
GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

TABLE OF CONTENTS

GACAR PART 144 - AIR TRAFFIC CONTROLLER SCHOOLS

SUBPART A – GENERAL

§ 144.1 Applicability	3
§ 144.3 Certificate and Operations Specifications Required	3
§ 144.5 Issuance of Training School Certificate	3
§ 144.7 Duration of Certificate	3
§ 144.9 Display of Certificate	4
§ 144.11 Certificate Holder’s Duty to Maintain Operations Specifications	4
§ 144.13 Contents of Operations Specifications	4
§ 144.15 Amending Operations Specifications	5
§ 144.17 Inspections	6
§ 144.19 Facilities	6
§ 144.21 Contracts or Agreements	6

SUBPART B – PERSONNEL AND TRAINING EQUIPMENT REQUIREMENTS

§ 144.41 Applicability	8
§ 144.43 Appointment of Personnel	8
§ 144.45 Instructor Requirements	8
§ 144.47 Instructor Training	8
§ 144.49 Simulator Training Devices	8

SUBPART C – MANUAL REQUIREMENTS

§ 144.51 General	10
§ 144.53 Manual Contents	10

SUBPART D – QUALITY ASSURANCE SYSTEM

§ 144.61 Quality Assurance System	12
§ 144.63 Quality of Training	12

SUBPART E – TRAINING COURSE OUTLINE AND CURRICULUM

§ 144.71 Applicability	13
§ 144.73 Approval Procedures for a Training Course: General	13
§ 144.75 Training Course: Contents	14
§ 144.77 Special Curricula	15

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

SUBPART F – OPERATING RULES

§ 144.91 Applicability	17
§ 144.93 Privileges	17
§ 144.95 Limitations	17
§ 144.97 Maintenance of Personnel, Facilities, and Equipment	17
§ 144.99 Satellite Base	17
§ 144.101 Enrollment	18
§ 144.103 Washout	18
§ 144.105 Graduation Certificate	18

SUBPART G – RECORDS

§ 144.111 Applicability	20
§ 144.113 Recordkeeping Requirements.	20
§ 144.115 Instructor Records	21
§ 144.117 Electronic Recordkeeping	21

**APPENDIX A TO GACAR PART 144 – BASIC AIR TRAFFIC CONTROLLER.....24
CERTIFICATION COURSE**

**APPENDIX B TO GACAR PART 144 – AERODROME CONTROL RATING..... 26
COURSE**

**APPENDIX C TO GACAR PART 144 – APPROACH CONTROL PROCEDURAL..... 28
RATING COURSE**

**APPENDIX D TO GACAR PART 144 – APPROACH CONTROL SURVEILLANCE..... 30
RATING COURSE**

**APPENDIX E TO GACAR PART 144 – APPROACH PRECISION RADAR..... 32
CONTROL RATING COURSE**

**APPENDIX F TO GACAR PART 144 – AREA CONTROL PROCEDURAL RATING.....34
COURSE**

**APPENDIX G TO GACAR PART 144 – AREA CONTROL SURVEILLANCE..... 36
RATING COURSE**

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

SUBPART A – GENERAL

§ 144.1 Applicability.

This part prescribes the requirements governing—

- (a) The certification and operation of air traffic controller training schools;
- (b) The privileges and limitations applicable to a holder of a certificate issued under this part; and
- (d) Operations specifications.

§ 144.3 Certificate and Operations Specifications Required.

No person may operate an air traffic controller training school without, or in violation of, the appropriate training school certificate and operations specifications issued under this part.

§ 144.5 Issuance of Training School Certificate.

The President may issue a training school certificate if the applicant—

- (a) Completes and submits the application for the training school certificate in a form and manner prescribed by the President accompanied by the applicant’s training and procedures manual; and
- (b) Meets the applicable requirements under Subparts A through C of this part for the training school certificate.

§ 144.7 Duration of Certificate.

- (a) Each holder of a certificate issued under this part may not exercise the privileges of that certificate after it expires.
- (b) A training school certificate issued under this part is valid—
 - (1) Until the date as endorsed on the certificate or
 - (2) Until the certificate is surrendered, suspended, or revoked.
- (c) A change in the ownership of a training school does not terminate that school’s certificate if—

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

- (1) At least 10 working days before the date of any change in ownership of the training school, application is made for an appropriate amendment to the certificate and
- (2) No change in the facilities, personnel, or approved training courses is involved.

§ 144.9 Display of Certificate.

