

## **GUIDELINES FOR THE APPLICATION FOR AN OUTER SPACE LICENCE**

### **Section 1 - Introduction**

- 1.1 Pursuant to section 4 of the Outer Space Ordinance (Cap. 523) (hereinafter “the Ordinance”), a person, except as licensed under the Ordinance, shall not carry on in Hong Kong or elsewhere activities which are defined as (a) launching or procuring the launch of a space object; (b) operating a space object; (c) any activity in outer space (hereinafter collectively referred to as “activity or activities”). The Chief Executive (CE) may pursuant to section 5(1) of the Ordinance grant a licence (i.e. Outer Space Licence) in respect of activities to which the Ordinance applies to a body corporate incorporated under the laws of Hong Kong. The conditions of Outer Space Licence are prescribed pursuant to section 6 of the Ordinance.
- 1.2 The Director-General of Communications (DG Com) is authorised by the CE to administer the Ordinance and to grant any consent, approval and permission required in connection with licences granted under the Ordinance.
- 1.3 These guidelines indicate the manner in which the applications for Outer Space Licences would be assessed, including the licensing criteria and other relevant matters.
- 1.4 In these guidelines, references to CE shall include DG Com / Office of Communications Authority (OFCA)<sup>1</sup> acting under CE’s authority; references to the People’s Republic of China shall include the Hong Kong Special Administrative Region (HKSAR).

### **Section 2 – Scope of Service**

- 2.1 According to sections 3 and 4 of the Ordinance, an “Outer Space Licence” is required for the launching or procuring the launch of a space object, operating a space object and conducting any activities in outer space.
- 2.2 The holder of an Outer Space Licence is authorised to launch and operate space object as well as carry out any activities in the outer space by means of the satellite concerned subject to the provisions of the Ordinance and the conditions of the licence and its schedule.

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<sup>1</sup> Pursuant to the Communications Authority Ordinance (Cap.616), with effect from 1 April 2012, all duties and powers of the Telecommunications Authority are conferred on the Communications Authority (“CA”), and all duties and powers of the Office of the Telecommunications Authority (“OFTA”) are conferred on OFCA, the executive arm of the CA.

## **Section 3 – Licensing Criteria**

3.1 In deciding whether an Outer Space Licence should be granted to an applicant, the following matters relate to the Applicant would be relevant:

### 3.1.1 The Applicant

The applicant for an Outer Space Licence shall normally be a company incorporated in the Hong Kong Special Administration Region (HKSAR) under the Companies Ordinance (Cap 622).

### 3.1.2 Financial Capability

The applicant should possess sufficient financial capability in launching and maintaining the operation of the satellite network. The applicant should specify the costs incurred and demonstrate that it has sufficient financial backing, either by its own capital, the capital of its shareholders or loan capital to carry out the activities to be licensed. The applicant should have reasonably sound and detailed business plans with contingency measures to cope with different reasonably foreseeable circumstances.

### 3.1.3 Managerial Strength

The applicant should possess the managerial strength required for the establishment and operation of satellite, including the procurement of satellite, procurement of launch of satellite, arrangement for insurance, coordination and registration of satellite networks in accordance with the regulations of the International Telecommunication Union (ITU), etc.

### 3.1.4 Technical Competence and Experience

The applicant should possess sufficient technical expertise and be experienced in the establishment and operation of satellite networks. Without limiting the generality of such requirement, the applicant should be familiar with the relevant laws of the HKSAR and the obligations of the People's Republic of China under international laws and conventions. In particular, the applicant must be conversant with the prevailing regulations of the ITU and the procedure of the Radio Regulations applicable to satellite services.

### 3.1.5 Nature of Space Activity

The activities to be carried out by the satellite has to comply with the international best practice in preserving the outer space environment and secure compliance with the international obligations of the People's Republic of China with respect to the carrying out of any activities in outer space. A brief technical account of the satellite or space activity, the payload, mission and launch means should be provided.

### 3.1.6 Safety and Damage Considerations

To facilitate the DG Com's consideration on safety issues, the applicant should

specify as to whether the space object will (a) re-enter the atmosphere or be recovered, (b) emit any solid or ionising or gaseous materials, (c) operate any laser, (d) carry any radioactive or nuclear material or (e) carry any form of animal life.

#### 3.1.7 Technical Information for Space Object

The applicant should demonstrate that the technical parameters designed for the space object shall comply with relevant ITU and international regulations during its planned mission.

#### 3.1.8 Insurance arrangement

The applicant shall give warranty and undertaking that before the launch of the satellite an insurance policy should be effected covering third party liabilities arising out of the launch of the satellite including the launch phase and first year of the in-orbit operation of the satellite. The insurance policy shall remain valid and enforceable by the Central People's Government of the People's Republic of China and the Government of the HKSAR against the insurer.

