operator's changing requirements such as new equipment, new technology or a differing route structure. Focusing on specific needs of fleets and groups of pilots, targeted training can enhance performance while reducing costs in the long term.
- 1.5. ATQP can be summed up as 'train the way you operate and operate the way you train'.

2. Legislation and references:

Commission Regulation (EU) No 965/2012 of 05/10/2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council. (OJ L 296, 25.10.2012, p.1-148)

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|---|-------------------------------|
| • ORO.FC.A.245 | ATQP |
| • AMC1 ORO.FC.A.245 | Components and Implementation |
| • GM1 ORO.FC.A.245 | Terminology |
| • AMC1 ORO.FC.A.245(a) | Operator Experience |
| • AMC1 ORO.FC.A.245(d)(e)(2) | Combination of Checks |
| • CAP 804 Part 1, section 4, (Sub) Part S | ATQP |
| • CAP 739 | FDM Use in ATQP |

3. Overview of an ATQP

- 3.1. To maximise effectiveness, an operator's training programme needs to be targeted at areas that are pertinent to that operator's type and theatre of operation. In addition the programme must be able to respond to weaknesses in performance whenever they are identified. The existing training and testing requirements for flight crew require the training and testing of specific items detailed in Part ORO.FC and subpart E Annex V (SPA.LVO). Whilst concentrating on these specific items ensures that a basic standard is achieved it reduces the flexibility inherent within an effective training programme. Thus the current regulations form a fairly rigid structure that gives the operator little scope for developing initiatives to meet the actual operational environment and conditions pertinent to that operator.
- 3.2. The aim of an ATQP, when approved by the Authority, is to allow an operator to establish training and qualification standards that are higher than the core requirements of the Air Operations (Cover Regulations), and to prioritise training in areas where the greatest benefit can be achieved. An ATQP permits an operator to change from training and testing based on the completion of specific standard items and manoeuvres, together with the associated periods of validity, to a system of training and qualification based on training objectives. The ATQP, when fully developed and approved, will enable the operator to change both the structure and validity periods of the qualification requirements for flight crew and hence obtain specific operational benefits. Such benefits, however, are only achievable if the operator is able to substantiate that such changes to the core requirements result in an increase in safety standards.
- 3.3. To achieve the aims of an ATQP the operator will be required to develop a task orientated training programme that is objectively based. To develop the programme the operator must conduct a task analysis to provide justification and a rationale for the programme's structure and content, supported by a data monitoring / analysis system which includes an established FDM programme.
- 3.4. The ATQP will give an operator an incentive to develop innovative training methodologies that benefit both training standards and training efficiency.
- 3.5. Part ORO.FC.A.245 permits an Operator, with the Approval of the Authority, to extend various validity periods under an ATQP. Part ORO.FC.A.245 also states that the ATQP must establish and maintain proficiency that is not less than the provisions prescribed in Part ORO.FC and subpart E Annex V (SPA.LVO).
- 3.6. ATQP may apply to the following training qualifications:
 - Low visibility operations (SPA.LVO.100)
 - Operator conversion training (ORO.FC.120) *
 - Differences training (ORO.FC.125)
 - Command courses (ORO.FC.205)
 - Recurrent training and checking (ORO.FC.230)
 - Operation of more than one type (ORO.FC.240)

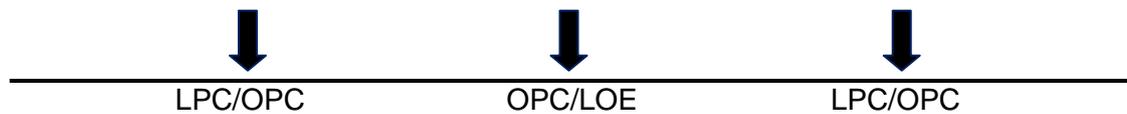
*Note: Most operators' conversion training and checking curricula follow Part FCL requirements for a type/class rating course. Currently, Part FCL cannot be varied within an ATQP so scope for varying Part ORO.FC and subpart E Annex V (SPA.LVO) requirements is limited. However, an equivalent level of safety and proficiency for Zero Flight Time Training (ZFTT) should be established through the safety case (or equivalent) if required.

