



SAXAVORD
UK SPACE PORT

THE SAXA VOICE

Newsletter 03 NOVEMBER 2023

Space minister views progress on site

The UK's space minister, George Freeman, saw for himself the tremendous progress that has been made on our site during a visit in late October.

He was the first VIP visitor to see the completed cladding on the integration hangar, with work now underway to fit out the inside of the building where rockets will be assembled and payloads inserted prior to launch.

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The space minister with Scott Hammond and Elizabeth Johnson of SaxaVord on site.

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His visit coincided with an announcement by the UK Space Agency that our client Rocket Factory Augsburg (RFA) had been awarded £3.5 million in funding from the Boost! Programme to support its launch from SaxaVord.

SaxaVord Spaceport deputy CEO Scott Hammond said: "We were delighted to host the space minister and to show him around the site, from the integration hangar to RFA's own dedicated Fredo launchpad.

"It is only when visitors see the scale of the site that they appreciate the enormous amount of work that has been done in such a short space of time.

"We are immensely looking forward to receiving our operational licences from the Civil Aviation Authority and to the start of launch activity next year."

RFA will use its funding to develop and operate the infrastructure and test equipment needed to enable it to launch from SaxaVord, planned for Q2 2024.

RFA and SaxaVord anticipate that around 90 skilled jobs will be created locally when it reaches full operational capability including spaceport operations and administration, integration, testing and launch.

Measuring 30m, the RFA ONE launch vehicle is a three-stage launch vehicle capable of deploying up to 1,300 kg to a 500km polar orbit. The rocket uses efficient and environmentally friendly Helix staged-combustion engines, stainless steel tanks and standardised components from other industries to offer flexible, low-cost and precise transportation into orbit with its Redshift OTV.

Mr Freeman MP, Minister of State at the Department for Science, Innovation and Technology, said: "The UK's high growth £17bn space industry is on the frontline of advanced satellite manufacturing and satcomms technology and services, and set to grow fast as the commercial Low Earth Orbit (LEO) Satellite sector expands in the next decade.

"This £3.5 million investment will enable RFA UK to develop the technologies necessary to launch from SaxaVord Spaceport in Scotland, creating dozens of jobs locally and growing the Scottish cluster as a key part of the UK space sector."

Jörn Spurmann, managing director of RFA, said: "The support received from the UK Space Agency underscores their strong confidence in our approach. We are eagerly anticipating our inaugural orbital launch in mainland Europe from the SaxaVord Spaceport on British territory. This event will further cement our position as the pioneers in European commercial spaceflight."

Saxa @Goodwood Festival of Speed



The SaxaVord team was thrilled to receive an invitation to exhibit at the Goodwood Festival of Speed 2023.



While this event is renowned for its focus on motorsport, it also annually features a pop-up exhibit known as "FutureLab", highlighting innovative technology companies from across the UK.

Teaming up with educational technology companies RM and Viewsonic, SaxaVord participated under one of this year's central themes – "Beyond Earth, For Earth".

Together, we presented an online STEM Spaceflight academy, offering children the opportunity to participate in-person or from the comfort of their own classrooms. More than 200 students took part in the virtual lessons.

This unique online experience was led by our very own astronaut teacher, Mike Mongo.

Our presence at the event secured national press and broadcast interest and generated a lot of social media interest.

Over the course of four days, Goodwood hosted 210,000 visitors. Our media coverage had an estimated reach of three million people.



Saxa @UnstFest

In July, SaxaVord hosted a series of events as part of UnstFest, and the first of these was an open-mic night that drew a sizeable crowd of both locals and visitors. The event showcased an impressive array of talent.



Adding to the festivities, SaxaVord opened its doors to the public for the very first SaxaVord Open Day. The day kicked off with an engaging talk on the military history of our launch site, presented by local historian Chris Dyer.

Following this historical exploration, visitors were treated to an informative session by one of the onsite archaeologists at AOC, Katie O'Connell, who shared insights into recent archaeological discoveries on our site. To cap off the experience, SaxaVord staff guided visitors on tours of the launch site.

The feedback from our visitors was overwhelmingly positive, with many commending the knowledge and friendliness of our staff throughout the day.

If you would like to hear the talks given by Chris Dyer and Katie O'Connell, they are available as episodes of our podcast on Spotify:

<https://spoti.fi/46RmkCj>

<https://spoti.fi/46HEpm9>

Saxa @Tall Ships Lerwick

Our Spaceport was a proud sponsor of the Tall Ships Races Lerwick 2023.

We also exhibited in the "Tech Tent" at Holmsgarth for the duration of the four-day event.

Visitors had the opportunity to view the captivating drone footage of our site's development and a model of our planned launch rail.

They also had the opportunity to purchase our new range of merchandise which was on sale for the first time.



