Strategic report

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Dr Paul Golby

Financial performance and dividends

The group's revenue was £21m higher than last year, at £919m (2016: £898m). While Airspace customers benefited from real price reductions under the RP2 Performance Plan, the related reductions in revenue were more than offset by additional revenue from the increase in flights handled.

This year we safely handled an additional 7.6% of flights. This growth was much higher than assumed in our RP2 Performance Plan set when jet fuel prices were much higher than today and flights were projected to grow by only 2%. We also generated additional income from supporting the UK military with Project Marshall, which helped to offset lower Airports income.

Profit before tax and goodwill impairment, at £137m (2016: £137m) was in line with last year. After taking into account a reduced charge for goodwill impairment of £11m (2016: £93m), profit before tax at £126m (2016: £44m) was £82m better.

The Board has reviewed the group's dividend policy. This now aims to pay a regular and progressive dividend that reflects NERL's cost of equity (as reflected in the RP2 Performance Plan) and any regulatory out-performance as well as a pay-out of 25% of profit after tax for NATS Services. In addition, from time to time the Board will consider the potential for, and affordability of, returning any excess capital to shareholders taking into account NERL's gearing and the overall liabilities of the NATS group.

The Board paid dividends of £24.0m in 2017 (2016: £81.7m). In May 2017, the group paid a first interim dividend of £28.5m for the 2018 financial year.

Chairman's statement

Defined benefit pension scheme

The Trustees' 2015 triennial valuation reported an increase in the deficit to £459m (2012 triennial valuation: £383m). As a result, the group has agreed to increase its contributions to the scheme and expects to meet this increase through an adjustment to NERL's prices in the next Performance Plan period (based on the EU performance scheme regulations) and from NATS Services' operating cash flows.

The Trustees intend to bring forward their next valuation to 31 December 2017. This will help inform NERL's Initial Performance Plan for the next regulatory reference period (RP3: 2020-2024) on which we will be consulting customers and other stakeholders from spring 2018.

UK's EU referendum decision

While the outcome of the UK's EU referendum decision and the triggering of Article 50 has not had an adverse impact on the demand for air travel to date, it has potentially significant implications for the UK aviation sector.

The company has provided input to the Department for Transport (DfT) on the regulation of Air Traffic Management (ATM) after Brexit. In our view the logical outcome is for the UK to re-establish national economic regulation of UK ATM and to retain control of this critical part of the UK's national infrastructure. This would avoid the complexity and cost of having two regulators (the European Commission and the CAA) and enable NATS to be more agile in responding to changing customer requirements. This would also be the most reliable means of ensuring that NERL continues to be able to finance its operating and investing activities.

The UK has played a leading role in the development of SES since its introduction and has every incentive to continue working with our European partners to maintain high standards of safety and to optimise the use of airspace.

Capital investment

We are upgrading our operation by deploying new technology, to replace legacy systems and introduce more advanced systems which will support new and modern airspace designs, once approved, as well as improved service resilience and operational flexibility. The original investment plan developed for RP2 was based on more modest flight growth. Following changes in the business environment and industry developments in technology, we have revised our investment plan for RP2 to accelerate the deployment of SESAR technology which, alongside the essential and overdue modernisation of airspace we expect to form part of the UK Government's aviation strategy, will provide more capacity to meet future demand. The growth in flights last summer (2016) put pressure on the service with some sectors reaching existing design capacity, resulting in an increase in ATC delay.

HM Government's shareholding

Last year, I reported that HMG would explore the sale of its 49% shareholding in NATS. Since then, HMG has indicated that while it has no plans imminently to dispose of its shareholding, it will continue to keep its investment under review.

Governance

Baroness Dean of Thornton-le-Fylde, Andy Lord and Tony Tyler retired from the Board during the year. Peter Read stepped down in May 2017 and Will Facey at the end of June 2017. Brenda Dean, Andy and Peter all played key roles on a number of Board committees over an extended period of service. I would like to thank them all for their advice and counsel to the Board.

I have been pleased to welcome Maria Antoniou and Andrew Barker to the Board in the year. Mike Campbell joined the Board in May 2017. Each brings a relevant set of skills and experience to the company.

Outlook

The first two years of RP2 have been challenging as we have faced much higher than expected air traffic. Next year we will be consulting our customers on our Initial Performance Plan for RP3. As the RP2 ATC environment is turning out to be quite different to the one assumed, we will be making the case for a Performance Plan in RP3 with more financial headroom to respond to changing industry conditions (e.g. to adjust the level of investment and resources) and to provide enhanced operational resilience. We think this is in the interests of our customers.

Martin Rolfe, Chief Executive, has built a strong management team. I would like to express my thanks to them and all of our employees for their hard work and dedicated service to the company.

Paul Golby

Dr Paul Golby, CBE FREng
Chairman

Chief Executive's review

Martin Rolfe

Overall we made good progress in implementing our strategic objectives this year and achieved all but one of the priorities we set ourselves. I was pleased with our performance as we handled the most rapid growth in air traffic volumes in a decade while in parallel continuing to make changes to our operation.

Priorities for 2017	How we did
Provide a safe, efficient and reliable service every day from our airports and centres	✓
Deliver SESAR technology and transform the business for the future:	
> Complete the introduction of iTEC into Scottish Upper Airspace	✓
> Deploy and operate electronic flight strips in Swanwick Terminal Control	✓
Win and retain commercial business:	
> Establish a remote tower capability	✓
> Establish further strategic partnerships with our airport customers	✓
> Achieve Mode S Surveillance capability for Project Marshall	✗

Chief Executive's review

Provide a safe, efficient and reliable service every day

This year we safely handled 7.6% more flights than last year. We saw high growth rates in international flights, particularly from London airports, and the volume of North Atlantic flights exceeded its previous peak in 2008. The number of flights was also higher than projected by the Civil Aviation Authority (CAA) in our Performance Plan for Reference Period 2 (RP2: 2015-2019) which, while challenging to handle operationally, has benefited our revenue.

The basic structure of the UK's airspace (its routes, sectors and holding patterns) was designed over 50 years ago when traffic volumes were far lower than they are today. Airspace in the South East is now operating to its maximum capacity during the busiest times of the year. When the airspace is at capacity our service performance is very sensitive to the timing and distribution of traffic flows across the country. This was evident last summer when periods of bad weather combined with industrial action in neighbouring countries (causing flights to divert into UK airspace) changed the patterns of flight across the UK. We faced similar operational challenges when particularly high demand coincided with the introduction of new systems (e.g. iTEC) into our operation.

Our primary objective is to ensure that, irrespective of the prevailing conditions, all flights are handled safely. For this reason, on certain days, we regulated traffic flows in some sectors of airspace to maintain safety which resulted in more air traffic delay than has been seen in recent years, and slightly more than our regulatory targets anticipated. However, at no point did our performance fall outside of the bounds of the RP2 Performance Scheme targets which was very good, considering the scale of traffic growth. Our service was also extremely good in comparison to Europe, with delay amounting to one third of the European average.

Learning from last summer, we have been working closely with airlines, airports and the CAA over the winter to assess demand across the UK airspace network and to develop a strategy to minimise delay this summer.

Deliver SESAR technology and transform the business for the future

The longer term solution to minimising delay during periods of high demand is the combination of new technology and modern UK airspace structures. The process of modernising airspace started in the previous financial year but further stages have been paused pending Government consultation on a UK aviation strategy over the next year.

We expect this strategy to include greater Government emphasis on airspace modernisation and its effect on those who are overflown. Modernising airspace will significantly increase its capacity but, like runway capacity enhancement, there are significant social and political hurdles (such as public opposition to changing aircraft noise patterns) to be overcome, even when the noise impact is an overall improvement for a community. By engaging effectively with local communities, alongside airports and airlines, we can establish rules for respite and distribution that can help mitigate some of the noise impact on the ground.

We also welcome Government's clear decision on the location of a new runway and a faster planning process to deliver it. We have already started working with Heathrow Airport and other stakeholders to review the design of the local airspace, taking account of safety, noise and other environmental considerations.

We consulted customers during the year on a revised capital investment plan for RP2. This follows changes that we have seen in the business environment (such as higher than expected traffic growth) and progress made by the industry in developing SESAR technologies, such as iTEC. In a programme we refer to as Deploying SESAR[5], we propose to accelerate the deployment of new technology to deliver capacity and safety benefits to customers more quickly while reducing our investment in legacy systems and their running costs. To achieve this, we expect to invest up to £160m more than the RP2 Performance Plan assumed. In order to mitigate the impact of this additional investment on prices in future, we have secured £100m of EU (INEA) funding and we are applying for a further £30m.

As we deploy new technology we will be retiring our legacy systems. This requires significant change to our operation, including the need to train our people in the use of these new systems and in new methods of operation. While the transition will be challenging we will be doing all we can to minimise any operational impacts for our customers.

This year we achieved key programme milestones, developing our ability to manage similar transitions in future: we delivered a new system to control upper airspace from our Prestwick Centre and we have started trial operational use of electronic flight strips in our Swanwick terminal control operation.

Chief Executive's review

Win and retain commercial business

We are working hard to strengthen that part of our business which is not economically regulated. In particular, within the UK we face increasing competition for the provision of airports ATC. Our response is to build trusting and sustainable partnerships with UK airport customers, combined with a clear and compelling proposition for different airport market segments and to use advances in technology to improve price competitiveness.

During the year we were awarded the ATC contract by George Best Belfast City Airport and renewed ATC contracts with Aberdeen, Glasgow and Southampton airports, along with our engineering contract with Highlands and Islands Airports. However, the Edinburgh Airport ATC service will transfer to a competitor at the end of March 2018 and we are working with the airport and its new provider on the transition of this service. This is evidence that we must continue to innovate and offer our service cost effectively.

