

## **OUTER SPACE ACT 1986**

### **INFORMATION FOR APPLICANTS FOR A LICENCE**

1. Applicants are advised to make themselves familiar with the provisions of the Outer Space Act 1986, as set out below, before completing the application form. Please note that the application should be made **at least six months in advance of the start of the project**, otherwise the project may have to be delayed.

#### **Background**

2. The Outer Space Act 1986 (the Act) is the legal basis for the regulation of activities in outer space (including the launch of space objects, procuring the launch of space objects and operation of space objects) carried on by persons connected with the UK. The Act confers licensing and other powers on the Secretary of State acting through British National Space Centre (BNSC). The Act seeks to ensure compliance with the UK's obligations under international conventions covering the use of outer space, including liability for damage caused by space objects and the registration of objects launched into outer space.

#### **Application of the Act**

3. The Outer Space Act 1986 (OSA) applies to United Kingdom nationals (as defined in the Act) Scottish firms, and bodies incorporated under law of any part of the United Kingdom, carrying on the following activities in the United Kingdom or elsewhere:

- (a) launching or procuring the launch of a space object;
- (b) operating a space objects;
- (c) any activity in outer space

4. Persons to whom the Act applies who are engaged in the following activities do not in our view require a licence:-

- (i) the leasing of space segment satellite capacity (transponders) from international inter-governmental satellite organisations or privately owned entities for use by the lessee or by a person sub-letting the capacity;
- (ii) the utilisation of space segment capacity (transponders) using earth stations for either transmission or reception purposes. This exception does not apply to persons involved in telemetry, tracking and control of satellites in orbit;
- (iii) activities in outer space which are governed by a separate international agreement securing compliance with the international obligations of the UK may be excepted from the licensing requirement under section 3(2)(b) of the Act. Certain other activities in outer space which impose no international obligations on the UK may also be excepted from the licensing requirement under section 3(3) of the Act.

**5. Applicants should consult BNSC (address and telephone number at the end of these notes) if they are in any doubt whether they need a licence.**

### **Licensing Procedure**

6. An application for a licence under the Act should be made in writing by providing the information requested in the application form together with such documents as are referred to in the form and other information and documents of relevance. This should include information with respect to exactly what space activity the applicant is carrying on and, if appropriate, its relationship with other parts of the corporate group; the applicant's financial standing (e.g. if a limited liability company, the capital or guarantee limit); the applicant's technological capability and resources for carrying on the activities to be covered by the licence. Applicants wishing to *launch* space objects should attach the additional information listed at Annex A and seek a meeting with BNSC at least six months ahead of launch. If the launching activity is to take place outside of the UK, details should be provided of any other regulatory approvals being sought. However, this does not derogate persons to whom the Act applies from the need to obtain a UK licence. The application should also be accompanied by a non-refundable fee of £6,500 in the form of a cheque or banker's order made payable to the British National Space Centre. (NB recognised educational institutions carrying on an activity to which the Act applies for the purpose of scientific research or teaching are not required to pay the fee). BNSC may need to seek further information or clarification of particular points from the applicant in the course of assessing the application. BNSC may also wish to interview the applicants and carry out inspections before reaching a decision.

### **Conditions of grant of a licence**

7. Before a licence can be granted BNSC must be satisfied that the proposed activities will not jeopardise public health, the safety of persons or property, or national security. In order to satisfy itself of these requirements, BNSC will assess the financial and technical aspects of the project. The assessments will include a financial viability check to ensure that the applicant can afford to maintain its financial obligations under the terms of the licence granted, and a technical assessment to ensure that the potential damage caused by such activities is minimised.

