Current UK space launch activities

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NATS Operations Transformation

www.nats.aero



Context - Today



- Orbital Space Launch from the UK is still relatively new (first attempt January 2023) but the
 UK industry as a whole is much more than that:
 - 52,000 direct employees (2021/22)
 - £18.8bn total industry income (2021/2022)
 - 1,765 UK-based organisations have space-related activities
 - £364bn of UK GDP is supported by satellite services

(data from UK Space Agency / London Economics https://assets.publishing.service.gov.uk/media/6697d345fc8e12ac3edafeb4/Infographic_Size___Health_of_the_UK_Space_Industry_2023.pdf)

• Multiple companies are currently building satellites in the UK

e.g. AAC Clyde Space; Airbus; In-Space Missions; Open Cosmos; Space Forge; Surrey Satellite Technology Ltd (SSTL)

Introducing The League Table of UK Satellite Manufacturers 2023 - Orbital Today

Context - History



Looking further back:

• "Skylark" sounding rocket launched 1957 (441 launches until retirement in 2005)
BRITAIN'S FIRST SPACE ROCKET and its pioneering astronomical observations

First British satellite "Ariel 1" launched 1962

British space programme - Wikipedia

UK Rocketry Association founded 1996

UKRA - United Kingdom Rocketry Association

Context - Some Key Organisations



UK Government Ministries



Department for Science, Innovation & Technology



Department for Transport



Ministry of Defence

Other UK State Organisations







Coordinating Organisations





15 Regional "Space Clusters"

Multinational Manufacturers / Launch Operators



- Orbex
- Skyrora
- Rocket Factory Augsburg (RFA)
- Hylmpulse

- B2Space
- Space Engine Systems
- Space Forge
- ClearSpace

Active Launch Sites



- Saxa Vord Spaceport
 - Licensed for Vertical Launches (Orbital and Suborbital)
 - Up to 30 launches per year once in full operation
 - Multiple potential customers
 - 3 separate launch pads
- Spaceport 1
 - Suborbital Vertical Launches
 - 1 launch pad, up to 10 launches per year
- Spaceport Cornwall
 - Horizontal Launches
 - Hosted Virgin Orbit's attempted launch
 - Future customers to be announced

Potential space launch sites

Active:

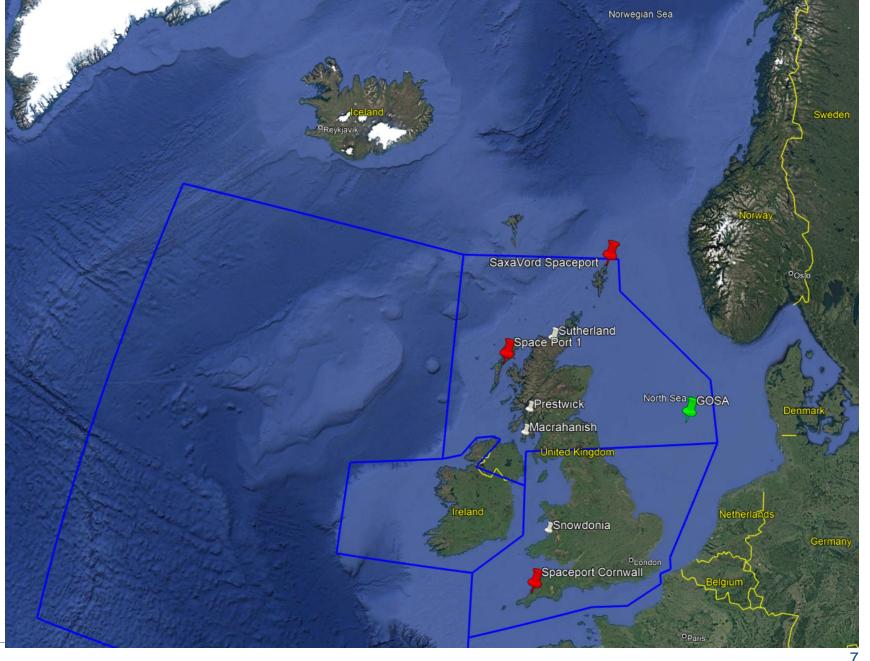
- Saxa Vord
- Space Port 1
- Spaceport Cornwall

Test / Potential Future Sites:

- Sutherland
- Prestwick
- Macrahanish
- Snowdonia

Potential Offshore Site:

 German Offshore Spaceport Alliance (GOSA)



Web Links



DSIT

https://www.gov.uk/government/organisations/department-for-science-innovation-and-technology

DfT

https://www.gov.uk/government/organisations/department-for-transport

MoD

https://www.gov.uk/government/organisations/ministry-of-defence

 UK Space Agency https://www.ukspace.org/

UK CAA

https://www.caa.co.uk/home/

UK NSPOC

https://www.gov.uk/government/organisations/national-space-operations-centre

UK Space

https://www.ukspace.org/

UK Space Partnership

https://www.spacepartnership.org.uk/

Saxa Vord Spaceport

https://saxavord.com/

Spaceport 1

https://www.cne-siar.gov.uk/news/2024/construction-work-begins-spaceport-1-north-uistSiar

Spaceport Cornwall

https://spaceportcornwall.com/

GOSA

https://www.offshore-spaceport.de/en/

Orbex

https://orbex.space/

Skyrora

https://skyrora.com/

Rocket Factory Augsburg (RFA)

https://www.rfa.space/

Hylmpulse

https://hyimpulse.de/en/

Space Engine Systems

https://www.spaceenginesystems.com/

Space Forge

https://www.spaceforge.com/

ClearSpace

https://clearspace.today/

AAC Clyde Space

https://www.aac-clyde.space/

Airbus

https://www.airbus.com/en/products-services/space-technology-made-in-uk

In-Space Missions

https://in-space.co.uk/

Open Cosmos

https://www.open-cosmos.com/

Surrey Satellite Technology Ltd (SSTL)

https://www.sstl.co.uk/