

**ADVISORY CIRCULAR** 

AC Reference Nº: AC-AW/005 AC approval date: 5<sup>th</sup> AUG 2021

SUBJECT: ISSUANCE OF SPECIAL FLIGHT PERMIT

EFFECTIVE DATE: 6<sup>th</sup> AUGUST 2021

APPROVAL SIGNATURE:

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# SECTION 1: GENERAL INFORMATION

### 1.1 **P**URPOSE

This Advisory Circular (AC) is issued to provide information and guidance for the issuance of Special Flight Permit

### 1.2 **APPLICABILITY**

This AC is applicable to all owners/operators of aircraft registered in Liberia intending to operate an aircraft under a special flight permit.

# 1.3 STATUS OF THIS ADVISORY CIRCULAR

This AC is an original issuance.

### **1.4 RELATED REFERENCES**

- (a) The following **Regulations** are directly applicable to the guidance contained in this advisory circular—
  - (1) LCARs Part 05, Airworthiness
- (b) For further information on this topic, operators and individuals are invited to consult the following **publications**
  - (1) Liberia Civil Aviation Authority (LCAA)
    - (i) CAA Form:AW/005A Application form for Special Flight Permit;
    - (ii) CAA Form:AW/003B Aircraft Status Report;
    - (iii) CAA Form Part5D Special Flight Permit
  - (2) International Civil Aviation Organization (ICAO)
    - (i) Annex 8, Airworthiness
    - (ii) Document 9760- Airworthiness Manual
    - (iii) Document 8335

# SECTION 2: GUIDANCE & INFORMATION

### 2.1 **General**

- (a) Special flight permits are issued for aircraft that currently may not meet applicable airworthiness requirements, but are capable of safe flight. A special flight permit is not an authorization to deviate from the requirements of LCARs.
- (b) The following general guidelines establish the working base for the regulatory oversight of special flight permits:
  - (1) LCAR Part 5: 5.3.8 (a) (1) to (4) applies to those aircraft that may not currently meet applicable airworthiness requirements and that will be operated for the following purposes:
    - (i) Flying to a base where repairs, modifications, maintenance, or inspections are to be performed, or to a point of storage;
    - (ii) Testing after repairs, modifications, or maintenance have been performed;
    - (iii) Delivering or exporting the aircraft;
    - (iv) Evacuating aircraft from areas of impending danger;
  - (2) Gen. LCAR Part 5: 5.3.8 (a) (5) applies to those aircraft that meet all the applicable airworthiness requirements except those that cannot be met because of an overweight condition. The aircraft is operating at mass in excess of the aircraft's maximum Certified Takeoff Mass for flight beyond normal range over water or land areas where adequate landing facilities or appropriate fuel is not available. The excess mass is limited to additional fuel, fuel-carrying facilities, and navigation equipment necessary for the flight. A special flight permit under the provisions of this regulation may be issued for any temporary non-commercial operation of an overweight aircraft.
- (c) A special flight permit allows operation of an aircraft outside Liberia territory, as long as the aircraft is operated for the intended purpose, and within the timeframe specified on the permit (normally for delivery or export purposes of the aircraft).
- (d) The Special flight permit does not authorize flight over countries other than Liberia without permission of those countries. Aircraft holding Special flight permit shall be subject to operating limitations within Liberia and may not make international flights except if authorized by the foreign countries to be overflown.
- (e) A special flight permit does not allow commercial operations of the aircraft.
- (f) Flight tests for the purpose of completion of a maintenance action may be conducted by entering the requirement on to the aircraft flight and technical log. No special flight permit is required.
- (g) If an Airworthiness Directives (AD) requires compliance before further flight and does not have a provision for issuance of a Special Flight Permit, the operation of the aircraft to which it applies would not be appropriate, and a Special Flight Permit must not be issued.

(h) A special flight permit should not be confused with a special flight authorization, which allows operation of a foreign registered aircraft in Liberia that is operating on a special flight permit or special certificate of airworthiness issued by a National Airworthiness Authority (NAA). This instruction does not deal with special flight authorizations.

