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SUBPART A – GENERAL

§ 135.1 Applicability.

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

(1) The scheduled and unscheduled commercial operations of other than transport category aircraft and commuter category airplane operations of each person who holds or is required to hold an Air Operator Certificate (AOC) under General Authority of Civil Aviation Regulation (GACA) 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 AOC 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.

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

Each certificate holder, while operating an aircraft in a country other than the Kingdom of Saudi Arabia (KSA), must 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.

§ 135.5 Carriage of Psychoactive Substances.

If the certificate holder permits any aircraft it owns or leases to be engaged in any operation it knows to be in violation of GACAR § 91.23, that operation is a basis for suspending or revoking the certificate.

§ 135.7 Documents To Be Carried on Board.

(a) In addition to the requirements of GACAR § 91.9, the pilot in command (PIC) must ensure the following are carried on board:

(1) A certified true copy of the AOC, and a copy of the operations specifications summary, issued in conjunction with the certificate; and

(2) When applicable, a copy of the Article 83bis agreement.

(b) The certificate holder must establish 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.

§ 135.9 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 operator's manual.

(b) The 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 days.

§ 135.11 Surrender of International Crew Member Certificate.

The holder of an international crew member certificate issued by the President, or the air operator by whom the holder is employed, must surrender the certificate to the GACA for cancellation at the termination of the holder's employment with that air operator.

§ 135.13 Applicability of Rules to Operators With an Authorized Area of Operations Restricted to the Kingdom of Saudi Arabia Only.

A certificate holder that has, by way of its operations specifications, a defined area of operations restricted to the Kingdom of Saudi Arabia may be authorized relief from certain sections of this part 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.

§ 135.15 Single-Engine Aircraft Restrictions.

(a) No person may operate a single-engine airplane in instrument meteorological conditions (IMC) or at night unless—

(1) The airplane to be used complies with GACAR § 135.115 and the equipment requirements of

GACAR § 135.207,

(2) The planned route of flight complies with GACAR § 135.61,

(3) The additional maintenance requirements of GACAR § 135.249 are complied with,

(4) The flight crew training complies with GACAR § 135.385, and

(5) The certificate holder is authorized by the President to conduct such operations.

(b) Certificate holders operating single-engine rotorcraft must comply with the restrictions in Subpart G of this part for operations in performance Class 3.

SUBPART B – MANAGEMENT PERSONNEL

§ 135.35 Management Personnel Required.

(a) Each certificate holder operating under this part must have sufficient qualified management and technical personnel to ensure the highest degree of safety in its operations. The certificate holder must have qualified personnel serving full-time in the following or equivalent positions:

(1) Director of operations,

(2) Chief pilot, and

(3) Director of maintenance.

(b) The President may approve positions or numbers of positions other than those listed in paragraph (a) of this section for a particular operation if the certificate holder shows that it can perform the operation with the highest degree of safety under the direction of fewer or different categories of management personnel due to—

(1) The kind of operation involved,

(2) The number and type of aircraft used, and

(3) The area of operations.

(c) The title of the positions required under paragraph (a) of this section or the title and number of equivalent positions approved under paragraph (b) of this section must be set forth in the certificate holder’s operations specifications.

(d) The individuals who serve in the positions required or approved under paragraph (a) or (b) of this section and anyone in a position to exercise control over operations conducted under the operating certificate must—

(1) Be qualified through training, experience, and expertise;

(2) To the extent of their responsibilities, have a full understanding of the following material with respect to the certificate holder’s operation:

(i) Aviation safety standards and safe operating practices;

(ii) The GACAR;

(iii) The certificate holder's operations specifications;

(iv) All appropriate maintenance and airworthiness requirements (for example, GACAR Parts 1, 21, 23, 43, 66, 91, and 119); and

(v) The manual required by GACAR § 135.85.

(3) Discharge their duties to meet applicable legal requirements and to maintain safe operations.

(e) Each certificate holder must—

(1) State in the general policy provisions of the manual required by GACAR § 135.85, the duties, responsibilities, and authority of personnel required or approved under paragraphs (a) and (b) of this section;

(2) List in the manual the names and business addresses of the individuals assigned to those positions; and

(3) Notify the GACA within 10 days of any change in personnel or any vacancy in any position listed.

§ 135.37 Management Personnel: Qualifications.

(a) To serve as director of operations for a certificate holder conducting any operations for which the PIC is required to hold an airline transport pilot (ATP) certificate a person must hold an ATP certificate and either—

(1) Have at least 3 years' supervisory or managerial experience within the last 6 years in a position that exercised operational control over any operations conducted under GACAR Part 121 or 135; or

(2) In the case of a person becoming director of operations—

(i) For the first time ever, have at least 3 years' experience, within the past 6 years, as PIC of an aircraft operated under GACAR Part 121 or 135.

(ii) With previous experience as a director of operations, have at least 3 years' experience, as PIC of an aircraft operated under GACAR Part 121 or 135.

(b) To serve as director of operations for a certificate holder that only conducts operations for which the PIC is required to hold a commercial pilot certificate, a person must hold at least a commercial pilot certificate. If an instrument rating is required for any PIC for that certificate holder, the director of operations must also hold an instrument rating. In addition, the director of operations must either—

(1) Have at least 3 years of supervisory or managerial experience within the last 6 years in a position that exercised operational control over any operations conducted under GACAR Part 121 or 135; or

(2) In the case of a person becoming director of operations—

(i) For the first time ever, have at least 3 years' experience, within the past 6 years, as PIC of an aircraft operated under GACAR Part 121 or 135.

(ii) With previous experience as a director of operations, have at least 3 years' experience as PIC of an aircraft operated under GACAR Part 121 or 135.

(c) To serve as chief pilot for a certificate holder conducting any operation for which the PIC is required to hold an ATP certificate a person must hold an ATP certificate with appropriate ratings and be qualified to serve as PIC in at least one aircraft used in the certificate holder's operation and—

(1) In the case of a person becoming a chief pilot for the first time ever, have at least 3 years' experience, within the past 6 years, as PIC of an aircraft operated under GACAR Part 121 or 135.

(2) In the case of a person with previous experience as a chief pilot, have at least 3 years' experience as PIC of an aircraft operated under GACAR Part 121 or 135.

(d) To serve as chief pilot for a certificate holder that only conducts operations for which the PIC is required to hold a commercial pilot certificate, a person must hold at least a commercial pilot

certificate. If an instrument rating is required for any PIC for that certificate holder, the chief pilot must also hold an instrument rating. The chief pilot must be qualified to serve as PIC in at least one aircraft used in the certificate holder's operation. In addition, the chief pilot must—

(1) In the case of a person becoming a chief pilot for the first time ever, have at least 3 years' experience, within the past 6 years, as PIC of an aircraft operated under GACAR Part 121 or 135.

(2) In the case of a person with previous experience as a chief pilot, have at least 3 years' experience as PIC of an aircraft operated under GACAR Part 121 or 135.

(e) To serve as director of maintenance under this part a person must hold a mechanic certificate with airframe and powerplant ratings and either—

(1) Have 3 years of experience within the past 6 years maintaining aircraft as a certificated mechanic, including, at the time of appointment as director of maintenance, experience in maintaining the same category and class of aircraft as the certificate holder uses; or

(2) Have 3 years of experience within the past 6 years repairing aircraft in a certificated airframe repair station, including 1 year in the capacity of approving aircraft for return to service.

(f) A certificate holder may request relief to employ a person who does not meet the appropriate airman experience requirements, managerial experience requirements, or supervisory experience requirements of this section if the President finds that the person has comparable experience, and can effectively perform the functions associated with the position in accordance with the requirements of the GACAR and the procedures outlined in the certificate holder's manual.

SUBPART C – ROUTES AND AREAS

§ 135.57 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 and

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

(c) For the purpose of paragraph (b) of this section, if the area to be used for takeoff or landing is marked by flare pots or lanterns, their use must be authorized by the President.

§ 135.59 En Route Navigation Facilities.

(a) Except as provided in paragraph (b) of this section, each certificate holder must show suitable navigation aids are available to navigate the aircraft along the route within the degree of accuracy required for 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 and

(2) Other operations authorized by the President.

§ 135.61 Route Limitations for Single Engine Airplanes.

(a) No certificate holder may operate a single engine airplane on any route unless, at any point along

that route, a safe forced landing can be executed if the engine fails.

(b) Each certificate holder must ensure the position of the safe forced landing sites used to comply with paragraph (a) of this section are programmed into the aircraft's area navigation (RNAV) system required by GACAR § 135.207(j)(7).

§ 135.63 Maximum Flying Time From an Adequate Aerodrome.

No certificate holder may operate an airplane on a planned route that exceeds 60 minutes' flying time (at the one-engine-inoperative cruise speed under standard conditions in still air) from an adequate aerodrome unless authorized by the President.

SUBPART D – MANUAL REQUIREMENTS

§ 135.81 Applicability.

(a) This subpart prescribes requirements for preparing and maintaining manuals by all certificate holders operating under this part.

(b) The President may authorize relief from certain sections of this subpart due to the limited size of the operation provided the certificate holder demonstrates to the President that all or part of the manual may not be necessary for guidance of flight, ground, or maintenance personnel.

§ 135.83 Preparation.

Each manual required by this subpart must—

(a) Include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;

(b) Be in a form easy to revise;

(c) Have the date of last revision on each revised page;

(d) Include applicable GACAR references;

(e) Not be contrary to any applicable KSA regulation and any applicable foreign regulation, or the certificate holder’s operations specifications or operating certificate;

(f) Be revised as necessary to keep the contents relevant to the operations conducted;

(g) Include human factors principles; and

(h) Be acceptable to the President.

§ 135.85 Manual Contents.

(a) ***Operations Manual***. Each certificate holder must prepare an operations manual, which must be organized with the following structure:

(1) General;

(2) Aircraft operating information;

(3) Areas, routes, and aerodromes; and

(4) Training.

(b) ***Maintenance Manual***. Each certificate holder must prepare a maintenance manual for the use and guidance of maintenance and operational personnel concerned. The maintenance manual must describe the operator's procedures necessary to ensure that all scheduled and unscheduled maintenance is performed on the operator's aircraft on time and in a controlled and satisfactory manner.

(c) The manuals referred to in this section must contain the contents listed in Appendix A to this part.

§ 135.87 Distribution and Availability.

(a) Each certificate holder must furnish copies of the manual(s) required by GACAR § 135.85 (and the changes and additions) or appropriate parts of the manual(s) to—

(1) Its appropriate ground operations and maintenance personnel,

(2) Its pilots, and

(3) Representatives of the GACA 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 above in printed form or other form acceptable to the President and retrievable in the English language.

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

SUBPART E – AIRCRAFT REQUIREMENTS

§ 135.107 Applicability.

This subpart prescribes aircraft requirements for all certificate holders operating an aircraft under this part.

§ 135.109 Aircraft Requirements: General.

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

(1) Is a Saudi Arabian registered civil aircraft and carries a valid 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) A certificate holder may use an approved mass and balance control system based on average, assumed, or estimated mass to comply with applicable airworthiness requirements and operating limitations.

(c) Subject to the leasing requirements of GACAR Part 119, a certificate holder may operate a civil aircraft, which is not Saudi Arabian registered civil aircraft, provided the aircraft has been specifically identified in the operations specifications pertaining to leased aircraft, and the aircraft is operated in accordance with the conditions of this lease authorization.

§ 135.111 Aircraft Certification Requirements and Prohibitions.

(a) Airplanes certificated in accordance with the United States (U.S.) Special Federal Aviation Regulation (SFAR) 41 are prohibited from operation under this part, unless otherwise authorized by the President.

(b) Airplanes certificated in accordance with the U.S. SFAR 23 are permitted under this part although they may not have more than nine passenger seats installed.

(c) Rotorcraft operating in performance Classes 1 and 2 must be certificated in Category A.

(d) Rotorcraft operating in performance Class 3 must be certificated in either Category A or B (or equivalent).

§ 135.113 Aircraft Proving and Validation Tests.

(a) No certificate holder may operate an aircraft, other than a turbojet airplane, for which two pilots are required for operations under VFR, if it has not previously proved such an aircraft in operations under this part in at least 25 hours of proving tests acceptable to the President including—

(1) Night time of 5 hours, if night flights are to be authorized by the President;

(2) Five instrument approach procedures under simulated or actual instrument flight conditions, if instrument flight rules (IFR) flights are to be authorized; and

(3) Entry into a representative number of en route aerodromes as determined by the President.

(b) No certificate holder may operate a turbojet airplane if it has not previously proved a turbojet airplane in operations under this part in at least 25 hours of proving tests acceptable to the President including—

(1) Five hours of night time, if night flights are to be authorized;

(2) Five instrument approach procedures under simulated or actual conditions, if IFR flights are to be authorized; and

(3) Entry into a representative number of en route aerodromes as determined by the President.

(c) No certificate holder may operate a single engine turbine powered airplane at night or in IMC if it has not previously proved a single engine turbine powered airplane in operations at night or in IMC in proving tests acceptable to the President including—

(1) Demonstration of normal, abnormal and emergency procedures applicable to the operation to be authorized; and

(2) Demonstration of an engine failure, including descent to a forced landing at night or in IMC.

(d) No certificate holder may carry passengers in an aircraft during proving tests, except those needed to make the tests and those designated by the President to observe the tests. However, pilot flight

training may be conducted during the proving tests. Mail or cargo may be carried if approved by the President.

(e) Validation testing is required to determine that a certificate holder is capable of conducting operations safely and in compliance with applicable regulatory standards. Validation tests are required for the following authorizations:

(1) The addition of an aircraft for which two pilots are required for operations under VFR or a turbojet airplane, if that aircraft or an aircraft of the same make or similar design has not been previously proved or validated in operations under this part;

(2) Operations outside KSA airspace, and

(3) Special performance or operational authorizations.

(f) Validation tests must be accomplished by test methods acceptable to the President. Actual flights may not be required when an applicant can demonstrate competence and compliance with appropriate regulations without conducting a flight.

(g) Proving tests and validation tests may be conducted simultaneously when appropriate.

(h) The President may authorize relief from this section if he finds that special circumstances make full compliance with this section unnecessary.

§ 135.115 Single-Engine Airplanes Operated in IMC or at Night: Airplane Requirements.

No certificate holder may operate a single-engine airplane in IMC or at night, unless—

(a) The airplane is turbine powered,

(b) The engine has a demonstrated reliability with a power loss rate of less than one per 100 000 engine hours, and

(c) The airplane is equipped in accordance with GACAR § 135.207(j).

SUBPART F – AIRPLANE PERFORMANCE OPERATING LIMITATIONS

§ 135.133 Applicability.

(a) Except as provided in paragraphs (b) through (d) of this section, this subpart prescribes airplane performance operating limitations for all certificate holders operating airplanes under this part.

(b) Certificate holders operating turbojet airplanes must comply with all sections of this subpart, except when required data is not provided in the aircraft flight manual (AFM) or other approved source.

(c) Certificate holders operating airplanes other than those described in paragraph (b) of this section must comply only with GACAR §§ 135.135(e) and (f), 135.143, and 135.145.

(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.

§ 135.135 General.

(a) Each certificate holder operating an airplane under this part described in GACAR § 135.133(b) must comply with the applicable provisions of GACAR §§ 135.137 through 135.145.

(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 §§ 135.137 through 135.141. 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) The certificate holder must consider charting accuracy when assessing compliance with GACAR § 135.137.

(e) 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 have been demonstrated, unless otherwise authorized by the President for operating at aerodromes where there is no noise disturbance problem.

(f) Certificate holders operating airplanes other than those described in GACAR § 135.133(b) must ensure the airplane's mass at the time of takeoff is not greater than the mass allowed for the length of the takeoff 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.

§ 135.137 Airplane: Takeoff 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 takeoff 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 takeoff run must not be greater than the length of the runway.

(c) 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.

(d) 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 takeoff path or net takeoff flight path data (as appropriate) in the AFM, and thereafter that the maximum bank is not more than 15°.

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

(f) 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.

§ 135.139 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 airplane, 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 airplane's configuration and operating conditions.

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

(c) No person may take off a turbojet powered airplane 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.

