

Strategic report



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Chairman's statement

Dr Paul Golby



Safety, operational and financial performance

I am pleased to report the progress made this year across all aspects of our business. Air traffic controllers at our centres and airports safely handled a record number of aircraft, whilst our engineers seamlessly integrated important technical upgrades into our operations. We met all of our regulatory safety targets and made progress against some ambitious and additional internal safety metrics. Our en route service achieved an average delay of 7.2 seconds per flight (2017: 10.9 seconds per flight). Overall, we delivered an even better service to our customers and the travelling public than in 2016/17 despite dealing with more aircraft.

We renewed important UK airport contracts and won a major contract to provide air traffic controllers to Hong Kong as part of their programme to operate a third runway. Our investment in Searidge Technologies and remote digital tower technology for London City and Singapore's Changi Airport also places us in a strong position to provide innovative services to airport customers at home and abroad. Finally, in May 2018, we made a strategic investment in Aireon LLC, which is creating a satellite-based air traffic surveillance service capable of tracking and monitoring aircraft in real-time that will enhance the safety and capacity of our North Atlantic en route service.

This year the group reported a profit before tax of £133m (2017: £126m, after charging £11m for goodwill impairment). Excluding goodwill impairment, the result was slightly lower than last year. This was because of the benefit of air traffic growth being offset by real price reductions for en route customers, a reassessment of our earnings from supporting Aquila's Project Marshall asset provision contract, and higher operating costs. The results are explained in more detail in the Financial Review.

Dividends

We are committed to paying a regular and progressive dividend that reflects NERL's cost of equity (assumed in the RP2 Performance Plan) together with any regulatory out-performance, plus 25% of profit after tax for NATS Services.

Accordingly, the Board decided to pay dividends of £57.0m (2017: £24.0m) during the year and in May 2018 agreed a first interim dividend of £29.5m for the 2019 financial year.

Chairman's statement

Our initial business plan for RP3 (2020-2024)

The UK sits at the heart of a very busy global aviation network and our air traffic service is a vital part of the national transport infrastructure. We operate a safe and efficient network in the skies for the aviation industry which contributes directly and indirectly over £50 billion a year⁷ to the UK's economy.

Over recent years UK air traffic has grown at an unprecedented rate. This year we safely handled 2.52m flights (2017: 2.45m) which by 2030 is forecast to increase to 3 million flights, carrying more than 350 million passengers. With new airspace users, such as drones, and a proposed third runway at Heathrow it is clear that UK airspace will become even more complex.

This presents two fundamental challenges for our proposed en route business plan on which we are currently consulting customers; providing a safe service capable of handling the rise in air traffic volumes whilst simultaneously changing our operation to create more capacity and capability for the future.

In the current reference period (RP2: 2015-2019) we started to make the comprehensive technical, software and airspace changes required to safely handle this air traffic growth. We will complete this programme of change in RP3, which forms a key part of our plan. Our proposal will deliver new technology and a more modern airspace network in RP3 which will, in turn, enable significant improvements in safety, capacity, flexibility, efficiency and resilience for future years. Compared with previous regulatory periods we have put even more emphasis in our proposed plan on ensuring that we have the resources to deliver a resilient operation in line with the feedback we have had from our airline customers and the lessons from our own business and other sectors providing vital services.

We propose to take a leading role across the aviation sector in modernising airspace for the future. This will involve creating, coordinating and implementing an integrated plan which will need the support of Government, the CAA, airlines and airports, together with engagement of communities that may be affected.

UK's EU referendum decision

The outcome of the European Union (EU) referendum decision and the triggering of Article 50 has not had an impact on our business to date.

Our proposed performance plan for RP3 has been designed to accommodate more flexibly a range of traffic and other outcomes, supported by appropriate regulatory mechanisms.

Governance, Board and people

The Board's performance and that of its Committees and directors was evaluated this year through a process undertaken by the Company Secretary. This review was discussed at the Board's March 2018 meeting and was generally indicative of an effective Board with strong governance and open communication with the Executive. However, a number of improvement actions were also recognised in pursuit of even better governance.

Since last year's annual report was published, Andrew Barker and Derek Provan have resigned from the Board and I thank them for their service. Chris Hope joined the Board in July 2017 and Kathryn Leahy joined in May 2018.

The Board was sad that two former directors, John Devaney (my predecessor) and Baroness Brenda Dean, passed away in the year. Both contributed significantly during their periods of service.

On behalf of the Board, I thank our employees and the management team for their hard work and commitment during the year.



Dr Paul Golby, CBE FREng
Chairman

Chief Executive's review

Martin Rolfe



Our initial business plan for RP3

We took time this year to understand from customers their priorities for RP3 and we are now consulting with them on an initial business plan which reflects these. Our core plan is designed to meet the two key challenges of safely maintaining service quality, despite rising traffic, while transforming the business and making us fit for RP4 and beyond. It is safety and performance-led, and delivers value for money for our customers. Overall we propose to maintain safety, delay and environmental performance in our UK en route operation at similar levels to today in spite of the growth in traffic we expect. At the same time, we will invest up to £800m in RP3 to complete the changes to our technology and airspace change programme. Our prices in real terms will be 12% lower on average over RP3 compared to RP2, and 23% lower compared to RP1. We will also complete the transition of our North Atlantic service from a procedural to a satellite-based surveillance operation.

The UK aviation industry is united behind the need for a fundamental modernisation of our airspace, both at lower levels around airports and in upper airspace. Our airspace structures have not changed significantly over the past 50 years and will not accommodate the forecast growth in traffic and airport infrastructure, including a new runway at Heathrow, without causing unacceptable air traffic delays to the travelling public.

We are proposing to take a leading role in modernising airspace in south east England, coordinating the design work and managing the programme at a network and airport level.

Currently, we are coordinating the industry's response to this requirement and I recently presented a feasibility study on the modernisation of future airspace for the London area to the Secretary of State for Transport. It is clear that for the modernisation to be successful it will require commitment and engagement across industry, Government and the CAA and understanding from the communities that will be affected.

Having an operationally and technically resilient service, which is predictable and consistent, is a high priority for our customers. We are enhancing the resilience of our service by recruiting operational staff, collaborating more closely with our customers on their daily operational plans and enhancing our network flow management resources to support ATC planning and tactical decision making. We are also investing in our essential technical services to further minimise the risk and impact of a service failure and to facilitate successful transitions to new technology. Finally, we are continuing to enhance our cyber security capability and have achieved the accreditation necessary to provide additional assurance to the government that our services are secure.

Chief Executive's review

Deliver a safe, efficient and reliable service every day

This year we safely handled 2.7% more flights and provided an excellent service with average delay per flight of 7.2 seconds (2017: 10.9 seconds). We anticipated that air traffic volumes would continue to grow rapidly and worked with airlines, the CAA and airports to meet demand, particularly through the summer peaks. Also, we carefully planned and consulted customers on the sequence for deploying electronic flight strips (an important initial step in our modernisation programme) into airspace sectors managed by our Terminal Control (TC) centre (which deals with the approach into London's airports). The deployment went very well and we received positive feedback from customers.

