Barbados Civil Aviation Department

AIRWORTHINESS

ADVISORY

CIRCULAR

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APPROVED MAINTENANCE ORGANIZATION TRAINING PROGRAMME APPROVAL PROCESS

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TOPIC   **PAGE**

PURPOSE

1. (1) The purpose of this Advisory Circular is to provide guidance on the approval process for a Training Programme for an AMO.

GENERAL

2. (1) AMO Regulation 20(13) requires the holder of an Approved Maintenance Organization Certificate to establish a training programme for his maintenance personnel to be included in his Maintenance Procedures Manual. AMO Regulation 21(2) requires an AMO to issue or re-issue a certification authorization to qualified personnel of his organization where he has successfully completed initial and continuing training in the assigned tasks and responsibilities in accordance with the programme approved by the BCAD. Airworthiness Regulation 25 (2) prohibits persons from performing maintenance, preventive maintenance or modification on an aeronautical product unless he has received basic aeronautical knowledge and skills training in the area of maintenance to be undertaken, familiarization training on the aeronautical product on which maintenance is to be undertaken and human factors training in the relevant aviation areas.

(2) The holder of an AMO Certificate is required to establish a training programme for his maintenance and certifying staff to be included in his MPM and submit it for approval by the BCAD. This programme will include the curriculum and standards for training, as well as the pre-qualification standards for the personnel that will attend the training. The pre-qualifications standards are intended to insure that the trainee has a reasonable chance of successfully completing any of the courses required by the AMO.

(3) The level of training required for each individual is a function of -

(a) His experience and the complexity of training;
(b) The work he is expected or authorized to perform. In many cases the work may be complex and require the use of specialised equipment. In such cases, required training may range from on the-job training to formal classroom training and appropriate examinations. In every case, the programme should provide sufficient training for each individual to enable him to competently perform the work he is authorized to perform.

(4) An AMO is required to have a training programme for all maintenance and inspection personnel; however, a small organization would not be expected to duplicate all of the facilities provided by a large AMO. Training of the certifying staff may be performed by the AMO or by an institute selected by the AMO and approved by the BCAD. The training programme should include details of the number of personnel who will receive initial training to qualify personnel to become certifying staff personnel over specified time periods.

(5) **Curriculum components**. An acceptable curriculum will consist of at least the following elements:

(a) Subjects, appropriate to ratings requested;
(b) Course content, appropriate to ratings requested;
(c) Objective testing and grading criteria;
(d) Classroom or theory, appropriate to ratings requested;

(e) Total number of hours required for successful completion;
(f) A schedule of required tests, which indicates the sequence of examinations for each subject in the curriculum;
(g) The order of instruction for each subject element;
(h) Name of instructor.

(6) If there is any change to the curriculum, the AMO will be required to have such change approved by the BCAD.

INTRODUCTION TO THE APPROVAL PROCESS

3. (1) Training curriculum approval follows the five phase general process for approval or acceptance described in AAC-001. The basic steps of this process should be followed. Each phase, however, may be adjusted to accommodate existing circumstances. Training curricula which have been granted approval and later found either to be in conflict with regulatory requirements or to be ineffective would need to be appropriately modified by the organization. This document establishes procedures for obtaining approval of all or part of a training programme.

(2) AMO Regulation 20 (14) states that maintenance personnel and certifying staff shall have training and continuation training. Standard 4.5 allows that training may be performed by an outside agency. If this option is used, the curriculum and standards for training should be those established by the AMO and approved by the BCAD.

(3) When the BCAD determines that a training curriculum or curriculum segment meets the requirements for an approval, an initial approval will be issued with an appropriate expiration date.

(4) During the period of initial approval, an operator would be testing and refining his programme to ensure that the detailed requirements for the final approval are met. However, if there are significant revisions to the programme the operator would need to re-apply to the BCAD for approval. Final approval will only be granted after the BCAD has successfully evaluated the training in the demonstration and inspection phase.

PHASE ONE - INITIATING THE APPROVAL PROCESS

4. (1) The AMO initiates the training approval process where –

(a) The AMO informs the BCAD that it is planning to establish a new training curriculum or to change an existing curriculum, or;
(b) The BCAD informs the AMO that revisions to its training programme are required based on recently acquired information relative to training techniques, aviation technology, operator performance, or regulatory changes.

(2) When a proposal is initiated by the AMO, it should submit the following basic information:

(a) Type of equipment;
(b) Proposed training schedules;
(c) Proposed contract training, if any;
(d) Facilities to be used.

5.   (1) Phase two begins when the AMO submits its training curriculum in writing, for initial approval, to the BCAD. The AMO should submit to the BCAD an outline of each curriculum segment and any additional relevant supporting information requested by the BCAD. These should be accompanied by a letter requesting approval of the training curriculum. Two copies of each curriculum should be forwarded along with the letter of request to the BCAD. The curriculum may be a section of the MPM.

(2) An AMO would submit its own specific curriculum segment outlines appropriate for the ratings requested. Each curriculum should be easy to revise and should contain a method for controlling revisions, such as a revision numbering system, if not part of the MPM.

(3) Each curriculum outline should include the following information:

(a) AMO Name;
(b) Title of curriculum including the category of training, such as indoctrination, initial or continuation training;
(c) Consecutive page numbers;
(d) Page revision control dates and revision numbers.

