
STATUTORY INSTRUMENTS

2005 No. 1970

The Air Navigation Order 2005

PART 3

Airworthiness and Equipment of Aircraft

Certificate of airworthiness to be in force

8.—(1) Subject to paragraph (2), an aircraft shall not fly unless there is in force in respect thereof a certificate of airworthiness duly issued or rendered valid under the law of the country in which the aircraft is registered or the State of the operator, and any conditions subject to which the certificate was issued or rendered valid are complied with.

(2) The foregoing prohibition shall not apply to flights, beginning and ending in the United Kingdom without passing over any other country, of—

- (a) a non-EASA glider, if it is not being used for the public transport of passengers or aerial work other than aerial work which consists of the giving of instruction in flying or the conducting of flying tests in a glider owned or operated by a flying club of which the person giving the instruction or conducting the test and the person receiving the instruction or undergoing the test are both members;
 - (b) a non-EASA balloon flying on a private flight;
 - (c) a non-EASA kite;
 - (d) a non-EASA aircraft flying in accordance with the A Conditions or the B Conditions; or
 - (e) an aircraft flying in accordance with a national permit to fly, an EASA permit to fly issued by the CAA or a certificate of validation issued by the CAA under article 13.
- (3) In the case of—
- (a) a non-EASA aircraft registered in the United Kingdom the certificate of airworthiness referred to in paragraph (1) shall be a national certificate of airworthiness;
 - (b) an EASA aircraft registered in the United Kingdom the certificate of airworthiness referred to in paragraph (1) shall be an EASA certificate of airworthiness issued by the CAA.
- (4) For the purposes of paragraph (1) a certificate of airworthiness—
- (a) shall include an EASA restricted certificate of airworthiness issued by the CAA; and
 - (b) shall include an EASA restricted certificate of airworthiness issued by the competent authority of a State other than the United Kingdom which does not contain a condition restricting the aircraft to flight within the airspace of the issuing State; but
 - (c) shall not include an EASA restricted certificate of airworthiness issued by the competent authority of a State other than the United Kingdom which contains a condition restricting the aircraft to flight within the airspace of the issuing State.

(5) An aircraft registered in the United Kingdom with an EASA certificate of airworthiness shall not fly otherwise than in accordance with any conditions or limitations contained in its flight manual unless otherwise permitted by the CAA.

Issue, renewal, etc., of national certificates of airworthiness

9.—(1) Subject to paragraph (2), the CAA shall issue in respect of any non-EASA aircraft a national certificate of airworthiness if it is satisfied that the aircraft is fit to fly having regard to—

- (a) the design, construction, workmanship and materials of the aircraft (including in particular any engines fitted therein), and of any equipment carried in the aircraft which it considers necessary for the airworthiness of the aircraft; and
- (b) the results of flying trials, and such other tests of the aircraft as it may require.

(2) If the CAA has issued a certificate of airworthiness in respect of an aircraft which, in its opinion, is a prototype aircraft or a modification of a prototype aircraft, it may dispense with flying trials in the case of any other aircraft if it is satisfied that it conforms to such prototype or modification.

(3) Every national certificate of airworthiness shall specify the category which is, in the opinion of the CAA, appropriate to the aircraft in accordance with Part B of Schedule 3 and the certificate shall be issued subject to the condition that the aircraft shall be flown only for the purposes indicated in that Part in relation to that category.

(4) Any certificate of airworthiness issued by the CAA prior to the date on which this Order comes into force which is specified as being in the Transport Category (Passenger), Transport Category (Cargo), Aerial Work or Private Category shall be deemed to be—

- (a) in the case of a non-EASA aircraft a national certificate of airworthiness in the standard category referred to in Part B of Schedule 3; and
- (b) in the case of an EASA aircraft an EASA certificate of airworthiness.

(5) The CAA may issue a national certificate of airworthiness subject to such other conditions relating to the airworthiness of the aircraft as it thinks fit.