Digital towers (which see air traffic controllers manage aircraft from remote facilities instead of in traditional airport towers) are becoming a demonstrably viable option for airports and have the potential to transform the way air navigation services at airports are delivered: London City has announced plans for a digital tower service in the future. In April 2017, we invested £5m to acquire a 50% interest in Searidge Technologies, a Canadian provider of digital tower capability, and during the year we continued to develop a digital tower capability at Swanwick. Together these enable us to offer a wider choice of digital tower solutions to customers depending on their requirements.

We are supporting our Aquila joint venture with its delivery of the MOD's Project Marshall. The service provision element of this contract is performing extremely well. However, the asset provision element has faced schedule challenges. Together with our joint venture partner, Thales, we are committing more resources in 2017/18 to re-plan and execute on a delivery schedule for asset provision that will ensure our military customer has the capability required to perform its mission.

We continue to develop our international activities, focusing on the Middle East and Asia Pacific. Of note this year was the award of an airspace design contract in Thailand.

Our people

One of the priorities I have set for the 2018 financial year (see below) is a focus on our people.

We have a record of good relations with our employees and enjoy generally constructive relationships with our Trades Unions. However, all parties faced a challenging pay round last summer and, on its conclusion, we jointly reflected that our ways of working and partnership approach needed to be reinvigorated and renewed. We are now working with union representatives to understand how we can work together more effectively; an objective which will take time but to which we are all committed.

As noted above, a large part of our strategy over the next five years is to replace much of our technical infrastructure. This infrastructure has served us well but is coming to the end of its useful life. Updating this technology will be a significant change for everyone working for NATS and this priority recognises that we will need to support our people through this transformation.

Our priorities for 2018

> Provide safe and resilient air traffic services from our airports and centres;

> Focus on our people and employee relations as we transform our infrastructure;

> Achieve Swanwick site acceptance testing for London City Digital Tower;

> Deliver key Deploying SESAR milestones: expanding electronic flight strips in Terminal Control and fit out Combined Operations room at Swanwick;

> Provide support to Heathrow and Hong Kong for their third runways; and

> Enhance the Oceanic technical platform and Operations at Prestwick.

Our immediate focus is ensuring that we have the right resources to support this summer's airline schedules so as to minimise the need for regulations that cause delay to the travelling public. We are also focusing on continuing the delivery of electronic flight strips which transition from trial to full operational use in our terminal control operation starting in January 2018. Finally, we are starting to turn our attention to developing next year's business plan which will form our initial proposal to customers for RP3 (calendar years: 2020 to 2024). Our key objective in developing this plan will be to ensure that we have sufficient resources in RP3 to continue to deliver a safe and efficient service to the travelling public which is resilient to changing circumstances and operational conditions.

Martin Rolfe
Chief Executive

Financial review

Nigel Fotherby

	2017 £m	2016 £m
Revenue	**919.3**	898.1
Profit before tax and goodwill impairment	**136.5**	137.1
Profit before tax	**125.5**	44.4
Profit after tax	**103.8**	27.6
Dividends	**24.0**	81.7

Financial review

The group reported a profit before tax of £125.5m (2016: £44.4m), an improvement of £81.1m on last year mainly reflecting a reduced goodwill impairment charge (by £81.7m). Profit before goodwill impairment was in line with last year at £136.5m (2016: £137.1m). The factors impacting the results are as follows:

	£m	Profit before tax £m
2016 profit before tax		44.4
Revenue changes		
Airspace		
UK en route revenue	19.3	
Service performance incentive	(5.0)	
Other revenue changes (net)	3.7	
	18.0	
Airports	(12.1)	
Defence	15.7	
Other UK Business	(2.0)	
International	1.6	
		21.2
Operating cost changes		
Staff pension costs	32.9	
Other staff costs	(9.1)	
Non-staff costs (net of other income)	(1.6)	
Depreciation and amortisation, net of grants	(20.6)	
Disposal of assets	(7.0)	
		(5.4)
Goodwill impairment		**81.7**
Finance cost changes		
Fair value movement on derivative contract	(20.2)	
Other finance costs (net)	3.2	
		(17.0)
Results of associates and joint ventures		0.6
2017 profit before tax		**125.5**

Regulatory return

We assess the performance of NERL's regulated activities by reference to the RP2 Performance Plan. In its second year of RP2 (calendar year 2016), NERL achieved a pre-tax real return of 8.2% compared with the regulatory return of 5.8% for that year. This mainly reflected additional revenue from faster growth in air traffic volumes than the RP2 Performance Plan and which offset higher operating costs, which exclude staff pensions, than the economic regulator assumed.

While we have performed better in the early years of the reference period, we face higher costs in the latter years (from pay and the dual running of legacy and new systems during a transition period). Taking these factors into account we expect to achieve the regulatory rate of return over the five year period.

Comparison of reported profit and regulatory return

Profit reported in these financial statements is prepared in accordance with IFRS and policies described in note 2 to these accounts. As described below, the CAA applies an economic regulatory building block model which is mainly cash-based. It can give rise to some significant differences between reported operating profit and regulatory return, mainly due to:

> lower historical cost depreciation compared with regulatory depreciation which is indexed to inflation; and

> lower accounting pension costs using best estimate assumptions prescribed by accounting standards compared with cash contributions agreed with Trustees, which include a margin for prudence.

This difference in basis explains why NERL's reported operating profit before goodwill impairment is some £60m higher than its regulatory profit, on the calendar year basis reported for its regulatory accounts.

Revenue

Revenue at £919.3m (2016: £898.1m) improved by £21.2m, including Airspace UK en route revenue which was £19.3m higher. While Airspace customers benefited from RP2's real price reductions this was more than offset by additional revenue from the increase in flights that we handled. The latter mitigated a small service penalty of £0.4m (2016: £4.6m bonus), relating to increased delays largely due to capacity. Other Airspace revenue improved by £3.7m.

Airports revenue was £12.1m lower, following the transfer of the Gatwick contract to another provider in March 2016.

Defence revenue increased by £15.7m as we continued to support our Aquila joint venture with the MOD's Project Marshall contract.

Other UK Business generated lower revenue from windfarm mitigation services. Our International business reflected a stronger performance in the Asia Pacific region.

Financial review

Operating costs

Operating costs, before goodwill impairment and asset disposals, at £741.8m were in line with last year (2016: £743.4m).

	2017 £m	2016 £m
Staff costs	**(415.3)**	(439.1)
Non-staff costs	**(177.9)**	(176.3)
Asset related charges	**(148.6)**	(128.0)
	(741.8)	(743.4)
Profit on disposal of assets	**0.1**	7.1
Operating costs	**(741.7)**	(736.3)

Staff costs of £415.3m (2016: £439.1m) were 5.4% lower, mainly due to lower accounting pension costs compared to such costs in the previous year. Before staff salary sacrifice and past service costs, the accrual rate for the defined benefit scheme this year was 36.0% (2016: 45.4%) of pensionable pay. This offset a £9.1m increase in other staff costs.

The average number of staff employed during the year was 4,216 (2016: 4,196) and there were 4,247 (2016: 4,176) staff in post at 31 March 2017.

Non-staff costs at £177.9m (2016: £176.3m) were £1.6m higher than the previous year. This mainly reflected the increase in activity to support Project Marshall which offset savings in network communications and staff relocation costs incurred in the previous year.

Depreciation and amortisation increased to £148.6m (2016: £128.0m) following the deployment of the new flight data processing system for Prestwick upper airspace.

The prior year result included gains of £7.1m, largely for the sale of the Gatwick control tower.

Goodwill impairment

A goodwill impairment charge of £11.0m was recognised by NERL this year (2016: £92.7m), to write down the carrying value to the recoverable amount (see notes 2 and 3). This has reduced because, although NERL's revenue will benefit from the higher traffic forecast for the remainder of RP2, it will also face higher costs in those years. This charge does not impact NERL's cash flows or its regulatory return.

The carrying value of NERL's goodwill is intrinsically linked to its regulatory settlements and its regulatory asset base (RAB) in particular. The RAB is uplifted annually for inflation and increases with capital expenditure and reduces by regulatory depreciation. Regulatory depreciation is a source of revenue allowances (explained in the description of NERL's business model). During RP2, NERL's capital investment is projected to be less than regulatory depreciation. As a result, the RAB is expected to contract in real terms over RP2, despite the additional investment described above.

In assessing the carrying value of goodwill, consideration is also given to opportunities to outperform regulatory settlements and any premium a purchaser would be willing to pay for a controlling interest, by reference to the projected financial return indicated by the company's business plan and recent UK and European market transactions in utilities and airport operators.

Net finance costs

Net finance costs of £43.2m were £17.0m higher than the prior year (2016: £26.2m) mainly reflecting the change in market value of the index-linked swap contract. This swap was taken out in 2003 as an economic hedge for NERL's revenue allowance for financing charges, which is linked to inflation. It does not qualify for hedge accounting under international accounting standards, and changes in its fair value are recognised in the income statement. The fair value varies with changes in the market's expectations of inflation and swap discount rates over the time to expiry of the contract in 2026, and can be volatile. This year, market conditions resulted in an increase in the swap's market value liability, resulting in a charge of £17.6m (2016: £2.6m credit).

Other net finance costs of £25.6m (2016: £28.8m) were £3.2m lower, reflecting a reduction in net debt.

Financial review

Share of results of joint ventures and associates

The group recognised £2.1m (2016: £1.5m) for its share of the post-tax profits of its two joint ventures: FerroNATS and Aquila, and its associate European Satellite Services Provider SAS (ESSP).