- (a) Each holder of a certificate issued under this part must display that certificate in a place in the school that is normally accessible to the public and is not obscured.
- (b) A certificate must be made available for inspection upon request by—
 - (1) The President,
 - (2) An authorized representative of the Aviation Investigation Bureau (AIB), or
 - (3) Any law enforcement agency in the Kingdom of Saudi Arabia.

§ 144.11 Certificate Holder’s Duty to Maintain Operations Specifications.

- (a) Each holder of a certificate issued under this part must maintain a complete and separate set of its operations specifications at its principal operations base.
- (b) Each holder of a certificate issued under this part must insert pertinent excerpts of, or references to, its operations specifications into its manual and must—
 - (1) Clearly identify each such excerpt as a part of its operations specifications and
 - (2) State that compliance with the operations specifications is mandatory.
- (c) Each holder of a certificate issued under this part must keep each of its employees and other persons used in its operations informed of the provisions of its operations specifications that apply to that employee’s or person’s duties and responsibilities.

§ 144.13 Contents of Operations Specifications.

Each holder of a certificate issued under this part must obtain operations specifications containing all of the following:

- (a) The specific location of the certificate holder’s principal operations base and, if different, the

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

address that will serve as the primary point of contact for correspondence between the GACA and the certificate holder;

- (b) The type of simulators approved for use for training, if applicable;
- (c) The type of training authorized, including approved courses;
- (d) The authorizations, limitations, and certain procedures under which each training program is to be conducted; and
- (e) Any other item the President determines is necessary.

§ 144.15 Amending Operations Specifications.

(a) The President may suspend, revoke, amend, or modify any operations specifications issued under this part if—

(1) The President determines that aviation safety and the public interest require the amendment or

(2) The certificate holder applies for the amendment, and the President determines that aviation safety and the public interest allow the amendment.

(b) When the President initiates a suspension, revocation, or amendment of a certificate holder's operations specifications, the procedure in GACAR Part 13 applies.

(c) When the certificate holder applies for an amendment to its operations specifications, the following procedure applies:

(1) The holder of a certificate issued under this part must file an application to amend its operations specifications at least 15 days before the date proposed by the applicant for the amendment to become effective, unless a shorter time is approved.

(2) If the GACA approves the amendment, following coordination with the certificate holder regarding its implementation, the amendment is effective on the date the President approves it.

(3) When a holder of a certificate issued under this part seeks reconsideration of a decision from the President concerning suspension, revocation, or amendment of a certificate, the

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

procedures in GACAR Part 13 apply.

§ 144.17 Inspections.

Each holder of a certificate issued under this part must allow the President to inspect its personnel, facilities, equipment, and records to determine the certificate holder's compliance with the GACAR.

§ 144.19 Facilities.

- (a) An applicant for, or holder of, a certificate issued under this part must ensure that—
- (1) Each room, training booth, or other space used for instructional purposes is heated, lighted, and ventilated to conform to local building, sanitation, and health codes.
 - (2) The facilities used for instruction are not routinely subject to significant distractions caused by flight operations and maintenance operations at the aerodrome.
- (b) Each holder of a certificate issued under this part must maintain a principal business office with a mailing address and the business name shown on its certificate.
- (c) The facilities and equipment at the principal business office must be adequate to maintain the files and records required under this part.
- (d) Before changing the location of the training school, each certificate holder must notify the President of the new location, and the notice must be—
- (1) Submitted in writing at least 30 working days before the change of location and
 - (2) Accompanied by any amendments needed for the certificate holder's approved training course outline.
- (e) A certificate holder issued under this part may conduct training at an operations base other than its principal operations base in accordance with GACAR § 144.99.

§ 144.21 Contracts or Agreements.

- (a) The holder of a certificate issued under this part may contract with other persons to obtain suitable training devices or equipment as applicable.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

- (b) The holder of a certificate issued under this part that is approved to conduct training toward a particular air traffic controller certificate and rating may contract with another party to conduct part of the training required toward the same certificate and rating.
- (c) A certificate holder who contracts with another party to provide training may not authorize or permit a third party to conduct the training in whole or in part.
- (d) In all cases, the holder of a training school certificate issued under this part that is approved to conduct training is responsible for the nature and quality of the instruction given.
- (e) All contracting carried out under (a) to (d) of this section must be authorized in advance by the President.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

SUBPART B – PERSONNEL AND TRAINING EQUIPMENT REQUIREMENTS

§ 144.41 Applicability.

This subpart prescribes the personnel and training equipment requirements for the holder of a certificate issued under this part offering training toward the issuance of air traffic controller certificates and ratings under GACAR Part 64.

§ 144.43 Appointment of Personnel.

