# Executive Order on requirements in connection with approval of activities in outer space, etc.

The following is laid down pursuant to section 7, section 10(4), section 11(4), section 13(3), section 19 and section 21(3) of the Outer Space Act (Act no. 409 of 11 May 2016 on activities in outer space):

#### Part 1

#### Approval and time limits

- 1. The Danish Agency for Science, Technology and Innovation may, after receipt of an application in advance, approve space activities covered by the Outer Space Act.
  - 2. Applications for approval to perform space activities must contain the following information and documentation:
  - 1) A comprehensive description of the scheduled space activity, including the scheduled date and location of launch, a description of the purpose of the space activity and of the general function of the space object, including the overall technical specifications of platform, dimensions, weight and payload, the functional operating period of the space object, expected basic orbital data, etc.
  - 2) A risk assessment of the space activity, including the risk of damage being caused by the space object, cf. section 13(2).
  - 3) Documentation of ownership of the space object.
  - 4) Documentation of the professional qualifications, including technical qualifications, of the operator to perform the scheduled space activity.
  - 5) Documentation of the financial capacity of the operator. The following documentation must be submitted:
    - a) The turnover of the operator for the last three financial years, or for as long as the operator has existed.
    - b) The balance sheet of the operator.
    - b) The financial position of the operator.
  - 6) Documentation from the frequency assignment authority that the operator is in compliance with regulations on use of frequencies and orbit positions.
  - 7) A declaration of compliance with the regulations on export controls.
- 3. If an approval entails requirements pursuant to sections 5, 6, 7 and 13, the operator must document compliance with the following:
  - 1) Specific safety requirements pertaining to the space activity, cf. section 5.
  - 2) Requirements for space debris management, cf. section 6.
  - 3) Environmental requirements, cf. section 7.
  - 4) Requirements for liability insurance cover pursuant to section 11(1) and (2) of the Outer Space Act, cf. section 13.
- **4.-(1)** As early as possible, and by no later than 12 months before the scheduled launch of the space object, the operator must notify the Danish Agency for Science, Technology and Innovation about the space activity for which the operator requests approval.
- (2) No later than by 10 months before the scheduled launch of the space object, the operator must submit an application which meets the requirements set out in section 2. In dialogue with the operator, the Danish Agency for Science, Technology and Innovation will subsequently stipulate any supplementary requirements pursuant to sections 5, 6, 7, and 13.
- (3) The operator must submit documentation pursuant to section 3 by no later than six months prior to the scheduled launch.
- (4) In special cases, the Danish Agency for Science, Technology and Innovation may derogate from the time limits mentioned in subsections (1)-(3).

# Part 2

# Safety requirements

- **5.-(1)** The Danish Agency for Science, Technology and Innovation may stipulate requirements that space activities meet relevant safety standards and guidelines, such as standards published by the European Cooperation for Space Standardization (ECSS) or the International Organization for Standardization (ISO).
- (2) The Danish Agency for Science, Technology and Innovation may stipulate requirements that the operator account in particular for a quality assurance and risk management system for the space activity

(3) When assessing safety associated with the launch itself, the Danish Agency for Science, Technology and Innovation may place emphasis on relevant assessments and decisions already made by foreign national authorities, international space organisations, or similar.

#### Part 3

#### Space debris management

- **6.-(1)** The Danish Agency for Science, Technology and Innovation may stipulate requirements that space activities which involve the launch of space objects into earth orbit meet relevant standards and guidelines for space debris management, such as standards published by the European Cooperation for Space Standardization (ECSS) or the International Organization for Standardization (ISO).
- (2) As a general rule, within 25 years of the end date of the functional operating period of the space object, the space object must either safely leave its earth orbit again or safely be placed into an orbit where it is deemed not to constitute a danger to other space activities.

# Part 4

#### Environmental requirements

- **7.** Space activities must be performed with due consideration for the surrounding environment. The Danish Agency for Science, Technology and Innovation may stipulate requirements, and request a description of:
  - 1) The environmental impact of the space activity on the Earth and the atmosphere, e.g. specifying the technology, components, manufacturing processes and products applied.
  - 2) The potential environmental impact in outer space of the space activity.
  - 3) The operator's measures to minimise the impact on the environment on the Earth, in the atmosphere and in outer space.

