GACAR PART 125 – OPERATIONS: NONCOMMERCIAL OPERATORS USING TURBOJETS, TRANSPORT CATEGORY AIRCRAFT, OR COMMUTER CATEGORY AIRPLANES

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SUBPART A – GENERAL

§ 125.1 Applicability.

(a) Except as provided in paragraphs (b) and (c) of this section, this part prescribes rules governing—

(1) The noncommercial operations of turbojets, transport category airplanes, transport category rotorcraft, or commuter category airplanes by a person that holds or is required to hold an Operator Certificate (OC) under General Authority of Civil Aviation Regulation (GACAR) Part 119;

(2) Each person employed or used by a certificate holder conducting operations under this part;

(3) Each person who is on board an aircraft being operated under this part; and

(4) Each person who is an applicant for an OC under GACAR Part 119 with authorization from the President.

(b) The President may authorize temporary relief from certain sections of this part for the purpose of ferrying, training, positioning, maintenance, or other special purposes, provided the certificate holder demonstrates to the President that the operation can be conducted with an acceptable level of safety in accordance with specified limitations and conditions.

(c) The President may authorize certificate holders who acquire additional aircraft to operate those aircraft under applicable sections of this part before the aircraft is listed on the operator's operations specifications.

§ 125.3 Rules Applicable to Operations Outside of the Kingdom of Saudi Arabia.

(a) Each certificate holder must, while operating an aircraft outside of the Kingdom of Saudi Arabia (KSA), comply with GACAR § 91.475, except where any rule of this part is more restrictive and may be followed without violating the rules of that country.

(b) Each certificate holder with an operating base in a foreign state must notify the President and the aviation authority of the foreign state within 30 days of starting operations.

§ 125.5 Carriage of Psychoactive Substances.

If the certificate holder permits any aircraft owned or leased by that holder to be engaged in any operation that the certificate holder knows to be in violation of GACAR § 91.21, that operation is a basis for suspending or revoking the certificate.

§ 125.7 Documents To Be Carried on Board.

In addition to the requirements of GACAR § 91.9, the certificate holder must carry on board—

(a) A true copy of the operating certificate in each of its aircraft and

(b) The manual required by GACAR § 125.77.

§ 125.9 Flight Logbook Requirements.

(a) All aircraft must carry a flight logbook in accordance with GACAR § 91.9(a)(6) containing the items specified in GACAR § 91.8 and any other requirements listed in the certificate holder's operations manual.

(b) The pilot in command (PIC) is responsible for ensuring the flight logbook entries are completed in accordance with the certificate holder’s procedures.

(c) These records must be maintained for 30 working days.

SUBPART B – MANAGEMENT PERSONNEL

§ 125.31 Management Personnel Required.

(a) Each applicant for a certificate under this part must show it has enough management personnel, including at least a director of operations, to assure its operations are conducted in accordance with the requirements of this part.

(b) Each applicant must—

(1) Set forth the duties, responsibilities, and authority of each of its management personnel in the general policy section of its manual.

(2) List in the manual the names and addresses of its management personnel.

(3) Designate a person as responsible for the scheduling of inspections required by the manual and for the updating of the approved mass and balance system on all aircraft.

(c) Each certificate holder must notify the President of any change made in the assignment of persons to the listed positions within 10 working days of such change.

(d) The President may prescribe management personnel in addition to the director of operations if the President determines, based on the size, scope and complexity of the operations, that aviation safety requires additional management personnel.

(e) The individuals who serve in the director of operations positions and any other positions required under paragraph (d) of this section must be acceptable to the President based on his determination of the experience, competence and knowledge of the persons nominated. The President may administer tests to confirm competence and knowledge.

§ 125.33 Management Personnel: Qualifications.

(a) To serve as director of operations, a person must—

(1) Hold an airline transport pilot certificate (airplane or rotorcraft, as applicable);

(2) Have experience as PIC in an aircraft of a similar size or complexity as the aircraft used in the

certificate holder's operation; and

(3) Have at least three years of supervisory or managerial experience in a position that exercised operational control over any operations conducted under GACAR Part 121 or 125.

(b) The certificate holder must include qualifications for other management personnel required by GACAR § 125.31 in its manual.

SUBPART C – ROUTES AND AREAS

§ 125.53 Aerodrome Requirements.

(a) No certificate holder may use any aerodrome unless it is adequate for the proposed operation, considering such items as size, surface, obstructions, and lighting.

(b) No pilot of an aircraft carrying passengers at night may take off from, or land on, an aerodrome unless—

(1) That pilot has determined the wind direction from an illuminated wind direction indicator or local ground communications, or, in the case of takeoff, that pilot's personal observations; and

(2) The limits of the area to be used for landing or takeoff are clearly shown—

(i) For airplanes, by boundary or runway marker lights;

(ii) For rotorcraft, by boundary or runway marker lights or reflective material.

§ 125.55 En Route Navigation Facilities.

(a) Except as provided in paragraph (b) of this section, no certificate holder may conduct any operation over a route unless suitable navigation aids are available over the route to navigate the aircraft along the route within the degree of accuracy required for air traffic control (ATC).

(b) Navigation aids are not required for the following operations:

(1) Day visual flight rules (VFR) operations that the certificate holder shows can be conducted safely by pilotage because of the characteristics of the terrain;

(2) Other operations approved by the President.

SUBPART D – MANUAL REQUIREMENTS

§ 125.75 Applicability.

This subpart prescribes requirements for certificate holders to prepare and maintain manuals.

§ 125.77 Preparation.

(a) Each certificate holder must prepare and keep current an operations manual and a maintenance manual for the use and guidance of flight operations, ground operations, and management personnel as appropriate in conducting its operations.

(b) The manuals may be prepared as a single combined volume or in two or more separate volumes or parts, containing together all of the information required by GACAR § 125.79, but each volume or part must contain the information appropriate for each group of personnel.

(c) Each manual required by this subpart must -

(1) Have the date of the last revision and revision number on each revised page and (2) Include human factors principles.

§ 125.79 Manual Contents.

(a) *Operations Manual.* Each operations manual must contain the contents listed in Appendix A to this part under the following areas:

(1) General;

(2) Aircraft operating information;

(3) Areas, routes, and aerodromes; and

(4) Training.

(b) *Maintenance Manual.* Each maintenance manual must contain procedures for maintenance and maintenance control and must contain the contents listed in Appendix A to this part as appropriate.

§ 125.81 Distribution and Availability.

(a) Each certificate holder must furnish copies of the manual(s) required by GACAR § 125.77 (and the changes and additions) or appropriate parts of the manual(s) to—

(1) Its appropriate ground operations and maintenance personnel,

(2) Its crew members, and

(3) General Authority of Civil Aviation (GACA) representatives assigned to the certificate holder.

(b) Each person to whom a manual or appropriate parts of it are furnished under paragraph (a) of this section must keep it up to date with the changes and additions furnished to that person and must have the manual or appropriate parts of it accessible when performing assigned duties.

(c) To comply with paragraph (a) of this section, a certificate holder must furnish the maintenance part of the manual to persons listed in printed form or other form acceptable to the President and retrievable in the English language.

(d) If a certificate holder conducts aircraft inspections or maintenance at specified stations where it keeps the approved inspection program manual, it is not required to carry the manual aboard the aircraft en route to those stations.

(e) Each certificate holder must maintain at least one complete copy of the manuals at its principal base of operations.

§ 125.83 Aircraft Flight Manual.

(a) Each certificate holder must keep a current approved aircraft flight manual (AFM) or approved equivalent for each type of aircraft it operates at its principal base of operations and in each aircraft of that type that it operates.

(b) Each approved equivalent to the AFM as described in paragraph (a) of this section must be contained within the operations manual required by GACAR § 125.77 and this information must be clearly identified as flight manual requirements, or an approved AFM. The certificate holder may revise the operating procedures sections and modify the presentation of performance data from the applicable AFM if the revised operating procedures and modified performance data presentation are—

(1) Approved by the President and

(2) Clearly identified as AFM requirements.

SUBPART E – AIRCRAFT REQUIREMENTS

§ 125.105 Aircraft Requirements: General.

(a) Except as provided in paragraph (b) of this section, no certificate holder may operate an aircraft under this part unless that aircraft—

(1) Is registered as a civil aircraft of the Kingdom of Saudi Arabia and carries a current standard airworthiness certificate issued under GACAR Part 21; and

(2) Is in an airworthy condition and meets the applicable airworthiness requirements, including those relating to identification and equipment.

(b) Foreign registered aircraft may be used provided they have a valid airworthiness certificate issued by a Contracting State to the Convention on International Civil Aviation and the President is satisfied that the aircraft is safe for the intended operations.

(c) No certificate holder may operate a transport category airplane under this part unless it was certificated under—

(1) Part 4b of the Civil Air Regulations of the United States (CAR) in effect after 31 October 1946,

(2) GACAR Part 25, or

(3) Special CAR 422, 422A, or 422B.

(d) No certificate holder may operate a rotorcraft under this part unless it was certificated under—

(1) Part 7 of the CAR in effect after 1 August 1956, or

(2) GACAR Part 29.

(e) Rotorcraft operating in performance Classes 1 and 2 must be certificated in Category A. Rotorcraft operating in performance Class 3 may be certificated in either Category A or Category B.

§ 125.107 Aircraft Limitations.

(a) No certificate holder may operate a land airplane with 20 or more passenger seats installed in an extended over water operation unless it is certificated or approved by the President as adequate for ditching.

(b) No certificate holder may operate a rotorcraft certificated under GACAR Part 29 over water unless the rotorcraft is amphibious or equipped with floats or other emergency flotation gear adequate to accomplish a safe emergency ditching on open water.

(c) Notwithstanding the requirements of paragraph (b) of this section, no certificate holder may operate a rotorcraft over water in a hostile environment unless it is certificated or approved by the President as adequate for ditching.

SUBPART F – AIRPLANE PERFORMANCE OPERATING LIMITATIONS

§ 125.127 Applicability.

(a) This subpart prescribes airplane performance operating limitations for all certificate holders.

(b) Certificate holders operating transport category or commuter category airplanes must comply with each section in this subpart.

(c) Certificate holders operating airplanes other than those listed in paragraph (b) of this section must comply with GACAR § 125.129(d) and (e).

(d) The President may authorize relief from specific sections of this subpart, provided the certificate holder demonstrates to the President that the operation can be conducted with an acceptable level of safety in accordance with specified limitations and conditions.

§ 125.129 General.

(a) Each certificate holder operating an airplane under this part meeting the requirements of GACAR § 125.127(b) must comply with the applicable provisions of GACAR §§ 125.131 through 125.139.

(b) All certificate holders must take into account all factors that significantly affect the performance of the airplane when calculating aircraft performance and operating limitations.

(c) The performance data in the AFM applies in determining compliance with GACAR §§ 125.131 through 125.139. Where conditions are different from those on which the performance data is based, compliance is determined by—

(1) Interpolations, if the performance data follow a reasonably linear scale, or

(2) Using the most conservative value of the proximate results of the direct tests, if an accurate interpolation cannot be made.

(d) For all airplanes, the mass at takeoff, or at the expected time of landing at the destination and at any alternate, must not exceed the relevant maximum mass at which compliance with the applicable noise certification standards in GACAR Part 36 has been demonstrated, unless otherwise authorized by the President for operating at aerodromes where there is no noise disturbance problem.

(e) Certificate holders operating airplanes other than those listed in GACAR § 125.127(b) must ensure the airplane's mass at the time of takeoff is not greater than the mass allowed for the length of the take off or landing runway, using data from the AFM. The operator must consider at least the following factors to comply with this paragraph:

(1) Aerodrome pressure altitude,

(2) Wind,

(3) Ambient temperature,

(4) Runway slope, and

(5) Runway contaminants, including standing water, snow, or ice.

§ 125.131 Airplane: Take Off Limitations.

(a) No person operating an airplane may take off at a mass greater than that listed in the AFM for the elevation of the aerodrome and for the ambient temperature existing at takeoff.

(b) No person operating an airplane may take off at a mass greater than that listed in the AFM at which compliance with the following may be shown:

(1) The accelerate stop distance must not exceed the length of the runway plus the length of any stopway.

(2) The take off distance must not exceed the length of the runway plus the length of any clearway, except that the length of any clearway included must not be greater than one half the length of the runway.

(3) The take off run must not be greater than the length of the runway.

(c) No person operating an airplane may take off at a mass greater than that listed in the AFM that allows a net take off flight path that clears all obstacles either by a height of at least 35 ft (10 m) vertically, or by at least 60 m (200 ft) horizontally within the aerodrome boundaries and by at least 90 m (300 ft) horizontally after passing the boundaries.

(d) In determining maximum mass, minimum distances, and flight paths under paragraphs (a) through

(c) of this section, correction must be made for the runway to be used, the elevation of the aerodrome, the effective runway gradient, the ambient temperature and wind component at the time of takeoff, and, if operating limitations exist for the minimum distances required for takeoff from wet runways, the runway surface condition (dry, wet, or contaminated). Wet runway distances associated with grooved or porous friction course runways, if provided in the AFM, may be used only for runways that are grooved or treated with a porous friction course overlay, and that the certificate holder determines are designed, constructed, and maintained in a manner acceptable to the President.

(e) For purposes of this section, it is assumed the airplane is not banked before reaching a height of 50 ft (15 m), as shown by the take off path or net take off flight path data (as appropriate) in the AFM, and thereafter that the maximum bank is not more than 15°.

(f) For the purposes of this section the terms, “take off distance,” “take off run,” “net take off flight path,” and “take off path” have the same meanings as set forth in the rules under which the airplane was certificated.

(g) In determining the length of the runway available, account must be taken of the loss, if any, of runway length due to alignment of the airplane before takeoff.

§ 125.133 Airplane: En Route Limitations: One Engine Inoperative.

(a) No person operating an airplane may take off at a mass, allowing for normal consumption of fuel and oil and based on the ambient temperatures expected en route, greater than that which will allow the net flight path of the aircraft to continue flight from the cruising altitude to an aerodrome where a landing can be made under GACAR § 125.139, without flying below the minimum obstacle clearance altitude.

(b) For the purposes of paragraph (a) of this section, it is assumed—

(1) The engine fails at the most critical point en route; and

(2) Fuel jettisoning will be allowed if the certificate holder shows the crew is properly instructed, the training program is adequate, and all other precautions are taken to ensure a safe procedure.

§ 125.135 Airplane: En Route Limitations: Two Engines Inoperative.

(a) No person may operate an airplane with three or more engines along an intended route unless he

complies with either of the following:

(1) There is no place along the intended track that is more than 90 minutes (with all engines operating at cruising power) from an aerodrome that meets the requirements of GACAR § 125.139.

(2) The airplane mass, according to the two engine inoperative en route net flight path data in the AFM, allows the airplane to fly from the point where the two engines are assumed to fail simultaneously to an aerodrome that meets the requirements of GACAR § 125.139, with the net flight path (considering the ambient temperatures anticipated along the track) clearing vertically by at least 2000 ft (610 m) all terrain and obstructions within 5 NM on each side of the intended track. For the purposes of this subparagraph, it is assumed—

(i) The two engines fail at the most critical point en route;

(ii) The net flight path has a positive slope at 1500 ft (460 m) above the aerodrome where the landing is assumed to be made after the engines fail;

(iii) Fuel jettisoning will be approved if the certificate holder shows the flight crew is properly instructed, the training program is adequate, and all other precautions are taken to ensure a safe procedure;

(iv) The airplane's mass at the point where the two engines are assumed to fail provides enough fuel to continue to the aerodrome, arrive at an altitude of at least 1500 ft (460 m) directly over the aerodrome, and fly for 15 minutes thereafter at cruise power, thrust, or both; and

(v) The consumption of fuel and oil after the engine failure is the same as the consumption allowed for in the AFM's net flight path data.