(6) The CAA may issue a certificate of validation rendering valid for the purposes of this Order a certificate of airworthiness issued in respect of any aircraft registered elsewhere than in the United Kingdom under the law of any country other than the United Kingdom.

(7) Nothing in this Order shall oblige the CAA to accept an application for the issue of a national certificate of airworthiness or certificate of validation or for the variation or renewal of any such certificate when the application is not supported by such reports from such persons approved under article 165 as the CAA may specify (either generally or in a particular case or class of cases).

Validity of certificate of airworthiness

10. A certificate of airworthiness or a certificate of validation issued in respect of an aircraft registered in the United Kingdom shall cease to be in force—

- (a) if the aircraft, or such of its equipment as is necessary for the airworthiness of the aircraft, is overhauled, repaired or modified, or if any part of the aircraft or of such equipment is removed or is replaced, otherwise than in a manner and with material of a type approved by EASA in the case of an EASA aircraft or the CAA in the case of a non-EASA aircraft either generally or in relation to a class of aircraft or to the particular aircraft;
- (b) until the satisfactory completion of any inspection made for the purpose of ascertaining whether the aircraft remains airworthy or maintenance of the aircraft or of any equipment described in sub-paragraph (a) which inspection or maintenance has—
 - (i) been made mandatory by EASA or the CAA; or
 - (ii) become required by a maintenance schedule approved by the CAA in relation to that aircraft; or

- (c) until the completion to the satisfaction of EASA or the CAA as the case may be of any modification of the aircraft or of any equipment necessary for the airworthiness of the aircraft, being a modification required by EASA or the CAA for the purpose of ensuring that the aircraft remains airworthy.

Issue, validity etc., of national permits to fly

11.—(1) The CAA shall—

- (a) subject to sub-paragraph (b) issue in respect of any non-EASA aircraft registered in the United Kingdom a national permit to fly if it is satisfied that the aircraft is fit to fly having regard to the airworthiness of the aircraft and the conditions to be attached to the permit;
- (b) refuse to issue a national permit to fly in respect of a non-EASA aircraft registered in the United Kingdom if it appears to the CAA that the aircraft is eligible for and ought to fly under and in accordance with a national certificate of airworthiness.

(2) Subject to paragraph (4), an aircraft flying in accordance with a national permit to fly shall not fly for the purpose of public transport or aerial work other than aerial work which consists of flights for the purpose of flying displays, associated practice, test and positioning flights or the exhibition or demonstration of the aircraft.

(3) No person shall be carried during flights for the purpose of flying displays or demonstration flying except the minimum flight crew, unless the prior permission of the CAA has been obtained.

(4) With the permission of the CAA, an aircraft flying in accordance with a national permit to fly may fly for the purpose of aerial work which consists of the giving of instruction in flying or the conduct of flying tests, subject to the aircraft being owned or operated under arrangements entered into by a flying club of which the person giving the instruction or conducting the test and the person receiving the instruction or undergoing the test are both members.

(5) The CAA may issue a national permit to fly subject to such conditions relating to the airworthiness, operation or maintenance of the aircraft as it thinks fit.

(6) A national permit to fly issued in respect of an aircraft shall cease to be in force—

- (a) until the satisfactory completion of any inspection made for the purpose of ascertaining whether the aircraft remains airworthy, modification or maintenance of the aircraft or any of its equipment which inspection, modification or maintenance has:
 - (i) been made mandatory by the CAA; or
 - (ii) become required as a condition of the permit to fly;
- (b) if any other conditions of the permit are not complied with;
- (c) if the aircraft, engines or propellers, or such of its equipment as is necessary for the airworthiness of the aircraft, are modified or repaired; unless the repair, or modification has been approved by the CAA or by a person approved by the CAA for the purpose;
- (d) unless the permit includes a current certificate of validity issued by the CAA or by a person approved by the CAA for the purpose.

(7) A placard shall be affixed to any aircraft flying in accordance with a permit to fly in full view of the occupants which shall be worded as follows—

“Occupant Warning

This aircraft has not been certificated to an International Requirement”.

