



The UK's first  
spaceport

We're ready  
for take off

In partnership with



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## About us

Glasgow Prestwick is an operational airport located on the west coast of Scotland in the UK.

Glasgow Prestwick is ready and equipped to become the UK and Europe's first major space launch site.

Glasgow  
Prestwick  
Airport –  
at the forefront  
of aviation  
and aerospace  
for almost  
100 years

## History



### 1920-30s

The airfield is founded by David McIntyre and the Duke of Hamilton – members of No.602 City of Glasgow Auxiliary Air Force Squadron. Scottish Aviation Limited is launched.

The airfield's founders are the first aviators to fly over Mount Everest.

The airfield becomes an airport with the addition of passenger facilities.



### 1940-50s

World War II, the airport is used by the Royal Air Force as a military base.

Passengers travel through the airport once again from 1946. Glasgow Prestwick is the only airport in Scotland offering transatlantic flights.

The military returns in the form of the United States Air Force. Elvis visits and makes the airport the only place where he steps foot in the UK.

Aircraft design and manufacturing commences – the aerospace industrial footprint at Prestwick is formed.



### 1960-70s

A new terminal building, freight building, control tower, loop road around the airport and longer runway are launched.

The runway extension was implemented to serve the US Air Force – it conforms to the standard US military specification of the day. One of very few runways in the UK to do so.

The airport welcomes its first jumbo jet and the prototype for Concorde makes an appearance at the 1972 Airshow.

The airport is used as a training facility for Concorde pilots.

A National Air Traffic Control Centre opens to control Scottish airspace.



### 1980-90s

British Aerospace Systems based at the airport, manufacturers of airplanes including Jetstreams, receive the Queen's Award for Export Achievement 1985 and 1986. They also establish their own flying college at the airport.

The airport welcomes low cost airline Ryanair – which has grown to become the world's largest airline by passenger numbers.

Prestwick International Aerospace Park opens – enabling Prestwick to maintain its position as a major aircraft servicing and engineering base.



### 2000-10s

The airport hits 2.5 million passengers per annum and its cargo and military customer base continues to grow.

The airport welcomes world leaders for the 31st G8 summit.

Spirit AeroSystems (Europe) Limited is established in Prestwick. Spirit Europe is one of the largest airframe suppliers to Airbus and is a key supplier of major wing structures for Airbus and Boeing programs.



### Today

The airport is owned by the Scottish Government, who see the facility as an important infrastructure asset that helps to support in excess of 4,000 jobs in the west of Scotland.

It's the heart of Scotland's aerospace industry, with over 50% of the country's aerospace workforce employed at Prestwick, offering a diverse range of aviation services and providing vital connections to the rest of the world.

## Location – connecting skills, suppliers and customers with space



Glasgow Prestwick Spaceport is located 30 miles south west of Glasgow – the UK's fourth largest city.

A population of four million people live within a two hour drive time - giving the airport access to potential skills, customers and suppliers. This is in excess of 2.5 million more people than any other potential UK Spaceport site.

Glasgow Prestwick Airport is Scotland's only rail connected airport and is one of only three airports outside London with a direct rail link. This links in with the national rail network, which connects the rest of the UK and on to mainland Europe.

The airport benefits from direct motorway links, providing excellent connectivity with all key cities across the UK. The airport also has two sea ports within five miles of the site and a HAZMAT deep sea port at Hunterston within 20 miles of the site.

### Glasgow Prestwick Airport connected in the UK (approx.)

Location	Aeroplane	Train	Automobile
Glasgow		45m	40m
Edinburgh		2h	1h 30m
Midlands	1h	5h 30m	5h 15m
Wiltshire		8h 30m	6h 30m
London	1h	5h 30m	6h 40m
Harwell Space Cluster	1h 22m	7h 30m	6h

### Glasgow Prestwick Airport's proximity to the world of aerospace (approx.)

Location	Flight time
Ireland	1h
Luxembourg	1h 48m
Switzerland	2h
UAE	6h
Qatar	6h 45m
Russia	6h 45m
Canada	7h
United States	8h 30m
China	9h 30m
Hong Kong	11h 30m
Singapore	13h 30m

## Current operations

### Passenger aviation

Glasgow Prestwick Airport currently serves in excess of 2.1 million people who live within 60 minutes' drive of the airport.