### 2.2 **ELIGIBILITY**

- (a) LCAR Part 5: 5.3.2 (a) states that "Any registered owner of Liberia registered aircraft, or agent of the owner, may apply for an airworthiness certificate for that aircraft".
- (b) The holder of a CoR (Certificate of Registration) is normally the person who has the custody and airworthiness control of the aircraft (otherwise defined as the "owner").
- (c) The Authority may issue a Special Flight Permit, to permit the operation of an aircraft that cannot comply with the requirements of LCAR Part 5, either because the aircraft does not have a valid airworthiness certificate or there is maintenance due.
- (d) To be eligible for a special flight permit, an aircraft must be capable of safe flight

## 2.3 CERTIFICATE OF FITNESS FOR FLIGHT

- (a) Prior to application for a Special flight permit, an authorized person must perform an inspection of the aircraft; such inspection is required to solve issues associated with the capability of safe flight for the intended purpose.
- (b) Before a special flight permit can be issued, the CAA must be satisfied that there is an acceptable level of safety for the flight. This will be achieved by an assessment of the airworthiness of the aircraft based on a review where the deficiencies identified by the applicant, along with an inspection of the aircraft, accomplished by an appropriately certificated maintenance technician or other authorized person who will be required to issue a certificate of fitness for flight. A sample form for a certificate of fitness for flight is shown in ANNEX A.
- (c) The certificate of fitness for flight is not a release to service for the aircraft.
- (d) The CAA inspectors may determine whether or not additional inspections or tests are necessary to ensure that the aircraft is capable of safe flight for the intend purpose. The applicant must facilitate any such request, and should understand that such an inspection would only be required to resolve issues associated with the capability of safe flight for the intended purpose(s)

# SECTION 3: APPLICATION FOR SPECIAL FLIGHT PERMIT

#### 3.1 **APPLICATION**

- (a) At the time of the application, the applicant for a special flight permit must submit:
  - (1) LCAA Form:AW/005A Application form for Special Flight Permit.;
  - (2) The certificate of fitness for flight issued for the aircraft with a maintenance endorsement;

- (3) Details of non-compliance to airworthiness requirements (attach supporting documents);
- (4) LCAA Form: AW/003B Aircraft Status Report, if required by CAA;
- (5) Any other information considered necessary for the purpose of prescribing operation limitations;
- (6) The fee provided for by law.

#### 3.2 **PURPOSE**

- (a) The intended purpose of the flight should be specified.
- (b) Examples of purpose:
  - (1) Ferry flight to a place where maintenance or storage is to take place:
    - (i) Has maintenance due under LCAR;
    - (ii) Has been damaged;
    - (iii) Has inoperative equipment;
    - (iv) Otherwise, cannot meet all the requirements of LCAR;
    - (v) Is newly imported and does not yet obtain an airworthiness certificate;

Note: Under a special flight permit the aircraft may be ferried to a facility where work on the aircraft is to be performed, or where the aircraft is to be stored. A special flight permit will only be issued if the flight can be shown to meet an acceptable level of safety.

- (2) Aircraft evacuation:
  - (i) A special flight permit may be issued to permit an aircraft to be flown out of areas that are, or are expected to be, dangerous. Factors that could make an area dangerous include:
    - (A) Flooding;
    - (B) Earthquake;
    - (C) Extreme weather;
    - (D) Other natural disasters;
  - (ii) A special flight permit is not a Certificate of Airworthiness and it is normally only valid for flight within.

### 3.3 **GROUNDS FOR REQUEST**

(a) The application should contain the reasons why the special flight permit is required, in particular to what are the airworthiness requirements that the aircraft cannot comply with. For example: what inspections may be overdue, etc. It is very important that the reasons are clearly stated in detail. This is so that the CAA can assess the level of safety of the aircraft and the risk involved, and be able to apply any mitigating safety measures or operating restrictions to protect the pilot and the public.

#### 3.4 **PROPOSED ITINERARY**

(a) These sections contain the details pertaining to the specific flight, or flights, including the proposed itinerary, including the proposed route and date (s) of flight.

#### 3.5 CONDITIONS AND OPERATING LIMITATIONS

- (a) The Applicant shall establish and document as appropriate:
  - (1) The configuration (s) for which the permit to fly is requested;
  - (2) Any conditions or restrictions necessary for safe operation of the aircraft, including:
    - (i) The conditions or restrictions put on itineraries or airspace, or both required for the flight;
    - (ii) The conditions and restrictions put on the flight crew and its qualification, to fly the aircraft;
    - (iii) The restrictions regarding carriage of persons other than cockpit crew;
    - (iv) The operating limitations;
    - (v) The test flight form and program (if applicable);
    - (vi) The specific continuing airworthiness arrangements including maintenance instructions.
  - (3) The substantiation that the aircraft is capable of safe flight under the conditions and restrictions of paragraph (2) above.
  - (4) The method used for the control of A/C configuration, in order to remain within the established conditions.
- (b) When issuing a Special Flight Permit, appropriate limitations should be prescribed to minimize hazard to persons or property. The following limitations are considered to be essential in all special flight permit:
  - (1) Prior to the operation of an aircraft pursuant to this special flight permit the aircraft shall be inspected by an appropriately rated and licensed aircraft maintenance engineer, who shall issue a certificate of fitness for flight in duplicate, one copy to be carried on board the aircraft and one copy kept with the aircraft records;