Deliver SESAR and transform the business for the future

We consulted customers during the previous financial year on our Service and Investment Plan 2017 (SIP17), which presented revised technology and airspace capital investment plans for the remainder of RP2. This followed changes that we had seen in the external aviation environment (such as higher than expected traffic growth) and progress made by the industry in developing SESAR technologies, enabling us to move away from legacy technology more quickly. After scrutiny, and with reference to the assessment of an independent reviewer, the CAA approved SIP17 last summer enabling us to progress with our plans to modernise and transform the business. Continued investment is needed in RP3 to complete the deployment of SESAR, and this is reflected in our initial business plan.

Through this year's consultation on SIP18, we have updated customers on the progress we are making. This included: the phased implementation of electronic flight strips into TC which completed in June 2018; completing the fit-out of the Combined Operations room at Swanwick⁹ with the platform and early versions of the new controller tools that we will be deploying in future; development of the new voice communications system; and the fit-out of new data centres to host our operational systems.

Also, we are currently consulting airline customers on the deployment of Automatic Dependent Surveillance-Broadcast (ADS-B) for use over the North Atlantic to deliver the safety and capacity benefits that the airspace requires to keep pace with demand. In May 2018 we invested in Aireon, which is developing a space-based air traffic surveillance service that provides a solution to this while also delivering fuel savings and CO₂ reductions for airlines. This investment ensures we will play a leading role in the development and deployment of this technology.

Win and retain commercial business

Faced with increasing competition for the provision of ATC at UK airports we have been working hard to strengthen this part of our business. By developing close strategic partnerships and using advances in technology to enhance our service and improve price competitiveness, we extended and retained a number of important contracts this year. We also made significant progress in developing our presence in Asia Pacific, a strategic market for us, with important new contracts awarded in Hong Kong and Singapore. More information is provided in the Service Line Performance section of this report.

Last summer London City Airport announced its intention to move to a digital tower ATC service as part of the development of its airport and I was delighted that they chose NATS to provide this. A digital tower enables air traffic controllers to manage aircraft from remote facilities instead of in traditional airport towers and, more importantly, allows the tower to be more integrated into the airport operation and the overall network. This technology is already a viable option for some airports and has the potential more generally to transform the way air navigation services at airports are delivered.

As a leading air navigation service provider, it is important that we play a key role in shaping the way this technology is implemented. For this reason we now jointly own alongside NAV CANADA, a 50% interest in Searidge Technologies, a Canadian provider of digital tower capability. Together with Searidge Technologies and other partners we are now developing a prototype digital tower for Singapore's Changi Airport.

Another focus this year has been supporting our Aquila joint venture with Project Marshall. The service provision contracts are performing well. However, as I reported last year, the asset provision contract faced schedule challenges. Working with our joint venture partner, Thales, and the MOD, we have now agreed a revised delivery schedule with enhanced programme processes to facilitate this. We now expect our element of the asset provision contract and our investment in Aquila to result in a lower level of profitability, and this is reflected in our results.

We were disappointed not to be selected by MOD as provider of its Project Guardian solution.

Our people

A priority for 2018 was a focus on our people and it remains a focus for the coming year. The first three years of RP2 have been challenging as we have faced much higher volumes of air traffic which we expect will continue to grow. Also, a large part of our strategy over the next three years is to replace much of our technical infrastructure. Both factors drive changes which affect our employees and this priority recognises that people are central to any successful transformation. In support of this we are investing in our change management capability to ensure that we systematically consider how change will impact our people and that the right support for them is in place.



Martin Rolfe
Chief Executive

Financial review

Nigel Fotherby



Group profit before tax at £132.8m (2017: £125.5m) improved by £7.3m on last year's result, which included a goodwill impairment charge of £11.0m. Before goodwill impairment, profit before tax was £3.7m less and reflected a reduction in revenue and an increase in staff and non-staff costs, partly offset by lower depreciation charges. Also, net finance costs including derivatives were £19.9m lower this year. Joint ventures contributed £3.0m less this year.

	£m	Profit before tax £m
2017 profit before tax		125.5
Revenue changes		
Airspace		
UK en route revenue	8.1	
Service performance incentive	3.0	
Income from European organisations	(4.9)	
Other revenue changes (net)	(0.9)	
	5.3	
Airports	3.7	
Defence	(15.4)	
Other UK Business	(0.4)	
International	0.6	
	(6.2)	(6.2)
Operating cost changes		
Staff costs	(21.1)	
Non-staff costs (net of other income)	(4.8)	
Depreciation and amortisation, net of grants	11.6	
Disposal of assets	(0.1)	
	(14.4)	(14.4)
Goodwill impairment		
		11.0
Finance cost changes		
Fair value movement on derivative contract	18.9	
Other finance costs (net)	1.0	
	19.9	19.9
Results of associate and joint ventures		
		(3.0)
2018 profit before tax		132.8

Financial review

Regulatory return

In the third calendar year of RP2, NERL achieved a pre-tax real return of 10.9% compared with the regulatory return of 5.8% assumed in the RP2 Performance Plan. This mainly reflected additional revenue from faster growth in air traffic volumes than the Plan assumed. In response to this traffic growth, and to meet expected further demand in RP3, we have been recruiting operational staff and accelerating capital investment. Therefore, in the remaining two calendar years of RP2, we will face higher costs for staff and from dual running of legacy and new systems than was assumed in the RP2 Plan. Taking into account higher revenue, but also higher costs, 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. This 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.

The difference in basis mainly explains why NERL's reported operating profit before goodwill impairment is some £69m higher than its regulatory profit.

Revenue

Revenue at £913.1m (2017: £919.3m) was 0.7% lower than last year. The improvement in UK en route revenue, mainly from better volumes and a service bonus, and engineering consultancy at airports was offset by real price reductions to en route customers, lower income from supporting Aquila's Project Marshall asset provision contract and from European organisations for ad hoc services.

Operating costs

	2018 £m	2017 £m
Staff costs	(436.4)	(415.3)
Non-staff costs	(182.7)	(177.9)
Depreciation, amortisation and impairment	(137.0)	(148.5)
Operating costs before exceptional items	(756.1)	(741.7)
Exceptional goodwill impairment charge	-	(11.0)
Total operating costs	(756.1)	(752.7)

Operating costs before goodwill impairment at £756.1m (2017: £741.7m) increased by 1.9%.

Staff costs of £436.4m (2017: £415.3m) were 5.1% higher. This mainly reflected increases for: pension related costs, the apprenticeship levy and national insurance charges, and pay awards. These increases were partially offset by an increase in the capitalisation of internal labour supporting our investment programme.

The average number of employees during the year was 4,310 (2017: 4,216) and there were 4,382 (2017: 4,247) employees in post at 31 March 2018.

Non-staff costs at £182.7m (2017: £177.9m) were £4.8m higher than the previous year and included the greater use of contract labour and costs to support NERL's capital programme which were partly offset by lower costs for Project Marshall.

Depreciation and amortisation decreased to £137.0m (2017: £148.5m) reflecting the deployment milestone dates for new technology and the remaining service lives of existing assets. The charge included asset impairments of £5.7m (2017: £0.5m).

Goodwill

The annual assessment of the carrying value of goodwill confirmed it was not impaired and was supported by fair value, less costs of disposal (2017: £11.0m impairment).