§ 125.137 Airplane: Landing Limitations: Destination Aerodromes.

(a) No person operating an airplane may take off at a mass that—

(1) Allowing for anticipated consumption of fuel and oil, is greater than the mass that would allow a full stop landing within the landing distance available of the most suitable runway at the destination aerodrome;

(2) Is greater than the mass allowable if the landing is to be made on the runway—

(i) With the greatest effective length in still air.

(ii) The airplane is landed on the most suitable runway considering the probable wind velocity and direction and the ground handling characteristics of the aircraft, and considering other conditions such as landing aids and terrain.

(3) Exceeds the estimated maximum landing mass specified in the AFM for the pressure altitude appropriate to the elevation of those aerodromes and, if used as a parameter to determine the maximum landing mass, any other applicable atmospheric conditions.

(b) For the purpose of this section, it is assumed that—

(1) The airplane passes directly over the intersection of the obstruction clearance plane and the runway at a height of 50 ft (15 m), stabilized at the approach speed specified for the aircraft's configuration and operating conditions.

(2) The landing does not require exceptional pilot skill.

(c) No person may take off a turbojet powered aircraft when the appropriate weather reports and forecasts, or a combination of them, indicate that the runways at the destination aerodrome may be wet or slippery at the estimated time of arrival unless either—

(1) AFM data exists for wet or slippery runways and that data is used to determine the requirement of paragraph (a) of this section.

(2) The effective runway length is at least 115 percent of the runway length required by paragraph (a) of this section.

(d) If the actual conditions at the time of landing differ from the conditions assumed in paragraph (a) of this section, the PIC must calculate the landing distance required using the most current conditions available to ensure the landing distance available is sufficient.

§ 125.139 Airplane: Landing Limitations: Alternate Aerodromes.

(a) No person may list an aerodrome as an alternate aerodrome on a flight release unless the airplane, at the mass anticipated at the time of arrival, can land and be brought to a full stop within 70 percent

of the effective length of the runway from a point 50 ft (15 m) above the intersection of the obstruction clearance plane and the runway based on the assumptions in GACAR § 125.137.

(b) In the case of an alternate aerodrome for departure, as provided in GACAR § 125.501, allowance may be made for fuel jettisoning in addition to normal consumption of fuel and oil when determining the mass anticipated at the time of arrival.

SUBPART G – ROTORCRAFT PERFORMANCE OPERATING LIMITATIONS

§ 125.151 Applicability.

This subpart prescribes rotorcraft performance operating limitations for all certificate holders operating rotorcraft under GACAR Part 125.

§ 125.153 Performance Class: General.

Unless authorized by the President in the certificate holder's operations specifications-

(a) All rotorcraft operating to or from a heliport in a congested hostile environment must be operating in performance Class 1 or 2.

(b) Except as provided in paragraph (a) of this section, all rotorcraft must be operating in performance Class 1, 2, or 3.

(c) To permit variations from paragraph (a) of this section, the certificate holder must undertake a risk assessment, acceptable to the President, that considers factors such as—

(1) The type of operation and the circumstances of the flight,

(2) The area/terrain over which the flight is being conducted,

(3) The probability of a critical engine failure and the consequence of such an event,

(4) The procedures to maintain the reliability of the engine(s),

(5) The training and operational procedures to mitigate the consequences of the critical engine failure, and

(6) Installation and use of a usage monitoring system.

§ 125.155 Performance: General.

(a) A certificate holder must ensure that the mass of the rotorcraft at the start of the takeoff is not greater than the mass at which the requirements of the appropriate performance class prescribed in this subpart can be complied with for the flight to be undertaken, allowing for expected reductions in

mass as the flight proceeds, and for such fuel jettisoning as is provided for in the particular requirement.

(b) A certificate holder must ensure that the approved performance data contained in the AFM is used to determine compliance with the requirements of this subpart, supplemented as necessary with other data acceptable to the President. When applying the appropriate factors prescribed in this subpart, account may be taken of any operational factors already incorporated in the AFM performance data to avoid double application of factors.

(c) When showing compliance with the requirements of this subpart, due account must be taken of the following parameters:

(1) Mass of the rotorcraft;

(2) Rotorcraft configuration;

(3) Environmental conditions, in particular-

(i) Pressure-altitude, and temperature;

(ii) Wind.

(4) Operating techniques; and

(5) Operation of any systems which have adverse effect on performance.

§ 125.157 Operating Limitations.

(a) For rotorcraft operating in performance Class 2 or 3 in any flight phase where an engine failure may cause the rotorcraft to force-land the operator must verify that the surface below the intended flight path permits the pilot to execute a safe forced landing.

(b) Performance Class 3 operations must not to be performed-

(1) In Instrument Meteorological Conditions (IMC); or

(2) At night.

§ 125.159 Obstacle Accountability Area.

For the purposes of the obstacle-clearance requirements prescribed in GACAR §§ 125.161 through 125.165-

(a) An obstacle, located beyond the Final Approach and Takeoff Area (FATO), in the take-off flight path or the missed approach flight path, must be considered if its lateral distance from the nearest point on the surface below the intended flight path is not further than-

(1) For VFR operations: Half of the minimum FATO (or the equivalent term used in the AFM) width defined in the AFM (or, when no width is defined 0.75 times the maximum dimension of the rotorcraft (D)), plus 0.25 D (or 3 m, whichever is greater), plus: 0.01 times the distance travelled (DR) for VFR day operations.

(2) For instrument flight rules (IFR) operations:

(i) One and one-half times D (or 30 m, whichever is greater), plus: 0.10 DR for IFR operations with accurate course guidance 0.15 DR for IFR operations with standard course guidance 0.30 DR for IFR operations without course guidance.

(ii) When considering the missed approach flight path, the divergence of the obstacle accountability area only applies after the end of the take-off distance available;

(iii) Standard course guidance includes automatic direction finder (ADF) and very high frequency omnidirectional range (VOR) guidance. Accurate course guidance include instrument landing system (ILS), Microwave Landing System (MLS) or other course guidance providing an equivalent navigational accuracy.

(3) For operations with initial takeoff conducted visually and converted to IFR/IMC at a transition point, the criteria required in (1) apply up to the transition point then the criteria required in (2) apply after the transition point-

(i) The criteria required in paragraph (a)(1) of this section apply up to the transition point.

(ii) The criteria required in paragraph (a)(2) of this section apply after the transition point.

(iii) The transition point cannot be located before the end of take-off distance required (TODRH) for rotorcraft operating in performance Class 1 and before the defined point after

takeoff (DPATO) for rotorcraft operating in performance Class 2.

(b) For takeoff using a backup (or a lateral transition) procedure; an obstacle, located in the back-up (or lateral transition) area, must be considered if its lateral distance from the nearest point on the surface below the intended flight path is not further than-

(1) Half of the minimum FATO (or the equivalent term used in the AFM) width defined in the AFM (or, when no width is defined 0.75 D), plus 0.25 times D (or 3 m, whichever is greater), plus 0.10 for VFR day, of the distance travelled from the back of the FATO.

(c) Obstacles may be disregarded if they are situated-

(1) Beyond 7 R for day operations if it is assured that navigational accuracy can be achieved by reference to suitable visual cues during the climb;

(2) Beyond 10 R for night operations if it is assured that navigational accuracy can be achieved by reference to suitable visual cues during the climb;

(3) Beyond 300 m if navigational accuracy can be achieved by appropriate navigation aids; and

(4) Beyond 900 m in the other cases.

§ 125.161 Operations in Performance Class 1.

(a) *Take-off mass*. The take-off mass of the rotorcraft must not exceed the maximum take-off mass specified in the AFM for the procedure to be used and to achieve a rate of climb of 100 ft/min (0.50 m/s) at 200 ft (60 m) and 150 ft/min (0.75 m/s) at 1000 ft (300 m) above the level of the heliport with the critical engine inoperative and the remaining engines operating at an appropriate power rating, taking into account the parameters specified in GACAR § 125.155 (See Appendix F-1 to GACAR Part 121).

(b) *Rejected takeoff*. The take-off mass must be such that the rejected TODRH does not exceed the rejected take-off distance available.

(c) *Take off distance.* The take-off mass must be such that the TODRH does not exceed the take-off distance available.

(d) As an alternative to paragraph (c) of this section, the requirement above may be disregarded

provided the rotorcraft with the critical engine failure recognized at take-off decision point (TDP) can, when continuing the take-off, clear all obstacles from the end of the take-off distance available to the end of the TODRH by a vertical margin of not less than 35 ft (10 m) (See Appendix F-2 of Appendix F to GACAR Part 121).

(e) *Backup procedures or procedures with lateral transition.* A certificate holder must ensure, with the critical engine inoperative, all obstacles below the backup flight path (the lateral flight path) are cleared by an adequate margin. Only the obstacles specified in GACAR § 125.159(b) must be considered.

(f) *Take-off flight path.* From the end of the TODRH with the critical engine inoperative—

(1) The take-off mass must be such that the climb path provides a vertical clearance of not less than 35 ft (10 m) for VFR operations and 35 ft (10 m) plus 0.01 DR for IFR operations above all obstacles located in the climb path. Only obstacles as specified in GACAR § 125.159 must be considered.

(2) Where a change of direction of more than 15° is made, obstacle clearance requirements must be increased by 15 ft (5 m) from the point at which the turn is initiated. This turn must not be initiated before reaching a height of 200 ft (60 m) above the take-off surface, unless permitted as part of an approved procedure in the AFM.

(g) *En route.* The take-off mass is such that it is possible, in case of the critical engine failure occurring at any point of the flight path, to continue the flight to an appropriate landing site and achieve the minimum flight altitudes for the route to be flown.

(h) *Approach, landing, and balked landing.* (See Figures F-4 and F-5 of Appendix F to GACAR Part 121). The estimated landing mass at the destination or alternate must be such that—

(1) It does not exceed the maximum landing mass specified in the AFM for the procedure to be used and to achieve a rate of climb of 100 ft/min (0.50 m/s) at 200 ft (60 m) and 150 ft/min (0.75 m/s) at 1000 ft (300 m) above the level of the heliport with the critical engine inoperative and the remaining engines operating at an appropriate power rating, taking into account the parameters specified in GACAR § 125.155;

(2) The landing distance required does not exceed the landing distance available unless the rotorcraft, with the critical engine failure recognized at landing decision point (LDP) can, when

landing, clear all obstacles in the approach path;

(3) In case of the critical engine failure occurring at any point after the LDP, it is possible to land and stop within the FATO; and

(4) In the event of the critical engine failure being recognized at the LDP or at any point before the LDP, it is possible either to land and stop within the FATO or to overshoot, meeting the conditions paragraph of (f) of this section.

(i) *Operating area considerations.* The dimensions of the FATO must be at least equal to the dimensions specified in the AFM. A FATO smaller than the dimensions specified in the AFM may be accepted if the rotorcraft is capable of a hover out of ground effect (HOGE) with one engine inoperative, and the conditions of this section can be met.

§ 125.163 Operations in Performance Class 2.

(a) *Take-off.* (Figures F-6 and F-7 of Appendix F to GACAR Part 121). The mass of the rotorcraft at takeoff must not exceed the maximum takeoff mass specified in the AFM for the procedures to be used and to achieve a rate of climb of 150 ft/min (0.75 m/s) at 1000 ft (300 m) above the level of the heliport with the critical engine inoperative and the remaining engines operating at an appropriate power rating, taking into account the parameters specified in GACAR § 125.155.

(b) *Take-off flight path*. From DPATO or, as an alternative, no later than 200 ft (60 m) above the takeoff surface with the critical engine inoperative, the conditions of GACAR §§ 125.161(f) must be met.

(c) *En route.* Requirements are specified in GACAR § 125.161(g).

(d) *Approach, landing, and balked landing*. (Figures F-8 and F-9 of Appendix F to GACAR Part 125). The estimated landing mass at the destination or alternate must be such that—

(1) It does not exceed the maximum landing mass specified in the AFM for a rate of climb of 150 ft/min (0.75 m/s) at 1000 ft (300 m) above the level of the heliport with the critical engine inoperative and the remaining engines operating at an appropriate power rating, taking into account the parameters specified in GACAR § 125.155; and

(2) It is possible, in case of the critical engine failure occurring at or before the defined point

before landing (DPBL), either to perform a safe forced landing or to overshoot, meeting the requirements of GACAR § 125.161(f). Only obstacles as specified in GACAR § 125.159 must be considered.

§ 125.165 Operations in Performance Class 3.

(a) *Takeoff*. The mass of the rotorcraft at takeoff must not exceed the maximum take-off mass specified in the AFM for a hover in ground effect (HIGE) with all engines operating at take-off power, taking into account the parameters specified in GACAR § 125.155. If conditions are such that a HIGE is not likely to be established, the take-off mass must not exceed the maximum mass specified for a HOGE with all engines operating at take-off power, taking into account the parameters specified in GACAR § 125.155.

(b) *Initial climb*. The take-off mass must be such that the climb path provides adequate vertical clearance above all obstacles located along the climb path, with all engines operating.

(c) *En route.* The take-off mass is such that it is possible to achieve the minimum flight altitudes for the route to be flown, with all engines operating.

(d) *Approach and landing*. The estimated landing mass at the destination or alternate must be such that—

(1) It does not exceed the maximum landing mass specified in the AFM for a HIGE with all engines operating at take-off power, taking into account the parameters specified in GACAR § 125.155. If conditions are such that a HIGE is not likely to be established, the take-off mass must not exceed the maximum mass specified for a HOGE with all engines operating at take-off power, taking into account the parameters specified in GACAR § 125.155; and

(2) It is possible to perform a balked landing, all engines operating, at any point of the flight path and clear all obstacles by an adequate vertical interval.

SUBPART H – ADDITIONAL AIRWORTHINESS REQUIREMENTS

§ 125.183 Applicability.

(a) This subpart prescribes additional airworthiness requirements applicable to certificate holders. These requirements arise from the retroactive application of certain airworthiness standards and the application of other airworthiness requirements to enhance operational safety.

(b) This subpart also requires certificate holders to support the continued airworthiness of each aircraft. These requirements may include, but are not limited to, revising the aircraft inspection program, incorporating design changes, and incorporating revisions to instructions for continued airworthiness (ICA).

(c) For purposes of this subpart, the oversight office of the Federal Aviation Administration (FAA) of the United States is the FAA aircraft certification office of the FAA Transport Aircraft Directorate with oversight responsibility for the relevant type certificate or supplemental type certificate.

§ 125.185 Bilingual Safety Information.

Each aircraft must have, in addition to the English signs, markings, and placards required by the aircraft type certification requirements, all of the following signs, markings, and placards in the Arabic language:

(1) All emergency exit signs, and

(2) All passenger safety information signs, markings and placards as required by GACAR § 125.227.