- 3.7. The implementation of ATQP is not restricted to the larger operators but will require a substantial commitment of resources. Any operator that is able to invest in the requirements of the programme and gains the applicable expertise may seek approval for the implementation of an ATQP.
- 3.8. Example of Simulator Transition Programme

Current ORO.FC.A / Part FCL annual requirements:



2 year evaluation/data collection under ATQP approval:



Full ATQP:



- 3.9. An ATQP programme must include an LOE in an FSTD. Following a 2 year period of operating within an approved ATQP system, an operator can request extensions of the following training events (ORO.FC.A.230):

- OPC (12 months) 3 month revalidation rule applies*
- Line checks (24 months) 6 month revalidation rule applies*
- SEP (24 months) 6 month revalidation rule applies*
- All expiries are to the end of the month.

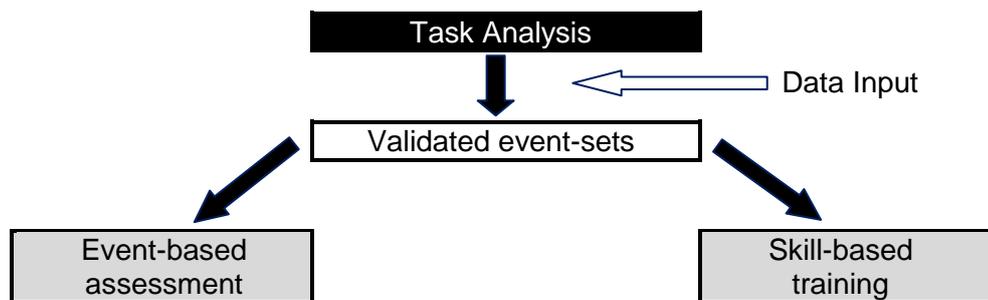
* Revalidation can take place during the last 3/6 months of validity without affecting the new expiry date.

Note: 24 month SEP will conflict with other annual and triennial training requirements e.g. CRM, SEC.

- 3.10. Third party training personnel may be used in an ATQP provided they are appropriately qualified and have received the additional ATQP training.
- 3.11. TRIs may be used for the LOE with the acceptance of the Authority.
- 3.12. ATQP shall be the responsibility of a post holder (Head of Crew Training).
- 3.13. Mixed fleet flying may be incorporated within an approved ATQP scheme provided appropriate safety standards can be maintained and demonstrated. MFF must be included in the safety case for the introduction of ATQP.

4. Definitions

- 4.1. **Task Analysis** - For each aircraft type/class to be included within ATQP a systematic review should be completed that defines the various tasks to be undertaken by the flight crew when operating that type/class.
- 4.2. **Data** - Correlated data from FDM, ASRs, MOR's, LOQE, electronic training records, global marking system and SMS.
- 4.3. **Validated event-set** - The analysis of specific tasks to the aircraft type which are subsequently validated by data and allow the identification of event-based assessment and skill-based training.
- 4.4. **Event-based assessment** - An event-based assessment is an event that occurs during an LOE which has defined standards that must be achieved by the crew and is the method used to demonstrate crew proficiency.
- 4.5. **Skill-based training** - Specific and targeted training that has been identified by the operator.



- 4.6. **Line Oriented Evaluation (LOE)**
- The LOE is a selection of scenarios using different airports / weather / NOTAMs designed by the operator.
 - The LOE is an evaluation methodology / assessment of proficiency and performance in a real and controlled environment. This allows the extension of the OPC, Line Check and SEP validity periods.
 - Crews that do not meet the proficiency standards will require training to proficiency.
 - The LOE must fall within acceptable levels of difficulty.
 - The LOE, via event-based assessments, identifies crew proficiency.
 - The LOE is also a means of data collection of crew performance under different scenarios.
 - The LOE is valid for 12 months to the end of the month (3 month rule applies).
- 4.7. **LOQE** - Line oriented quality evaluation. This assessment is used to cover the areas not covered by FDM, e.g. performance calculations, flight planning, use of checklists, weight and balance, RT procedures, use of MEL/CDL, SOPs etc. The LOQE can be combined with a line check.

