

NATS

Customer Report 2016



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Contents

CEO Introduction

03

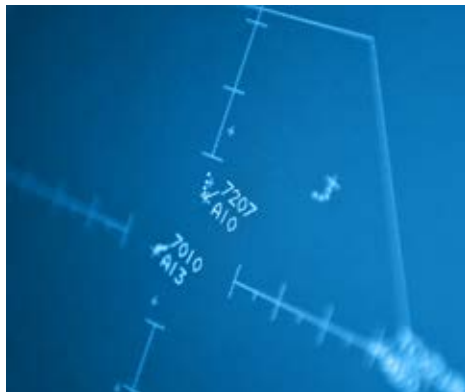
What you told us

04



Operations Update

06



Strategic Update

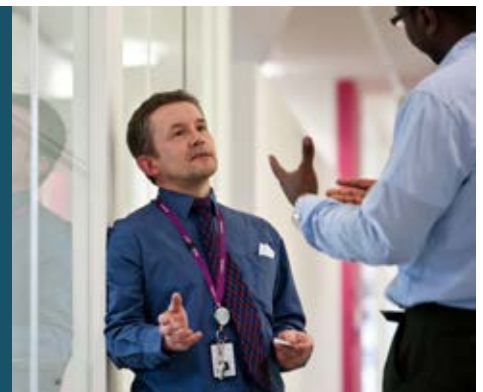
11

Solutions & regional activities

15

Contacts

16



CEO Introduction

Martin Rolfe

Welcome to the Customer Report for 2016, a year when traffic grew faster than expected, well over double the Eurocontrol forecast.

Growth over the year averaged 5.7% with peaks [and some sectors] significantly higher. This represented a significant challenge to our operation. However, I am pleased to say we still delivered two major milestones; early in the year we implemented the first stage of airspace modernisation in the London TMA, and in the summer we introduced iTEC, our next-generation Flight Data Processing system in the upper airspace over Scotland. Change of this nature will always add some delay into the system initially, but we put significant effort into keeping the impact on customers to an absolute minimum. They are now performing well and pave the way for the future both for airspace and technology and we have taken the learning from these programmes into our planning for the next phases of modernisation. We also consulted you on accelerating the delivery of our technical programme which we are pleased you have endorsed.

The scores in our customer survey remain encouragingly positive. You like the majority of what we do. Nonetheless, you have given us a clear steer on where you want us to focus our attention over the next 12 months – getting those delays down, improving fuel efficiency and reshaping our customer consultation to make it more effective for you.

I'm pleased we have addressed some of the frustrations you have highlighted in previous years' surveys. Most notably, driving forward the case for modernising UK airspace, you are now much more confident that the industry's Future Airspace Strategy group is delivering what you expect. Now that Government has made its decision on siting for a new runway in the south-east, and consultation is under way on airspace modernisation, I hope we will have much more clarity by the end of this year on how we can shape work around the Future Airspace Strategy for both the north and south of the country.

This will continue to be a challenge that NATS can't deliver it on its own. Nonetheless we are committed to including airlines and the airports, whose low level routes may need development, fully in the development process. The Secretary of State has asked NATS to chair a new industry group, aligned to the FAS governance structure, to secure the delivery of the modernisation programme.



Now we are all dealing with the uncertainties around Brexit and how that might affect our industry in a few years' time and we are already considering what this might mean as we develop the plans for our next control period (RP3). In the meantime, traffic has continued to grow in 2017 and we know that this Summer will be just as challenging as last. We will be doing our very best to ensure we give you the service levels you expect and keep delays as low as we can. And I can promise that we will continue to listen closely to you.

I can't finish without mentioning safety. It is our first priority and reason for existence. I appreciate your high score for us in the survey, but you have my assurance that we do not rest when it comes to safety and will continue to seek ways to improve in this most important of metrics the year ahead.

Martin Rolfe
Chief Executive Officer

What you told us

Customer survey summary

Every year we ask you to rate us for partnership, performance and progress. We are also keen to know about your priorities and how we can help achieve them.

Our overall customer satisfaction score is lower than in the previous two years. We take this seriously and will be working in the coming months to address the particular aspects highlighted. In the meantime we would like to share the survey results with you.

8.07/10



For customer satisfaction

2015

8.45/10

2014

8.40/10

Strongest scores



Safety

This is our highest priority, and yours, so we are pleased you marked us strongest here. Our proactive management of safety is what you think we do best. However, this score has fallen from 9.34 in 2015 to 9.13 in the past year. You also marked us highly for the provision of timely and effective responses to safety issues. Again, the overall rating of 9.03 was lower than in 2015, so we know there is work to be done to on our engagement with you on safety through forums such as the Safety Partnership Agreement (SPA).



Customer engagement

Your feedback shows you were much more satisfied with the effectiveness of the Future Airspace Strategy Industry Implementation Group (FASIIG) in 2016. Previously you had been frustrated by the wider political debate related to airspace change and policy. This has been less of a concern in the past year and confidence in the work taking place at FASIIG meetings has improved.



Thirty two customers representing 65% of traffic movements responded this year to the survey. Thank you to everyone that took the time to complete it as we do take it seriously.

What you told us

Customer survey summary

Areas for improvement



Operational performance

Your feedback highlighted the impact our projects to deliver airspace change and deploy new ATC management tools had on airline operations in 2016. The overall project delivery score was down from 7.7 in 2015 to 7.25 out of 10 in 2016 with comments mainly related to the level of delay generated during the Prestwick Upper transition in the summer and the impact of LAMP Phase 1A airspace in February 2016.