(8) An aircraft flying in accordance with a permit to fly shall only be flown by day and in accordance with the Visual Flight Rules unless the prior permission of the CAA has been obtained.

(9) Nothing in this Order shall oblige the CAA to accept an application for the issue, variation or renewal of a national permit to fly when the application is not supported by such reports from such approved persons as the CAA may specify (either generally or in a particular case or class of cases).

(10) In paragraph (8) “day” means the time from half an hour before sunrise until half an hour after sunset (both times exclusive), sunset and sunrise being determined at surface level.

Issue of EASA permits to fly

12. Where the CAA is authorised so to do under Commission Regulation No 1702/2003(1) it shall in respect of an EASA aircraft registered in the United Kingdom issue an EASA permit to fly in the same circumstances as it would issue a national permit to fly to a non-EASA aircraft.

Issue etc. of certificates of validation of permits to fly or equivalent documents

13.—(1) The CAA shall issue in respect of any aircraft registered elsewhere than in the United Kingdom a certificate of validation if it is satisfied that there is in respect of the aircraft a permit to fly or equivalent document issued or validated by the competent authority of the country in which the aircraft is registered which applies standards which are substantially equivalent to those required for the issue of a permit to fly by the CAA.

(2) An aircraft flying in accordance with a certificate of validation shall not fly for the purpose of public transport or aerial work other than aerial work which consists of flights for the purpose of flying displays, associated practice, test and positioning flights or the exhibition or demonstration of the aircraft.

(3) The CAA may issue a certificate of validation subject to such other conditions relating to the airworthiness, operation or maintenance of the aircraft as it thinks fit.

Certificate of maintenance review

14.—(1) An aircraft registered in the United Kingdom—

- (a) in respect of which a certificate of airworthiness is in force shall not fly unless the aircraft (including in particular its engines), together with its equipment and radio station, is maintained in accordance with a maintenance schedule approved by the CAA in relation to that aircraft;
- (b) which is a public transport or an aerial work aircraft shall not fly unless there is in force a certificate (in this Order referred to as a “certificate of maintenance review”) issued in respect of the aircraft in accordance with the provisions of this article and the certificate certifies the date on which the maintenance review was carried out and the date when the next review is due.

(2) A maintenance schedule approved under paragraph (1)(a) in relation to a public transport or aerial work aircraft shall specify the occasions on which a review must be carried out for the purpose of issuing a certificate of maintenance review.

(3) A certificate of maintenance review may be issued for the purposes of this article only by—

- (a) the holder of an aircraft maintenance engineer’s licence—
 - (i) granted under this Order, being a licence which entitles him to issue that certificate;
 - (ii) granted under the law of a country other than the United Kingdom and rendered valid under this Order in accordance with the privileges endorsed on the licence; or

(1) O.J. No. L243, 27.09.2003, p. 6 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations, to which there are amendments not relevant to this Order.

- (iii) granted under the law of any such country as may be prescribed in accordance with the privileges endorsed on the licence and subject to any conditions which may be prescribed;
 - (b) a person whom the CAA has authorised to issue a certificate of maintenance review in a particular case, and in accordance with that authority;
 - (c) a person approved by the CAA as being competent to issue such a certificate, and in accordance with that approval; or
 - (d) the holder of an aircraft maintenance licence granted by the CAA under Part 66, in accordance with the privileges endorsed on the licence.
- (4) In approving a maintenance schedule, the CAA may direct that certificates of maintenance review relating to that schedule, or to any part thereof specified in its direction, may be issued only by the holder of such a licence as is so specified.
- (5) A person referred to in paragraph (3) shall not issue a certificate of maintenance review unless he has first verified that—
- (a) maintenance has been carried out on the aircraft in accordance with the maintenance schedule approved for that aircraft;
 - (b) inspections and modifications required by the CAA as provided in article 10 have been completed as certified in the relevant certificate of release to service issued under this Order or under Part 145;
 - (c) defects entered in the technical log or approved record of the aircraft in accordance with article 15 have been rectified or the rectification thereof has been deferred in accordance with procedures approved by the CAA; and
 - (d) certificates of release to service have been issued:
 - (i) under this Order or in accordance with paragraph 21A. 163(d) of Part 21 in respect of an aircraft falling within article 16(1); or
 - (ii) under Part 145 in respect of an aircraft required to be maintained in accordance with Part 145;
- and for this purpose the operator of the aircraft shall make available to that person such information as is necessary.
- (6) A certificate of maintenance review shall be issued in duplicate.
- (7) One copy of the most recently issued certificate of maintenance review shall be carried in the aircraft when article 86 so requires, and the other shall be kept by the operator elsewhere than in the aircraft.
- (8) Subject to article 91, each certificate of maintenance review shall be preserved by the operator of the aircraft for a period of at least 2 years after it has been issued.