- 4.8. **Mixed Fleet Flying** – This is where an operator uses credit from one type to another similar type (an example would be A330/340) for meeting regulatory requirements for part ORO.FC.A (i.e. OPC, Line checks etc). These checks can alternate between types on an annual basis. Licensing requirements (i.e. LST/LPC) remain unchanged. Data from one type can be used under an approved ATQP scheme to meet the requirements of a data analysis programme for either type.

5. Application process

- 5.1. Operators should initially contact their assigned FOI who will arrange an initial meeting with the CAA ATQP gateway to discuss the operator's options. To develop the programme, the operator must conduct a task analysis and establish a safety case to provide justification and a rationale for the programme's structure and content. This must be supported by data gathered from an established flight data analysis and evaluation programme. The programme will give an operator an incentive to develop innovative training methodologies that benefit both training standards and training efficiency.
- 5.2. It should be noted that the process is likely to take in excess of two years from first application to full implementation of an ATQP. Details of all requirements are given in Part ORO.FC.A.245 including AMC and GM. See section 8 for application check list.

6. Operator Guidance Material

6.1. Contact your FOI to arrange a meeting with the CAA ATQP gateway.

- 6.1.1. The operator in the first instance should contact their FOI to arrange a meeting with the CAA ATQP gateway to discuss the ATQP programme, approval process and to ensure the operator has the appropriate experience. A minimum continuous operation of 2 years before implementing an ATQP is required. This requirement may be reduced at the discretion of the Authority; an example would be following a company merger/demerger provided the overall experience level is appropriate.

6.2. Apply for and pay the fee for ATQP approval.

- 6.2.1. The current CAA Scheme of Charges (Air Operator and Police Air Operator Certification) www.caa.co.uk/ors5 should be checked for the current fee then an e-mail sent applying for ATQP approval to allmso@caa.co.uk

6.3. Submit an implementation plan with identified phases and goals.

- 6.3.1. The operator's implementation plan must show how the ATQP is to be introduced and must demonstrate that during the implementation period the core (pre-ATQP) requirements of Part ORO.FC and subpart E Annex V (SPA.LVO) will be met. In addition the plan must show how the revised training will be validated to prove its effectiveness. A series of 'gates' must be established through which the operator must have Authority approval to proceed.
- 6.3.2. The implementation plan will enable the Authority and the operator to establish confidence in the programme and ensure that the programme's foundations are firmly established. To provide this confidence, the implementation period must be not less than two years. However, the operator must assess their current crew performance under their existing training programme before the implementation of ATQP. Therefore extra time may be required to collect appropriate data. This time frame must be agreed with the FOI and included in the plan.

6.4. Complete and submit a safety case.

6.4.1. The safety case must be produced in accordance with AMC 1 ORO.FC.A.245 7 (b)(1).

6.4.2. The safety case should:

- be able to demonstrate that the required or equivalent level of safety is maintained throughout all phases of the programme;
- be valid to the application and the proposed operation;
- be adequately safe and ensure the required regulatory safety standards or approved equivalent safety standards are achieved;
- be applicable over the entire lifetime of the programme;
- demonstrate completeness and credibility of the programme;
- be fully documented;
- ensure integrity of the operation and the maintenance of the operations and training infrastructure;
- ensure robustness to system change;
- address the impact of technological advance, obsolescence and change;
- address the impact of regulatory change.

6.5. Produce documentation on the scope and requirements for ATQP

6.5.1. This would take the form of an amendment to OMD (Training Manual) and must cover a description of how the programme will:

- enhance safety;
- improve training standards;
- establish attainable training objectives;
- integrate CRM;
- description of the feedback process to self-correct training;
- institute a system of progressive evaluation of all training to enable consistent and uniform monitoring;
- ability to adapt to new technology and aircraft;
- foster the use of innovative training methods and technology;
- make efficient use of training resources, specifically matching training media to training needs;
- describe an LOE;
- describe an event-based assessment within the LOE (measure of proficiency);
- describe a skill-based training event;
- set out entry requirements and provide a list of topics and content describing what training level will be required before start or continuation of training;
- set out the 'train the trainer' programme;
- describe the global marking system;
- describe the data monitoring / analysis programme;
- describe the quality control mechanisms.