(a) Each holder of a certificate issued under this part must appoint an accountable manager who has authority to ensure that all requirements of this part are met by the school.

(b) Each holder of a certificate issued under this part must employ sufficient personnel for ensuring compliance with the requirements of this part, including the planning, performance, and supervision of training to be conducted.

§ 144.45 Instructor Requirements.

(a) Each holder of a certificate issued under this part, must have and maintain, a sufficient number of instructors that are qualified in accordance with this subpart to perform the duties to which they are assigned. The training school is required to maintain a list of the names and qualifications of qualified instructors, and upon request, provide a copy of the list to the President.

(b) Each holder of a certificate issued under this part, must have and maintain, a sufficient number of air traffic controller instructors certificated under GACAR Part 64 in order to supervise student ATCO controllers while they provide an ATC service for which they do not hold a valid certificate or rating. The training school is required to maintain a list of the names and qualifications of qualified air traffic controller instructors, and upon request, provide a copy of the list to the President.

§ 144.47 Instructor Training.

Each holder of a certificate issued under this part must provide procedures to ensure instructors receive initial and recurrent training appropriate to their responsibilities. Training in knowledge and skills related to human factors principles must be included in both initial and recurrent instructor training.

§ 144.49 Simulator Training Devices.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

All training courses are required to indicate the amount of training, if any, that will be conducted on a simulator. The simulator must be approved by the President in coordination with the ATC Unit, as part of the course approval process. Each training school certificated under this part is required to demonstrate how the simulator and the associated exercises will provide adequate support for the particular training plan.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

SUBPART C – MANUAL REQUIREMENTS

§ 144.51 General.

Each holder of a certificate issued under this part must prepare and maintain a training and procedures manual, acceptable to the President, for the use of the school's personnel. The training school must ensure that—

- (a) The policies and procedures contained in the manual must not be contrary to any applicable GACAR.
- (b) Each training school certificated under this part maintains at least one copy of the manual at each operations base at which it conducts training.
- (c) A copy of the manual, or the appropriate portions of the manual, is made available to personnel by the training school and furnished to—
 - (1) Its instructors and
 - (2) Representatives of the GACA assigned to the training school.
- (d) To comply with paragraph (c) of this section, a training school may furnish the persons listed therein with all or part of its manual in printed or other form, acceptable to the President, which is retrievable in the English language. If the school furnishes all or part of the manual in other than printed form, it must ensure there is a compatible reading device available to those persons that provides a legible image of the information and instructions, or a system that is able to retrieve the information and instructions in the English language.
- (e) Each employee of the training school to whom a manual or appropriate portions of it are furnished under paragraph (c) of this section must keep it up to date with the changes and additions furnished to them.

§ 144.53 Manual Contents.

- (a) The training and procedures manual must contain at least the following information:
 - (1) A general description of the scope of training authorized under the training school's certificate and operations specifications.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

- (2) Copies of the certificate holder's operations specifications or appropriate extracted information.
 - (3) The content of the training programs offered including the courseware and training equipment to be used.
 - (4) A description of the quality assurance system required under Subpart D of this part;
 - (5) A description of the training school's facilities.
 - (6) A description of the duties and qualifications of the personnel designated as responsible for planning, performing, and supervising training.
 - (7) A description of the procedures used by the training school to establish and maintain the competence of its instructors.
 - (8) A description of the method used for the completion and retention of training and qualification records under Subpart G of this part.
 - (9) A training program to ensure that all instructors receive initial and recurrent training appropriate to assigned tasks and responsibilities. The training must include knowledge and skills related to human factors.
 - (10) Procedures for revising the training and procedures manual required under this section to maintain current data.
- (b) The training school must ensure that the training and procedures manual is amended as necessary to maintain current data.
- (c) Copies of each amendment to the training and procedures manual must be furnished promptly to all persons to whom the manual has been issued.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

SUBPART D – QUALITY ASSURANCE SYSTEM

§ 144.61 Quality Assurance System.

(a) Each holder of a certificate issued under this part must establish a quality assurance system acceptable to the President. Management personnel responsible for the implementation and maintenance of the quality assurance system must be identified by the training school.

(b) The quality assurance system must address—

- (1) Conduct and effectiveness of all training programs;
- (2) Compliance and adequacy of curriculums;
- (3) Conformity and security of the training school’s recordkeeping system;
- (4) Adequacy of facilities and equipment;
- (5) Qualifications, eligibility, and ability of instructors; and
- (6) Effectiveness of management, including delegation of authority and responsibility.

§ 144.63 Quality of Training.

(a) When requested by the President, each holder of a certificate issued under this part must allow the GACA to administer any knowledge test, practical test, stage check, or end of course test as applicable to its students.