Technical Log

15.—(1) This article applies to public transport and aerial work aircraft registered in the United Kingdom.

(2) Subject to paragraph (3), a technical log shall be kept in respect of every aircraft to which this article applies.

(3) In the case of an aircraft of which the maximum total weight authorised is 2,730 kg or less and which is not operated by the holder of an air operator's certificate granted by the CAA under article 6(2) a record approved by the CAA (in this article, article 14(5)(c) and in Schedule 6 called "an approved record") may be kept instead of a technical log.

(4) Subject to paragraph (5), at the end of every flight by an aircraft to which this article applies the commander shall enter in the technical log or the approved record as the case may be—

- (a) the times when the aircraft took off and landed;
- (b) particulars of any defect which is known to him and which affects the airworthiness or safe operation of the aircraft, or if no such defect is known to him, an entry to that effect; and
- (c) such other particulars in respect of the airworthiness or operation of the aircraft as the CAA may require;

and he shall sign and date the entries.

(5) In the case of two or more consecutive flights each of which begins and ends—

- (a) within the same period of 24 hours;
- (b) at the same aerodrome, except where each such flight is for the purpose of dropping or projecting any material for agricultural, public health or similar purposes; and
- (c) with the same person as commander of the aircraft;

the commander may, except where he becomes aware of a defect during an earlier flight, make the entries specified in paragraph (4) at the end of the last of such consecutive flights.

(6) Upon the rectification of any defect which has been entered in a technical log or approved record in accordance with paragraphs (4) and (5) a person issuing a certificate of release to service issued under this Order or under Part 145 in respect of that defect shall enter the certificate in the technical log or approved record in such a position as to be readily identifiable with the defect to which it relates.

(7) Subject to paragraph (8) the technical log or approved record shall be carried in the aircraft when article 86 so requires and copies of the entries required by this article shall be kept on the ground.

(8) In the case of an aeroplane of which the maximum total weight authorised is 2,730 kg or less, or a helicopter, if it is not reasonably practicable for the copy of the technical log or approved record to be kept on the ground it may be carried in the aeroplane or helicopter, as the case may be, in a container approved by the CAA for that purpose.

(9) Subject to article 91, a technical log or approved record required by this article shall be preserved by the operator of the aircraft to which it relates for a period of at least 2 years after the aircraft has been destroyed or has been permanently withdrawn from use, or for such shorter period as the CAA may permit in a particular case.

Requirement for a certificate of release to service

16.—(1) This article shall apply to any aircraft registered in the United Kingdom in respect of which a certificate of airworthiness is in force except any such aircraft which is required to be maintained in accordance with Part 145.

(2) Except as provided in paragraphs (3), (5), (6) and (8) an aircraft to which this article applies shall not fly unless there is in force a certificate of release to service issued under this Order if the aircraft or any part of the aircraft or such of its equipment as is necessary for the airworthiness of the aircraft has been overhauled, repaired, replaced, modified, maintained, or has been inspected as provided in article 10(b).

