

21 February 2017

Getting ready for launch



What makes us the ideal site

- Well located – best surface links of any Scottish airport
- Easy access to major urban areas and facilities, whilst still able to operate safely due to coastal location
- Ideal location for launching into polar orbits
- Easy access to deep water ports – Troon and Ardrossan
- Excellent local weather for visual operations thanks to micro climate



What we already have

- RS&H Technical Feasibility Study clearly show that we meet most of the requirements for a Spaceport when compared to current FAA regulations
- EASA licence
- Trained handling staff
- Rescue and firefighting services
- Security in place
- Refuelling staff in place
- ATC in place locally and NATS nearby
- Relatively clear airspace
- No runway slot issues



What we will invest in

- Cost of becoming operational once we know specific requirements of CAA/HSA is relatively small £3 - 5m
- Fuel handling requirements
- Blast protection
- Airspace planning
- Consultation exercise
- Procedural changes
- Equipment
- Training

Spaceport commercial case

- Due to the low initial cost - easier to achieve a return on investment
- Aiming at small payload launch market (small satellites and scientific experimentation) - clear market opportunity but need to get established quickly
- Income derived from vehicle and launch system testing in the short term and fees from future launch operations



Ancillary revenue streams

- Zero Gravity Flying
- Real Estate – hangars, clean rooms, office facilities etc.
- Training activities
- Visitor centre and associated commercial activities and visitor experiences
- Future opportunities to collaborate with other spaceports and create a world network for hypersonic flights
- 880 acres of land for aerospace related development plus adjoining SE property/aerospace park



Building our network with industry

- Reaction Engines
- Midland Spaceport Texas
- Houston Ellington Fields Spaceport
- Xcor
- Orbital Access
- Alba Orbital Ltd (Pocketcube Shop)
- Telespazio Vega (NDA)
- NATS
- Sierra Nevada Corporation (NDA)
- Spire
- Surrey Satellites
- Clydespace



Prestwick Aerospace

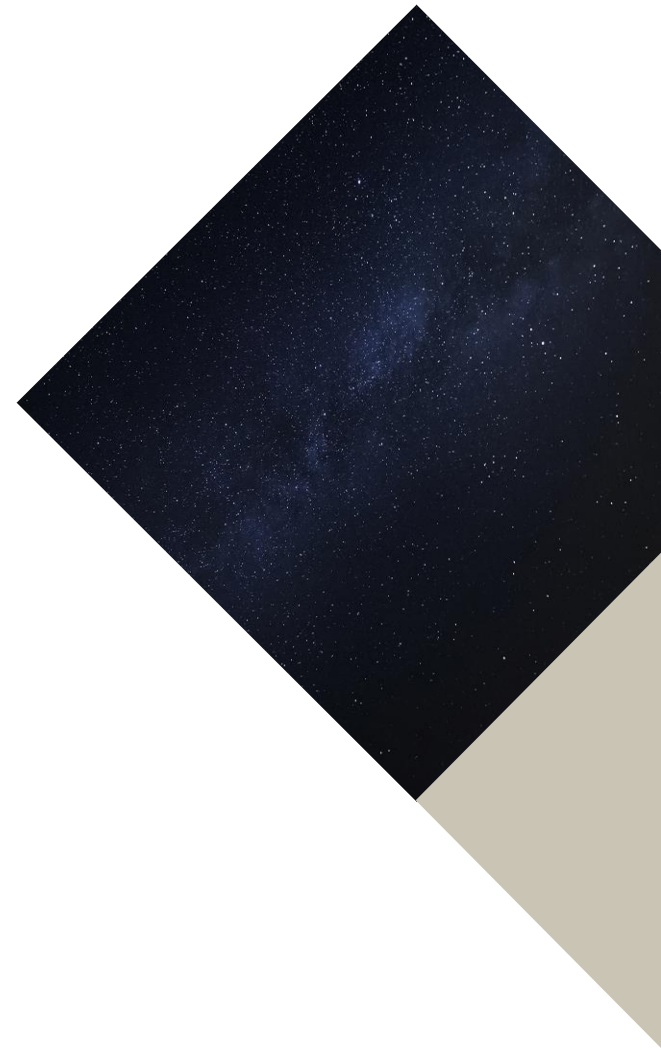


- **BAe Systems**
- **Spirit Aerosystems**
- **GE Caledonian**
- **UTC Aerospace Systems**
- **Woodward Aircraft Engine Systems**
- **Morgan Ward**
- **Aero Fastener**
- **Etec**
- **Bristow**
- **NATS**
- **Chevron MRO**
- **Ryanair Heavy Maintenance**
- **IMT Aviation**
- **Inter-tec**
- **Assystem**
- **Tannin**
- **Veracity**
- **Tannin**



Prestwick Aerospace

- Over 3000 highly skilled employees – largest aerospace cluster in Scotland and 3rd largest in UK
- Spaceport at Prestwick will grow jobs in these companies and other companies locating in the vicinity
- Spaceport will have an impact in the rest of Scotland and the UK through the supply chain
- The aerospace cluster at Prestwick will be able to service developments on other sites in Scotland