8. The applicant must also provide evidence of how the obligation under section 10 of the Act will be underwritten/guaranteed. Any indemnity provisions in launch service agreements and/or satellite procurement contracts should be highlighted. At present, grant of licences are subject to applicants providing evidence of £100m third party liability cover with Her Majesty's Government in the United Kingdom as an additional insured. In current market conditions, we believe that three years in-orbit cover is available and is a reasonable requirement. For applicants procuring the launch of satellites, this means £100m third party liability cover during the launch phase as well as the in-orbit phase. In order to undertake due diligence on the insurance cover, BNSC needs copies of the insurance policies or, at minimum, comprehensive certificates which detail all terms, clauses, conditions, limitations and exclusions of the original policies. This documentation should accompany the application form.

Applicants should note that this does not derogate from the licensee's obligations under section 10 of the Act.

Applications should be sent to:

Roger Close

Manager, Regulatory Affairs

British National Space Centre

174 Grey

151 Buckingham Palace Road

LONDON SW1W 9SS

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Fax: 020 7215 0936

## INITIAL INFORMATION REQUIREMENTS FOR LAUNCHING ACTIVITY

### 1) **Launch system details**

- integrator (i.e. builders) and any pertinent details of their past heritage/experience in building launch vehicles
- vehicle performance, ideally plots of payload mass v. orbit height for different inclinations
- system overview, inc. dimensions, general layout and structural design and functionality of system at a high level
- design heritage – what has come before, how (briefly) was this design arrived at from previous (if any) work
- functionality of system at a high level
- launch sequencing (pre-and in-flight) i.e. times and events
- stage breakdown and basic design of each inc. propulsion system
- propellants in use and hazards associated with them
- propulsion system heritage. Unique aspects of design
- launch preparation hazards, inc. propellant loading and what safety procedures to take account of these
- details of flight control system, if any – can motors be throttled and thrust vectored?
- details of flight termination system, if any
- datalogging and telemetry system details
- any unique features of design not likely to be paralleled by any other launch system

### 2) **Launch range**

- launch trajectory relative to populated areas
- range operator and heritage
- notable features of range
- range safety procedures overview
- launch date and windows
- safe operating procedures for persons carrying on the launching activity

### 3) **Flight profile**

- launch azimuth
- launch trajectory analysis, inc. instantaneous impact points, esp. where populated land mass overflight is required
- flight envelope parameters (expected loadings, vibration etc.)

- stage and fairing impact locations
  - potential failure modes and effects
  - risk assessment
- 4) **System testing and reliability**
- total success/failure rate of this or similar launch systems. If N/A, then success/failure rate of propulsion system
  - details of static/ground test procedures
  - recent failures and analyses, inc. measures to taken to rectify
  - testing and qualification procedures for launch system
  - safety factors in design e.g. for structural loading
- 5) **Team structure and responsibilities** – who is going to be engaged in the launching activity and what experience/qualifications do they have

N.B. The above are only initial information requirements. More detailed information would be requested from applicants to allow BNSC to conduct a full technical safety assessment.

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### **APPLICATION FOR A LICENCE**

#### **Notes to Help You Complete the Form**

Where there is more than one applicant, the information relating to each applicant requested in Question 2 should be grouped together in the same order in which the applicants are named in Question 1.

If the applicant is a Scottish firm, the comparable information, concerning the firm shall be given wherever appropriate

If the body corporate does not possess a capital structure, any comparable information concerning the items listed should be given.

In determining whether a person (being an individual or a body corporate) has control of the applicant for the purposes of this question section 416(2) and (3) and (6) of the Income Corporation Taxes Act 1988 and section 258 of the Companies Act 1985 shall apply. In certain circumstances, the Secretary of State may require a guarantee from the parent company.

State in this column whether the control over the applicant's affairs is secured by means of holding of shares or by the possession of voting power in relation to the applicant or any other body corporate, or by virtue of any power contained in the articles of association or other document regulating the applicant or any other body corporate.

The description of the proposed activity, requested at Question 13, should cover the design and construction of the satellite, the launch arrangements, TT&C facilities, operation, in-orbit functioning and arrangements for final disposal. All relevant documents, in addition to those requested in the application form, should be supplied to BNSAC with the application form.

Where there is more than one applicant, each applicant's signature should be identified in BLOCK LETTERS.