(3) If a repair or replacement of a part of a non-EASA aircraft or its equipment is carried out when the aircraft is at a place where it is not reasonably practicable—

- (a) for the repair or replacement to be carried out in such a manner that a certificate of release to service under this Order can be issued; or
- (b) for such a certificate to be issued while the aircraft is at that place;

it may fly to a place which satisfies the criteria in paragraph (4) and in such case the commander of the aircraft shall cause written particulars of the flight, and the reasons for making it, to be given to the CAA within 10 days thereafter.

- (4) A place satisfies the criteria in this paragraph if it is—
- (a) the nearest place at which a certificate of release to service under this Order can be issued;
 - (b) a place to which the aircraft can, in the reasonable opinion of the commander, safely fly by a route for which it is properly equipped; and
 - (c) a place to which it is reasonable to fly having regard to any hazards to the liberty or health of any person on board.

(5) A certificate of release to service shall not be required to be in force in respect of an aircraft to which this article applies of which the maximum total weight authorised does not exceed 2,730 kg if it is an aircraft in respect of which a certificate of airworthiness in the special category referred to in Part B of Schedule 3 is in force, unless the CAA gives a direction to the contrary in a particular case.

(6) A certificate of release to service shall not be required to be in force in respect of an aircraft to which this article applies of which the maximum total weight authorised does not exceed 2,730 kg and which is a private aircraft if it flies in the circumstances specified in paragraph (7).

- (7) The circumstances referred to in paragraph (6) are—
- (a) the only repairs or replacements in respect of which a certificate of release to service is not in force are of such a description as may be prescribed;
 - (b) such repairs or replacements have been carried out personally by the holder of a pilot's licence granted or rendered valid under this Order who is the owner or operator of the aircraft;
 - (c) the person carrying out the repairs or replacements shall keep in the aircraft log book kept in respect of the aircraft under article 22 a record which identifies the repairs or replacement and shall sign and date the entries; and
 - (d) any equipment or parts used in carrying out such repairs or replacements shall be of a type approved by EASA or the CAA either generally or in relation to a class of aircraft or one particular aircraft.

(8) A certificate of release to service issued under this Order shall not be required to be in force in respect of an aircraft to which this article applies if there is in force a certificate of release to service issued in accordance with paragraph 21A.163(d) of Part 21.

- (9) Neither—
- (a) equipment provided in compliance with Schedule 4 (except equipment specified in paragraph 4 of the Schedule); nor
 - (b) radio communication and radio navigation equipment provided for use in an aircraft or in any survival craft carried in an aircraft, whether or not such apparatus is provided in compliance with this Order or any regulations made thereunder;

shall be installed or placed on board for use in an aircraft to which this article applies after being overhauled, repaired, modified or inspected, unless there is in force in respect thereof at the time when it is installed or placed on board a certificate of release to service issued under this Order.

- (10) A certificate of release to service issued under this Order shall—
- (a) certify that the aircraft or any part thereof or its equipment has been overhauled, repaired, replaced, modified or maintained, as the case may be, in a manner and with material of a type approved by EASA or the CAA either generally or in relation to a class of aircraft or the particular aircraft and shall identify the overhaul, repair, replacement, modification or maintenance to which the certificate relates and shall include particulars of the work done; or