The carrying value of NERL's goodwill is intrinsically linked to its regulatory settlements and its regulatory asset base (RAB) in particular. In assessing its carrying value, 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 £23.3m were £19.9m lower than last year (2017: £43.2m), mainly because the change in market value of the index-linked swap resulted in a credit of £1.3m (2017: £17.6m charge). 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 IFRS, and changes in its fair value are recognised in the income statement. Fair value can be volatile and is sensitive to market expectations of inflation and swap discount rates over the time to expiry of the contract in 2026.

Financial review

Joint ventures, associates and other investments

The group recognised a net loss of £0.9m (2017: £2.1m profit) for the results of joint ventures and its associate. This included a re-assessment of the carrying value of Aquila, which is delivering Project Marshall, and a small loss by Searidge Technologies in which NATS acquired a 50% interest this year. FerroNATS and European Satellite Services Provider SAS (ESSP) are reporting profits and performing as expected.

In May 2018 we acquired a strategic interest in Aireon by investing £51.0m (US\$68.75m) in convertible preference stock which is intended to result in an ordinary stock holding of just over 11% by 2021.

Taxation

The tax charge of £20.1m (2017: £21.7m) includes current tax of £4.6m (2017: £20.6m) and deferred tax of £15.5m (2017: £1.1m). Overall, the charge was at an effective rate of 15.1% (2017: 17.3%). This is lower than the headline rate of 19%, 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.

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 £6.7m (2017: £16.3m) and foreign tax of £0.1m (2017: £0.1m). The group also pays other taxes such as employer's national insurance contributions, business rates and the apprenticeship levy, which are significant costs. The group's tax strategy can be viewed at www.nats.aero.

Balance sheet

	2018 £m	2017 £m
Goodwill	198.3	198.3
Tangible and intangible fixed assets	1,049.5	1,001.6
Other non-current assets	49.6	39.3
Cash and short term deposits	307.9	293.6
Derivatives (net)	(127.3)	(135.8)
Borrowings	(379.4)	(426.3)
Pension scheme surplus/(deficit)	110.6	(350.8)
Deferred tax liability	(115.5)	(19.6)
Other net liabilities	(212.8)	(142.8)
Net assets	880.9	457.5

The increase in net assets in the year mainly reflects an improvement in the funding position of the defined benefit pension scheme, which reported a surplus (see below), as well as retained earnings.

Capital investment

	2018 £m	2017 £m
SESAR deployment	135.9	107.2
Airspace	7.4	5.9
Infrastructure	16.1	14.3
Operational systems	10.8	12.5
Other	8.5	7.5
Regulatory capex	178.7	147.4
Military systems	1.3	1.1
Other non-regulatory capex	5.6	7.9
Capital investment	185.6	156.4

We spent £185.6m (2017: £156.4m), mainly in Airspace, including £28.7m more on SESAR deployment projects.

Defined benefit pensions

The group operates a final salary defined benefit pension scheme which had 2,089 employee members at 31 March 2018 (2017: 2,768). The scheme was closed to new entrants in 2009 and a defined contribution scheme was put in place. More information on our pension arrangements is provided in note 30 to the financial statements.

a. IAS 19 charge and funding position

IAS 19 pension surplus	£m
At 1 April 2017	(350.8)
Charge to income statement*	(92.6)
Actuarial gains/(losses):	
- on scheme assets	36.5
- on scheme liabilities	413.4
Employer contributions*	104.1
At 31 March 2018	110.6
Represented by:	
Scheme assets	4,485.6
Scheme liabilities	(4,375.0)
Surplus	110.6
*including salary sacrifice	

Financial review

a. IAS 19 charge and funding position (continued)

The cost (including salary sacrifice) of defined benefit pensions at £92.6m (2017: £98.0m) was lower this year even though the company's accrual rate increased to 48.6% (2017: 36.0%) of pensionable pay. The scheme's pensionable payroll reduced significantly as many employees deferred or withdrew from the scheme, for tax reasons or for attractive transfer values, to take up a less costly cash alternative in lieu of a defined benefit pension. The volume of withdrawals (of £1,117.6m; 2017: £542.6m) also reduces the cost and risk of the scheme in future.

At 31 March 2018, the scheme was in surplus by £110.6m (2017: £350.8m deficit) as measured under international accounting standards (IAS 19) using best estimate assumptions. The size of the scheme relative to the group means changes in financial market conditions can have relatively large impacts on the results and financial position. The real yield on AA corporate bonds used to value pension obligations increased by 20 basis points during the year, which reduced liabilities. Also, the group applied tables of shorter expected life expectancy, based on those that Trustees adopted in their formal valuation at 31 December 2017 (see below), which also reduced liabilities. The actual return on assets of the scheme was £161.0m.

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 based on the outcome of their formal valuation. This valuation uses a wide range of financial and demographic assumptions for measuring pension liabilities and legislation requires a margin for prudence. As a result, the Trustees' valuation gives a different outcome to the valuation under IAS 19 for the company's financial statements.

The Trustees completed a formal valuation at 31 December 2017 which reported a funding deficit of £270.4m, a reduction of £188.3m from their 2015 valuation: investment returns, deficit contributions and changes in life expectancy offset the impact of lower gilt yields. The scheme's actuary also determined that the cost of employee benefits accruing in future was 41.8% of pensionable earnings (excluding salary sacrifice), up from 31.8% in 2015, and contributions will reflect this from January 2020.

Trustees have agreed to maintain the recovery plan to repair the deficit by December 2026. This means the company will make deficit contributions of £40.8m and £41.8m in the 2018 and 2019 calendar years and £25.4m from 2020, increasing by 2.37% in each of the following three years. These contributions, with assumed investment outperformance, are expected to restore the funding position by December 2026.

NERL's contributions are higher than the regulator assumed for RP2. To the extent that this was caused by changes in financial market conditions, we expect to recover these through higher prices in RP3 and in subsequent reference periods. NATS Services will meet its share of NATS' obligations from its cash reserves.

Net debt and cash flow

	Cash and short-term investments £m	Borrowings £m	Net debt £m
Balance at 31 March 2017	293.6	(426.3)	(132.7)
Cash flow	15.6	47.9	63.5
Short-term deposits	(1.1)	-	(1.1)
Non-cash movements	(0.2)	(1.0)	(1.2)
Balance at 31 March 2018	307.9	(379.4)	(71.5)

At 31 March 2018, the group had borrowings of £379.4m (2017: £426.3m) and cash and short-term investments of £307.9m (2017: £293.6m). Net debt decreased by £61.2m to £71.5m (2017: £132.7m).

At 31 March 2018, the balance outstanding on NERL's bond was £381.3m (2017: £428.4m). NERL had no outstanding bank loans (2017: £nil) but has available bank facilities of £400m, which expire in July 2022. More information is provided in note 17 to the consolidated financial statements.

The group generated £338.0m (2017: £387.7m) from its operating activities. This mainly reflected lower cash receipts than the previous year, which included the true-up of regulatory timing differences from RP1, partly offset by lower tax payments than last year. The cash from operations financed the group's capital investment and its debt service obligations.

Outlook for 2019

Our results next year will reflect the new revenue recognition standard (IFRS 15) which will have minimal impact on profit. Its main effect will be that the recovery of charges from customers for the use of their airport facilities will be netted off operating costs rather than being included in revenue.