There was also a drop in satisfaction with domestic en-route control and management of services during disruption with comments referring to the voice communications technical failure in December, staffing delays in London TMA and Prestwick and mitigation of weather and external factors during the year.



Customer engagement

The survey has comments referred to some complicated discussions on Capital Plan in 2016 and effectiveness of the Operational Partnership Agreement (OPA) meetings. We have already been talking to you about how the OPA meetings can better meet your requirements and the Deep Dive sessions on the capital plan have received positive feedback so we hope that these concerns have now been addressed.



Environment

Your scoring for the effectiveness of the Flight Efficiency Partnership (FEP) for identifying fuel and emissions savings opportunities fell in 2016 recognising the increasing challenge to deliver airspace change and that the low hanging fruit has already been delivered.



Value

Your scoring and comments on overall value show that, although we've achieved significant reductions in the UK unit rate which has dropped from €93 at the start of RP2 to €76.5 in January 2017 (a fall of 17.8%¹), you still think we have further to go.

¹ Exchange rate is a factor but we are on track to meet the FAB plan target of 21% reduction in prices (real terms) by the end of RP2. In January 2015 the NERL element of the UK unit rate was €80.70 and in January 2017 this had fallen to €66.30.

Operations Update

Traffic

Traffic growth in 2016 at 5.7% was considerably in excess of the growth predicted by Eurocontrol STATFOR (2.2%). In 2016 we handled 2,448,712 flights, which is a 5.4% increase compared to 2015.

Growth was seen across all units. Swanwick experienced growth of 5.7% compared to 2015, with AC and TC showing growth of 4.9% and 4.1% respectively. Prestwick saw growth of 6.7% with PC Domestic and Oceanic showing growth of 6.9% and 8.0% respectively.

This increase in flights was partly as a result of a higher number of northerly tracks across the North Atlantic and aircraft being re-routed through the UK to avoid French ATC strikes.

Both transatlantic arrivals/departures and other arrivals/departures showed strong growth +6.3% and 7.4% respectively between 2015 and 2016.

Transatlantic overflights also saw growth with an increase of 6.6% between 2015 and 2016, as did non-transatlantic overflights (by 6.6%).

Domestic flights decreased by 1.4% compared to 2015.

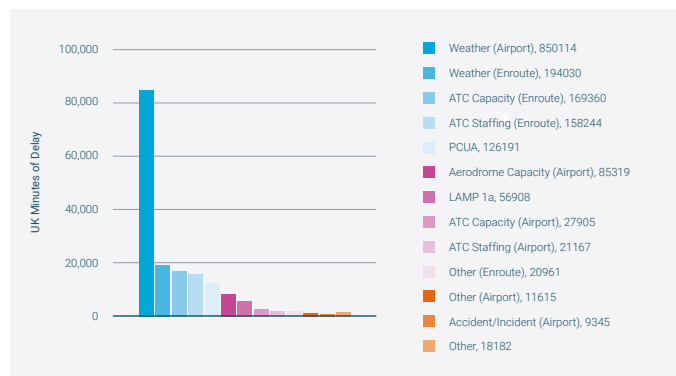
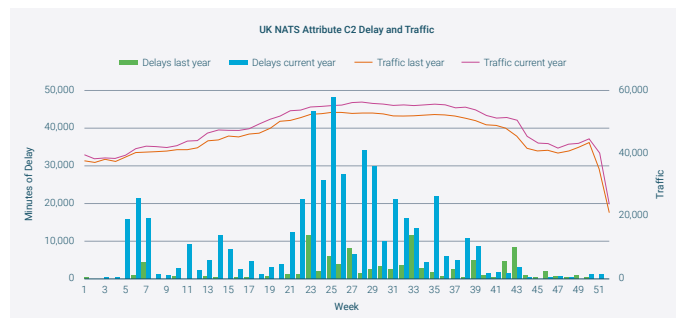
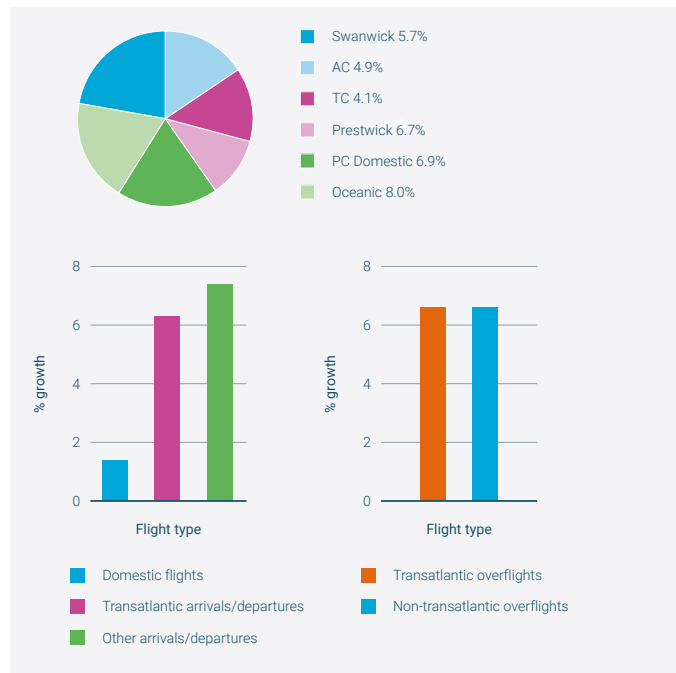
Delay

With traffic growing much more quickly than had been predicted we saw an increase in air traffic flow management delays during the summer of 2016.