(b) When a stage check is administered by the GACA under the provisions of paragraph (a) of this section, and the student has not completed the training course, then that test will be based on the standards prescribed in the training school’s approved training course.

(c) When a practical test or knowledge test is administered by the GACA under the provisions of paragraph (a) of this section, to a student who has completed the school’s training course, that test will be based upon the areas of operation as prescribed in the applicable appendix to this part.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

SUBPART E – TRAINING COURSE OUTLINE AND CURRICULUM

§ 144.71 Applicability.

This subpart prescribes the curriculum and course outline requirements for the issuance of training school certificates.

§ 144.73 Approval Procedures for a Training Course: General.

(a) *General.* An applicant for a certificate issued under this part must obtain the President's approval of the outline of each training course for which the applicant seeks to obtain certification. The training of air traffic controllers must adequately prepare the student and/or trainee air traffic controllers for the grant of an ATC certificate and and/or associated rating(s). Such training must provide the necessary skills and knowledge to an appropriate level of competence to enable student or trainee air traffic controllers to provide air traffic control service while operating under the supervision of an ATCI.

(b) *Application.* An application for the initial approval of a training course or approval of an amended training course must be submitted in a form and manner acceptable to the President at least 30 working days before any training under that course, or any amendment thereto, is scheduled to begin.

(c) *Training courses.* An applicant for or holder of a training school certificate or provisional training school certificate issued under this part may request approval for the following training courses:

- (1) Basic air traffic controller certification course;
- (2) Aerodrome control rating course;
- (3) Approach control procedural rating course;
- (4) Approach control surveillance rating course;
- (5) Approach precision radar control rating course;
- (6) Area control procedural rating course;

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

(7) Area control surveillance rating course; and

(8) Air traffic controller instructor course.

(d) *Additional rules for Internet based training courses.* An application for an initial or amended training course offered through an Internet based medium must comply with the following:

(1) All amendments must be identified numerically by page, date, and screen. Minor editorial and typographical changes do not require GACA approval, provided the training school notifies the GACA within 30 days of their insertion.

(2) For monitoring purposes, the training school must provide the GACA an acceptable means to logon from a remote location to review all elements of the course as viewed by attendees and bypass the normal attendee restrictions.

(3) The training school must incorporate adequate security measures into its Internet based courseware information system and into its operating and maintenance procedures to ensure the following fundamental areas of security and protection:

(i) Integrity,

(ii) Identification/Authentication,

(iii) Confidentiality,

(iv) Availability, and

(v) Access control.

§ 144.75 Training Course: Contents.

(a) Each training course for which approval is requested must meet the minimum curriculum requirements in accordance with the appropriate appendix to this part.

(b) Each training course for which approval is requested must meet the minimum class training and, if applicable, practical training time requirements in accordance with the appropriate appendix to this part.

(c) Each training course for which approval is requested must contain—

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

- (1) A description of each room used for classroom training, including the room's size and the maximum number of students that may be trained in the room at one time, unless the course is provided via an Internet based training medium;
- (2) A description of each type of audiovisual aid, projector, tape recorder, mockup, chart, and other special training aid used for class training;
- (3) A description of each simulator training device used for training, if applicable;
- (4) The minimum qualifications for each instructor assigned to classroom or, if applicable, practical training; and
- (5) A training syllabus that includes the following information:
 - (i) The prerequisites for enrolling in the classroom and, if applicable, practical portion of the course that includes training, experience, and knowledge;
 - (ii) A detailed description of each lesson, including the lesson's objectives, standards, and planned time for completion;
 - (iii) A description of what the course is expected to accomplish with regard to student learning;
 - (iv) The expected accomplishments and the standards for each stage of training; and
 - (v) A description of the checks and tests to be used to measure a student's accomplishments for each stage of training.

§ 144.77 Special Curriculums.

- (a) A certificate holder may apply for approval to conduct a course for which a curriculum is not prescribed by this part.
- (b) The course for which application is made under paragraph (a) of this section may be for airmen, material handlers, ground servicing personnel, security personnel, and others approved by the President.
- (c) The President approves the course for which the application is made under this section if the

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

certificate holder shows that the course contains a curriculum that will achieve a level of competency equal to, or greater than, that required by the appropriate part of the GACAR for which the training course is to be provided.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

SUBPART F – OPERATING RULES

§ 144.91 Applicability.

This subpart prescribes the operating rules applicable to a training school certificated under this part.

§ 144.93 Privileges.

The holder of a certificate issued under this part may advertise and conduct approved training courses in accordance with the certificate and any ratings that it holds.