	2017 Total £m	2017 Group's share £m	2016 Total £m	2016 Group's share £m
Turnover				
FerroNATS	**11.2**	**5.6**	9.7	4.9
Aquila	**81.2**	**40.6**	74.4	37.2
ESSP	**52.3**	**8.7**	47.7	8.0
	144.7	**54.9**	131.8	50.1
Profit after tax				
FerroNATS	**1.5**	**0.7**	1.1	0.6
Aquila	**1.8**	**0.9**	0.9	0.5
ESSP	**2.8**	**0.5**	2.7	0.4
	6.1	**2.1**	4.7	1.5
Net assets				
FerroNATS	**5.0**	**2.5**	3.3	1.7
Aquila	**3.2**	**1.6**	1.5	0.7
ESSP	**7.4**	**1.3**	7.4	1.2
	15.6	**5.4**	12.2	3.6

Taxation

The tax charge of £21.7m (2016: £16.8m) was at an effective rate of 17.3% (2016: 37.8%, mainly reflecting the goodwill impairment charge). This is lower than the headline rate of 20%, mainly reflecting the deferred tax impact of the reduction in the corporation tax rate to 17% from April 2020 and the lower tax rate on patent box income. This is partially offset by the goodwill impairment charge, which is not tax deductible.

NATS' taxes generally arise in the UK, though it undertakes business in other countries. Wherever we operate we organise our operations to pay the correct and appropriate amount of tax at the right time, according to relevant national laws, and ensure compliance with the group's tax policies and guidelines. During the year the company paid UK corporation tax of £16.3m (2016: £29.8m) and foreign tax of £0.1m (2016: £0.6m). The group also pays other taxes such as employer's national insurance contributions and business rates, which are significant costs.

The group's tax strategy is reviewed annually by our Tax Committee and covers the application of all direct and indirect taxes to our business including corporation tax, payroll taxes and value added tax. The Tax Committee reports to the Audit Committee and comprises the Finance Director, the Head of Tax and other senior finance professionals and takes advice from a professional firm.

We have a positive working relationship with HM Revenue & Customs and we are committed to transparency in all tax matters. This includes annual meetings with HMRC to review the group's performance and its business strategy.

Dividends

The Board considered dividends at its May and November 2016 meetings. In May it approved a dividend of £24.0m while in November it agreed no further dividend would be paid for the year. This reflected challenging financial market conditions and the resulting impact on UK defined benefit pension scheme liabilities. Payments in the prior year of £81.7m included some element for accumulated retained earnings not distributed in earlier regulatory reference periods.

In May 2017 the company paid a first interim dividend for the 2017/18 financial year of £28.5m.

Balance sheet

	2017 £m	2016 £m
Goodwill	**198.3**	209.3
Tangible and intangible fixed assets	**1,001.6**	994.5
Other non-current assets	**39.3**	29.0
Cash and short term deposits	**293.6**	257.1
Derivatives (net)	**(135.8)**	(128.3)
Borrowings	**(426.3)**	(560.4)
Pension scheme deficit	**(350.8)**	(77.4)
Deferred tax liability	**(19.6)**	(70.5)
Other net liabilities	**(142.8)**	(39.5)
Net assets	**457.5**	613.8

The change in financial position since the start of the year mainly reflects an increase in the defined benefit pension scheme IAS19 funding deficit which offset retained earnings and the reduction in net debt, which is explained in this review.

Financial review

Capital investment

	2017 £m	2016 £m
SESAR Deployment	**107.2**	81.1
Airspace	**5.9**	8.6
Infrastructure	**14.3**	17.6
Operational systems	**12.5**	20.4
Other	**7.5**	7.2
Regulatory capex	**147.4**	134.9
Military systems	**1.1**	4.2
Other non-regulatory capex	**7.9**	8.5
Capital investment	**156.4**	147.6

Our revised capital investment plan for RP2 assumes that we invest up to £780m (in outturn prices), compared with £620m (in outturn prices) assumed in the RP2 Performance Plan. This plan is explained within the review of the Safety, regulatory and economic environment.

This year we spent £156.4m (2016: £147.6m), including £107.2m for SESAR Deployment projects.

Defined benefit pensions

The group operates a final salary defined benefit pension scheme in which 2,768 staff participated at 31 March 2017 (2016: 3,324). The scheme was closed to new entrants from 1 April 2009 and staff who are not members of this scheme are able to benefit from a defined contribution scheme. More information on our pension arrangements and their governance is provided in note 30 to the consolidated financial statements.

a. Accounting deficit under IAS19

At 31 March 2017, measured under international accounting standards (IAS19) and the associated best estimate assumptions, the defined benefit scheme was in deficit: liabilities (£5,786.3m) exceeded assets (£5,435.5m) by £350.8m (2016: £77.4m).

IAS19 pension deficit	**£m**
At 1 April 2016	(77.4)
Charge to income statement	(98.0)
Actuarial gains/(losses):	
- on scheme assets	1,101.4
- on scheme liabilities	(1,392.6)
Employer contributions*	115.8
At 31 March 2017	**(350.8)**
Represented by:	
Scheme assets	5,435.5
Scheme liabilities	(5,786.3)
Deficit	**(350.8)**

*including salary sacrifice

Given the size of the scheme relative to the group, changes in financial market conditions can have relatively large impacts on the results and financial position. IAS19 requires discount rates for valuing pension obligations to be based on AA corporate bonds. During 2017, while the scheme's assets increased by £752.9m, its liabilities increased by £1,026.3m reflecting a 130 basis point reduction in the real discount rate.

b. Trustee valuation and funding obligations

The funding of the defined benefit scheme is subject to agreement between the company and the scheme's Trustees and is determined based on the conclusion of each triennial valuation conducted by the Trustees. This valuation uses a wide range of assumptions for measuring pension liabilities and legislation requires a margin for prudence. As a result the triennial valuation gives rise to a different valuation than that disclosed under international accounting standards.

Last year the Trustees completed a triennial valuation as at 31 December 2015 (the 2015 valuation). This reported a funding deficit of £458.7m, an increase of £76.1m from their 2012 valuation. This mainly reflected a deterioration in financial market conditions, principally from lower gilt yields, which was only partially offset by investment returns. In addition, the scheme's actuary determined the cost to NATS of staff benefits accruing in future at 31.8% of pensionable earnings, up from 29.4% in 2012.

Financial review

Following the 2015 valuation, Trustees agreed to continue with the recovery plan for the 2012 deficit and to a new 11-year recovery plan for the increase in deficit at 31 December 2015. As a result, deficit contributions of £39.9m will be paid for the 2017 calendar year in addition to normal contributions at 31.8% of pensionable pay.

The group paid contributions of £102.1m (2016: £104.8m), excluding salary sacrifice, equivalent to 43.6% (2016: 40.6%) of pensionable pay of £234m (2016: £258m).

NERL's share of these contributions is higher than the regulator assumed for RP2 and we expect to recover these through higher prices in subsequent reference periods. NATS Services will meet its share of these obligations from cash reserves.

The Trustees intend to bring forward their next valuation to 31 December 2017 to better inform NERL's Initial Performance Plan for RP3.

Net debt

	Cash and short-term investments £m	**Borrowings £m**	**Net debt £m**
Balance at 31 March 2016	257.1	(560.4)	(303.3)
Cash flow	25.7	135.2	160.9
Short-term deposits	10.5	-	10.5
Non-cash movements	0.3	(1.1)	(0.8)
Balance at 31 March 2017	**293.6**	**(426.3)**	**(132.7)**

At 31 March 2017, borrowings were £426.3m (2016: £560.4m) and cash and investments were £293.6m (2016: £257.1m). Net debt decreased by £170.6m to £132.7m (2016: £303.3m).

NERL has bank facilities of £400m, with a maturity date of 31 July 2021 and an option to extend these to 31 July 2022. At 31 March 2017, NERL had no outstanding bank loans (2016: £95.0m). At 31 March 2017, the balance outstanding on NERL's bond was £428.4m (2016: £467.4m). More information is provided in note 17 to the consolidated financial statements.

Cash flow

	2017 £m	2016 £m
Net cash from operating activities	**387.7**	341.7
Net cash used in investing activities	**(168.6)**	(148.8)
Net cash used in financing activities	**(193.4)**	(202.1)
Increase/(decrease) in cash and cash equivalents*	**26.0**	(9.1)
Cash and cash equivalents at end of year	**254.2**	228.2

*including exchange of £0.3m (2016: £0.1m)

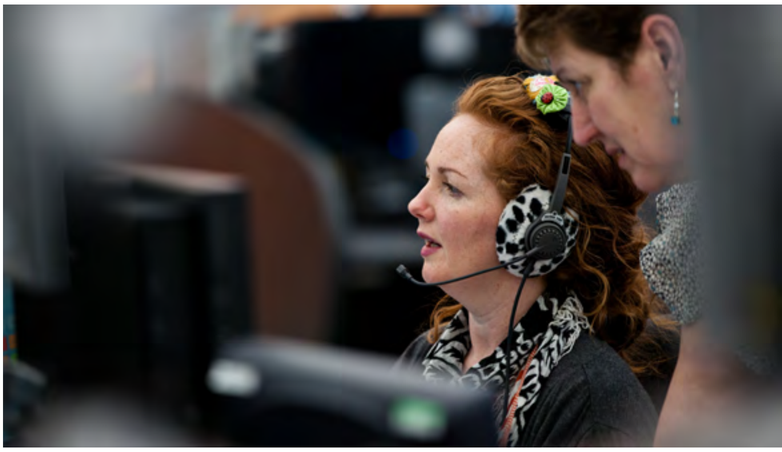
Cash and cash equivalents increased by £26.0m to £254.2m (2016: £228.2m). The group generated £387.7m (2016: £341.7m) from its operating activities. This mainly reflected higher cash receipts and lower redundancy and tax payments. The cash from operations financed the group's capital investment and debt service obligations.

Outlook for 2018

We expect our revenue next year to be broadly in line with 2017 as further price reductions for Airspace customers are offset by additional revenue from the growth in flights and from Defence services provided under our contract with Aquila. However, overall, we expect a reduction in profit before tax as we incur additional costs to support the growth in traffic and as we start to bear the operating costs to support new systems, including operational staff training.