The majority of flight delays were due to weather conditions at airports or en route predominantly in June and December, followed by ATC staffing and capacity en route and at airports. Weather, both en-route and at airports, was responsible for 38.7% of the UK total delay.

Across the year, 10.5% of flight delays were due to the delivery of London Airspace Management Programme Phase 1a and Prestwick Centre Upper Airspace. Overall, NATS attributable, en-route Air Traffic Flow Management (ATFM) delay in 2016 was 521,041 minutes. This is an increase on the 95,521 minutes recorded in 2015. Of this delay 10.5% was due to the implementation of LAMP1A and PCUA.

We have taken action to address staffing delays through the introduction of an enhanced overtime agreement, training of new controllers and increasing cross validations.



5.4%

In 2016 we handled 2,448,712 flights, up 5.4% on 2015

Operations Update

continued



Managing our environmental impact

We have a number of airspace environmental targets that focus both on reducing flight plan and tactical fuel burn for airlines. The 10% Programme seeks opportunities to support both 3Di and ATM fuel/CO₂ targets.

In 2008, we committed to reducing average fuel per flight by 10% by 2020. We know you have been closely following this programme as it supports your flight plan fuel savings.

ATM fuel

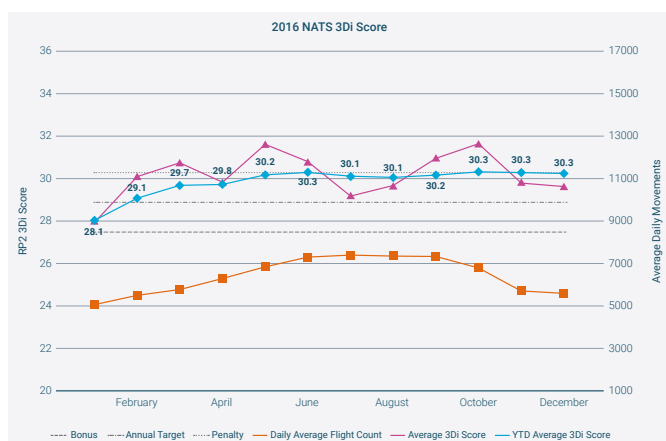
In 2016 various projects have enabled fuel savings totalling 39kT. This is in excess of our annual fuel saving target of 10 to 15kT thanks to 29 small-scale unit-led changes to procedures outside of NATS' main portfolio of airspace projects. Changes in procedures, made by NATS' Airspace Efficiency Group², accounted for enabled savings of 23.9kT of the total. This approach to finding fuel savings continues with airlines in 2017 through the Flight Efficiency Partnership.

3Di

In 2012 NATS, the CAA and airlines agreed a metric to monitor airspace efficiency, known as 3Di (3 Dimensional inefficiency), which is now part of the RP2 Performance Regime

3Di improvements are crucial because they support tactical fuel savings. Our airspace efficiency target is to reduce the 3Di score to 27.7 by the end of 2019. The 2016 average 3Di score was 30.3 which was one point off the end of year target of 29.3. This shows we still have some way to go, but we are working hard to still achieve the ultimate target by the end of 2019.

We have a number of initiatives to help us achieve our targets, and these include the work through Sustainable Aviation, rolling out of a new environmental management system and a development of the flexible use of airspace in 2017/18.



Sustainable Aviation

We currently hold the Chair of Sustainable Aviation coalition in the UK. We are using its influence to focus on improvements to continuous climb and descent operations, working closely with airline and airport operators around the UK. In 2016, the Sustainable Aviation Continuous Descent Operations (CDO) campaign had its Responsible Business Award accreditation renewed by The Prince of Wales' Responsible Business Network.

The aim of the campaign was to increase the number of CDO being delivered across the UK. Comparing 2014 with 2015 CDO performance, there was an improvement from 77.8% to 78.0%. As well as reducing noise, these procedures also saved 190 tonnes of fuel in 2015.

Roll out of new environmental management system

Glasgow and Manchester tower operations will be among the first of our sites in the UK to comply with new environmental management standards from ISO. The updated ISO14001 which specifies how to identify environmental performance, minimise impact and track performance, is designed to take into account environmental impact at each step in the lifecycle of a service. The new system will be rolled out across all sites starting with Glasgow and Manchester in early 2017.

Focus on flexible use of airspace in 2017/18

With the Ministry of Defence and the CAA we have established a programme to co-ordinate the activities required to introduce the Advanced Flexible Use of Airspace (AFUA).

AFUA is a crucial element in the delivery of the Future Airspace Strategy (FAS) and Free Route Airspace (FRA). Enabled by advances in technology and new navigational techniques, the FRA will open up routes across Europe, providing more planning capacity, cost savings for airlines and operators, as well as reduced environmental impact.

Similarly, AFUA will improve access to areas of UK airspace and allow shortened routings for our airline customers.

² The AEG comprises ATCOs from both centres focusing on delivering small scale changes to airspace and procedures suggested by both ATC and airlines.