- (b) certify in relation to any inspection required by the CAA that the aircraft or the part thereof or its equipment, as the case may be, has been inspected in accordance with the requirements of the CAA and that any consequential repair, replacement or modification has been carried out.
- (11) A certificate of release to service issued under this Order may be issued only by—
- (a) the holder of an aircraft maintenance engineer’s licence—
 - (i) granted under this Order, being a licence which entitles him to issue that certificate; or
 - (ii) granted under the law of a country other than the United Kingdom and rendered valid under this Order, in accordance with the privileges endorsed on the licence.
 - (b) the holder of an aircraft maintenance engineer’s licence or authorisation as such an engineer granted or issued by or under the law of any Contracting State other than the United Kingdom in which the overhaul, repair, replacement, modification, maintenance or inspection has been carried out, but only in respect of aircraft to which this article applies of which the maximum total weight authorised does not exceed 2,730 kg and in accordance with the privileges endorsed on the licence;
 - (c) a person approved by the CAA as being competent to issue such certification, and in accordance with that approval;
 - (d) a person whom the CAA has authorised to issue the certificate in a particular case, and in accordance with that authority;
 - (e) in relation only to the adjustment and compensation of direct reading magnetic compasses, the holder of a United Kingdom Airline Transport Pilot’s Licence (Aeroplanes) or a JAR-FCL Airline Transport Pilot Licence (Aeroplane) or a Flight Navigator’s Licence granted or rendered valid under this Order;
 - (f) a person approved in accordance with Part 145, and in accordance with that approval; or
 - (g) the holder of an aircraft maintenance licence granted by the CAA under Part 66, in accordance with the privileges endorsed on the licence.
- (12) In this article, the expression “repair” includes in relation to a compass the adjustment and compensation thereof and the expression “repaired” shall be construed accordingly.

Requirement for a certificate of release to service under Part 145

17. An EASA aircraft to which Part 145 applies shall not fly when a certificate of release to service is required by or under Part 145 unless such a certificate is in force.

Licensing of maintenance engineers

18.—(1) The CAA shall grant an aircraft maintenance engineer’s licence, subject to such conditions as it thinks fit, upon being satisfied that the applicant is a fit person to hold the licence and is qualified by reason of his knowledge, experience, competence and skill in aeronautical engineering, and for that purpose the applicant shall furnish such evidence and undergo such examinations and tests as the CAA may require of him.

(2) An aircraft maintenance engineer’s licence shall authorise the holder, subject to such conditions as may be specified in the licence, to issue—

- (a) certificates of maintenance review in respect of such aircraft as may be so specified;
- (b) certificates of release to service under this Order in respect of such overhauls, repairs, replacements, modifications, maintenance and inspections of such aircraft and such equipment as may be so specified; or

- (c) certificates of fitness for flight issued under paragraph 1(4) of the A Conditions in respect of such aircraft as may be so specified.
- (3) A licence shall, subject to article 92, remain in force for the period specified therein, not exceeding 5 years, but may be renewed by the CAA from time to time upon being satisfied that the applicant is a fit person and is qualified as aforesaid.
- (4) The CAA may issue a certificate rendering valid for the purposes of this Order any licence as an aircraft maintenance engineer granted under the law of any country other than the United Kingdom.
- (5) An aircraft maintenance engineer's licence granted under this article shall not be valid unless it bears the ordinary signature of the holder in ink or indelible pencil; provided that if the licence is annexed to an aircraft maintenance licence issued under Part 66 it shall be sufficient if that Part 66 licence bears such a signature.
- (6) Without prejudice to any other provision of this Order the CAA may, for the purposes of this article—
 - (a) approve any course of training or instruction;
 - (b) authorise a person to conduct such examinations or tests as it may specify; and
 - (c) approve a person to provide or conduct any course of training or instruction.
- (7) The holder of an aircraft maintenance engineer's licence granted under paragraph (1) or of an aircraft maintenance licence granted under Part 66 shall not exercise the privileges of such a licence if he knows or suspects that his physical or mental condition renders him unfit to exercise such privileges.
- (8) The holder of an aircraft maintenance engineer's licence granted under paragraph (1) or of an aircraft maintenance licence granted under Part 66 shall not, when exercising the privileges of such a licence, be under the influence of drink or a drug to such an extent as to impair his capacity to exercise such privileges.