Nigel Fotherby
Finance Director

Going concern and Viability statements



Going concern

The group's business activities, together with the factors likely to affect its performance and financial position, its cash flows, liquidity position and borrowings are set out in this Strategic report. In addition, note 19 to the financial statements describes the group's objectives, policies and processes for managing its capital and its financial risks; and details its financial instruments and hedging activities.

At 31 March 2017, the group had cash of £293.6m and access to undrawn committed bank facilities of £400m that are available until July 2021 (with an option to extend to July 2022). The group's forecasts and projections, which reflect its expectations for RP2 and taking account of reasonably possible changes in trading performance, show that the group should be able to operate within the level of its existing facilities for the foreseeable future. The UK en route business also benefits from some protections against traffic volume risk afforded by its price control conditions. Other sources of income are generated mainly from long term contracts, some of which were renewed in the year. As a result, the directors believe that the group is well placed to manage its business risks.

The directors have formed a judgement that, taking into account the financial resources available, the group has adequate resources to continue to operate for a period of at least twelve months from the date of approval of the financial statements, and have therefore adopted the going concern basis in the preparation of the financial statements.

Viability statement

The directors have assessed the viability of the group based on its current position and future prospects, its business strategy and available financial resources. The directors have also assessed the potential financial and operational impacts in plausible downside scenarios of the principal risks and uncertainties facing the business set out on pages 28 and 29. and the effectiveness of currently available mitigating actions. On this basis, the directors have a reasonable expectation that the group will be able to continue in operation and meet its liabilities falling due over the three year period to 31 March 2020.

This period of assessment is based on three years of the group's business plan and represents a period for which there is greater certainty over forecasting assumptions. The business plan is updated annually and reflects the group's strategy and its financial plans. This period of assessment covers the RP2 Performance Plan (calendar years 2015 to 2019) and assumes that a similar model of economic regulation will operate for RP3 (calendar years 2020 to 2024).

Specific consideration has been given to:

> Brexit: the directors considered the risk of lower revenue in RP2 from a reduction in en route air traffic volumes to be mitigated by the traffic volume risk sharing provisions of NERL's licence and EC Regulations. New traffic forecasts will be agreed with the economic regulator for RP3;

> Recovery of capital investment: after extensive consultation with customers and the economic regulator in 2017, the directors considered that the increase in capital expenditure over the RP2 Performance Plan would be recovered by NERL's revenue allowances in RP3 and subsequently;

> Airports revenue: the directors considered the competitive environment for airport ATC services and the terms of the group's contracts, including their length and renewal prospects; and

> Defined benefit pensions: the directors considered the group's ability to fund the contributions agreed with Trustees following their 2015 valuation and its resilience to a credible increase in contributions in 2019 following the Trustees' 2017 valuation (see pages 28 and 29). For NERL, the directors considered such an increase would be recoverable through prices in RP3 and subsequently, and for NATS Services, from the company's cash and operating cash flows.

Key performance indicators

We adopt a number of financial and non-financial key performance indicators (KPIs) that enable us to track progress against our business plan objectives and which are relevant to the different activities of our principal operating subsidiaries: NERL and NATS Services. For NERL, KPIs are largely aligned with the Single European Sky (SES) key performance areas ensuring management focus on meeting safety, service quality, environmental and cost efficiency targets. For NATS Services, the focus of management is on safety, customer service and on growing the business profitably. A number of the metrics are also used to set targets for remuneration purposes and so align incentives with business objectives.

NATS' actual performance relating to financial and non-financial KPIs

	Financial year 2017 or calendar year 2016	Financial year 2016 or calendar year 2015
Financial KPIs		
Profit before tax: NATS Group	**£125.5m**	£44.4m
NERL	**£104.8m**	£22.4m
NATS Services	**£17.3m**	£22.3m
Non-financial KPIs		
Safety performance:		
NATS Group: category A or B Airprox[3] attributable to NATS (financial year)	**nil**	nil
Calendar year metrics:		
NATS Group KPI: RAT[6] points (12 month rolling)	**1,280**	1,497
NERL KPI: RAT points (per 100,000 flights, 12 month average)	**41.5**	38.3
NATS Services KPI: RAT points (per 100,000 flights, 12 month average)	**17.8**	34.5
Service performance and resilience:		
NATS Group: customer satisfaction score (%)	**81%**	85%
NERL KPIs:		
Average delay (seconds per flight, financial year)	**10.9**	4.3
Average delay (seconds per flight, calendar year)	**12.8**	2.4
Impact score[7] (weighted seconds per flight, calendar year)	**25.0**	5.2
Variability score[8] (weighted seconds per flight, calendar year)	**176.7**	14.2
3Di[9] score (calendar year)	**30.3**	30.1
Environmental performance (financial year):		
NATS Group KPI: enabled fuel CO_2 reduction (cumulative % vs 2006 baseline)	**5.0%**	4.7%

Safety, regulatory and economic environment

Safety

Safety performance

Our main priority is the safety of aircraft and the travelling public. Our commitment to improving operational safety performance is embedded in our RP2 plan.

We have continued to meet the three safety performance targets set by the UK and European regulators in the SES performance scheme for the end of RP2, which were based on: the effectiveness of safety management; the use of the Risk Analysis Tool (RAT) to assess the severity of safety events; and the extent of Just Culture training[10].

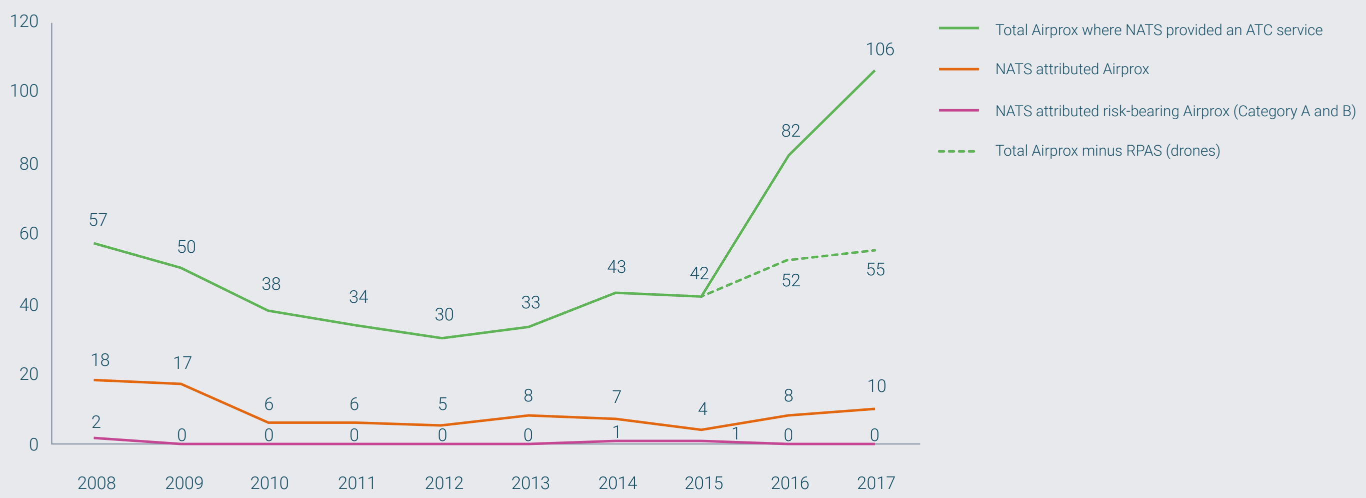
In a year of unexpectedly high traffic growth, particularly at some airports, and as we invested in changes to our operation, we safely handled 7.6% more flights. However, we did not meet the self-imposed, internal safety target we set for RP2 calculated using the RAT. This set a RAT score which represents a reduction in safety risk (defined as the accident risk per flight) of 13% by the end of RP2 for both our airport and en route ATC service. Our performance for the 2016 calendar year achieved a RAT score[6] of 1,280 against a target of below 1,100. This was due to an increase in the number of low severity events within the RAT scoring scheme.

To address this, we are focusing on tactical activities that will target known risks, while also exploring 'predict and prevent' analysis techniques to help us to direct our efforts. These actions will ensure we maintain a safe operation as we Deploy SESAR.

For the 2017 financial year, there were no category A or B Airprox[3] events attributable to NATS (2016: nil). The overall number of Airprox events in NATS airspace was 106 (2016: 82), with 10 attributable to NATS. The increase in Airprox overall was driven by events involving Remotely Piloted Aircraft Systems (RPAS or drones), none of which are attributable to NATS (see graph).

This pattern is consistent with the rise in drone activity in the UK. This will continue to evolve and grow and we are ensuring that we develop effective relationships and procedures to continue to operate safely in an increasingly complex air traffic network. In the third quarter of the year we began a series of improvement activities focused on drones. We have partnered with the CAA on their integrated drone programme, which is largely targeting the hobby community. We developed a DroneSafe website, point of sale publicity for retailers and used social media to engage and educate users. Also, we created Drone Assist, a drone safety app which provides users with an interactive map of the airspace used by commercial air traffic to be avoided and other danger areas and hazards. We are also reviewing the process for approving non-standard flight applications in controlled airspace by drone operators, collaborating internationally on emerging regulation and conducting analysis to understand the changing nature of drone operations across the UK.

Airprox: financial years ended 31 March



Safety, regulatory and economic environment

Managing safety and change

Our approach to safety is underpinned by a commitment to continually improve our operational safety performance and minimise our contribution to the risk of an aircraft accident. We do this through a formalised, explicit and proactive approach to safety management.

We prepare Safety Cases that analyse and assess the impact of changes in people, technology, operational software and airspace structures to provide assurance that such changes are safe to implement. For the same reason, we conduct hazard analysis on any changes to ATC procedures. We also seek to optimise operational staff performance through annual training, competency assessments and the development of new systems. This is particularly relevant as we introduce new technology and methods of operation as we Deploy SESAR and as airspace is modernised.