Operations Update

continued

Safety examined and assured

In 2016, there were no category A or B Airprox – i.e. risk-bearing - attributable to NATS. There was however an increase in low level Airprox events – category C and D events - that were the result of drones or RPAS (Remotely Piloted Airborne Systems), which increased from 66 to around 100 events in NATS Airspace between 2015 and 2016. This is in line with the rise in RPAS activity in the UK. We expect use of RPAS to continue to evolve and grow .

Last year we began a series of improvement activities. We are partnering with the CAA on their integrated Drone programme which is largely targeting the hobby community through a broad set of engagement and education activities, such as the DroneSafe website, point of sale publicity with retailers and through social media channels.

As a specific NATS contribution we have developed 'DroneAssist', an App for drone operators. DroneAssist provides dynamic map warnings of airspace, danger areas and obstacles, as well as a 'fly now' function which tells other participating users of the intended flight.

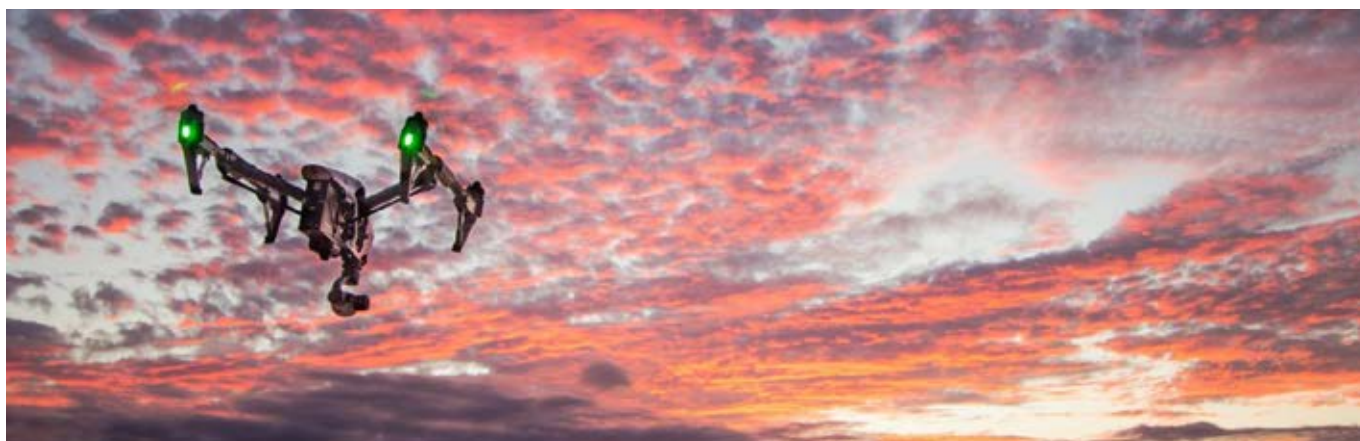
Alongside these direct activities with the Drone community, we have Future Airspace Strategy funding to improve the non-standard flight approval process to manage the increased requests from Drone operators, to collaborate internationally on emerging regulation, and to further enhance the 'Drone Assist' App. We are also conducting analysis of the data gathered from 'Drone Assist' to understand the changing nature of Drone operations across the UK and how it relates to continued safe operation. This will help to inform our on-going work.

More broadly, we have continued to meet our European Safety Performance indicators during 2016 and have seen a reduction in the number of safety events which score under the European Risk Analysis Tool (RAT) scheme (losses of separation, runway incursions and expert assessed 'unsafe' situations). However, we remain above our challenging internal set safety target 'to maintain the same number of NATS RAT points during RP2 as CP3, despite increases in traffic'. Factors affecting this include the unexpected levels of traffic growth and the significant amount of change underway in the organisation. In line with our RP2 commitment to reduce safety risk per flight in line with traffic growth, we are exploring new 'predict and prevent' analysis techniques to help us best target our efforts. These actions will ensure we maintain a safe operation as we build the ATM system of tomorrow.

As part of our improvement activities we continued to engage proactively with the GHOST (Ground Handling Operations Safety Team) led by the CAA. This is playing a key part in improving the safety of the aerodrome, particularly away from the Runway. Alongside this external engagement, we have maintained an active programme of Lesson Learning and Safety Awareness for our staff. Through activities such as Defensive Controlling simulations, pre-summer safety preparation briefings and practice of 'Avoiding Action' procedures, we have mitigated risks, particularly in the Swanwick Area and Prestwick operations.

There was also much to be positive about in the area of technological advancement and airspace development. By way of demonstration, we introduced the first operations deployment of iTEC, which provides additional monitoring capabilities for the controller, and we introduced the first point merge arrival systemisation to the Terminal Control Thames airspace. Both of these are significant steps in our programme of modernisation that will ensure the ATM environment continues to be safe today and into the future.

³ Airprox is defined as a situation in which, in the opinion of a Pilot or Controller, the distance between aircraft as well as their relative position and speed, have been such that the safety of the aircraft involved may have been compromised.



Operations Update

LAMP1A and iTEC

LAMP1A

The first phase of the London Airspace Management Programme (LAMP) went live in February 2016. The changes pave the way for wider modernisation of airspace to deliver more efficient flights, saving fuel and reducing CO₂ emissions, and reducing noise, keeping aircraft higher for longer and minimising areas regularly overflown.

The changes included:

- A Point Merge arrival system for London City Airport. This is over the sea and has replaced conventional routes which were over land
- New alignments for London City departure routes that pass over Essex and Kent. Other existing routes at the airport were being replicated to RNAV standard, which enable aircraft to climb to higher altitudes more quickly
- Daytime traffic departing Stansted that previously headed towards the south now moves onto the existing eastbound routes allowing aircraft to climb higher more quickly.