§ 135.141 Airplane: Landing Limitations: Alternate Aerodromes.

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 § 135.139.

§ 135.143 Performance Requirements: Land Aircraft Operated Over Water.

No person may operate a land aircraft carrying passengers over water unless—

(a) It is operated at an altitude that allows it to reach land in the case of engine failure;

(b) It is necessary for takeoff or landing;

(c) It is a multi-engine aircraft operated at a mass that will allow it to climb, with the critical engine inoperative, at least 50 ft/min, (0.25 m/s) at an altitude of 1 000 ft (300 m) above ground level (AGL); or

(d) It is a rotorcraft equipped with rotorcraft flotation devices.

§ 135.145 Performance Requirements: Aircraft Operated Over the Top or in IMC.

(a) Except as provided in paragraphs (b) and (c) of this section, no person may—

(1) Operate a single-engine aircraft carrying passengers over the top; or

(2) Operate a multi-engine aircraft carrying passengers over the top or in IMC at a mass that will not allow it to climb, with the critical engine inoperative, at least 50 ft/min (0.25 m/s) when operating at the minimum en route IFR altitudes (MEA) of the route to be flown or 5 000 ft (1 500 m) mean sea level (MSL), whichever is higher.

(b) Notwithstanding the restrictions in paragraph (a)(2) of this section, multi-engine rotorcraft carrying passengers offshore may conduct such operations in over the top or in IMC at a mass that will allow the rotorcraft to climb at least 50 ft/min (0.25 m/s) with the critical engine inoperative when operating at the MEA of the route to be flown or 1 500 ft (450 m) MSL, whichever is higher.

(c) Without regard to paragraph (a) of this section, if the latest weather reports or forecasts, or any combination of them, indicate that the weather along the planned route (including takeoff and landing) allows flight under VFR under the ceiling (if a ceiling exists) and that the weather is forecast to remain so until at least 1 hour after the estimated time of arrival at the destination, a person may operate an aircraft over the top.

(d) Without regard to paragraph (a) of this section, a person may operate an aircraft over the top under conditions allowing—

(1) For multi-engine aircraft, descent or continuance of the flight under VFR if its critical engine fails or

(2) For single-engine aircraft, descent under VFR if its engine fails.

SUBPART G – ROTORCRAFT PERFORMANCE OPERATING LIMITATIONS

§ 135.161 Applicability.

(a) This subpart prescribes rotorcraft performance operating limitations for all certificate holders operating rotorcraft under GACAR Part 135.

(b) In addition to the requirements of this subpart, certificate holders operating rotorcraft must comply with GACAR §§ 135.143 and 135.145 in Subpart F of this part.

§ 135.163 Performance Class: General.

Unless authorized by the President in the certificate holders operations specifications—

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

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

(c) Operations in performance Class 2 must only be conducted with a safe forced landing capability during takeoff and landing.

(d) Operations in performance Class 3 must not be conducted in a hostile environment.

(e) To permit relief from paragraphs (a) through (d) of this section, the certificate holder must undertake a risk assessment, considering 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.

§ 135.165 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:

(A) For takeoff, takeoff flight path and landing requirements, accountability for wind must be no more than 50 percent of any reported steady headwind component of 5 kt (2.6 m/s) or more.

(B) Where takeoff and landing with a tailwind component is permitted in the AFM, and in all cases for the takeoff flight path, not less than 150 percent of any reported tailwind component must be taken into account.

(C) Where precise wind measuring equipment enables accurate measurement of wind

velocity over the point of takeoff and landing, alternate wind components specific to a site may be approved by the President;

(4) Operating techniques; and

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

§ 135.167 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—

(1) The minimum visibility must not be less than 800 m; and

(2) 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 be performed—

(1) In IMC;

(2) At night; or

(3) When the cloud ceiling is less than 600 ft (180 m).

§ 135.169 Obstacle Accountability Area.

For the purposes of the obstacle clearance requirements prescribed in GACAR Parts §§ 135.171 through 135.175—

(a) An obstacle, located beyond the final approach and takeoff area (FATO), in the takeoff 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 farther 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 times D (or 3 m, whichever is greater), plus 0.10 times the distance travelled (DR) for VFR day operations, 0.15 DR for VFR night operations.

(2) *For 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 takeoff distance available;

(iii) Standard course guidance includes automatic direction finder (ADF) and very high frequency omnidirectional range (VOR) guidance. Accurate course guidance includes 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—

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

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

(iii) The transition point cannot be located before the end of takeoff 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 backup (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 farther than 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, or 0.15 for VFR night, of the distance traveled 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.

§ 135.171 Operations in Performance Class 1.

(a) ***Takeoff mass***. The takeoff mass of the rotorcraft must not exceed the maximum takeoff 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 1 000 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 § 135.165 (See Appendix F to GACAR Part 121, Figure F–1).

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

(c) ***Takeoff distance***. The takeoff mass must be such that the TODRH does not exceed the takeoff 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 takeoff decision point TDP can, when continuing the takeoff, clear all obstacles from the end of the takeoff distance available to the end of the TODRH by a vertical margin of not less than 35 ft (10 m) (See Appendix F to GACAR Part 121, Figure F–2).

(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 § 135.169(b) must be considered.

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

(1) The takeoff 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 § 135.169 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 takeoff surface, unless permitted as part of an approved procedure in the AFM.

(g) ***En route***. The takeoff 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 Appendix F to GACAR Part 121, Figures F–4 and F–5). 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 1 000 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 § 135.165;

(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 of paragraph (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.

§ 135.173 Operations in Performance Class 2.

(a) Takeoff. (See Appendix F to GACAR Part 121, Figures F–6 and F–7). 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 1 000 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 § 135.165.

(b) Takeoff 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 § 135.171(f) must be met.

(c) En route. Requirements are specified in GACAR § 135.171(g).

(d) Approach, landing, and balked landing. (See Appendix F to GACAR Part 121, Figures F–8 and F–9). 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 1 000 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 § 135.165; 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 § 135.171(f). Only obstacles as specified in GACAR § 135.169 must be considered.

§ 135.175 Operations in Performance Class 3.

(a) ***Takeoff.*** The mass of the rotorcraft at takeoff must not exceed the maximum takeoff mass specified in the AFM for a hover in ground effect (HIGE) with all engines operating at takeoff power, taking into account the parameters specified in GACAR § 135.165. If conditions are such that a HIGE is not likely to be established, the takeoff mass must not exceed the maximum mass specified for a HOGE with all engines operating at takeoff power, taking into account the parameters specified in GACAR § 135.165.

(b) ***Initial climb***. The takeoff 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 takeoff 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 takeoff power, taking into account the parameters specified in GACAR § 135.165. If conditions are such that a HIGE is not likely to be established, the takeoff mass must not exceed the maximum mass specified for a HOGE with all engines operating at takeoff power, taking into account the parameters specified in GACAR § 135.165; 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

§ 135.185 Applicability.

This subpart prescribes additional airworthiness requirements applicable to certificate holders operating under this part.

§ 135.187 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:

(a) All emergency exit signs, and

(b) All passenger safety information signs, markings and placards as required by GACAR § 135.217.

SUBPART I – INSTRUMENT AND EQUIPMENT REQUIREMENTS

§ 135.201 Applicability.

(a) This subpart prescribes instrument and equipment requirements for all certificate holders operating under this part. Associated “use of” rules for certain required equipment are specified in GACAR Part 91.

(b) This subpart does not require the duplication of any equipment required in other GACAR parts.

§ 135.203 General Requirements.

(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 and applicable sections of Subparts C and D of GACAR Part 91 must be approved and installed in accordance with the airworthiness requirements applicable to them.

(c) Except as provided in GACAR § 135.209, 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 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.

§ 135.205 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 operations specifications to ensure its condition for continued serviceability and immediate readiness to perform its intended emergency purposes;

(b) Must be readily accessible to the pilots 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.

§ 135.206 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 Subpart C of GACAR Part 91.

(b) Each equipment item required by this section—

(1) Must be inspected regularly to ensure its condition for continued serviceability and immediate readiness to perform its intended emergency purposes;

(2) Must be readily accessible to the pilots 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.

(c) The intent of this paragraph is not to require certificate holders or their agents to provide emergency medical care or to establish a standard of care for the provision of emergency medical care.

§ 135.207 Aircraft Instruments and Equipment.

(a) General. Except as provided in GACAR § 135.209, 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 kind of operation described in paragraphs (d) through (p) of this section unless that aircraft also contains the instruments and equipment specified in those paragraphs for that kind of operation and is equipped in accordance with applicable sections of GACAR § 91.303.

(b) 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.

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

Para.	Kind of Operation	Required Instruments & Equipment

Para.	Kind of Operation	Required Instruments & Equipment
(d)	Operation of all aircraft on all flights.	(1) All required instruments and equipment for all flights provided in GACAR § 91.303(c), (2) A sensitive altimeter that is adjustable for barometric pressure, and (3) Heating or deicing equipment for each carburetor or, for a pressure carburetor, an alternate air source.
(e)	Operation of aircraft in controlled flight under VFR.	All instruments and equipment for IFR flight as specified in paragraph (f) of this section.

Para.	Kind of Operation	Required Instruments & Equipment
(f)	Operation of aircraft under IFR.	For all aircraft— (1) All required instruments and equipment for IFR flight as provided in GACAR § 91.303(e). (2) Two independent altitude measuring and display systems. (3) A second altimeter adjustable for barometric pressure (both of which must have counter drum-pointer or equivalent presentation—neither three-pointer nor drum-pointer altimeters satisfy this requirement). (4) Illumination for all instruments and equipment used by the flight crew that is essential for the safe operation of the aircraft. Additionally for rotorcraft — (5) A stabilization system, unless it has been accepted by the President that the rotorcraft possesses, by nature of its design, adequate stability without such a system. (6) A third gyroscopic pitch and bank indicator, in accordance with Section VI of Appendix C to GACAR Part 91. (7) 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

Para.	Kind of Operation	Required Instruments & Equipment
		electrical generating system and clear indication must be given on the instrument panel that the attitude indicator(s) is being operated by emergency power.
(g)	Operation of aircraft at night.	(1) All required instruments and equipment for night flights provided in GACAR § 91.303(g). (2) One additional landing light.
(h)	Extended over-water operations (landplanes and rotorcraft).	(1)All required instruments and equipment for extended over-water operations provided in GACAR § 91.303(k). (2) Each life preserver and equivalent individual flotation device must be equipped with a means of electric illumination for the purpose of facilitating the location of persons, except where this requirement is met by the provision of individual flotation devices other than life preservers.
(i)	Single-pilot operations under IMC or at night.	(1) All required instruments and equipment for IFR or night flights provided in GACAR §§ 91.303(e) and (g). (2) A serviceable autopilot that has a minimum of altitude hold and heading select modes and is capable of maneuvering the aircraft controls about the three axes. (3) A headset with a boom microphone or equivalent. (4) A method of displaying charts that allows them to be readable in all ambient light conditions.

Para.	Kind of Operation	Required Instruments & Equipment
(j)	Operation of single-engine turbine-powered airplanes at night or in IMC.	(1) Two separate electrical systems, each one capable of supplying all probable combinations of continuous in-flight electrical loads for instruments, equipment, and systems required at night or in IMC. (2) A radio altimeter. (3) An emergency electrical supply system of sufficient capacity and endurance, following loss of all generated power, to, at minimum — (i) Maintain the operation of all essential flight instruments, communication, and navigation systems during a descent from the maximum certificated altitude in a glide configuration to the completion of a landing; (ii) Lower the flaps and landing gear, if applicable; (iii) Provide power to one pitot heater, which must serve an airspeed indicator clearly visible to the pilot; (iv) Provide for operation of the landing light required in paragraph (g) of this section; (v) Provide for one engine restart, if applicable; and (vi) Provide for the operation of the radio altimeter. (4) Two attitude indicators, powered from independent sources. (5) A means to provide for at least one attempt at engine restart. (6) Airborne weather radar. (7) A certified RNAV system capable of being programmed with the positions of aerodromes and safe forced landing areas, and providing instantly available track and distance

Para.	Kind of Operation	Required Instruments & Equipment
		information to those locations. (8) A landing light that is independent of the landing gear and is capable of adequately illuminating the touchdown area in a night forced landing. (9) An engine fire warning system. (10) An automatic engine trend-monitoring system for airplanes receiving their first individual airworthiness certificate on or after 1 January 2005. (11) The engine must be equipped with— (i) An ignition system that activates automatically, or is capable of being operated manually, for takeoff and landing, and during flight, in visible moisture; (ii) A magnetic particle detection or equivalent system that monitors the engine, accessories gearbox, and reduction gearbox, and which includes a flightdeck caution indication; and (iii) An emergency engine power control device that permits continuing operation of the engine through a sufficient power range to safely complete the flight in the event of any reasonably probable failure of the fuel control unit. (12) For passenger-carrying operations, passenger seats and mounts which meet dynamically tested performance standards and which are fitted with a shoulder harness or a safety belt with a diagonal shoulder strap for each passenger seat.

Para.	Kind of Operation	Required Instruments & Equipment
(k)	Operation of pressurized single-engine turbine-powered aircraft at night or in IMC.	Sufficient supplemental oxygen for all occupants for descent following engine failure at the maximum glide performance from the maximum certificated altitude to an altitude at which supplemental oxygen is no longer required.

Para.	Kind of Operation	Required Instruments & Equipment
(l)	Operation of turbojet airplanes.	(1) All required instruments and equipment for IFR flights as provided in GACAR § 91.303(e). (2) A third gyroscopic pitch and bank indicator, in accordance with Section VI of Appendix C to GACAR Part 91. (3) Altitude alerting system to— (i) 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; (ii) 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; (iii) Provide the required signals from sea level to the highest operating altitude approved for the airplane in which it is installed; (iv) Preselect altitudes in increments that are commensurate with the altitudes at which the airplane is operated; (v) Be tested without special equipment to determine proper operation of the alerting signals; and (vi) Accept necessary barometric pressure settings if the system or device operates on barometric pressure.However, for operation below 3 000 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
(m)	Operation of turbine-powered airplanes that require two pilots by type certification or operating rule and for which the type certificate is first issued on or after 1 January 2016.	A cockpit voice recorder (CVR) in accordance with Section I(b) of Appendix C to GACAR Part 91 or a cockpit audio recording system (CARS) in accordance with Section II(b) of Appendix C to GACAR Part 91, as applicable.
(n)	Operation of turbine-powered airplanes certificated in the normal category for which a type certificate is first issued on or after 1 January 2016.	A flight data recorder (FDR) of the Type A2 in accordance with Section I(a) of Appendix C to GACAR Part 91 or a Class C airborne image recorder (AIR) in accordance with Section I(c) of Appendix C to GACAR Part 91; or an aircraft data recording system (ADRS) in accordance with Section II(a) of Appendix C to GACAR Part 91.

Para.	Kind of Operation	Required Instruments & Equipment
(o)	Operation of multi-engine aircraft.	(1) At least two generators or alternators each of which is on a separate engine, of which any combination of one-half of the total number are rated sufficiently to supply the electrical loads of all required instruments and equipment necessary for safe emergency operation of the aircraft except that for multi-engine rotorcraft, the two required generators may be mounted on the main rotor drive train; and (2)Two independent sources of energy (with means of selecting either) of which at least one is an engine-driven pump or generator, each of which is able to drive all required gyroscopic instruments powered by, or to be powered by, that particular source and installed so that failure of one instrument or source does not interfere with the energy supply to the remaining instruments or the other energy source.For the purpose of this paragraph, each engine-driven source of energy must be on a different engine.
(p)	Operation of aircraft on flights with passengers at night or in IMC in areas where thunderstorms or other potentially hazardous weather conditions may be expected to exist along the route.	Airborne weather radar or airborne thunderstorm detection equipment for aircraft.
(q)	Operation of rotorcraft.	A radio altimeter, or an approved device that incorporates a radio altimeter.

Para.	Kind of Operation	Required Instruments & Equipment
(r)	Operation of rotorcraft of a maximum certificated takeoff mass of 3 180 kg or less for which the individual certificate of airworthiness is first issued on or after 1 January 2018..	A flight data recorder (FDR) of the Type R3 in accordance with Section I(a) of Appendix C to GACAR Part 91 or a Class C airborne image recorder (AIR) in accordance with Section I(c) of Appendix C to GACAR Part 91; or an aircraft data recording system (ADRS) in accordance with Section II(a) of Appendix C to GACAR Part 91.