This last year we safely introduced iTEC into the Prestwick operation which provides additional monitoring capabilities for controllers. 'Point merge' was introduced into Terminal Control to sequence arrival flows in Thames airspace. Both of these enhance safety performance.

Safety improvements

The most significant operational risks we deal with are infringements of controlled airspace, human performance, level busts[11] and issues on the ground at airports, including runway-related events.

We continue to focus on infringements of controlled airspace by engaging with airfields and flying clubs, as well as the CAA and airport operators. We have seen an 11% reduction in infringements to 560 in calendar year 2016 (CY 2015: 630), and a 35% reduction in risk bearing events.

During the year, we participated in the CAA's Solent collaborative airspace trial to help reduce the risks of infringements in the Southampton and Solent areas. This increased the use by the general aviation community of specific transponder codes, enabling an air traffic controller to identify an aircraft and to provide navigational assistance.

In addition, we have continued working with the CAA on the development of a Low Power ADS-B Transceiver (LPAT) to provide the minimum functionality needed to make a general aviation pilot visible to other airspace users, as well as to provide warnings against other suitably equipped aircraft.

Effective human performance is a critical element of ATM safety. A key focus has been improving operational interactions internally and with international and military partners. This was supported by lesson learning and safety awareness activities including: defensive controlling simulations, use of 'avoiding action' briefings, safety briefings in preparation for summer traffic, and the sharing of knowledge on fatigue, visual scanning, and safety culture. Engineering safety days were also delivered to NATS engineers and stakeholders which highlighted the important safety role everyone plays in delivering a safe service.

The number of level busts remained flat during the year. We have continued to work with the CAA and airlines to ensure best practice is followed by both pilots and controllers. We are providing data to airlines to improve their visibility of these incidents.

Our UK Airport service participates in the CAA's ground handling operations safety activity. NATS is working alongside ground handlers to improve safety awareness and performance and to encourage effective regulation of ground handlers by the CAA. Also, to improve runway safety, NATS is contributing to the development of a European action plan for the prevention of runway incursions by sharing our experience of high intensity runways in the UK.

Safety, regulatory and economic environment

Regulatory environment

Single European Sky (SES)

SES is a European initiative to improve the way Europe's airspace is managed. Its purpose is to modernise Europe's airspace structures, air traffic management technologies and associated operational procedures so as to ensure forecast growth in air traffic can be met, safely and sustainably, whilst reducing costs and improving environmental performance.

From 2012 the EC introduced a regulatory framework to support SES which set targets for safety, environment, airspace capacity and cost efficiency for Functional Airspace Blocks (FAB)[12]. NERL's Performance Plan for RP2 contributed to targets set for the UK-Ireland FAB.

The UK market for Terminal Air Navigation Services (TANS) is subject to the market conditions test within EC SES Regulations. If conditions are not met TANS are more heavily monitored and targeted by the EC. In October 2016, the EC agreed with the UK Government's assessment that market conditions for TANS have been established for RP2. This will be subject to re-assessment for RP3.

On the technology side, SES is supported by the Single European Sky ATM Research (SESAR) Programme to develop technologies and procedures to modernise and optimise the future European ATM network. Technologies and procedures have been developed and validated by a collaboration of airport operators, ANSPs and aviation industry suppliers and are now being introduced into operation across Europe. The deployment is being coordinated by an alliance of the largest European ANSPs (including NATS), four airlines and 25 airports. The EC is aiming for the initial SESAR projects (or Pilot Common Projects (PCP)) to be deployed by 2025.

NATS has deployed the tools of Time-Based Separation (TBS) and Extended Arrival Manager for Heathrow operations so far. TBS significantly enhances landing rates on the windiest days. Extended Arrival Manager (XMAN) coordinates with neighbouring ANSPs to slow down Heathrow arrivals when runway capacity delays of seven minutes or more are predicted, delivering fuel, cost and environmental savings to customers. In time, TBS will be delivered at Gatwick Airport and XMAN introduced for Gatwick, Manchester and Stansted.

European funding is available through INEA to support the deployment of SESAR technology. To date, NERL has secured INEA funding of £100m which ultimately reduces the cost to customers.

UK regulation

The principal UK regulatory development in the year relates to airspace strategy. In light of the challenges facing the industry to modernise UK airspace, the CAA has enhanced its regulatory oversight and the requirements relating to NERL's annual service and investment plan consultation with customers, including an independent review of progress against plans.

Also, the basis for a specific licence requirement for NERL to set out detailed plans to raise the UK Transition Altitude[13] to 18,000 feet by 2018 and implement the terminal airspace redesign associated with LAMP[14] has been removed as these changes are not in NERL's direct control and are dependent on public consultation and other stakeholders. As explained below, certain aspects of LAMP will now be delivered in RP3.

Safety, regulatory and economic environment

NERL's investment programme for RP2

The objective of NERL's capital investment programme is to sustain, develop and enhance operational capabilities to ensure the ability to provide on-going service performance, resilience to unplanned events (including system failure) and to improve performance and value to customers in line with agreed performance targets.

The investment programme comprises two main areas: airspace and technology. This year NERL consulted its customers on a revised capital investment plan for RP2. This follows changes in the business environment and technological landscape since NERL's RP2 Performance Plan was produced, such as: higher than expected traffic growth, reduced fuel prices, the EU requirement to implement PCPs and the development of SESAR capable systems such as iTEC. Increased traffic volume means that continuing to exploit our legacy systems is no longer cost-effective or efficient and accelerating investment in new future technologies that enhance capacity and efficiency is necessary. Additionally, adverse public reaction to initial airspace changes coupled with uncertainty about new runway developments, led stakeholders to be wary about supporting changes to lower airspace assumed in NERL's RP2 Performance Plan.

NERL's technology programme updates its core ATC infrastructure, replacing legacy systems that are reaching end of life and deploying a modern and 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 PCP and related EU regulations. This programme will continue to sustain legacy systems to ensure they remain resilient and fit for purpose throughout the transition from old systems and operations to new ones.

The airspace programme delivers a number of independent airspace changes mainly at medium to higher level airspace, with the aim of enhancing safety performance, capacity and fuel efficiency. This approach will help to ensure that each change can be successfully delivered without impacting other airspace changes. The programme will also deliver enhancements in London airspace to improve performance, recognising the need to deliver some aspects of the LAMP in RP3, which the aviation industry agreed. The revised airspace plan for RP2 includes enhancements to TBS, XMAN and the introduction of Independent Parallel Approach (IPA) for Heathrow. It will also modernise Prestwick lower airspace including Manchester and Scottish TMA as part of a joint programme with airports.

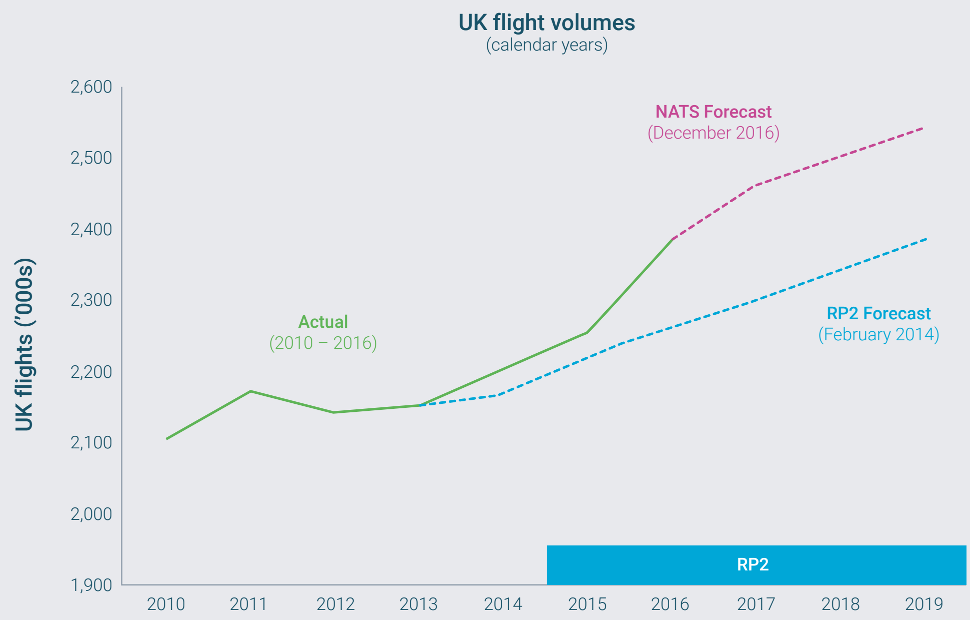
The revised airspace and technology plans for RP2:

> Ensure that beneficial airspace changes can be delivered in RP2 and the capability is in place to deliver subsequent changes in RP3;
> 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 increasingly difficult to maintain, to avoid 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 RP2 and RP3; and
> Secure the maximum European INEA funding to support deployment projects and benefit customers through reduced future prices.

In summary, the focus of NERL's RP2 Performance Plan is delivering airspace change that can largely be delivered using existing systems and transforming NERL's systems and capabilities supporting upper airspace. The focus of RP3 will be transforming NERL's systems supporting lower airspace and delivering airspace change dependent on these new systems including Free Route Airspace and modernised airspace in the London TMA[15].

Safety, regulatory and economic environment

Outlook for air traffic volumes



Historically, the growth in demand for air travel has been closely linked to the strength of the global economy and, for UK air traffic, to that of the UK, US and Eurozone economies. The UK economy is forecast to grow by 1.9% in 2017 (source: Oxford Economics), with growth through 2017 expected to slow as higher inflation offsets some of the benefit of improved trade performance. The US economy is expected to grow at 2.1% during 2017. Eurozone economies also continue to build momentum with a weaker euro supporting stronger exports. Continued low oil prices have reduced the cost of air travel and are contributing to passenger demand. The Middle East market continues to grow.