High level changes, at 7,000ft and above, have also been implemented along the south coast affecting Bournemouth, Southampton and TAG Farnborough airports reducing flights over land.

New Technical Platform goes live at Prestwick Centre

As the first step towards replacing NATS technical infrastructure with a fully SESAR compliant ATM system, the iTEC⁴ platform was switched on at Prestwick leading to Full Operational Service in June 2016.

iTEC introduces trajectory-based operations that will:

- Reduce controller workload
- Provide automated conflict detection
- Improve safety
- Reduce fuel burn
- Enable increased traffic capacity in UK airspace.

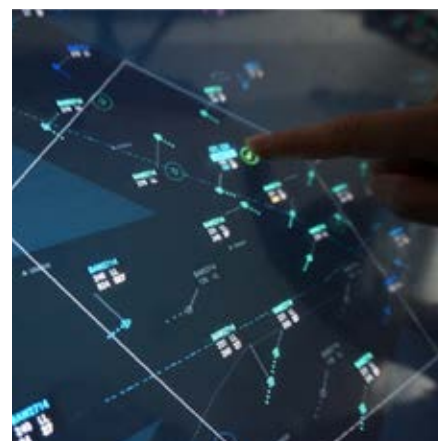
This new technology will fundamentally change the way we manage traffic now, and in the years to come.

Achieving this milestone marks the first step towards moving away from our legacy systems.

In addition to PCUA a new technology infrastructure has been put in place to support our application integration and testing for the Single European Sky ATM Research programme (SESAR).

Foundation Services Springboard is a secure and resilient network, computing, storage and security infrastructure. Its role is to operate all of our software for testing technologies in development through SESAR. Once testing is complete a final Core Infrastructure will take over to support new technologies and solutions being designed to improve the way Europe's airspace is managed.

4 interoperability Through European Collaboration (iTEC) platform



Operations Update

Case study

TBS surpasses expectations

Since it was introduced at Heathrow in 2015, Time-Based Separation has delivered benefits that far outweigh our original predictions.

The concept, which safely separates landing aircraft based on time rather than distance, has seen a 62% reduction in headwind related arrival delays in its first year of operation. Not only that, it has allowed on average 0.8 extra landings per hour in all wind conditions and on average 2.6 extra landings per hour in headwinds greater than 20 knots.

The impact on flights in the air has also been significant with 30% fewer spacing related go-arounds, a 30% reduction in reported wake encounters at less than 6,000ft, and 115,000 minutes less airborne holding across the year.

TBS has safely delivered significant resilience at Heathrow. Now we are developing the concept further, with the arrival of Enhanced TBS (eTBS) scheduled for arrival at Heathrow early in 2018. The first phase of the project will use the European Wake Vortex Re-categorisation programme (RECAT EU) developed by Eurocontrol to optimise aircraft separation. We are working with the CAA to get approval for eTBS at Heathrow first.

We calculate that 0.5 to 1.1 extra aircraft will be able to land each hour in all conditions between 7am and 10pm following the delivery of eTBS.

That is not the end of the story for TBS. We have started Research and Development work through SESAR on Pairwise Separation, which will see every pair of aircraft type have its own individually tailored separation. This more accurately reflects the safe wake separations required for each aircraft type pair and reducing unnecessary excess separation, further cutting delays and cutting the need for airborne holding. More on that in the years to come.

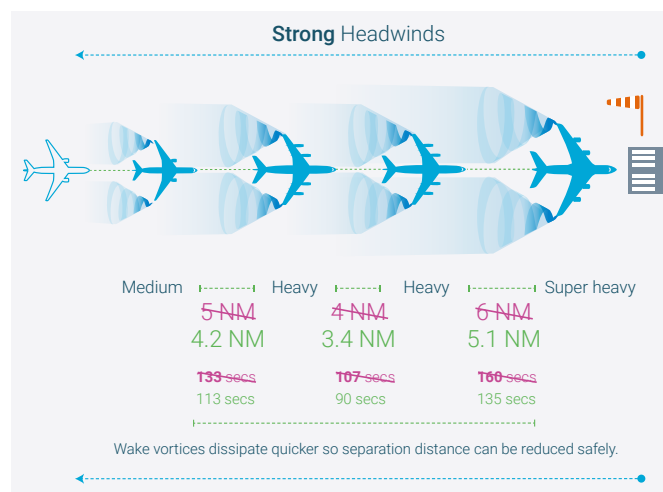
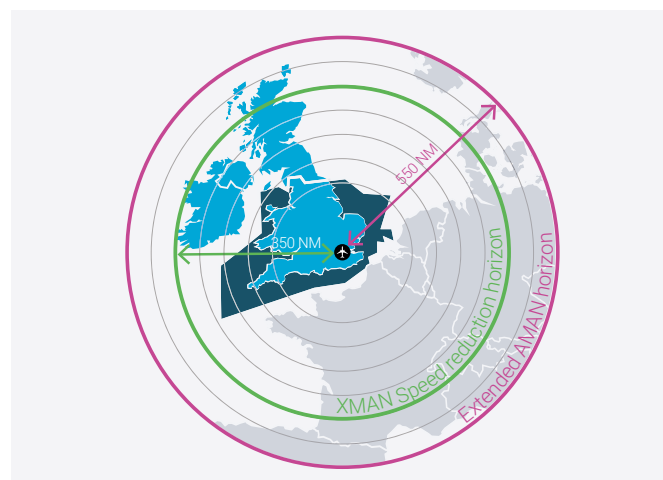
Cross-Border Arrival Management (XMAN), is helping reduce airborne holding times by up to a minute, by dynamically managing a flight from up to 350 miles away - maybe slightly reducing its speed - so that it arrives at Heathrow ready to be sequenced for landing and less likely to have to spend time in the hold. This equates to an annual saving of 2500 tonnes of fuel, which equates to 8,000 tonnes of CO₂.

