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STATUTORY INSTRUMENTS

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**2021 No. 792**

**The Space Industry Regulations 2021**

**PART 7**

**Training, qualifications and medical fitness**

**CHAPTER 1**

**General**

**Interpretation**

**55.** In this Part—

“competence assessment” has the meaning given in regulation [69\(3\)\(c\)\(iii\)](#);

“ICAO compliant”, in relation to a licence, means a licence which complies with Annex 1 to the Convention on International Civil Aviation signed on behalf of the Government of the United Kingdom at Chicago on 7th December 1944, and is issued by the licensing authority in a country which is a party to that Convention;

“licensee” means a person who holds a launch operator licence, a return operator licence, a spaceport licence or a range control licence under the Act;

“medical assessment” has the meaning given in regulation [72\(5\)](#);

“medical examination” has the meaning given in regulation [72\(5\)](#);

“normal conditions” in relation to a flight means conditions in which—

- (a) all launch vehicle aerodynamic parameters are as expected,
- (b) all the internal and external systems of the launch vehicle perform exactly as planned, and
- (c) there are no external perturbing influences other than atmospheric drag and gravity;

“relevant individual” has the meaning given in regulation [58\(1\)](#);

“relevant requirement” has the meaning given in regulation [65\(3\)](#);

“safety-critical function” means any function the performance of which is essential for preventing serious or fatal injuries as a result of the operator’s spaceflight activities;

“simulated training device” has the meaning given in regulation [71\(2\)](#);

“specified capacity” means a capacity which is specified for the purposes of section 18(4)(a) by regulation [57\(1\)](#);

“specified role” means a role which is specified for the purposes of section 18(4)(b) by regulation [56\(1\)](#);

“sub-orbital aircraft” means a craft to which section 1(5) applies which can derive support in the atmosphere from the reactions of the air other than reactions of the air against the earth’s surface.

**Specified roles and criteria**

**56.**—(1) The following roles are specified for the purposes of section 18(4)(b)—

- (a) the launch director;
- (b) the flight termination personnel;
- (c) the flight crew and remote pilots;
- (d) the sub-orbital aircraft engineer;
- (e) the range operations manager;
- (f) the range safety manager.

(2) The criteria set out in Part 1 of Schedule 3 are specified criteria for the purposes of section 18(4) as follows—

- (a) the criteria in paragraphs 1 to 6 are specified for the role of launch director;
- (b) the criteria in paragraphs 8 to 12 are specified for the role of flight termination personnel;
- (c) the criteria in paragraphs 13 to 20 are specified for the role of flight crew and remote pilots;
- (d) the criteria in paragraph 21 are specified for the role of sub-orbital aircraft engineer;
- (e) the criteria in paragraphs 22 to 24 are specified for the role of range operations manager;
- (f) the criteria in paragraphs 25 to 29 are specified for the role of range safety manager.

**Specified capacities and criteria**

**57.**—(1) “Spaceflight participant” is a specified capacity for the purposes of section 18(4)(a).

(2) The criteria in paragraph 52 of Schedule 3 are specified criteria in relation to spaceflight participants for the purposes of section 18(4).

**Responsibility of licensees**

**58.**—(1) The licensee must ensure that—

- (a) individuals who perform any specified role or have a specified capacity (“relevant individuals”) satisfy—
  - (i) the conditions set out in paragraph (2), or
  - (ii) if paragraph (4) applies in relation to the individual concerned, the conditions set out in paragraph (5);
- (b) individuals who participate in, or are otherwise engaged in connection with, the licensed activities but do not perform a specified role or have a specified capacity, satisfy the conditions set out in paragraph (3).

(2) An individual (“A”) satisfies the conditions in this paragraph if A—

- (a) has the qualifications, skills, experience and competencies required by this Part,
- (b) has received training appropriate to A’s role or capacity which—
  - (i) enables A to satisfy any criteria specified for that role by regulation 56(2) or for that capacity by regulation 57(2), and
  - (ii) otherwise complies with the requirements set out in this Part, and
- (c) is medically fit to perform any duties assigned to A.