§ 144.95 Limitations.

(a) The holder of a certificate issued under this part may not issue a graduation certificate to a student, or recommend a student for an air traffic controller certificate or rating unless the student has—

- (1) Completed the training specified in the school’s course of training and
- (2) Passed the required final tests.

(b) The holder of a certificate issued under this part may not graduate a student from a course of training unless the student has completed all of the curriculum requirements of that course.

§ 144.97 Maintenance of Personnel, Facilities, and Equipment.

The holder of a certificate issued under this part may not provide training to a student who is enrolled in an approved course of training unless—

- (a) The training equipment and facilities necessary for that training meet the standards specified in the holder’s approved training course outline and the appropriate requirements of this part, and
- (b) The management personnel and instructors meet the qualifications specified in the holder’s approved course of training and the appropriate requirements of this part.

§ 144.99 Satellite Base.

(a) Each holder of a certificate issued under this part may conduct training in accordance with an

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

approved training course at a satellite base if—

- (1) The facilities, equipment, personnel, and course content of the satellite base meet the applicable requirements of this part;
- (2) The instructors at the satellite base are under direct supervision by management personnel of the principal training center; and
- (3) The President is notified in writing that a particular satellite base is to begin operations at least 30 working days prior to proposed commencement of operations at the satellite base.

(b) Each holder of a certificate issued under this part conducting training in accordance with an approved training course at a satellite base must allow the President to inspect its personnel, facilities, equipment, and records at the satellite base.

§ 144.101 Enrollment.

(a) Each holder of a certificate issued under this part must furnish, at the time a student is enrolled in an approved training course, that student with a copy of the following:

- (1) A certificate of enrollment containing—
 - (i) The name of the course in which the student is enrolled and
 - (ii) The date of that enrollment.

(2) A copy of the student's training syllabus.

(b) Each holder of a certificate issued under this part must maintain a current listing of persons enrolled in each training course offered by the school.

§ 144.103 Washout.

A student or trainee air traffic controller who fails an approved course of initial training may retake the course. If he fails at the second attempt, he must not be permitted to take another course of initial training in the same rating discipline.

§ 144.105 Graduation Certificate.

(a) Each holder of a certificate issued under this part must issue a graduation certificate to each

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

student who completes an approved course of training.

(b) The graduation certificate must be issued to the student upon completion of the course of training and contain at least the following information:

- (1) The business name and the certificate number of the school,
- (2) The name of the graduate to whom it was issued,
- (3) The course of training for which it was issued,
- (4) The date of graduation,
- (5) A statement that the student has satisfactorily completed each required stage of the approved course of training including the tests for those stages, and
- (6) A certification of the information contained on the graduation certificate by management personnel for that course of training.

(c) Graduation certificates issued from a course based on Internet media must be uniquely identified using an identification code specific to the student graduating from that course.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

SUBPART G – RECORDS

§ 144.111 Applicability.

This subpart prescribes the recordkeeping requirements for students enrolled in a training course approved in accordance with Subpart E of this part, and for instructors designated to instruct such courses, as applicable.

§ 144.113 Recordkeeping Requirements.

(a) Each holder of a certificate issued under this part must maintain a record for each student that contains—

- (1) The name of the student.
- (2) A copy of the student’s medical certificate, if applicable.
- (3) The name of the course and the make and model of the approved simulator training device used (if applicable).
- (4) The date the student was enrolled in the approved course.
- (5) The student’s prerequisite experience and course time completed.
- (6) The student’s performance on each lesson and the name of the instructor providing instruction.
- (7) The date the student graduated, terminated training, or transferred to another school. In the case of graduation from a course based on Internet media, the school must maintain the identifying graduation certificate code required by GACAR § 144.105(c).
- (8) The number of hours of additional training that was accomplished after any unsatisfactory end of course tests.

(b) Each holder of a certificate issued under this part must maintain the records required by paragraph (a) of this section for at least 2 years following the completion of training, testing or checking.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

(c) Each holder of a certificate issued under this part must, upon request, provide the records required by this section to the President, and must keep the records required by paragraph (a) of this section at the training school or satellite base where—

- (1) The training, testing, or checking, if appropriate, occurred and
- (2) The instructor is primarily employed.

(d) Each holder of a certificate issued under this part must provide to a student, upon request, a copy of his training records.

§ 144.115 Instructor Records.

Each holder of a certificate issued under this part must keep a current record of each instructor, must retain the record for at least 2 years after the instructor ceases to perform a function for the training school, and must make each record available for inspection by the President during that period.