Through XMAN we are working with colleagues in the surrounding airspace in France, Ireland and the Netherlands with a view to extending the horizon beyond 350 miles. We continue to work closely with our project partners, DSNA, Eurocontrol (Maastricht), IAA and NATS Prestwick, to further refine the benefits that can be achieved.

Next step in 2017/18 is to introduce XMAN at Gatwick and extend the Heathrow horizon to 500 miles.

“Throughout 2016, American Airlines experienced a reduction in holding delays into Heathrow. When we look at the year-over-year reductions in hold times, last year was the best performance since 2013. Over the last three years, since the inception of both TBS and XMAN at Heathrow, statistics show the average hold per flight has reduced by over a minute. TBS and XMAN have played an integral role in this reduction, which saves American time and unnecessary fuel burn while waiting to land. A job well done by the NATS team.”

Tobin Miller Manager, ATM and Airfield Operations - Europe, North Atlantic, Asia-Pacific, Washington DC



62%

Reduction in headwind related arrival delays

Strategic Update

SESAR

Airspace consultations

With the launch of the government's Airspace Policy consultation at the beginning of February 2017 came a recognition that in order to manage the rising number of aircraft in an efficient and effective manner there was a need to modernise and future-proof the UK's air transport infrastructure.

Through the Future Airspace Strategy we have worked with other stakeholders on illustrating the need for change with the Department for Transport and we are delighted there has now been recognition of the need for fundamental modernisation of UK airspace. This has now become part of the narrative for the Secretary of State for Transport and the Aviation Minister so is gaining significant momentum.

Modernisation was essential before the decision was made on the third runway and has become even more important now that it is going forward.

Accelerating SESAR deployment:

NATS is undertaking a technology programme which we call "Deploying SESAR" which will update NERL's core ATC infrastructure, replacing legacy systems that are reaching end of life and deploying a modern, more advanced system to support new operational concepts and modern airspace designs. The new systems will not only further enhance safety, service performance and resilience but will also allow us to meet our obligations in line with the Single European Sky Pilot Common Project (PCP) and related European regulations, helping to secure European funding which will be used to offset charges to customers. Crucially, the technology programme will also support the significant airspace change planned for the next few years.

Both the Airspace and Technology programmes have changed since the original 2015-2019 capital plan was created and we have consulted customers on these changes during 2016. The proposed level of investment in 2015-2019 has been increased to a range of £750-780m in order to accelerate the delivery of the new technical platform to:

- Enable delivery of some important airspace changes between now and 2023;
- Accelerate the deployment of SESAR capable systems and replacement of NERL's ageing legacy systems essential to improve service performance and deliver airspace capacity;
- Prioritise early replacement of technology that will soon become obsolete and is increasingly difficult to maintain, avoiding the risk of service degradation;
- Deliver a single, common technology platform and capability across both Prestwick and Swanwick to provide improved service resilience and operational flexibility;
- Optimise the overall level of capital investment required over the next few years balancing the costs between sustaining legacy equipment and the cost of replacing it;

Over the last year we have been able to make significant progress in developing the detail of the investment plan and we have a high degree of confidence in it.

This plan is an essential and fundamental transformation of the UK airspace offering the aviation industry the right balance between deployment speed, management of risk and the best investment case. NERL is committed to delivery of this programme and to providing customers with clear and transparent reporting against the plans and we thank the customers that were involved in the consultation in 2016 and early 2017.



Strategic Update

Airspace R3

A continuous airspace network for the North

The best approach to developing consistent and systemised airspace in the North of England and Scotland is through a single delivery vehicle. This is why Prestwick Lower Airspace Systemisation (PLAS) has merged the NTCA and ScTMA projects to allow development of a contiguous airspace network.

The aim of PLAS is to modernise the route structure at Birmingham, Chester Hawarden, Doncaster Robin Hood, East Midlands, Leeds Bradford International, Liverpool John Lennon, Manchester, Newcastle. In addition, it will offer support to the requests made by the SCTMA airfields.

The PLAS airspace designs, enabled by 3nm separation, will introduce closer spaced routes, allow aircraft to fly in more environmentally friendly ways and create a more efficient airspace system which will also reduce controller intervention.

The latest design is based on the current transition altitude (TA) in the Manchester TMA and includes assumptions and requirements previously captured from the airfields. The full network design including MTMA was last simulated in October 2016.

It is now being deployed in four phases across the region with completion scheduled for Q1 2019.

Heathrow Runway 3

We are working closely with Heathrow Airport to make sure we keep pace with plans for Runway 3. Our priority is to ensure that the airspace needed to support the proposed additional runway is considered at the earliest possible stage, as well as the airport's preferred modes of operation and factoring it into the wider network.