(3) An individual (“B”) satisfies the conditions in this paragraph if B—

- (a) has participated in a training programme, including instruction on safety, appropriate to B’s role,

- (b) has been assessed as being competent to perform B's duties, and
  - (c) is medically fit to perform B's duties.
- (4) This paragraph applies to an individual who is taking part in licensed activities as a remote pilot for a spaceflight operator who holds a return operator licence but no other licence under the Act.
- (5) An individual ("C") satisfies the conditions in this paragraph if C—
- (a) has been assessed by a competent authority in the United Kingdom, or in a jurisdiction outside the United Kingdom, as being competent to perform the duties of a remote pilot in relation to the type of launch vehicle for which C has that role, and
  - (b) is medically fit to perform those duties.
- (6) For these purposes, subject to paragraph (9), the licensee must—
- (a) establish and maintain a training programme which complies with the requirements in regulation 69,
  - (b) prepare and maintain a training manual which complies with the requirements in regulation 66, and
  - (c) ensure that relevant individuals are medically fit to perform their duties in accordance with regulation 72(1).
- (7) The licensee may satisfy the obligation in paragraph (1), in relation to any relevant individuals who are not its employees or spaceflight participants, by checking that—
- (a) the individual concerned ("RI")—
    - (i) satisfies the condition in paragraph (2)(a), and
    - (ii) has received any training required to ensure that RI satisfies the conditions in paragraph (2)(a), from RI's employer, and
  - (b) RI is medically fit to perform RI's duties and, where regulation 72 applies, has been certified as medically fit in accordance with that regulation.
- (8) The licensee must have in place a training management system which—
- (a) is proportionate to the scale, nature and complexity of the licensed activities and the training programme;
  - (b) sets out clearly defined lines of responsibility and accountability for training, including—
    - (i) a direct accountability for training on the part of senior management of the licensee, and
    - (ii) the persons to whom and for whom the training manager is accountable;
  - (c) includes the means of measuring and verifying the effectiveness of the training programme;
  - (d) provides the means of monitoring the provision of any services or equipment by a third party contractor under regulation 59.
- (9) A return operator licensee is not required to appoint a training manager or comply with paragraph (6)(a) or (b), or regulations 66 and 68 to 71.

### **Training resources**

**59.—**(1) A licensee must ensure that it has adequate personnel, facilities and equipment to satisfy its obligations under this Part.

(2) If the conditions set out in paragraph (4) are satisfied, a licensee may enter into arrangements with a third party—

- (a) to provide personnel, facilities or equipment for use in the licensee's training programme,

- (b) to perform any part of its training programme, or
  - (c) to carry out medical assessments and medical examinations.
- (3) Before entering into any such arrangements with a third party, the licensee must satisfy itself that the personnel, services, equipment or other facilities to be provided by the third party satisfy the requirements of this Part.
- (4) The conditions referred to in paragraph (2) are that—
- (a) the arrangements between the licensee and the third party ensure that the licensee retains full control over—
    - (i) the content of any service provided by the third party, and the way in which that service is provided, and
    - (ii) what equipment or facilities are to be provided by the third party, and the condition of that equipment or those facilities;
  - (b) the arrangements between the licensee and the third party enable the licensee to provide access to the regulator, or any person authorised by the regulator, to any records or other material held by the third party which relates to the licensed activities;
  - (c) the arrangements between the licensee and the third party are set out in full in a contract between them.
- (5) The use by the licensee of a third party to provide services to the licensee for the purpose of the licensee's obligations under the Act, these Regulations and its licence does not relieve the licensee from any liability in relation to those obligations.

## Records

**60.**—(1) The licensee must keep the records specified in paragraph (2) for a period of at least two years beginning on the first day of the calendar year following the year in which the records were created.