Training, research and education

- Strathclyde University
- Glasgow University
- UWS
- The Astronomy Technology Centre at Edinburgh University

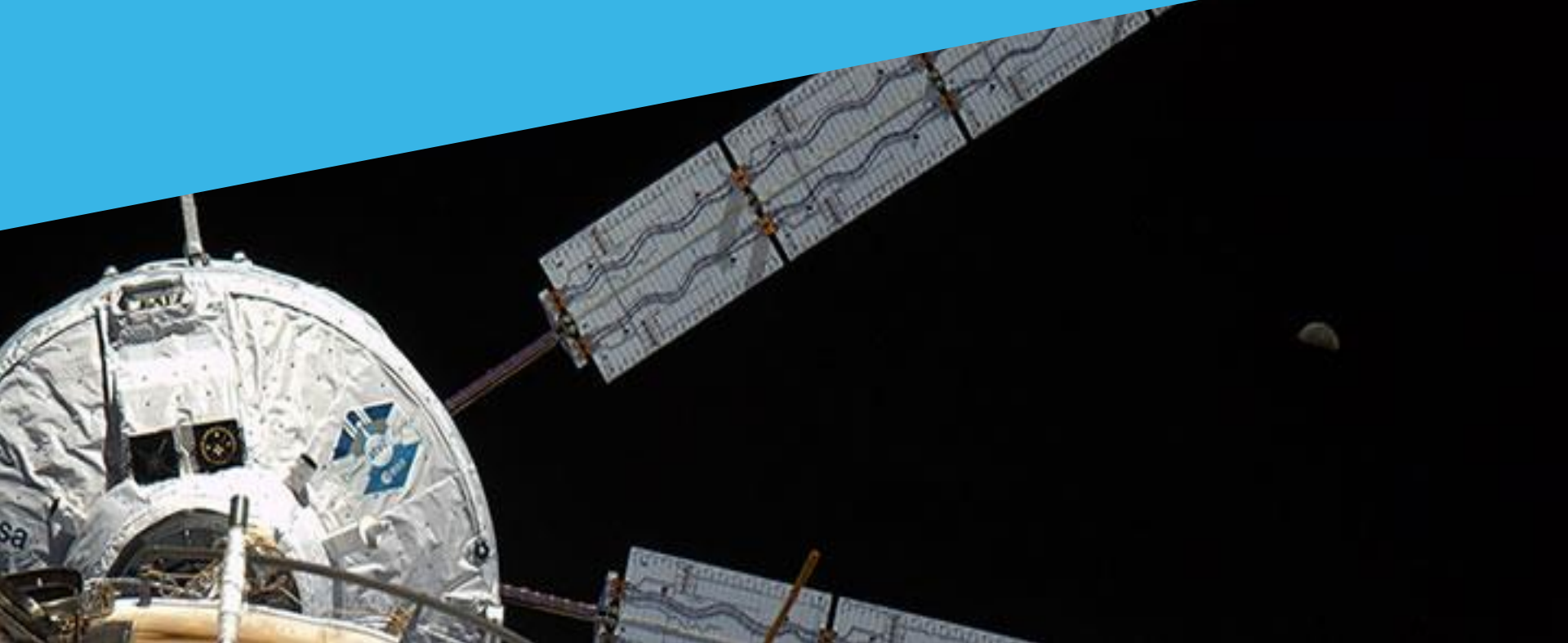


Local support

- Local authorities – all 3 Ayrshire authorities supportive.
- Ayrshire Growth Deal – includes funding for aerospace related projects £85m+ of which £30m+ for spaceport related development over the next 20 - 25 years
- South Ayrshire Council - LDP being reviewed – SAC including spaceport in plan – to help facilitate development and assist consultation procedure
- South Ayrshire Council is assisting with resources in preparing our joint business case
- Local MPs and MSPs are supportive
- Local community excited by the possibilities and supportive of GPA



Scottish Government has a clear ambition to grow the Space industry in Scotland to £4bn by 2030 and hosting Spaceport(s) is a key element of this. Both Enterprise Agencies are already supporting indigenous companies and potential inward investors to grow in Scotland.



Partnering with other spaceport

Happy to consider cooperative working arrangements/MOUs with other (potential) spaceports in the UK to develop and deliver a sustainable and effective solution for launch operations, including diversionary runway capabilities.



In summary

- Full support from the Scottish Government and its Agencies, all the local authorities in Ayrshire, local MPs and the local community
- Largest aerospace cluster in Scotland and 3rd largest in UK and Spaceport will have a massive impact on job creation and the wider economy of Ayrshire and the rest the UK
- Well located with 880 acres of land for development
- Most of infrastructure in place – Spaceport can be delivered at a reasonable cost and be operational by 2020
- Have skilled teams working in related areas
- Low initial cost and utilisation of staff and facilities - mean ROI easier to achieve through a range of activities directly and indirectly related to spaceport
- GPA has a range of established relationships in the space, aerospace and related sectors which we can draw on
- GPA works closely with other research, training and educational establishments which are located within easy reach in Ayrshire, Glasgow and Edinburgh