The airport offers routes to a number of international destinations.

The airport has facilities suitable for up to 2.5 million passengers per annum.

### Cargo

The airport has two runways, with its main runway 2,987 meters in length – the longest commercial runway north of Manchester. This enables the airport to handle all types of aircraft.

The highly skilled staff in the dedicated freight processing facility have experience of handling specialist, large scale, high volume and quick turnaround freight jobs.

### Military and executive aviation

Business aviation, military, medical and recreational flights can all be handled discreetly at a dedicated secure ramp, which includes an immigration clearance facility.

### Fuelling and other aviation services

Located on the Great Circle Route between North America and the Middle East, and being the first mainland airport between the USA and Europe, it is ideal for fuel stops. The airport is also able to offer in-house de-icing and a full range of apron services.

### Maintenance, repair and overhaul (MRO)

The on-site maintenance repair and overhaul facility is the sole heavy maintenance provider for Ryanair. Maintenance, repair and overhaul works are currently carried out in a five bay hangar space.

MRO is also available in a further wide bodied aircraft hangar space.

### Training

The length of the main runway and the availability of take-off and landing over sea and agricultural land make it a fantastic training airport.

### Emergency responsiveness

The airport is open all year round 24 hours a day, 7 days a week and operates at Fire Category 7.

It is one of only two tier-one airports in the United Kingdom – able to take aircraft in the case of security emergencies – and it organises regular testing exercises to develop plans for such events, partnership working and preparedness across all the organisations involved.

As a commercial airport, all necessary emergency plans are already prepared and in place.

A further advantage in instances of emergencies is the airport's proximity to hospitals, including Crosshouse and Ayr Hospitals both within 20 minutes drive.

### Search and rescue base

Bristow Helicopters Ltd operates search and rescue helicopter services from Glasgow Prestwick Airport on behalf of HM Coastguard. The Search and Rescue base operates 24 hours a day and 365 days per year using two state-of-the-art Sikorsky S-92 helicopters, equipped with the latest search and rescue technology including night vision, mission management and increased onboard medical capabilities.

### Commercial property and development opportunities

The airport has a range of property available for businesses including offices, specialist properties, warehousing and hangar space.

The footprint of the airport is just under 900 acres – with a substantial amount of this available for suitable aerospace developments.

### NASA partner

Glasgow Prestwick Airport is a current NASA partner that welcomes astronauts returning from space, via Kazakhstan. The airport provides space to NASA for hygiene facilities, health checks and rehabilitation.

### Host for industry

The existence of the airport – along with its long history in aviation – enable it to play host to a number of aviation and aerospace companies and other auxiliary services. Neighbours already include BAE, Spirit, GE, UTC and NATS.

The airport is working with South Ayrshire Council and Scottish Enterprise to create an aerospace and space hub at Prestwick for global businesses operating in these sectors.

# Ready for launch in...

## 10

### Runway ready

- Two major runways 2,987m (12/30) and 1,989m (03/21)
- Runway construction spaceport suitable. Full concrete base runway (12/30), taxiways and hard standing. Limited time and cost required to become fully spaceport compliant.
- Approach over sea and countryside with low population density
- NATS Northern control based at Prestwick.

## 9

### Workforce ready

- Prestwick features a strong presence of international aerospace companies, including UTC, GE Caledonian, BAE Systems, Spirit and Woodward, Inc.
- It is an established centre of excellence for MRO, aero structures and design engineering
- 8,000 engineering undergraduates within 50 miles of Prestwick
- 4 million people within 2hrs.

## 8

### Knowledge ready

- Over £150 million investment in Ayrshire further and higher education infrastructure over the past 5 years
- The Advanced Forming Research Centre (AFRC) at the University of Strathclyde, 35 miles away, is one of 7 elite centres in the UK. The £35million facility focuses on developing, forming and forging technologies to support the production of high integrity components.