- (2) The records are—
- (a) the training manual, including any previous versions of the training manual, and all associated documents, including all documents referred to in the training manual;
  - (b) records relating to individual participants in the training, including results of competence assessments, and details of the training received by each individual participant;
  - (c) records relating to any mission rehearsals carried out;
  - (d) details of the training equipment used;
  - (e) records of the instructors employed on the training programme;
  - (f) records of any arrangements made with a third party to provide services or equipment to the licensee under regulation 59(2);
  - (g) a record of any mission rehearsal which took place in accordance with regulation 70(5), including details of every person who participated in the rehearsal, and of any problems which arose during the rehearsal;
  - (h) the records kept under regulation 77 in relation to medical examinations and medical assessments;
  - (i) records of the training given to spaceflight participants;
  - (j) copies of any consent form signed by all crew members and spaceflight participants in accordance with section 17(2);

- (k) any other records needed for the licensee to demonstrate that its training activity has been conducted in accordance with the training manual, any conditions on its licence, and these Regulations.

## CHAPTER 2

### The training manager

#### **The training manager**

**61.**—(1) An individual may only be appointed to act as the training manager for a launch operator licensee under regulation 9(3)(b) or for a range control licensee under regulation 11(1)(e) if—

- (a) that individual satisfies the eligibility criteria provided for in regulations 5 and 6, and
  - (b) the appointment of that individual has been approved by the regulator.
- (2) The training manager must be an employee of the licensee.
- (3) The training manager is responsible for—
- (a) ensuring that the licensee complies with the requirements in these Regulations in relation to the qualification, training and medical fitness of individuals performing specified roles and spaceflight participants,
  - (b) establishing and running a system for managing the provision of training and where appropriate, qualifications, for individuals who participate in the licensed activities,
  - (c) ensuring the medical fitness of individuals performing specified roles and spaceflight participants, and
  - (d) carrying out the functions referred to in regulation 63.
- (4) Where a spaceport licensee or a return operator licensee does not have a training manager, the responsibilities specified in paragraph (3)(b) and (d) fall on the licensee.

#### **The training manager (application for approval)**

**62.**—(1) An application for the regulator's approval of the training manager under regulation 61 must be made by a licensee, or by an applicant for a licence.

- (2) The application must—
- (a) be made in such manner as the regulator may direct;
  - (b) include a statement of the matters for which the training manager is to be responsible;
  - (c) contain, or be accompanied by, such other information as the regulator may reasonably require.
- (3) At any time after the application is received and before it is determined, the regulator may require the applicant to provide it with such further information as it reasonably considers necessary to enable it to determine the application.
- (4) The applicant must inform the regulator in writing as soon as possible of any material change in any of the information provided to the regulator in or with the application or in response to a requirement from the regulator under paragraph (3).
- (5) No change may be made to the extent of the responsibilities of the training manager, as described in the statement referred to in paragraph (2)(b), unless this has been approved by the regulator.
- (6) Paragraphs (1) to (4) apply to an application for approval under paragraph (5), as they apply to an application for approval under paragraph (1).

**The training manager's functions**

**63.**—(1) The training manager has the following functions—

- (a) organising and managing such instructors and medical staff, facilities and equipment as are sufficient and appropriate to comply with the licensee's obligations under this Part;
- (b) reviewing, and where appropriate, supervising the training provided by instructors, making improvements to training activity where possible, and ensuring that any unsafe training practices are corrected;
- (c) reviewing the progress of relevant individuals;
- (d) ensuring that the training is kept up to date, and that it meets the needs of all the activities which the licensee is licensed to carry out;
- (e) establishing a system to record and document all training activity undertaken by the licensee, with information on the progress of each relevant individual ("RI"), including—
  - (i) whether each RI has completed the training relevant to that individual,
  - (ii) whether each RI has met the approved performance criteria necessary to be qualified to perform the RI's role, and
  - (iii) the results of any tests undertaken by an RI;
- (f) maintaining records of all medical examinations and medical assessments carried out in relation to RIs;
- (g) administering any informed consent process required by Part 12.

(2) If a spaceport licensee or a return operator licensee does not have a training manager, they must make alternative arrangements to carry out the functions specified in paragraph (1)(a), (b) and (d).

**Approval of the appointment of training manager**

**64.**—(1) The regulator may approve an application under regulation 62 only if—

- (a) it is satisfied that the individual who is the subject of the application—
  - (i) is a suitable person to perform the role of training manager with the licensee or, where relevant, the applicant for a licence, and
  - (ii) satisfies the eligibility criteria prescribed for the licensee in regulations 5 and 6 in relation to that role;
- (b) where the application is made by an applicant for a licence, that licence application is granted;
- (c) where the application is made by a licensee, the licence of that holder is not suspended or revoked.