⁵ Performance based navigation

⁶ Respite for local communities could be enabled by using PBN designs with alternative routes

We support Heathrow's need for certainty around its local R3 routes and anticipate early consultation on airspace, airport operating principles and ground infrastructure proposals this summer, with more detailed consultation in Spring 2018. This work will be completed in advance of the ultimate airspace change process. It will define the envelope and criteria for the eventual route design but will stop short of determining the final routes.

We will want to ensure the ultimate airspace design is optimised for both Heathrow and the wider industry.

London Airspace Management Programme (LAMP) airspace change

The LAMP2 airspace change is a once in a generation opportunity to redesign airspace to suit today's modern aircraft using PBN⁵. It will change airspace from being a constraint to airport and airline operations, to offering significant opportunities to increase capacity, offer respite⁶ and deliver better environmental performance.

Our objective is to deploy LAMP2 airspace changes by 2023/24. Modernization of this airspace is critical to cater for the forecast traffic growth and will also be required to enable Runway 3.

To meet this timeframe, we are undertaking preliminary work establishing the airport and airline principles of design, the technology pathway and constraints, and a concept of operations. It will require extensive design consultations with all TMA airports. The joint work that we will undertake with Heathrow will be an integral part of this programme. Government support will be essential to ensure that individual operators and airports take a long term and holistic view of the changes needed.



Strategic Update

Looking forward (the future)

Oceanic Investments

During 2016 NATS consulted customers on investment plans for the North Atlantic including the potential to introduce Space Based ADS-B⁷ surveillance. Following customer feedback and the ICAO SASP⁸ decision to delay publication of the proposed surveillance-enabled separation standards, NATS proposes two investments between now and 2019.

Firstly an upgrade to the Oceanic Flight Data Processing system which will meet the ICAO Performance Based Communication and Surveillance standard which comes into effect in March 2018. This will allow reduced separations that have previously been operated under the RLAT and RLongsm trials to become a permanent standard, offering additional capacity and fuel savings for the airlines from 2018 onwards. This investment is increasingly important given that traffic growth on the North Atlantic is far exceeding forecasts.

Secondly, airlines worked with us and ICAO to enable an alleviation on the Oceanic datalink mandate to 2020 for the Tango Routes. NATS proposes to provide a surveillance solution combined with VHF communications from IAA for these routes⁹ such that short-haul aircraft can continue to operate on these routes beyond 2020 without the need to equip with the ICAO oceanic datalink standard.

Consultation with airline and business aviation customers on the potential use of Space Based ADS-B will take place in 2018 as we prepare for our next price control period.

Control towers of the future

Advances in video technology and high speed broadband are allowing us to explore a new model of air traffic control. Digital control towers will be the biggest transformation in this service since the introduction of radar.

Two digital towers are already operating in Scandinavia and others are being trialled in Europe. Interest is growing in the UK market with our customers keen to see what the technology can deliver. This is why we have created a digital tower control room at Swanwick to demonstrate its capability.

Our digital tower is a fully operational ops room with communications and flight data equipment, and displays a view from a customer airport.

Going digital is a more cost effective solution to building a physical control tower and offers real operational benefits. It allows for more flexible staffing, plus controllers can have a 360 degree view of the airport using high resolution cameras and remote sensing technology to safely and securely manage air traffic.

⁷ Automatic Dependent Surveillance - Broadcast / ⁸ Separation & Airspace Safety Panel / ⁹ Initial solution covers T9 and T213

¹⁰ The A6 alliance is made up of DFS (Germany), DSNA (France), ENAIRE (Spain), ENAV (Italy), NATS (UK), PANSAs (Poland) and NORACON – a consortium including Austro Control (Austria), AVINOR (Norway), EANS (Estonia), Finavia (Finland), IAA (Ireland), LFV (Sweden) and Naviair (Denmark).

¹¹ Borealis is an alliance between Avinor (Norway), Finavia (Finland), Irish Aviation Authority (Ireland), Isavia (Iceland), Lennuliiklusteeninduse AS (Estonia), Latvijas Gaisa Satiksme (Latvia), LFV (Sweden), NATS (UK) and Naviair (Denmark).

The technology in a digital tower room would also allow operators to zoom in on parts of the airfield, detect trespassers or drones, and share camera feeds with airport partners such as the fire service.

We continue to support the market in the deployment of Digital ATC solutions and hope to announce new opportunities later in the year.

Terminal Control goes digital

During 2016 we invested in updating the technology in Terminal Control, Approach and TMA functions at Swanwick to make operations more efficient through information sharing.

The Extended Computer Display System (ExCDS) will allow our teams to share flight data electronically rather than on paper strips.

Developed by NavCanada and tailored for the TC environment ExCDS is currently used in 11 countries. In the UK it is in use in nine tower operations, including Heathrow. The use of paper strips has served us well in TC for decades but it has reached the limit of its capability for meeting growing traffic levels and increased complexity in the operation - ExCDS allows us to modernise and increase our capability in what is the most complex airspace in Europe.

Electronic flight strips are already used throughout the rest of the NATS operations - bringing ExCDS to TC will lay the foundations for greater systemisation and uniformity right across the whole NATS operation - which will in turn create efficiencies and savings for customers.

Other benefits of ExCDS include ensuring flight information is legible, automatic transmission of aircraft details between sectors, consistency of information and conformance monitoring and support to enhance safety. In the future there could be opportunities to create electronic links with towers and approach units as well as other automatic functions and updates.

ExCDS has been undergoing testing and preparations for live evaluation in the TC Operation during the first quarter of 2017.