§ 125.187 Material Flammability.

(a) *Thermal/acoustic insulation materials.* For transport category airplanes type certificated after 1 January 1958—

(1) For airplanes manufactured before 2 September 2005, when thermal/acoustic insulation is installed in the fuselage as replacements after 2 September 2005, the insulation must meet the flame propagation requirements of GACAR § 25.856, effective 2 September 2003, if it is—

(i) Of a blanket construction, or

(ii) Installed around air ducting.

(2) For airplanes manufactured after 2 September 2005, thermal/acoustic insulation materials installed in the fuselage must meet the flame propagation requirements of GACAR § 25.856, effective 2 September 2003.

§ 125.189 Demonstration of Emergency Evacuation Procedures.

(a) Except as provided in paragraph (c) of this section, each certificate holder conducting operations with aircraft with a seating capacity of more than 44 passengers must conduct a partial demonstration of emergency evacuation procedures under paragraph (b) of this section upon—

(1) Initial introduction of a type and model of aircraft into passenger carrying operation;

(2) Changing the number, location, or emergency evacuation duties or procedures of cabin crew members who are required by GACAR § 125.339; or

(3) Changing the number, location, type of emergency exits, or type of opening mechanism on emergency exits available for evacuation.

(b) In conducting the partial demonstration required by paragraph (a) of this section, each certificate holder must—

(1) Demonstrate the effectiveness of its crew member emergency training and evacuation procedures by conducting a demonstration, not requiring passengers and observed by the President, in which the cabin crew members for that type and model of aircraft, using that certificate holder’s operating procedures, open 50 percent of the required floor level emergency exits and 50 percent of the required non floor level emergency exits whose opening by a cabin crew member is defined as an emergency evacuation duty under GACAR § 125.341, and deploy 50 percent of the exit slides. The exits and slides must be selected by the President and must be ready for use within 15 seconds.

(2) Apply for and obtain approval from the President before conducting the demonstration.

(3) Use cabin crew members in this demonstration who have been selected at random by the President, have completed the certificate holder’s approved training program for the type and model of aircraft, and have passed a written or practical examination on the emergency equipment

and procedures.

(4) Apply for and obtain approval from the President before commencing operations with this type and model aircraft.

(c) If the certificate holder has conducted a successful demonstration of emergency evacuation procedures required by GACAR § 121.213 in the same type aircraft, it need not conduct a demonstration of emergency evacuation procedures under this section in that type airplane to achieve certification under GACAR Part 125.

§ 125.190 Demonstration of Ditching Procedures.

(a) Except as provided in paragraph (c) of this section, each certificate holder operating or proposing to operate 1 or more aircraft with 20 or more passenger seats installed in extended over water operations must show by simulated ditching conducted under paragraph (b) of this section, that it has the ability to carry out its ditching procedures efficiently.

(b) *Ditching demonstration.* The demonstration must assume that daylight hours exist outside the aircraft and that all required crew members are available for the demonstration.

(1) If the certificate holder's manual requires the use of passengers to assist in the launching of life rafts, the necessary passengers must be aboard the aircraft and participate in the demonstration according to the manual.

(2) After the ditching signal has been received, each evacuee must don a life jacket according to the certificate holder's manual.

(3) Each life raft must be removed from stowage, one life raft is launched and inflated (or one slide raft is inflated) according to the certificate holder's manual and crew members assigned to the inflated life raft display and describe the use of each item of required emergency equipment. The life raft or slide raft to be inflated will be selected by the President.

(c) If the certificate holder has conducted a successful ditching demonstration required by GACAR § 121.217 in the same type aircraft, it need not conduct a ditching demonstration under this section in that type airplane to achieve certification under GACAR Part 125.

§ 125.191 Repairs Assessment for Pressurized Fuselages.

(a) No certificate holder may operate an Airbus Model A300 (excluding the -600 series), British Aerospace Model BAC 1–11, Boeing Model 707, 720, 727, 737 or 747, McDonnell Douglas Model DC–8, DC–9/MD–80 or DC–10, Fokker Model F28, or Lockheed Model L–1011 beyond the applicable flight cycle implementation time specified below unless operations specifications have been issued to reference repair assessment guidelines applicable to the fuselage pressure boundary (fuselage skin, door skin, and bulkhead webs), and those guidelines are incorporated in its inspection program. The repair assessment guidelines must be approved by the FAA Oversight Office or the GACA.

(1) For the Airbus Model A300 (excluding the -600 series), the flight cycle implementation time is—

(i) Model B2: 36 000 flights.

(ii) Model B4–100 (including Model B4-2C): 30 000 flights above the window line, and 36 000 flights below the window line.

(iii) Model B4–200: 25 500 flights above the window line, and 34 000 flights below the window line.

(2) For all models of the British Aerospace BAC 1–11, the flight cycle implementation time is 60 000 flights.

(3) For all models of the Boeing 707, the flight cycle implementation time is 15 000 flights.

(4) For all models of the Boeing 720, the flight cycle implementation time is 23 000 flights.

(5) For all models of the Boeing 727, the flight cycle implementation time is 45 000 flights.

(6) For all models of the Boeing 737, the flight cycle implementation time is 60 000 flights.

(7) For all models of the Boeing 747, the flight cycle implementation time is 15 000 flights.

(8) For all models of the McDonnell Douglas DC–8, the flight cycle implementation time is 30 000 flights.

(9) For all models of the McDonnell Douglas DC–9/MD–80, the flight cycle implementation

time is 60 000 flights.

(10) For all models of the McDonnell Douglas DC–10, the flight cycle implementation time is 30 000 flights.

(11) For all models of the Lockheed L–1011, the flight cycle implementation time is 27 000 flights.

(12) For the Fokker F–28 Mark 1000, 2000, 3000, and 4000, the flight cycle implementation time is 60 000 flights.

§ 125.193 Fuel Tank System Inspection Program.

(a) This section applies to transport category, turbine powered airplanes with a type certificate issued after 1 January 1958, that, as a result of original type certification or later increase in capacity, have—

(1) A maximum type-certificated passenger capacity of 30 or more, or

(2) A maximum payload capacity of 3400 kg or more.

(b) No certificate holder may operate an airplane identified in paragraph (a) of this section unless the inspection program for that airplane has been revised to include applicable inspections, procedures, and limitations for fuel tank systems.

(c) The proposed fuel tank system inspection program revisions must be based on fuel tank system ICA that have been developed in accordance with the applicable provisions of GACAR § 25.1529 and Appendix H of GACAR Part 25, in effect on 6 June 2001, (including those developed for auxiliary fuel tanks, if any, installed under supplemental type certificates or other design approval) and that have been approved by the FAA Oversight Office or the President.

(d) Before returning an aircraft to service after any alteration for which fuel tank ICA are developed under GACAR § 25.1529 in effect on 6 June 2001, the certificate holder must include in the inspection program for the airplane inspections and procedures for the fuel tank system based on those ICA.

(e) The fuel tank system inspection program changes identified in paragraphs (c) and (d) of this

section and any later fuel tank system revisions must be submitted to the President for review and approval.

§ 125.195 Flammability Reduction Means.

(a) *Applicability.* Except as provided in paragraph (m) of this section, this section applies to transport category, turbine powered airplanes with a type certificate issued after 1 January 1958, that, as a result of original type certification or later increase in capacity have—

(1) A maximum type-certificated passenger capacity of 30 or more, or

(2) A maximum payload capacity of 3400 kg or more.

(b) *New production airplanes.* Except in accordance with GACAR § 125.223, no certificate holder may operate an airplane identified in Table 125–1 (including all cargo airplanes) for which the state of manufacture issued the original certificate of airworthiness or export airworthiness approval after 27 December 2010, unless an Ignition Mitigation Means (IMM) or Flammability Reduction Means (FRM) meeting the requirements of GACAR § 26.33 is operational.

Table 125–1.

Model – Boeing	Model – Airbus
737 Series	A318, A319, A320, A321 Series
747 Series	A330, A340 Series
767 Series	
777 Series	

(c) *Auxiliary fuel tanks.* After the applicable date stated in paragraph (e) of this section, no certificate holder may operate any airplane subject to GACAR § 26.33 that has an Auxiliary Fuel Tank installed unless the following requirements are met:

(1) The certificate holder complies with GACAR § 26.35 by the applicable date stated in that section.

(2) The certificate holder installs Flammability Impact Mitigation Means (FIMM), if applicable, that is GACA approved.

(3) Except in accordance with GACAR § 125.223, the FIMM, if applicable, is operational.

(d) *Retrofit.* Except as provided in paragraph (j) of this section, after the dates specified in paragraph (e) of this section, no certificate holder may operate an airplane to which this section applies unless the requirements of paragraphs (d)(1) and (2) of this section are met.

(1) IMM, FRM, or FIMM, if required by GACAR § 26.33, 26.35, or 26.37, that are GACA approved, are installed within the compliance times specified in paragraph (e) of this section.

(2) Except in accordance with GACAR § 125.223, the IMM, FRM, or FIMM, as applicable, are operational.

(e) *Compliance times.* The installations required by paragraph (d) of this section must be accomplished no later than the applicable dates specified in paragraph (e)(1), (2), or (3) of this section.

(1) Fifty percent of each certificate holder's fleet of airplanes subject to paragraph (d)(1) of this section must be modified no later than 26 December 2014.

(2) One hundred percent of each certificate holder's fleet of airplanes subject to paragraph (d)(1) of this section must be modified no later than 26 December 2017.

(3) For those certificate holders that have only one airplane of a model identified in Table 125–1 of this section, the airplane must be modified no later than 26 December 2017.

(f) *Compliance after installation.* Except in accordance with GACAR § 125.223, no certificate holder may—

(1) Operate an airplane on which IMM or FRM has been installed before the dates specified in paragraph (e) of this section unless the IMM or FRM is operational.

(2) Deactivate or remove an IMM or FRM once installed unless it is replaced by a means that complies with paragraph (d) of this section.

(g) *Inspection program revisions.* No certificate holder may operate an airplane for which airworthiness limitations have been approved by the FAA Oversight Office or the President in accordance with GACAR § 26.33, 26.35, or 26.37 after the airplane is modified in accordance with

paragraph (d) of this section unless the inspection program for that airplane is revised to include those applicable airworthiness limitations.

(h) After the inspection program is revised as required by paragraph (g) of this section, before returning an airplane to service after any alteration for which airworthiness limitations are required by GACAR § 25.981, 26.33, 26.35, or 26.37, the certificate holder must revise the inspection program for the airplane to include those airworthiness limitations.

(i) The inspection program changes identified in paragraphs (g) and (h) of this section must be submitted to the President for review and approval before incorporation.

(j) The requirements of paragraph (d) of this section do not apply to airplanes operated in all cargo service, but those airplanes are subject to paragraph (f) of this section.

(k) After the date by which any certificate holder is required by this section to modify 100 percent of the affected fleet, no certificate holder may operate in passenger service any airplane model specified in Table 125–2 of this section unless the airplane has been modified to comply with GACAR § 26.33(c).

Table 125–2.

Model – Boeing	Model – Airbus
737 Series	A300, A310 Series
747 Series	A318, A319, A320, A321 Series
757 Series	A330, A340 Series
767 Series	
777 Series	

(l) No certificate holder may operate any airplane on which an auxiliary fuel tank is installed after 26 December 2017, unless the President has certified the tank as compliant with GACAR § 25.981, in effect on 26 December 2008.

(m) *Exclusions*. The requirements of this section do not apply to the following airplane models:

(1) Convair CV–240, 340, 440, including turbine powered conversions;

(2) Douglas DC–3, including turbine powered conversions;

(3) BAC 1–11; and

(4) Illyushin Aviation IL 96T.

SUBPART I – INSTRUMENT AND EQUIPMENT REQUIREMENTS

§ 125.215 Applicability.

This subpart prescribes instrument and equipment requirements for all certificate holders. Associated "use of" rules for certain required equipment are specified in Subpart O of this part and GACAR Part 91.

§ 125.217 General.

(a) Unless otherwise specified, the instrument and equipment requirements of this subpart apply to all operations under this part.

(b) Except as otherwise noted in paragraph (d) of this section, instruments and equipment required by this subpart must be approved and installed in accordance with the airworthiness requirements applicable to them.

(c) Except as provided in GACAR § 125.223, no person may take off any aircraft unless the following instruments and equipment are in operable condition:

(1) Instruments and equipment required to comply with airworthiness requirements under which the aircraft is type certificated,

(2) Equipment required to comply with the additional airworthiness requirements of Subpart H of this part, and

(3) Instruments and equipment specified in this subpart and Subpart C of GACAR Part 91 for the kind of operation indicated, wherever these items are not already required by paragraph (c)(1) or (2) of this section.

(d) The following items are not required to have an equipment approval:

(1) Spare fuses,

(2) Flashlights,

(3) Accurate timepiece,

(4) Crash ax,

(5) Survival and pyrotechnic signaling equipment, and

(6) Sea anchors and equipment for mooring, anchoring, or maneuvering seaplanes and amphibians on water.

§ 125.219 Emergency Equipment: General.

Each item of required emergency and flotation equipment—

(a) Must be inspected regularly in accordance with inspection periods established in the certificate holder's approved aircraft inspection program to ensure its condition for continued serviceability and immediate readiness to perform its intended emergency purposes;

(b) Must be readily accessible to the crew and, with regard to equipment located in the passenger compartment, to passengers;

(c) Must be clearly identified and clearly marked to indicate its method of operation; and

(d) When carried in a compartment or container, must be carried in a compartment or container marked as to contents, and the compartment or container, or the item itself, must be marked as to date of last inspection.

§ 125.220 Emergency Medical Equipment.

(a) No person may operate a passenger-carrying aircraft under this part unless it is equipped with the emergency medical equipment that meets the specifications and requirements of GACAR § 125.221 and Subpart C of GACAR Part 91.

(b) Each equipment item required by this section—

(1) Must be inspected regularly under inspection periods established in the approved aircraft inspection program to ensure its condition for continued serviceability and immediate readiness to perform its intended emergency purposes;

(2) Must be readily accessible to the crew and, with regard to equipment located in the passenger compartment, to passengers;

(3) Must be clearly identified and clearly marked to indicate its method of operation; and

(4) When carried in a compartment or container, the compartment or container must be marked as to contents and the compartment or container, or the item itself, must be marked as to date of last inspection.

§ 125.221 Aircraft Instruments and Equipment.

(a) *General.* All instruments and items of equipment must be in operable condition and used in accordance with the applicable requirements in Subpart B of GACAR Part 91. If two or more kinds of operations require the same item of equipment, only one such item is required, unless stated otherwise. Except as provided in GACAR § 125.223, no person may operate an aircraft under this part unless it is equipped with—

(1) All of the instruments and equipment required for the kinds of operation of the intended flight in accordance with the applicable sections of Subparts C and D of GACAR Part 91; and

(2) All of the instruments and equipment required for the kinds of operation of the intended flight in accordance with the applicable kind of operation described in paragraphs (c) through (q) of this section.

(b) Instruments and equipment that have already been installed do not need to comply with a revised technical standard order, unless a retroactive requirement is prescribed in this subpart.