- (1) Aerodrome control rating;
- (2) Approach control procedural rating;
- (3) Approach control surveillance rating;
- (4) Approach precision radar control rating;
- (5) Area control procedural rating;
- (6) Area control surveillance rating; and
- (7) Air traffic controller instructor.

§ 144.117 Electronic Recordkeeping.

(a) No certificate holder may use an electronic signature for records requiring a certifying statement unless the electronic signature system is approved by the President.

(b) No certificate holder may use an electronic recordkeeping system for any record required by

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

this part unless the electronic recordkeeping system complies with paragraphs (c) through (e) of this section.

(c) *Storage and Retrieval.* A computer hardware and software system must have the capability to store and retrieve the records. The system must be capable of producing paper copies of the viewed information at the request of a GACA or SAAIB authorized representative.

(d) *Security.* Any electronic recordkeeping system must—

- (1) Ensure that records are retained for the retention periods prescribed in this part.
- (2) Protect confidential information.
- (3) Ensure that the information is not altered in an unauthorized way.
- (4) Have a corresponding policy and management structure to support the computer hardware and computer software that delivers the information.

(e) *Procedures.* Before employing an electronic recordkeeping system, a certificate holder must incorporate electronic recordkeeping procedures into its manual to include the following:

- (1) Procedures for making required records available to authorized AIB personnel and GACA Inspectors. If the computer hardware and software system is not compatible with the GACA and AIB systems, the certificate holder must provide an employee or representative to assist in accessing the necessary computerized information.
- (2) Procedures for reviewing the computerized personal identification codes system to ensure that the system will not permit password duplication.
- (3) Procedures for auditing the computer system every 60 days to ensure the integrity of the system. A record of the audit must be completed and retained on file as part of the operator's record retention requirements. This audit may be a computer program that automatically audits itself.
- (4) Audit procedures to ensure the integrity of each computerized workstation unless the workstations are server based and contain no inherent attributes that enable or disable access.
- (5) Procedures describing how the certificate holder will ensure that the electronic records are

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

transmitted in accordance with the appropriate regulatory requirements.

(6) A description of the training procedure and requirements necessary to authorize access to the computer hardware and software system.

(7) For electronic record keeping systems employing digital or electronic signatures, guidelines for authorized representatives of the certificate holder to use electronic signatures and to have access to the appropriate records.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

**APPENDIX A TO GACAR PART 144 – BASIC AIR TRAFFIC CONTROLLER
CERTIFICATION COURSE**

I. Applicability.

This appendix prescribes the minimum curriculum required for a basic air traffic controller certification course under this part.

II. Knowledge Training.

(a) Each approved course must include classroom training on the knowledge areas listed in paragraph (b) of this section.

(b) Classroom training must include the following knowledge areas:

- (1) Air law - rules and regulations relevant to the air traffic controller;
- (2) Air traffic control equipment - principles, use and limitations of equipment used in air traffic control;
- (3) General knowledge - principles of flight; principles of operation and functioning of aircraft, powerplants and systems; aircraft performance relevant to air traffic control operations;
- (4) Human performance - human performance including principles of threat and error management;
- (5) Meteorology - aeronautical meteorology; use and appreciation of meteorological documentation and information; origin and characteristics of weather phenomena affecting flight operations and safety; altimetry;
- (6) Navigation - principles of air navigation; principle, limitation and accuracy of navigation systems and visual aids; and
- (7) Operational procedures - air traffic control, communication, radiotelephony and phraseology procedures (routine, non-routine and emergency); use of the relevant aeronautical documentation; safety practices associated with flight.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

III. Practical Training.

Each approved course must include not less than three months of practical training with the student engaged in the actual control of air traffic under the supervision of an appropriately rated air traffic controller instructor. The practical training requirements specified for other air traffic controller rating courses may be credited as part of the practical training requirements specified in this paragraph.

IV. Stage Checks and End of Course Tests.

Each student enrolled in an basic air traffic controller certification course must satisfactorily accomplish the stage checks and end of course tests, in accordance with the school's approved training course. The student must have demonstrated, at a level appropriate to the privileges being granted, the skill, judgment and performance required to provide a safe, orderly and expeditious control service, including the recognition and management of threats and errors.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

APPENDIX B TO GACAR PART 144 – AERODROME CONTROL RATING COURSE

I. Applicability.

This appendix prescribes the minimum curriculum required for a aerodrome control rating course under this part.

II. Knowledge Training.

(a) Each approved course must include classroom training on the knowledge areas listed in paragraph (b) of this section.

