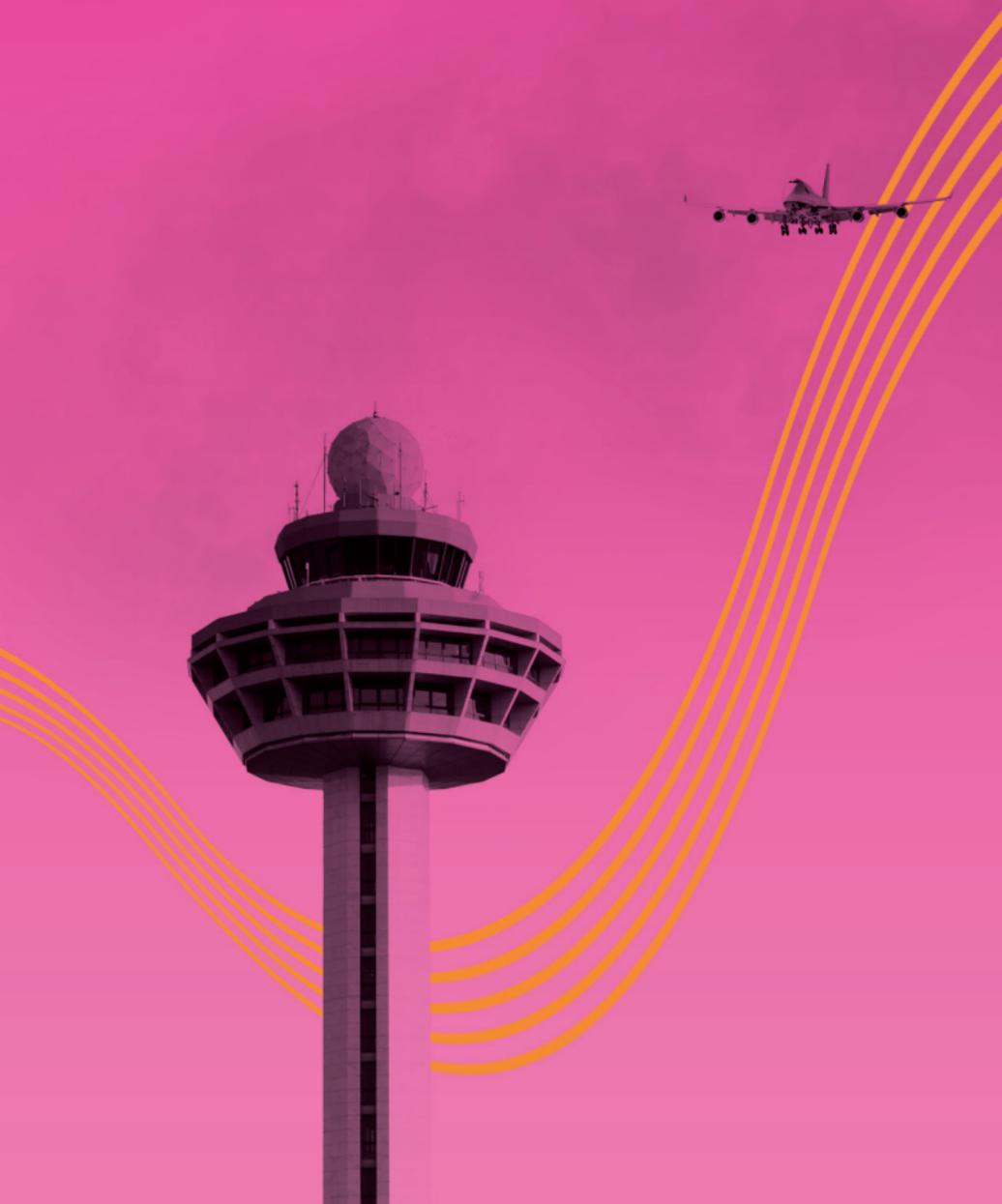


Case study:  
Singapore airspace  
Enhancing airport  
performance



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# Innovative ways to maximise performance

We provide services and consultancy for airports of all sizes, from the world's busiest to smaller regional airfields, with innovative performance solutions. These encompass safety, efficiency and capacity.

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## 30+

We are working with over 30 countries around the world to enhance airport performance

Whatever your challenge, we have the expertise to meet it

Our unique range of expertise and vendor neutral approach to infrastructure investments ensures results around the globe – from small consultancy projects to complete airspace design and Concept of Operations (CONOPS).

## 1,300

movements every day, NATS' Heathrow team manages traffic at the busiest two runway airport in the world

Enhancing safety and operational efficiency for future air traffic growth

Our experts recently assisted the Civil Aviation Authority of Singapore (CAAS) with validating their safety systems, and in designing measures to improve operational efficiency, helping to ensure Changi Airport's high safety standards and operational capabilities are mission-ready for the expected air traffic growth in the Asia Pacific region.



Would you like to know more?

- › Call our expert team on: +44 (0)1489 616 001
  - › Email: [sales.info@nats.co.uk](mailto:sales.info@nats.co.uk)
  - › Scan the QR code
-

# Case study: Flight Profile Monitor Minimising environmental impact



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# Ensuring environmental efficiency at every level

We are always looking for new ways to help customers reduce their environmental impact. We have a range of innovative tools and analysis techniques that allow aircraft to fly closer to their optimum route, profile and speed – saving fuel and decreasing emissions.