Para.	Kind of Operation	Required Instruments & Equipment
(c)	Operation of aircraft under IFR.	In addition to the required instruments and equipment for IFR flight provided in GACAR § 91.303(e)— (1) Two independent altitude measuring and display systems and (2) Airborne weather radar (for passenger-carrying operations only).

Para.	Kind of Operation	Required Instruments & Equipment
(d)	Operation of commuter category airplanes.	Pitot heat indicating system that provides an amber light that is in clear view of a flight crew member.The indication provided must be designed to alert the flight crew if either of the following conditions exist: (1) The pitot heating system is switched “off” or (2) The pitot heating system is switched “on” and any pitot tube heating element is inoperative.

Para.	Kind of Operation	Required Instruments & Equipment
(e)	Operation of turbojet airplanes.	Altitude alerting system to— (1) Alert the pilot upon approaching a preselected altitude in either ascent or descent, by a sequence of both aural and visual signals in sufficient time to establish level flight at that preselected altitude; (2) Alert the pilot upon approaching a preselected altitude in either ascent or descent, by a sequence of visual signals in sufficient time to establish level flight at that preselected altitude, and when deviating above and below that preselected altitude, by an aural signal; (3) Provide the required signals from sea level to the highest operating altitude approved for the airplane in which it is installed; (4) Preselect altitudes in increments that are commensurate with the altitudes at which the aircraft is operated; (5) Be tested without special equipment to determine proper operation of the alerting signals; and (6) Accept necessary barometric pressure settings if the system or device operates on barometric pressure.However, for operation below 3000 ft (900 m) AGL, the system or device need only provide one signal, either visual or aural, to comply with this paragraph.A radio altimeter may be included to provide the signal if the operator has an approved procedure for its use to determine decision altitude/decision height (DA/DH) or minimum descent altitude (MDA), as appropriate.

Para.	Kind of Operation	Required Instruments & Equipment
(f)	Operation of transport category airplanes.	(1) FDR–Type A4 in accordance with Section I(a) of Appendix C to GACAR Part 91, except that the following airplanes that were manufactured before 18 August 1997, need not comply with this requirement: (i) British Aerospace 1–11, (ii) General Dynamics Convair 580, (iii) General Dynamics Convair 600, (iv) General Dynamics Convair 640, (v) de Havilland Aircraft Company Ltd. DHC–7, (vi) Fairchild Industries FH 227, (vii) Fokker F–27 (except Mark 50), (viii) F–28 Mark 1000 and Mark 4000, (ix) Gulfstream Aerospace G–159, (x) Jetstream 4100 Series, (xi) Lockheed Aircraft Corporation Electra 10–A, (xii) Lockheed Aircraft Corporation Electra 10–B, (xiii) Lockheed Aircraft Corporation Electra 10–E, (xiv) Lockheed Aircraft Corporation L–188, (xv) Lockheed Martin Model 382 (L–100),

Para.	Kind of Operation	Required Instruments & Equipment
		(xvi) Maryland Air Industries, Inc. F27, (xvii) Mitsubishi Heavy Industries, Ltd. YS–11, (xviii) Short Bros. Limited SD3–30, and (xix) Short Bros. Limited SD3–60. (2) Except as provided in paragraph (f)(3) of this section, all aircraft must be equipped with at least one automatic Emergency Locator Transmitter (ELT) or two ELTs of any type in accordance with Section V of Appendix C to GACAR Part 91. (3) All aircraft for which the individual certificate of airworthiness is first issued after 1 July 2008, must be equipped with at least two ELTs, one of which must be automatic in accordance with Section V of Appendix C to GACAR Part 91. (4) Universal precaution kit in accordance with Appendix B to GACAR Part 91. (5) Crash ax. (6) Pitot heat indicating system that provides an amber light that is in clear view of a flight crew member.The indication provided must be designed to alert the flight crew if either of the following conditions exists: (i) The pitot heating system is switched “off”. (ii) The pitot heating system is switched “on” and

Para.	Kind of Operation	Required Instruments & Equipment
		any pitot tube heating element is inoperative. (7) Landing gear aural warning device that functions continuously under the following conditions: (i) For airplanes with an established approach wing flap position, whenever the wing flaps are extended beyond the maximum certificated approach climb configuration position in the AFM and the landing gear is not fully extended and locked. (ii) For airplanes without an established approach climb wing flap position, whenever the wing flaps are extended beyond the position at which landing gear extension is normally performed and the landing gear is not fully extended and locked. (iii) The landing gear aural warning system— (A) Must not have a manual shutoff. (B) Must be in addition to the throttle-actuated device installed under the type certification airworthiness requirements. (C) May use any part of the throttle-actuated system including the aural warning device. (D) May have the flap position sensing unit installed at any suitable place in the airplane. (8) Airborne weather radar (for passenger-carrying operations only).

Para.	Kind of Operation	Required Instruments & Equipment
(g)	Operation of large airplanes with a maximum take-off mass greater than 5700 kg.	(1) Airborne forward looking windshear warning system. (2) FDR–Type A3 for airplanes manufactured after 11 October 1991, and before 1 January 2005, unless already required to have a FDR–Type A4 in accordance with paragraph (f) of this section.FDR–Type A4 is required for airplanes manufactured on or after 1 January 2005.All FDR specifications must be in accordance with the applicable type in Section I(a) of Appendix C to GACAR Part 91. (3) Cockpit voice recorder (CVR) in accordance with Section I(b) of Appendix C to GACAR Part 91. (4) Terrain Awareness and Warning System (TAWS) in accordance with Section XII of Appendix C to GACAR Part 91. (5) An emergency power supply, independent of the main electrical generating system, for the purpose of operating and illuminating, for a minimum of 30 minutes, an attitude-indicating instrument (artificial horizon), clearly visible to the PIC.The emergency power supply must be automatically operative after the total failure of the main electrical generating system and clear indication must be given on the instrument panel that the attitude indicator(s) is being operated by emergency power.Those instruments used by any one pilot must be so arranged as to permit the pilot to see their indications readily from his station, with the minimum practicable deviation from the position and line of vision normally assumed when looking forward along the flight path.

Para.	Kind of Operation	Required Instruments & Equipment
(h)	Operation of large airplanes with a maximum take-off mass equal to or greater than 15 000 kg with 30 or more passenger seats installed.	Airborne Collision Avoidance System (ACAS II) in accordance with Section XI of Appendix C to GACAR Part 91.
(i)	Operation of airplanes with 31 to 60 passenger seats installed.	Two hand fire extinguishers that are conveniently located and uniformly distributed in the passenger compartment.At least one fire extinguisher in the passenger compartment must contain Halon 1211 or equivalent.
(j)	Operation of airplanes with 61 to 99 passenger seats installed.	(1) One portable battery-powered megaphone that meets FAA Technical Standard Order (TSO) C-137a at the most rearward location in the passenger compartment where it would be readily accessible to a normal cabin crew member seat. (2) Three hand fire extinguishers that are conveniently located and uniformly distributed in the passenger compartment.At least one fire extinguisher in the passenger compartment must contain Halon 1211 or equivalent.

Para.	Kind of Operation	Required Instruments & Equipment
(k)	Operation of airplanes with 100 to 200 passenger seats installed.	(1) Two portable battery-powered megaphones that meet FAA TSO C-137a, one installed at the forward end and the other at the most rearward location where it would be readily accessible to a normal cabin crew member seat. (2) Three hand fire extinguishers that are conveniently located and uniformly distributed in the passenger compartment.At least one fire extinguisher in the passenger compartment must contain Halon 1211 or equivalent. (3) Two first aid kits in accordance with Appendix B to GACAR Part 91.

Para.	Kind of Operation	Required Instruments & Equipment
(l)	Operation of airplanes with no fewer than 201 passenger seats installed.	(1) Three portable battery-powered megaphones that meet FAA TSO C-137a, one installed at the forward end, one installed at the most rearward location where it would be readily accessible to a normal cabin crew member seat, and one installed in a readily accessible location in the midsection of the airplane. (2) Four hand fire extinguishers in the passenger compartment and an additional hand fire extinguisher for each additional 100 passengers that meet the following: (i) The fire extinguishers must be conveniently located and uniformly distributed throughout the compartment. (ii) At least one fire extinguisher in the passenger compartment must contain Halon 1211 or equivalent. (3) Three first aid kits.For each additional 100 passengers above 299 an additional first aid kit must be provided in accordance with Appendix B to GACAR Part 91.
(m)	Operation of all airplanes equipped with Class E cargo compartments.	At least one hand fire extinguisher must be conveniently located for use in each Class E cargo compartment that is accessible to crew members during flight.

Para.	Kind of Operation	Required Instruments & Equipment
(n)	Operation of all aircraft equipped with galley compartments.	(1) At least one hand fire extinguisher must be conveniently located for use in each galley, located in a compartment other than a passenger, cargo, or crew compartment. (2) For those cases where a galley is located in a passenger compartment, at least one hand fire extinguisher must be conveniently located and easily accessible for use in the galley.
(o)	Operation of airplanes at or above 49 000 ft (14 950 m).	Equipment to measure and indicate continuously the dose rate of total cosmic radiation being received (that is, the total of ionizing and neutron radiation of galactic and solar origin) and the cumulative dose on each flight.The display unit of the equipment must be readily visible to a flight crew member.
(p)	Operation of transport category rotorcraft.	(1) For rotorcraft with a maximum take-off mass of equal to or less than 7000 kg, an FDR–Type R1 in accordance with Section I(a) of Appendix C to GACAR Part 91; or (2) For rotorcraft with a maximum take-off mass of greater than 7000 kg or equipped with 20 or more passenger seats, an FDR–Type R2 in accordance with Section I(a) of Appendix C to GACAR Part 91; or (3) For rotorcraft manufactured after 1 January 2016, FDR– Type R3 in accordance with Section I(a) of Appendix C to GACAR Part 91. (4) CVR in accordance with Section I(b) of Appendix C to GACAR Part 91.

Para.	Kind of Operation	Required Instruments & Equipment
(q)	Operation of aircraft in which a cabin crew member is required under GACAR § 125.339	(1) An approved emergency medical kit; and (2) For aircraft having a seating capacity of more than 30 passengers, an approved automated external defibrillator.

§ 125.223 Inoperable Instruments and Equipment.

No person may take off an aircraft with inoperable instruments or equipment installed unless the following conditions are met:

(a) An approved minimum equipment list (MEL) meeting the requirements of GACAR § 91.309 exists for that aircraft and the operations specifications authorize use of an approved MEL for an aircraft.

(b) Instruments and equipment required for specific operations by this part must not be included in the MEL.

(c) Notwithstanding paragraphs (a) and (b) of this section, an aircraft with inoperable instruments or equipment may be operated under a special flight permit under GACAR §§ 21.179 and 21.181.

§ 125.225 Communication and Navigation Equipment.

(a) No person may operate an aircraft unless it is equipped with the radio communication equipment prescribed in GACAR Part 91 for the intended flight.

(b) No person may operate an aircraft unless it is equipped with the navigation equipment prescribed in GACAR Part 91 for the intended flight and the en route navigation aids necessary for navigating the aircraft along the route (for example, Air Traffic Service routes, arrival and departure routes, and instrument approach procedures, including missed approach procedures if a missed approach routing is specified in the procedure) are available and suitable for use by the aircraft navigation systems required by this section.

(c) An operator must not employ electronic navigation data products that have been processed for application in the air and on the ground unless the operator has approved procedures for ensuring that the process applied and the products delivered have met acceptable standards of integrity and that the products are compatible with the intended function of the equipment that will use them. An operator must implement procedures that ensure the timely distribution and insertion of current and

unaltered electronic navigation data to all aircraft that require it.

§ 125.227 Passenger Information Requirements and Smoking Prohibitions.

(a) Except as provided in paragraph (g) of this section, no person may operate an aircraft unless it is equipped with passenger information signs that meet the requirements of GACAR § 25.791.

(b) Except as provided in paragraph (g) of this section, the “Fasten Seat Belt” sign must be turned on during any movement on the surface, for each takeoff, for each landing, and at any other time considered necessary by the PIC.

(c) No person may smoke while a “No Smoking” sign is lighted or while “No Smoking” placards are posted.

(d) No person may smoke in any aircraft lavatory.

(e) No person may tamper with, disable, or destroy any smoke detector installed in any aircraft lavatory.

(f) Each passenger must comply with instructions given to him by a crew member regarding compliance with this section.

(g) A certificate holder may operate a commuter category aircraft that is manufactured before 20 December 1997, or a rotorcraft, if it is equipped with at least one placard legible to each person seated in the cabin that states “Fasten Seat Belt,” and if, during any movement on the surface, for each takeoff, for each landing, and at any other time considered necessary by the PIC, a crew member orally instructs the passengers to fasten their safety belts.

§ 125.229 Flightdeck Check Procedure.

(a) Each certificate holder must provide an approved flightdeck check procedure for each type of aircraft.

(b) The approved procedures must include each item necessary for flight crew members to check for safety before starting engines, taking off, or landing, and in engine and systems emergencies. The procedures must be designed so that a flight crew member will not need to rely upon memory for items to be checked.

(c) The approved procedures must be readily usable in the flightdeck of each aircraft and the flight crew must follow them when operating the aircraft.

(d) The design and use of approved flightdeck check procedures must observe human factors principles.

SUBPART J – MAINTENANCE

§ 125.301 Applicability.

(a) This subpart prescribes rules, in addition to those prescribed in GACAR Parts 43 and 91, for the maintenance of aircraft, airframes, aircraft engines, propellers, appliances, each item of survival and emergency equipment, and their component parts operated under this part.

(b) Rules governing preventive maintenance and alterations for aircraft operated under this part are prescribed in GACAR Parts 43 and 91.

§ 125.303 Certificate Holder's Responsibilities.

(a) With regard to aircraft, including airframes, aircraft engines, propellers, appliances, and survival and emergency equipment, operated by a certificate holder, that certificate holder is primarily responsible for—

(1) Airworthiness;

(2) The scheduling and performance of maintenance, preventive maintenance, and alteration in accordance with applicable regulations and the certificate holder's manual;

(3) The scheduling and performance of inspections required by this part; and

(4) Ensuring that maintenance personnel make entries in the aircraft maintenance log and maintenance records which meet the requirements of GACAR Part 43 and the certificate holder's manual, and which indicate that the aircraft has been approved for return to service after maintenance, preventive maintenance, or alteration has been performed.

§ 125.305 Organization Required To Perform Maintenance, Preventive Maintenance, and Alteration.

The certificate holder must ensure that each person with whom it arranges for the performance of maintenance, preventive maintenance, alteration, or required inspection items identified in the certificate holder's manual in accordance with Section II, paragraph (c)(2) of Appendix A to this part must have an organization adequate to perform that work.

§ 125.307 Maintenance Required.

(a) No person may operate an aircraft subject to this part unless—

(1) The replacement times for life limited parts specified in the ICA produced in accordance with GACAR Part 21 are complied with;

(2) Defects disclosed between inspections, or as a result of inspection, have been corrected in accordance with GACAR Part 43; and

(3) The aircraft, including airframe, aircraft engines, propellers, appliances, survival and emergency equipment, and their component parts, is inspected in accordance with an aircraft inspection program approved by the President.

(b) No person may be used to perform the inspections required by this part unless that person is authorized to perform maintenance under GACAR Part 43.

(c) No person may operate an aircraft subject to this part unless the installed engines have been maintained in accordance with the overhaul periods specified in the aircraft inspection programs required by GACAR.