§ 135.209 Inoperable Instruments and Equipment.

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

(1) 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.

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

(b) Notwithstanding paragraphs (a)(1) and (2) 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.

(c) For operations conducted in single engine turbine powered airplanes at night or in IMC, the MEL must specify the operating equipment required for night or IMC operations and for day visual meteorological conditions (VMC) operations.

§ 135.211 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 and GACAR § 135.207, where applicable, for the intended flight.

(b) No person may operate an aircraft unless it is equipped with the navigation equipment prescribed

in GACAR Part 91 and GACAR § 135.207, where applicable, for the intended flight and—

(1) 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.

(2) Any RNAV system used to meet the navigation equipment requirements is authorized in the certificate holder's operations specifications.

(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.

§ 135.217 Passenger Information Requirements and Smoking Prohibitions.

(a) No person may operate an aircraft on a flight on which smoking is prohibited by the GACA Economic Regulations unless either the "No Smoking" passenger information signs are lighted during the entire flight, or one or more "No Smoking" placards meeting the requirements of GACAR § 25.1541 are posted during the entire flight segment. If both the lighted signs and the placards are used, the signs must remain lighted during the entire flight segment.

(b) No person may smoke while a "No Smoking" sign is lighted or while "No Smoking" placards are posted.

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

(d) No person may operate an aircraft with a lavatory equipped with a smoke detector unless there is a sign or placard in the lavatory which reads: "KSA law provides for a penalty of up to 1 000 Saudi Arabian Riyals for tampering with the smoke detector installed in this lavatory." These signs or placards need not meet the requirements of paragraph (a) of this section.

(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 him by a pilot regarding compliance with this section.

§ 135.219 Dual Controls Required.

No certificate holder may operate an aircraft in operations requiring two pilots unless it is equipped with functioning dual controls. However, if the aircraft type certification operating limitations do not require two pilots, a throw over control wheel may be used in place of two control wheels.

SUBPART J – MAINTENANCE, PREVENTIVE MAINTENANCE, AND ALTERATIONS

§ 135.239 Maintenance Requirements.

(a) A certificate holder operating under this part must—

(1) Comply with all maintenance requirements of GACAR Parts 43 and 91, GACAR §§ 135.241, 135.243, 135.249, 135.695, and 135.697 (An approved aircraft inspection program may be used under GACAR § 135.245 to meet inspection requirements of GACAR Part 91) or

(2) Establish and comply with a Continuous Airworthiness Maintenance Program (CAMP) in accordance with Subpart J of GACAR Part 121.

(b) Certificate holders using single engine aircraft for IFR operations must maintain those aircraft in accordance with GACAR §§ 135.249(c), (d), and (e).

§ 135.241 Responsibility for Airworthiness.

(a) Each certificate holder operating under this part is responsible for—

(1) The maintenance of aircraft in accordance with GACAR § 135.239;

(2) The airworthiness of its aircraft, including airframes, aircraft engines, propellers, rotors, appliances, and parts thereof; and

(3) The performance of the maintenance, preventive maintenance, and alteration of its aircraft, including airframes, aircraft engines, propellers, appliances, emergency equipment, and parts, in accordance with its maintenance manual and the regulations.

(b) A certificate holder may make arrangements with another person for the performance of any maintenance, preventive maintenance, or alterations. However, this does not relieve the certificate holder of the responsibility specified in paragraph (a) of this section.

§ 135.243 Manual Requirements.

Each certificate holder must prepare and maintain a maintenance manual in accordance with Subpart D of this part.

§ 135.245 Approved Aircraft Inspection Program.

(a) A certificate holder who applies for an amendment of its operations specifications to allow an approved aircraft inspection program must submit that program with its application for approval by the President.

(b) Each certificate holder who is required by its operations specifications to have an approved aircraft inspection program must submit a program for approval by the President within 30 working days of the amendment of its operations specifications or within any other period the President may prescribe in the operations specifications.

(c) The aircraft inspection program submitted to the President for approval must contain the following:

(1) Instructions and procedures for the conduct of aircraft inspections (which must include necessary tests and checks), setting forth in detail the parts and areas of the airframe, engines, propellers, rotors, and appliances, including emergency equipment, that must be inspected.

(2) A schedule for the performance of the aircraft inspections under paragraph (c)(1) of this section expressed in terms of the time in service, calendar time, number of system operations, or any combination of these.

(3) Instructions and procedures for recording discrepancies found during inspections and correction or deferral of discrepancies including form and disposition of records.

(4) The aircraft inspection program must observe human factors principles.

(d) After approval, the certificate holder must include the approved aircraft inspection program in the manual required by GACAR § 135.85.

(e) Whenever the President finds that revisions to an approved aircraft inspection program are necessary for the continued adequacy of the program, the certificate holder, after notification by the President, must make any changes in the program found by the President to be necessary. The certificate holder may petition the President to reconsider the notice under the provisions of GACAR Part 13.

(f) Each certificate holder who has an approved aircraft inspection program must have each aircraft

that is subject to the program inspected in accordance with the program.

(g) The registration number and serial number of each aircraft that is subject to an approved aircraft inspection program must be included in the operations specifications of the certificate holder.

§ 135.247 Continuous Airworthiness Maintenance Program.

Each certificate holder who elects to establish and maintain a CAMP must comply with Subpart J of GACAR Part 121, GACAR § 121.1545, and if applicable, GACAR §§ 135.249(c), (d), and (e).

§ 135.249 Additional Maintenance Requirements.

(a) Each certificate holder must comply with the manufacturer's recommended maintenance programs for each aircraft engine, propeller, rotor, and each item of emergency equipment required by the GACAR.

(b) For the purpose of this section, a manufacturer's maintenance program is one contained in the instructions for continued airworthiness set forth by the manufacturer as required by GACAR Part 21 for the aircraft, aircraft engine, propeller, rotor, or item of emergency equipment.

(c) For each single engine aircraft to be used in night or IFR operations, each certificate holder must also comply with either—

(1) The manufacturer's recommended engine trend monitoring program, which includes an oil analysis, if appropriate or

(2) An approved engine trend monitoring program that includes an oil analysis at each 100 hour interval or at the manufacturer's suggested interval, whichever is more frequent.

(d) For single engine aircraft to be used in night or IFR operations, written maintenance instructions containing the methods, techniques, and practices necessary to maintain the equipment specified in GACAR §§ 91.303 and 135.207, as applicable, are required.

(e) No certificate holder may operate a single engine aircraft at night or under IFR, unless the certificate holder records and maintains in the engine maintenance records the results of each test, observation, and inspection required by the applicable engine trend monitoring program specified in paragraphs (c)(1) and (2) of this section.

SUBPART K – PILOT REQUIREMENTS AND QUALIFICATIONS

§ 135.331 Applicability.

Except as provided in GACAR §§ 135.375(b) and (c) for alternate training and testing requirements, this subpart—

(a) Prescribes the qualification requirements, tests and checks required for pilots and for the approval of check pilots in operations under this part; and

(b) Permits training center personnel authorized under GACAR Part 142, or foreign training centers approved by a contracting state to the Convention on International Civil Aviation and approved by the President, who meet the requirements of GACAR §§ 135.395 and 135.397 to conduct training, testing, and checking under contract or other arrangement to those persons subject to the requirements of this subpart.

§ 135.333 Pilots: Limitations on Use of Services.

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

(1) Holds an appropriate and current airman certificate issued or accepted by the President,

(2) Has any required appropriate current airman and medical certificates in his possession while engaged in operations under this part, and

(3) Is otherwise qualified for the operation for which they are to be used.

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

(c) Each certificate holder must ensure the pilot age limitations and pairing requirements of GACAR § 61.3(c) are met before assigning pilots to an operation under this part.

§ 135.335 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 pilot for each position required by paragraph (a) for each flight.

(c) The PIC, as designated by the certificate holder, must remain the PIC at all times during that flight.

§ 135.337 Refueling With Passengers on Board.

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

(a) The certificate holder must ensure that a person who is qualified in the emergency evacuation procedures for the airplane, as required in GACAR § 135.339, and who is identified to the passengers, remains—

(1) On board the airplane or

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

(i) The airplane engines are shut down and

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

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

(b) A rotorcraft must not be refueled when passengers are boarding, on board, or deplaning or when the rotor is turning unless the certificate holder has specified the conditions for refueling and its procedures are authorized by the President.

(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.

§ 135.339 Emergency and Emergency Evacuation Duties.

(a) Each certificate holder must assign to each required pilot for each type of aircraft as appropriate, the necessary functions to be performed in an emergency or in a situation requiring emergency evacuation. The certificate holder must ensure that those functions can be practicably accomplished, and will meet any reasonably anticipated emergency including incapacitation of individual pilots or their inability to reach the passenger cabin because of shifting cargo in combination cargo/passenger aircraft.

(b) The certificate holder must describe in the manual required under GACAR § 135.85 the functions of each category of required pilots assigned under paragraph (a) of this section.

§ 135.341 Pilot in Command Qualifications.

(a) No certificate holder may use a person, nor may any person serve, as PIC in scheduled passenger carrying operations—

(1) Of a multi engine airplane in a scheduled operation unless that person holds an ATP certificate with appropriate category and class ratings and, if required, an appropriate type rating for that airplane or

(2) Of a rotorcraft in a scheduled operation unless that person holds an ATP certificate with appropriate category and class ratings.

(b) No certificate holder may use a person, nor may any person serve, as PIC of an aircraft in unscheduled operations under VFR unless that person—

(1) Holds at least a commercial pilot certificate with appropriate category and class ratings and, if required, an appropriate type rating for that aircraft;

(2) Has had at least 500 hours of flight time as a pilot, including at least 100 hours of cross country flight time, at least 25 hours of which were at night; and

(3) Except as provided in paragraph (e) of this section, for an airplane, holds an instrument rating or an ATP certificate with an airplane category rating; or

(4) For rotorcraft operations conducted under VFR over the top, holds a rotorcraft instrument rating, or an ATP certificate with a category and class rating for that aircraft, not limited to VFR.

(c) No certificate holder may use a person, nor may any person serve, as PIC of an aircraft in unscheduled operations under IFR unless that person—

(1) Holds at least a commercial pilot certificate with appropriate category and class ratings and, if required, an appropriate type rating for that aircraft;

(2) Has had at least 1 200 hours of flight time as a pilot, including 500 hours of cross country flight time, 100 hours of night flight time, and 75 hours of instrument time (actual or simulated) at least 50 hours of which were in actual flight; and

(3) For an airplane, holds an instrument rating or an ATP certificate with an airplane category rating; or

(4) For a rotorcraft, holds a rotorcraft instrument rating, or an ATP certificate with a category and class rating for that aircraft, not limited to VFR.

(d) No certificate holder may use a person, nor may any person serve, as PIC of a single engine airplane at night unless that person meets the requirements of paragraphs (c)(1) through (3) of this section.

(e) Paragraph (b)(3) of this section does not apply when—

(1) The airplane used is a single reciprocating engine powered airplane;

(2) The area, as specified in the certificate holder’s operations specifications, is an isolated area, as determined by the President, if it is shown that—

(i) The primary means of navigation in the area is by pilotage, because radio navigation aids are largely ineffective and

(ii) The primary means of transportation in the area is by air.

(3) Each flight is conducted under day VFR with a ceiling of not less than 1 000 ft (300 m) and visibility not less than 5 km;

(4) Weather reports or forecasts, or any combination of them, indicate that for the period commencing with the planned departure and ending 30 minutes after the planned arrival at the

destination the flight may be conducted under VFR with a ceiling of not less than 1 000 ft (300 m) and visibility of not less than 5 km, except that if weather reports and forecasts are not available, the PIC may use his observations or those of other persons competent to supply weather observations if those observations indicate the flight may be conducted under VFR with the ceiling and visibility required in this paragraph;

(5) The distance of each flight from the certificate holder's base of operations to the destination does not exceed 250 NM for a pilot who holds a commercial pilot certificate with an airplane rating having no instrument rating, provided the pilot certificate does not contain any limitation to the contrary; and

(6) The areas to be flown are approved by the President and are listed in the certificate holder's operations specifications.

§ 135.343 Operating Experience.

(a) No certificate holder may use any person, nor may any person serve, as a PIC of an aircraft operated in a scheduled operation unless that person has completed, prior to designation as PIC, on that make and basic model aircraft and in that pilot position, the following operating experience in each make and basic model of aircraft to be flown:

(1) Aircraft, single engine—10 hours.

(2) Aircraft multi engine, reciprocating engine powered—15 hours.

(3) Aircraft multi engine, turbine engine powered—20 hours.

(4) Airplane, turbojet powered—25 hours.

(b) In acquiring the operating experience, each person must comply with the following:

(1) The operating experience must be acquired after satisfactory completion of the appropriate ground and flight training for the aircraft and pilot position. Details of the required operating experience must be included in the certificate holder's training program.

(2) The experience must be acquired in flight during passenger carrying operations under this part. However, in the case of an aircraft not previously used by the certificate holder in

operations under this part, operating experience acquired in the aircraft during proving flights or ferry flights may be used to meet this requirement.

(3) Each person must acquire the operating experience while performing the duties of a PIC under the supervision of a qualified check pilot.

(4) The hours of operating experience may be reduced to not less than 50 percent of the hours required by this section by the substitution of one additional takeoff and landing for each hour of flight.

§ 135.345 Second in Command Qualifications.

(a) Except as provided in paragraph (b) of this section, no certificate holder may use any person, nor may any person serve, as second in command (SIC) of an aircraft unless that person holds at least a commercial pilot certificate with appropriate category and class ratings and an instrument rating. For flight under IFR, that person must meet the recent instrument experience requirements of GACAR Part 61.

(b) An SIC of a rotorcraft operated under VFR, other than over the top, must have at least a commercial pilot certificate with an appropriate aircraft category and class rating.

§ 135.347 Pilot in Command Qualification: Recent Experience.

(a) No certificate holder may use any person, nor may any person serve, as PIC of an aircraft carrying passengers unless, within the preceding 90 days, that person has—

(1) Made three takeoffs and three landings as the sole manipulator of the flight controls in an aircraft of the same category and class and, if a type rating is required, of the same type in which that person is to serve; or

(2) For operation during the period beginning 1 hour after sunset and ending 1 hour before sunrise, made three takeoffs and three landings during that period as the sole manipulator of the flight controls in an aircraft of the same category and class and, if a type rating is required, of the same type in which that person is to serve.

A person who complies with paragraph (a)(2) of this section need not comply with paragraph (a)(1) of this section.

(3) Paragraph (a)(2) of this section does not apply to a PIC of a turbine powered airplane that is type certificated for more than one pilot, provided that pilot has complied with the requirements of paragraph (a)(3)(i) or (ii) of this section—

(i) The PIC must hold at least a commercial pilot certificate with the appropriate category, class, and type rating for each airplane that is type certificated for more than one pilot that the pilot seeks to operate under this alternative, and—

(A) That pilot must have logged at least 1 500 hours of aeronautical experience as a pilot.

(B) In each airplane that is type certificated for more than one pilot that the pilot seeks to operate under this alternative, that pilot must have accomplished and logged the daytime takeoff and landing recent flight experience of paragraph (a) of this section, as the sole manipulator of the flight controls.

(C) Within the preceding 90 days prior to the operation of that airplane that is type certificated for more than one pilot, the pilot must have accomplished and logged at least 15 hours of flight time in the type of airplane that the pilot seeks to operate under this alternative.

(D) That pilot has accomplished and logged at least three takeoffs and three landings to a full stop, as the sole manipulator of the flight controls, in a turbine powered airplane that requires more than one pilot. The pilot must have performed the takeoffs and landings during the period beginning 1 hour after sunset and ending 1 hour before sunrise within the 6 months prior to the month of the flight.

(ii) The PIC must hold at least a commercial pilot certificate with the appropriate category, class, and type rating for each airplane that is type certificated for more than one pilot that the pilot seeks to operate under this alternative, and—

(A) That pilot must have logged at least 1 500 hours of aeronautical experience as a pilot.