(b) Classroom training must include the following knowledge areas:

- (1) Aerodrome layout; physical characteristics and visual aids;
- (2) Airspace structure;
- (3) Applicable rules, procedures and source of information;
- (4) Air navigation facilities;
- (5) Air traffic control equipment and its use;
- (6) Terrain and prominent landmarks;
- (7) Characteristics of air traffic;
- (8) Weather phenomena; and
- (9) Emergency and search and rescue plans.

III. Practical Training.

(a) Each approved course must include practical training for a student, under the supervision of a qualified air traffic controller instructor.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

(b) The training curriculum must include an aerodrome control service, for a period of not less than 90 hours or one month, whichever is greater, at the unit for which the rating is sought.

IV. Stage Checks and End of Course Tests.

Each student enrolled in an aerodrome control rating course must satisfactorily accomplish the stage checks and end of course tests, in accordance with the school's approved training course. The student must have demonstrated, at a level appropriate to the privileges being granted, the skill, judgment and performance required to provide a safe, orderly and expeditious control service, including the recognition and management of threats and errors.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

APPENDIX C TO GACAR PART 144 – APPROACH CONTROL PROCEDURAL RATING COURSE

I. Applicability.

This appendix prescribes the minimum curriculum required for an approach control procedural rating course under this part.

II. Knowledge Training.

(a) Each approved course must include classroom training on the knowledge areas listed in paragraph (b) of this section.

(b) Classroom training must include the following knowledge areas:

- (1) Airspace structure;
- (2) Applicable rules, procedures and source of information;
- (3) Air navigation facilities;
- (4) Air traffic control equipment and its use;
- (5) Terrain and prominent landmarks;
- (6) Characteristics of air traffic and traffic flow;
- (7) Weather phenomena; and
- (8) Emergency and search and rescue plans.

III. Practical Training.

(a) Each approved course must include practical training for a student, under the supervision of a qualified air traffic controller instructor.

(b) The training curriculum must include an approach control procedural service for a period of not less than 180 hours or three months, whichever is greater, at the unit for which the rating is

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

sought.

IV. Stage Checks and End of Course Tests.

Each student enrolled in an aerodrome control rating course must satisfactorily accomplish the stage checks and end of course tests, in accordance with the school's approved training course. The student must have demonstrated, at a level appropriate to the privileges being granted, the skill, judgment and performance required to provide a safe, orderly and expeditious control service, including the recognition and management of threats and errors.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

**APPENDIX D TO GACAR PART 144 – APPROACH CONTROL SURVEILLANCE
RATING COURSE**

I. Applicability.

This appendix prescribes the minimum curriculum required for an approach control surveillance rating course under this part.

II. Knowledge Training.

(a) Each approved course must include classroom training on the knowledge areas listed in paragraph (b) of this section. The applicant shall meet the requirements specified in (b)(1) thru (8) in so far as they affect the area of responsibility.

(b) Classroom training must include the following knowledge areas:

- (1) Airspace structure;
- (2) Applicable rules, procedures and source of information;
- (3) Air navigation facilities;
- (4) Air traffic control equipment and its use;
- (5) Terrain and prominent landmarks;
- (6) Characteristics of air traffic and traffic flow;
- (7) Weather phenomena;
- (8) Emergency and search and rescue plans.
- (9) Principles, use and limitations of applicable ATS surveillance systems and associated equipment; and
- (10) Procedures for the provision of ATS surveillance service, as appropriate, including procedures to ensure appropriate terrain clearance.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

III. Practical Training.

- (a) Each approved course must include practical training for a student, under the supervision of a qualified air traffic controller instructor.
- (b) The training curriculum must include an approach control surveillance service for a period of not less than 180 hours or three months, whichever is greater, at the unit for which the rating is sought.
- (c) If the privileges of the approach control surveillance rating include surveillance radar approach duties, the experience must include not less than 25 plan position indicator approaches on the surveillance equipment of the type in use at the unit for which the rating is sought and under the supervision of an appropriately rated controller.

IV. Stage Checks and End of Course Tests.

Each student enrolled in an aerodrome control rating course must satisfactorily accomplish the stage checks and end of course tests, in accordance with the school's approved training course. The student must have demonstrated, at a level appropriate to the privileges being granted, the skill, judgment and performance required to provide a safe, orderly and expeditious control service, including the recognition and management of threats and errors.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

**APPENDIX E TO GACAR PART 144 – APPROACH PRECISION RADAR
CONTROL RATING COURSE**

I. Applicability.

This appendix prescribes the minimum curriculum required for an approach precision radar control rating course under this part.