6.5.2. For each LOE and skill-based training event the documentation must show the following:

- description of what will be taught or assessed during the event;
- targets and objectives;
- each training or qualification event should specify the required topics with the relevant targets to be achieved;
- each training or qualification event should have the same structure;
- demonstrate a measure of event difficulty.

6.6. Develop a data monitoring / analysis programme.

6.6.1. The following sources of information should be used to develop the programme:

- Data from an electronic training record system that can analyse the data available;
- Global marking system;
- FDM data (see AMC1 Part ORO.AOC.130 requirements);
- ASRs / MORs;
- SMS;
- LOQE

Note: FDM data collection should reach a minimum of 60% for all relevant flights conducted by the operator before ATQP approval is granted and 80% before ORO.FC.A.230 validity periods can be extended.

6.7. Develop a global marking system

6.7.1. The global marking system must be able to identify crew performance for each of the assessable tasks both in the simulator and during line checks, the scale of 1 to 5 is commonly used where 3 is company standard. The operator is free to develop its own marking system however it must be acceptable to the Authority.

6.8. Develop an electronic training record system than can analyse the data

6.8.1. The training record system must be readily available to the trainers, simple to use and have the ability to analyse the data to show weaknesses in crew performance. The system should also be able to identify trainers' marking skills from a standardisation point of view.

6.9. Complete a task analysis

6.9.1. The operator is required to determine the various tasks to be undertaken by the flight crew when operating specific type(s) of aeroplane. The analysis should describe the knowledge and skills required to complete the various tasks and identify the appropriate behavioural markers that should be exhibited by a crew. Some examples would be; LPC/OPC items, operating procedures, line check criteria, flight planning etc.

6.10. Validate the task analysis output

6.10.1. Each task identified in 6.9 above must have an appropriate way of measuring performance from information obtained via the data monitoring and analysis programme.

6.11. Develop a quality control system

6.11.1. Quality control mechanisms should at least review the following:

- procedures for approval of recurrent training;
- ATQP instructor training approvals;
- approvals of event sets for LOE;
- procedures for conducting LOE and LOQE.

6.11.2. ATQP must form part of the Operators Compliance Monitoring Programme which should audit the ATQP programme at annual intervals for the first two years. This can then be extended to bi-annual auditing subject to the approval of the CAA.

6.12. Develop a number of LOE scenarios using different airfields and weather

6.12.1. Within each scenario, produce a number of event-based assessments (from validated event sets) which fall within an acceptable range of difficulty. An example would be 2 - 4 event-based assessments per LOE each having a different level of difficulty.

6.12.2 Items covered during an LOE cannot be used for credit to Part FCL LPC items.

6.13. Develop a feedback loop

6.13.1. This component of the programme builds on the satisfactory implementation of Compliance Monitoring and quality control requirements of ORO.GEN.200 and feedback from the data monitoring / analysis programme. This ensures that the training requirements and the standards specified by the ATQP are being attained. It is designed to ensure that all training undertaken as part of the ATQP is uniform in both application and standard.

6.14. Develop a skill-based training programme

6.14.1. The data monitoring / analysis programme should identify tasks where crew training is required. Training items should be prioritised and may subsequently form part of an LOE event-based assessment (if appropriate) to validate the training given.

6.15. Instructor training.

6.15.1. Specific training required for:

- each A/C type;
- instructors / examiners;
- standardisation of examiners and instructors.

6.15.2. Training should include the following syllabus:

- ATQP principles;
- knowledge/skills/behaviour as learned from task analysis;
- line oriented evaluation (LOE) including triggers, markers, event sets, event-based assessment, observable behaviour;
- qualification standards;
- harmonisation of assessment standards;
- behavioural markers / CRM;

- assessment of events by the trainer;
- operator's validation process of training;
- ATQP quality control;
- line oriented quality evaluation (LOQE);

6.16. A sample of LOE training exercises will be observed by a Training Inspector

6.16.1. The observation of LOE and training events should form part of the implementation plan and is to ensure appropriate oversight by the Authority.

6.17. Subject to FOI recommendation ATQP approval will be issued

6.17.1. Following satisfactory completion of items 1 – 17 on the checklist, ATQP approval will be issued in the form of an amendment to the Operations Approval document under ORO.FC.A.245.