2019 revenue will reflect further price reductions required by the RP2 performance plan and lower airport contract income. Overall, we expect a reduction in profit before tax as we incur additional costs to recruit and train operational staff to handle expected traffic growth and to support the dual running of legacy and new systems during a transition period.



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 2018, the group had cash of £307.9m and access to undrawn committed bank facilities of £400m that are available until 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.

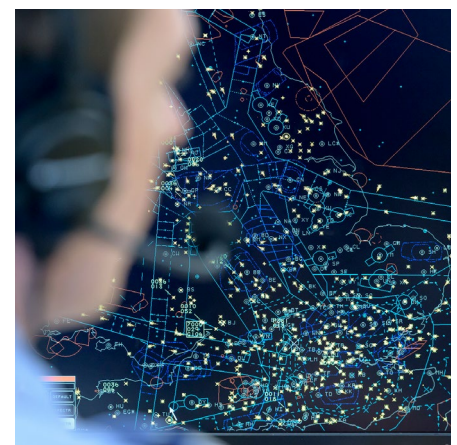
Viability statement

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 page 22 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 2021.

This period of assessment is based on the two-year period of the group's annual business plan and a projection for year three, which includes the first year of NERL's initial business plan for RP3. The Board considers that there is greater certainty over forecasting assumptions over a three-year period, having regard to NERL's initial business plan which is subject to consultation and regulatory scrutiny.

Specific consideration has been given to:

- > Brexit: the risk of lower revenue in RP2 from a reduction in en route air traffic volumes should be partly mitigated by the traffic volume risk sharing provisions of NERL's licence and EC Regulations. New traffic forecasts will be set for RP3 by the economic regulator;
- > Recovery of capital investment: following the regulator's approval of NERL's SIP17, we expect our forecast increase in capital expenditure over the RP2 Performance Plan to be recovered by NERL's revenue allowances in RP3 and subsequently;
- > Project Marshall earnings: the revised asset provision contract and delivery schedule enables earnings and the recoverability of the loan from NATS Services to Aquila to be assessed; and
- > Defined benefit pensions: following the 2017 pension valuation by Trustees, the directors consider that NERL's contributions will be recovered through prices in RP2 and future reference periods, including additional contributions arising from changes in financial market conditions since the Performance Plan for RP2 was set, while contributions from NATS Services will be met from 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. For NERL, KPIs are largely aligned with SES key performance areas, ensuring management focus on 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 metrics are also used to set targets for remuneration purposes and so align incentives with business objectives. KPIs are measured on a financial year (FY) or calendar year (CY).

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

	FY 2018 or CY 2017	FY 2017 or CY 2016
Financial KPIs		
Profit before tax: NATS Group	£132.8m	£125.5m
NERL	£134.2m	£104.8m
NATS Services	£2.5m	£17.3m
Non-financial KPIs		
Safety performance:		
NATS Group: category A or B Airprox ² attributable to NATS (financial year)	nil	nil
Calendar year metrics:		
NATS Group KPI: RAT ⁹ points (12 month rolling)	1,508	1,280
NERL KPI: RAT points (per 100,000 flights, 12 month average)	43.5	41.5
NATS Services KPI: RAT points (per 100,000 flights, 12 month average)	23.0	17.8
Service performance and resilience:		
NATS Group: customer satisfaction score (%)	85%	81%
NERL KPIs:		
Average delay (seconds per flight, financial year)	7.2	10.9
Average delay (seconds per flight, calendar year)	6.2	12.8
Impact score ¹⁰ (weighted seconds per flight, calendar year)	12.7	25.0
Variability score ¹¹ (weighted seconds per flight, calendar year)	0.6	176.7
3Di ¹² score (calendar year)	29.6	30.3
Environmental performance (financial year):		
Scope 1 emissions (tonnes CO ₂ e)*	3,982	3,480 [^]
Scope 2 (Location-based tonnes CO ₂ e)*	21,223	24,964 [^]
Scope 2 (Market-based tonnes CO ₂ e)*	20,628	n/a
Scope 1 + 2 intensity metric (tonnes CO ₂ e per £m of revenue)	27.6	30.9 [^]
Progress against 10% enabled ATM-related CO ₂ emissions reduction target	6.4%	5.0%
Scope 4 (Modelled enabled ATM-related CO ₂ reduction in tonnes)**	228,073	59,768 [^]
Water consumption (cubic metres)*	54,624	48,657 [^]
Energy consumption (gas & electricity) MWh	71,697	72,368 [^]

Certain metrics have been verified by DNV GL, a quality assurance and risk management company, to a reasonable (*) or limited (**) level of assurance. [^] restated for modelling accuracy, data quality, updated traffic forecasts and changes to NATS' airport portfolio. A verification statement and Greenhouse Gas (GHG) report is available at www.nats.aero/environment/cr. Modelled enabled ATM-related CO₂ reductions represent the saving in emissions from improvements to the ATM network, such as technical changes which enable us to provide more fuel-efficient flight profiles, based on projections of the volume of flights likely to take advantage of the improvements. The enabled reduction in emissions is reported in full in the year in which the improvement is made. This is modelled based on industry best practice and is outlined in detail in our GHG report.

Safety, regulatory and economic environment

Safety

Safety performance

Safety is embedded in everything we do throughout our organisation and our purpose and our values reflect our commitment to safety. We continue to meet the three safety performance targets set for the end of RP2 by the UK and European regulators in the SES performance scheme, which are based on: the effectiveness of safety management; the use of the Risk Analysis Tool (RAT³) to assess the severity of safety events; and the extent of Just Culture training.

Additional to the EU safety targets NATS uses internal targets and the RAT to monitor its internal safety performance and further analyse the severity and risk of air traffic events.