## 7

### Visitor ready

- Existing Ayrshire & Arran tourism market is worth in excess of £340m pa
- With its world famous golf courses (including the championship courses of Trump Turnberry and Royal Troon), historic castles, beautiful coastlines and a rich cultural heritage, Ayrshire has significant appeal for UK and overseas visitors
- The site is well connected to the rest of Scotland through direct rail and motorway links. These links, along with a number of ferry ports, provide easy access to the capital city Edinburgh, historic towns of Stirling and Perth, Loch Lomond National Park as well as the Islands off the west coast and the Scottish Highlands.

# 6

## Infrastructure ready

- Motorway/dual carriageway link direct to airport
- Two sea ports within 5 miles
- Direct passenger and freight rail link – the only rail connected site
- Operational international passenger airport with terminal facilities available for up to 2.5 million passengers.

# 5

## Development ready

- 880 acres of surrounding development land, benefitting from an excellent transport infrastructure
- Enterprise Zone incentives are available, with up to 100% non-domestic rates relief and a streamlined planning process.

# 4

## Community ready

- Glasgow Prestwick Airport has been an integral and valued part of the community, and a key source of employment, for almost 100 years
- The airport and surrounding industry have forged strong links with the local community, who remain eager to drive the growth of space industry and space launch at Glasgow Prestwick
- Deeply rooted aerospace and aviation heritage in virtually every household in the area.

# 3

## Innovation ready

- The Strathclyde Space Institute (University of Strathclyde) is a multi-disciplinary venture addressing key challenges in space systems engineering, satellite applications and access to space
- Space Glasgow (University of Glasgow) brings together more than 20 academics to co-ordinate research. The University helped to develop the optical bench for the European Space Agency's LISA Pathfinder spacecraft
- Satellite Applications Catapult Mission Laboratory at the University of Strathclyde.

# 2

## Industry ready

- 16% of the UK's space industry workforce are based in Scotland – with 50% of that workforce being based in and around the Glasgow Prestwick Spaceport site
- Clyde Space, based in Glasgow, produce products used by NASA and the ESA. Their UKube-1 product has been described as the most advanced nano-satellite ever made.

