16th Appleton Space Conference

COLLABORATION & COMPETITION

Governing Space in the 2020s

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UK REGULATORY CONTEXT

- UK Space Agency duel role: regulator and cheerleader.
- Role of a regulator is primarily ensuring safety - engagement with the Agency as early as possible.
- Spectrum and RF requirements through OFCOM.
- Funding channelled through ESA - relationship with UK and EU will develop post 2021
- Governance Challenges going forward - RPO
- Gaps in capacity - data *about* space

REGULATION FROM THE UK PERSPECTIVE

Discussion

- Introduction to the UK space industry
- Examine the way in which the UK discharges its commitments under the OST
- Discuss the way in which international treaties and non-binding agreements both fit into the regulatory process and shape the decisions made on licensing by the regulators.
- Appreciate the main considerations of regulators when looking at a proposed mission

Top legal tier of Space Law:
International Treaty Commitments of States

National Space Laws:
Domestic regulation of national space activity

Non-binding Agreements:
Guidelines | Industry best practice | ISO

Laws, Regulation, Treaties, Guidelines
All different but looking to balance UK international commitments and obligations with encouraging growth.

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INTERNATIONAL TREATY OBLIGATIONS

Each state party to the Outer Space Treaty has agreed to be bound by it.

Art VI OST:

States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty.

The activities of non-governmental entities in outer space, including the moon and other celestial bodies, shall require authorisation and continuing supervision by the appropriate State Party to the Treaty.

When activities are carried on in outer space, including the moon and other celestial bodies, by an international organisation, responsibility for compliance with this Treaty shall be borne both by the international organisation and by the States Parties to the Treaty participating in such organisation.

UK SPACE AGENCY

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STATE OBLIGATIONS TO SATISFY ART VI

- Authorisation & Continuing Supervision of Non-governmental entities…
- … to ensure conformity with the Outer Space Treaty obligations of the UK
- This is accomplished by a licensing scheme overseen by a regulator.
- The statutory licensing regime makes it *an offence to carry out unlicensed space activity*
- Non-governmental entities submit their proposed mission and the regulator will decide if a licence to carry out the activity can be granted.

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Two Licensing Regimes for UK Space Activity