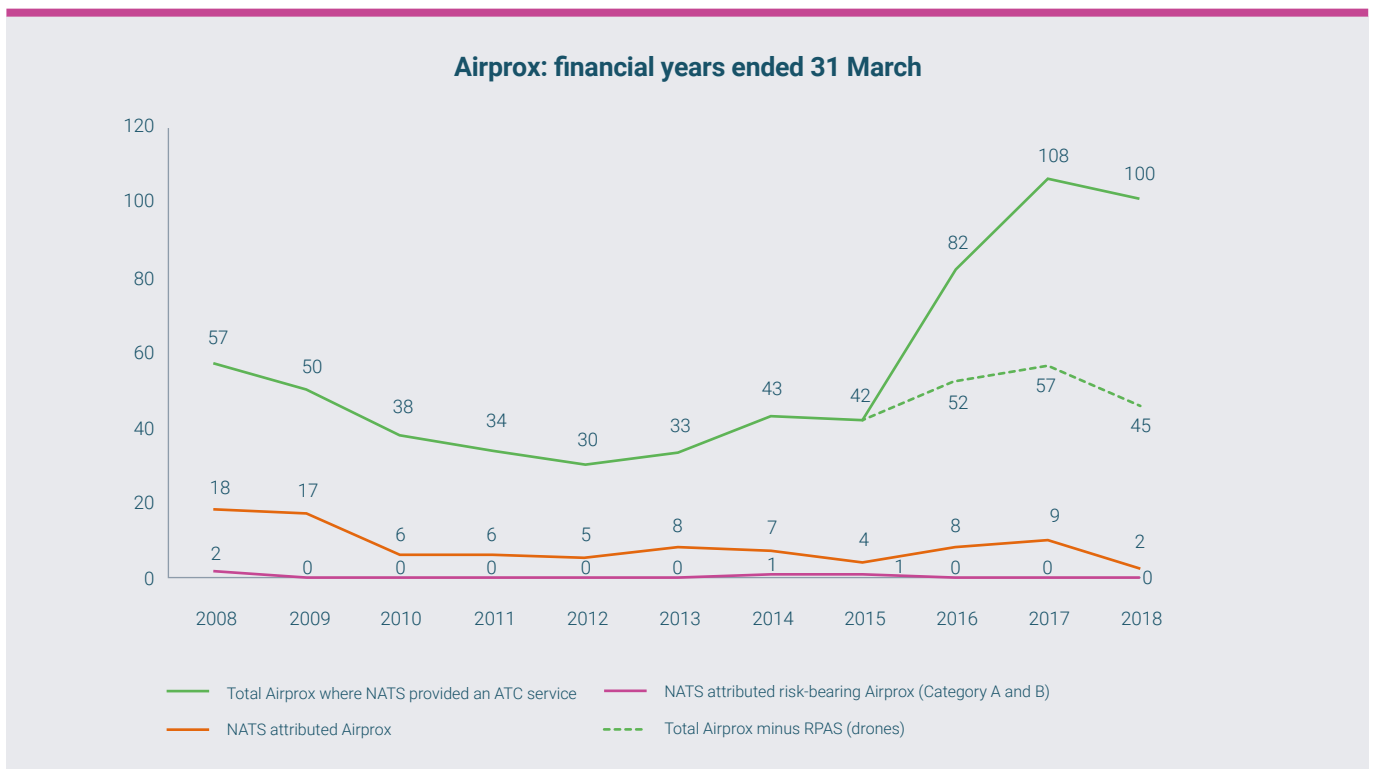
The number of high severity events reduced and the rate of losses of separation per 100,000 traffic movements improved compared to previous years. There was no category A or B Airprox event attributable to NATS (2017: nil). This safety performance was achieved while we continued to make significant change to our operation and managed traffic growth.

On a 12-month rolling basis to 31 December 2017, we achieved a RAT score of 1,508 relative to a stretching internal calendar year target of 1,151. The internal targets were set against a lower forecast of traffic than we continue to experience, resulting in their achievement being very challenging. However, these targets have continued to drive the right safety culture, behaviours and continuous improvement that would be expected from an organisation such as ours.

The number of Airprox events that have been classified as involving drones (or Remotely Piloted Airborne Systems) has more than doubled since 2014, and they now constitute more than 50% of all Airprox reported in the financial year.

With the number of drone incidents on the rise NATS, with the CAA, continued to engage with drone pilots to educate them in their safety responsibilities and to provide information sources to assist them to actively fulfil these when flying. The Dronesafe website is now the home for all drone pilot focused materials and by using the Drone Assist App drone pilots have an application to help them identify and avoid areas of controlled and restricted airspace. We have also partnered with a world leader in commercial drone-based inspection services and training, which will enhance our ability to deliver expert training to the growing commercial drone sector and the emergency services.

This is an increasing risk to our operations and therefore our overriding objective continues to be ensuring that both commercial and drone pilots can engage in their activities safely while ensuring the safety of other airspace users. NATS recognises the need for a clear regulatory framework for drones and welcomes the recent update to UK drone laws announced by the Department of Transport (DfT).



Safety, regulatory and economic environment

Managing safety and change

This was another year of significant change for NATS. We introduced electronic flight strips into London Terminal Control for the first time. This technology change was subject to human factors safety assurance to ensure the safe deployment into service and, on an ongoing basis, our controllers' performance with the tool is monitored during operational use. Changes in technology are key enablers to future safety improvements, including airspace modernisation.

Safety improvements

Over the last two years, our Think Act Be SAFE promotion has engaged with employees to promote behaviours consistent with "safe in everything we do".

The introduction of new technology changes the nature of the operation and it is vital that we learn from the experience of interacting with new tools, managing risks before they lead to incidents. Therefore, during 2018 we have appropriately evolved our lesson-learning processes to ensure our risks are efficiently, effectively and proactively identified, reported and shared throughout our operation. We have seen the benefit of focused lesson-learning in reducing the number of events arising from some specific causal factors. Our safety improvement activities also included supporting the trials of ADS-B surveillance as a safety net at general aviation airfields, including subsidising equipage of aircraft operating from those airfields.

The threat to cyber security is an increasing concern for many organisations, including those with critical infrastructure. Our response is to ensure that our ATC systems are certified against recognised standards of good practice, such as ISO27001. We also ensure our ATC systems are constantly evaluated for vulnerabilities, and enhanced in response to changes in the threat landscape.

We work with peers across the industry, with our regulator and with the UK National Cyber Security Centre to ensure that we remain informed and aligned with the current challenges and solutions.

We partner with external experts and government bodies to ensure that our next generation of ATC systems move cyber security even further forward, ensuring that systems are designed with security and resilience built in. These technical innovations are supported by our strong safety and resilience culture and award-winning security training and education programme.

In order to meet the needs of the Board and Executive team, we have established a Cyber Security Governance Group to provide effective governance and oversight of the actions being taken on cyber issues by different business areas.



Safety, regulatory and economic environment

Regulatory environment

NERL is subject to economic regulation under the EC's SES Performance Scheme for Air Navigation Services. The impact of Brexit on these arrangements is not yet clear but we are working on the assumption that they will at least extend into any transitional period. In any case, the UK's Transport Act 2000 also sets a national regulatory framework. From 2012 the SES performance scheme set targets for safety, environment, airspace capacity and cost efficiency for Functional Airspace Blocks (FAB). NERL's Performance Plan for RP2 contributed towards meeting the targets set for the UK-Ireland FAB.

The EC is now preparing for RP3 and is considering changes to the performance scheme and targets for Member States. We will reflect the impact of these in our revised Business Plan for RP3, as far as possible, highlighting any impact to customers during the current consultation on our initial Business Plan. After CAA scrutiny, NERL's revised business plan will form the major part of the UK's Performance Plan, which the DfT will submit to the EU for assessment in June 2019. The EC will complete that assessment by November 2019, ahead of the start of RP3 in January 2020.

On the technology side, we are committed to implementing the operational concepts which are being developed to modernise and optimise the future European ATM network under the EC's SES initiative such as time-based separation, extended arrival manager and free route airspace. Our RP3 plan includes the necessary work to meet these legally-binding state obligations.

In April 2018, the CAA advised the DfT that the UK's terminal air navigation services (TANS) continues to be subject to market conditions under EU legislation. If, as has previously been the case, DfT adopts the CAA's advice, it can then apply to the EC for exemption for NATS Services from the requirement to publish determined costs information and to be subject to cost efficiency targets in RP3.

Outlook for air traffic volumes

We are managing significantly more flights in RP2 than was assumed when the RP2 plan was developed. Traffic volumes have returned to around peak 2007 levels and this year we handled around 8% more traffic than assumed at the start of RP2. Over the five years of RP2 we estimate that traffic will have grown by 15%, and will be 7% higher than the RP2 assumption by calendar year 2019.