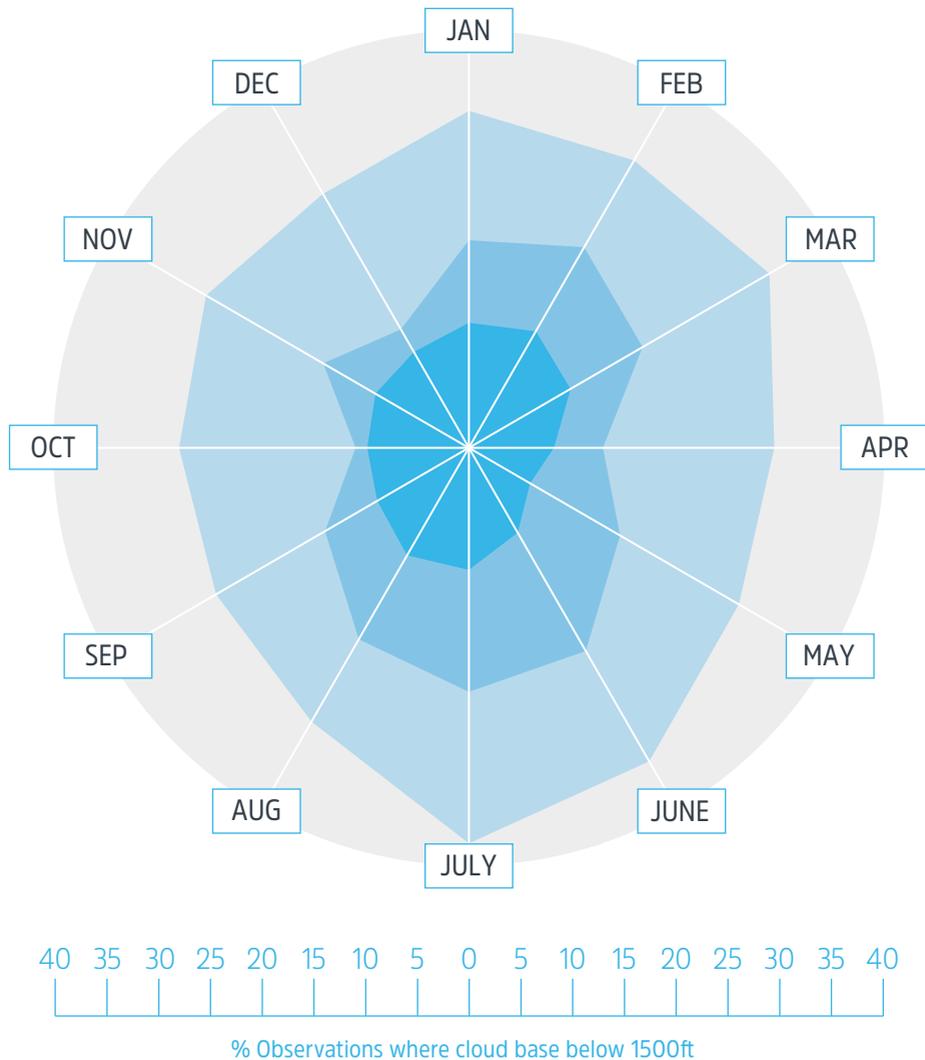
# 1

## Commercially ready

- An independent assessment estimated the investment required at Glasgow Prestwick Airport to meet US licencing requirements was less than £2m
- Prestwick's high latitude makes it perfectly placed to launch polar orbit satellites
- With the best VFR record of any UK commercial airport, a Glasgow Prestwick Spaceport would minimise days lost and cancellations to weather.

## Airfield non-availability

## UK meteorology



Average annual incidence (% observations) of cloud base below 1500ft

Newquay 31.1%

Llanbedr 17.9%

Prestwick 10.4%

- Topography and localised effects can have profound impact on the prevailing meteorological conditions at a chosen location within the UK

- Meteorological assumptions should not be made on the basis of latitude, regional position or runway elevation

- UK dominated by tropical maritime air mass approaching on prevailing South Westerly flow

- South west UK – Newquay – warm moist air from the tropics progressively condenses over cooling sea surface temperature as it approaches UK, leading to saturated low level air mass

- Wales – Llanbedr is exposed to St George's Channel and is afforded no protection from prevailing south westerly flow

- Western Scotland – Prestwick afforded protection by peripheral land masses and high ground on four quadrants, which strips out moisture at low levels.

Source: Met Office supplied datasets include all observations between 1995 and 2014 – Prestwick, 1998 to 2004 – Llanbedr, 1988 to 2007 Newquay

Data for Llanbedr & Newquay not available outside of the dates shown.

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## Where Glasgow Prestwick sees its space in the market

### Reusable launch systems

Glasgow Prestwick Spaceport is a prime location for the development and operation of reusable horizontal space launch systems with safe over water take-off paths. The infrastructure for such systems is largely already in place.

The broad based aerospace industry on site have the science, technology, engineering and mathematics knowledge, skills and experience to help make this happen.

Ideal available industrial development land to maximise space industry growth opportunities.

Glasgow Prestwick Airport is familiar with managing the community engagement and publicity around innovations in aviation and aerospace.

