

## Orrery Update August 2020

### UK Commercial Spaceflight – Consultation on Secondary Legislation

*The recent publication of the draft secondary legislation under the SIA sets out a thought-leading and game-changing proposition to support the UK launch industry. The detailed and comprehensive implementing regulations to the SIA will help to achieve the Government's and industry's target to grow the UK's share of the global space market to 10% by 2030.*

*Alden Legal plans to publish a series of briefings every two weeks in relation to the Consultation, covering different aspects of it. We will critically review the commercial and practical application of the detail of the provisions in the draft secondary legislation and consultation guidance proposed by the Government and provide our informed view to assess the impact for the UK space industry.*

On 29 July 2020, the Department for Transport (DfT) and the UK Space Agency (UKSA) published the long-awaited public consultation on the draft secondary legislation and accompanying documents (**Consultation**) for implementation of the Space Industry Act 2018 (SIA). The Consultation sets out the UK's proposed licensing requirements to carry out regulated spaceflight activities and how ongoing compliance will be monitored and assessed.

The Consultation seeks views on the operability and effectiveness of the following documents.

- (a) Three draft secondary legislative regulations (the **Draft Regulations**):
  - (1) the Space Industry Regulations 2020;
  - (2) the Spaceflight Activities (Investigation of Spaceflight Accidents) Regulations 2020; and
  - (3) the Space Industry (Appeals) Regulations 2020.
- (b) The Regulator's Licensing Rules.
- (c) A series of accompanying guidance documents as follows:
  - (1) Principles and guidelines for the spaceflight regulator in assessing ALARP and acceptable risk;
  - (2) Guidance on applying for a licence;
  - (3) Guidance for launch operator and return operator applicants and licensees;
  - (4) Guidance for spaceport licence applicants and spaceport licensees;
  - (5) Guidance for range control licence applicants and licensees;
  - (6) Guidance for orbital operator licence applicants and licensees;
  - (7) Guidance for the assessment of environmental effects;
  - (8) Guidance on security matters for applicants and licensees;
  - (9) Guidance on the investigation of spaceflight accidents;
  - (10) Guidance on appealing decisions made under the SIA;
  - (11) Guidance on liabilities under the SIA; and
  - (12) Guidance on duties for all licensees under the SIA including monitoring and enforcement by the regulator.

- (d) The Impact Assessment of the Space Industry Regulations 2020.

The deadline for submitting a response to the Consultation is 23:59 (BST) on 21 October 2020.

### **The scope of the Draft Regulations**

The current legal and regulatory framework under the Outer Space Act 1986 (**OSA**) will continue to apply to UK-incorporated companies procuring an overseas (non-UK) launch of a satellite and/or operating a satellite from overseas.

The legal and regulatory framework under the SIA will apply to companies incorporated in the UK, or in other jurisdictions, carrying out the following spaceflight and associated activities from the UK:

- (a) launch (space or sub-orbital) and return;
- (b) the procurement of a UK launch (space or sub-orbital);
- (c) the operation of a satellite in orbit;
- (d) the operation of a spaceport; and
- (e) the provision of range control services.

The Draft Regulations regulate, for the first time, aspects such as cybersecurity, monitoring and the enforcement powers of the regulator (such as the power to appoint an inspector and to issue stop notices) and requirements for training, qualifications and medical fitness of all relevant personnel carrying out licensed spaceflight activities.

It is important to note that the Government intends to extend the appeals process under the Space Industry (Appeals) Regulations 2020 to the OSA regulatory regime.

Further consultations will be published to seek views on the proposed approach relating to:

- (a) insurance requirements under section 38 of the SIA;
- (b) the Government's ability to limit a licensee's liability under section 35 of the SIA; and

- (c) the charging scheme for the regulator's performance of functions under section 62 and Schedule 11 of the SIA.

In relation to the required level of insurance and the limit on the licensee's liability under the SIA, we understand that the Government is looking to apply the concept of a "modelled insurance requirement" (**MIR**) which will be similar to the US' maximum probable loss (**MPL**) approach. MPL is a risk-based analysis that is designed to capture the greatest potential loss for bodily injuries and property damages that can reasonably be expected to occur as a result of particular launch or re-entry activities. If the Government decides to adopt the MIR approach, this is likely to incentivise the relevant licensees to minimise the risks associated with their spaceflight activities and provide certainty and clarity which will assist insurers, investors and management teams alike.

### **The regulator**

Under the Draft Regulations, the default regulator role of licensing and ensuring the compliance of spaceflight and associated activities regulated under the SIA will be transferred from the UKSA to the Civil Aviation Authority (**CAA**). It is the Government's intention to also delegate the regulation of in-orbit activities under the OSA to the CAA.

### **Licences under the Draft Regulations**

The Draft Regulations and the accompanying guidance documents set out five types of licences under the SIA regulatory regime:

- (a) launch operator licence;
- (b) return operator licence;
- (c) spaceport licence;
- (d) range control licence; and
- (e) orbital operator licence.