UHI Shetland space event

We are proud to be supporting a free-to-attend space education day that will be hosted by UHI Shetland at its Scalloway Campus.

Prepare to embark on an extraordinary journey through the cosmos at the **“Journey of a Satellite”** event on **11th November** and online via the UHI Facebook page.

There will be:

Expert Insights:

Engage with leading experts from the space industry who will provide valuable insights into the complete satellite lifecycle. Learn about satellite design, rocket testing, launching procedures, and innovative methods for handling space debris.

Rocket Technology:

Discover the marvels of rocket technology as experts delve into the design and functionality of various rockets. Explore the stages of rocket development, types of propulsion, and the basic principles of aerodynamics. Understand the differences in orbits, including sun-synchronous and polar orbits, and the significance of these variations.

Space Careers for Young Minds:

Attendees will have the opportunity to gain insights into potential space careers, especially tailored for young enthusiasts. Learn about educational pathways, ESA academy courses, internships, and the exciting prospects that the space industry offers for aspiring professionals.

Innovative Solutions for Space Debris:

Explore groundbreaking methods for managing space debris and the end-of-life scenarios of satellites. Get an overview of cutting-edge technologies, including space tugs, designed to clear debris and reposition satellites in Earth's orbit.

Interactive Q&A Sessions:

Engage in interactive question-and-answer sessions with industry experts. Get your queries answered directly by professionals at the forefront of space technology.

SaxaVord Spaceport launched an Education Strategy in September 2023, and a recent review noted that we had carried out 47 education engagements totalling 149 hours, attracting an estimated 250,000 participants.

We also hosted six work experience placements this past summer (three of our current graduate employees have previously been on work experience placements with the company).



**SPACE 103
SHETLAND'S
ANNUAL
SPACE
CONFERENCE**

**THE
JOURNEY
OF A
SATELLITE**

UHI SHETLAND
SAXAVORD
UK SPACE PORT

**Saturday 11th November
10am - 3.30pm**

**UHI Shetland, Scalloway
Campus, Port Arthur**

Exciting Early Bronze Age discovery

The remains of what may have been an Early Bronze Age ritual cremation cemetery have been found on the SaxaVord Spaceport site.

The exciting discovery was made during groundworks for the next phase of Europe's premier rocket launch site on the Lamba Ness peninsula in Unst, Shetland.

Several features, including pits, large boulders and cremations (or deposits of burnt bone) have been uncovered along with a quartz setting – which is often associated in prehistory with burial tombs.

Excavation is at a very early stage, but the hypothesis of the archaeologists working on the site is that the remains may date from around 2200-1800 BC.

The discovery, which presents archaeologists with a unique opportunity to study rare evidence of the prehistoric inhabitants of Shetland, will not hamper development at the spaceport.

Dr Val Turner, Shetland's regional archaeologist, said: "I've always suspected that some of Shetland's rings of boulders and low stones found could in fact be Bronze Age cremation cemeteries, so it is hugely exciting to be proved right.

"The Bronze Age is perhaps the period of Shetland's past which we know least about and this is a wonderful opportunity to change that. With the modern techniques available now, we can potentially find out far more about the individuals who lived and died here than we could have discovered even 20 years ago. Hats off to the archaeologists from AOC who spotted this in the watching brief."

SaxaVord Spaceport CEO Frank Strang said: "This is a tremendously exciting discovery and we will be supporting further study of the remains to find out the full story.

"With Unst's Viking heritage, we had always thought of the timespan from the longship to the spaceship. Now we know there has been activity on our site for more than 4,000 years it's the Bronze Age to the Space Age!"



Katie O'Connell of AOC Archaeology, which has assessed the whole site for SaxaVord Spaceport, said: "The several deposits of burnt bone which have been found are likely associated with the remains of cremation deposits. The number and density of cremations suggest that the location of their discovery was likely a cremation cemetery that may have been in continuous use over time in prehistory.

"A standout feature uncovered so far is the remains of a quartz setting. White quartz is often suggested to have had significance in prehistory and is found in association with burial tombs, rock art panels, and deposited carefully at domestic sites.

"At the Spaceport, quartz pebbles have been found in a hollow, with larger stones at each end. These stones would have been carefully selected and placed to form this bright white platform.

"The purpose of this platform is unknown at the moment; however, it may have been associated with a burial that has not survived.

"Large boulders of the local Skaw granite have been found placed in some of the pits and are aligned forming a broad arc. Large pits in between the boulders may have once held stones that have become removed or displaced over the intervening millennia. Further large pits are scattered across the area suggesting multiple uses of the site over time.

"Though excavation is only beginning, there may be a relation between the large stones, alignments of pits, the quartz setting, and the cremation cemetery, suggesting that together these form part of a ritual complex."