### Satellite launches

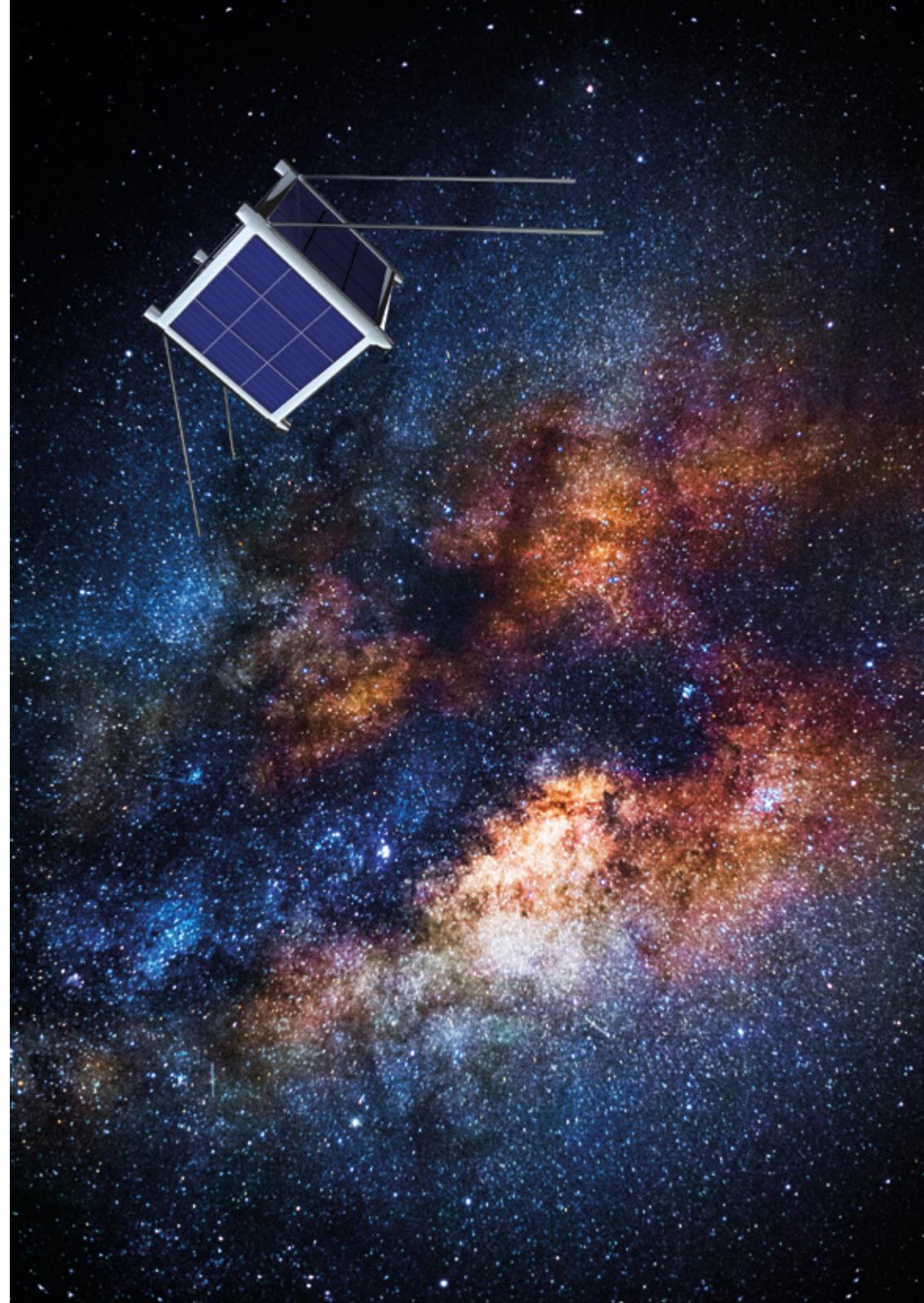
Glasgow Prestwick Spaceport sees itself as the prime location for polar orbiting satellites given its northerly latitude – there are very few higher latitude sites.

The accessibility of the site, along with the favourable climate conditions, make it one of the most cost effective and lowest risk polar launch sites.

The airport's experience in specialist and heavy cargo handling and its developed and capable aerospace industry make it an ideal location for any mission preparation activity – missions can then be deployed from Prestwick to any launch site globally.

### Safe landing site

Glasgow Prestwick Airport's location on the European western seaboard makes it an ideal landing site for aborted horizontal launches from US spaceports such as Kennedy Space Centre or planned or emergency de-orbits for horizontal landing spacecrafts.



## Prestwick space industry

Glasgow Prestwick Spaceport is working collaboratively with South Ayrshire Council, Scottish Enterprise and industry to make a UK spaceport site a commercial reality.

### Satellite design and manufacture



### Launch systems



### Software



### Component manufacture



### Research and development



### Satellite services



### Prestwick aerospace



## Meet the team



Mike Stewart  
Business Development  
Director



Kirsten Sweeney  
Communications and  
Marketing Manager

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