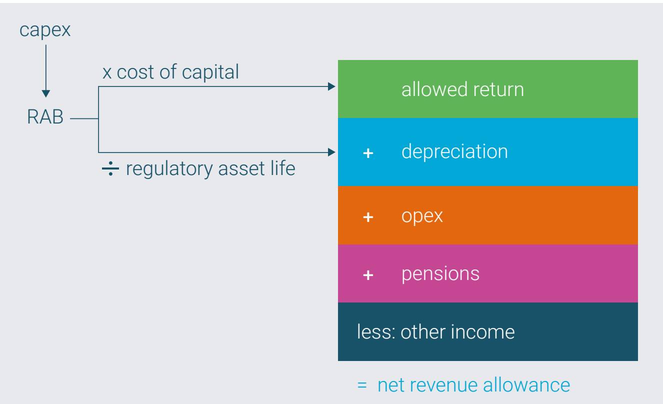
The principal risks to the forecast include: the impact on UK growth from its decision to leave the EU; the possibility of protectionist trade policies by the US, possibly outweighed by a more benign fiscal agenda; a slowdown in growth in China, although IATA's forecasts indicate strong demand for air travel there; and the escalation of conflicts in the Middle East.

Our business model

We generate our income from the provision of ATC and related services. Our activities are mainly conducted through NERL and NATS Services.

NERL is the sole provider of air traffic control services for aircraft flying en route in UK airspace and the eastern part of the North Atlantic. It operates under a licence granted by the Secretary of State under the Transport Act 2000. The Act gives the CAA the role of economic regulator. En route, London Approach and North Sea helicopter advisory services are regulated by this licence. NERL also provides the MOD with engineering, surveillance and communications services. These activities are reported within Airspace.

The CAA establishes revenue allowances for NERL's economically regulated services under SES legislation. These remunerate NERL's efficient investment (capex), operating costs (opex), pensions and an allowed return on the capital invested in the Regulatory Asset Base (RAB) to recover the cost of capital. The RAB, which represents the value ascribed to the capital employed in the regulated businesses, is adjusted to reflect asset additions, disposal proceeds, regulatory depreciation and the rate of inflation. Income generated outside of NERL's economically regulated activities is deducted under a 'single till', leaving a net revenue allowance. A price per service unit is set to recover this based on forecast traffic for the reference period. This regulatory model is illustrated below.



The price control for RP2 was based on total revenues of £2.7bn (expressed by the CAA in 2012 prices) and provides for a real pre-tax cost of capital of 5.9%. The CAA also sets targets, and provides incentives, for service and environmental performance. If regulatory and other assumptions are borne out in practice, then NERL would earn a return of 5.9% p.a. It can earn additional returns if it outperforms the CAA's assumptions by being more cost efficient, by financing its business at lower cost, if traffic volumes (after risk sharing - see below) are higher than forecast or if it outperforms service targets. NERL would earn lower returns if the opposite applied.

The EC legislation provides: a risk-sharing mechanism to protect against certain variations in traffic volumes from the level assumed; an adjustment to charges for differences between actual inflation and assumed inflation; and an adjustment to charges in subsequent reference periods where cash contributions to the defined benefit pension scheme differ from those assumed due to unforeseen financial market conditions.

The CAA also sets a target and cap on the level of NERL's gearing at 60% and 65% of net debt to RAB, respectively. Charges may be adjusted on a year 'n+2 basis' for service performance incentives, traffic volume risk-sharing and for inflation.

NATS Services provides services to UK Airports, to the UK MOD through its Defence services, to other UK customers such as airlines and airspace users and to international customers, mainly in Asia Pacific and the Middle East. Services to UK Airports (including engineering support) represent c.73% of its revenue and Defence c.16%. Services to UK customers represent c. 96% of its revenue.

The UK Airports service provides ATC services to 14 of the UK's major airports as well as engineering support and airport optimisation services to UK airport operators. NATS Services operates in a contestable market and faces competition from other Air Navigation Service Providers (ANSPs). The UK airports market comprises 129 civil licensed aerodromes. NATS provides ATC at 14 of these, 111 self-provide the service and four airports outsource ATC to three other providers. The company's strategy is to win and retain UK airport ATC customer contracts by nurturing the relationship with customers and developing price competitive and innovative technological service solutions that deliver performance for our customers. As noted above, large UK airports fall within the scope of European SES regulations.

Engineering support services for UK airport customers deliver complex turnkey projects, mainly integrating new infrastructure at airports. Our competence is in maintaining and developing communications, navigation and surveillance solutions. Our principal competitors include systems integrators, equipment manufacturers and specialist engineering consultancies.

Defence represents the provision of ATC and related engineering support and other services to the UK MOD. These services are mainly provided through the Project Marshall contract which is being delivered in partnership with Thales by our Aquila joint venture. Under this contract, NATS provides ATC services at Gibraltar, RAF Wattisham, RAF Middle Wallop and RAF Netheravon air bases.

Other UK Business includes aeronautical information management (AIM), design and data services, consultancy and ATC training.

Our International activities focus on the Asia Pacific and Middle East markets and also targets specific international airports and ANSPs. Our FerroNATS joint venture provides a service to nine airports in Spain.

We are uniquely placed to help airline and airport customers to realise value by making both airspace and airfield services more efficient. We understand the complex interactions at each stage of a flight between airlines, airport operators and ANSPs, including in some of the busiest airspace in the world. We understand the benefit we can provide from fuel efficient flight profiles, approaches and departures, minimising delay, and through arrival and departure management. Our en route operation provides a seamless transition between the North Atlantic and UK en route services. We recognise that airport tower services are an intrinsic part of overall performance and our experiences at Heathrow, latterly at Gatwick and other airports demonstrate our ability to optimise runway performance and apron efficiency. This benefits airport operators, their investors, and the airlines.

Principal risks and uncertainties

The operational complexities inherent in the business leave NATS exposed to a number of significant risks and uncertainties. Our risk management process has identified the key risks that the Board believes are likely to have the most significant impact on our business, financial position, results and reputation based on the severity and likelihood of risk exposure. Risks are reviewed and re-assessed regularly and reflect the Board's assessment as at the date of this report. The list is not intended to be exhaustive.

The group has maintained a focus on mitigating these risks, although many remain outside of our control – for example changes in regulation, security threats, environmental factors and the impact of longevity and financial markets on pension funding.

These principal risks have been considered in preparing the Viability statement on page 20. A summary of internal control and risk management processes is on pages 50 and 51.

Safety: the risk of an aircraft accident

A loss of separation attributable to NATS that results in an accident in the air or on the ground would significantly impact NATS and its reputation as a provider of safe air traffic services. This could result in loss of revenue in the short term as investigations take place and the loss of future contracts due to reputational damage. If notice was given by the Secretary of State requiring NERL to take action as a result of the accident and NERL was unable or failed to comply with the notice then ultimately this could result in revocation of NERL's air traffic services licence.

As a provider of a safety critical service, safety is the company's highest priority. To further embed our existing safety culture across the organisation and to mitigate safety risk, NATS has developed a Strategy for the Future Safety of ATM and supports this with a three year rolling Safety Plan. The group also maintains an explicit Safety Management System. The latter includes investigations and reviews of operational safety performance and individual incidents to identify and respond to contributors of safety risk.

Maintaining continuous operations

a. Loss of service from ATC centre

A loss of service would result in a loss of revenue as flow management procedures would be introduced to maintain safe separation. The extent of loss would depend on the time necessary to resume a safe service and the resultant level of air traffic delay. To this end NATS has contingency arrangements which enable the recovery of its service capacity. These arrangements were reviewed in light of the recommendations of the Independent Enquiry into the December 2014 technical failure.

b. Operational systems resilience

Operational service provision is increasingly dependent on the performance and resilience of engineering systems and communications, surveillance and flight data infrastructure. A number of mechanisms exist to identify systems resilience risks. These include regular reviews of system health through a series of structured questions with evidence-based outcomes. In addition, tactical issues are assessed following engineering updates to NATS' Safety Tracking and Reporting System to determine whether immediate escalation is required and to identify any emerging trends requiring investigation.

Political environment and economic regulation

Policy decisions by the regulator, the UK Government and the European Commission directly affect our businesses. Changes in policy decisions may impact on the group's ability to meet the requirements of the UK and EC's aviation policies. We seek to mitigate this risk by providing independent input to policy studies (such as that conducted by the Airports Commission), lobbying for policy guidance and action where we believe this is required (such as UK airspace policy and airspace modernisation) and responding to industry consultation. We outlined earlier in this report, the importance of proceeding with airspace modernisation. If this does not proceed in a timely manner, supported by clear government policy, then UK airspace will reach capacity limits causing increasing delay and constraining aviation growth.

Also, the group's air traffic services operate under a European regulatory regime which requires key performance targets to be met. Failure to meet these safety, service, environment and efficiency targets could damage our reputation and lead to even more challenging regulatory arrangements.

NERL's current environment and capacity targets were based on an RP2 investment plan that included the implementation of lower airspace change in the London area as part of LAMP. Industry consensus was that this is not possible during RP2 due to factors beyond NERL's control. The company is seeking to mitigate regulatory risk by aiming to achieve its RP2 targets through equivalent environmental and fuel saving benefits via a package of other airspace changes that have industry support.

Finally, the UK market for TANS is subject to the market conditions test within EC SES Regulations. If conditions are not met TANS are subject to economic regulation. In October 2016, the Commission agreed with the UK Government's assessment that market conditions for TANS have been established for RP2. This will be re-assessed for RP3.

Defined benefit pension scheme

Adverse movements in pension asset and liability values arising from factors such as lower investment returns, lower real interest rates and improving life expectancy may increase the size of the pension deficit and result in significant contributions to fund pension benefits. Management regularly reviews the financial position of the defined benefit scheme and is consulted by Trustees on the design of the risk reduction strategies that are in place. The scheme was closed to new entrants in 2009, pensionable pay rises are capped and future service benefits are linked to the Consumer Prices Index.