(B) In each airplane that is type certificated for more than one pilot that the pilot seeks to operate under this alternative, that pilot must have accomplished and logged the daytime takeoff and landing recent flight experience of paragraph (a) of this section, as

the sole manipulator of the flight controls.

(C) Within the preceding 90 days prior to the operation of that airplane that is type certificated for more than one pilot, the pilot must have accomplished and logged at least 15 hours of flight time in the type of airplane that the pilot seeks to operate under this alternative.

(D) Within the preceding 12 months prior to the month of the flight, the pilot must have completed a training program that is approved under GACAR Part 142. The approved training program must have required and the pilot must have performed, at least six takeoffs and six landings to a full stop as the sole manipulator of the controls in a full flight simulator (FFS) that is representative of a turbine powered airplane that requires more than one pilot. The FFS's visual system must have been adjusted to represent the period beginning 1 hour after sunset and ending 1 hour before sunrise.

(b) For the purpose of paragraph (a) of this section, if the aircraft is a tailwheel airplane, each takeoff must be made in a tailwheel airplane and each landing must be made to a full stop in a tailwheel airplane.

§ 135.349 Initial and Recurrent Pilot Testing and Checking Requirements.

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

(1) The appropriate provisions of GACAR Parts 61, 91, and 135 and the operations specifications and the 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 the contents of the approved AFM or 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 or pilot authorization, including, when applicable, instrument approach facilities and procedures;

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

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

(7) Procedures for—

(i) Recognizing and avoiding severe weather situations;

(ii) Escaping from severe weather situations, in case of inadvertent encounters, including low altitude windshear (except that rotorcraft pilots are not required to be tested on escaping from low altitude windshear); and

(iii) Operating in or near thunderstorms (including best penetrating altitudes), turbulent air (including clear air turbulence), icing, hail, and other potentially hazardous meteorological conditions; and

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

(b) No certificate holder may use a pilot, nor may any person serve as a pilot, in any aircraft unless, since the beginning of the 12th month before that service, that pilot has passed a competency check given by the President or an authorized check pilot in that class of aircraft, if single engine airplane other than turbojet, or that type of aircraft, if rotorcraft, multi engine airplane, or turbojet airplane, to determine the pilot's competence in practical skills and techniques in that aircraft or class 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 airplane, means any one of a group of airplanes determined by the GACA inspector to have a similar means of propulsion, the same manufacturer, and no significantly different handling or flight characteristics. For the purposes of this paragraph, type, as to a rotorcraft, means a basic make and model.

(c) The instrument proficiency check required by GACAR § 135.351 may be substituted for the competency check required by this section for the type of aircraft used in the check.

(d) For the purpose 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 a flight simulation training device (FSTD), if approved by the President.

§ 135.351 Pilot in Command: Instrument Proficiency Check Requirements.

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

(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 satisfactorily demonstrated that type of approach procedure. 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. 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 conducted solely by reference to instruments under simulated or actual instrument flight 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 supercharger 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 navigation facilities, which that pilot is to be authorized to use. Each pilot taking the instrument proficiency check must show that standard of competence required by GACAR § 135.349(d).

(1) The instrument proficiency check must—

(i) For a PIC of an airplane under GACAR § 135.341(a), include the procedures and maneuvers for an ATP certificate in the particular type of airplane, if appropriate;

(ii) For a PIC of an airplane or rotorcraft under GACAR § 135.341(c), include the procedures and maneuvers for a commercial pilot certificate with an instrument rating and, if required, for the appropriate type rating; and

(iii) For a PIC of an airplane under GACAR § 135.341(d), include demonstration of an engine failure with a descent to a forced landing at night or in IMC.

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

(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) If the PIC is assigned to pilot both single engine and multi engine aircraft, that pilot must initially take the instrument proficiency check required by paragraph (a) of this section in a multi engine aircraft, and each succeeding check alternately in single engine and multi engine aircraft, but not more than one flight check during each period described in paragraph (a) of this section. Portions of a required flight check may be given in an aircraft simulator or other appropriate training device, if approved by the President.

(g) If the PIC is authorized to use an autopilot system in place of an SIC, that pilot must show, during the required instrument proficiency check, that the pilot is able (without an SIC) both with and without using the autopilot to—

(1) Conduct instrument operations competently.

(2) Properly conduct air/ground communications and comply with complex ATC instructions.

(h) Each pilot taking the autopilot check under paragraph (g) of this section must show that, while using the autopilot, the airplane can be operated as proficiently as it would be if an SIC were present to handle air/ground communications and ATC instructions. The autopilot check need only be demonstrated once every 12 months during the instrument proficiency check required under paragraph (a) of this section.

§ 135.353 Pilot in Command: Line Checks: Routes and Aerodromes.

(a) No certificate holder may use a pilot, nor may any person serve, as a PIC of a flight unless, since the beginning of the 12th month before that service, that pilot has passed a flight check in one of the types of aircraft which that pilot is to fly. The flight check must—

(1) Be given by an approved check pilot or by a GACA inspector,

(2) Consist of at least one flight over one route segment, and

(3) Include takeoffs and landings at one or more representative aerodromes. In addition to the requirements of this paragraph, for a pilot authorized to conduct IFR operations, at least one flight must be flown over a civil airway, an approved off airway route, or a portion of either of them.

(b) The pilot who conducts the check must determine whether the pilot being checked satisfactorily performs the duties and responsibilities of a PIC in operations under this part, and must so certify in the pilot training record.

(c) Each certificate holder must establish in the manual required by GACAR § 135.85 a procedure which will ensure that each pilot who has not flown over a route and into an aerodrome within the preceding 90 days must, before beginning the flight, become familiar with all available information required for the safe operation of that flight.

§ 135.355 Pilots: Tests and Checks, Grace Provisions, Training to Accepted Standards.

(a) If a pilot who is required to take a test or a 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 pilot 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 being checked to repeat any other maneuvers that are necessary to determine the pilot's proficiency. If the pilot being checked 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, as a pilot in operations under this part until the pilot has satisfactorily completed the check.

§ 135.357 Pilot in Command Qualification: Routes and Aerodromes.

(a) Each certificate holder must provide a system acceptable to the President for providing the information required by paragraph (b) of this section for dissemination to the PIC and appropriate flight operations personnel. The system must also provide an acceptable means for showing compliance with GACAR § 135.359.

(b) No certificate holder may use any person, nor may any person serve, as PIC unless the certificate holder has provided that person current information concerning the following subjects pertinent to the areas over which that person is to serve, and to each aerodrome and terminal area into which that person is to operate, and ensures that person has adequate knowledge of, and the ability to use, the information:

(1) Weather characteristics appropriate to the season;

(2) Navigation facilities;

(3) Communication procedures, including aerodrome visual aids;

(4) Kinds of terrain and obstructions;

(5) Minimum safe flight levels;

(6) En route and terminal area arrival and departure procedures, holding procedures and authorized instrument approach procedures for the aerodromes involved;

(7) Congested areas and physical layout of each aerodrome in the terminal area in which the pilot will operate;

(8) Notices to Airmen; and

(9) Search and rescue procedure and services in the area over which the aircraft will be flown.

(c) Reserved.

(d) ***For airplanes***. A PIC must have made an actual approach into each aerodrome of landing on the route, accompanied by a pilot who is qualified for the aerodrome, as a member of the flight crew or as an observer on the flightdeck, unless—

(1) The approach to the aerodrome is not over difficult terrain and the instrument approach procedures and aids available are similar to those with which the pilot is familiar, and a margin approved by the President is added to the normal operating minimums, or there is reasonable certainty that approach and landing can be made in VMC; or

(2) The descent from the initial approach altitude can be made by day in VMC; or

(3) The certificate holder qualifies the PIC to land at the aerodrome concerned by means of an adequate pictorial presentation; or

(4) The aerodrome concerned is adjacent to another aerodrome at which the PIC is currently qualified to land.

(e) ***For rotorcraft***. A PIC must have made a flight representative of the operation the pilot is to be engaged in that includes a landing at a representative aerodrome or landing area, as a member of the flight crew and accompanied by a pilot who is qualified for the operation.

(f) The certificate holder must maintain a record of the qualification of the pilot and how he achieved such qualification in a manner sufficient to satisfy the President.

(g) A certificate holder must not continue to use a pilot as a PIC on a route, within an area, or on an operation, as applicable, specified by the certificate holder and approved by the President unless, within the preceding 12 months, that pilot has made at least one trip as a pilot, check pilot, or as an observer on the flightdeck—

(1) Within that specified area or for rotorcraft, on a representative flight and

(2) If appropriate, on any route where procedures associated with that route or with any aerodromes intended to be used for takeoff or landing require the application of special skills or knowledge.

(h) ***Requalification***.

(1) Airplanes. If more than 12 months elapse in which a PIC has not made a trip as specified in paragraph (g) of this section on a route in close proximity and over similar terrain and has not practiced such procedures in a flight simulation training device (FSTD), before serving as a PIC within that area or on that route, that pilot must requalify under paragraphs (c) and (d) of this section.

(2) Rotorcraft. If more than 12 months elapse in which a PIC has not made a representative flight as specified in paragraph (g) of this section on a representative flight and has not practiced such procedures in an FSTD, before serving as a PIC on that operation, that pilot must requalify under paragraphs (c) and (e) of this section.

§ 135.359 Pilot in Command Aerodrome Qualification: Special Areas and Aerodromes.

(a) The President may determine that certain aerodromes (due to items such as surrounding terrain, obstructions, or complex approach or departure procedures) are special aerodromes requiring special aerodrome qualifications and that certain areas or routes, or both, require a special type of navigation qualification.

(b) Except as provided in paragraph (c) of this section, no certificate holder may use any person, nor may any person serve, as PIC to or from an aerodrome deemed to require special aerodrome qualifications unless, within the preceding 12 months—

(1) The PIC or SIC has made an entry to that aerodrome (including a takeoff and landing) while serving as a pilot, or

(2) The PIC has qualified by using pictorial means acceptable to the President for that aerodrome.

(c) Paragraph (b) of this section does not apply when an entry to that aerodrome (including a takeoff or a landing) is being made if the ceiling at that aerodrome is at least 1 000 ft (300 m) above the lowest MEA or minimum obstruction clearance altitude, or initial approach altitude prescribed for the instrument approach procedure for that aerodrome, and the visibility at that aerodrome is at least 5 km.

(d) No certificate holder may use any person, nor may any person serve, as PIC between terminals

over a route or area that requires a special type of navigation qualification unless, within the preceding 12 months, that person has demonstrated qualification on the applicable navigation system in a manner acceptable to the President, by one of the following methods:

(1) By flying over a route or area or for rotorcraft, on a representative flight as PIC using the applicable special type of navigation system or

(2) By flying over a route or area or for rotorcraft, on a representative flight as PIC under the supervision of a check pilot using the special type of navigation system.

§ 135.361 Pilot in Command Qualification: Single Pilot Operations Under IFR or at Night.

(a) ***Under IFR or at night***. No certificate holder may use a PIC, nor may any person serve as PIC, in a single pilot operation flying under IFR or at night unless—

(1) The PIC has at least 50 hours of flight time in the class of airplane to be used, including at least 10 hours as PIC;

(2) The PIC has completed the training required by GACAR § 135.386;

(3) The PIC has completed the testing requirements of GACAR § 135.359 while functioning in the single pilot role; and

(4) The applicable provisions of this section have been met.

(b) ***Under IFR***. No certificate holder may use a PIC, nor may any person serve as PIC, in a single pilot operation under IFR unless the PIC—

(1) Has at least 25 hours of flight time under IFR in the class of airplane to be used,

(2) Has completed the testing requirements of GACAR § 135.351 while functioning in the single pilot role, and

(3) Has recent IFR experience to include—

(i) At least five IFR flights, including at least three instrument approaches during the preceding 90 days while operating single pilot in the same class aircraft or

(ii) Satisfactory completion of the requirements of GACAR § 135.351 during the preceding 90 days.

(c) ***At night***. No certificate holder may use a PIC, nor may any person serve as PIC, in a single pilot operation at night unless—

(1) The PIC has at least 15 hours of flight time at night and

(2) The PIC has recent experience of at least three takeoffs and landings at night during the preceding 90 days while operating single pilot in the same class aircraft.

SUBPART L – TRAINING PROGRAMS

§ 135.375 Applicability.

(a) Except as provided in paragraphs (b) and (c) of this section, this subpart prescribes the requirements applicable to—

(1) A certificate holder under this part which contracts with, or otherwise arranges to use the services of a training center certificated under GACAR Part 142, or a foreign training center approved by a contracting state to the Convention on International Civil Aviation and acceptable to the President, to perform training, testing, and checking functions;

(2) Each certificate holder for establishing and maintaining an approved training program for pilots, check pilots and instructors, and other operations personnel employed or used by that certificate holder; and

(3) Each certificate holder for the qualification, approval, and use of aircraft simulators and flight training devices in the conduct of the program.

(b) Each certificate holder that conducts scheduled operations under this part with airplanes in which two pilots are required by the type certification rules must comply with Subparts K and L of GACAR Part 121 instead of the requirements of Subparts K and L of this part.

(c) If authorized by the President upon application, each certificate holder conducting operations under this part to which paragraph (b) of this section does not apply, may comply with the applicable sections of Subparts K and L of GACAR Part 121 instead of the requirements of Subparts K and L of this part, except that those authorized certificate holders may choose to comply with the operating experience requirements of GACAR § 135.343, instead of the requirements of GACAR § 121.789.

§ 135.377 Training Program: General.

(a) Each certificate holder must—

(1) Establish and implement a training program that satisfies the requirements of this subpart and that ensures that each pilot, aircraft dispatcher, flight instructor, check pilot and any other operations personnel employed or used by that certificate holder are adequately trained to

perform his assigned duties. Prior to implementation, the certificate holder must obtain initial and final 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 for each aircraft type used and, if applicable, the particular variations within the aircraft type, appropriate training material, examinations, forms, instructions, and procedures for use in conducting the training and checks required by this subpart.

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

(b) Whenever a pilot who is required to take recurrent training under this subpart completes the training in the month before or after the month in which that training is required, the pilot is considered to have completed it in the month in which it was required.

(c) Each instructor, supervisor, or check pilot who is responsible for a particular ground training subject, segment of flight training, course of training, flight check, or competence check under this part must certify as to the proficiency and knowledge of the pilot, flight instructor, or check pilot concerned upon completion of that training or check. That certification must be made a part of the pilot's record. When the certification required by this paragraph is made by an entry in a computerized recordkeeping system, the certifying instructor, supervisor, or check pilot, must be identified with that entry. However, the signature of the certifying instructor, supervisor, or check pilot is not required for computerized entries.

(d) Training subjects that apply to more than one aircraft or pilot position and that have been satisfactorily completed during previous training while employed by the certificate holder for another aircraft or another pilot position need not be repeated during subsequent training other than recurrent training.

(e) Aircraft simulators and other training devices approved in accordance with GACAR Part 60 may be used in the certificate holder's training program if approved by the President.

§ 135.379 Training Program: Special Rules.

(a) Other than the certificate holder, only another certificate holder certificated under this part or a training center certificated under GACAR Part 142, or a foreign training center approved by a contracting state to the Convention on International Civil Aviation and acceptable to the President, is eligible under this subpart to conduct 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 otherwise arrange to use the services of, a training center certificated under GACAR Part 142, or foreign training centers approved by a contracting state to the Convention on International Civil Aviation and acceptable to the President, to conduct training, testing, and checking required by this part only if the training center—

(1) Holds applicable training specifications issued under GACAR Part 142 or similar foreign authorization that are issued by a contracting state to the Convention on International Civil Aviation and that are 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; and

(4) Has sufficient instructors and check pilots qualified under the applicable requirements of GACAR §§ 135.393 through 135.399 to provide training, testing, and checking to persons subject to the requirements of this subpart.

§ 135.381 Training Program and Revision: Initial and Final Approval.

(a) To obtain initial and final approval of a training program, or a revision to an approved training program, each certificate holder must submit to the President—

(1) An outline of the proposed or revised curriculum, that provides enough information for a preliminary evaluation of the proposed training program or revision and

(2) Additional relevant information that may be requested by the President.