#### 3.1.9 Status of Frequency Coordination

With respect to the ITU satellite filings based on which the applicant develops its satellite networks, the applicant should demonstrate that the coordination with other relevant satellite networks has progressed satisfactorily to such a stage that it can warrant the issuing of a licence, subject to any appropriate conditions to be attached.

#### 3.1.10 Implementation Schedule

Where appropriate, the DG Com may require that the satellite network proposed by the applicant be rolled out within a reasonable time-scale. In this situation, the applicant may be required to provide a comprehensive roll out plan taking into consideration contingencies (e.g. launch failure) and demonstrate a strong commitment to adhere to the implementation schedule (e.g. through performance bonds or other forms of assurances if necessary).

#### 3.1.11 Compliance with the "Guidelines for De-commissioning of Satellite and Mitigation of Space Debris" issued by OFCA.

The applicant has to demonstrate that it can comply with all the requirements as stipulated in the "Guidelines for De-commissioning of Satellite and Mitigation of Space Debris" (hereafter the "De-commissioning and Mitigation Guidelines"), which can be downloaded from OFCA website at:

[http://www.ofca.gov.hk/filemanager/ofca/common/Industry/telecom/outer\\_space/gn072017.pdf](http://www.ofca.gov.hk/filemanager/ofca/common/Industry/telecom/outer_space/gn072017.pdf)

- 3.2 The licensing criteria as set out above are not intended to be a definitive list of criteria for assessing the applicant's proposal. They are indicative only and each case will be decided on its own merits.

## Section 4 – Information to be Provided

4.1 In order that an application can be assessed objectively against the licensing criteria, the applicant should normally be required to provide the following information:

### 4.1.1 Company Information

Details of the company, including:

- (a) photocopies of the Certificate of Incorporation and the Business Registration Certificate of the company;
- (b) detailed information on the corporate and shareholding structure including relationship with holding or related companies;
- (c) certified true copies of the company's Memorandum and Articles of Association<sup>2</sup>;
- (d) details on the composition of the company's Board of Directors and key officers; and
- (e) the organisational/management structure and staffing levels of the company and principal contractors to be employed for the construction and maintenance of the space segment facilities and the ground segment facilities in HKSAR.

### 4.1.2 Financial Strength

Details to demonstrate the applicant's financial strength:

*if the applicant is an established company:*

- (a) copies of audited profit and loss accounts and balance sheets and audit or reports for the last three full years, together with the most recently published interim results;
- (b) a business and capital investment plan, including details of proposed financing structure, credit facilities and financial arrangements used by the applicant; and
- (c) the level of the shareholders' support to satisfy the Government that the applicant is capable of bearing the financial risks of variations in the costs of establishment and/or maintenance of the operation of the satellite network.

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<sup>2</sup> With the abolition of Memorandum of Association ("MA") since the new Companies Ordinance (Cap. 622) commenced on 3 March 2014, (a) a company formed and registered from 3 March 2014 or (b) a company formed and registered under the former Companies Ordinance (Cap. 32) (i.e. before 3 March 2014) with her constitutional documents updated by abolishing the MA and incorporating the relevant provisions in her Articles of Association should provide certified true copies of the company's Articles of Association.

*if the applicant is a newly-formed company:*

- (a) the directors' certificate of the amount of issued and paid-up share capital;
- (b) bankers' confirmation of the amount of its deposits and/or available credit facilities; and
- (c) copies of audited profit and loss accounts and balance sheets and auditor reports for the last three full years, together with the most recently published interim results, of the company's shareholding companies.

#### 4.1.3 Technical Information

The following technical information, where applicable and when appropriate:

- (a) Space stations on board the satellite for telecommunications
  - (i) Number of communications transponders
  - (ii) Operating bands:
    - (1) Uplink
    - (2) Downlink
  - (iii) Polarisation
  - (iv) Centre frequencies of transponders for uplink
  - (v) Centre frequencies of transponders for downlink
  - (vi) Transponder bandwidth
  - (vii) Maximum equivalent isotropically radiated power (EIRP)
  - (viii) Service coverage
- (b) Space stations on board the satellite for telemetry, tracking and control of the satellite
  - (i) Transmit frequencies
  - (ii) Receive frequencies
  - (iii) Designation of emission
  - (iv) Maximum EIRP
  - (v) Polarisation
- (c) Space object and their launch
  - (i) Name of space object
  - (ii) Name of space object manufacturer
  - (iii) Date and location of the launch of the space object
  - (iv) Name of launch services provider
  - (v) Name of launching authority
  - (vi) Designator or registration number

(d) Orbital parameters

- (i) Period
- (ii) Inclination
- (iii) Apogee
- (iv) Perigee

*in the case of a satellite planned to operate in geosynchronous orbit*

- (v) the planned orbital longitude
  - (vi) the planned latitude and longitude boundaries within which the satellite will operate
- (e) the status of coordination with other relevant satellite networks in accordance with the ITU Radio Regulations for the frequencies used by the satellite network;
- (f) technical measures to be taken to ensure proper operation of the satellite which is co-located with other satellites at the same orbital position, where appropriate; and
- (g) documentary proof that permissions from the relevant government departments have been obtained in relation to the use of land for the installation of earth stations, if applicable.