- (2) The Special Flight Permit (or certified copy thereof) should be on board the aircraft at all times when operating under the terms of the Special Flight Permit;
- (3) The registration marks assigned to the aircraft by the State of registry should be displayed on the aircraft in conformity with the requirement of LCAR Part 4;
- (4) Persons or property should not be carried for compensation or hire;
- (5) No person shall be carried in the aircraft unless that person is essential to the purpose of the flight and has been advised of the contents of the Special Flight Permit and the airworthiness status of the aircraft;
- (6) the aircraft should be operated only by crew who are aware of the purpose of the flight and any limitations imposed, and who hold appropriate certificates or licenses acceptable to the State of Registry;
- (7) All flights should be conducted in accordance with the applicable general operating rules of the states in or over which the operations are conducted;
- (8) all flights should be conducted so as to avoid areas where flights might create hazardous exposure to persons or property;
- (9) All flights should be conducted within the performance operating limitations prescribed in the aeroplane flight manual and those additional limitations specified by the state of registry for that particular aircraft;
- (10) All flights should be conducted prior the expiry date of the authorization;
- (11) All required safety and emergency equipment shall be fitted and serviceable.

### SECTION 4: SPECIAL FLIGHT PERMIT FOR OVERWEIGHT OPERATIONS

#### 4.1 **GENERAL**

- (a) LCAR Part 5: 5.3.8 (a) (5) applies to those aircraft that meet all the applicable airworthiness requirements except those that cannot be met because of an overweight condition.
- (b) All installations, for example, a long-range fuel system or navigational equipment are changes to the aircraft's type design and must be installed in accordance with approved data. Where any installation is not carried out in accordance with approved data, before applying for a SFP, an exemption from the airworthiness and maintenance requirements should be sought.
- (c) The installation(s) added to the aircraft for the intended overweight flight must be recorded in accordance with the regulations.

#### 4.2 AUXILIARY FUEL SYSTEM INSTALLATIONS

(a) In the approval of the auxiliary fuel system installations by CAA or an authorized person for the purpose of LCAR, the following items should be considered:

- (1) The aircraft and auxiliary fuel system must meet all applicable airworthiness requirements, except for those the aircraft cannot meet because of its overweight condition. The aircraft and auxiliary fuel system must be found safe for the intended flight;
- (2) Fuel tank(s) installed in a pressurized area should be tested for the maximum pressure differential existing between cabin pressurization and aircraft maximum operating altitude with fuel tank(s) empty;
- (3) Adequate ventilation must be provided for the fuel tank(s) and the area in which the fuel tank(s) are located to prevent the accumulation of fumes that would be detrimental to the flight crew or present a fire or explosion hazard;
- (4) A means must be provided to readily determine the quantity of fuel in the auxiliary tank(s) prior to takeoff. In addition, a means must be provided to indicate the quantity of fuel in tanks that have a vapour/excess fuel return line, both prior to takeoff and during flight;
- (5) The location of the fuel tank(s) in the aircraft is a major factor in determining that the aircraft is safe for flight because the added fuel and fuel facilities have the greatest effect on the aircraft's CG. In addition, the fuel system installation must not restrict entrance to or exit from the aircraft as provided by the applicable design standards and operational requirements;
- (6) Auxiliary fuel systems that are not complete, that is, not connected to the basic aircraft fuel system, may not be considered for issuance of a special flight permit.

#### 4.3 **ENGINE OIL QUANTITY**

The applicant must show that the oil supply provided for each engine is sufficient to ensure satisfactory cooling and system circulation for the duration of the flight. If deemed necessary, an oil transfer system for replenishing the engine oil while the aircraft is in flight must be provided.

### 4.4 MAXIMUM WEIGHT AND CENTRE OF GRAVITY LIMITS

- (a) LCAR Part 5: 5.3.8 (a) (5) limits any excess weight over the certificated maximum weight to additional fuel, fuel carrying facilities, and navigational equipment added for the intended flight. It must be determined that this part of the maximum weight complies with this requirement.
- (b) When numerous modifications are performed, it may be necessary to weigh the aircraft to establish the aircraft weight and the CG limits. The computations should be evaluated for accuracy. It also may be necessary to require flight testing at the new maximum weight and CG limits to determine that the aircraft is safe for operation.
- (c) Operation of rotorcraft over the certificated maximum weight presents some unique conditions over and above those encountered with fixed-wing aircraft. Special attention should be given to this type of aircraft. A careful evaluation should be made to determine what effect the overweight operation may have on the retirement times of critical parts.