(2) The matters the regulator may take into account in making the determination in paragraph (1)(a) include—

- (a) the individual's qualifications, including—
  - (i) knowledge of good educational practice and instruction techniques suitable for complex technical subjects;
  - (ii) an ability to devise appropriate courses for the training programme;
- (b) the individual's training and experience, including whether—
  - (i) they have practical experience as an instructor in technical subjects relevant to the activities for which the licensee is licensed;
  - (ii) they can provide evidence of good organisational skills and managerial capability.

- (3) The regulator may approve an application under this regulation—
  - (a) for a specified time, and
  - (b) subject to specified conditions,and for these purposes, “specified” means specified by the regulator.

#### **Termination of the training manager’s approval**

- 65.**—(1) An approval given by the regulator under regulation 64 ceases to be valid if—
- (a) the licence of the applicant is surrendered or revoked,
  - (b) the training manager ceases to satisfy the eligibility criteria referred to in regulation 64(1)(a)(ii), or
  - (c) the applicant or the approved individual is convicted of an offence under the Act.
- (2) The regulator may revoke the approval given to the appointment of the training manager if the licensee or the training manager has contravened a relevant requirement.
- (3) For the purposes of paragraph (2), a “relevant requirement” is—
- (a) a requirement imposed by or under the Act, including a requirement imposed under these Regulations;
  - (b) a condition included in the licence of the licensee;
  - (c) a condition on the approval of the appointment of the training manager.

### **CHAPTER 3**

#### **Training manual**

#### **Training manual**

- 66.**—(1) The licensee must—
- (a) compile a training manual which complies with the requirements in Part 2 of Schedule 3, and
  - (b) apply to the regulator for approval of those sections of that training manual which relate to relevant individuals (the “relevant sections”).
- (2) An application for the regulator’s approval of the relevant sections of the training manual must be made by—
- (a) a licensee, or
  - (b) an applicant for a licence.
- (3) The application must—
- (a) be made in such manner as the regulator may direct, and
  - (b) contain, or be accompanied by, such information as the regulator may reasonably require.
- (4) At any time after the application is received and before it is determined, the regulator may require the applicant to provide it with such further information as it reasonably considers necessary to enable it to determine the application.
- (5) Once the relevant sections of the training manual have been approved, the licensee must make available to its staff, and any person contracted to provide training services to the licensee, the manual, or those sections of the manual which are relevant to their duties.
- (6) The licensee must also, where appropriate, provide copies of sections of the manual relevant to students to those students admitted to its training programme.

- (7) The licensee must ensure that each copy of the training manual is kept up to date.

### **Approval of the training manual**

**67.**—(1) The regulator may only approve sections of a training manual under regulation 66(1)(b) if it is satisfied that the sections of the training manual referred to in regulation 66(1)(b)—

- (a) comply with the requirements set out in Part 2 of Schedule 3, and
- (b) are fit for their purpose.

(2) In determining whether the requirement in paragraph (1)(b) is satisfied, the regulator must take into account—

- (a) the scope, structure and content of the relevant sections of the training manual,
- (b) any material referred to in those sections of the training manual, and
- (c) how applicable those sections of the training manual are to the licensed activities.

### **Changes to the training manual**

**68.**—(1) The applicant must inform the regulator in writing as soon as possible of any material change in any of the information provided to the regulator in or with the application for approval of sections of the training manual relating to relevant individuals or in response to a requirement from the regulator under regulation 66(4).

(2) No change may be made to any of the following items referred to in the training manual without the approval of the regulator—

- (a) the scope of the training for relevant individuals carried out by or on behalf of the licensee (“the training”);
- (b) the locations where the training is carried out;
- (c) the course structure and training methods adopted for the training;
- (d) the use of instructors in the training;
- (e) the standards of competence set for each role in relation to the licensed activities;
- (f) the facilities and equipment used in the training, including the simulated training devices and aircraft where appropriate;
- (g) the arrangements for medical examinations for crew and spaceflight participants.

