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Agenda

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10:00	Launch UK	Ministers and officials UK Government
10:35	Spaceflight market trends	Maxime Puteaux Euroconsult
11:00	Break	
11:20	Locations for launch	Representatives UK Spaceports
12:30	Networking lunch	
13:45	Innovations in commercial spaceflight	Panel discussion
14:45	Break	
15:15	UK legislation and regulation	Policy officials UK Space Agency, DfT, CAA, HSE
16:00	Question & answer session	Panel UK Government
16:45	Closing address	Katherine Courtney UK Space Agency
17:00	Evening reception	Sponsored by the Satellite Applications Catapult

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Igniting the UK's new space age
21st February 2017 | Royal Aeronautical Society



Ross James

Director of Commercial Space, UK Space Agency

Our Aim

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Small satellite
Launch



Sub-orbital
flight

Benefits for

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Satellite Sector



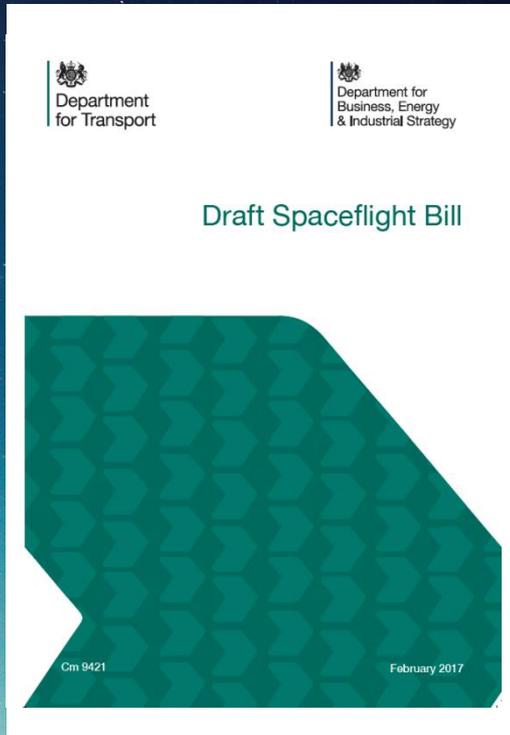
Science



Tourism

Legislation

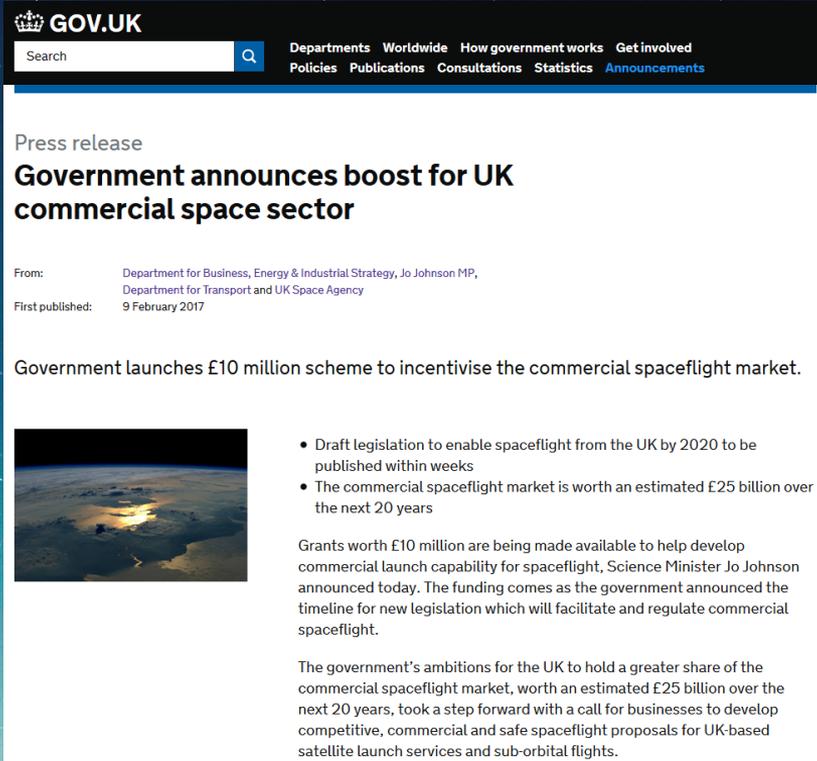
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- Draft Spaceflight Bill published today
- Copies will be available later
- Designing a regulatory framework with you
- Early in next parliamentary session

Call for funding proposals

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Press release

Government announces boost for UK commercial space sector

From: Department for Business, Energy & Industrial Strategy, Jo Johnson MP,
Department for Transport and UK Space Agency
First published: 9 February 2017

Government launches £10 million scheme to incentivise the commercial spaceflight market.