4.1.4 Range of Services

A description of the ranges of telecommunications, broadcasting and any other services, which can be provided via the satellite network.

4.1.5 Insurance arrangement

Details of the proposed insurance arrangements to cover third-party liability during

- (a) the launch phase;
- (b) the operation of the satellite during the first year after launch; and
- (c) drifting of the satellite and final disposal.

4.1.6 Technical Support

Details of the technical support facilities and maintenance centres which the applicant has or intends to set up in the HKSAR, including a description of the technical personnel responsible for the design, construction, day-to-day operation, maintenance of the facilities and the routine maintenance schedule.

#### 4.1.7 Previous Relevant Experience

Details on the competence and previous experience of the applicant, its shareholders and key personnel in establishing and/or maintaining the operation of satellite networks, as well as information on the current status of these networks.

#### 4.1.8 Implementation Plan

An implementation plan giving the timing for significant milestones of implementation, including signing of contract for manufacture of the satellite, signing of contract for launch of the satellite, completion of final satellite design, delivery of satellite to launch site, launch of satellite, in-orbit testing, readiness for provision of services and contingency plan (e.g. in case of launch failure, or failure to obtain relevant export permits for the satellite.). Copies of the satellite supply contract and the launch services contract are required.

#### 4.1.9 Plans for disposal of satellite and mitigation of space debris

Details on the plan for the disposal of satellite at the end of life as well as the plans for mitigation of space debris during normal operation or in the event of malfunction of the satellite shall be provided. Applicant should comply with the De-commissioning and Mitigation Guidelines when formulating the relevant plans.

#### 4.1.10 Other Information

Any other information as may be specifically required by the CE or DG Com.

### **Section 5 – Form of Licence**

- 5.1 Sample copies of the Outer Space Licence may be obtained by contacting the officer as specified in Section 8.3 below or by downloading from OFCA's webpage.

### **Section 6 – Period of Validity**

- 6.1 Without prejudice to the generality of the power exercisable by the CE under the Ordinance, there is currently no limit on the period of validity of an Outer Space Licence. The termination of an Outer Space Licence shall not take effect until it can be satisfied that the licensed activities have been terminated and the satellite disposed of or otherwise dealt with in compliance with international obligations of the People's Republic of China and the Ordinance.

### **Section 7 – Licence Fee**

- 7.1 Without prejudice to the generality of the power exercisable by the CE under the Ordinance, no licence fee is currently required for the application of an Outer Space Licence.

## **Section 8 – Submission of Applications**

- 8.1 The submission of application should consist of a completed application form together with supporting documents including detailed information as requested in Section 4 above and as much documentary evidence as possible to substantiate the claims made in the applications. The application form for an Outer Space Licence is available for downloading from OFCA website at [https://www.ofca.gov.hk/filemanager/ofca/common/Industry/telecom/outer\\_space/2016\\_application.pdf](https://www.ofca.gov.hk/filemanager/ofca/common/Industry/telecom/outer_space/2016_application.pdf).
- 8.2 The applicants should use their best endeavours to ensure that all information contained in their application and any other subsequent submissions and representations are correct and accurate in all respect.
- 8.3 Applications should be submitted in duplicate under confidential cover and reach the DG Com at the following address:
- Office of the Communications Authority  
29/F., Wu Chung House  
213 Queen’s Road East, Wanchai  
Hong Kong  
(Attn.: Senior Telecommunications Engineer (Spectrum Planning 2))
- Tel: +852 2961 6338  
Fax: +852 2803 5113  
Email: SP2@ofca.gov.hk
- 8.4 Receipt of applications will be acknowledged.
- 8.5 The applicant may be asked from time to time to provide additional information/document to clarify or supplement the applications submitted. The applicants must provide such additional information/document before the application can be further processed.

## **Section 9 – Other Information**

- 9.1 While the space related activities, including the launching, procuring the launch and operation of a space object is subject to licensing under the Outer Space Ordinance (Cap 523), the operation of radiocommunication equipment on board satellites and the associated earth stations requires a Space Station Carrier Licence under the Telecommunications Ordinance (Cap. 106), sample copies of the Space Station Carrier Licence are available for downloading from CA website at [https://www.coms-auth.hk/en/licensing/telecommunications/carrier/space\\_station/index.html](https://www.coms-auth.hk/en/licensing/telecommunications/carrier/space_station/index.html). Enquiries about this licence should also be directed to the officer as specified in Section 8.3 above.

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