II. Knowledge Training.

(a) Each approved course must include classroom training on the knowledge areas listed in paragraph (b) of this section. The applicant shall meet the requirements specified in (b)(1) thru (8) in so far as they affect the area of responsibility

(b) Classroom training must include the following knowledge areas:

- (1) Airspace structure;
- (2) Applicable rules, procedures and source of information;
- (3) Air navigation facilities;
- (4) Air traffic control equipment and its use;
- (5) Terrain and prominent landmarks;
- (6) Characteristics of air traffic and traffic flow;
- (7) Weather phenomena;
- (8) Emergency and search and rescue plans.
- (9) Principles, use and limitations of applicable ATS surveillance systems and associated equipment; and
- (10) Procedures for the provision of ATS surveillance service, as appropriate, including procedures to ensure appropriate terrain clearance.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

III. Practical Training.

- (a) Each approved course must include practical training for a student, under the supervision of a qualified air traffic controller instructor.
- (b) The training curriculum must include not less than 200 precision approaches of which not more than 100 must have been carried out on a radar simulator approved for that purpose by the President. Not less than 50 of those precision approaches must have been carried out at the unit and on the equipment for which the rating is sought.

IV. Stage Checks and End of Course Tests.

Each student enrolled in an aerodrome control rating course must satisfactorily accomplish the stage checks and end of course tests, in accordance with the school's approved training course. The student must have demonstrated, at a level appropriate to the privileges being granted, the skill, judgment and performance required to provide a safe, orderly and expeditious control service, including the recognition and management of threats and errors.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

APPENDIX F TO GACAR PART 144 – AREA CONTROL PROCEDURAL RATING COURSE

I. Applicability.

This appendix prescribes the minimum curriculum required for an area control procedural rating course under this part.

II. Knowledge Training.

(a) Each approved course must include classroom training on the knowledge areas listed in paragraph (b) of this section.

(b) Classroom training must include the following knowledge areas:

- (1) Airspace structure;
- (2) Applicable rules, procedures and source of information;
- (3) Air navigation facilities;
- (4) Air traffic control equipment and its use;
- (5) Terrain and prominent landmarks;
- (6) Characteristics of air traffic and traffic flow;
- (7) Weather phenomena; and
- (8) Emergency and search and rescue plans.

III. Practical Training.

(a) Each approved course must include practical training for a student, under the supervision of a qualified air traffic controller instructor.

(b) The training curriculum must include an approach control procedural service for a period of not less than 180 hours or three months, whichever is greater, at the unit for which the rating is

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

sought.

IV. Stage Checks and End of Course Tests.

Each student enrolled in an aerodrome control rating course must satisfactorily accomplish the stage checks and end of course tests, in accordance with the school's approved training course. The student must have demonstrated, at a level appropriate to the privileges being granted, the skill, judgment and performance required to provide a safe, orderly and expeditious control service, including the recognition and management of threats and errors.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

**APPENDIX G TO GACAR PART 144 – AREA CONTROL SURVEILLANCE
RATING COURSE**

I. Applicability.

This appendix prescribes the minimum curriculum required for an area control surveillance rating course under this part.

II. Knowledge Training.

(a) Each approved course must include classroom training on the knowledge areas listed in paragraph (b) of this section. The applicant shall meet the requirements specified in (b)(1) thru (8) in so far as they affect the area of responsibility

(b) Classroom training must include the following knowledge areas:

- (1) Airspace structure;
- (2) Applicable rules, procedures and source of information;
- (3) Air navigation facilities;
- (4) Air traffic control equipment and its use;
- (5) Terrain and prominent landmarks;
- (6) Characteristics of air traffic and traffic flow;
- (7) Weather phenomena;
- (8) Emergency and search and rescue plans.
- (9) Principles, use and limitations of applicable ATS surveillance systems and associated equipment; and
- (10) Procedures for the provision of ATS surveillance service, as appropriate, including procedures to ensure appropriate terrain clearance.

GACAR PART 144 – AIR TRAFFIC CONTROLLER SCHOOLS

III. Practical Training.

- (a) Each approved course must include practical training for a student, under the supervision of a qualified air traffic controller instructor.
- (b) The training curriculum must include an area control surveillance service for a period of not less than 180 hours or three months, whichever is greater, at the unit for which the rating is sought.

IV. Stage Checks and End of Course Tests.

Each student enrolled in an aerodrome control rating course must satisfactorily accomplish the stage checks and end of course tests, in accordance with the school's approved training course. The student must have demonstrated, at a level appropriate to the privileges being granted, the skill, judgment and performance required to provide a safe, orderly and expeditious control service, including the recognition and management of threats and errors.