- Draft legislation to enable spaceflight from the UK by 2020 to be published within weeks
- The commercial spaceflight market is worth an estimated £25 billion over the next 20 years

Grants worth £10 million are being made available to help develop commercial launch capability for spaceflight, Science Minister Jo Johnson announced today. The funding comes as the government announced the timeline for new legislation which will facilitate and regulate commercial spaceflight.

The government's ambitions for the UK to hold a greater share of the commercial spaceflight market, worth an estimated £25 billion over the next 20 years, took a step forward with a call for businesses to develop competitive, commercial and safe spaceflight proposals for UK-based satellite launch services and sub-orbital flights.

- Open to any operating models
- Proposals to be made jointly
- No cap to grant funding (£10m)
- Interest 9th Mar / Close 28th April
- Continued assistance for all

Search **commercial spaceflight** on [gov.uk](https://www.gov.uk)

Working internationally

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- Make it easy to operate in UK
- Working with other Governments
- Open to collaboration
- Welcome all forms of engagement

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Locations for launch

Representatives from potential UK spaceports

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-  **Prestwick** | Scotland
-  **Western Isles** | Scotland
-  **Manston** | England
-  **Sutherland** | Scotland
-  **Snowdonia** | Wales
-  **Campbeltown** | Scotland
-  **Newquay** | England



Panel Discussion

Innovation in commercial Spaceflight – where will we be in 2025?

UK Space Launch: Regulatory Framework

Cross government



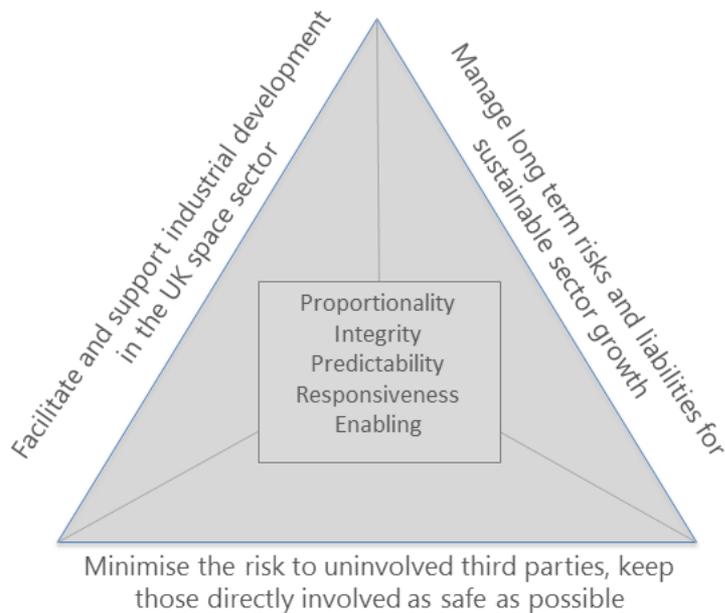
Overview

- 1 Update on the Spaceflight Bill
- 2 Our joint approach to regulation
- 3 The regulatory framework and how you can get involved



Our regulatory ethos

Our objectives and principles



Our approach

We will:

- 1 balance risk appropriately amongst our three objectives
- 2 be joined up, providing a single entry portal and one license for each activity
- 3 make policy in an open and transparent way, in partnership with our stakeholders



Department
for Transport



What is in the Spaceflight Bill

Regulations Definitions, duties, prohibitions	Range Definitions, services, licensing	Operator licenses Operators, spaceports, T&Cs	Delegation Appointment of other regulators
Participants & staff Consent, fitness, qualifications/training	Safety Safety regulations, accidents, assistance	Security Exemptions, byelaws, assistance	Enforcement Compliance, directions, powers
Liabilities Indemnities, insurance	Land powers Rights, restrictions, displacement	Sanctions Offences, penalties, defences, sanctions	Appeals Panel, rights, circumstances
	Miscellaneous Charging, advice, other countries	General Amendments, interpretation, commencement	

Our joint approach to regulation

- Jeremy Creasey – **UK Space Agency**
- Jerry Stubbs – **Civil Aviation Authority**
- Bruno Porter – **Health and Safety Executive**