All SIA licences will share some common requirements. These include the requirement for licence applicants to evidence the financial and technical resources to carry out activities

authorised by the licence, to demonstrate the required level of management expertise and requisite ongoing training and to ensure that the licensed activity will not impair the national security of the UK, is consistent with the international obligations of the UK and is not contrary to the national interest.

### **Spaceflight operator licence**

The Draft Regulations use the term ‘spaceflight operator licence’ to refer to both a launch operator licence and a return operator licence.

A launch operator licence will be required to launch a launch vehicle or a carrier aircraft carrying a launch vehicle from the UK.

A return operator licence will be applicable to a non-UK licensed launch operator seeking to re-enter a launch vehicle from orbit and land in the territory of the UK or have the launch vehicle recovered to the UK from UK territorial waters.

Under the Draft Regulations, a spaceflight operator licence applicant will be required to:

- (a) carry out a risk assessment of the risks to the health and safety of individuals who are to take part in a prescribed role or capacity in the launch activities;
- (b) prepare a safety operations manual, containing information, procedures and instructions for the operating team to carry out their duties in relation to the spaceflight operator’s spaceflight activities safely and securely;
- (c) prepare a safety case, identifying major accident hazards and demonstrating how the risks will be managed in relation to the spaceflight operator’s spaceflight activities; and
- (d) prepare and maintain a security programme, setting out how it will ensure the security of the spaceflight activities.

In addition, a launch operator licence applicant will be required to submit an Assessment of

Environmental Effects (**AEE**), covering all operations and activities that could have an environmental effect from the proposed launch(es).

A return operator licence applicant will be required to supply safety information in relation to the de-orbiting operation and the return to Earth.

### **Spaceport licence**

A spaceport licence will be required to operate a spaceport: a site from which spacecraft or carrier aircraft will be launched or at which controlled and planned landings of spacecraft will take place.

The scope of activities covered by a spaceport licence also includes ground operations such as the provision of a safe ground environment for launch activities and keeping the public in the vicinity of the spaceport safe from risks associated with pre- and post-launch activities. This includes storing, transporting or the loading/unloading of propellants and engine testing on site.

A spaceport licence applicant will be required to prepare (and submit where relevant) the following:

- (a) an AEE, covering all operations and activities intended to be carried out at the spaceport that may have an environmental impact from the spaceflight activities;
- (b) a siting assessment, identifying the site in respect of which the licence is to be granted;
- (c) a safety case, assessing hazards and risks that are specific to the operation of the spaceport and demonstrating proposed mitigation measures, taking into account any operator licensee (launch operator licensee and orbital operator licensee) and any other users of the spaceport;
- (d) the identification and establishment of safety clear zones to mitigate public safety risks;
- (e) the implementation and maintenance of a safety management system to support the safety case;

- (f) a spaceport manual containing information and instructions as may be necessary to enable spaceport operating staff to perform their duties;
- (g) a plan in relation to storage, transport, loading, unloading and venting of hazardous materials;
- (h) the designation of an appropriate area for spacecraft testing, where it would potentially pose public safety risk;
- (i) a site security programme, setting out how it will ensure the security of its activities to prevent interference and security infringements and prevent and mitigate risks;
- (j) an emergency response plan commensurate with the spaceport and spaceflight activities that are taking place at or from the spaceport; and
- (k) an assessment of the level of rescue and firefighting services and equipment that are required for spaceflight activities.

## **Range control licence**

A range control licence will be required to permit provision of range control services for operations authorised under spaceflight operator licences from a designated site defined in the range control licence.

Identifying and securing the 'range' and hazard areas are fundamental to the carrying out of spaceflight activities safely and securely. Spaceport operators and spaceflight operators will be required to work closely with the range control service provider to ensure that the operation of the spaceport and the provision of spaceflight services align with the range requirements prescribed in the SIA and the Draft Regulations.

A range control licence applicant will be required to:

- (a) identify the designated range for a launch operation to which they are providing range control services; and

- (b) put in place a quality management system to ensure the quality and reliability of the safety-critical services that the range control licence applicant will be responsible for.

A range control licensee will also need to ensure range safety and ensure that it maintains relevant expertise and qualifications to fulfil its obligations and that relevant training is assured to adequately provide the range control services.

## **Orbital operator licence**

The entity which will have operational control of the satellites from the UK will need to obtain an orbital operator licence under the SIA. If a UK-incorporated entity is to operate the satellites from outside the UK, or its Overseas Territories, that entity will need to obtain a satellite operator licence under the OSA regime.

## **Next steps for the industry**

We would encourage stakeholders in the space industry to consider responding to the Consultation. The Consultation is an effective way of informing policy. Responses will be used by the Government to determine if the requirements set out in the Draft Regulations are proportionate, fair, reasonable and workable in practice.

Please contact Joanne Wheeler ([joanne.wheeler@wearealden.com](mailto:joanne.wheeler@wearealden.com)) if you would like our assistance with your response to the Consultation.



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