§ 125.309 Aircraft Inspection Programs.

(a) Each certificate holder must provide an aircraft inspection program approved by the President for each aircraft that includes at least the following:

(1) Instructions, procedures, and standards for the conduct of inspections for the particular make and model of aircraft, including necessary tests and checks. The instructions and procedures must set forth in detail the parts and areas of the airframe, aircraft engines, propellers, appliances, and survival and emergency equipment required to be inspected.

(2) A schedule for the performance of inspections that must be performed under the program, expressed in terms of the time in service, calendar time, number of system operations, or any combination of these.

(b) Aircraft inspection programs which may be approved for use under this part include, but are not limited to—

(1) A maintenance schedule which is a part of a current continuous airworthiness maintenance

program (CAMP) approved for use by a certificate holder under GACAR Part 121;

(2) Inspection programs currently recommended by the manufacturer of the aircraft, aircraft engines, propellers, appliances, or survival and emergency equipment; or

(3) An inspection program developed by a certificate holder under this part.

(c) Each certificate holder desiring to establish or change an aircraft inspection program must submit the program for approval to the President.

(d) Each aircraft inspection program must observe human factors principles.

(e) Each certificate holder must promptly furnish program amendments to all organizations or persons to which the program has been issued.

§ 125.313 Required Inspection Personnel.

(a) No certificate holder may use a person to perform required inspections unless that person is appropriately certificated, properly trained, qualified, and authorized.

(b) No person may perform a required inspection if that person performed the item of work requiring inspection.

SUBPART K – AIRMAN REQUIREMENTS AND QUALIFICATIONS

§ 125.333 Airman: Limitations on Use of Services.

(a) No certificate holder may use any person as an airman, nor may any person serve as an airman, unless that person—

(1) Holds an appropriate current airman certificate issued or accepted by the GACA.

(2) Has any required appropriate current airman and medical certificates in that person's possession while engaged in operations under this part.

(3) Meets the training and experience requirements of this part for the operation for which that person is to be used.

(b) Each airman covered by paragraph (a) of this section must present the certificates for inspection upon the request of the President.

(c) Each certificate holder of an aircraft equipped with ACAS II must ensure that each flight crew member has been appropriately trained to competency in the use of ACAS II equipment and the avoidance of collision.

§ 125.335 Composition of Flight Crew.

(a) No certificate holder may operate an aircraft with less than the minimum flight crew specified in the type certificate and the AFM approved for that type aircraft and required by this part for the kind of operation being conducted.

(b) A certificate holder must designate a qualified flight crew member for each position required by paragraph (a) of this section for each flight.

(c) In any case in which this part requires the performance of two or more functions for which an airman certificate is necessary, that requirement is not satisfied by the performance of multiple functions at the same time by one airman.

(d) On each aircraft requiring a flight engineer, at least one flight crew member, other than the flight engineer, must be qualified to provide emergency performance of the flight engineer's functions for

the safe completion of the flight if the flight engineer becomes ill or is otherwise incapacitated. A pilot need not hold a flight engineer's certificate to perform the flight engineer's functions in such a situation.

§ 125.337 Flight Engineer Requirements.

(a) No certificate holder may operate an airplane for which a flight engineer is required by the type certification requirements without a flight crew member holding a current flight engineer certificate.

(b) No person may serve as a required flight engineer on an airplane if that person had accumulated less than 50 hours of flight time as a flight engineer on that type airplane unless, within the preceding 6 months that person has been checked by the President or a company qualified check flight engineer in the FFS on that type airplane and determined that person is familiar and competent with all essential current information and normal, abnormal and emergency procedures.

§ 125.339 Cabin Crew Members.

(a) Each certificate holder must provide at least the following cabin crew members on each passenger carrying airplane used:

(1) For airplanes having a seating capacity of more than 19 but fewer than 51 passengers—1 cabin crew member,

(2) For airplanes having a seating capacity of more than 50 but fewer than 101 passengers—2 cabin crew members,

(3) For airplanes having a seating capacity of more than 100 passengers—2 cabin crew members plus 1 additional cabin crew member for each unit (or part of a unit) of 50 passenger seats above a seating capacity of 100 passengers.

(b) If, in conducting the emergency evacuation demonstration required under GACAR § 125.189(a), the certificate holder used more cabin crew members than required under paragraph (a) of this section for the maximum seating capacity of the airplane used in the demonstration, it may not, thereafter, take off that airplane—

(1) In its maximum seating capacity configuration with fewer cabin crew members than the number used during the emergency evacuation demonstration or

(2) In any reduced seating capacity configuration with fewer cabin crew members than the number required by paragraph (a) of this section for that seating capacity plus the number of cabin crew members used during the emergency evacuation demonstration that were in excess of those required under paragraph (a) of this section.

(c) The number of cabin crew members approved under paragraph (a) of this section is set forth in the certificate holder's operations specifications.

(d) During takeoff and landing and when instructed by the PIC, cabin crew members required by this section must be located as near as practicable to required floor level exits and must be uniformly distributed throughout the airplane in order to provide the most effective egress of passengers in event of an emergency evacuation. During taxiing, takeoff, landing and when instructed by the PIC, cabin crew members required by this section must remain at their duty stations with safety belts and shoulder harnesses fastened except to perform duties related to the safety of the airplane and its occupants.

§ 125.341 Emergency and Emergency Evacuation Duties.

(a) Each certificate holder must, for each type and model of aircraft, assign to each category of required crew member, as appropriate, the necessary functions to be performed in an emergency or a situation requiring emergency evacuation. The certificate holder must show those functions are realistic, can be practically accomplished, and will meet any reasonably anticipated emergency, including the possible incapacitation of individual crew members or their inability to reach the passenger compartment because of shifting cargo in combination cargo/passenger aircraft.

(b) The certificate holder must describe in its manual the functions of each category of required crew members under paragraph (a) of this section.

§ 125.343 Pilot in Command Qualifications.

No certificate holder may use any person, nor may any person serve, as PIC of an aircraft unless that person—

(a) Holds at least a commercial pilot certificate; an appropriate category, class, and type rating; and an instrument rating.

(b) Has had at least 1200 hours of flight time as a pilot, including 500 hours of cross country flight time; 100 hours of night flight time, including at least 10 night takeoffs and landings; and 75 hours

of actual or simulated instrument flight time, at least 50 hours of which were actual flight.

§ 125.345 Second in Command Qualifications.

No certificate holder may use any person, nor may any person serve, as second in command (SIC) of an aircraft unless that person complies with the applicable sections of GACAR Part 61 for the operations being conducted and—

(a) Holds at least a commercial pilot certificate with appropriate category, class and type ratings, and an instrument rating; and

(b) For flight under IFR, meets the recent instrument experience requirements prescribed for a PIC in GACAR § 61.17.

§ 125.347 Pilot Qualifications: Recent Experience.

(a) No certificate holder may use any person, nor may any person serve, as a required pilot unless within the preceding 90 days that person has made at least three takeoffs and landings in the type aircraft in which that person is to serve. The takeoffs and landings required by this paragraph may be performed in a flight simulator if the flight simulator is qualified and approved by the President for such purpose.

(b) A required pilot who has not met the requirements of paragraph (a) of this section may reestablish recency of experience by making at least three takeoffs and landings under the supervision of an authorized check pilot, in accordance with the following:

(1) At least one takeoff must be made with a simulated failure of the most critical powerplant.

(2) At least one landing must be made from an ILS approach to the lowest ILS minimums authorized for the certificate holder.

(3) At least one landing must be made to a complete stop.

(c) A required pilot who performs the maneuvers required by paragraph (b) of this section in a qualified and approved flight simulator, as prescribed in paragraph (a) of this section, must—

(1) Have previously logged 100 hours of flight time in the same type aircraft in which the pilot is to serve.

(2) Be observed on the first two landings made in operations under this part by an authorized check pilot who acts as PIC and occupies a pilot seat. The landings must be made in weather minimums that are not less than those contained in the certificate holder's operations specifications for Category I operations and must be made within 45 days following completion of simulator testing.

(d) An authorized check pilot who observes the takeoffs and landings prescribed in paragraphs (b) and (c)(2) of this section must certify that the person being observed is proficient and qualified to perform flight duty in operations under this part, and may require any additional maneuvers determined necessary to make this certifying statement.

§ 125.349 Initial and Recurrent Pilot Testing Requirements.

(a) No certificate holder may use any person, nor may any person serve, as a pilot unless, since the beginning of the 12th month before that service, that person has passed a written or oral test, given by a GACA inspector or an authorized check pilot, on that person's knowledge in the following areas:

(1) The appropriate provisions of GACAR Parts 61, 91, 109, and 125 and the operations specifications and manual of the certificate holder;

(2) For each type of aircraft to be flown by the pilot, the aircraft powerplant, major components and systems, major appliances, performance and operating limitations, standard and emergency operating procedures, and contents of the approved AFM or approved equivalent, as applicable;

(3) For each type of aircraft to be flown by the pilot, the method of determining compliance with mass and balance limitations for takeoff, landing, and en route operations;

(4) Navigation and use of air navigation aids appropriate to the operation of pilot authorization, including instrument approach facilities and procedures when applicable;

(5) ATC procedures, including IFR procedures when applicable;

(6) Meteorology in general, including the principles of frontal systems, icing, fog, thunderstorms, and wind shear, and, if appropriate for the operation of the certificate holder, high altitude weather;

(7) Procedures for avoiding operations in thunderstorms and hail, and for operating in turbulent air or icing conditions;

(8) New equipment, procedures, or techniques, as appropriate;

(9) Knowledge and procedures for operating during ground icing conditions (any time conditions are such that frost, ice, or snow may reasonably be expected to adhere to the airplane), if the certificate holder expects to authorize takeoffs in ground icing conditions, including—

(i) The use of holdover times when using deicing/anti icing fluids;

(ii) Aircraft deicing/anti icing procedures, including inspection and check procedures and responsibilities;

(iii) Communications;

(iv) Aircraft surface contamination (adherence of frost, ice, or snow) and critical area identification, and knowledge of how contamination adversely affects airplane performance and flight characteristics;

(v) Types and characteristics of deicing/anti icing fluids, if used by the certificate holder;

(vi) Cold weather preflight inspection procedures; and

(vii) Techniques for recognizing contamination on the aircraft.

(b) No certificate holder may use any person, nor may any person serve, as a pilot in any aircraft unless, since the beginning of the 12th month before that service, that person has passed a competency check given by a GACA inspector or an authorized check pilot in that type of aircraft to determine that person’s competence in practical skills and techniques in that aircraft or type of aircraft. The extent of the competency check must be determined by the GACA inspector or authorized check pilot conducting the competency check. The competency check may include any of the maneuvers and procedures currently required for the original issuance of the particular pilot certificate required for the operations authorized and appropriate to the category, class, and type of aircraft involved. For the purposes of this paragraph, type, as to an aircraft, means any one of a group of aircraft determined by the President to have a similar means of propulsion, the same manufacturer,

and no significantly different handling or flight characteristics.

(c) The instrument proficiency check required by GACAR § 125.353 may be substituted for the competency check required by this section for the type of aircraft used in the check.

(d) For the purposes of this part, competent performance of a procedure or maneuver by a person to be used as a pilot requires that the pilot be the obvious master of the aircraft with the successful outcome of the maneuver never in doubt.

(e) The GACA inspector or authorized check pilot certifies the competency of each pilot who passes the knowledge or flight check in the certificate holder's pilot records.

(f) Portions of a required competency check may be given in an aircraft simulator or other appropriate training device, if approved by the President.

§ 125.351 Initial and Recurrent Cabin Crew Member Testing Requirements.

No certificate holder may use any person, nor may any person serve, as a cabin crew member unless, since the beginning of the 12th month before that service, the certificate holder has determined by appropriate initial and recurrent testing that the person is knowledgeable and competent in the following areas, as appropriate to assigned duties and responsibilities:

(a) Authority of the PIC;

(b) Passenger handling, including procedures to be followed in handling deranged persons or other persons whose conduct might jeopardize safety;

(c) Crew member assignments, functions, and responsibilities during ditching and evacuation of persons who may need the assistance of another person to move expeditiously to an exit in an emergency;

(d) Briefing of passengers;

(e) Location and operation of portable fire extinguishers and other items of emergency equipment;

(f) Proper use of cabin equipment and controls;

(g) Location and operation of passenger oxygen equipment;

(h) Location and operation of all normal and emergency exits, including evacuation chutes and escape ropes;

(i) Seating of persons who may need the assistance of another person to move rapidly to an exit in an emergency, as prescribed by the certificate holder's operations manual; and

(j) Knowledge and skills related to human factors.

§ 125.353 Pilot in Command: Instrument Proficiency Check Requirements.

(a) No certificate holder may use any person, nor may any person serve, as PIC of an aircraft under IFR unless, since the beginning of the 6th month before that service, that person has passed an instrument proficiency check and a GACA inspector or an authorized check pilot has so certified in a letter of competency.

(b) No pilot may use any type of precision instrument approach procedure under IFR unless, since the beginning of the 6th month before that use, the pilot has satisfactorily demonstrated that type of approach procedure and been issued a letter of competency under paragraph (g) of this section. No pilot may use any type of nonprecision approach procedure under IFR unless, since the beginning of the 6th month before that use, the pilot has satisfactorily demonstrated either that type of approach procedure or any other two different types of nonprecision approach procedures and has been issued a letter of competency under paragraph (g) of this section. The instrument approach procedure or procedures must include at least one straight in approach, one circling approach, and one missed approach. Each type of approach procedure demonstrated must be conducted to published minimums for that procedure.

(c) The instrument proficiency check required by paragraph (a) of this section consists of an oral or written equipment test and a flight check under simulated or actual IFR conditions. The equipment test includes questions on emergency procedures, engine operation, fuel and lubrication systems, power settings, stall speeds, best engine out speed, propeller and supercharge operations, and hydraulic, mechanical, and electrical systems, as appropriate. The flight check includes navigation by instruments, recovery from simulated emergencies, and standard instrument approaches involving navigational facilities which that pilot is to be authorized to use.

(1) For a PIC of an aircraft, the instrument proficiency check must include the procedures and maneuvers for a commercial pilot certificate with an instrument rating and, if required, for the appropriate type rating.

(2) The instrument proficiency check must be given by a GACA inspector or an authorized check pilot.

(d) If the PIC is assigned to pilot only one type of aircraft, that pilot must take the instrument proficiency check required by paragraph (a) of this section in that type of aircraft.

(e) If the PIC is assigned to pilot more than one type of aircraft, that pilot must take the instrument proficiency check required by paragraph (a) of this section in each type of aircraft to which that pilot is assigned, in rotation, but not more than one flight check during each period described in paragraph (a) of this section.

(f) Portions of a required flight check may be given in an aircraft simulator or other appropriate training device, if approved by the President.

(g) The GACA inspector or authorized check pilot issues a letter of competency to each pilot who passes the instrument proficiency check. The letter of competency contains a list of the types of instrument approach procedures and facilities authorized.

§ 125.355 Crew Member: Tests and Checks, Grace Provisions, Accepted Standards.

(a) If a crew member who is required to take a test or flight check under this part completes the test or flight check in the month before or after the month in which it is required, that crew member is considered to have completed the test or check in the month in which it is required.