Shared regulatory principles

- Proportionate
- Integrity
- Predictable
- Responsive
- Enabling

Regulatory principles – UKSA perspective

- Proportionate regulation
- Openness and transparency with our regulatory partners, industry and the public
- Ensuring public safety and enabling sustainable access to space from the UK

Regulatory principles – CAA perspective

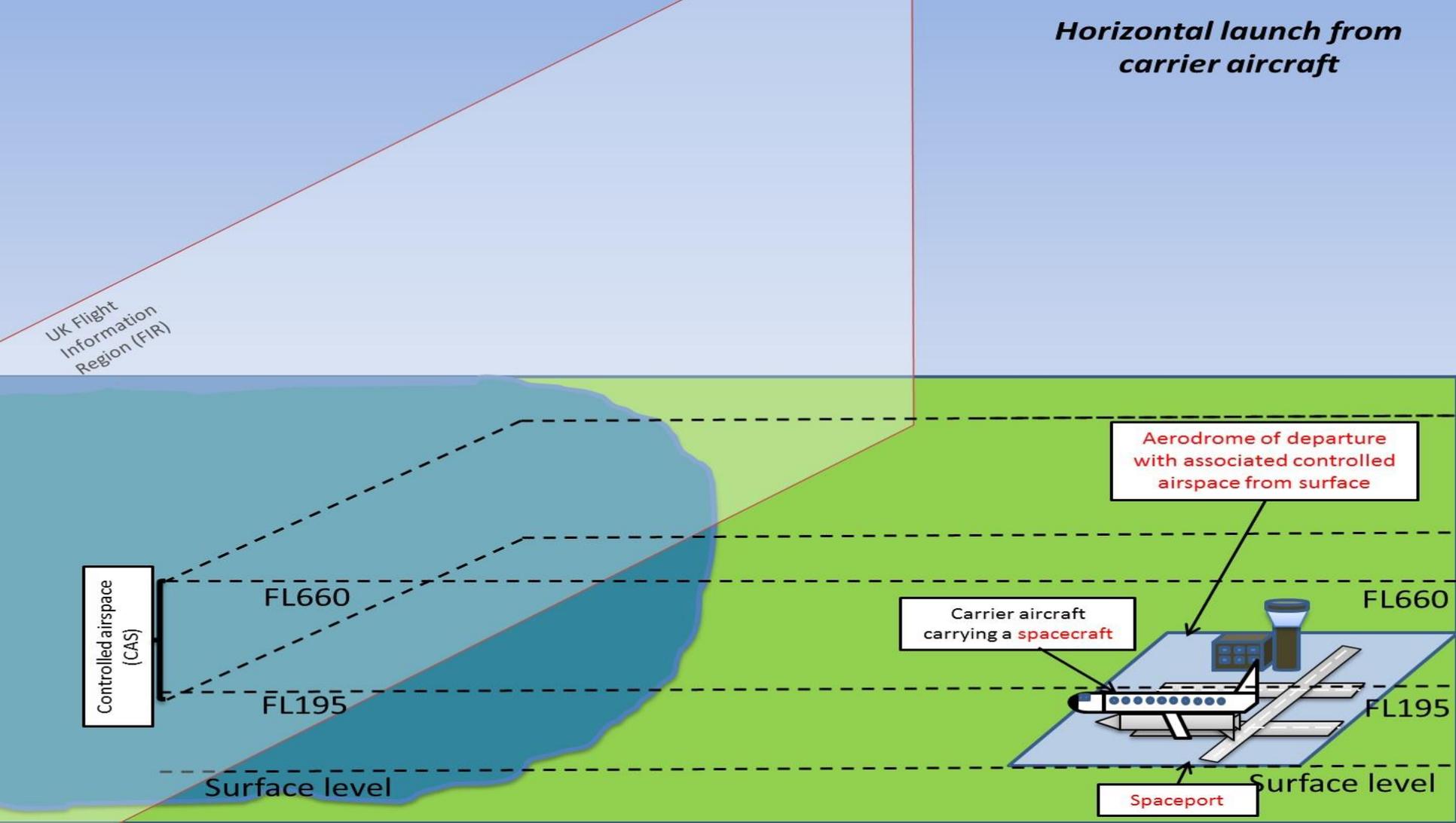
- Use the principles of aviation regulation where appropriate
- Create a performance based rather than prescriptive regulatory framework for sub-orbital spaceplane operations
- place the protection of the uninvolved general public as its highest safety priority