6.18. Run the scheme for 2 years still completing OPCs every 6 months

6.18.1. ATQP will form part of the AOC oversight programme by the FOI.

6.19. Review the training at least every 6 months

6.19.1. The operator should set up a regular meeting with key personnel to look at information from the data monitoring / analysis programme for each aircraft type including feedback data and amend the training programme as appropriate. This meeting must be auditable by the Authority.

6.20. Submit a report to the Authority at the end of the 2 years that demonstrates the effectiveness of the ATQP programme compared to basic ORO and SPA training requirements.

6.20.1. The report should clearly show the goals set out in the implementation plan have been achieved and demonstrate that the levels of crew proficiency are equal or better than the training and testing under pre-ATQP standards.

6.21. Request extensions to ORO.FC.A. validity periods

6.21.1. Request extensions to the validity period via the FOI.

7. ATQP Development

7.1. After experience has been gained with ATQP over a specified period, an extension to the programme can be developed with the approval of the Authority. Should an operator wish to extend the ATQP, a set structure must be followed to ensure that the additions to the programme are properly evaluated. A further submission and the collection of relevant data must justify any enlargement or significant change to the programme.

7.2. For mature ATQP operators, it should be noted that when significant departures from existing approved ATQP programmes are requested, the operator must then demonstrate equivalent or improved proficiency to that already obtained under the original ATQP approval.

7.3. For the addition of a new type to an existing ATQP, a period of data collection and evaluation will be required before crews operating the new type can join the company scheme. During this period standard Part ORO.FC and subpart E Annex

V (SPA.LVO) and Part FCL training and testing shall apply. The period of evaluation must be acceptable to the Authority. Where similar types are being introduced then data from an existing type may be acceptable to the Authority subject to an appropriate safety case.

- 7.4. Any significant changes will require the submission of a new implementation plan and safety case.

8. ATQP Application Checklist

Task		References	✓
1	Contact FOI to arrange a meeting with the CAA ATQP gateway	N/A	
2	Apply for and pay the fee for ATQP approval	www.caa.co.uk/ors5	
3	Submit an implementation plan with identified phases and goals	ORO.FC.A.245 (c)	
4	Complete and submit a safety case	AMC 1 ORO.FC.A.245 7 (b) (1)	
5	Produce documentation on the scope and requirements for ATQP (amendment to OMD)	AMC 1 ORO.FC.A.245 (a)	
6	Develop a data monitoring / analysis programme including an LOQE	AMC 1 ORO.FC.A.245 (a) (7)	
7	Develop a global marking system	AMC 1 ORO.FC.A.245 (6) (iii)	
8	Develop a training record system than can analyse the data	AMC 1 ORO.FC.A.245 (a) (7)	
9	Complete a task analysis	AMC 1 ORO.FC.A.245 (a) (2)	
10	Validate the task analysis output	AMC 1 ORO.FC.A.245 (a) (2)	
11	Develop a quality control system	AMC 1 ORO.FC.A.245 (a) (5) (ii)	
12	Develop a number of LOE scenarios using different airfields and weather	AMC 1 ORO.FC.A.245 (a) (3)	
13	Within each scenario produce a number of event-based assessments (from validated event sets) which fall within an acceptable range of difficulty	AMC 1 ORO.FC.A.245 (6) (ii)	
14	Develop a feedback loop	AMC 1 ORO.FC.A.245 (5) (i)	
15	Develop a skill-based training programme	AMC 1 ORO.FC.A.245 (a) (3)	

Task		References	✓
16	Complete Instructor training	AMC 1 ORO.FC.A.245 (a) (4)	
17	A sample of LOE training exercises will be observed by a Training Inspector	Part of CAA oversight	
18	Subject to FOI recommendation initial ATQP approval will be issued	N/A	
19	Run the scheme for 2 years still completing OPC every 6 months	ORO.FC.A.245 (e)	
20	Set up a programme to review the training at regular intervals	AMC 1 ORO.FC.A.245 (a) (5) (i)	
21	Submit a report to the Authority at the end of the 2 years that demonstrates the effectiveness of the ATQP programme compared to basic Part ORO.FC and subpart E Annex V (SPA.LVO) training requirements.	ORO.FC.A.245 (e)	
22	Request extensions to ORO.FC.A.230 validity periods	ORO.FC.A.245 (e)	