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8<sub>k</sub>

Saving 8,000 tonnes of CO<sub>2</sub> emissions per year at Edinburgh airport

£165<sub>k</sub>

Potential fuel savings at Edinburgh airport

Reducing costs and emissions further through FPM

Our award winning Flight Profile Monitor (FPM) tool enables airports and airlines to use data in their drive to reduce noise and CO<sub>2</sub> emissions. Prior to FPM they had little or no information about the environmental performance of arriving and departing aircraft.

20% improvement in continuous descent approaches

The system was trialled in Edinburgh and showed that only 55% of arrivals achieved a continuous descent approach – the most environmentally efficient flight profile. We estimate there could be a 20% improvement – saving 8,000 tonnes of CO<sub>2</sub> emissions and £165,000 of fuel savings per year.

It would also reduce noise for communities under the arrival flightpaths.

We intend to roll out the FPM system to other UK airports as part of our industry leading environmental programme.



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-

Case study:  
The Olympic  
Challenge  
Seamless change  
management



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# Managing the challenge of large-scale change

Major events can have a significant impact on air traffic. To manage this requires expertise in a wide range of areas, from airspace design work to ATCO training, safety assessments and stakeholder engagement. NATS has proven experience in integrating all these services safely, securely and efficiently.

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## 400

Controllers trained

Maintaining a seamless service during the Olympics

In July 2005 London was awarded the Olympic and Paralympic Games of 2012. The task called for us to:

## 2 security zones

Created above London

- › Manage the maximum predicted extra air traffic
- › Provide business as usual services to five of the busiest airports in the world
- › Maintain UK security at a time when London would be in the eyes of the world.

## 18 months

To deliver outreach programme

Our solution included creating temporary controlled airspaces; training 400 controllers; adapting operations at surrounding airports; creating a bespoke military command centre; and delivering an 18 month long outreach programme.

## 95%

Less delay than same period in 2011

Preparing for every eventuality paid off

We had no risk bearing losses of separation attributed to the Olympics. As a result of our success in London, we are already working with the organisers of the Rio Olympics in 2016.



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-

Case study:  
NATS ATC  
liberalisation  
Driving efficiency



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# A seamless transition to liberalised ATC

NATS offers end-to-end, outsourced tower solutions with tried and tested transition processes. This means you can rely on safety and performance without any disruption to service.

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## 2001

Since privatisation in 2001, all of NATS key performance indicators have improved

ATC liberalisation to drive efficiency  
Many governments are realising the economic and operational benefits of liberalised ATC services. We are one of the few ANSPs to have successfully implemented liberalised ATC provision on a national scale, both in the UK and Spain.

## 1.6secs

Average delay per flight in 2012, down from 88 seconds in 2001

A history of successful privatisation  
In the 12 years since privatisation, all of NATS' key performance indicators have improved. Since 2001, NATS' safety record has continuously improved on all fronts, the underlying operating costs of our regulated business have been reduced by 33%, we have enabled sustainable fuel savings through a consistently increasing number of CDAs and CCDs at airports and our average delay per flight has gone from 88 seconds per flight to 1.6 seconds in 2012.



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# A6: Ensuring a voice in SESAR for Air Traffic Management

The A6 represents ATM in the SESAR JU, aiming to maximise customer and network benefits as well as provide leadership in critical technical and strategic areas.

# a6



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# A6

The A6, an alliance of some of the main European Air Navigation Service Providers (ANSPs), provides a voice for ATM in the SESAR JU. Its aim is to maximise customer and network benefits and to provide leadership at a European level in critical technical and strategic areas.

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Its members are full members of the SESAR JU, making the A6 uniquely placed to represent the interests of the ATM industry in the effective deployment of technologies and concepts developed through the SESAR programme.

Eight of Europe's nine Functional Airspace Blocks (FABs) are represented within the A6, whose members control over 70% of European air traffic and 72% of the investment in the European ATM infrastructure of the future.

Richard Deakin, Chief Executive of NATS, is Chair of the A6 Steering Board. He says: "Our airline customers require a system that delivers significant safety, capacity, cost and environmental benefits. Only by working together across the whole industry, will we achieve the much needed step change in European ATM."



Would you like to know more?

- › Visit: [www.a6alliance.net](http://www.a6alliance.net)
  - › Pick up a copy of our newsletter from A6 member stands at World ATM Congress
  - › Scan the QR code
-

ferroNATS

Case study:  
ferroNATS  
Providing total  
ATC services  
in Spain



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# The joint venture between Ferrovial Servicios and NATS

FerroNATS is the joint venture between Ferrovial Servicios and NATS selected to provide air traffic control services at ten Spanish airports in the first step towards liberalising Spain's air traffic sector.

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## Experience and expertise from two global leaders

FerroNATS combines Ferrovial Servicios' experience in airport management with the operational air traffic control expertise of NATS. This new company brings a strong pedigree from two global leaders, each with a demonstrable record in customer focus.

Ferrovial Servicios has been operating in the commercial services market for many years and continues to successfully deliver contracts around the world.

NATS works in a number of liberalised markets and consistently secures ATM contracts both within its home market of the UK and further afield.

## Dedicated performance

Our commitment is to assure airport performance in changing times and to support the Spanish Government in evolving ATM performance for the benefit of the travelling public.

Currently, FerroNATS is providing air traffic services at the airports of Sabadell, Madrid Cuatro Vientos and Vigo and it is underway transitioning operational control from AENA at the following seven:

- › Alicante
- › Valencia
- › Ibiza
- › Sevilla
- › Jerez
- › A Coruña
- › Melilla

The control towers that will be managed by FerroNATS are responsible for over 400,000 aircraft movements per year, providing services to more than 25 million passengers each year.



## Would you like to know more?

- › Call our expert team on:  
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