Principal risks and uncertainties

The Trustees completed a formal triennial valuation of the defined benefit scheme as at 31 December 2015. This reported an increase in the funding deficit and has resulted in additional contributions. Subject to regulatory review, NERL is able to recover over subsequent reference periods increases in contributions from changes in unforeseen financial market conditions. NERL's revenue allowances will also be re-assessed for RP3. NATS Services maintains adequate cash reserves to meet its share of pension contributions.

The Trustees will perform their next formal valuation at 31 December 2017, to inform NERL's Performance Plan for RP3. Financial market conditions since the 2015 valuation, characterised by historic low real gilt yields in particular, have continued to be a challenge for most UK defined benefit pension schemes. If today's financial market conditions prevail at 31 December 2017, the group expects Trustees to report a larger deficit that will require the group to increase its contributions to the scheme. The directors are monitoring the funding position of the scheme and consider that further possible actions available to mitigate pension risk, the group's financing arrangements and cash reserves, its projected operating cash flows and the economic regulatory model enable the group to meet credible increases in contributions following the 2017 valuation.

Industry outlook and the impact of the UK's referendum on Europe

Poor market and economic conditions can reduce NERL's revenues to levels below those assumed by the economic regulator in making the RP2 price determinations. This in turn could impair shareholder returns. NATS monitors the key industry indicators on a monthly basis against RP2 forecasts and has taken action in the past to realign its cost base with lower revenues. As explained above, NERL has traffic volume risk-sharing arrangements that mitigate revenue reductions to a large extent.

The impact of the UK's decision to leave the EU has not had a material adverse impact on our revenue to date. In the short term the continuing uncertainty could affect the demand for air travel and the volume of air traffic NATS handles, though any impact would be mitigated by traffic volume risk-sharing arrangements.

Over the longer term, the impact depends to a large extent on the type of relationship that is forged between the UK and the EU. An important consideration for NATS is the extent of participation in the SES and the legislation governing the economic regulation of NERL.

Under the UK Transport Act 2000 the CAA has a duty to ensure that NERL does not find it unduly difficult to finance its activities. Such a duty is not provided for in SES legislation. After leaving the EU, we expect that the UK will no longer be able to participate, with a vote, in the process of drafting and approving SES legislation. Therefore, in our view the logical outcome is for the UK to re-establish national economic regulation of UK ATM outside of the SES.

Security: electronic and other external and internal threats

Malicious attack, sabotage or other intentional acts, including breaches of our cyber security, could damage our assets or otherwise significantly impact on our service performance. NATS seeks to mitigate these risks through its business continuity controls, staff awareness training and cyber and physical security processes and procedures, including monitoring political stability and security risks in countries where it conducts its business.

The company has enhanced the physical security of its principal sites and is continuing to enhance its cyber security processes and controls. The company maintains a close liaison with the relevant Home Office Constabularies as well as Government security agencies and departments including security advice from the Centre for the Protection of National Infrastructure (CPNI).

Employee relations

The deployment of SESAR technology and the group's response to the challenging competitive environment in the UK and overseas will require changes across our organisation. Industrial action could result in reduced air traffic service provision which adversely impacts on service performance. Every effort is made to maintain good employee relations at all times, including through our Working Together programme and through joint working groups as part of an employee relations improvement project, to ensure the delivery of an efficient operational service and associated support.

Technology

The deployment of new SESAR technology and retirement of legacy systems could affect the group's ability to maintain service levels during transition and require additional costs to sustain legacy systems and support deployment. NATS maintains programme and project governance and risk management processes which are overseen by the Executive and Board, including the Technical Review Committee.

Financial risks

In addition to the top risks set out above, the main financial risks of the group relate to the availability of funds to meet business needs (including meeting obligations to the pension scheme), the risk of default by counterparties to financial transactions, and fluctuations in interest and foreign exchange rates. A detailed description of each of these risks and specific mitigations are set out in note 19.

Service line performance

We organise our activities according to service lines, which reflect the customer groups to whom we provide our products and services. A brief description is provided under the section entitled Our business model. This service line structure was introduced in this financial year, to align financial reporting with the group's operational focus on its customers. Prior year service line information has been restated on a like for like basis.

This section explains the financial and operational performance of each service. The principal financial measures are revenue and contribution. The former includes intra-group revenue, while the latter reflects the operating costs which managers are able to influence directly. A reconciliation of service line contribution to operating profit is provided in the notes to the financial statements.

Airspace

	2017	2016
Financial performance:		
Revenue (£m)	**733.5**	715.1
Service line contribution (£m)	**359.0**	323.1
Capital expenditure (£m)	**151.4**	141.1
Operational performance:		
Flights handled ('000s)	**2,450**	2,278
Risk-bearing airprox (no.)	**nil**	nil
Average delay per flight (seconds)	**10.9**	4.3
Environmental efficiency (3Di score)*	**30.3**	30.1

* for the calendar year to 31 December

Overall, the volume of UK flights handled by NATS increased by 7.6% this year, reflecting strong growth in transatlantic arrivals and departures and overflights. The growth in chargeable service units (CSUs[16]) reflected more northerly routes taken by transatlantic flights due to the jet stream, resulting in longer distances flown in UK airspace. By contrast, the RP2 settlement assumed flight volumes and CSUs would grow by 1.9% and 1.8% per annum on average.

	2017 '000s	2016 '000s	Year on year change %
Chargeable Service Units	**10,935**	10,102	8.2%
Total UK traffic (flights):			
Domestic	**394**	377	4.5%
North Atlantic	**361**	333	8.4%
Other	**1,695**	1,568	8.1%
Total	**2,450**	2,278	7.6%
Oceanic traffic (flights):			
Chargeable flights	**479**	447	7.2%

Airspace generated revenue of £733.5m, a 2.6% increase on the previous year. Customers continued to benefit from the real price reductions required by the RP2 Performance Plan. This was more than offset by additional revenue earned from the increase in UK en route flights. This flight growth also mitigated a small service penalty of £0.4m (2016: £4.6m bonus), explained below. Other Airspace revenue improved by £3.7m.

Service line contribution of £359.0m (2016: £323.1m) was 11.1% higher. In addition to revenue, this largely reflected lower accounting pension costs compared with such costs in the previous year, which offset other staff and non-staff cost increases.

As explained in the Chief Executive's review, during the busiest periods last summer, we regulated traffic flows in some sectors resulting in delay. For the financial year, delay attributable to Airspace increased to 10.9 seconds per flight (2016: 4.3 seconds), with 99.0% of flights not delayed (2016: 99.6%). Service performance incentives are assessed by the economic regulator on a calendar year basis. This delay performance for 2016 was just outside of the regulator's target, resulting in a small penalty.

Service performance: calendar years	**2016**		2015	
	Target	**Actual**	Target	**Actual**
C1: avg. En route delay at FAB level (seconds)	15.6	**17.8**	15.0	**4.8**
C2: avg. delay per flight (seconds)	10.8	**12.8**	10.2	**2.4**
C3: delay impact (score)	24.8	**25.0**	22.3	**5.2**
C4: delay variability (score)	2,000.0	**176.7**	2,000.0	**14.2**
C3Di: 3Di metric (score)	29.3	**30.3**	29.7	**30.1**

The C1 metric is a Functional Airspace Block (FAB) level target introduced for RP2.

Service line performance

In addition to measures of delay, we are targeted on flight efficiency (the environmental performance of our network), and for 2016 our performance at 30.3 was within the economic regulator's service performance range.

This year we enabled fuel savings of 17,600 tonnes (2016: 11,000 tonnes) worth c.£6.2m to our customers (based on an average fuel price of £353 per tonne over the year), generating associated environmental benefit.

NATS Airspace invested £151.4m (2016: £141.1m) on its air traffic control infrastructure in the year. Of most significance was progress with SESAR projects, including the deployment of iTEC and the limited in-service use of electronic flights strips in TC.

Airports

	2017	2016
Financial performance:		
Revenue (£m)	**167.9**	180.2
Service line contribution (£m)	**32.0**	39.7
Capital expenditure (£m)	**4.0**	1.2
Operational performance:		
Airports served: UK (no.)	**14**	14
Risk-bearing airprox (no.)	**nil**	nil
Significant milestones:		
Enhanced Instrument Landing System at Heathrow		April/March
Instrumented Runway Visual Range at Cardiff		May
Emergency Voice Switch at Aberdeen, Luton and Southampton		June
Navigational Aids at Belfast International		July
Semi Automatic Meteorological Observation Systems at Manchester and London City		August/ February

During the year we provided ATC services to 14 UK airports and ATC related engineering services to a further 19 UK airports.

We continued to provide a safe service with no risk-bearing airprox during the year.

Revenue was 6.8% lower at £167.9m (2016: £180.2m), mainly reflecting price reductions and the loss of the Gatwick contract. As a result of this, service line contribution was also lower at £32.0m (2016: £39.7m).

One of our strategic objectives is to win and retain UK airport contracts. During the year we were awarded the ATC and engineering contracts by George Best Belfast City Airport. We also renewed our contracts with Aberdeen, Glasgow and Southampton, agreed extensions with Luton and London City and renewed our engineering contract at Highlands and Islands Airports. The Edinburgh contract will transfer to another provider in March 2018.

We completed a number of major engineering projects in the year including instrument landing systems for Heathrow and Belfast International. We are also upgrading voice communications for Bristol and Luton airports.

Service line performance

Defence

	2017	2016
Financial performance:		
Revenue (£m)	**36.4**	20.6
Service line contribution (£m)	**5.9**	2.7
Capital expenditure (£m)	**0.1**	0.3
Operational performance:		
Airfields served (no.)	**4**	2
Significant milestones:		
Operational handover completed at RAF Middle Wallop and RAF Netheravon		
Park Air Radios commissioned at RNAS Culdrose, Yeovilton, Portland, Predannack and Plymouth Mill		
Jotron Radios commissioned at 12 RAF bases		
New voice switches installed at RAF Shawbury, Tern Hill & Valley and Conningsby		

Revenue grew by £15.8m to £36.4m (2016: £20.6m) in the year. This was mainly due to engineering support services provided to our Aquila joint venture for its Project Marshall contract with the UK's MOD. Service line contribution at £5.9m (2016: £2.7m) was £3.2m higher as a result.