(4) Each curriculum should also include the following details, as appropriate:

(a) Pre-requisites prescribed by the BCARs or required by the AMO for enrolment in the curriculum;
(b) Statements of objectives of the entire curriculum and a statement of the objective of each curriculum segment;
(c) A list of each training device, if required;
(d) An outline of each training module within each curriculum segment (Each module should contain sufficient detail to ensure that the main features of the principal elements or events will be addressed during instruction.);
(e) Training hours that will be applied to each curriculum segment and the total curriculum;
(f) The checking and qualification modules of the qualification segment used to determine successful course completion;
(g) Name and qualification of instructors assigned to each module.

Additional Relevant Supporting Information

6.   When applying for an Approved Maintenance Organization Certificate, an applicant should submit any additional relevant supporting information requested by the BCAD as supported by AMO Regulation 6 (2)(e). This additional information is necessary for determining whether the proposed training programme is feasible and adequately supported. It is information which would be difficult to include in a curriculum outline format. The type and amount of supporting information will vary depending on the type of training. The following list of types of relevant supporting information is not all-inclusive, but includes typical information under this heading to be submitted in support of an application for a training programme approval.

(a) A description of facilities is appropriate if the BCAD is unfamiliar with the facilities or if the facilities are not readily available for examination;

(b) A list of instructors and their qualifications. This information is particularly important if the AMO intends to use contract instructors;

(c) A detailed description of each training device is appropriate when the training device is not readily available for the BCAD examination;

(d) A detailed description of minimum student qualifications and enrolment prerequisites is appropriate when such prerequisites are not described in detail in the curriculum. Examples of these prerequisites may need to be detailed as supporting information may include, type of airman license, previous training programmes, experience with other AMO's and recency of experience. This description may be useful to the BCAD when determining whether the proposed amount of detail outlined in training modules and proposed training hours are adequate;

(e) Copies of training forms and records to be used for recording student progress and the completion of training may be required. This ensures the organization has planned for the BCAR record keeping requirements. This type of supporting information shall be required of applicants for an AMO. It may also be required of an organization with any significant revision to existing training programmes. These forms, records, or computer transmittal worksheets must be designed so that attendance and course completion information is recorded and retrievable for verifying regulatory compliance;

(f) Supporting information may include samples of courseware, such as training modules/lesson plans and instructor guides. Description of other types of courseware, such as home study, computer based instruction, should be in enough detail to provide an understanding of how the training will be administered and of the proposed instructional delivery method. This information should describe the instructor/student interaction and indicate methods for measuring student learning.

Initial Review Of Requests For Approval

7. In phase two, the BCAD will review the submitted training curriculum and supporting information for completeness, general content, and overall quality. If the submission is determined to be incomplete or obviously unacceptable, the approval process is terminated and the BCAD will immediately return the documents with a written explanation of the deficiencies. The approval process can be resumed when the revised training curriculum or curriculum segment is resubmitted.

PHASE THREE - IN-DEPTH REVIEW OF SUBMITTED CURRICULA

8. (1) Phase 3 is initiated when the BCAD begins a detailed analysis and evaluation of a training curriculum or curriculum segment. The purpose of this phase is to determine the acceptability of training curricula for initial approval. The BCAD will review the submission against the following:

(a) Regulatory requirements;
(b) Complexity of the specific aircraft or component;
(c) Complexity of the type of operation involved;
(d) Amount of detail that needs to be covered;
(e) The experience and knowledge level of the students;
(f) Efficiency and sophistication of the AMO's entire training programme (including items such as instructor proficiency, training aids, facilities, courseware and the organization's experience with the aircraft.).

(2) This phase ends either with the initial approval or with the rejection of all or part of the training curriculum.

(3) If after completing these evaluations, the BCAD determines that the curriculum or curriculum segment is satisfactory and adequately supported, and that the training hours are realistic, initial approval would be granted.

PHASE FOUR - EVALUATING INITIALLY APPROVED TRAINING CURRICULA

9. (1) Phase 4 begins when the organization starts training under the initially approved curriculum during the Demonstration and Inspection Phase. This phase should provide the AMO with adequate time to test the programme and the flexibility to adjust the programme during evaluation by the BCAD. An AMO should provide ongoing schedules of all training and checking to be accomplished under an initially approved training curriculum.

(2) Sometimes proposed revisions may be transmitted to the BCAD just before the initial approval expiration date. If the change is significant, the BCAD may need to establish a different expiration date for the curriculum segment, or for the revised portions, to allow adequate time for a proper evaluation.

(3) An inspection of training facilities, training devices, and instructional aids will be performed if the BCAD is not familiar with the AMO's training programme capabilities.

(4) During phase 4, the organization will be required to demonstrate the ability to effectively train maintenance and inspection personnel. There are four main elements that will be evaluated when assessing the overall effectiveness of training programmes. These four elements are:

      (a) Curriculum segment outlines;
      (b) Courseware;
      (c) Instructional delivery methods and training environment;
      (d) Testing and checking.

(5) Each deficiency identified during the evaluation of training conducted under an initially approved curriculum will be discussed with the AMO. If the deficiencies are significant, they will be documented and kept on file. Each significant deficiency identified would need to be immediately corrected. If an organization does not take corrective action within a mutually acceptable timeframe, the BCAD would advise the AMO in writing that initial approval is withdrawn.

PHASE FIVE - GRANTING FINAL APPROVAL

10. (1) This phase involves the granting of final approval of an AMO's training curriculum. Based on the results of the evaluation, the BCAD will determine whether to grant or deny final approval of a training curriculum.