Regulatory principles – HSE perspective

- HSE – enabling growth and productivity – Helping Great Britain Work Well (HGBWW)
- Principally regulated under existing regimes (eg Control of Major Accident Hazards Regs., COMAH)
- Supporting and involved in licensing development and operation
- Health and Safety Laboratory (HSL) carrying out parallel supporting work

Purpose of the regulatory framework

- To provide key stakeholders with a comprehensive view of the regulatory construct that is proposed
- To provide a context to support drafting of regulation by detailing
 1. the regulations that will apply to UK spaceflight activities
 2. the relationships between the regulatory bodies and licensees
 3. The process required to obtain the appropriate licence
 4. The competencies required of the regulatory bodies to undertake their oversight responsibilities



Horizontal launch from carrier aircraft

UK Flight Information Region (FIR)

Controlled Airspace (CAS)

FL660

FL195

Surface level

Aerodrome of departure with associated controlled airspace from surface

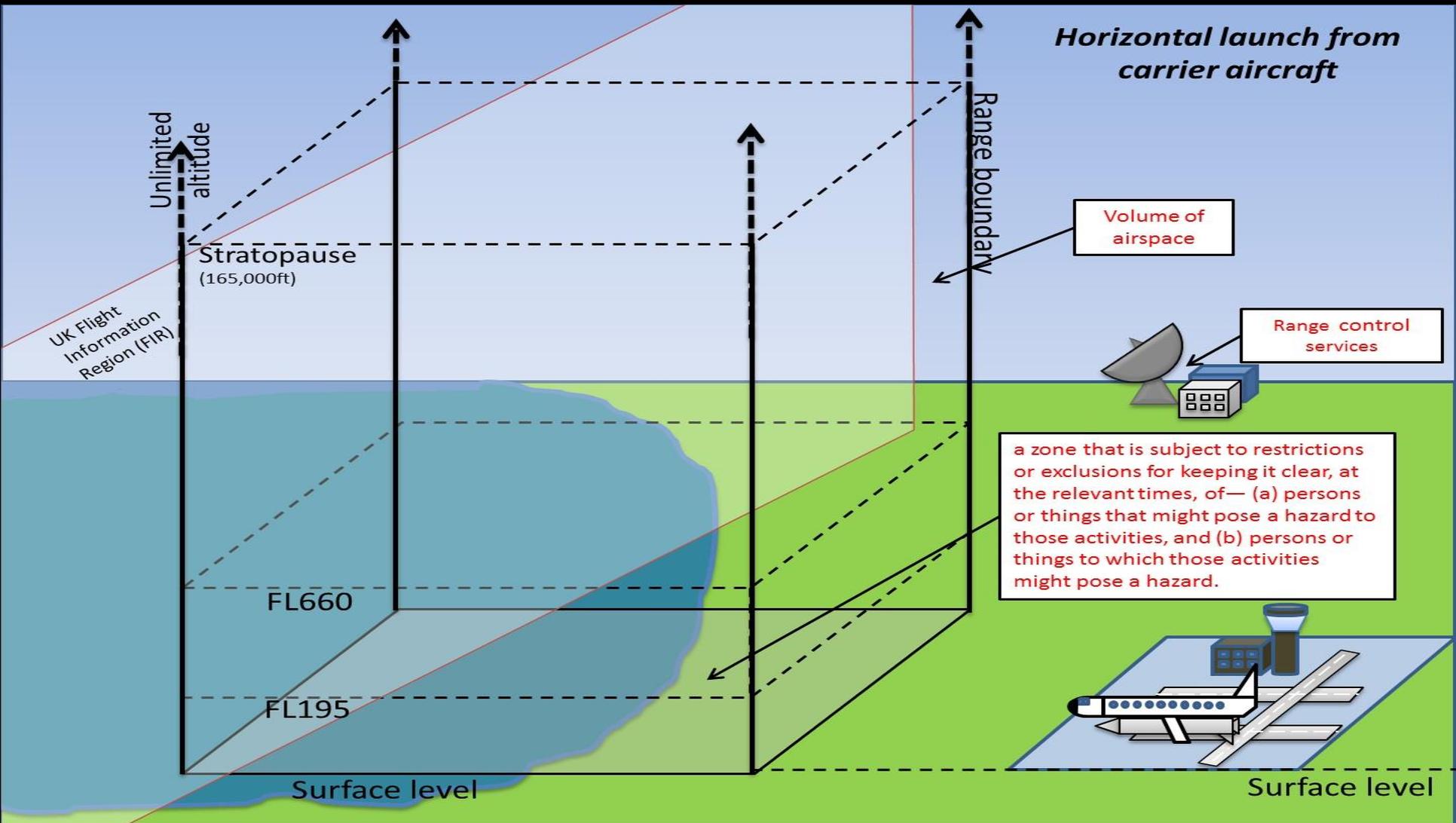
Carrier aircraft carrying a spacecraft

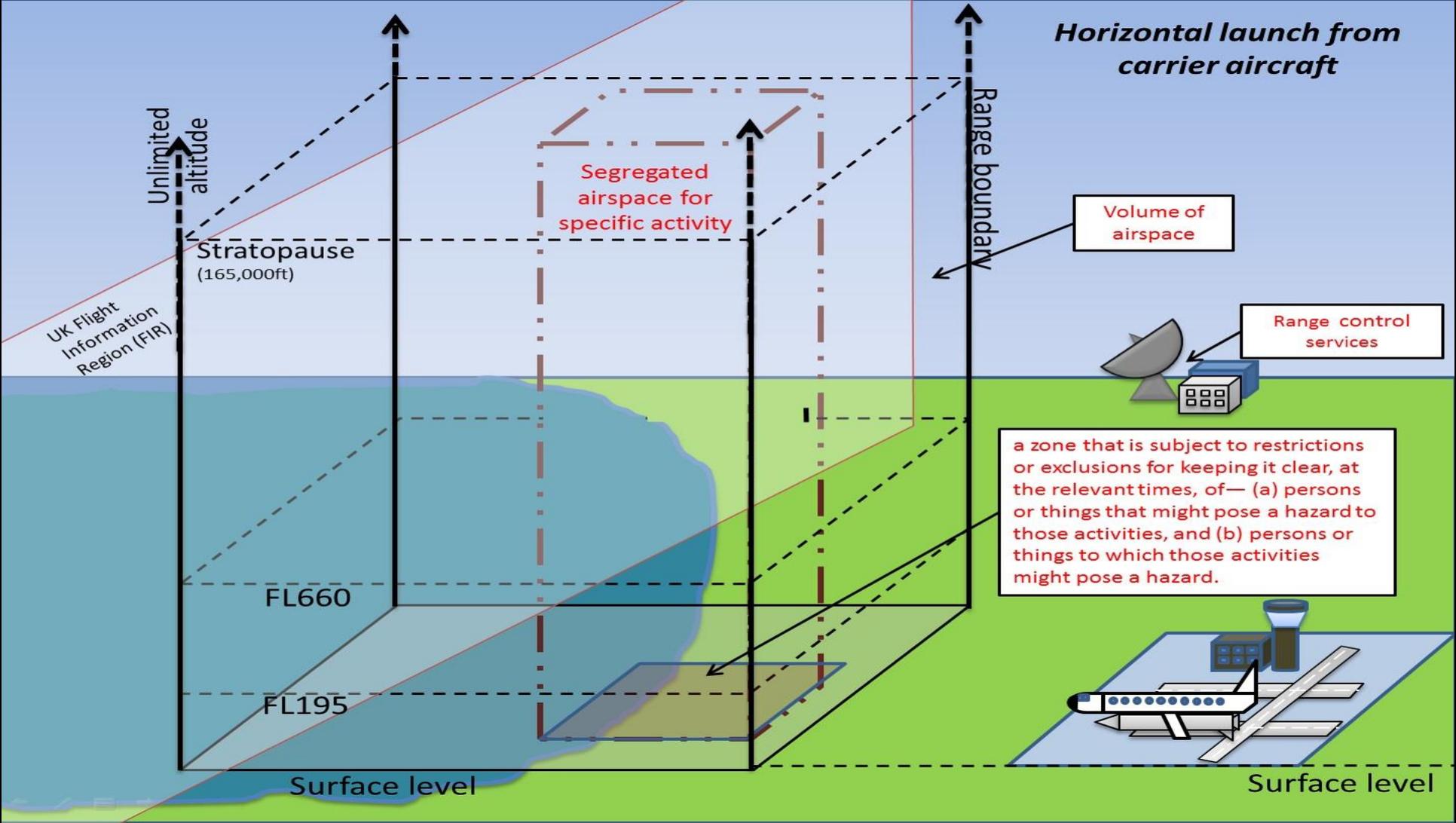
Spaceport

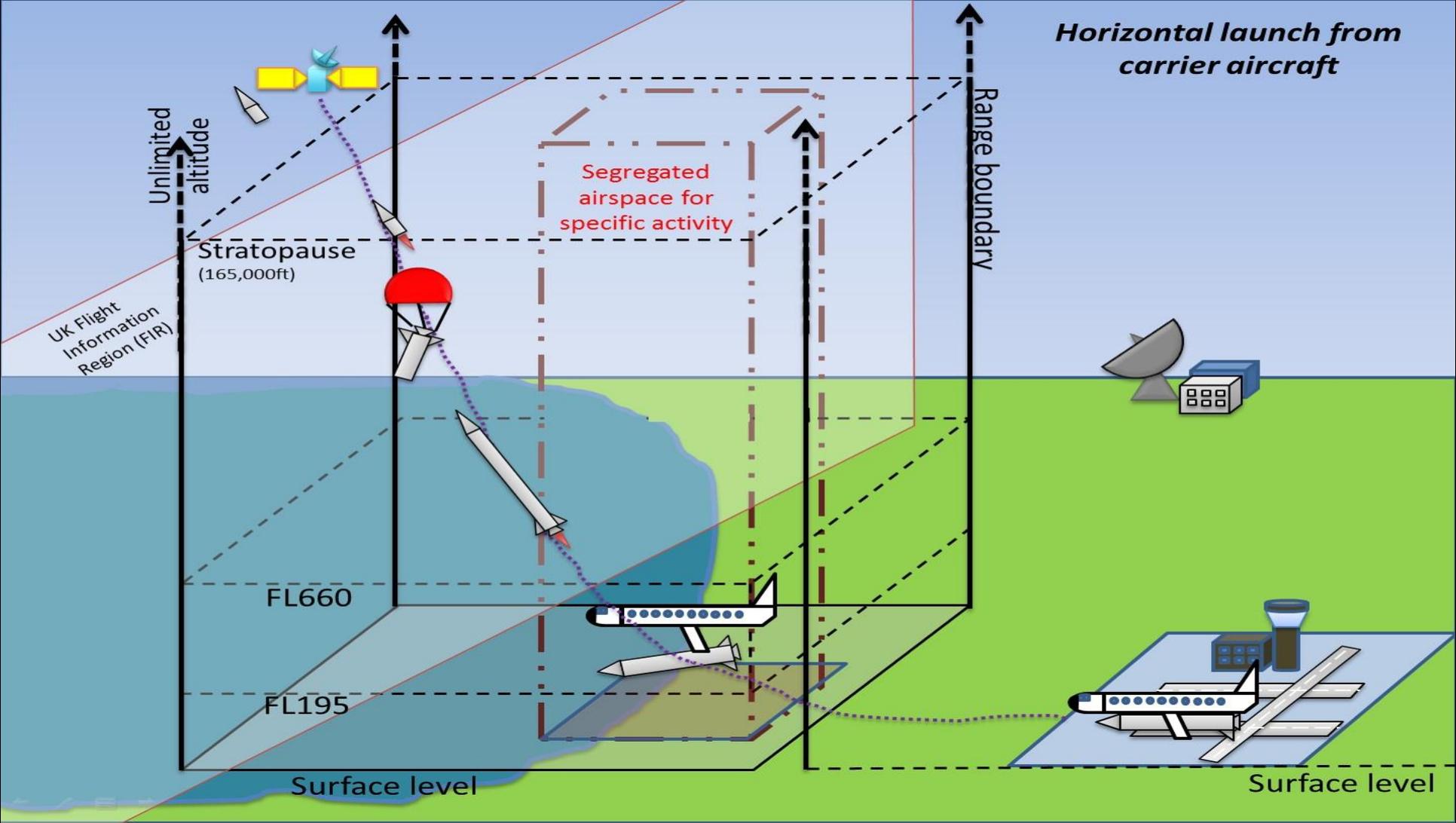
FL660

FL195

Surface level







Next steps - our engagement plans

- We want to stress test our organisation design for the regulation to ensure it strikes the right balance.
- There will be a series of workshops and chances to comment in writing.
- If you'd like to be involved in our engagement e-mail:
SatelliteLaunchProgramme@ukspaceagency.bis.gsi.gov.uk
- Or to comment on the bill email:
SpaceflightBill@DfT.gsi.gov.uk

Question and Answer Session

On UK Government regulation and grant funding



Katherine Courtney

CEO, UK Space Agency

Next Steps

- **On-going** Community and industry engagement
- **9th March** Inform UK Space Agency of intent to submit proposal
- **28th April** Call for grant proposals closes
- **Mid 2017** Announcement of any funding for grant proposals
- **Introduction of primary legislation early in the next parliamentary session**