Equipment of aircraft

- 19.**—(1) An aircraft shall not fly unless it is so equipped as to comply with the law of the country in which it is registered, and to enable lights and markings to be displayed, and signals to be made, in accordance with this Order and any regulations made thereunder.
- (2) In the case of any aircraft registered in the United Kingdom the equipment required to be provided (in addition to any other equipment required by or under this Order) shall—
- (a) be that specified in such parts of Schedule 4 as are applicable in the circumstances;
 - (b) comply with the provisions of that Schedule;
 - (c) except that specified in paragraph 4 of the said Schedule, be of a type approved by EASA or the CAA either generally or in relation to a class of aircraft or in relation to that aircraft; and
 - (d) be installed in a manner approved by EASA in the case of an EASA aircraft and the CAA in the case of a non-EASA aircraft.
- (3) In any particular case the CAA may direct that an aircraft registered in the United Kingdom shall carry such additional or special equipment or supplies as it may specify for the purpose of facilitating the navigation of the aircraft, the carrying out of search and rescue operations, or the survival of the persons carried in the aircraft.
- (4) The equipment carried in compliance with this article shall be so installed or stowed and kept stowed, and so maintained and adjusted, as to be readily accessible and capable of being used by the person for whose use it is intended.

(5) The position of equipment provided for emergency use shall be indicated by clear markings in or on the aircraft.

(6) In every public transport aircraft registered in the United Kingdom there shall be provided individually for each passenger or, if the CAA so permits in writing, exhibited in a prominent position in every passenger compartment, a notice which complies with paragraph (7).

(7) A notice complies with this paragraph if it—

- (a) is relevant to the aircraft in question;
- (b) contains pictorial instructions on the brace position to be adopted in the event of an emergency landing;
- (c) contains pictorial instructions on the method of use of the safety belts and safety harnesses as appropriate;
- (d) contains pictorial information as to where emergency exits are to be found and instructions as to how they are to be used; and
- (e) contains pictorial information as to where the lifejackets, escape slides, life rafts and oxygen masks, if required to be provided by paragraph (2), are to be found and instructions as to how they are to be used.

(8) All equipment installed or carried in an aircraft, whether or not in compliance with this article, shall be so installed or stowed and so maintained and adjusted as not to be a source of danger in itself or to impair the airworthiness of the aircraft or the proper functioning of any equipment or services necessary for the safety of the aircraft.

(9) Without prejudice to paragraph (2), all navigational equipment capable of establishing the aircraft's position in relation to its position at some earlier time by computing and applying the resultant of the acceleration and gravitational forces acting upon it when carried in an aircraft registered in the United Kingdom (whether or not in compliance with this Order or any regulations made thereunder) shall be of a type approved by EASA or the CAA either generally or in relation to a class of aircraft or in relation to that aircraft and shall be installed in a manner so approved.

(10) This article shall not apply in relation to radio communication and radio navigation equipment except any specified in Schedule 4.

Radio equipment of aircraft

20.—(1) An aircraft shall not fly unless it is so equipped with radio communication and radio navigation equipment as to comply with the law of the country in which the aircraft is registered or the State of the operator and to enable communications to be made and the aircraft to be navigated, in accordance with the provisions of this Order and any regulations made thereunder.

(2) Without prejudice to paragraph (1), the aircraft shall be equipped with radio communication and radio navigation equipment in accordance with Schedule 5.

(3) In any particular case the CAA may direct that an aircraft registered in the United Kingdom shall carry such additional or special radio communication or radio navigation equipment as it may specify for the purpose of facilitating the navigation of the aircraft, the carrying out of search and rescue operations or the survival of the persons carried in the aircraft.

(4) Subject to such exceptions as may be prescribed, the radio communication and radio navigation equipment provided in compliance with this article in an aircraft registered in the United Kingdom shall always be maintained in serviceable condition.

(5) All radio communication and radio navigation equipment installed in an aircraft registered in the United Kingdom or carried on such an aircraft for use in connection with the aircraft (whether or not in compliance with this Order or any regulations made thereunder) shall—

- (a) be of a type approved by EASA or the CAA in relation to the purpose for which it is to be used; and
 - (b) except in the case of a non-EASA glider which is permitted by article 3(2) to fly unregistered, be installed in a manner approved by EASA in the case of an EASA aircraft and the CAA in the case of a non-EASA aircraft.
- (6) Neither the equipment referred to in paragraph (5) nor the manner in which it is installed shall be modified except with the approval of EASA in the case of an EASA aircraft or the CAA in the case of a non-EASA aircraft.