(3) The regulator may not approve a change to any of the matters referred to in paragraph (2) if amending the training manual to reflect that change would in the regulator’s opinion mean that the sections of the training manual relating to relevant individuals no longer satisfied the requirements in regulation 67.

(4) Regulation 66(2) to (4) applies to an application for approval under paragraph (2), as it applies to an application for approval under regulation 66(2).

## **CHAPTER 4**

### **Training programme**

#### **Training programme**

**69.**—(1) The licensee must establish and maintain a training programme—

- (a) combining practical and theoretical training for—



- (i) all individuals who will be on board a launch vehicle or a carrier aircraft in flight<sup>(1)</sup>;
    - (ii) any other individual employed by the licensee who will perform a specified role;
    - (iii) any other individual contracted to provide services for the licensee who will perform a specified role;
  - (b) providing training for individuals who participate in the licensed activities but do not perform a specified role or act in a specified capacity.
- (2) The objective of the training programme is to ensure that all participants are adequately qualified, trained, and medically fit to perform their assigned duties or otherwise participate in the licensed activities.
- (3) To achieve that objective, the training programme must include—
- (a) initial, proficiency and readiness training in accordance with paragraphs (4), (5) and (6) respectively for all relevant individuals;
  - (b) initial and readiness training in accordance with paragraphs (4) and (6) for individuals who do not perform a specified role, and
  - (c) assessments to determine—
    - (i) what training is required by relevant individuals;
    - (ii) whether individuals on a course of training have received and successfully completed all the necessary elements of that training (“a training assessment”);
    - (iii) if individuals are competent to perform their functions in relation to the licensed activities (“a competence assessment”).
- (4) Initial training must enable individuals—
- (a) to become familiar with—
    - (i) the licensee’s organisation and methods of working;
    - (ii) the safety regulations in Part 8, including the procedures set out in the safety operations manual applying to the licensed activities;
    - (iii) other regulations applying to the licensee and its licensed activities,where this is necessary to enable individuals to perform their roles, or to act as spaceflight participants,
  - (b) to be made aware of human factors, and
  - (c) to receive general security awareness training in accordance with Chapter 4 of Part 11.
- (5) Proficiency training must be provided for each specified role to ensure that individuals appointed to perform that role—
- (a) satisfy the criteria specified in relation to that role in Part 1 of Schedule 3,
  - (b) receive the training specified in Part 3 of Schedule 3, and
  - (c) are able to perform the duties associated with that role and otherwise take part in the licensed activities.
- (6) Readiness training must be provided in relation to each mission undertaken by the licensee for all individuals who are to participate in that mission, to ensure that they—
- (a) understand the objectives of that mission;

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(1) Regulation 140 (provision of information and training to crew) requires crew members referred to in that regulation to be given training about matters relating to exposure to cosmic radiation. Launch vehicle task specialists are treated as crew members for the purpose of that regulation by virtue of regulation 134(2) (interpretation).

(b) rehearse the role which they are to perform in the mission in accordance with regulation 70(5), and demonstrate adequate performance in that role.

(7) The training programme must also provide training for spaceflight participants who do not perform a specified role in accordance with paragraphs 50 and 52 of Schedule 3.

### **Training and assessments**

**70.**—(1) Competence assessments must be conducted at intervals determined by the training manager, or in the case of a spaceport licensee who does not have a training manager, by the licensee.

(2) No person who has failed a competence assessment relevant to a function may be permitted to perform that function until the person concerned has—

- (a) undertaken further training to address the reasons for that failure, and
- (b) passed a further competence assessment.

(3) Training and competence assessments for flight crew and remote pilots may be undertaken by one or more of the following methods, provided that the chosen methods cover all phases of flight of the launch vehicle to which the flight crew or remote pilots will be assigned—

- (a) flight in that launch vehicle;
- (b) use of simulated training devices;
- (c) flight in an aircraft—
  - (i) possessing similar characteristics to those of that launch vehicle, or
  - (ii) that has similar phases of flight to that launch vehicle.

