UK Space Agency
Space Activity
Licensing

Andrew Ratcliffe
Head of Launch Systems
Chief Engineers Team
Agenda

• UK Space Industry
• UK Space Agency
• UK License Regime
• Challenges of Regulating RPO Missions
UK Space Industry

- £13.7 billion to the UK economy each year
- Employs 38,500+
- 6.5% share of global space economy
- Critical national infrastructure
- Underpins all other key industrial sectors
The UK Space Agency is responsible for all strategic decisions on the UK civil space programme. We are an executive agency of the Department for Business, Energy & Industrial Strategy. We work closely with ESA, industry and industrial partners. License the launch and operation of UK satellites.
UK License Regime

- Outer Space Act (OSA) legal basis for regulation of activities in outer space carried out by UK persons. Importantly it establishes:
  - Licensing and other powers are with the Secretary of State acting through the UK Space Agency
  - Terms of the license
- License approval is dependent on applicants demonstrating ability to comply with licence conditions
- Requirements informed by accepted international best practice / standards / guidelines such as IADC Space Debris Mitigation Guidelines
- But space is changing → recent UK updates:
  - Traffic Light Approach → new pre-application process, aimed to give greater transparency for the applicant
  - New ‘sliding scale’ policy for third-party liability insurance requirements
  - OSA-Space Industry Act Interaction (e.g. OSA applies to overseas launch activities)
Challenges of Regulating RPO Missions

RPO Missions: Characterised by a shift from static operations / single role missions to multi-functional / multi-interactions based activities e.g. inspection, space tugs, on-orbit servicing, manufacturing/assembly

Challenges (or open questions!) include:

- **Policy & Technical**: Approach to national regulation (e.g. legally binding vs norms of behaviour) considering space domain is becoming congested, contested and competed
- **Technical**: Technical maturity of the technology and the appropriateness/need of integrated on-orbit demos
- **Policy & Technical**: Ownership/responsibility at various stages of the mission lifecycle. Considerations of authorisation, supervision and permission to perform activities. How will this be reflected in mission rules and engagement with the Regulator (e.g. health check reporting etc)?
- **Policy**: Liability-sharing between the States and companies involved
- **Policy**: Security aspects incl. guaranteeing non-interference with space systems not licensed for interaction
- **Technical**: Involvement of the Regulator at an early stage of the mission to understand the operational concepts and how evolving/newly developed technical guidelines/standards are incorporated into the mission (e.g. CONFERS guidelines, ESA technical standards / safety principles for Safe Close Proximity Operations)
- **Policy**: Intellectual property rights and export control
Any Questions?

Thank you.