We are forecasting that flight volumes will rise by an additional 6% during RP3 to 2.74 million. This forecast reflects a slowing in the rate of annual growth, mainly as a result of airport capacity constraints within the UK.

The most significant uncertainty affecting our traffic forecast for RP3 is the economic forecast. This is particularly the case given Brexit, including whether or not the UK remains part of the fully-liberalised EU aviation market, and the effect this may have on the UK economy generally and the aviation market specifically over the coming years. Given the current timetable for Brexit negotiations it is unlikely that its full effects will be understood prior to the start of RP3.

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.

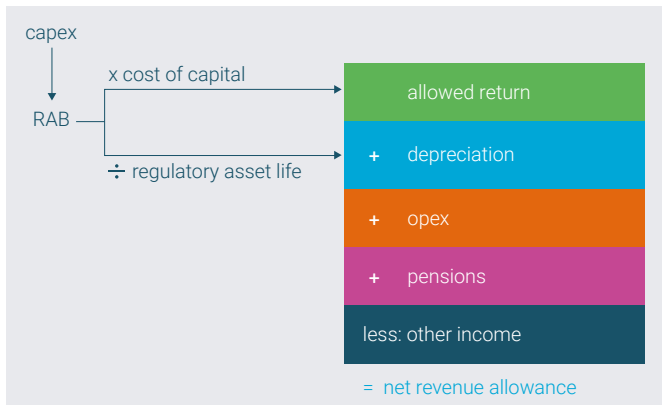
NERL

NERL is our core business and 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 is economically regulated by the CAA within the framework of the EC's SES and operates under a licence granted under the Transport Act 2000. 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. All of these activities are reported within Airspace.

The CAA establishes revenue allowances for NERL's economically regulated activities for a reference period which 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 represents the value ascribed to the capital employed in the regulated businesses. NERL's income from other 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 model is illustrated below.

The price control for RP2 was based on revenue allowances 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. It sets a gearing target of 60% of net debt to RAB and cap of 65%. 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 mechanisms which mitigate the impact of certain variations in traffic volumes, inflation and cash contributions to the defined benefit pension scheme from the level assumed. Charges are adjusted on a year 'n+2' basis or in subsequent reference periods, depending on the cause of variation.



NATS Services

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. Also, we provide services in Spain through FerroNATS.

Services to UK Airports (including engineering support) represent c.79% of its revenue and Defence c.10%. Services to UK customers represent c.95% of its revenue.

The UK Airports service provided ATC services to 14 major UK airports during the year as well as engineering support and airport optimisation services to UK airport operators. Large UK airports fall within the scope of European SES regulations. NATS Services operates in a contestable market and faces competition from other Air Navigation Service Providers (ANSPs) and airports using an in-house service. The company's strategy is to win and retain UK airport contracts by nurturing the relationship with customers and developing price competitive and innovative technological service solutions.

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. Project Marshall is a 22-year concession for the provision of engineering and ATC services and a seven-year asset provision contract to upgrade MOD ATC infrastructure.

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








Our International activities focus on the Asia Pacific and Middle East markets and also target specific international airports and ANSPs. Our FerroNATS joint venture provides a service to nine airports in Spain. Also, we jointly own Searidge Technologies, a Canadian provider of digital tower technology to airports around the world, with NAV CANADA.

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 and involving, in our en route operation, a seamless transition between the North Atlantic and UK en route services. We understand the benefit we can provide from fuel-efficient flight profiles, approaches and departures, minimising delay, and through arrival and departure management. We recognise that airport tower services are an intrinsic part of overall performance and our experiences at Heathrow, until recently and for many years at Gatwick, and other airports demonstrate our ability to optimise runway performance and apron efficiency. We are also developing digital remote tower services to benefit airport operators, their investors, and the airlines.

Our business model

Our business priorities

We set a number of priorities which focus our employees on the year ahead. For 2017/18 these were:

Priorities for 2018	How we did
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:	
<ul style="list-style-type: none"> > expanding electronic flight strips in Terminal Control 	
<ul style="list-style-type: none"> > fit out Combined Operations room at Swanwick 	
Provide support to Heathrow and Hong Kong for their third runways	
Enhance the Oceanic technical platform and operations at Prestwick	

Our priorities for financial year 2018/19 are:

- > Provide safe and resilient air traffic services from our airports and centres;
- > Continue to focus on our people and employee relations as we transform our infrastructure;
- > Deliver electronic flight strips into full operational service in Terminal Control;
- > Develop a plan for RP3 that delivers a balanced outcome for all of our stakeholders;
- > Achieve key milestones to implement digital tower technology at London City and Changi airports; and
- > Deploy the next phase of airspace modernisation changes (sectors in the North Sea and lower Scottish airspace around Edinburgh and Glasgow airports).

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 focuses 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 risks have been considered in preparing the viability statement on page 15. A summary of internal control and risk management processes is on page 43.

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. The reputational damage could result in the loss of future contracts and a reduction in revenue. 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 then ultimately this could result in revocation of NERL's 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 to 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 financial loss would depend on the time necessary to resume a safe service and the resultant level of air traffic delay. NATS has contingency arrangements which enable the recovery of its service capacity.

b. Operational systems resilience

Operational service provision is increasingly dependent on the performance and resilience of engineering systems, including communications, surveillance and flight data infrastructure. A number of mechanisms exist to identify systems resilience risks through an ISO55001 compliant Asset Management system. These include regular reviews of system health through 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 EC directly affect our businesses. Changes in policy 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 taking a leadership role 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 and we have indicated our willingness to take on a broader project management and coordination role for modernising flight paths both in airspace above 7,000 ft and airspace below this level, which remains the responsibility of others to design and deliver. We will need the engagement and full support of Government, the CAA and industry to ensure this is achieved. 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. 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. The CAA's advice to the UK Government is that market conditions have been established for RP3. If this is accepted, it remains subject to EC endorsement.

Principal risks and uncertainties

Defined benefit pension scheme

Adverse movements in the value of scheme assets and liabilities arising from factors such as lower investment returns, lower real interest rates and improving life expectancy may increase the size of the funding deficit and result in significant contributions to fund pension benefits.

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. NATS regularly reviews the scheme's funding position and is consulted by Trustees on the design of risk reduction strategies. Also, subject to regulatory review, NERL is able to recover increases in contributions from changes in unforeseen financial market conditions. NATS Services maintains adequate cash reserves to meet its share of pension contributions.

The Trustees have completed a formal valuation as at 31 December 2017. This reported a reduction in the funding deficit but with an increase in the cost of future service benefits. Deficit repair contributions will reduce from 1 January 2020. NERL's revenue allowances will be re-assessed for RP3 to reflect the outcome of the 2017 valuation.

The directors monitor the funding position of the scheme. The group's financing arrangements and cash reserves, its projected operating cash flows and mechanisms within the economic regulatory model enable the group to meet the contributions required.

Industry outlook and the impact of Brexit

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. NERL has traffic volume risk-sharing arrangements that mitigate revenue reductions.

In the short term the continuing uncertainty over the UK's decision to leave the EU could affect the demand for air travel and the volumes NATS handles, although traffic volume risk-sharing mitigates the impact.

