Advancing Aviation, keeping the skies safe



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NATS is advancing aviation. As a global leader addressing industry issues and creatively solving them, we are making airports and airspace safer, more efficient and more sustainable.

Whether the focus is on efficiency, capacity management, scheduling or sustainability – or a combination of them all - our experts can help you distil a clear and safe path to enhance operations and prepare for the future.

Through our in-house expertise and trusted industry partnerships, we have

a constantly evolving ecosystem of solutions and services to offer.

Our unique industry understanding of air traffic operations means we can provide solutions that are tailored to specific needs and circumstances, whether that's as a trusted partner supporting you through a project, or an assured deployment of a technology solution.

Take a look at some of our core products and services.





Intelligent Approach™

Intelligent Approach™ is an arrival spacing tool that helps controllers to safely optimise the gaps between aircraft on final approach to an airport. A range of options cater to each airport's unique needs, while seamlessly integrating into an ATM system.

The Distance Based Spacing functionality can enable at least 2 additional landings per hour by increasing controller consistency. Adding the Time Based Spacing module can enable at least 2 further landings per hour in strong wind conditions.

Intelligent Approach $^{\text{TM}}$ helps you to deliver a more efficient arrivals operation at a fraction of the cost of new taxiways and runways.

Find out more about Intelligent Approach™ at intelligentapproach.aero



Benefits

Enables choice in how to exploit existing runway and airspace infrastructure

Reduces fuel burn and emissions through improved predictability and reduced airborne holding

Increases resilience and on-time performance

Increases revenue by enabling additional capacity

Supports growth plans without major capital investment





Digital Towers

Today, digital towers are transforming the way air traffic is controlled. It's a technology that's making airports around the world safer, more flexible and efficient.

But beyond these universal benefits, there are a whole range of different reasons to consider digital tower technology. Maybe you need a cutting-edge control facility for a new or growing airport? Or you're looking to upgrade a tower to handle more traffic?

Perhaps you want to replace an ageing tower to save on maintenance? Or to move a tower to make it more secure, or free up valuable space?

Maybe you're looking to create a contingency facility, so your airport can keep running at full capacity, even if your main tower is out of action?



No one type of digital tower can meet all these different needs. That's why NATS and Searidge Technologies have created a range of digital towers, each designed to address a different challenge while all operating on the same software platform.

Model One: Digital Tower in Tower

A tower within a tower for operating a small airfield remotely from inside the tower of another 'parent' airport.

Model Two: Remote Digital Tower

A fully digital tower for a single runway airport, which can be either on or off-site.

Model Three: Remote Digital Tower+

A fully digital tower for more complex, mid-sized airports which can be operated within the airport or from another site.

Model Four: Hybrid Digital Tower

A hybrid digitised tower, ideal for upgrading an existing physical tower at a larger airport.

Model Five: Hub Digital Tower

A fully digital tower, perfect for replacing a physical tower at a major, multi-runway, multi-terminal airport, or for creating an equally capable contingency.





Demand Capacity Balancer

Demand Capacity Balancer (DCB) is a powerful prediction tool which provides airports with a digital twin to support data driven decision making. Created by NATS and Frequentis Orthogon, it harnesses a huge range of operational data to provide airports and ANSPs with evidence-based forecasts to support the delivery of coordinated, resilient strategic and tactical plans up to six months in advance right up to real-time planning.

DCB bridges the gap between strategic, pretactical and tactical planning by extracting data from multiple sources including weather and accurate arrival and departure times, enabling you take action to avoid congestion issues before they materialise.



Benefits

Enables rapid simulation of multiple 'what-if' scenarios so users can plan based on operational outcomes (e.g. punctuality), and data (e.g. arrival times)

Enables pro-active decision-making during planning phases to allow for more effective resource allocation to minimise cancellations and reduce operating costs

Provides the ability to distribute the collaboratively agreed plan across airport systems, reducing queues and improving passenger experience

Target Time of Arrival (TTA) capability makes best use of capacity to improve punctuality, reduce operating costs for airlines and reduce airborne delays

Increased predictability allows airports to pre-emptively mitigate ground and airborne delays and therefore decrease CO2 emissions

DCB supports Airport Operating Plan implementation in accordance with the ACI "Ground Coordinator" concept and the European Common Project One (CP1) regulation.

Our Commercial Portfolio

We work with customers all over the world, supporting and enabling them to achieve their ambitions to sustainably raise levels of safety, performance and environmental responsibility.

With bases in the UK, Middle East, India and Asia Pacific, we're perfectly placed to deliver products and services that help our customers reach their goals, whether that's through training the next generation of ATM expertise, developing capability roadmaps, or deploying innovative tools and technologies.







Building a Unified Airspace for the Future

Drones represent an exciting development in aviation technology and offer new opportunities for emergency services, businesses and individuals across the globe.

At NATS, we want to ensure the UK's busy skies are safe and accessible for everyone, and we're working hard alongside industry partners to enable the safe integration of drones with manned aircraft to ensure all airspace users can operate safely alongside each other

We're developing and adopting new uncrewed traffic control technologies aimed at streamlining uncrewed flight approvals processes, and establishing unified air traffic management (UTM) capabilities that will future-proof our systems. We're also involved in several 'Future Flight Challenge'

projects to test and develop new and advanced technologies, and work closely with early innovators to enable remotely piloted flights in UK airspace.

As a global leader in the provision of air traffic services, and with decades of experience in evolving industries, NATS is well placed to help the growing number of new businesses take flight, and provide expertise and real-world experience to support the regulatory development process.

Safely integrating new types of aircraft, without disrupting existing airspace users is the key to creating a sustainable, modernised, and unified future, and NATS is committed to delivering that.





The ground-breaking 'Master Control Room' concept built for Project DBAS - 'Distributed Beyond Visual Line of Sight Aviation System' - used to co-ordinate airspace users, including electric air-taxis, drones, and commercial space operators. Photo credit: sees.ai

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