Activity that occurs
OUTSIDE THE UK

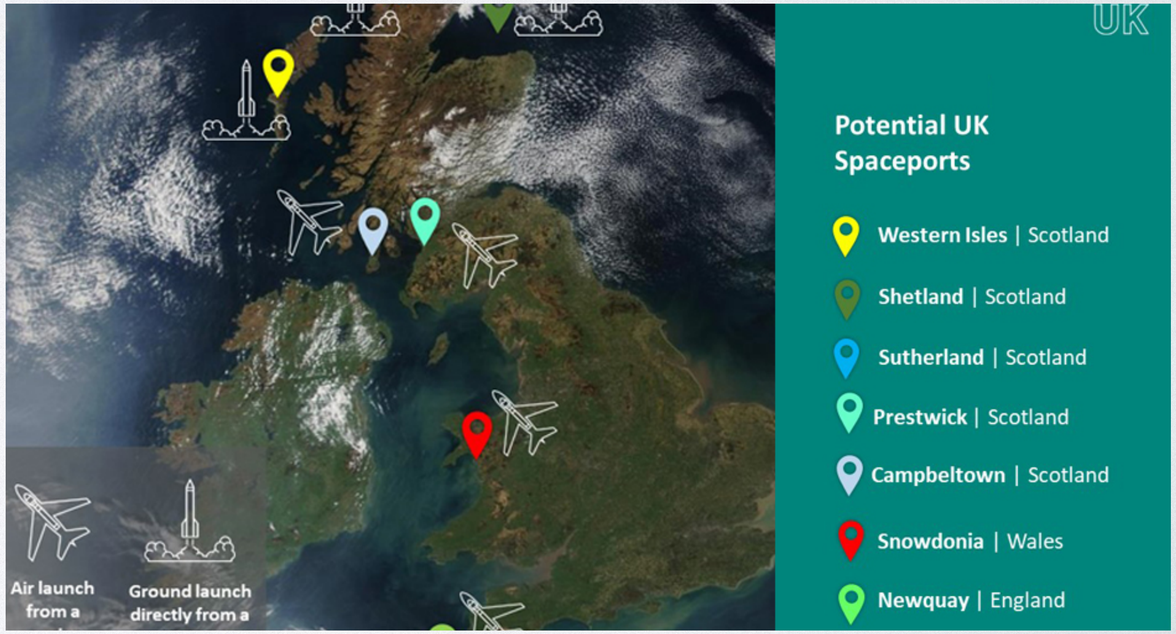
Outer Space Act 1986

Regulated by the UK Space Agency (UKSA)

Launches & Activity that occurs
WITHIN THE UK

Space Industry Act 2018

Regulated by the Civil Aviation Authority (CAA)



LICENSING UNDER THE OUTER SPACE ACT 1986

Outer Space Act 1986 seeks to manage UK's obligations under UN Space Treaties and ensuring that individuals or organisations:

1. Do not jeopardise public health or safety of persons/property.
2. Comply with OST obligations and are properly authorised and supervised while conducting activity in outer space.
3. Relieve UK of some of the liability arising from private space activity

Scope of the Outer Space Act

OSA license is required where the activity involves:

s1(a) launching or procuring a launch of a space object
s1(b) operating a space object
s1(c) any activity in outer space

s2(1) The OSA applies to **all UK nationals, firms & bodies incorporated under the law of any part of the UK**

s3 Prohibition of unlicensed space activity (under **s12(1)(a)** a person commits and offence if they act in contravention of s3).

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GRANT OF A LICENCE: S4 OSA 1986

Statutory Authority for granting a licence under the OSA, Section 4

(1) Secretary of State may grant a licence if he thinks fit

(2) Licence shall not be granted unless he is satisfied that the activities
  (a) will not jeopardise public health or safety persons/property
  (b) will be consistent with international obligations of the UK
  (c) will not impair national security of the UK

(3) Form, contents, procedure, cost and time limits can all be set out in regs

Other powers contained within the OSA 1986

s5 details the terms and conditions of a licence (those conditions can be broad ranging under s5(2) OSA)

s7 requires the establishment of a **national register of space objects**

s8 allows Sec of State to issue directions to ensure compliance with the licence

s10 deals with the **indemnification** of the UK government and **insurance**.

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LIABILITY AND LICENSING

Liability in International Law

Art VII OST and LC 1972 makes Launching State(s) liable for damage cause by their space objects (or part thereof).

UK government therefore liable for procuring launches for space objects and also under Art II & III of LC 1972.