Over the longer term, the impact depends significantly 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. This could mean NATS, uniquely in the UK, being economically regulated by a body in which the UK does not vote. We will therefore be keeping the implications of Brexit developments under review with the relevant Government departments and the CAA.

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, employee awareness training and cyber and physical security processes and procedures, including monitoring political stability and security risks in countries where it conducts 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. These factors could lead to deterioration in employee relations. Industrial action could result in reduced air traffic service provision which adversely impacts on service performance and revenues. Every effort is made to maintain good employee relations, including joint working groups with union representatives as part of an employee relations improvement project. A people and organisation strategy has been developed to ensure the right mix of skills to meet our strategic objectives.

Technology

The deployment of new SESAR technology and retirement of legacy systems could affect our ability to maintain service levels during transition and require additional costs to sustain legacy systems and support deployment. We maintain programme governance and risk management processes 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.

Non-financial risks

A number of other non-financial and non-operational risks are described in the non-financial reporting statement below.

Service line performance

We organise our activities according to service lines, which reflect the customer groups to which we provide our products and services.

The principal financial performance measures are revenue, including intra-group revenue, and contribution, which 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

	2018	2017
Financial performance:		
Revenue (£m)	739.3	733.5
Service line contribution (£m)	345.0	359.0
Capital expenditure (£m)	180.0	151.4
Operational performance:		
Flights handled ('000s)	2,515	2,450
Risk-bearing airprox (no.)	nil	nil
Average delay per flight (seconds)	7.2	10.9
Environmental efficiency (3Di score)*	29.6	30.3

*for the calendar year to 31 December

Airspace (see our business model on page 20 for an explanation) generated revenue of £739.3m, a 0.8% increase on the previous year. This reflected the growth in volume of flights handled this year, mainly from transatlantic arrivals and departures and overflights, which offset the real price reductions required by the RP2 Performance Plan that benefited customers.

	2018 '000s	2017 '000s	Year on year change %
Chargeable Service Units	11,674	10,935	6.8%
Total UK traffic (flights):			
Domestic	389	394	(1.3%)
North Atlantic	383	361	6.1%
Other	1,743	1,695	2.8%
Total	2,515	2,450	2.7%
Oceanic traffic (flights):			
Chargeable flights	494	479	3.1%

Airspace also earned a service bonus of £2.6m (2017: £0.4m penalty) for exceeding its calendar year regulatory targets for delay. Flight efficiency (the environmental performance of our network) was within the economic regulator's service performance range, with no bonus or penalty. In addition, Airspace enabled CO₂ savings of 228,073 tonnes (2017: 59,768 tonnes – restated), which is equivalent to fuel savings of 71,721 tonnes (2017: 18,795 tonnes – restated).

	2017		2016	
	Target	Actual	Target	Actual
Service performance: calendar years				
C1: avg. en route delay at FAB level (seconds)	15.6	9.7	15.6	17.8
C2: avg. delay per flight (seconds)	10.8	6.2	10.8	12.8
C3: delay impact (score)	27.0	12.7	24.8	25.0
C4: delay variability (score)	2,000.0	0.6	2,000.0	176.7
C3Di: 3Di metric (score)	28.9	29.6	29.3	30.3
The C1 metric is a Functional Airspace Block (FAB) level target introduced for RP2.				

Last year's Airspace revenue also included income from European organisations of £4.6m for ad hoc services.

Overall, Airspace contribution of £345.0m (2017: £359.0m) was 3.9% lower reflecting higher staff and non-staff costs.

Service line performance

Airports

	2018	2017
Financial performance:		
Revenue (£m)	171.8	167.9
Service line contribution (£m)	28.7	32.0
Capital expenditure (£m)	2.3	4.0
Operational performance:		
Airports served: UK (no.)	14	14
Risk-bearing airprox (no.)	nil	nil
Significant milestones:		
Electronic flight progress strips introduced at Belfast City and Belfast International airports		June
Semi Automatic Meteorological Observation System at Aberdeen Airport		June
Replacement of primary communications at Luton and Belfast City airports	December	
Enhanced Time Based Separation at Heathrow Airport		March
Replacement of all VHF radio systems at Heathrow Airport		March

During the year we provided ATC services to 14 UK airports and ATC related engineering services to a further 19 UK airports. Revenue from these services was 2.3% higher at £171.8m (2017: £167.9m) largely reflecting better engineering and consultancy income.

Service line contribution at £28.7m (2017: £32.0m) was 10.3% lower mainly reflecting increased employee pay and pension costs.

A key strategic objective is to win and retain UK airport ATC contracts. Our response to the market has been to develop a deeper collaborative strategic relationship with our customers. This year we agreed new ATC and engineering contracts with Belfast International, Farnborough, London City and Luton airports and an engineering contract with Biggin Hill.

As part of its plans to develop the airport, from 2020 we will provide London City with a digital tower service from our air traffic control centre in Hampshire. Since announcing this, we have seen interest from other UK airports wishing to understand this new capability.

We completed a number of engineering projects in the year including transitioning from paper to electronic flight progress strips at Belfast City and Belfast International airports.

In April 2018, we ensured a smooth hand over of Edinburgh's ATC service to a new provider.

Defence

	2018	2017
Financial performance:		
Revenue (£m)	20.9	36.4
Service line contribution (£m)	(6.2)	5.9
Capital expenditure (£m)	1.0	0.1
Operational performance:		
Airfields served (no.)	4	4
Significant milestones:		
NATS signed a re-set contract for Project Marshall, setting a new baseline		
RAF Shawbury and Ternhill tower re-fits and commissioned into service		
Seven MOD radio sites commissioned and entered service		
Commission of the ATM equipment relocation project at Aberporth Qinetiq range		

The major source of income for Defence is support provided to the MOD's Project Marshall contract. This is a 22-year concession awarded to our Aquila joint venture for the provision of ATC services and the upgrade of MOD ATC infrastructure. The service provision elements of this contract are provided by NATS and are performing well and include ATC services to RAF Wattisham, RAF Netheravon and RAF Middle Wallop and to Gibraltar Airport. As we explained in last year's report, the asset provision element has faced schedule challenges. A new asset provision contract and delivery schedule was agreed with MOD in March and we now expect this element to break-even over its remaining term.

Revenue at £20.9m (2017: £36.4m) reflected the schedule challenges facing the asset provision contract which also resulted in a loss of £6.2m (2017: £5.9m profit) following a re-assessment of this contract and our share of Aquila's result.

Service line performance

Other service lines

	2018	2017
Financial performance:		
Revenue (£m)	25.4	24.4
- <i>Other UK Business</i>	15.2	14.8
- <i>International</i>	10.2	9.6
Service line contribution (£m)	5.4	3.5
- <i>Other UK Business</i>	6.5	3.7
- <i>International</i>	(1.1)	(0.2)
Capital expenditure (£m)	2.3	0.9
Operational performance:		
Airports served: overseas (no.)*	9	9
Secured order value:		
UK contracts (£m)	16.3	34.9
Overseas contracts (£m)	74.6	11.4
* Service provided by our FerroNATS joint venture		

Other UK Business revenue of £15.2m (2017: £14.8m), mainly from services to wind farm operators, was broadly in line with last year and contributed £6.5m (2017: £3.7m).