(b) If a pilot being checked under this subpart fails any of the required maneuvers, the person giving the check may give additional training to the pilot during the course of the check. In addition to repeating the maneuvers failed, the person giving the check may require the pilot to repeat any other maneuvers necessary to determine the pilot’s proficiency. If the pilot is unable to demonstrate satisfactory performance to the person conducting the check, the certificate holder may not use the pilot, nor may the pilot serve, in the capacity for which the pilot is being checked in operations under this part until the pilot has satisfactorily completed the check.

§ 125.357 Check Pilot Authorization: Application and Issue.

Each certificate holder desiring approval of a check pilot must submit a request in writing to the President. The President may issue a letter of authority to each check pilot if that airman passes the appropriate oral and flight tests. The letter of authority lists the tests and checks in this part that the

check pilot is qualified to give, and the category, class, and type aircraft, where appropriate, for which the check pilot is qualified.

SUBPART L – TRAINING PROGRAMS

§ 125.377 Training Program: General.

(a) Each certificate holder must—

(1) Establish and implement a training program that ensures each crew member, flight instructor, check pilot and person authorized by the certificate holder to conduct operational control is adequately trained to perform his assigned duties and to understand the relationship of these duties to the operation as a whole. Before implementation, the certificate holder must obtain approval of the training program.

(2) Provide adequate ground and flight training facilities and properly qualified ground instructors for the training required by this subpart.

(3) Provide and keep current with respect to each aircraft type and, if applicable, the particular variations within that aircraft type, appropriate training material, examinations, forms, instructions, and procedures for use in conducting the training and checks required by this part.

(4) Provide enough flight instructors, simulator instructors, and approved check pilots to conduct required flight training, flight checks, and simulator training courses permitted under this part.

(b) A certificate holder may meet the requirements of paragraph (a) of this section for flight crew members by using the approved curriculum, facilities, courseware, and personnel of a training center as provided in GACAR § 125.379 and for cabin crew members and aircraft dispatchers by using the approved curriculum, facilities, courseware, and personnel of a school certificated under GACAR Part 143.

(c) Whenever a crew member or aircraft dispatcher takes a required flight check, competence check, or recurrent training in the month before or after the month in which that training or check is required, he is considered to have taken or completed it in the month in which it was required.

(d) The certificate holder must have a system approved by the President for documenting and retaining records of all required training.

(e) Training subjects applicable to more than one aircraft or crew member position and that have been satisfactorily completed in connection with prior training for another aircraft or another crew member position, need not be repeated during subsequent training other than recurrent training.

(f) Training programs approved under this part must include knowledge and skills related to human factors.

§ 125.379 Training Program: Special Rules.

(a) Other than the certificate holder, only a training center certificated under GACAR Part 142, or foreign training centers approved by an International Civil Aviation Organization (ICAO) Contracting State and approved by the President, are eligible under this subpart to provide flight training, testing, and checking under contract or other arrangement to those persons subject to the requirements of this subpart.

(b) A certificate holder may contract with, or arrange to use the services of, a training center certificated under GACAR Part 142, or foreign training centers approved by an ICAO Contracting State that are approved by the President, to provide training, testing, and checking to meet the requirements of GACAR § 125.377(a) if the training center—

(1)Holds applicable training specifications issued under GACAR Part 142 or an equivalent issued by an ICAO Contracting State that is acceptable to the President.

(2) Has facilities, training equipment, and courseware meeting the applicable requirements of GACAR Part 142 or equivalent requirements for foreign training centers that are acceptable to the President.

(3) Has approved curriculums, curriculum segments, and portions of curriculum segments applicable for use in training courses required by this subpart.

(4) Has sufficient instructor and check pilots to provide training, testing, and checking to persons subject to the requirements of this subpart.

(c) A crew member who has successfully completed training, testing, or checking in accordance with paragraph (b) of this section is considered to have met the applicable requirements of GACAR § 125.377(a).

§ 125.381 Training Program: Curriculum.

(a) Each certificate holder must keep current a written training program curriculum for each type of aircraft and crew member. The curriculum must include ground and flight training required by this subpart.

(b) Each training program curriculum must include—

(1) A list of principal ground training subjects including skills related to human performance;

(2) Emergency training and drills including—

(i) Use of emergency equipment,

(ii) Emergency evacuation training and drills,

(iii) Crew member emergency duties.

(3) A list of all the training devices, mock ups, systems trainers, procedures trainers, or other training aids the certificate holder will use;

(4) Detailed descriptions or pictorial displays of the approved normal, abnormal, and emergency maneuvers, procedures, and functions to be performed during each flight training phase or flight check, indicating those maneuvers, procedures, and functions to be performed during the in–flight portions of flight training and flight checks;

(5) A list of aircraft simulators or other training devices approved under GACAR § 125.383, including approvals for particular maneuvers, procedures, or functions; and

(6) A list of training centers used under GACAR § 125.379.

§ 125.383 Approval of Flight Simulators and Flight Training Devices.

(a) Flight simulators and flight training devices approved by the President in accordance with GACAR Part 60 may be used in training, testing, and checking required by this subpart.

(b) Each flight simulator and flight training device used in training, testing, and checking required under this subpart must be used in accordance with an approved training course conducted by a training center certificated under GACAR Part 142 or a foreign training center approved by an ICAO contracting state and must be acceptable to the President, or meet the following requirements:

(1) It must be specifically approved for—

(i) The certificate holder,

(ii) The type aircraft and, if applicable, the particular variation within type for which the check is being conducted, and

(iii) The particular maneuver, procedure, or crew member function involved.

(2) It must maintain the performance, functional, and other characteristics that are required for approval.

(3) It must be modified to conform with any modification to the aircraft being simulated that changes the performance, functional, or other characteristics required for approval.

SUBPART M – AIRCRAFT DISPATCHER REQUIREMENTS

§ 125.403 General.

(a) Certificate holders are not required to use dispatchers under this part.

(b) A certificate holder may choose to use dispatchers, provided it includes dispatcher duties, responsibilities, and training requirements in its manual and receives approval by the President.

(c) The training required by paragraph (b) of this section must meet the requirements of GACAR § 125.377 and include Human Factors training.

SUBPART N – FATIGUE MANAGEMENT REQUIREMENTS

§ 125.421 Applicability.

(a) This subpart prescribes requirements for the management of fatigue, and the method of compliance must be included in the manual required by GACAR § 125.77.

(b) A certificate holder has the option to either—

(1) Comply with the prescriptive duty period and flight time limits and rest period requirements prescribed in GACAR § 125.423; or

(2) Implement a comprehensive fatigue risk management system (FRMS) that provides an equivalent level of safety to the duty period limitations. Each FRMS must comply with all applicable requirements for an FRMS as prescribed in GACAR Part 5 and must be approved by the President.

§ 125.423 Duty Period and Flight Time Limits and Rest Period Requirements.

(a) A certificate holder may assign a flight crew member and a flight crew member may accept an assignment for flight time only when the applicable requirements of paragraph (d) through (f) of this section are met.

(b) No certificate holder may assign any flight crew member to any duty with the certificate holder during any required rest period.

(c) Time spent in transportation, not local in character, that a certificate holder requires of a flight crew member and provides to transport the crew member to an aerodrome at which he is to serve on a flight as a crew member, or from an aerodrome at which he was relieved from duty to return to his home station, is not considered part of a rest period.

(d) *Single Crew.*

(1) Maximum duty period is 14 hours.

(2) Maximum flight time is 10 hours.

(3) Minimum rest period following duty period is 9 hours.

(4) Duty period may be exceeded beyond the planned 14 hour limit for reasons beyond the control of the certificate holder or the flight crew such as passenger, technical, weather, ATC, etc. provided:

(i) The additional duty period does not exceed 2 hours. The flight crew must not depart knowing that they will likely exceed a 16 hour duty period.

(ii) The 9 hour rest period must be increased by 1 hour for every hour, or part of the hour, exceeding the 14 hour duty period.

(e) *Three-Pilot Crew (2 Qualified PICs and 1 SIC).*

(1) Maximum duty period is 18 hours.

(2) Maximum flight time is 16 hours.

(3) Minimum rest period is 12 hours.

(4) Duty period may be exceeded beyond the planned 18 hour limit for reasons beyond the control of the certificate holder or the flight crew such as passenger, technical, weather, ATC, etc. provided:

(i) The additional duty period does not exceed 2 hours. The flight crew must not depart knowing that they will likely exceed a 20 hour duty period.

(ii) The 12 hour rest period must be increased by 1 hour for every hour, or part of the hour, exceeding the 18 hour duty period.

(f) *Four-Pilot Crew (2 Qualified PICs and 2 SICs).*

(1) Maximum duty period is 24 duty hours.

(2) Maximum flight time is 20 hours.

(3) Minimum rest period is 14 hours.

(4) Duty time may be exceeded beyond the planned 24 hours for reasons beyond the control of the certificate holder or the flight crew such as passenger, technical, weather, ATC, etc. provided:

(i) The additional duty period does not exceed 2 hours. The flight crew must not depart knowing that they will likely exceed a 26 hour duty period.

(ii) The 14 hour rest period must be increased by 1 hour for every hour, or part of the hour, exceeding the 24 hour duty period.

SUBPART O – FLIGHT OPERATIONS

§ 125.445 Applicability.

This subpart prescribes requirements for flight operations applicable to all certificate holders, except where otherwise specified. Additional flight operations rules applicable to certificate holders and their flight operations personnel are specified in GACAR Part 91.

§ 125.447 Flight Crew Members at Controls.

(a) Except as provided in paragraph (b) of this section, each required flight crew member on flightdeck duty must remain at the assigned duty station with seatbelt fastened while the aircraft is taking off or landing and while it is en route.

(b) A required flight crew member may leave the assigned duty station—

(1) If the flight crew member's absence is necessary for the performance of duties in connection with the operation of the aircraft,

(2) If the flight crew member's absence is in connection with physiological needs, or

(3) If the flight crew member is taking a rest period and relief is provided—

(i) In the case of the assigned PIC, by a pilot qualified to act as PIC.

(ii) In the case of the assigned SIC, by a pilot qualified to act as SIC of that aircraft during en route operations. However, the relief pilot need not meet the recent experience requirements of GACAR § 125.347.

§ 125.449 Manipulation of Controls When Carrying Passengers.

(a) No PIC may allow any person to manipulate the controls of an aircraft while carrying passengers during flight, nor may any person manipulate the controls while carrying passengers during flight, unless that person is a qualified pilot of the certificate holder operating that aircraft.

(b) No person may allow any emergency or abnormal situation to be simulated on an aircraft carrying passengers.

§ 125.451 Admission to Flightdeck.

(a) No person may admit any person to the flightdeck of an aircraft unless the person being admitted is—

(1) A crew member,

(2) A GACA inspector or an authorized representative of the Saudi Arabia Aviation Investigation Board (AIB) who is performing official duties, or

(3) Any person who has the permission of the PIC.

(b) No person may admit any person to the flightdeck unless there is a seat available for the use of that person in the passenger compartment, except—

(1) A GACA inspector or an authorized representative of the President or the AIB who is checking or observing flight operations, or

(2) A certificated airman employed by the certificate holder whose duties require an airman certificate.

§ 125.453 Inspector's Credentials: Admission to the Flightdeck: Forward Observer's Seat.

(a) Whenever, in performing the duties of conducting an inspection, a GACA inspector presents an official credential to the PIC of an aircraft operated by the certificate holder, the inspector must be given free and uninterrupted access to the flightdeck of that aircraft. However, this paragraph does not limit the emergency authority of the PIC to exclude any person from the flightdeck in the interest of safety.

(b) A forward observer's seat on the flightdeck, or forward passenger seat with headset or speaker, must be provided for use by the GACA inspector while conducting en route inspections. The suitability of the location of the seat and the headset or speaker for use in conducting en route inspections is determined by the President.

§ 125.455 Emergencies.

(a) In an emergency situation that requires immediate decision and action, the PIC may take any action considered necessary under the circumstances. In such a case, the PIC may deviate from prescribed operations, procedures and methods, weather minimums, and GACAR, to the extent required in the interest of safety.

(b) In an emergency situation arising during flight that requires immediate decision and action by appropriate management personnel in the case of operations conducted with a flight following service and which is known to them, those personnel must advise the PIC of the emergency, ascertain the decision of the PIC, and have the decision recorded. If they cannot communicate with the pilot, they must declare an emergency and take any action they consider necessary under the circumstances.

(c) Whenever emergency authority is exercised, the PIC or appropriate management personnel must keep the appropriate ground radio station fully informed of the flight's progress. The person declaring the emergency must send a written report of any deviation, through the certificate holder's director of operations, to the President within 10 working days after the flight is completed or, in the case of operations outside the Kingdom of Saudi Arabia, upon return to the home base.

§ 125.457 Reporting Mechanical Irregularities.

The PIC must ensure that all mechanical irregularities occurring during flight are entered in the maintenance log of the aircraft at the next place of landing. Before each flight, the PIC must ascertain the status of each irregularity entered in the log at the end of the preceding flight.

§ 125.459 Instrument Approach Procedures and IFR Landing Minimums.

No person may make an instrument approach at an aerodrome except in accordance with IFR weather minimums and unless the type of instrument approach procedure to be used is listed in the certificate holder's operations specifications.

§ 125.461 Briefing of Passengers.

(a) Before each takeoff and at other times necessary to ensure the safety of passengers, the PIC must ensure all passengers have been orally briefed in accordance with the requirements of GACAR § 91.45.

(b) Before each takeoff, the PIC must ensure that each person who may need the assistance of another person to move expeditiously to an exit if an emergency occurs and that person's attendant, if any, has received a briefing as to the procedures to be followed if an evacuation occurs. This paragraph does not apply to a person who has been given a briefing before a previous leg of a flight in the same aircraft.

(c) The certificate holder must describe in its manual the procedure to be followed in the briefing required by paragraph (a) of this section.

(d) The oral briefing required by paragraph (a) may be delivered by means of an approved recording playback device that is audible to each passenger under normal noise levels.

§ 125.463 Carriage of Persons Without Compliance With the Passenger Carrying Provisions of This Part.

The following persons may be carried aboard an aircraft without complying with the passenger carrying requirements of this part:

(a) A crew member,

(b) A person necessary for the safe handling of animals on the aircraft,

(c) A person necessary for the safe handling of dangerous goods,

(d) A person performing duty as a security or honor guard accompanying a shipment made by or under the authority of the KSA Government,

(e) A military courier or a military route supervisor carried by a military cargo contract operator, if that carriage is specifically authorized by the appropriate military service,

(f) An authorized representative of the President conducting an en route inspection, and

(g) A person authorized by the President.

§ 125.465 Icing Conditions: Operating Limitations.

(a) No pilot may take off an aircraft that has frost, ice, or snow adhering to any propeller, windshield, stabilizing, or control surface; powerplant installation; airspeed, altimeter, rate of climb, or flight attitude instrument system; or wing, except that takeoffs may be made with frost under the wing in the area of the fuel tanks if authorized by the President.

(b) No pilot may take off and no certificate holder may authorize an aircraft to take off after operating in suspected or known ground icing conditions or any time conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft unless the pilot has completed the testing required under GACAR § 125.349(a)(9) and unless one of the following requirements is met:

(1) A pre-takeoff contamination check, that has been established by the certificate holder and

approved by the President for the specific aircraft type, has been completed within 5 minutes before takeoff. A pre-takeoff contamination check is a check to make sure the wings and control surfaces are free of frost, ice, or snow.