(b) If the proposed training program or revision complies with this subpart, the President grants

initial approval in writing after which the certificate holder may conduct the training under that program. The President then evaluates the effectiveness of the training program and advises the certificate holder of deficiencies, if any, that must be corrected.

(c) The President grants final approval of the proposed training program or revision if the certificate holder shows that the training conducted under the initial approval in paragraph (b) of this section ensures that each person who successfully completes the training is adequately trained to perform that person's assigned duties.

(d) Whenever the President finds that revisions are necessary for the continued adequacy of a training program that has been granted final approval, the certificate holder must make any changes in the program that the President determines are necessary. Within 30 days after the certificate holder receives the notice, it may file a petition to reconsider the notice with the President. The filing of a petition to reconsider stays the notice pending a decision by the President. However, if the President finds that there is an emergency that requires immediate action in the interest of safety, he may, upon a statement of the reasons, require a change effective without stay.

§ 135.383 Training Program: Curriculum.

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

(b) Each training program curriculum must include the following:

(1) A list of principal ground training subjects, including emergency training subjects, that are provided;

(2) A list of all the training devices, mockups, systems trainers, procedures trainers, or other training aids that the certificate holder will use; and

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

§ 135.385 Training Program: Additional Requirements for Operations of Single Engine Turbine Powered Airplanes at Night or in IMC.

(a) Each training program for single engine turbine powered airplanes conducting operations at night or in IMC must provide training under this section, for each pilot, and each kind of operation conducted, as appropriate for each pilot and the certificate holder.

(b) For single engine turbine powered airplanes operating at night or in IMC, the training must provide—

(1) Abnormal and emergency procedures specific to the aircraft and operations being conducted and

(2) Engine failure with a descent to a forced landing at night or in IMC, as applicable.

§ 135.386 Training Program: Additional Requirements for Single Pilot Operations Under IFR or at Night.

Each training program for single pilot operations under IFR or at night must include—

(a) All requirements of this subpart while performing the duties of a single pilot and

(b) Additional training to include—

(1) Passenger briefing with respect to emergency evacuation,

(2) Autopilot management, and

(3) The use of simplified in-flight documentation.

§ 135.387 Pilot Training Requirements.

(a) Each certificate holder must include in its training program the following initial and transition ground training as appropriate to the particular assignment of the pilot:

(1) Basic indoctrination ground training for newly hired pilots including instruction in at least the—

(i) Duties and responsibilities of pilots as applicable,

(ii) Appropriate provisions,

(iii) Contents of the certificate holder's operating certificate and operations specifications, and

(iv) Appropriate portions of the certificate holder's operating manual.

(2) The initial and transition ground training in GACAR §§ 135.405 and 135.407, as applicable, and

(3) Emergency training in GACAR § 135.389.

(b) Each training program must provide the initial and transition flight training in GACAR § 135.407, as applicable.

(c) Each training program must provide recurrent ground and flight training in GACAR § 135.409.

(d) Upgrade training in GACAR §§ 135.405 and 135.407 for a particular type aircraft may be included in the training program for pilots who have qualified and served as SIC on that aircraft.

(e) In addition to initial, transition, upgrade, and recurrent training, each training program must provide ground and flight training, instruction, and practice necessary to ensure that each pilot—

(1) Remains adequately trained and currently proficient for each aircraft, pilot position, and type of operation in which the pilot serves and

(2) Qualifies in new equipment, facilities, procedures, and techniques, including modifications to aircraft.

§ 135.388 Human Factors Principles Training: Pilots.

(a) Each certificate holder must have an approved human factors principles training program for pilots that includes initial and recurrent training. The training program must include at least the following:

(1) Authority of the PIC;

(2) Communication processes, decisions, and coordination, to include communication with ATC, personnel performing flight locating and other operational functions, and passengers;

(3) Building and maintenance of a flight team;

(4) Workload and time management;

(5) Situational awareness;

(6) Effects of fatigue on performance, avoidance strategies, and countermeasures;

(7) Effects of stress and stress reduction strategies; and

(8) Aeronautical decision-making and judgment training tailored to the certificate holder's flight operations and aviation environment.

(b) No certificate holder may use a person as a pilot unless that person has completed approved crew resource management initial training with that certificate holder.

§ 135.389 Pilot Emergency Training.

(a) Each training program must provide emergency training under this section for each aircraft type, model, and configuration, each pilot, and each kind of operation conducted, as appropriate for each pilot and the certificate holder.

(b) Emergency training must provide the following:

(1) Instruction in emergency assignments and procedures, including coordination among pilots.

(2) Individual instruction in the location, function, and operation of emergency equipment including—

(i) Equipment used in ditching and evacuation;

(ii) Emergency medical equipment and its proper use; and

(iii) Portable fire extinguishers, with emphasis on the type of extinguisher to be used on different classes of fires.

(3) Instruction in the handling of emergency situations including—

(i) Rapid decompression;

(ii) Fire in flight or on the surface and smoke control procedures with emphasis on electrical equipment and related circuit breakers found in cabin areas;

(iii) Ditching and evacuation;

(iv) Illness, injury, or other abnormal situations involving passengers or pilots; and

(v) Hijacking and other unusual situations.

(4) Review of the certificate holder's previous aircraft accidents and incidents involving actual emergency situations.

(c) Each pilot must perform at least the following emergency drills, using the proper emergency equipment and procedures, unless the President finds that, for a particular drill, the pilot can be adequately trained by demonstration:

(1) Ditching, if applicable;

(2) Emergency evacuation;

(3) Fire extinguishing and smoke control;

(4) Operation and use of emergency exits, including deployment and use of evacuation chutes, if applicable;

(5) Use of pilot and passenger oxygen;

(6) Removal of life rafts from the aircraft, inflation of the life rafts, use of lifelines, and boarding of passengers and pilots, if applicable; and

(7) Donning and inflation of life preservers and the use of other individual flotation devices, if applicable.

(d) Pilots who serve in operations above 25 000 ft (7 600 m) must receive instruction in the following:

(1) Respiration,

(2) Hypoxia,

(3) Duration of consciousness without supplemental oxygen at altitude,

(4) Gas expansion,

(5) Gas bubble formation, and

(6) Physical phenomena and incidents of decompression.

§ 135.391 Approval of Aircraft Simulators and Other Training Devices.

(a) Training courses using aircraft simulators and other training devices may be included in the certificate holder's training program if approved by the President.

(b) Each aircraft simulator and other training device that is used in a training course or in checks required under this subpart must meet the following requirements:

(1) It must be specifically approved for—

(i) The certificate holder and

(ii) The particular maneuver, procedure, or pilot function involved.

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

(3) Additionally, for aircraft simulators, it must be—

(i) Approved for the type aircraft and, if applicable, the particular variation within type for which the training or check is being conducted and

(ii) Modified to conform with any modification to the aircraft being simulated that changes the performance, functional, or other characteristics required for approval.

(c) A particular aircraft simulator or other training device may be used by more than one certificate holder.

(d) In granting initial and final approval of training programs or revisions to them, the President considers the training devices, methods and procedures listed in the certificate holder's curriculum under GACAR § 135.383.

§ 135.393 Qualifications: Check Pilots (Aircraft) and Check Pilots (Simulator).

(a) For the purposes of this section and GACAR § 135.397:

(1) A check pilot (aircraft) is a person qualified to conduct flight checks in an aircraft or an FSTD for a particular type aircraft.

(2) A check pilot (simulator) is a person qualified to conduct flight checks, but only in an FFS, a flight training device (FTD), or both, for a particular type aircraft.

(3) Check pilots (aircraft) and check pilots (simulator) are those check pilots who perform the functions described in GACAR §§ 135.375(a) and 135.377(a)(4) and (c).

(b) No certificate holder may use a person, nor may any person serve as a check pilot (aircraft) in a training program established under this subpart unless, with respect to the aircraft type involved, that person—

(1) Holds the airman certificates and ratings required to serve as a PIC in operations under this part;

(2) Has satisfactorily completed the training phases for the aircraft, including recurrent training, that are required to serve as a PIC in operations under this part;

(3) Has satisfactorily completed the proficiency or competency checks that are required to serve as a PIC in operations under this part;

(4) Has satisfactorily completed the applicable training requirements of GACAR § 135.397;

(5) Holds at least a Class 2 medical certificate unless serving as a required pilot, in which case holds a Class 1 medical certificate;

(6) Has satisfied the recency of experience requirements of GACAR § 135.347; and

(7) Has been approved by the President for the check pilot duties involved.

(c) No certificate holder may use a person, nor may any person serve as a check pilot (simulator) in a training program established under this subpart unless, with respect to the aircraft type involved, that person meets the provisions of paragraph (b) of this section, or—

(1) Holds the applicable airman certificates and ratings, except medical certificate, required to serve as a PIC in operations under this part;

(2) Has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training, that are required to serve as a PIC in operations under this part;

(3) Has satisfactorily completed the appropriate proficiency or competency checks that are required to serve as a PIC in operations under this part;

(4) Has satisfactorily completed the applicable training requirements of GACAR § 135.397; and

(5) Has been approved by the President for the check pilot (simulator) duties involved.

(d) Completion of the requirements in paragraphs (b)(2), (3), and (4) or (c)(2), (3), and (4) of this section, as applicable, must be entered in the individual’s training record maintained by the certificate holder.

(e) Check pilots who do not hold an appropriate medical certificate may function as check pilots (simulator), but may not serve as pilots in operations under this part.

(f) A check pilot (simulator) must accomplish the following—

(1) Fly at least two flight segments as a required pilot for the type, class, or category aircraft involved within the 12 months preceding the performance of any check pilot duty in an FSTD or

(2) Satisfactorily complete an approved line observation program within the period prescribed

by that program and that must precede the performance of any check pilot duty in an FSTD.

(g) The flight segments or line observation program required in paragraph (f) of this section are considered to be completed in the month required if completed in the month before or after the month in which they are due.

§ 135.395 Qualifications: Flight Instructors (Aircraft) and Flight Instructors (Simulator).

(a) For the purposes of this section and GACAR § 135.399—

(1) A flight instructor (aircraft) is a person qualified to instruct in an aircraft or FSTD for a particular type, class, or category aircraft.

(2) A flight instructor (simulator) is a person qualified to instruct in an FFS, FTD, or both, for a particular type, class, or category aircraft.

(3) Flight instructors (aircraft) and flight instructors (simulator) are those instructors who perform the functions described in GACAR §§ 135.375(a) and 135.377(a)(4) and (c).

(b) No certificate holder may use a person, nor may any person serve as a flight instructor (aircraft) in a training program established under this subpart unless, with respect to the type, class, or category aircraft involved, that person—

(1) Holds the airman certificates and ratings required to serve as a PIC in operations under this part.

(2) Has satisfactorily completed the training phases for the aircraft, including recurrent training, that are required to serve as a PIC in operations under this part.

(3) Has satisfactorily completed the proficiency or competency checks that are required to serve as a PIC in operations under this part,

(4) Has satisfactorily completed the applicable training requirements of GACAR § 135.399.

(5) Holds at least a Class 2 medical certificate.

(6) Has satisfied the recency of experience requirements of GACAR § 135.347.

(c) No certificate holder may use a person, nor may any person serve as a flight instructor (simulator) in a training program established under this subpart, unless, with respect to the type, class, or category aircraft involved, that person meets the provisions of paragraph (b) of this section, or—

(1) Holds the airman certificates and ratings, except medical certificate, required to serve as a PIC in operations under this part.

(2) Has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training, that are required to serve as a PIC in operations under this part.

(3) Has satisfactorily completed the appropriate proficiency or competency checks that are required to serve as a PIC in operations under this part.

(4) Has satisfactorily completed the applicable training requirements of GACAR § 135.399.

(d) Completion of the requirements in paragraphs (b)(2), (3), and (4) or (c)(2), (3), and (4) of this section, as applicable, must be entered in the individual's training record maintained by the certificate holder.

(e) An airman who does not hold a medical certificate may function as a flight instructor in an aircraft if functioning as a nonrequired crew member, but may not serve as a pilot in operations under this part.

(f) A flight instructor (simulator) must accomplish the following—

(1) Fly at least two flight segments as a required pilot for the type, class, or category aircraft involved within the 12 months preceding the performance of any flight instructor duty in an FSTD or

(2) Satisfactorily complete an approved line observation program within the period prescribed by that program and that must precede the performance of any flight instructor duty in an FSTD.

(g) The flight segments or line observation program required in paragraph (f) of this section are considered completed in the month required if completed in the month before or after the month in which they are due.

§ 135.397 Initial and Transition Training and Checking: Check Pilots (Aircraft), Check Pilots

(Simulator).

(a) No certificate holder may use a person nor may any person serve as a check pilot unless—

(1) That person has satisfactorily completed initial or transition check pilot training.

(2) Within the preceding 24 months, that person satisfactorily conducted a proficiency or competency check under the observation of a GACA inspector. The observation check may be accomplished in part or in full in an aircraft or an FSTD.

(b) The observation check required by paragraph (a)(2) of this section is considered to have been completed in the month required if completed in the month before or after the month in which it is due.

(c) The initial ground training for check pilots must include the following:

(1) Check pilot duties, functions, and responsibilities;

(2) Applicable GACAR references and the certificate holder’s policies and procedures;

(3) The applicable methods, procedures, and techniques for conducting the required checks;

(4) Proper evaluation of student performance including the detection of—

(i) Improper and insufficient training; and

(ii) Personal characteristics of an applicant that could adversely affect safety.

(5) The corrective action in the case of unsatisfactory checks; and

(6) The approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft.

(d) The transition ground training for check pilots must include the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft to which the check pilot is in transition.

(e) The initial and transition flight training for check pilots (aircraft) must include the following—

(1) The safety measures for emergency situations likely to develop during a check;

(2) The potential results of improper, untimely, or nonexecution of safety measures during a check;

(3) Training and practice in conducting flight checks from the left and right pilot seats in the required normal, abnormal, and emergency procedures to ensure competence to conduct the pilot flight checks required by this part; and

(4) The safety measures to be taken from either pilot seat for emergency situations that are likely to develop during checking.

(f) The requirements of paragraph (e) of this section may be accomplished in full or in part in flight or in an FSTD, as appropriate.

(g) The initial and transition flight training for check pilots (simulator) must include the following:

(1) Training and practice in conducting flight checks in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight checks required by this part. This training and practice must be accomplished in an FSTD.

(2) Training in the operation of an FFS, FTD, or both, to ensure competence to conduct the flight checks required by this part.

§ 135.399 Initial and Transition Training and Checking: Flight Instructors (Aircraft), Flight Instructors (Simulator).

(a) No certificate holder may use a person nor may any person serve as a flight instructor unless—

(1) That person has satisfactorily completed initial or transition flight instructor training; and

(2) Within the preceding 24 months, that person satisfactorily conducted instruction under the observation of a GACA inspector or an operator check pilot. The observation check may be accomplished in part or in full in an aircraft or FSTD.

(b) The observation check required by paragraph (a)(2) of this section is considered to have been

completed in the month required if completed in the month before or after the month in which it is due.

(c) The initial ground training for flight instructors must include the following:

(1) Flight instructor duties, functions, and responsibilities;

(2) Applicable GACAR references and the certificate holder's policies and procedures;

(3) The applicable methods, procedures, and techniques for conducting flight instruction;

(4) Proper evaluation of student performance including the detection of—

(i) Improper and insufficient training and

(ii) Personal characteristics of an applicant that could adversely affect safety.

(5) The corrective action in the case of unsatisfactory training progress;

(6) The approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft; and

(7) Except for holders of a flight instructor certificate—

(i) The fundamental principles of the teaching learning process,

(ii) Teaching methods and procedures, and

(iii) The instructor student relationship.

(d) The transition ground training for flight instructors must include the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the type, class, or category aircraft to which the flight instructor is in transition.

(e) The initial and transition flight training for flight instructors (aircraft) must include the following:

(1) The safety measures for emergency situations likely to develop during instruction;

(2) The potential results of improper or untimely safety measures during instruction;

(3) Training and practice from the left and right pilot seats in the required normal, abnormal, and emergency maneuvers to ensure competence to conduct the flight instruction required by this part; and

(4) The safety measures to be taken from either the left or right pilot seat for emergency situations likely to develop during instruction.