Third party liability (TPL) & the Outer Space Act

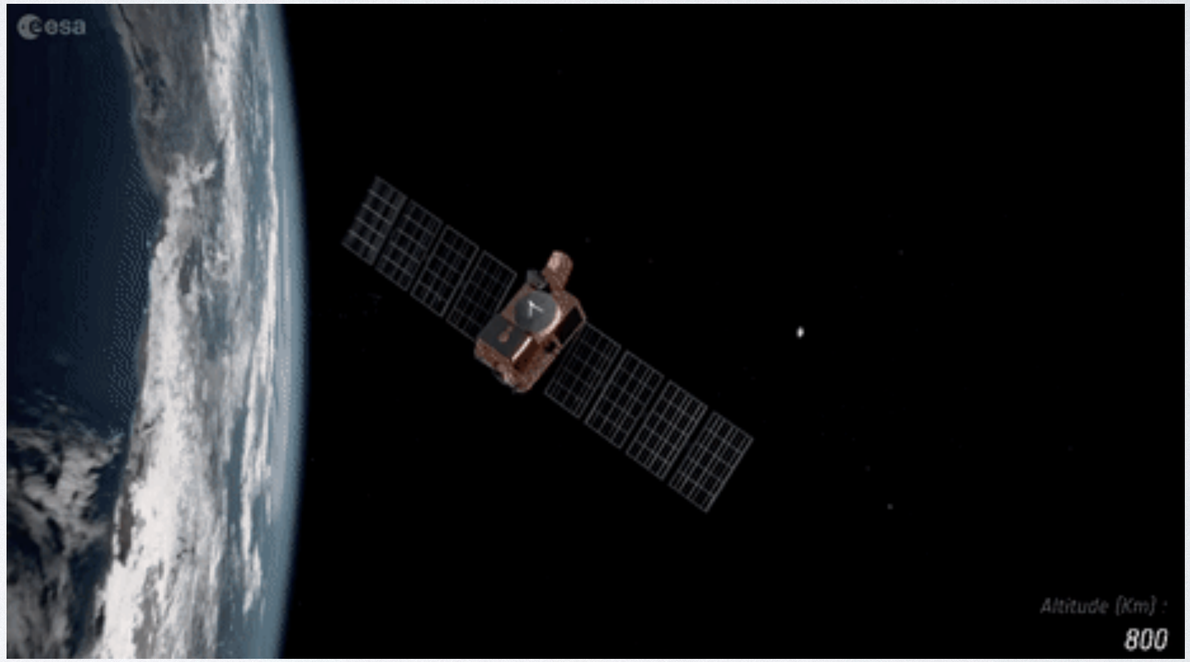
s10 requires that, anyone seeking a licence, shall indemnify UK government against any claims brought arising from the space activity

Insurance companies will not let companies provide unlimited liability so liability is capped at €60million

A typical TPL policy that is still a premium of £60k per year

In the US, liability is capped and France has no indemnity requirement, instead requiring launch insurance plus one year.

Collaboration with insurance providers is a crucial element of how UK moves forward.



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LICENSING UNDER THE SPACE INDUSTRY ACT 2018

Bottleneck in Small Satellite launch market and nascent space tourism industry all drove a rethink in UK regulatory approach to space activity. Additionally, the success of other nations at achieving independent, sovereign launch capacity emboldened UK Government to pursue Spaceport agenda.

Rationale for the SIA 2018 in s1(1) *The Act has effect for the purpose of regulating (a) space activities (b) sub-orbital activities and (c) associated activities carried out in the United Kingdom.*

'Space Activity' defined in s1(4) as (a) launch/procure the launch or return of a space object or an aircraft carrying a space object (b) operating a space object or (c) any activity in outer space. Broadened out to include sub-orbital activities (under s1(5) of the Act) applying to (a) rocket or craft capable of operating above the stratosphere (b) a balloon capable of reaching the stratosphere carrying crew or passengers and calling space activities and sub-orbital activities *spaceflight activities (s1(6))*

Space Industry Regulations (SIR) 2020. Part 2 of the SIR appoints the **Civil Aviation Authority (CAA)** as the sole regulator for commercial spaceflight activities regulated under the 2018 Act

Part 3 of the regulations provide for three distinct categories of licence that will be made available under the 2018 Act; an **operator licence**, a **range control licence** and a **spaceport licence** (Regulation 19 SIR).

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UK SPACE: THREATS & OPPORTUNITIES

SIA currently uses OSA regime in respect of liability cap and indemnification is in place but this is subject to a detailed consultation.

Technology Safeguards Agreement enshrined in the regulations 180-190 which puts in place special provisions relating to the protection of US assets: homegrown system v 'off the shelf'.