(2) The certificate holder has an approved alternative procedure, and under that procedure the aircraft is determined to be free of frost, ice, or snow.

(3) The certificate holder has an approved deicing/anti-icing program that complies with GACAR § 121.1217, and the takeoff complies with that program.

(c) No pilot may fly under IFR into known or forecast light or moderate icing conditions, or under VFR into known light or moderate icing conditions, unless the aircraft has been certified under GACAR Part 25 or meets the requirements of paragraph (e) of this section.

(d) If current weather reports and briefing information relied upon by the PIC indicate the forecast icing condition that would otherwise prohibit the flight will not be encountered during the flight because of changed weather conditions since the forecast, the restrictions in paragraphs (b) and (c) of this section based on forecast conditions do not apply.

(e) If certification with ice protection provisions is desired, compliance with the following must be shown:

(1) The recommended procedures for the use of the ice protection equipment must be set forth in the AFM.

(2) An analysis must be performed to establish, on the basis of the aircraft's operational needs, the adequacy of the ice protection system for the various components of the aircraft. In addition, tests of the ice protection system must be conducted to demonstrate that the aircraft is capable of operating safely in continuous maximum and intermittent maximum icing conditions as described in Appendix C to GACAR Part 25.

(3) Compliance with all or portions of this section may be accomplished by reference, where applicable because of design similarity, to analyses and tests performed by the applicant for a type certificated model.

§ 125.467 Flight Locating Requirements.

(a) Each certificate holder must have procedures established for locating each flight for which a flight plan is not filed that—

(1) Provide the certificate holder with at least the information required to be included in a VFR flight plan.

(2) Provide for timely notification of an ATC facility or search and rescue facility, if an aircraft is overdue or missing.

(3) Provide the certificate holder with the location, date, and estimated time for reestablishing radio or telephone communications, if the flight will operate in an area where communications cannot be maintained.

(b) Flight locating information must be retained at the certificate holder's principal operations base, or at other places designated by the certificate holder in the flight locating procedures, until the completion of the flight.

(c) Each certificate holder must furnish the President with a copy of its flight locating procedures and any changes or additions, unless those procedures are included in a manual required under this part.

§ 125.469 Refueling With Passengers on Board.

While refueling with passengers enplaning, on board, or deplaning, the certificate holder must meet the following requirements:

(a) On each aircraft for which a cabin crew member is not required by GACAR § 125.339, the certificate holder must ensure that a person who is qualified in the emergency evacuation procedures for the aircraft, as required in GACAR § 125.341, and who is identified to the passengers, remains—

(1) On board the aircraft or

(2) Nearby the aircraft, in a position to adequately monitor passenger safety, and—

(i) The aircraft engines are shut down and

(ii) At least one floor level exit remains open to provide for the deplaning of passengers.

(b) On each aircraft for which cabin crew members are required by GACAR § 125.339, but the number

of cabin crew members remaining on board is fewer than required by GACAR § 125.339, the certificate holder must meet the following requirements:

(1) The certificate holder must ensure that—

(i) The aircraft engines are shut down;

(ii) At least one floor level exit remains open to provide for the deplaning of passengers; and

(iii) The number of cabin crew members on board is at least half the number required by GACAR § 125.339, rounded down to the next lower number in the case of fractions, but never fewer than one.

(2) The certificate holder may substitute for the required cabin crew members other persons qualified in the emergency evacuation procedures for that aircraft as required in GACAR § 125.341, if these persons are identified to the passengers.

(3) If only one cabin crew member or other qualified person is on board during a stop, that cabin crew member or other qualified person must be located in accordance with the certificate holder's approved operating procedures. If more than one cabin crew member or other qualified person is on board, the cabin crew members or other qualified persons must be spaced throughout the cabin to provide the most effective assistance for the evacuation in case of an emergency.

(c) Two-way communication must be maintained between the ground crew supervising the fueling and the qualified person on board. The communication may be through the aircraft interphone system, direct communication, or other means authorized by the President.

SUBPART P – FLIGHT RELEASE RULES

§ 125.487 Flight Release: General.

(a) No person may start a flight unless the PIC or the person authorized by the certificate holder to exercise operational control over the flight has executed a flight release setting forth the conditions under which the flight will be conducted. The PIC may sign the flight release only when both the PIC and the person authorized to exercise operational control believe the flight can be made safely, unless the PIC is authorized by the certificate holder to exercise operational control and execute the flight release without the approval of any other person.

(b) No person may continue a flight from an intermediate aerodrome without a new flight release if the aircraft has been on the ground more than 6 hours.

(c) No person may release an aircraft for flight unless the information required by GACAR § 91.43 is made available to the PIC.

§ 125.489 Aircraft Equipment.

No person may release an aircraft unless it is airworthy and is equipped as prescribed in GACAR Part 91 and this part.

§ 125.491 Communication and Navigation Facilities.

No person may release an aircraft over any route or route segment unless communication and navigation facilities equal to those required by GACAR §§ 125.51 and 125.55 are in satisfactory operating condition.

§ 125.493 Facilities and Services.

During a flight, the PIC must obtain any additional available information of meteorological conditions and irregularities of facilities and services that may affect the safety of the flight.

§ 125.495 Flight Release Under VFR.

No person may release an aircraft for VFR operation unless the ceiling and visibility en route, as indicated by available weather reports and forecasts are and will remain at or above applicable VFR minimums until the aircraft arrives at the aerodrome or aerodromes specified in the flight release.

§ 125.497 Flight Release Under IFR or Over the Top.

Except as provided in GACAR § 125.499, no person may release an aircraft for operations under IFR or over the top unless appropriate weather reports or forecasts, or any combination thereof, indicate the weather conditions will be at or above the authorized minimums at the estimated time of arrival at the aerodrome or aerodromes to which released.

§ 125.499 Flight Release Over Water.

(a) No person may release an aircraft for a flight that involves extended over water operation unless appropriate weather reports or forecasts, or any combination thereof, indicate that the weather conditions will be at or above the authorized minimums at the estimated time of arrival at any aerodrome to which released or any required alternate aerodrome.

(b) Each certificate holder must conduct extended over water operations under IFR unless it shows that operating under IFR is not necessary for safety.

(c) Each certificate holder must conduct other over water operations under IFR if the President determines that operation under IFR is necessary for safety.

(d) Each authorization to conduct extended over water operations under VFR and each requirement to conduct other over water operations under IFR will be specified in the operations specifications.

§ 125.501 Alternate Aerodrome for Departure.

(a) If the weather conditions at the aerodrome of takeoff are below the landing minimums in the certificate holder’s operations specifications for that aerodrome, no person may release an aircraft from that aerodrome unless the flight release specifies an alternate aerodrome located within the following distances from the aerodrome of takeoff:

(1) *Aircraft having two engines.* Not more than 1 hour from the departure aerodrome at normal cruising speed in still air with one engine inoperative.

(2) *Aircraft having three or more engines.* Not more than 2 hours from the departure aerodrome at normal cruising speed in still air with one engine inoperative.

(b) For the purposes of paragraph (a) of this section, the alternate aerodrome weather conditions must meet the requirements of the certificate holder’s operations specifications.

(c) No person may release an aircraft from an aerodrome unless that person lists each required

alternate aerodrome in the flight release.

§ 125.503 Alternate Aerodrome for Destination: IFR or Over the Top.

(a) Except as provided in paragraph (b) of this section, each person releasing an aircraft for operation under IFR or over the top must list at least one alternate aerodrome for each destination aerodrome in the flight release. When the weather conditions forecast for the destination and first alternate aerodrome are marginal, at least one additional alternate must be designated. However, no alternate aerodrome is required if for at least 1 hour before and 1 hour after the estimated time of arrival at the destination aerodrome the appropriate weather reports or forecasts, or any combination of them, indicate—

(1) The ceiling will be at least 2000 ft (610 m) above the aerodrome elevation, and

(2) Visibility will be at least 5 km.

(b) An alternate aerodrome need not be designated for IFR or over the top operations where the the aerodrome of intended landing is isolated and:

(1) A standard instrument approach procedure is prescribed for the aerodrome of intended landing;

(2) A point of no return has been determined; and

(3) A flight may not be continued past the point of no return unless available current meteorological information indicates that the following meteorological conditions will exist at the estimated time of use:

(i) A cloud base of at least 1000 ft (300 m) above the minimum associated with the instrument approach procedure; and

(ii) Visibility of at least 5.5 km (3 NM) or of 4 km (2 NM) more than the minimum associated with the instrument approach procedure.

(c) For the purposes of paragraph (a) of this section, the weather requirements at the alternate aerodrome must meet the requirements of the certificate holder’s operations specifications.

(d) No person may release a flight unless that person lists each required alternate aerodrome in the

flight release.

§ 125.505 Alternate Aerodrome Weather Minimums.

No person may list an aerodrome as an alternate aerodrome in the flight release unless the appropriate weather reports or forecasts, or any combination of them, indicate that the weather conditions will be at or above the alternate weather minimums specified in the certificate holder's operations specifications for that aerodrome when the flight arrives.

§ 125.507 Continuing Flight in Unsafe Conditions.

No PIC may allow a flight to continue toward any aerodrome to which it has been released if, in the opinion of the PIC, the flight cannot be completed safely, unless, in the opinion of the PIC, there is no safer procedure. In that event, continuation toward that aerodrome is an emergency situation.

§ 125.509 Original Flight Release or Amendment of Flight Release.

(a) A certificate holder may specify any aerodrome authorized for the type of aircraft as a destination for the purpose of original release.

(b) No person may allow a flight to continue to an aerodrome to which it has been released unless the weather conditions at an alternate aerodrome that was specified in the flight release are forecast to be at or above the alternate minimums specified in the operations specifications for that aerodrome at the time the aircraft would arrive at the alternate aerodrome. However, the flight release may be amended en route to include any alternate aerodrome that is within the fuel range of the aircraft as specified in GACAR § 125.510.

(c) No person may change an original destination or alternate aerodrome specified in the original flight release to another aerodrome while the aircraft is en route unless the other aerodrome is authorized for that type of aircraft.

(d) Each person who amends a flight release en route must record that amendment.

§ 125.510 Flight Release: Fuel and Oil Supply.

(a) An aircraft must carry a sufficient amount of usable fuel and oil to complete the planned flight safely and to allow for deviations from the planned operation.

(b) The amount of usable fuel to be carried must, as a minimum, be based on:

(1) Conservative fuel consumption data derived from:

(i) Current aircraft-specific data derived from a fuel consumption monitoring system, if available; or

(ii) If current aircraft-specific data are not available, data provided by the aircraft manufacturer.

(2) The operating conditions for the planned flight including:

(i) Anticipated aircraft mass;

(ii) NOTAMs;

(iii) Current meteorological reports or a combination of current reports and forecasts;

(iv) Air traffic services procedures, restrictions and anticipated delays; and

(v) The effects of deferred maintenance items and/or configuration deviations.

(c) The pre-flight calculation of usable fuel required must include:

(1) *Startup and Taxi fuel,* which must be no less than the amount of fuel expected to be consumed before takeoff;

(2) *Trip fuel,* which must be no less than the amount of fuel required to enable the aircraft to fly from takeoff, or the point of in-flight re-planning, until landing at the destination aerodrome;

(3) *Contingency fuel,* which must be no less than the amount of fuel required to compensate for unforeseen factors. It must be five per cent of the planned trip fuel or of the fuel required from the point of in-flight re-planning based on the consumption rate used to plan the trip fuel but, in any case, must not be lower than the amount required to fly for five minutes at holding speed at 1 500 ft above the destination aerodrome in standard conditions;

(4) For IFR flights, *destination alternate fuel* or *without destination alternate fuel*, as applicable, which must be no less than:

(i) Where a destination alternate aerodrome is required, the amount of fuel required to enable the aircraft to:

(A) Perform a missed approach at the destination aerodrome;

(B) Climb to the expected cruising altitude;

(C) Fly the expected routing;

(D) Descend to the point where the expected approach is initiated; and

(E) Conduct the approach and landing at the destination alternate aerodrome; or

(ii) Were a flight is operated without a destination alternate aerodrome, the amount of fuel required to enable the airplane to fly for 15 minutes at holding speed at 1 500 ft above destination aerodrome elevation in standard conditions; or

(iii) Where the aerodrome of intended landing is an isolated aerodrome:

(A) For a reciprocating engine airplane, the amount of fuel required to fly for 45 minutes plus 15 per cent of the flight time planned to be spent at cruising level, including final reserve fuel, or two hours, whichever is less;

(B) For a turbine-engined airplane, the amount of fuel required to fly for two hours at normal cruise consumption above the destination aerodrome, including final reserve fuel; or

(C) For a rotorcraft, the amount of fuel required to fly for one hour at normal cruise consumption above the destination aerodrome, including final reserve fuel;

(5) *Final reserve fuel*, which must be no less than the amount of fuel calculated using the estimated mass on arrival at the destination alternate aerodrome, or the destination aerodrome when no destination alternate aerodrome is required:

(i) For reciprocating engine airplanes, the amount of fuel required to fly for 45 minutes;

(ii) For turbine-engine powered airplanes, the amount of fuel required to fly for 30 minutes

at holding speed at 1 500 ft above aerodrome elevation in standard conditions; or

(iii) For an IFR or night VFR rotorcraft operation, the amount of fuel required to fly 30 minutes at holding speed at 450 m (1 500 ft) above the destination heliport or landing location under standard temperature conditions and approach and land;

(iv) For a day VFR rotorcraft operation, the amount of fuel required:

(A) To fly for a period of 30 minutes at best-range speed; or

(B) To fly for a period of 20 minutes at best-range speed when operating within an area providing continuous and suitable precautionary landing sites.

(6) *Additional fuel*, which must be the supplementary amount of fuel required to enable the aircraft to descend as necessary and proceed to land at an alternate aerodrome in the event of engine failure or loss of pressurization based on the assumption that such a failure occurs at the most critical point along the route; and

(7) *Discretionary fuel*, which must be the extra amount of fuel to be carried at the discretion of the PIC and consistent with fuel supply policies implemented by the certificate holder.

(d) A flight must not commence unless the usable fuel on board meets the requirements in paragraphs (c)(1), (c)(2), (c)(3), (c)(4), (c)(5), and (c)(6) if required, of this section and must not continue from the point of in-flight re-planning unless the usable fuel on board meets the requirements in (c)(2), (c)(3), (c)(4), (c)(5), and (c)(6) if required, of this section.

(e) Notwithstanding the provisions in paragraphs (c)(1), (c)(2), (c)(3), (c)(4), (c)(5), and (c)(6) if required, of this section, the President may, based on the results of a specific safety risk assessment conducted by the certificate holder which demonstrates how an equivalent level of safety will be maintained, approve variations to the pre-flight fuel calculation of taxi fuel, trip fuel, contingency fuel, destination alternate fuel, and additional fuel. The specific safety risk assessment must include at least the:

(1) Flight fuel calculations;

(2) Capabilities of the certificate holder to include:

(i) A data-driven method that includes a fuel consumption monitoring program; and/or

(ii) The advanced use of alternate aerodromes; and

(3) Specific mitigation measures.