(f) The requirements of paragraph (e) of this section may be accomplished in full or in part in flight or in an FSTD, as appropriate.

(g) The initial and transition flight training for a flight instructor (simulator) must include the following:

(1) Training and practice in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight instruction required by this part. These maneuvers and procedures must be accomplished in full or in part in an FSTD.

(2) Training in the operation of an FFS, FTD, or both, to ensure competence to conduct the flight instruction required by this part.

§ 135.401 Pilot Training Programs.

(a) Each certificate holder, other than one who uses only one pilot in its operations, must establish and maintain an approved pilot training program appropriate to the operations to which each pilot is to be assigned, and must ensure they are adequately trained to meet the applicable knowledge and practical testing requirements of GACAR §§ 135.349 through 135.355. However, the President may authorize relief from requirements of this section if he finds that, because of the limited size and scope of the operation, safety will allow for relief from these requirements.

(b) Each certificate holder required to have a training program by paragraph (a) of this section must include in that program ground and flight training curriculums for—

(1) Initial training,

(2) Transition training,

(3) Upgrade training,

(4) Differences training, and

(5) Recurrent training.

(c) Each certificate holder required by paragraph (a) of this section to have a training program must provide current and appropriate study materials for use by each required pilot.

(d) The certificate holder must furnish copies of the pilot training program, and all changes and additions, to the assigned representative of the GACA. If the certificate holder uses training facilities of other persons, a copy of those training programs or appropriate portions used for those facilities must also be furnished. Curriculums that follow the GACA published curriculums may be cited by reference in the copy of the training program furnished to the President and need not be furnished with the program.

§ 135.403 Pilot Initial and Recurrent Training Requirements.

No certificate holder may use a person, nor may any person serve, as a pilot in operations under this part unless that pilot has completed the appropriate initial or recurrent training phase of the training program appropriate to the type of operation in which the pilot is to serve since the beginning of the 12th month before that service. This section does not apply to a certificate holder that uses only one pilot in the certificate holder's operations.

§ 135.405 Pilots: Initial, Transition, and Upgrade Ground Training.

Initial, transition, and upgrade ground training for pilots must include instruction in at least the following, as applicable to their duties:

(a) ***General subjects*** —

(1) The certificate holder's flight locating procedures;

(2) Principles and methods for determining mass and balance, and runway limitations for takeoff and landing;

(3) Enough meteorology to ensure a practical knowledge of weather phenomena, including the principles of frontal systems, icing, fog, thunderstorms, windshear and, if appropriate, high

altitude weather situations;

(4) ATC systems, procedures, and phraseology;

(5) Navigation and the use of navigation aids, including instrument approach procedures;

(6) Normal and emergency communication procedures;

(7) Prevention of controlled flight into terrain (CFIT) and approach and landing accidents;

(8) Visual cues before and during descent below DA/DH or MDA; and

(9) Other instructions necessary to ensure the pilot's competence.

(b) ***For each aircraft type*** —

(1) A general description;

(2) Performance characteristics;

(3) Engines, propellers, and rotors;

(4) Major components;

(5) Major aircraft systems (such as, flight controls, electrical, and hydraulic), other systems, as appropriate, principles of normal, abnormal, and emergency operations, appropriate procedures and limitations;

(6) Knowledge and procedures for—

(i) Recognizing and avoiding severe weather situations;

(ii) Escaping from severe weather situations, in case of inadvertent encounters, including low altitude windshear (except that rotorcraft pilots are not required to be trained in escaping from low altitude windshear);

(iii) Operating in or near thunderstorms (including best penetrating altitudes), turbulent

air (including clear air turbulence), icing, hail, and other potentially hazardous meteorological conditions; and

(iv) Operating airplanes during ground icing conditions, (such as, 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—

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

(B) Airplane deicing/anti icing procedures, including inspection and check procedures and responsibilities;

(C) Communications;

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

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

(F) Cold weather preflight inspection procedures; and

(G) Techniques for recognizing contamination on the airplane.

(7) Operating limitations;

(8) Fuel consumption and cruise control;

(9) Flight planning;

(10) Each normal and emergency procedure; and

(11) The approved AFM, or equivalent.

§ 135.407 Pilots: Initial, Transition, Upgrade, and Differences Flight Training.

(a) Initial, transition, upgrade, and differences training for pilots must include flight and practice in each of the maneuvers and procedures in the approved training program curriculum.

(b) The maneuvers and procedures required by paragraph (a) of this section must be performed in flight, except to the extent that certain maneuvers and procedures may be performed in an aircraft simulator, or an appropriate training device, as allowed by this subpart.

(c) If the certificate holder's approved training program includes a course of training using an aircraft simulator or other training device, each pilot must successfully complete—

(1) Training and practice in the simulator or training device in at least the maneuvers and procedures in this subpart that are capable of being performed in the aircraft simulator or training device; and

(2) A flight check in the aircraft or a check in the simulator or training device to the level of proficiency of a PIC or SIC, as applicable, in at least the maneuvers and procedures that are capable of being performed in an aircraft simulator or training device.

§ 135.409 Recurrent Training.

(a) Each certificate holder must ensure that each pilot receives recurrent training and is adequately trained and currently proficient for the type aircraft and pilot position involved.

(b) Recurrent ground training for pilots must include at least the following:

(1) A quiz or other review to determine the pilot's knowledge of the aircraft and pilot position involved and

(2) Instruction as necessary in the subjects required for initial ground training by this subpart, as appropriate, including low altitude windshear training and training on operating during ground icing conditions, as prescribed in GACAR § 135.401 and described in GACAR § 135.405, and emergency training.

(c) Recurrent flight training for pilots must include, at least, flight training in the maneuvers or procedures in this subpart, except that satisfactory completion of the check required by GACAR § 135.349 within the preceding 12 months may be substituted for recurrent flight training.

SUBPART M – AIRCRAFT DISPATCHER REQUIREMENTS

§ 135.429 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 § 135.377 and include human factors training.

SUBPART N – FATIGUE MANAGEMENT REQUIREMENTS

§ 135.449 Applicability.

This subpart prescribes requirements for the management of fatigue for pilots, maintenance and preventive maintenance personnel, and dispatchers. A certificate holder has the option to—

(a) Comply with all of the flight and duty time limitations prescribed in this subpart including rest requirements for scheduled and unscheduled operations; or

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

§ 135.451 Flight Time Limitations and Rest Requirements: All Certificate Holders.

(a) A certificate holder may assign a pilot and a pilot may accept an assignment for flight time only when the applicable requirements of GACAR §§ 135.451 through 135.455 are met.

(b) No certificate holder may assign any pilot 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 pilot and provides to transport the pilot to an aerodrome at which he is to serve on a flight as a pilot, 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) A pilot is not considered to be assigned flight time in excess of flight time limitations if the flights to which he is assigned normally terminate within the limitations, but due to circumstances beyond the control of the certificate holder or pilot (such as adverse weather conditions), are not at the time of departure expected to reach their destination within the planned flight time.

§ 135.453 Flight Time Limitations and Rest Requirements: Scheduled Operations.

(a) No certificate holder may schedule any pilot, and no pilot may accept an assignment, for flight time in scheduled operations or in other commercial flying if that pilot’s total flight time in all

commercial flying will—

(1) Exceed 1 200 hours in a 12 month period,

(2) Exceed 120 hours in any 30 consecutive days,

(3) Exceed 34 hours in any 7 consecutive days,

(4) Exceed 8 hours during any 24 consecutive hours for a flight crew consisting of one pilot, or

(5) Exceed 8 hours between required rest periods for a flight crew consisting of two pilots qualified under this part for the operation being conducted.

(b) Except as provided in paragraph (c) of this section, no certificate holder may schedule a pilot, and no pilot may accept an assignment, for flight time during the 24 consecutive hours preceding the scheduled completion of any flight segment without a scheduled rest period during that 24 hours of—

(1) At least 9 consecutive hours of rest for less than 8 hours of scheduled flight time,

(2) At least 10 consecutive hours of rest for 8 or more but less than 9 hours of scheduled flight time, or

(3) At least 11 consecutive hours of rest for 9 or more hours of scheduled flight time.

(c) A certificate holder may schedule a pilot for less than the rest required in paragraph (b) of this section or may reduce a scheduled rest under the following conditions:

(1) A rest required under paragraph (b)(1) of this section may be scheduled for or reduced to a minimum of 8 hours if the pilot is given a rest period of at least 10 hours that must begin no later than 24 hours after the commencement of the reduced rest period.

(2) A rest required under paragraph (b)(2) of this section may be scheduled for or reduced to a minimum of 8 hours if the pilot is given a rest period of at least 11 hours that must begin no later than 24 hours after the commencement of the reduced rest period.

(3) A rest required under paragraph (b)(3) of this section may be scheduled for or reduced to a

minimum of 9 hours if the pilot is given a rest period of at least 12 hours that must begin no later than 24 hours after the commencement of the reduced rest period.

(d) Each certificate holder must relieve each pilot engaged in scheduled air transportation from all further duty for at least 24 consecutive hours during any 7 consecutive days.

§ 135.455 Flight Time Limitations and Rest Requirements: Unscheduled One and Two Pilot Crews.

(a) No certificate holder may assign any pilot, and no pilot may accept an assignment, for flight time as a member of a one or two pilot crew if that pilot's total flight time in all commercial flying will—

(1) Exceed 500 hours in any quarter,

(2) Exceed 800 hours in any two consecutive quarters, or

(3) Exceed 1 400 hours in any year.

(b) Except as provided in paragraph (c) of this section, during any 24 consecutive hours the total flight time of the assigned flight when added to any other commercial flying by that pilot may not—

(1) Exceed 8 hours for a flight crew consisting of one pilot or

(2) Exceed 10 hours for a flight crew consisting of two pilots qualified under this part for the operation being conducted.

(c) A pilot's flight time may exceed the flight time limits of paragraph (b) of this section if the assigned flight time occurs during a regularly assigned duty period of no more than 14 hours and—

(1) If this duty period is immediately preceded by and followed by a required rest period of at least 10 consecutive hours of rest;

(2) If flight time is assigned during this period, that total flight time when added to any other commercial flying by the pilot may not—

(i) Exceed 8 hours for a flight crew consisting of one pilot or

(ii) Exceed 10 hours for a flight crew consisting of two pilots.

(3) If the combined duty and rest periods equal 24 hours.

(d) Each assignment under paragraph (b) of this section must provide for at least 10 consecutive hours of rest during the 24 hour period that precedes the planned completion time of the assignment.

(e) When a pilot has exceeded the daily flight time limitations in this section, because of circumstances beyond the control of the certificate holder or pilot (such as adverse weather conditions), that pilot must have a rest period before being assigned or accepting an assignment for flight time of—

(1) At least 11 consecutive hours of rest if the flight time limitation is exceeded by not more than 30 minutes,

(2) At least 12 consecutive hours of rest if the flight time limitation is exceeded by more than 30 minutes, but not more than 60 minutes, and

(3) At least 16 consecutive hours of rest if the flight time limitation is exceeded by more than 60 minutes.

(f) The certificate holder must provide each pilot at least 13 rest periods of at least 24 consecutive hours each in each quarter.

§ 135.457 Flight Time Limitations: Other Commercial Flying.

No pilot employed as a pilot by a certificate holder may do any other commercial flying if that commercial flying plus his flying with the certificate holder will exceed any flight time limitation in this part.

§ 135.459 Flight Time Limitations: Positioning.

Time spent in transportation, not local in character, that a certificate holder’s operations require of a pilot and which transports him to an aerodrome at which he is to serve on a flight as a pilot, or from an aerodrome at which he was relieved from duty to return to the pilot’s home station, is not considered part of a rest period.

§ 135.461 Maintenance and Preventive Maintenance Personnel Duty Time Limitations.

Each certificate holder (or person performing maintenance or preventive maintenance functions for the

certificate holder) must relieve each person performing maintenance or preventive maintenance from duty for a period of at least 24 consecutive hours during any 7 consecutive days, or the equivalent thereof within any 1 month.

§ 135.463 Aircraft Dispatcher Duty Time Limitations.

(a) Each certificate holder that elects to use dispatchers must establish the daily duty period for a dispatcher so it begins at a time that allows that person to become thoroughly familiar with existing and anticipated weather conditions along the route before that person dispatches any aircraft. That person must remain on duty until each aircraft they dispatched has completed its flight, or has gone beyond his jurisdiction, or until that person is relieved by another qualified dispatcher.

(b) Except in cases where circumstances or emergency conditions beyond the control of the certificate holder require otherwise—

(1) No certificate holder conducting scheduled operations may schedule a dispatcher for more than 10 consecutive hours of duty.

(2) If a dispatcher is scheduled for more than 10 hours of duty in 24 consecutive hours, the certificate holder must provide him a rest period of at least 8 hours at or before the end of 10 hours of duty.

(3) Each dispatcher must be relieved of all duty with the certificate holder for at least 24 consecutive hours during any 7 consecutive days or the equivalent thereof within any month.

(c) Notwithstanding paragraphs (a) and (b) of this section, a certificate holder may, if authorized by the President, schedule an aircraft dispatcher at a duty station outside of the Kingdom of Saudi Arabia for more than 10 consecutive hours of duty in a 24 hour period if that aircraft dispatcher is relieved of all duty with the certificate holder for at least 8 hours during each 24 hour period.

SUBPART O – FLIGHT OPERATIONS

§ 135.583 Applicability.

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

§ 135.585 Responsibility for Operational Control.

(a) Each certificate holder conducting operations under this part is responsible for operational control.

(b) The PIC and the aircraft dispatcher, when applicable, are jointly responsible for the preflight planning, delay, and dispatch release of a flight in compliance with this part and operations specifications.

(c) Each certificate holder is responsible for operational control and must list, in the manual required by GACAR § 135.85, the name and title of each person authorized by it to exercise operational control.

(d) Each PIC of an aircraft is, during flight time, in command of the aircraft and crew and is responsible for the safety of the passengers, crew members, cargo, and aircraft.

(e) Each PIC has full control and authority in the operation of the aircraft, without limitation, over other pilots and their duties during flight time, whether or not he holds valid certificates authorizing him to perform the duties of those pilots.

(f) No pilot may operate an aircraft in a careless or reckless manner so as to endanger life or property.

§ 135.587 Emergency Operations.

(a) In an emergency involving the safety of persons or property, the certificate holder may deviate from the rules of this part relating to aircraft and equipment and weather minimums to the extent required to meet that emergency.

(b) In an emergency involving the safety of persons or property, the PIC may deviate from the rules of this part to the extent required to meet that emergency.

(c) In an emergency situation arising during flight requiring immediate decision and action by a person authorized by the certificate holder to exercise operational control, he must advise the PIC of the emergency, ascertain the decision of the PIC, and have the decision recorded. If he cannot communicate with the PIC, he must declare an emergency with ATC and take any action necessary under the circumstances.

(d) Each person who, under the authority of this section, deviates from a rule of this part must send to the President, within 10 days after the deviation, a complete report of the aircraft operation involved, including a description of the deviation and reasons for it.

§ 135.591 Restriction or Suspension of Operations: Continuation of Flight in an Emergency.

(a) During operations under this part, if a certificate holder or PIC knows of conditions, including aerodrome and runway conditions, that are a hazard to safe operations, the certificate holder or PIC, as the case may be, must restrict or suspend operations as necessary until those conditions are corrected.

(b) No PIC may allow a flight to continue toward any aerodrome of intended landing under the conditions set forth in paragraph (a) of this section, unless, in the opinion of the PIC, the conditions that are a hazard to safe operations may reasonably be expected to be corrected by the estimated time of arrival or, unless there is no safer procedure. In the latter event, the continuation toward that aerodrome is an emergency situation under GACAR § 135.587.

§ 135.593 Flight Preparation Form.

(a) The PIC may not begin a flight until he has signed a flight preparation form certifying—

(1) An operational flight plan (OFP) has been completed according to the certificate holder’s procedures,

(2) The conditions specified in GACAR § 91.43(b) have been met, and

(3) A load manifest has been prepared in accordance with GACAR § 135.690.