Strategic Update

Airports

The Brexit Effect

It's clearly too early to speculate on exactly how the negotiations to leave the EU might go and what the final outcome might be. The UK remains a full member of the EU until March 2019 so for us, in the meantime, it's business as usual in Europe.

We have been in discussions with the Department for Transport (DfT) about their priorities and likely approach for all the UK transport sectors. Aviation is at the top of their priority list including continued access to the single aviation market, continued participation in the European Aviation Safety Agency (EASA) and Air Traffic Management (ATM).

There are several ways this could be achieved and it will only be as the negotiations unfold that we will understand what the UK Government and the EU are prepared to consider.

We hope that a satisfactory agreement for the aviation industry will be amongst the first of the Brexit negotiations to be finalised. However, there is no change in the short term; we continue to comply with the requirements of the current regulatory targets and continue to upgrade our technologies to deploy SESAR.

Belfast joins the NATS ATC team

In July 2016 we took over the air navigation service at George Best Belfast City Airport after a competitive bid for the contract.

We have managed the engineering services at Belfast since 2008 and now look after ATC at both major airports in Northern Ireland.

The teams involved in the bid process worked hard to understand the airport's requirements. Our innovative bid proposed to enhance the quality and resilience of the operation, such as the introduction of electronic flight strips and the ability to provide a radar service from the tower position, shaping an offer to meet their needs, both for today and the future.

Meanwhile we have submitted a contract to continue to provide ATM and engineering services to London City Airport. We have a long-term relationship with the airport and will continue to work hard to ensure we meet its needs.

FerroNats success

FerroNats, the joint venture between NATS and Ferrovial, is successfully providing ATC services at nine regional Spanish Towers at half the price of the previous regulated regime. We beat global competition to win the business. FerroNATS is a prime example of where NATS can add commercial value, and deliver high standards of service.

Edinburgh contract loss

We are deeply disappointed not to have retained the contract for the tower at Edinburgh Airport but will work with the airport to ensure a smooth handover to their new supplier NATS has had a long relationship with Edinburgh Airport Limited and we will continue to work closely with them to the end of the current contract period in March 2018.

AGS Airports Contract renewed

We were delighted that early in 2016 AGS Airports renewed its contract with NATS to supply tower services at Aberdeen, Glasgow and Southampton Airports. We have entered a five year contract to provide ATC and engineering services at all three airports.

This renewal was a reflection of the partnerships we have built up over a number of years with each of the airports, as well as the great work delivered by the NATS airport teams. There are some exciting growth opportunities with all three airports over the coming years, with Glasgow airport confirmed as one of Europe's fastest growing airports in 2015, based on passenger numbers, and Aberdeen airport investing £20 million in the development of their passenger terminal.

ATC transition at Gatwick

This year also saw the smooth and professional transition of ATC services at Gatwick Airport to ANS, a subsidiary of DFS. The NATS team had worked towards the transition since the airport's decision to hand its ATC contract at ANS in December 2014.

Despite the challenge of managing the transition the NATS team continued to break records for traffic movements at Gatwick, setting a standard by which the rest of the world now measures itself.



Solutions and regional activities

Asia-Pacific update

We have had a strong year of growth, delivering projects to enhance capacity in Hong Kong, Singapore, Indonesia, the Philippines, Japan, Australia and Thailand. On top of this we have won new business in Thailand - a highlight of 2016. This work involves redesigning the airspace in the Bangkok region

Looking ahead, there are positive opportunities to develop our business further in the region with negotiations currently underway on a strategically significant deal in the region.

Key to the APAC team's success has been the strong relationships we have built with our partners. This has put us in a good position to offer our products and services to other territories.

Middle East update

In the past year NATS Middle East activities have had a sharper than ever focus on project led growth and the development of key relationships. This has benefitted the region's airlines, airports and ANSPs.

Since establishing our regional HQ in the UAE three years ago investment has continued with offices established in Oman and Qatar. Throughout 2016 we have continued to see the benefits of locally driven connectivity with our customers and have further developed our local relationships with the region's aviation sector stakeholders. This year we have won, extended or renewed contracts in the UAE, Oman, Qatar and Kuwait.

The future holds many great opportunities for the Middle East region, to demonstrate its position as a true global leader, including playing host to the 2020 World Expo in Dubai, and the 2022 Qatar World Cup.

The aviation industry will be key in supporting these events as well as contributing to continued economic growth. NATS will be one of many stakeholders continuing to help drive activity in the Middle East, building on the projects we have already contributed to in the region.

Aquila update

Our joint venture with Thales to provide air traffic management at more than 100 Ministry of Defence locations in the UK and overseas is now approaching the end of its second year.

After improving performance in the first year we moved on to modernising ATM equipment to comply with regulatory requirements and obsolescence in 2016. The most challenging of these targets was to achieve MODE-S compliance for a set of sites by the end of December 2016.

Aquila recently achieved ATM Approved Organisation Scheme (AAOS) certification from MAA, more than 12 months earlier than the contract required.



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Talk to us

If you'd like to find out more about any of the information in this report, please talk to us:

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Customer website

Our dedicated customers website www.customer.nats.co.uk provides the latest news, operational information, meeting details, contacts and links to other resources.

Customer Forums

We have a number of forums for engaging with customers including our Operational, Safety and Flight Efficiency Partnerships, Lead Operator for Airspace Design, Business Jet Forum and Service & Investment Plan Consultation. For more information see www.nats.aero/news/customer-report