

# Chief Executive's review



## Overview

In 2019 we made excellent progress with our strategic objectives achieving each of the priorities we set for the financial year. Particular highlights for me included: the delivery of a safe and resilient ATC service, every day, against a backdrop of growing traffic and while introducing complex new technology; the positive testing of the infrastructure which will support London City Airport's future digital tower service; our first use of Aireon's space-based surveillance system; and the development of an ambitious business plan for RP3 which delivers a balanced set of outcomes for our customers. The CAA is consulting on this plan and we have responded to their draft proposals.

## Electronic flight strips

We safely handled over 2.5million flights this year, which is a record for the UK, and represents just under 25% of all flights in Europe. While doing this, we completed the deployment into our TC operation of electronic flight strips, a major new electronic system which replaced a paper system. This followed a complex transition plan that we developed with airlines and airports to minimise the impact on their operations. We received very positive feedback from customers and other stakeholders on the manner and timing of this deployment. Electronic flight strips are one of the important enablers to airspace modernisation which we will undertake in RP3, and for this reason we introduced the technology early in our transformation programme.

## Automatic Dependent Surveillance - Broadcast (ADS-B)

Until now, customers flying en route across the North Atlantic have received a procedural service reliant on a rigid route structure with speed and separation restrictions and periodic position updates. ADS-B is a surveillance technology in which an aircraft determines its position using satellite navigation and broadcasts this regularly, enabling it to be tracked in real-time.

In March 2019, we started using ADS-B to monitor flights across the North Atlantic and we are now trialling reduced separation standards with NAV CANADA, Canada's Air Navigation Service Provider (ANSP).

During the customer consultation on our RP3 business plan, we discussed how best to deploy ADS-B over the North Atlantic, the busiest area of oceanic airspace in the world with 800,000 flights projected by 2030. Analysis undertaken with NAV CANADA, endorsed by ICAO, projects around a 76% reduction in safety risk. ADS-B also gives customers more flexible routes, enabling fuel savings and reducing CO<sub>2</sub> emissions. Airline customers acknowledged these benefits but were concerned that an ADS-B service will mean additional cost. Airports were generally supportive as the technology will help improve transatlantic flows and on time arrivals into UK airports. In its draft RP3 proposals, the CAA acknowledged the safety and efficiency benefits and is considering customer concerns about cost. Our view is that the significant improvements in safety, capacity and environmental performance represent good value and are the right thing to do.

## Technology transformation and airspace modernisation programme

DSESAR is a complex technology and transformation programme which, alongside modernising airspace, is necessary for managing the expected growth in air traffic. DSESAR is replacing our many disparate and ageing systems with a single, unified architecture to meet the needs of our customers, now and in the future. DSESAR is the key enabler for a more efficient use of airspace. It is well advanced and our aim is to deliver this change as swiftly and safely as possible. We will also be applying the lessons learned from the managed transition of electronic flight strips when deploying this new technology.

During our consultation on RP3, customers agreed with our proposals for the modernisation of airspace across the south east and Manchester regions. Not only will this benefit the industry with reduced delays and environmental benefits, it will help pave the way for increased safe access for newer airspace users like drones.

As the Chairman has highlighted, as the experts in ATM, we have been tasked to create ACOG which will lead the airspace modernisation programme. During RP3, this will enable us to coordinate with airports and airlines the modernisation of upper and lower airspace. ACOG will also enable the cross industry coordination of other initiatives on airspace use such as: free route airspace; queue management solutions; and satellite navigation route design.

This year we completed airspace changes at the interface between UK airports and the Channel Islands, implemented new routes to facilitate a new military danger area complex in the North Sea and additional capacity to feed the Clacton sector, one of the most congested parts of our airspace. These are enabling airline fuel savings and increased network capacity.

## Investment in Aireon

Last summer, we invested £51m (US\$69m) for a minority interest in Aireon, which provides space-based ATC surveillance from a network of satellites by monitoring ADS-B equipped aircraft. We made this investment as it will enable us to shape the future of surveillance services to the benefit of customers and ensure that we play a leading role in the development of this technology. Significantly, Aireon's satellite constellation was successfully completed this year and is now operational, enabling its use in our oceanic service.

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## Commercial developments

We are recognised for our world-class capabilities in managing busy and complex traffic flows and we are being sought out for this capability and our innovation in ATC. This year we secured a 10 year contract at Cardiff and St Athan airports, which strengthens our UK airports service. We are working on two digital tower projects: for London City Airport which will be the first major UK airport to receive such a service - the infrastructure is in place and our Swanwick operation is receiving live video feeds; and a prototype for Singapore's Changi Airport, which is also making good progress. Our International operation is also providing ATCOs to the Airport Authority of Hong Kong.

We are now collaborating with McLaren Deloitte on technology to enable us to better understand and predict the impact of operational decisions to maximise available airspace capacity and minimise delay. We believe combining our strengths with experts outside of the traditional aviation industry will enable us to develop innovative tools and services for ourselves, existing and new customers alike.

## People

Our people are key in delivering our strategy and achieving our vision. Our people and organisation strategy is aimed at ensuring that, as we transform our business and respond to the demographic profile of our workforce, we have the right level of resources and mix of skills we need to achieve our objectives. At the same time, we want our people to feel NATS is an inspiring and inclusive place to work where diversity is valued, within an environment that promotes personal growth and development.

## Looking ahead

I expect this summer to be at least as busy as last year's and we will continue our focus on providing a safe and resilient service to all of our customers.

We will also be looking to conclude the RP3 settlement in the autumn, as this will determine our plan for the next five years. We will be looking to the CAA to make important changes to their draft proposals, including providing the right level of resources and flexibility to enable us to achieve the strategic objectives that our industry wants while continuing to deliver one of the best levels of service performance in Europe and, as our proposals set out, at rates of cost efficiency improvement that are even tougher than EU-wide targets. We have seen the results of underinvestment in ATM services in other parts of Europe and the huge impact this has on the travelling public; it is essential that the UK, through NATS, continues to deliver a world class safe service in this pillar of its national infrastructure.

Over the coming years we will be deploying new technology which will transform the basis of our service to customers, such as London City Airport and airlines flying across the North Atlantic, and which move us closer to transforming our operational systems into a modern, flexible platform for the future.

Finally, Nigel Fotherby, our Finance Director retires this month after nearly 20 years of service to NATS. I would like to take the opportunity to personally thank Nigel for his support and counsel. His deep understanding of the group's finances and the regulatory framework and his passion for the business and his leadership, have been invaluable to the company, its executive team and to me, and I wish him every happiness in his well deserved retirement.



**Martin Rolfe, FRAeS**  
Chief Executive