(b) The PIC must submit a copy of the flight preparation form prior to departure in accordance with the procedures in the certificate holder's manual.

(c) The certificate holder must retain completed flight preparation forms for a period of 3 months.

§ 135.594 OFP Contents.

Each certificate holder must specify the contents of the OFP in its operations manual as required under Section I(a)(17) of Appendix A to GACAR Part 135. The OFP must contain at least the requirements specified in GACAR § 91.185.

§ 135.595 Inspector's Credentials: Admission to Pilots' Compartment: Forward Observer's Seat.

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

§ 135.597 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 instrument approach procedures set forth in the certificate holder's operations specifications.

§ 135.599 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 Air Traffic Services facility or search and rescue facility, if an aircraft is overdue or missing; and

(3) Provide the certificate holder with the location, date, and estimated time for reestablishing 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 place of business, 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.

§ 135.601 Informing Personnel of Operational Information and Appropriate Changes.

(a) Each certificate holder must inform each person in its employment of the operations specifications that apply to that person's duties and responsibilities and must make available to each pilot in the certificate holder's employ the following materials in current form:

(1) The KSA Aeronautical Information Publication (AIP) or a commercial publication that contains the same information,

(2) This part and GACAR Part 91, and

(3) Aircraft Equipment Manuals and AFM or equivalent.

(b) For foreign operations, the AIP of the foreign country or countries or a commercial publication that contains the same information concerning the pertinent operational and entry requirements of the foreign country or countries involved.

§ 135.603 Operating Information Required.

(a) Each certificate holder must provide the following materials, in current and appropriate form, accessible to the pilot at the pilot station, and the pilot must use them:

(1) A flightdeck checklist;

(2) For multi engine aircraft or for aircraft with retractable landing gear, an emergency flightdeck checklist containing the procedures required by paragraph (c) of this section, as appropriate;

(3) Pertinent aeronautical charts;

(4) For IFR operations, each pertinent navigational en route, terminal area, and approach and letdown chart; and

(5) For multi engine aircraft, one engine inoperative climb performance data; and if the aircraft is approved for use in IFR or over the top operations, that data must be sufficient to enable the pilot to determine compliance with GACAR § 135.145(a)(2).

(b) Each flightdeck checklist required by paragraph (a)(1) of this section must observe human factors principles and contain the following procedures:

(1) Before starting engines,

(2) Before takeoff,

(3) Cruise,

(4) Before landing,

(5) After landing, and

(6) Stopping engines.

(c) Each emergency flightdeck checklist required by paragraph (a)(2) of this section must observe human factors principles and contain the following procedures, as appropriate:

(1) Emergency operation of fuel, hydraulic, electrical, and mechanical systems,

(2) Emergency operation of instruments and controls,

(3) Engine inoperative procedures, and

(4) Any other emergency procedures necessary for safety.

§ 135.605 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 or other employee of the certificate holder,

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

(c) A person necessary for the safe handling of dangerous goods (as defined in GACAR Part 109), and

(d) An authorized representative of the President conducting an en route inspection.

§ 135.609 Aircraft and Facilities for Recent Flight Experience.

Each certificate holder must provide aircraft and facilities to enable each of its pilots to maintain and demonstrate the pilot’s ability to conduct all operations for which the pilot is authorized.

§ 135.611 Pilot Duties.

(a) No certificate holder may require, nor may any pilot perform, any duties during a critical phase of flight except those duties required for the safe operation of the aircraft. Duties such as company required calls made for such non safety related purposes as ordering galley supplies and confirming passenger connections, announcements made to passengers promoting the air operator or pointing out sights of interest, and filling out company payroll and related records are not required for the safe operation of the aircraft.

(b) No pilot may engage in, nor may any PIC permit, any activity during a critical phase of flight which could distract any pilot from the performance of his duties or which could interfere in any way with the proper conduct of those duties. Activities such as eating meals, engaging in nonessential conversations, and reading publications not related to the proper conduct of the flight are not required for the safe operation of the aircraft.

(c) For the purposes of this section, critical phases of flight include all ground operations involving taxi, takeoff and landing, and all other flight operations conducted below 10 000 ft (3 050 m), except

cruise flight.

§ 135.613 SIC Requirements and Exceptions.

(a) Except as provided in paragraph (b) of this section, no person may operate an aircraft carrying passengers under IFR or at night unless there is a qualified SIC in the aircraft.

(b) A person may operate an aircraft carrying passengers under IFR or at night without an SIC if—

(1) The aircraft is type certificated under GACAR Part 21 for a minimum flight crew of one.

(2) For an airplane, it is propeller driven.

(3) For a single engine aircraft, it is operated in accordance with GACAR § 135.15.

(4) For any aircraft, it is equipped in accordance with GACAR § 135.207(i).

(5) The PIC meets the requirements of GACAR § 135.361.

(6) The operation is authorized by the President and is conducted in accordance with the limitations and conditions of the authorization.

§ 135.617 Passenger Occupancy of Pilot Seat.

No certificate holder may operate an aircraft that has a passenger seating configuration, excluding any pilot seat, of more than eight seats if any person other than the PIC, an SIC, a company check pilot, or an authorized representative of the President, or the AIB occupies a pilot seat.

§ 135.618 Pilots at Controls.

No person may operate an aircraft unless he complies with GACAR § 91.47.

§ 135.619 Manipulation of Controls.

(a) No PIC may allow any person to manipulate the flight controls of an aircraft during flight conducted under this part, nor may any person manipulate the controls during such flight unless that person is—

(1) A pilot employed by the certificate holder and qualified in the aircraft or

(2) An authorized safety representative of the President who has the permission of the PIC, is qualified in the aircraft, and is checking flight operations.

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

§ 135.621 Briefing of Passengers.

(a) Before each takeoff and at other times necessary to ensure the safety of passengers, the PIC of an aircraft carrying passengers must ensure that 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) of this section must be supplemented by printed cards, which must be carried in the aircraft in locations convenient for the use of each passenger. The cards must—

(1) Be appropriate for the aircraft on which they are to be used;

(2) Contain a diagram of, and method of operating, the emergency exits; and

(3) Contain other instructions necessary for the use of emergency equipment on board the aircraft.

(e) The 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.

§ 135.622 Stowage of Baggage.

Each certificate holder must ensure all baggage carried onto an aircraft is stowed in accordance with GACAR § 91.51.

§ 135.623 Prohibition Against Carriage of Weapons.

No person may, while on board an aircraft being operated by a certificate holder, carry on or about that person a deadly or dangerous weapon, either concealed or unconcealed. This section does not apply to—

(a) Officials or employees of the Kingdom of Saudi Arabia, who are authorized to carry arms or

(b) Crew members and other persons authorized by the certificate holder to carry arms.

§ 135.625 Aircraft Security.

Certificate holders conducting operations under this part must comply with the applicable GACA Security Regulations.

§ 135.627 Pilot Equipment.

A pilot assessed as fit to exercise the privileges of a certificate, subject to the use of suitable correcting lenses, must have a spare set of the correcting lenses readily available when exercising those privileges.

SUBPART P – FLIGHT RELEASE RULES

§ 135.645 Applicability.

(a) This subpart prescribes operating limitations for VFR and IFR flight operations and associated weather requirements for operations under this part.

(b) If operating limitations are not specifically prescribed in this subpart, the operating limitations of GACAR Part 91 apply.

§ 135.647 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) Each certificate holder must attempt to coordinate operational instructions involving a change in the Air Traffic Service flight plan with the appropriate Air Traffic Service unit before notifying the PIC.

§ 135.649 Aircraft Equipment.

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

§ 135.651 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 § 135.59 are in satisfactory operating condition.

§ 135.653 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.

§ 135.655 VFR: Rotorcraft Surface Reference Requirements.

No person may operate a rotorcraft under VFR unless that person has visual surface reference or, at night, visual surface light reference, sufficient to safely control the rotorcraft.

§ 135.657 VFR: Over the Top Carrying Passengers: Operating Limitations.

Subject to any additional limitations in GACAR § 135.145, no person may operate an aircraft under VFR over the top carrying passengers, unless—

(a) Weather reports or forecasts, or any combination of them, indicate that the weather at the intended point of termination of over-the-top flight that allows descent to beneath the ceiling under VFR and is forecast to remain so until at least 1 hour after the estimated time of arrival at that point or

(b) It is operated under conditions allowing—

(1) For multi-engine aircraft, descent or continuation of the flight under VFR if its critical engine fails or

(2) For single-engine aircraft, descent under VFR if its engine fails.

§ 135.658 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) Where two destination alternate aerodromes are required, the amount of fuel, as calculated in paragraph (c)(4)(i) of this section, required to enable the aircraft to proceed to the destination alternate aerodrome which requires the greater amount of alternate fuel; or

(iii) 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

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

(A) For a reciprocating engine powered 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 powered 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 a reciprocating engine powered aircraft, the amount of fuel required to fly for 45 minutes, at holding speed at 1 500 ft above aerodrome elevation in standard conditions; or

(ii) For a turbine powered aircraft, 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 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 if the minimum fuel calculated in accordance with paragraphs (c)(1), (c)(2), (c)(3), (c)(4) and (c)(5) of this section is not sufficient to:

(i) Allow the airplane to descend as necessary and proceed to an alternate aerodrome in the event of engine failure or loss of pressurization, whichever requires the greater amount of fuel based on the assumption that such a failure occurs at the most critical point along the route and to;

(A) Fly for 15 minutes at holding speed at 1 500 ft above aerodrome elevation in standard conditions;

(B) Make an approach and landing; and

(ii) Meet additional fuel requirements not covered above; 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 programme; 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.

§ 135.659 In-Flight Fuel Management.

(a) Each certificate holder must establish policies and procedures, approved by the President, to ensure that in-flight fuel checks and fuel management are performed.

(b) *Airplanes*.

(1) The PIC must continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome where a safe landing can be made with the planned final reserve fuel remaining upon landing.

(2) The PIC must request delay information from ATC when unanticipated circumstances may result in landing at the destination aerodrome with less than the final reserve fuel plus any fuel required to proceed to an alternate aerodrome or the fuel required to operate to an isolated aerodrome.

(3) The PIC must advise ATC of a minimum fuel state by declaring MINIMUM FUEL when, having committed to land at a specific aerodrome, the pilot calculates that any change to the existing clearance to that aerodrome may result in landing with less than the planned final reserve fuel.

(4) The PIC must declare a situation of fuel emergency by broadcasting MAYDAY MAYDAY MAYDAY FUEL, when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the planned final reserve fuel.

(c) *Rotorcraft.*

(1) The PIC must continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome or operating site where a safe landing can be made with the final reserve fuel remaining upon landing.

(2) The PIC must declare a situation of fuel emergency by broadcasting MAYDAY MAYDAY MAYDAY FUEL, when the actual usable fuel on board is less than the final reserve fuel.

§ 135.661 IFR: Operating Limitations.

(a) Except as provided in paragraphs (b), (c), and (d) of this section, no person may operate an aircraft under IFR outside of controlled airspace or at any aerodrome that does not have an approved standard instrument approach procedure.

(b) The President may issue operations specifications to the certificate holder to allow it to operate under IFR over routes outside controlled airspace if—

(1) The certificate holder shows the President that the flight crew is able to navigate, without visual reference to the ground, over an intended track without deviating more than 5° or 5 NM, whichever is less, from that track and

(2) The President determines that the proposed operations can be conducted safely.

(c) A person may operate an aircraft under IFR outside of controlled airspace if the certificate holder has been approved for the operations and that operation is necessary to—

(1) Conduct an instrument approach to an aerodrome for which there is in use a current approved standard or special instrument approach procedure;

(2) Climb into controlled airspace during an approved missed approach procedure; or

(3) Make an IFR departure from an aerodrome having an approved instrument approach procedure.

(d) The President may issue operations specifications to the certificate holder to allow it to depart at an aerodrome that does not have an approved standard instrument approach procedure when the President determines that it is necessary to make an IFR departure from that aerodrome and that the proposed operations can be conducted safely. The approval to operate at that aerodrome does not include an approval to make an IFR approach to that aerodrome.

§ 135.663 IFR: Takeoff Limitations.

(a) No person may take off an aircraft under IFR from an aerodrome where either the weather conditions are at or above takeoff minimums but are below authorized IFR landing minimums or if it would not be possible to return to the aerodrome of departure for other reasons unless there is a takeoff alternate aerodrome meeting the requirements of GACAR § 91.185(c) within one hour of flight time at a one-engine-inoperative cruising speed, determined from the aircraft operating manual, calculated in ISA and still-air conditions using the actual takeoff mass.

(b) If a takeoff alternate aerodrome for departure is required by paragraph (a) of this section, it must be specified in the OFP required by GACAR § 135.594.

§ 135.665 IFR: Destination Aerodrome Weather Minimums.

No person may take off an aircraft under IFR or begin an IFR or over the top operation unless the latest weather reports or forecasts, or any combination of them, indicate that weather conditions at the estimated time of arrival at the next aerodrome of intended landing will be at or above authorized IFR landing minimums.

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

(a) Subject to paragraph (c) of this section, no person may release an aircraft for a flight to be conducted in accordance with the IFR or over the top unless at least one destination alternate aerodrome has been be selected and specified in the operational flight plan, unless:

(1) 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—

(i) The ceiling will be—

(A) If a circling approach is required and authorized for that aerodrome, at least 1 500 ft (450 m) above the lowest circling MDA or 2 000 ft (610 m) above the aerodrome elevation, whichever is greater, or

(B) At least 1 500 ft (450 m) above the lowest published approach minimum or 2 000 ft (610 m) above the aerodrome elevation, whichever is greater, and

(ii) Visibility will be at least 5 km, and

(iii) Separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational instrument approach procedure; or

(2) The aerodrome of intended landing is an isolated aerodrome.

(b) Operations into isolated aerodromes must be planned in accordance with the fuel and oil supply requirements of GACAR § 135.659 and:

(1) For each flight into an isolated aerodrome a point of no return must be determined; and

(2) A flight to be conducted to an isolated aerodrome must not be continued past the point of no return unless a current assessment of meteorological conditions, traffic, and other operational conditions indicate that a safe landing can be made at the estimated time of use.

(c) Two destination alternate aerodromes must be selected and specified in the operational flight plan when, for the destination aerodrome:

(1) Meteorological conditions at the estimated time of use will be below the operator’s established aerodrome operating minima for that operation; or

(2) Meteorological information is not available.

(d) Notwithstanding the provisions in paragraph (a), (b) or (c) 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 operational variations to alternate aerodrome selection criteria. The specific safety risk assessment must include at least the:

(1) Capabilities of the certificate holder;

(2) Overall capability of the aircraft and its systems;

(3) Available aerodrome technologies, capabilities and infrastructure;

(4) Quality and reliability of meteorological information;

(5) Identified hazards and safety risks associated with each alternate aerodrome variation; and

(6) Specific mitigation measures.

(e) For the purposes this section, the weather conditions at the destination alternate aerodrome must meet the requirements of GACAR § 135.667.

(f) No person may release an aircraft from an aerodrome unless he lists each required destination alternate aerodrome in the flight release.

§ 135.667 IFR: Alternate Aerodromes Weather Minimums.

(a) *Aircraft other than rotorcraft*. No person may designate an alternate aerodrome unless the weather reports or forecasts, or any combination of them, indicate that the weather conditions will be at or above authorized alternate aerodrome landing minimums for that aerodrome at the estimated time of arrival.

(b) *Rotorcraft*. Unless otherwise authorized by the President, no person may designate an alternate aerodrome unless appropriate weather reports or weather forecasts, or a combination of them, indicate that, at the estimated time of arrival at the alternate aerodrome, the ceiling and visibility at that aerodrome will be at or above the following weather minimums—

(1) If, for the alternate aerodrome, an instrument approach procedure has been published in GACAR Part 97, the ceiling is 200 feet above the minimum for the approach to be flown, and visibility is at least 1.6 km but never less than the minimum visibility for the approach to be flown.

(2) If, for the alternate aerodrome, no instrument approach procedure has been published in GACAR Part 97, the ceiling and visibility minimums are those allowing descent from the

minimum enroute altitude (MEA), approach, and landing under basic VFR.

