

**Luton Airport**  
Latitude: 51.50530° N,  
Longitude: 0.05528° W

**NATS**

# Performance in Partnership





Powered by  
**SEARIDGE**  
TECHNOLOGIES

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NATS has a dedicated commercial workforce that is ideally placed to help your operation. We have expertise in disciplines including ATC, Engineering, Airspace Design, Research & Development, and Human Performance.

NATS provides commercial services and products domestically in the UK and to a variety of customers across the globe. We support them in their ambitions to deploy innovative solutions that increase performance,

safety, and environment responsibility while supporting growth.

We apply our expertise to deliver best-in-class services to our customers. We develop market-leading products that are designed to be flexible and scalable, responding to diverse operational needs. Our solutions deliver improved performance levels, greater efficiency, and better environmental performance.

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. The tool is made up of a family of functional modules designed to cater to each airport's unique needs, while seamlessly integrating into an ATM system.

The Distance Based Spacing functionality can enable an additional 2-3 landings per hour by increasing controller consistency. Adding the Time Based Spacing module can enable another 2 landings per hour in light wind conditions or 4 landings per hour in strong winds.

Intelligent Approach™ 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](https://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.





**FREQUENTIS**  
— ORTHOGON —

## Demand Capacity Balancer

Demand Capacity Balancer (DCB) is a predictive decision-making tool developed by NATS and Frequentis Orthogon. It extends an airport's operation planning horizon by accurately forecasting demand, capacity and performance metrics from the day of operation and up to six months in advance.

Our solution bridges the gap between strategic, pre-tactical and tactical planning by extracting data from multiple sources including weather and accurate arrival and departure flight times to predict congestion issues before they materialise enabling airports to take pre-emptive actions and avoid such problems altogether.

DCB's unique capability also means it calculates Target Time of Arrival (TTA). This complements existing Air Traffic Flow Management systems by collaborating with other locally-regulated airports to agree arrival sequencing, which has been proven to significantly reduce delays.



### 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 our bases in the UK, Singapore, Hong Kong and Dubai we serve airports, airlines, and ANSPs all over the world. Our investments in Searidge Technologies and Aireon, as well as extensive partnering arrangements with major OEMs, ensure that we have a proven solution for you.





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