#### Part 5

### Registry of space objects

- **8.** For space objects covered by section 10(1) of the Outer Space Act, the operator must report the following information to the Danish Agency for Science, Technology and Innovation:
  - 1) The name and central business registration number (CVR number) of the operator.
  - 2) A description of the general function of the space object.
  - 3. The date and location of launch.
  - 4) The launch vehicle or launcher.
  - 5) The functional operational period and operational life of the space object in earth orbit.
  - 6) Basic orbital data:
    - a) nodal period;
    - b) inclination;
    - c) apogee;
    - d) perigee.
- **9.-(1)** The information pursuant to section 8 must be reported by no later than three months before the space object is launched.
- (2) The operator must report an appropriate designator for the space object, or its registration number, as well as final information pursuant to section 8, by no later than one month after the space object has been launched
- **10.** If the information reported changes, the operator must report this to the Danish Agency for Science, Technology and Innovation without undue delay and by no later than three weeks after the change(s) in question, unless other arrangements are agreed in the specific situation.
- **11.** The operator must submit additional documentation for the information reported under section 8 if the Danish Agency for Science, Technology and Innovation so requests.

Part 6

Liability and insurance

- 12.-(1) The operator's liability to pay damages, cf. section 11(1) and (2) of the Outer Space Act, may not exceed DKK 450 million.
  - (2) The limitation of the operator's liability to pay damages pursuant to subsection (1) does not apply
  - 1) if the operator causes the damage intentionally, or due to gross negligence;
  - 2) if the operator has neglected to obtain approval for the space activity;
  - 3) if the operator has ignored material conditions for approval; or
  - 4) if personal injury is involved.
- **13.-(1)** The Danish Agency for Science, Technology and Innovation may stipulate requirements that the operator take out insurance, including requirements for the scope of this insurance
- (2) Requirements for insurance pursuant to subsection (1) will be determined on the basis of the application and, primarily, on the basis of the risk of damage being caused by the space activity, including the risk that
  - 1) the space object causes injury to persons or damage to property on the Earth as well as damage to aircraft in flight;
  - 2) the space object causes damage to other space objects.

#### Part 7

# Payment of costs

- 14.-(1) The operator must cover the Danish Agency for Science, Technology and Innovation's costs, especially costs of external technical assistance, in connection with
  - 1) processing applications, changing and withdrawing an approval;
  - 2) transfers of space objects or space activities to another owner or operator; and
  - 3) conducting supervision.
- (2) Amounts pursuant to subsection (1) will be determined based on the case processing costs incurred by the Danish Agency for Science, Technology and Innovation.
  - (3) The payment deadline for invoices from the Danish Agency for Science, Technology and Innovation is 30 days.
- **15.-(1)** The Danish Agency for Science, Technology and Innovation will send an estimate of the costs pursuant to section 14(1), nos. 1 and 2, to the operator upon receipt of an application which meets the requirements in section 2.
  - (2) An on-account invoice will be issued immediately after the estimate under subsection (1) has been sent.
- (3) A final invoice will be issued when the application processing has been completed and this will be adjusted for on-account payments where necessary.
- **16.** The Danish Agency for Science, Technology and Innovation will issue an invoice for costs pursuant to section 14(1), no. 3 to the operator after the supervision has been conducted.

#### Part 8

# Digital communication and language requirements

- **17.-(1)** Upon request by the Danish Agency for Science, Technology and Innovation, exchange of information pursuant to the Outer Space Act and this Executive Order must take place digitally.
- (2) The Danish Agency for Science, Technology and Innovation may set out requirements for encryption in situations in which information is exchanged digitally, cf. subsection (1).
- **18.** Upon request by the Danish Agency for Science, Technology and Innovation, information which is exchanged pursuant to the Outer Space Act and this Executive Order must be available in English.
- 19. The Danish Agency for Science, Technology and Innovation may require applicants to use a specific application form or an online form.

Part 9

Penalty

- **20.-(1)** Violations of sections 9-11 carry a fine or a term of imprisonment of up to four months, unless a higher penalty is incurred under other legislation.
- (2) Companies, etc. (legal persons) may incur criminal liability according to the regulations in chapter 5 of the Criminal Code.

Part 10

Entry into force

21. This Executive Order enters into force on 1 July 2016.

The Ministry of Higher Education and Science, 31 May 2016

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