§ 135.669 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.

§ 135.671 Icing Conditions: Operating Limitations.

Notwithstanding the requirements of GACAR § 91.197, no certificate holder may authorize an aircraft to take off and no pilot may take off an aircraft any time conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft unless the pilot has completed all applicable training as required by GACAR § 135.401 and unless one of the following requirements is met:

(a) A pretakeoff 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 prior to beginning takeoff. A pretakeoff contamination check is a check to make sure the wings and control surfaces are free of frost, ice, or snow.

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

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

§ 135.673 Weather Reports and Forecasts.

(a) Whenever a person operating an aircraft under this part is required to use a weather report or forecast, that person must use those prepared as follows:

(1) For operations within KSA airspace, it was prepared by a source authorized by the President under GACAR Part 179 or

(2) For operations conducted outside of KSA airspace, it was prepared by a source acceptable to

the President.

(b) For operations under VFR, the PIC may, if the report specified in paragraph (a) of this section is not available, use weather information based on that pilot's own observations or on those of other persons competent to supply appropriate observations.

(c) For the purposes of paragraph (a) of this section, weather observations made and furnished to pilots to conduct IFR operations at an aerodrome must be taken at the aerodrome where those IFR operations are conducted, unless the President issues operations specifications allowing the use of weather observations taken at a location not at the aerodrome where the IFR operations are conducted. The President issues such operations specifications when, after investigation by the GACA, it is found that the standards of safety for that operation would allow relief from this paragraph for a particular operation for which an AOC has been issued.

SUBPART Q – RECORDS AND REPORTS

§ 135.687 Applicability.

This subpart prescribes requirements for the following:

(a) The preparation and maintenance of records and reports for all certificate holders and

(b) The requirement for the retention of records for dispatch, flight crew, and maintenance as applicable.

§ 135.689 Recordkeeping Requirements.

(a) Each certificate holder must keep at its principal business office or at other places authorized by the President, and must make available for inspection by the President the following:

(1) The certificate holder’s operating certificate;

(2) The certificate holder’s operations specifications;

(3) A current list of the aircraft used or available for use in operations under this part and the operations for which each is equipped;

(4) An individual record of each pilot used in operations under this part, including the following information:

(i) The full name of the pilot;

(ii) The pilot certificate (by type and number) and ratings that the pilot holds;

(iii) The pilot’s aeronautical experience in sufficient detail to determine the pilot’s qualifications to pilot aircraft in operations under this part;

(iv) The pilot’s current duties and the date of the pilot’s assignment to those duties;

(v) The effective date and class of the medical certificate that the pilot holds;

(vi) The date and result of each of the initial and recurrent competency tests and proficiency and route checks required by this part and the type of aircraft flown during that test or check;

(vii) The pilot's flight time in sufficient detail to determine compliance with the flight and duty time limitations of this part;

(viii) The pilot's check pilot authorization, if any;

(ix) Any action taken concerning the pilot's release from employment for physical or professional disqualification; and

(x) The date of the completion of the initial phase and each recurrent phase of the training required by this part.

(5) An individual record of each aircraft dispatcher used in operations under this part including the following:

(i) The full name of the aircraft dispatcher;

(ii) The aircraft dispatcher certificate by number;

(iii) The aircraft dispatcher's current duties and the date of assignment to those duties;

(iv) A record, maintained in sufficient detail, to determine compliance with the rest requirements of this part; and

(v) Any action taken concerning the aircraft dispatcher's release from employment for professional disqualification.

(b) Each certificate holder must keep each record required by paragraph (a)(3) of this section for at least 6 months, and must keep each record required by paragraphs (a)(4) and (5) of this section for at least 12 months.

(c) Each certificate holder must maintain fuel and oil records to enable the President to ascertain that, for each flight, the fuel and oil supply requirements of GACAR § 135.658, have been complied with. Fuel and oil records must be retained by the certificate holder for a period of 3 months.

§ 135.690 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 takeoff 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 marks of the aircraft or flight number;

(7) The origin and destination; and

(8) Identification of pilots and their pilot position assignments.

(b) The PIC must carry a copy of the completed load manifest in the aircraft to its destination. The certificate holder must keep copies of completed load manifests for at least 30 days at its principal operations base, or at another location used by it and approved by the President.

§ 135.691 Reporting Mechanical Irregularities.

(a) Each certificate holder must provide an aircraft maintenance log to be carried on board each aircraft in accordance with GACAR § 135.693 for recording or deferring mechanical irregularities and their correction.

(b) The PIC must enter or have entered in the aircraft maintenance log each mechanical irregularity

that comes to the pilot's attention during flight time. Before each flight, the PIC must determine, if he does not already know, the status of each irregularity entered in the maintenance log at the end of the preceding flight.

(c) Each person who takes corrective action or defers action concerning a reported or observed failure or malfunction of an airframe, powerplant, propeller, rotor, or appliance, must record the action taken in the aircraft maintenance log under the applicable maintenance requirements.

(d) 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 GACAR § 135.85.

§ 135.693 Maintenance Log: Aircraft.

(a) Each person who takes action in the case of a reported or observed failure or malfunction of an airframe, engine, propeller, or appliance critical to the safety of flight must make, or have made, a record of that action in the aircraft's maintenance log.

(b) Each certificate holder must have an approved procedure for keeping adequate copies of the record required in paragraph (a) of this section in the aircraft in a place readily accessible to each pilot and must put that procedure in the certificate holder's manual.

§ 135.695 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 cabin 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 that fail to perform the intended functions during an actual emergency or during 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 Thursday or Friday may be submitted on the following Saturday, and a report due on a holiday may be submitted on the next working day.

(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 business name of the air operator;

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

(4) The emergency procedure effected (for example, unscheduled landing and 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.

(f) A certificate holder that is also the holder of a Supplemental Type Certificate, a Saudi Arabia Parts Manufacturer Approval, or a Saudi Arabia TSO Authorization, need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by it under GACAR § 21.5 or under the accident reporting provisions of AIB Aviation Occurrence Investigation Regulations.

(g) No person may withhold a report required by this section even if all information required in this section is not available.

(h) When the certificate holder gets additional information, including information from the manufacturer or other agency, concerning a report required by this section, it must expeditiously submit it as a supplement to the first report and reference the date and place of submission of the first report.

§ 135.697 Mechanical Interruption Summary Report.

Each certificate holder must submit to the President, before the end of the 10th day of the following month, a summary report for the previous month of—

(a) Each interruption to a flight, unscheduled change of aircraft en route, or unscheduled stop or diversion from a route, caused by known or suspected mechanical difficulties or malfunctions not required to be reported under GACAR § 135.695;

(b) The number of engines removed prematurely because of malfunction, failure or defect, listed by make and model and the aircraft type in which it was installed; and

(c) The number of propeller featherings in flight, listed by type of propeller, engine, and aircraft on which the propeller was installed. Propeller featherings for training, demonstration, or flight check purposes need not be reported.

§ 135.699 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 SAAIB authorized representative.

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

(1) Ensure that records are retained for the retention periods prescribed in this part.

(2) Protect confidential information.

(3) Ensure that the information is not altered in an unauthorized way.

(4) Have a corresponding policy and management structure to support the computer hardware and computer software that delivers the information.

(e) ***Procedures***. Before employing an electronic recordkeeping system, a certificate holder must incorporate electronic recordkeeping procedures into its 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) that is 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

§ 135.741 Applicability.

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

§ 135.743 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.

§ 135.745 Dangerous Goods Training Program: General.

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

APPENDIX A TO GACAR PART 135 – MANUAL REQUIREMENTS

I. Operations Manual.

The operations manual referred to in GACAR § 135.85(a) must contain at the least the following:

(a) ***General*** —

(1) Instructions outlining the responsibilities of operations personnel pertaining to the conduct of flight operations.

(2) Flight and duty time limitations and rest schemes for pilots as required by Subpart N of this part.

(3) A list of the navigation equipment to be carried including any requirements relating to operations where performance based navigation is prescribed.

(4) Procedures for operating in periods of ice, hail, thunderstorms, turbulence, or any potentially hazardous meteorological condition.

(5) The circumstances in which a radio listening watch is to be maintained.

(6) The method for determining minimum flight altitudes.

(7) The methods for determining aerodrome operating minimums considering the following:

(i) The type, performance and handling characteristics of the aircraft;

(ii) The composition of the flight crew, their competence and experience;

(iii) The dimensions and characteristics of the runways that may be selected for use;

(iv) The adequacy and performance of the available visual and non-visual ground aids;

(v) The equipment available on the airplane for the purpose of navigation and/or control of the flight path during the approach to landing and the missed approach;

(vi) The obstacles in the approach and missed approach areas and the obstacle clearance altitude/height for the instrument approach procedures;

(vii) The obstacles in the climb-out areas and necessary clearance margins; and

(viii) The means used to determine and report meteorological conditions.

(8) Safety precautions for refueling with passengers on board, eliminating fuel contamination, and protection from fire (including electrostatic protection).

(9) Ground handling arrangements and procedures.

(10) Procedures for PIC observing an accident or incident.

(11) Procedures for the preservation of all related flight recorder records and, if necessary, the associated flight recorders, and their retention in safe custody pending their disposition as determined in accordance with AIB regulations.

(12) The flight crew for each type of operation including the designation of the succession of command.

(13) Specific instructions for the computation of the quantities of fuel and oil to be carried, taking into account all circumstances of the operation including the possibility of loss of pressurization and the failure of one or more engines while en route.

(14) The conditions under which oxygen must be used and the amount of oxygen determined in accordance with GACAR Part 91 and this part.

(15) Instructions for mass and balance control.

(16) Instructions for the conduct and control of ground deicing/anti icing operations.

(17) Procedures for completing flight preparation forms, including—

(i) The contents of the OFP, and

(ii) Procedures for transmitting a copy of the flight preparation form to the principal base of

operations, or an alternate procedure acceptable to the President.

(18) Standard operating procedures for each phase of flight.

(19) Instructions on the use of normal checklists and the timing of their use.

(20) Departure contingency procedures.

(21) Instructions on the maintenance of altitude awareness and the use of automated or flight crew altitude call out.

(22) Instructions on the use of autopilots and autothrottles in IMC.

(23) Instructions on the clarification and acceptance of ATC clearances, particularly where terrain clearance is involved.

(24) Departure and approach briefings.

(25) Procedures for familiarization with areas, routes, and aerodromes.

(26) Stabilized approach procedure.

(27) Limitation on high rates of descent near the surface.

(28) Conditions required to commence or to continue an instrument approach.

(29) Instructions for the conduct of instrument approach operations including operational procedures designed to ensure that an aircraft being used to conduct 3D instrument approach operations crosses the threshold by a safe margin, with the aircraft in the landing configuration and attitude.

(30) Allocation of flight crew duties and procedures for the management of crew workload during night and IMC instrument approach and landing operations.

(31) Instructions and training requirements for the avoidance of controlled flight into terrain and policy for the use of the terrain awareness and warning systems.

(32) Policy, instructions, procedures, and training requirements for the avoidance of collisions and the use of the airborne collision avoidance system.

(33) Information and instructions relating to the interception of civil aircraft including—

(i) Procedures for PIC of intercepted aircraft and

(ii) Visual signals for use by intercepting and intercepted aircraft.

(34) Details of the safety management system provided in accordance with GACAR Part 5.

(35) Information and instructions on the carriage of dangerous goods, including action to be taken in the event of an emergency.

(36) Security instructions and guidance.

(37) The search procedure checklist to be followed in searching for a bomb in case of suspected sabotage and for inspecting aircraft for concealed weapons, explosives or other dangerous devices when a well founded suspicion exists that the aircraft may be the object of an act of unlawful interference. The checklist must be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and information on the least risk bomb location specific to the aircraft.

(38) Instructions and training requirements for the use of Head up Display (HUD) systems, enhanced vision systems (EVS), 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.

(b) ***Aircraft Operating Information*** —

(1) Certification limitations and operating limitations;

(2) The normal, abnormal, and emergency procedures to be used by the flight crew and the checklists relating to them;

(3) Operating instructions and information on climb performance with all engines operating, if provided in accordance with Subpart F of this part;

(4) Flight planning data for preflight and in flight planning with different thrust/power and speed settings;

(5) The maximum crosswind and tailwind components for each aircraft type operated and the reductions to be applied to these values having regard to gusts, low visibility, runway surface conditions, crew experience, use of autopilot, abnormal or emergency circumstances, or any other relevant operational factors;

(6) Instructions and data for mass and balance calculations;

(7) Instructions for aircraft loading and securing of load;

(8) Aircraft systems, associated controls, and instructions for their use;

(9) The MEL and configuration deviation list for the aircraft types operated and specific operations authorized, including any requirements relating to operations where performance based navigation or other special flight operations is prescribed;

(10) Checklist of emergency and safety equipment and instructions for its use;

(11) Emergency evacuation procedures, including type specific procedures, crew coordination, assignment of crew's emergency positions and the emergency duties assigned to each pilot;

(12) Survival and emergency equipment for different routes and the necessary procedures to verify its normal functioning before takeoff, including procedures to determine the required amount of oxygen and the quantity available;

(13) The ground air visual signal code for use by survivors, as contained in Annex 12 to the Convention on International Civil Aviation; and

(14) For single engine turbine powered airplanes operating at night or in IMC the flight manual must include—

(i) Limitations,

(ii) Procedures,

(iii) Approval status, and

(iv) Other information relevant to the operation of single engine turbine powered airplanes at night or in IMC.

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

(1) A route guide to ensure that the flight crew will have, for each flight, information relating to communication facilities, navigation aids, aerodromes, instrument approaches, instrument arrivals, and instrument departures as applicable for the operation, and such other information as the operator may deem necessary for the proper conduct of flight operations;

(2) The minimum flight altitudes for each route to be flown;

(3) Aerodrome operating minimums for each of the aerodromes likely to be used as aerodromes of intended landing or as alternate aerodromes;

(4) The increase of aerodrome operating minimums in case of degradation of approach or aerodrome facilities;

(5) Instructions for determining aerodrome operating minimums for instrument approaches using HUD and EVS; and

(6) The necessary information for compliance with all flight profiles required by regulations, including but not limited to, the determination of—

(i) Takeoff runway length requirements for dry, wet, and contaminated conditions, including those dictated by system failures which affect the takeoff distance;

(ii) Takeoff climb limitations;

(iii) En route climb limitations;

(iv) Approach climb limitations and landing climb limitations;

(v) Landing runway length requirements for dry, wet, and contaminated conditions, including systems failures which affect the landing distance; and

(vi) Supplementary information, such as tire speed limitations.

(d) ***Training*** —

(1) Details of the training programs as required by Subpart L of this part and Subpart D of GACAR Part 91 and

(2) Details of the transportation of dangerous goods by air training program as required by Subpart R of this part.

APPENDIX A TO GACAR PART 135 – MANUAL REQUIREMENTS

II. Maintenance Manual.

The maintenance manual referred to GACAR § 135.85(b) must contain at the least the following:

(a) A description of the procedures used to ensure that—

(1) Each aircraft they operate is maintained in an airworthy condition including, when applicable, a description of the administrative arrangements between the operator and its maintenance providers;

(2) The required instruments and equipment necessary for an intended flight are installed and serviceable; and

(3) The airworthiness certificate of each aircraft they operate remains valid.

(b) The names and duties of the person required by GACAR § 135.35(a)(3);

(c) A reference to the inspection programs required by GACAR Part 91;

(d) A description of the methods used for the completion and retention of the operator's maintenance records required by Subpart Q of this part;

(e) A description of the procedures for complying with the service difficulty reporting requirements of GACAR § 135.695;

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

(g) A description of the system for the analysis and continued monitoring of the performance and efficiency of the approved aircraft inspection program (if used), in order to correct any deficiency in that program;

(h) A description of aircraft types and models to which the manual applies;

(i) A description of procedures for ensuring that unserviceabilities affecting airworthiness are recorded and rectified; and

(j) A description of the procedures for meeting the Mechanical Interruption Summary Report requirements in accordance with GACAR § 135.697.

Note: Certificate holders who elect to establish and maintain a CAMP must prepare a maintenance manual in accordance with GACAR Part 121.