Project Marshall is a 22-year concession for the provision of ATC services and the upgrade of MOD ATC infrastructure. The service provision element of this contract is provided by NATS Services and is performing extremely well. We now provide ATC services to RAF Wattisham and Gibraltar Airport and, after transferring to NATS Services in the year, to RAF Netheravon and RAF Middle Wallop. However, the asset provision element has faced schedule challenges. Together with our joint venture partner, Thales, we are committing more resources in 2017/18 to re-plan and execute the delivery schedule for asset provision.

Other service lines

	2017	2016
Financial performance:		
Revenue (£m)	**24.4**	26.8
Other UK Business	***14.8***	*18.8*
International	***9.6***	*8.0*
Service line contribution (£m)	**3.5**	1.2
Other UK Business	***3.7***	*2.7*
International	***(0.2)***	*(1.5)*
Capital expenditure (£m)	**0.9**	5.0
Operational performance:		
Airports served: overseas (no.)*	**9**	9
Secured order value:		
UK contracts (£m)	**34.9**	58.1
Overseas contracts (£m)	**11.4**	8.1

* Service provided by our FerroNATS joint venture

UK business revenue was £4.0m lower this year at £14.8m (2016: £18.8m) mainly reflecting fewer windfarm mitigation contracts. We continue to support Tormywheel Wind Farm that will see a new radar system at Edinburgh Airport and surveillance solutions for Frodsham Wind Farm at both Chester and Liverpool airports. These and other contracts generated a service line contribution of £3.7m (2016: £2.7m).

Presently, we are implementing a new aeronautical data platform to give airlines access to enhanced data and analytic tools to optimise their operating performance.

International revenues grew by £1.6m to £9.6m (2016: £8.0m). The Asia Pacific region performed more strongly while there were limited opportunities in the Middle East. Of note this year was the award of an airspace design contract in Thailand. At a contribution level our international activities reported a loss of £0.2m (2016: £1.5m loss). This includes a share of the FerroNATS profit which was offset by losses from the Asia Pacific and Middle East where we continue to build our presence. FerroNATS secured ATC contracts at Andorra - La Seu d'Urgell, Lleida and Córdoba airports, which are yet to transfer from the incumbent service provider.

People and Responsible business

People

As explained in the Chief Executive's review a focus on our people is a priority. Our People and Organisation Strategy will ensure that the company has the skills and workforce required to deliver the operational service today and the talent and capability mix to deliver an organisation that is fit for the future. Our new talent strategy is particularly important as the world of work is changing. As new technology and methods of operation are implemented we will need to develop and train our existing employees and ensure that we attract, and retain, the skills we need for this new environment.

After prolonged discussions, last summer the company agreed a two-year pay deal with staff. This recognised their important contribution to the company's performance and the the need to respond to the regulator's cost efficiency targets and the pressures from rising pension costs, all of which are critical to ensuring that our customers receive the right service at the right price. This agreement now enables us to move forward and engage with our people on future developments in the business, including our programme to deploy SESAR technology and the changing needs of our airport customers.

In support of this we have committed to creating an enhanced partnership relationship with our employees and Trades Unions to ensure NATS has a workforce that is prepared and equipped for future challenges. We have established an employee relations improvement project to identify ways to work more effectively with the Trades Unions, enhancing our ability to jointly solve problems and deliver essential change. We have also created a series of one-day workshops for managers to better equip them to communicate with their teams and to improve their understanding of how the business works and the challenges we face.

Our overall focus is to make NATS a great place to work, where people are motivated to deliver high levels of performance and are genuinely engaged in the business. This year we have built on a culture survey to leverage the beneficial aspects of NATS culture and enhance aspects of our people practice; whether it is inducting new colleagues to the organisation more effectively; identifying how we can promote greater health and wellbeing in work; or looking at how we can improve the people aspects of new technology delivery.

We have also continued to support educational institutions. Our Prestwick Centre is collaborating with the University of the West of Scotland across a range of projects embracing joint research and knowledge transfer activity, as well as collaborative education, placements and training programmes. A placement programme will provide opportunities to work on research and development projects that will make a real contribution to air navigation operations of the future. In return, NATS will gain access to academic expertise and research capability.

People and Responsible business

Responsible business

Our Responsible business report is available on our website.

Our Chief Executive is responsible for the company's environment policy, which is underpinned by an Environmental Management System that is subject to internal and external audit as part of ISO certification. Key energy and environmental data has also been independently assured as per the table below. Our environmental policy describes our commitment to limit and, where possible, reduce the impact of ATM on the environment.

Aircraft noise

NATS currently holds the Chair of the Sustainable Aviation coalition in the UK and is using its influence across industry to focus on improvements to continuous climb and descent operations at airports, which reduces noise and aircraft CO_2 emissions.

On behalf of the UK Government, NATS is leading a study for ICAO's Committee on Aviation Environmental Protection, which is gathering information on the contribution that performance based navigation makes in reducing noise, and aiming to explain best practice in a report to be published in 2019.

ATM related CO_2 emissions

In 2008, NATS committed to reducing average fuel per flight from gate to gate by 10% by 2020 (from a 2006 baseline). Airline customers value this support to fuel efficient flight planning.

NATS has also been working with customers to minimise aircraft taxiing at airports to reduce CO_2 emissions and improve local air quality and reduce noise.

In the 2017 financial year NATS enabled further savings of 55.9kT ATM related CO_2 emissions and has achieved 5.0% towards its 10% target for 2020. These savings derive both from large projects and minor changes to airspace made in consultation with customers. This will continue in 2018 as part of NATS' Flight Efficiency Partnership.

Energy and environmental performance (financial year unless stated otherwise)	**2017**	2016
Modelled enabled ATM related CO_2 emission reduction (tonnes CO_2)	**55,904^**	157,156
Progress against 10% enabled ATM related CO_2 emissions reduction target	**5.0%**	4.7%*
3Di score (calendar year)	**30.3**	30.1
Scope 1 emissions (tonnes CO_2e)	**3,502^**	3,183+
Scope 2 emissions (tonnes CO_2e)	**24,996^**	27,934+
Scope 1 + 2 intensity metric (tonnes CO_2e per £m of revenue)	**31.0^**	34.6+
Energy consumption (MWh)	**60,586**	60,438
Water consumption (m^3)	**48,630^**	49,645+

The data has been collected using the operational control approach and covers the UK sites of NATS Holdings Limited and its Aquila joint venture, which is based at NATS' head office. ATM CO_2 data for 2016 marked * has been restated to reflect improvements in the accuracy of modelling and in the quality and availability of industry data, updates to traffic forecasts, and changes to NATS' airport portfolio. For 2016 data marked +, actuals have replaced some data estimates for the end of the reporting period and the figures have been restated where applicable. Certain environmental performance metrics in the table above as at 31 March 2017 have been subject to external assurance by PricewaterhouseCoopers LLP (PwC). PwC have carried out a limited assurance engagement on selected 2017 metrics marked ^. A copy of the assurance opinion is available at www.nats.aero/environment/cr as well as the reporting criteria for the selected energy and environmental performance metrics above.

People and Responsible business

Responsible business

Airspace efficiency

In 2012 we adopted the 3Di metric to monitor airspace efficiency, which is now used by the CAA to set airspace efficiency targets. Airline customers value 3Di improvements as they support tactical fuel savings and are a proxy for good service delivery. For calendar year 2016 we achieved a 3Di score of 30.3, which was within the economic regulator's service performance range. The regulator's targets require a reduction in the score to 27.7 by the end of RP2.

When these targets were set, it was assumed that airspace structures would be modernised in RP2. This process started in the previous financial year but further stages have been paused pending consultation. For now we continue to focus on smaller airspace changes to improve the fuel efficiency of our service, aiming to achieve a similar cumulative benefit to the RP2 Performance Plan.

Minimising the environmental impact of our estate

During the financial year our Environmental Management Systems was certified to ISO14001:2015 standard for our head office in Hampshire and at Glasgow and Manchester airport control towers. Further sites will be certified over the next financial year.

We are actively taking steps to reduce our energy consumption and since the 2006 baseline year, our energy use has reduced by 38%, which is the equivalent to 20,851 tonnes of CO_2.

We participate in the Government's Carbon Reduction Commitment energy efficiency scheme and the Energy Savings Opportunity Scheme. Our Swanwick control centre is also part of the EU Energy Trading System and subject to separate verification.

We have a close working relationship with the Hampshire & Isle of Wight Wildlife Trust and jointly manage a 36 hectare nature reserve adjacent to our Swanwick control centre.

Supply chain

Our supply chain strategy aims to continue to build collaborations with our supplier base to enable the successful delivery of our Deploying SESAR programme. As our programme moves from a sourcing to delivery phase we have strengthened our contract management expertise and formed a dedicated team to support projects and suppliers.

During the year we were one of the first six companies to be accredited to the new ISO44001 Collaborative Business Relationships standards. As part of our commitment to this type of relationship, our annual supplier conference was attended by over 25 supplier and partner organisations working on our largest programmes which provided an opportunity to work on shared challenges and opportunities. Our Director of Supply Chain also chairs the iTEC Board, a European forum to align the system and operational requirements of the new flight data processor and minimise implementation costs.

We further strengthened our supplier due diligence processes through our membership of the Joint Supply Chain Accreditation Register (JOSCAR) and we published our position on combatting modern slavery and human trafficking within the supply chain.

The Strategic report was approved by the Board of directors on 30 June 2017 and signed on its behalf by:

Richard Churchill-Coleman
Secretary