(f) The President may amend the operations specifications to require more fuel than any of the minimums stated in this section if he finds that the additional fuel is necessary on a particular route in the interest of safety.

(g) The use of fuel after flight commencement for purposes other than originally intended during pre-flight planning must require a re-analysis and, if applicable, adjustment of the planned operation.

§ 125.511 Load Manifest.

(a) Each certificate holder is responsible for the preparation and accuracy of a load manifest in duplicate containing information concerning the loading of the aircraft. The manifest must be prepared before each takeoff and must include—

(1) The number of passengers.

(2) The total mass of the loaded aircraft.

(3) The maximum allowable take off and landing mass for that flight.

(4) The center of gravity limits.

(5) The center of gravity of the loaded aircraft, except that the actual center of gravity need not be computed if the aircraft is loaded according to a loading schedule or other approved method that ensures that the center of gravity of the loaded aircraft is within approved limits. In those cases, an entry must be made on the manifest indicating that the center of gravity is within limits according to a loading schedule or other approved method.

(6) The registration number of the aircraft.

(7) The origin and destination.

(8) A list of passenger names.

(b) The certificate holder must keep copies of completed load manifests for at least 30 days at its principal operations base or another location used by it and approved by the President.

SUBPART Q – RECORDS AND REPORTS

§ 125.531 Crew Member Record.

Each certificate holder must—

(a) Maintain current records of each crew member that demonstrate crew member compliance with GACAR (for example, proficiency checks, aircraft qualifications, test results from testing performed under GACAR §§ 125.349 and 125.351, any required physical examinations, and flight time records).

(b) Record each action taken concerning the release from employment or physical or professional disqualification of any flight crew member and keep the record for at least 6 months thereafter.

(c) Maintain the records required by this section at its principal operations base, or at another location used by it and approved by the President.

§ 125.533 Flight Release Form.

(a) The flight release may be in any form but must contain at least the following information concerning each flight:

(1) Company or organization name;

(2) Make, model, and registration number of the aircraft being used;

(3) Date of flight;

(4) Name and duty assignment of each crew member;

(5) Departure aerodrome, destination aerodromes, alternate aerodromes, and route;

(6) Minimum fuel supply; and

(7) A statement of the type of operation (for example, IFR or VFR).

(b) The aircraft flight release must contain, or have attached to it, weather reports, available weather forecasts, or a combination of them.

§ 125.535 Disposition of Load Manifest, Flight Release, and Flight Plans.

(a) The PIC of an aircraft must carry in the aircraft to its destination the original or a signed copy of the—

(1) Load manifest required by GACAR § 125.511,

(2) Flight release, and

(3) Airworthiness release.

(b) If a flight originates at the principal operations base of the certificate holder, it must retain at that base a signed copy of each document listed in paragraph (a) of this section.

(c) If a flight originates at a place other than the principal operations base of the certificate holder, the PIC (or another person not aboard the aircraft who is authorized by the operator) must, before or immediately after departure of the flight, transmit signed copies of the documents listed in paragraph (a) of this section to the principal operations base unless otherwise authorized by the President.

(d) For the purposes of this section, transmit means send by mail, email, facsimile, or other method acceptable to the President.

§ 125.537 Maintenance Log: Aircraft.

(a) Each person who takes corrective action or defers action concerning a reported or observed failure or malfunction of an airframe, aircraft engine, propeller, or appliance must record the action taken in the aircraft maintenance log in accordance with GACAR Part 43.

(b) Each certificate holder must establish a procedure for keeping copies of the aircraft maintenance log required by this section in the aircraft for access by appropriate personnel and must include that procedure in the manual required by Appendix A to this part.

§ 125.539 Service Difficulty Reports.

(a) Each certificate holder must report the occurrence or detection of each failure, malfunction, or defect concerning—

(1) Fires during flight and whether the related fire warning system functioned properly;

(2) Fires during flight not protected by a related fire warning system;

(3) False fire warning during flight;

(4) An engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;

(5) An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger compartment during flight;

(6) Engine shutdown during flight because of flameout;

(7) Engine shutdown during flight when external damage to the engine or aircraft structure occurs;

(8) Engine shutdown during flight due to foreign object ingestion or icing;

(9) Engine shutdown during flight of more than one engine;

(10) A propeller feathering system or ability of the system to control overspeed during flight;

(11) A fuel or fuel dumping system that affects fuel flow or causes hazardous leakage during flight;

(12) An unwanted landing gear extension or retraction, or an unwanted opening or closing of landing gear doors during flight;

(13) Brake system components that result in loss of brake actuating force when the aircraft is in motion on the ground;

(14) Aircraft structure that requires major repair;

(15) Cracks, permanent deformation, or corrosion of aircraft structures, if more than the maximum acceptable to the manufacturer or the GACA;

(16) Aircraft components or systems that result in taking emergency actions during flight (except action to shut down an engine); and

(17) Emergency evacuation systems or components including all exit doors, passenger emergency evacuation lighting systems, or evacuation equipment that are found defective or fail to perform the intended functions during an actual emergency, training, testing, maintenance, demonstrations, or inadvertent deployments.

(b) For the purpose of this section, “during flight” means the period from the moment the aircraft leaves the surface of the earth on takeoff until it touches down on landing.

(c) In addition to the reports required by paragraph (a) of this section, each certificate holder must report any other failure, malfunction, or defect in an aircraft that occurs or is detected at any time if, in its opinion, that failure, malfunction, or defect has endangered or may endanger the safe operation of an aircraft used by it.

(d) Each certificate holder must submit each report required by this section, covering each 24 hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to the President and to the organization responsible for the type design of the aircraft. Each report of occurrences during a 24 hour period must be submitted to the collection point within the next 96 hours. However, a report due on Friday or Saturday may be submitted on the following Sunday, and a report due on a holiday may be submitted on the next workday.

(e) The certificate holder must submit the reports required by this section on a form or in another format acceptable to the President. The reports must include the following information:

(1) Type and identification number of the aircraft;

(2) The name of the operator;

(3) The date and stage during which the incident occurred (for example, preflight, takeoff, climb, cruise, descent, landing, or inspection);

(4) The emergency procedure affected (for example, unscheduled landing or emergency descent);

(5) The nature of the failure, malfunction, or defect;

(6) Identification of the part and system involved, including available information pertaining to type designation of the major component and time since overhaul;

(7) Apparent cause of the failure, malfunction, or defect (for example, wear, crack, design deficiency, or personnel error);

(8) Whether the part was repaired, replaced, sent to the manufacturer, or other action taken;

(9) Whether the aircraft was grounded; and

(10) Other pertinent information necessary for more complete identification, determination of seriousness, or corrective action.

§ 125.541 Airworthiness Release or Maintenance Record Entry.

(a) No certificate holder may operate an aircraft after maintenance, preventive maintenance, or alteration is performed on the aircraft unless the person performing that maintenance, preventive maintenance, or alteration prepares or causes to be prepared—

(1) An airworthiness release, or

(2) An entry in the aircraft maintenance records in accordance with the certificate holder's manual.

(b) The airworthiness release or maintenance record entry required by paragraph (a) of this section must—

(1) Be prepared in accordance with the procedures set forth in the certificate holder's manual.

(2) Include a certification that—

(i) The work was performed in accordance with the requirements of the certificate holder's manual.

(ii) All items required to be inspected were inspected by an authorized person who determined that the work was satisfactorily completed.

(iii) No known condition exists that would make the aircraft unairworthy.

(iv) Within the scope of work performed, the aircraft is safe to operate.

(3) Be signed by a person authorized in GACAR Part 43 to perform maintenance, preventive maintenance, and alteration.

(c) When an airworthiness release form is prepared, the certificate holder must give a copy to the PIC and keep a record of it for at least 60 days.

(d) Instead of restating each of the conditions of the certification required by paragraph (b) of this section, the certificate holder may state in its manual that the signature of a person authorized in GACAR Part 43 constitutes that certification.

§ 125.543 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 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 AIB 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, and

(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 operations 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 transmitted in accordance with the appropriate regulatory requirements.

(6) Procedures to ensure that records required to be transferred with an aircraft are in a format (either electronic or on paper) acceptable to the new aircraft owner/operator.

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

(8) For electronic recordkeeping 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.

SUBPART R – TRANSPORTATION OF DANGEROUS GOODS

§ 125.581 Applicability.

This subpart applies to certificate holders authorized in their operations specifications to transport dangerous goods, and to certificate holders with a prohibition in their operations specifications against transporting or handling dangerous goods.

§ 125.583 General.

(a) The transport of dangerous goods by air must be conducted in accordance with GACAR Part 109.

(b) Except as provided for in GACAR § 109.7, an operator must not transport dangerous goods unless authorized to do so by the President in accordance with GACAR § 109.3.

(c) All reasonable measures must be taken to prevent dangerous goods from being carried on board inadvertently.

(d) The operator must, in accordance with GACAR § 109.67, report without delay to the President where the accident or incident occurred—

(1) Any incidents or accidents involving dangerous goods, and

(2) The finding of undeclared or wrongfully declared dangerous goods in cargo or passengers' baggage.

§ 125.585 Dangerous Goods Training Program.

(a) Each certificate holder must establish and implement a dangerous goods training program that meets the applicable requirements of GACAR Part 109.

APPENDIX A TO GACAR PART 125 – MANUAL REQUIREMENTS

I. Operations Manual.

The operations manual referred to in GACAR § 125.79 must contain at the least the following:

(a) *General.*

(1) The name of each management person authorized to act for the certificate holder, the person's assigned area of responsibility, and the person's duties, responsibilities, and authority;

(2) The operational control system including the roles and responsibilities of those involved with the system—

(i) The PIC must be authorized to exercise operational control.

(ii) The certificate holder may authorize other persons to exercise joint operational control in accordance with Subpart P of this part.

(3) Copies of the certificate holder's operations specifications or appropriate extracted information, including area of operations authorized, category and class of aircraft authorized, crew complements, and types of operations authorized;

(4) Procedures for complying with accident notification requirements, including procedures for preserving all related FDR records and, if necessary, the associated flight recorders, and their retention in safe custody pending their disposition as determined in accordance with the AIB.

(5) Procedures for ensuring that the PIC has available on board the aircraft all the essential information concerning the search and rescue services in the area over which the aircraft will be flown;

(6) Procedures for ensuring that the PIC knows that required airworthiness inspections have been made and that the aircraft has been approved for return to service in compliance with applicable maintenance requirements;

(7) Procedures for reporting and recording mechanical irregularities that come to the attention of the PIC before, during, and after completion of a flight;

(8) Procedures to be followed by the PIC for determining that mechanical irregularities or defects reported for previous flights have been corrected or that correction has been deferred;

(9) Procedures to be followed by the PIC to obtain maintenance, preventive maintenance, and servicing of the aircraft at a place where previous arrangements have not been made by the operator, when the pilot is authorized to so act for the operator;

(10) Procedures for the release or continuation of flight if any item of equipment required for the particular type of operation becomes inoperative or unserviceable en route;

(11) Procedures for refueling aircraft, eliminating fuel contamination, protecting from fire (including electrostatic protection), and supervising and protecting passengers during refueling;

(12) Procedures to be followed by the PIC in the briefing required under GACAR § 125.461;

(13) Flight locating procedures, when applicable.

(14) References to the approved aircraft inspection program;

(15) Procedures and instructions to enable the PIC to recognize dangerous goods, as defined in GACAR Part 109, and, if these materials are to be carried, stored, or handled, procedures and instructions for—

(i) Accepting shipment of dangerous goods required by GACAR Part 109 to assure proper packaging, marking, labeling, shipping documents, compatibility of articles, and instructions on their loading, storage, and handling;

(ii) Notification and reporting of dangerous goods incidents as required by GACAR Part 109; and

(iii) Notification of the PIC when there are dangerous goods aboard, as required by GACAR Part 109;

(16) Procedures for the evacuation of persons who may need the assistance of another person to move expeditiously to an exit if an emergency occurs;

(17) Details of the Safety Management System provided in accordance with GACAR Part 5;

(18) Instructions and training requirements for the use of head up display systems, Enhanced Vision System, night vision imaging systems, as applicable, and any other special systems implemented in accordance with special flight operations authorized in accordance with Subpart D of GACAR Part 91;

(19) Procedures for the management of fatigue including flight time and duty period limitations;

(20) Procedures for the notification and reporting of accidents, incidents and statistics in accordance with GACAR Part 4;

(21) The maintenance manual contents prescribed in Section II of this Appendix; and

(22) Other procedures and policy instructions regarding the certificate holder's operations that are issued by the certificate holder.

(b) *Aircraft Operating Information.*

(1) Procedures for ensuring compliance with aircraft mass and balance limitations including proper stowage of cargo and carry on baggage;

(2) Procedures for ensuring compliance with emergency procedures, including a list of the functions assigned each category of required crew members in connection with an emergency and emergency evacuation;

(3) A MEL in accordance with GACAR § 125.223 for each aircraft type if a master MEL is established for the aircraft type; and

(4) Procedures for the conduct of a safe flight considering aircraft performance and operating limitations.

(c) *Areas, Routes, and Aerodromes.*

Procedures for the conduct of a safe flight considering the relevant expected conditions of the aerodromes and routes to be flown.

(d) *Training.*

The identity of each person who will administer tests required by this part, including the designation of the tests authorized to be given by the person.

APPENDIX A TO GACAR PART 125 – MANUAL REQUIREMENTS

II. Maintenance Manual.

The maintenance manual referred to in GACAR § 125.79 must contain at the least the following:

(a) A description of the certificate holder's maintenance organization, when the certificate holder has such an organization;

(b) A list of those persons with whom the certificate holder has arranged for performance of inspections under this part, which must include the persons' names and addresses;

(c) The aircraft inspection programs required by GACAR § 125.309 to be followed in the performance of inspections under this part, including—

(1) The method of performing routine and nonroutine inspections (other than required inspections);

(2) Designation of the items that must be inspected (required inspections), including at least those which, if improperly accomplished, could result in a failure, malfunction, or defect endangering the safe operation of the aircraft;

(3) The method of performing required inspections;

(4) Procedures for the inspection of work performed under previously required inspection findings ("buy back procedures");

(5) Procedures, standards, and limits necessary for required inspections and acceptance or rejection of the items required to be inspected;

(6) Instructions to prevent any person who performs any item of work from performing any required inspection of that work; and

(7) Procedures to ensure that work interruptions do not adversely affect required inspections and that required inspections are properly completed before the airplane is released to service.

(d) A description of the maintenance procedures and the procedures for completing and signing an

airworthiness release prepared in accordance with GACAR § 125.541;

(e) A description of the methods used for the completion and retention of the operator's maintenance records required by GACAR § 91.457;

(f) A description of the procedures for service difficulty reporting required by GACAR § 125.539;

(g) A description of the procedures for implementing action resulting from mandatory continuing airworthiness information;

(h) A description of the system of analysis and continued monitoring of the performance and efficiency of the inspection program, in order to correct any deficiency in that program; and

(i) A suitable system, which may include a coded system, that provides for the retention of the following:

(1) A description (or reference to data acceptable to the President) of the work performed,

(2) The name of the person performing the work and the person's certificate type and number, and

(3) The name of the person approving the work and the person's certificate type and number.