#### 4.5 **OPERATING LIMITATIONS**

(a) No temporary flight manual supplement is required, however, the SFP is to contain or refer to any operational or procedural information essential to the safe conduct of the flight:

- (1) Overload weight and balance data necessary for safe loading of the aircraft;
- (2) Capacity of the additional fuel tank(s), together with the necessary instructions regarding fuel usage and operation of the auxiliary system;
- (3) Such other normal or emergency procedures as may be necessary for safe operation in an overweight condition;
- (4) Performance information, including any variation in stalling and maximum permissible speeds;
- (5) Manoeuvres permitted; these will normally be limited to gentle turns; and
- (6) Where applicable, a prohibition against smoking.
- (b) CAA must be notified in writing within 2 days following the departure of the aircraft of the details of the maximum weight permitted and identifying details of the modifications and SFP. This notification will be placed on the CAA Airworthiness aircraft file.
- (c) Where the MTOW of the aircraft for flights exceeds 110% of the certificated MTOW the applicant will be expected to:
  - (1) In addition to the above conditions, submit an engineering evaluation of the effects of the increased weight and any variation in centre of gravity position on the loads sustained by critical elements of the structure. This may necessitate the applicant working with the aircraft manufacturer to obtain the necessary data; and
  - (2) Demonstrate by flight test, or other acceptable means, that the necessary performance capability is achieved and that the handling characteristics of the aircraft are satisfactory under overload conditions.

**Note:** If the type certificate holder of the aircraft or the NAA of the State of design supports the overweight operation, no further engineering evaluation is required.

### SECTION 5: ISSUANCE OF SPECIAL FLIGHT PERMIT

- (a) Upon being satisfied that the application meets the requirements, and that the aircraft is appropriately equipped and safe to fly, the CAA will issue a Special Flight Permit specifying operating limitations and validity period.
- (b) Note that a special flight permit may be faxed to an operator, and the faxed copy will be considered valid for the aircraft's operation under the conditions of the permit. However, the original form must be carried on the aircraft for any international operation.

# SECTION 6: VALIDITY

(a) A special flight permit is normally issued for a specific duration to allow for the prescribed flight or flights. The certificate will be in force for the specified period of validity, or until cancelled, whichever occurs first.

- (b) For ferry flights (i.e. flights for the purpose of delivering the aircraft, or relocating it to a point of maintenance or storage), the permit will be valid for one (1) flight only, expiring immediately upon arrival at the destination.
- (c) A Special Flight Permit is NOT renewable. When it expires, a new application should be submitted for another permit to be issued.

## SECTION 7: CANCELLATION/SUSPENSION

An authorized person or CAA has the power to suspend or cancel a special flight permit by giving written notice to the permit holder if the approved person or CAA considers it is necessary to do so in the interests of aviation safety. A suspension on a permit will be lifted on a date prescribed by the approved person or CAA.

## SECTION 8: DISPLAY

- (a) The aircraft operator must display, the current Airworthiness Certificate and the Special Flight Permit along with its operating limitations.
- (b) A Liberia special flight permit must be made available to the pilot of the aircraft.

CERTIFICATE OF FITNESS FOR FLIGHT					
Aircraft Registration:					
Owner Name:			Address:		
Operator Name:			Address:		
Nº:	Aircraft	Engines		Propellers	APU
Manufacturer:					
Make and Model:					
Serial Number:					
Flight Hours					
Flight Cycles					
It is hereby certified that the aircraft defined hereon has been inspected and is fit for flight provided it is properly loaded. This Certificate is valid untilor until the airworthiness condition of the aircraft is altered, whichever is earlier.					
Inspector name Signature		ure	License N <sup>0</sup> / Authorization N <sup>0</sup>		Date
· ·					
Organization Name			Organization Approval Name		

- (1) The period of validity shall not exceed the date of Validity of the Special flight permit requested
- (2) The Certificate shall only be issued to an aircraft that is to be flown under the authorization of an CAA Special Flight Permit issued by the CAA.
- (3) The Certificate shall be issued in duplicate and one copy kept elsewhere than in the aircraft.
- (4) If the airworthiness condition of the aircraft is affected during the period of validity the Certificate shall be reissued.

End of Advisory Circular