(4) No emergency situation may be simulated in a launch vehicle on which spaceflight participants are being carried, unless the only spaceflight participants on the flight are persons authorised by the regulator to train the crew or to check any aspect of the licensee's spaceflight activities, including the work of the crew.

(5) The licensee must, before a launch (a "mission"), conduct one or more rehearsals of the mission, in order to test its operational procedures and train staff in their operational duties.

(6) A mission rehearsal conducted under paragraph (5) must as nearly as possible reproduce the intended spaceflight, spaceport and range control activities which would be carried out on the mission, including—

- (a) normal and abnormal situations;
- (b) pre-launch, spaceflight and post-launch scenarios;
- (c) any conditions in space that could affect the operator's spaceflight activity.

(7) A mission rehearsal conducted under paragraph (5) may include a spaceflight participant if this is necessary to enable the spaceflight participant to achieve the training objectives set for that participant, or to complete a competence assessment satisfactorily.

### **Training equipment**

**71.**—(1) The licensee must ensure that it has access to sufficient training equipment to enable it to provide practical training where required as part of its training programme.

(2) Training equipment used for this purpose may include devices which are capable of simulating a launch vehicle, or any equipment or facilities which are used in the course of carrying out one or more of the licensed activities of the licensee ("a simulated training device").

(3) A simulated training device may only be used if, so far as practically possible—

- (a) the device accurately represents the same configuration, graphical and instrument displays and environment as the launch vehicle, equipment or facilities it is simulating, and
  - (b) the device accurately represents conditions on the launch vehicle, equipment or facilities it is simulating as they will be experienced during the course of a licensed activity.
- (4) Any difference between the simulated training device and the actual launch vehicle, equipment or facilities which it is simulating must be identified and described as part of the training programme.
- (5) The licensee may also use devices designed to reproduce the effects of spaceflight on the human body, such as the effects of acceleration, disorientation, loss of pressurisation or other adverse physical effects connected with spaceflight.
- (6) The licensee must establish and maintain a system for monitoring any simulated training device or other device which is used in its training programme, to identify any changes in the capability or configuration of any such device and ensure that such changes do not reduce the effectiveness of any training or assessment for which that device is used.

## CHAPTER 5

### Medical Fitness

#### Medical obligations

- 72.—(1) The licensee must ensure that—
- (a) all the crew of the launch vehicle, and remote pilots taking part in spaceflight activities, hold a valid medical certificate as required by regulation 73(1);
  - (b) none of the crew has suffered a decrease in fitness due to illness or injury since the date of issue of their medical certificate which might affect their ability to—
    - (i) withstand the physical and mental rigours of spaceflight;
    - (ii) perform safety-critical functions reliably during the spaceflight activities;
    - (iii) carry out any emergency procedures which may be required during the spaceflight activities, including the evacuation of the launch vehicle;
  - (c) no person takes part in spaceflight activities, either as a crew member or a spaceflight participant, if that person is not medically fit to fly;
  - (d) no person participates in the licensed activities if they are not fit to do so.
- (2) The procedures established by the licensee to ensure that it satisfies its obligations under paragraph (1) may include—
- (a) medical examinations and medical assessments by an approved aeromedical examiner,
  - (b) requirements for the crew and remote pilots who hold valid medical certificates to complete self-declarations of fitness, and
  - (c) requirements for individuals who do not perform a specified role to report to the licensee on any occasion when they are not fit to perform their duties.
- (3) For the purposes of paragraph (2), every crew member and remote pilot must submit to such a medical examination or medical assessment when required by the spaceflight operator to do so.
- (4) The procedures referred to in paragraph (2) must be completed before—
- (a) a crew member performs any duty on board a launch vehicle, and
  - (b) a remote pilot takes control of a launch vehicle.
- (5) In this Chapter—
- “approved aeromedical examiner” means an individual who—

- (a) is qualified and holds a valid licence to practise medicine from the General Medical Council,
- (b) has qualifications in aviation or space medicine, and
- (c) has been approved by the regulator for the purposes of carrying out medical assessments or medical examinations for the purposes of these Regulations;

“approved medical assessor” means an individual employed by the regulator who—

- (a) is qualified and holds a valid licence to practise medicine from the General Medical Council,
- (b) has qualifications in aviation or space medicine, and
- (c) has been authorised by the regulator for the purposes of regulations 73(5) and 74(5);

“medical assessment” means the conclusion on the medical fitness of an individual based on evaluation of that individual’s medical history, medical examinations and medical tests;

“medical examination” means a physical inspection, palpation, percussion, auscultation or other means of investigation, especially for determining medical fitness or diagnosing disease.