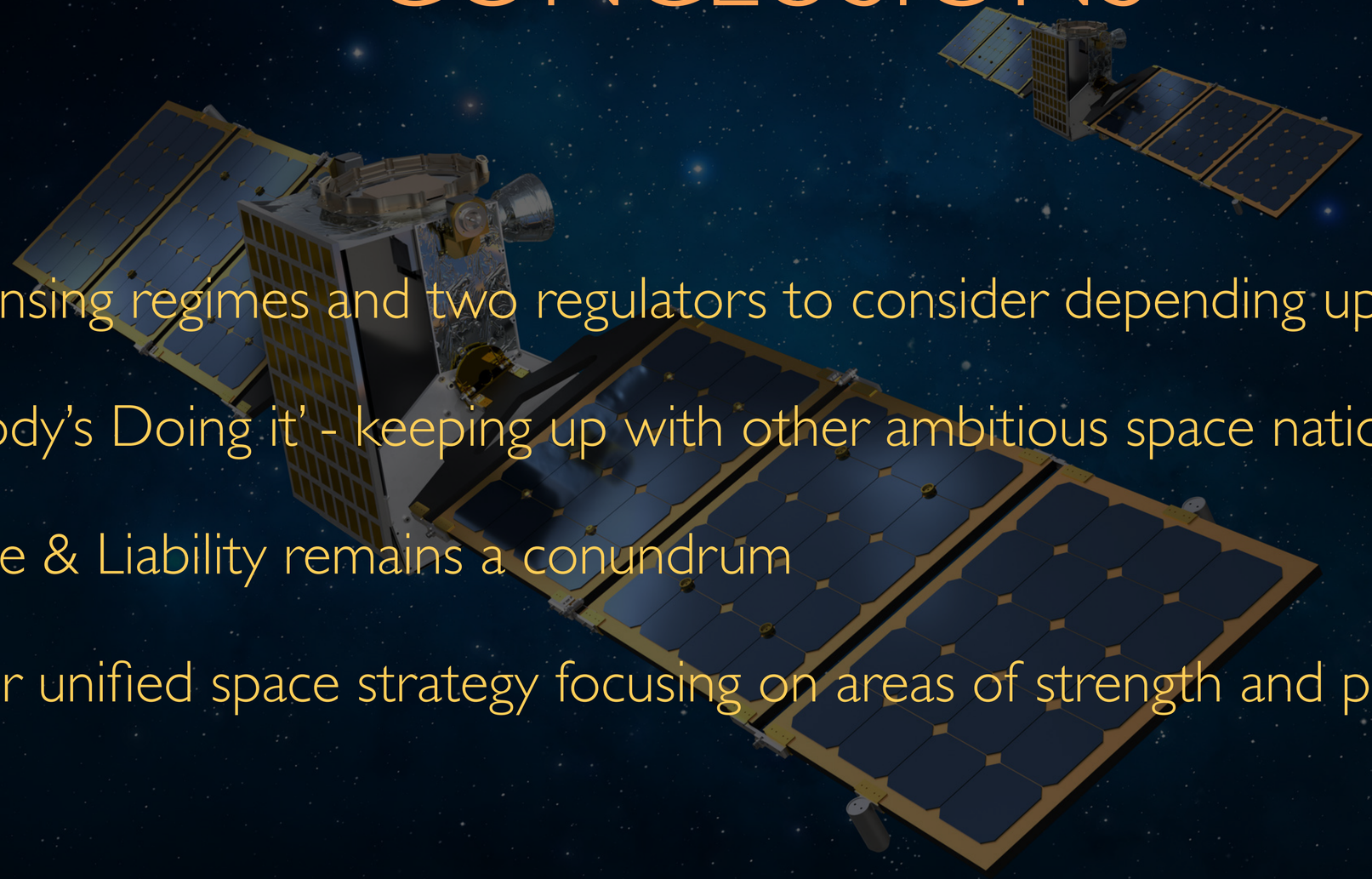
Traffic Light System: Encouraging pre-application engagement.

Economic activity v Environmental protection: delicate balance for regulators.

Play to strengths v Innovate in new areas.

Data management and processing of data from space.

CONCLUSIONS



- Two licensing regimes and two regulators to consider depending upon the activity
- ‘Everybody’s Doing it’ - keeping up with other ambitious space nations
- Insurance & Liability remains a conundrum
- Need for unified space strategy focusing on areas of strength and potential.

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THANK YOU

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