Minimum equipment requirements

21.—(1) The CAA may grant in respect of any aircraft or class of aircraft registered in the United Kingdom a permission permitting such aircraft to commence a flight in specified circumstances notwithstanding that any specified item of equipment required by or under this Order to be carried in the circumstances of the intended flight is not carried or is not in a fit condition for use.

(2) An aircraft registered in the United Kingdom shall not commence a flight if any of the equipment required by or under this Order to be carried in the circumstances of the intended flight is not carried or is not in a fit condition for use unless—

- (a) the aircraft does so under and in accordance with the terms of a permission under this article which has been granted to the operator; and
- (b) in the case of an aircraft to which article 38 or 39 applies, the operations manual or police operations manual respectively contains particulars of that permission.

Aircraft, engine and propeller log books

22.—(1) In addition to any other log books required by or under this Order, the following log books shall be kept in respect of aircraft registered in the United Kingdom—

- (a) an aircraft log book;
- (b) a separate log book in respect of each engine fitted in the aircraft; and
- (c) a separate log book in respect of each variable pitch propeller fitted to the aircraft.

(2) The log books shall include the particulars respectively specified in Schedule 6 and in the case of an aircraft having a maximum total weight authorised not exceeding 2,730 kg shall be of a type approved by the CAA.

(3) Each entry in the log book—

- (a) other than such an entry as is referred to in paragraph 2(4)(b) or 3(4)(b) of Schedule 6, shall be made as soon as practicable after the occurrence to which it relates, but in no event more than 7 days after the expiration of the certificate of maintenance review (if any) in force in respect of the aircraft at the time of the occurrence;
- (b) being such an entry as is referred to in paragraph 2(4)(b) or 3(4)(b) of Schedule 6 shall be made upon each occasion that any maintenance, overhaul, repair, replacement, modification or inspection is undertaken on the engine or propeller, as the case may be.

(4) Any document which is incorporated by reference in a log book shall be deemed, for the purposes of this Order, to be part of the log book.

(5) It shall be the duty of the operator of every aircraft in respect of which log books are required to be kept to keep them or cause them to be kept in accordance with the foregoing provisions of this article.

(6) Subject to article 91 every log book shall be preserved by the operator of the aircraft for a period of at least 2 years after the aircraft, the engine or the variable pitch propeller, as the case may be, has been destroyed or has been permanently withdrawn from use.

Aircraft weight schedule

23.—(1) Every flying machine and glider in respect of which a certificate of airworthiness issued by the CAA or rendered valid under this Order is in force shall be weighed, and the position of its centre of gravity determined, at such times and in such manner as the CAA may require or approve in the case of that aircraft.

(2) Upon the aircraft being weighed the operator of the aircraft shall prepare a weight schedule showing—

- (a) either the basic weight of the aircraft, that is to say, the empty weight of the aircraft established in accordance with the type certification basis of the aircraft or such other weight as may be approved by the CAA or EASA in the case of that aircraft; and
- (b) either the position of the centre of gravity of the aircraft at its basic weight or such other position of the centre of gravity as may be approved by the CAA or EASA in the case of that aircraft.

(3) Subject to article 91 the weight schedule shall be preserved by the operator of the aircraft until the expiration of a period of six months following the next occasion on which the aircraft is weighed for the purposes of this article.

Access and inspection for airworthiness purposes

24. The CAA may cause such inspections, investigations, tests, experiments and flight trials to be made as it deems necessary for the purposes of this Part of this Order or for the purposes of Part 21, Part 145 or Part M and any person authorised to do so in writing by the CAA may at any reasonable time inspect any part of, or material intended to be incorporated in or used in the manufacture of any part of, an aircraft or its equipment or any documents relating thereto and may for that purpose go upon any aerodrome or enter any aircraft factory.