### **Certificates and confirmation of medical fitness**

**73.—**(1) No individual may take part in any spaceflight activities on board a launch vehicle, or training for spaceflight activities which takes place on board a launch vehicle, unless that individual—

- (a) in the case of a crew member or remote pilot, holds a valid medical certificate issued by an approved aeromedical examiner;
- (b) in the case of a spaceflight participant, has been confirmed as being medically fit to fly by an approved aeromedical examiner.

(2) An approved aeromedical examiner may only issue a medical certificate under paragraph (1), or confirm that a spaceflight participant is medically fit to fly, if—

- (a) the examiner has carried out a medical examination of the applicant and an assessment of that individual’s medical history, and
- (b) following that assessment and examination, the examiner is satisfied that the individual concerned is medically fit—
  - (i) to participate in the spaceflight activities proposed for that individual, and
  - (ii) to carry out that individual’s duties, if any, in relation to those activities.

(3) In determining whether an individual is medically fit for the purposes of paragraph (2)(b), the approved aeromedical examiner must take into account any operational or environmental conditions which—

- (a) the spaceflight operator has identified as being likely to apply in relation to the spaceflight activities in which the individual would be participating or acting as a crew member, and
- (b) are relevant to the individual’s state of fitness.

(4) An approved aeromedical examiner must not determine that a crew member or remote pilot is medically fit for the purposes of paragraph (2)(b), unless—

- (a) that individual meets—
  - (i) in the case of a member of the flight crew, other than a balloon pilot, or a remote pilot, the requirements for a Class 1 certificate for single pilot commercial air transport operations carrying passengers set out in section 2 of Sub-Part B of Annex IV to the Aircrew Regulation,

- (ii) in the case of a member of the cabin crew or a balloon pilot, the requirements for a Class 2 certificate set out in that section of Sub-Part B of Annex IV to the Aircrew Regulation, and
  - (iii) any medical requirements imposed by the regulator in conditions on the spaceflight operator's licence, or
- (b) paragraph (5) applies.
- (5) This paragraph applies if—
  - (a) the individual concerned has been assessed by an approved medical assessor, and
  - (b) the assessor is satisfied that the individual's condition—
    - (i) will not compromise the safety of any spaceflight activities in which the individual will be participating or of any other individual on board the launch vehicle, and
    - (ii) will not prevent the individual from performing the tasks assigned by the licensee to the individual's role.
- (6) An approved aeromedical examiner may—
  - (a) issue a medical certificate, or
  - (b) confirm that an individual is medically fit to fly,

subject to any conditions which the examiner reasonably considers must be satisfied for the individual concerned to be considered to be medically fit to fly.

(7) Where an approved aeromedical examiner has issued a medical certificate, or confirmed that the individual concerned is medically fit to fly subject to conditions under paragraph (6), that individual does not meet the requirement in paragraph (1) unless those conditions are satisfied.

### **Illness, injury and related conditions**

**74.—**(1) An individual ("P") may not act as a member of the crew of a launch vehicle or as a remote pilot if P knows or suspects that P's physical or mental condition renders P temporarily or permanently unfit to perform those functions, including unfitness by reason of—

- (a) injury or sickness,
- (b) taking or using any prescribed or non-prescribed medication which is likely to interfere with the ability to perform such functions,
- (c) receipt of any medical, surgical or other treatment that is likely to interfere with the ability to perform such functions,
- (d) the effects of any psychoactive substance, or
- (e) fatigue.

(2) If paragraph (3) applies, an individual ("P") who holds a medical certificate issued under regulation 73(1) must inform the licensee's approved aeromedical examiner as soon as possible about P's condition and seek medical advice.

- (3) This paragraph applies if—
  - (a) the individual concerned ("P") suffers any personal injury which means that P is not capable of undertaking P's functions as a member of the crew or a remote pilot,
  - (b) P suffers any significant illness which means that P is not capable of undertaking P's functions as a member of the crew or a remote pilot,
  - (c) P has reason to think that P is pregnant,
  - (d) P has undergone a surgical operation or invasive procedure,
  - (e) P has commenced or changed the regular use of any medication,

- (f) P is admitted to a hospital or medical clinic, or
- (g) P first requires correcting glasses or contact lenses.
- (4) P must receive a medical assessment by the spaceflight operator's approved aeromedical examiner to confirm whether P is fit to take part in spaceflight activities—
  - (a) once P has recovered from—
    - (i) an injury or illness within paragraph (3)(a) or (b), or
    - (ii) an operation or procedure referred to in paragraph (3)(d);
  - (b) once P has been discharged from the hospital or clinic referred to in paragraph (3)(f);
  - (c) once P is no longer pregnant;
  - (d) when the condition referred to in paragraph (3)(e) or (f) applies.
- (5) The spaceflight operator's approved aeromedical examiner must consult an approved medical assessor appointed by the regulator in relation to that assessment, and may only determine that P is fit for the purposes of paragraph (4) if the approved medical assessor agrees.
- (6) A person who fails to comply with a requirement in paragraph (1), (2) or (4) commits an offence.
- (7) A person who is guilty of an offence under paragraph (6) is liable—
  - (a) on summary conviction in England and Wales, to a fine;
  - (b) on summary conviction in Scotland or Northern Ireland, to a fine not exceeding level 5 on the standard scale.

## **Disability**

**75.** If a spaceflight participant with a disability or reduced mobility has been certified as being fit to fly under regulation 73(1), the spaceflight operator may make arrangements for that participant to take part in a spaceflight if—

- (a) doing so would not compromise the safety of the flight;
- (b) the presence of an individual with that disability or reduced mobility would not impede or obstruct any member of the crew or spaceflight participant in carrying out their functions during the course of the flight, including executing emergency procedures or leaving the launch vehicle.

## **Validity of medical certificate**

**76.—**(1) Subject to paragraph (3), a medical certificate is valid for the period which is stated in the certificate.

- (2) The period referred to in paragraph (1) may not be more than 12 months.
- (3) The medical certificate is suspended—
  - (a) if the subject of the certificate ("S") suffers a personal injury which means that S is not capable of undertaking S's functions as a member of the crew, from the date on which the injury occurred,
  - (b) if S suffers any significant illness which means that S is not capable of undertaking S's functions as a member of the crew, during the period of S's illness, or
  - (c) if S becomes pregnant, from the confirmation of the pregnancy.

(4) In the case of injury or illness the suspension ceases upon S being medically assessed under arrangements made by the spaceflight operator and pronounced fit to resume S's functions as a member of the crew.

- (5) In the case of a pregnancy, the suspension—
  - (a) may be lifted by the regulator or an approved aeromedical examiner for such period, and subject to such conditions as the regulator or the approved aeromedical examiner thinks fit, and
  - (b) ceases upon S being medically assessed under arrangements made by the licensee after the pregnancy has ended and pronounced fit to resume S's functions as a member of the crew.

### **Medical records**

77.—(1) Every medical assessment or examination of an individual who intends to be carried on board a launch vehicle during the operator's spaceflight activities, and of a remote pilot, must be recorded by the approved aeromedical examiner who carried out that assessment or examination on behalf of the spaceflight operator, and the result of that assessment or examination reported to the individual concerned and to the spaceflight operator.

(2) The aeromedical examiner must send copies of records of medical assessments and examinations carried out in relation to members of the flight crew to the regulator.

(3) The licensee and aeromedical examiner must make the records of other medical assessments and examinations carried out available to the regulator on request.

(4) The licensee and aeromedical examiner must take measures to ensure that all medical records are protected as confidential information, and not disclosed otherwise than in accordance with this regulation.