International revenues at £10.2m (2017: £9.6m) were £0.6m higher, mainly as a result of revenues from airspace redesign and consultancy contracts. At a contribution level, including the group's share of FerroNATS and Searidge Technologies, international activities reported a loss of £1.1m (2017: £0.2m loss) reflecting investment in developing our overseas business.

Overseas orders worth £74.6m (2017: £11.4m) were secured this year, including a contract to provide air traffic control specialists to the Airport Authority of Hong Kong.

People and non-financial reporting

People

Our People and Organisation Strategy is designed to ensure that our employees have the skills required to deliver today's operational service as well as the talent and capability mix required for the future. This is particularly important 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 range of skills, talent and diversity we need for this new environment.

For the last couple of years we have recruited new air traffic controllers (c150 each year) at a faster rate than previously to keep pace with traffic growth and we are training our existing controllers on new technologies as these are being developed. For our technical services team, we introduced Directing our Future, an initiative which enables employees to engage with the changes facing NATS and equips them with new ways of working. We also created a series of one-day workshops for managers to help them better communicate with their teams and to improve their understanding of our business and the challenges we face.

Equally important for a high performing business is the wellbeing of every one of our employees. We were delighted to be recognised externally with a best new entrant award in Britain's Healthiest Workplace Award and, for the sixth consecutive year, we received a gold medal award for health and safety from the Royal Society for the Prevention of Accidents.

Non-financial reporting statement

Our Responsible Business report is available on our website: www.nats.aero.

Non-financial policies and due diligence

Our Chief Executive is accountable for our responsible business policy. This comprises a set of core principles which cover a wide range of non-financial matters. The policy is supported by appropriate business objectives, which are reviewed regularly. We have adopted a number of management systems to mitigate business risks, many of which are certified, such as: ISO9001 (quality), ISO14001 (environment), ISO27001 (information security), ISO55001 (asset management) and OHSAS18001 (health and safety).

The outcomes of these policies are described qualitatively and quantitatively in the tables below and in our Responsible Business report.

Supporting information

The tables below have been prepared in accordance with the Climate Disclosure Standards Board framework, the Task Force on Climate-related Financial Disclosure recommendations and guidance from the Financial Reporting Council and European Commission. Verification of certain environmental, energy and airspace data (marked by * in the table on pages 16 and 29) has been undertaken to the ISO14064 standard.

The matters below should not be and are not considered in isolation. Although non-financial in nature, these have the potential to materially affect our strategy and business model, principal risks and uncertainties and financial KPIs. The outcomes describe how the Board has performed its duty under section 172 of the Companies Act.

Material non-financial information

Material non-financial information is outlined in the following tables and applies to the same operational boundary as the financial information presented in this report. A number of relevant, but not material, matters are being managed across the business but are not reported here.



People and non-financial reporting

Anti-bribery and corruption

	Governance	Impact on strategy	Risk management	Measurement	Outcome / outlook
Anti-bribery & corruption	<p>We maintain procedures which aim to prevent bribery on our behalf anywhere in the world. Our anti-bribery and corruption policy is endorsed by the Board. As part of our regular processes this policy, and measures to prevent the facilitation of tax evasion, will be reviewed in 2018/19. Board oversight is provided by a panel of executive and senior managers monitoring compliance, effectiveness and process improvements.</p>	<p>We are most exposed to bribery and corruption through some of our overseas contracts and operations, a small number of which are in locations where business practices could fall below acceptable UK norms.</p>	<p>At the heart of our approach is employee training and awareness. Employees working overseas and in other areas of risk, including all Executives and Board Directors, undertake computer-based training which concludes with a robust assessment to ensure they have understood NATS' requirements and their obligations.</p>	<p>Not applicable.</p>	<p>We are currently refreshing our training, employee awareness campaign and procedures for monitoring performance, which will be implemented in 2018/19.</p>

Social and community matters

	Governance	Impact on strategy	Risk management	Measurement	Outcome / outlook
Aircraft noise	<p>Current oversight rests with the Executive.</p>	<p>We recognise that community concerns on noise have a material impact on our business strategy and our performance.</p> <p>The Secretary of State for Transport has asked us to take the leading role in modernising airspace in RP3, coordinating the design work and partnering with airports to engage both at a political level and with local communities that may be impacted. We will need the support of government, the CAA and industry to ensure this is achieved.</p>	<p>We manage this risk by working collaboratively with the UK Government, the CAA and European and international bodies and providing support to airport operators with their mitigation plans. We are a member of Sustainable Aviation's working group on noise. Mitigation of noise from aviation is managed at the airports where we provide the ATC service with support from our en route ATC centres.</p>	<p>Responsibility for measuring noise rests with airport operators. Our focus is on achieving locally agreed rates for continuous climb and descent operations.</p>	<p>We are developing tools to improve our understanding of the impact on noise from changes in the flight profile of aircraft flying at lower levels. This will inform the level of public consultation required on airspace change and improve communication of impacts to local communities and other stakeholders.</p>

People and non-financial reporting

Environmental matters

	Governance	Impact on strategy	Risk management	Measurement	Outcome / outlook
ATM-related CO ₂ emissions	<p>We have a target to reduce ATM-related CO₂ emissions per flight by 10% by 2020, relative to a 2006 baseline.</p> <p>Oversight rests with the Executive and an Environmental Benefit Delivery Panel is responsible for overseeing delivery of initiatives to meet environmental targets.</p>	<p>We recognise that our progress against the ATM CO₂ emissions target has a material impact on our business, strategy and ultimately our financial performance.</p> <p>As a result of the industry's pause to airspace modernisation there is a risk that the airspace environment programme may not be able to deliver against the full 10% ATM-related CO₂ emissions reduction target by 2020 as committed to in the RP2 business plan.</p>	<p>Our original RP2 investment plan target was dependent on delivering airspace modernisation, particularly the LAMP project, which was paused by the industry. Instead, we have sought to find other ways to reduce fuel usage and CO₂ emissions outside the main airspace change portfolio.</p>	<p>Progress against 10% enabled ATM-related CO₂ emissions reduction target, 2018: 6.4% (2017: 5.0%).</p> <p>Modelled enabled ATM-related CO₂ reduction (tonnes), 2018: 228,073*, (2017: 59,768-restated).</p>	<p>Achieving our 10% target remains challenging, given the changes highlighted. We expect to achieve 7.3% by 2020. We continue to pursue further opportunities to reduce ATM-related CO₂ emissions.</p>
3Di	<p>Our licence sets an airspace efficiency target and we report on progress quarterly.</p> <p>Oversight rests with the Executive and an Environmental Benefit Delivery Panel reviews ATM-related matters and is responsible for overseeing delivery of initiatives to meet environmental targets.</p>	<p>We recognise our 3Di performance has a material impact on our business strategy and performance. As a result of the industry's pause to airspace modernisation there is a risk that the environment programme may not achieve the 3Di airspace efficiency target for the 2019 calendar year.</p>	<p>The programme to deliver the 10% reduction in ATM-related CO₂ emissions includes activities to manage and improve the 3Di score.</p>	<p>We achieved a 3Di score of 29.6 for calendar year 2017 (calendar year 2016: 30.3). This was higher than the regulatory target of 28.9 but within the performance range.</p>	<p>A number of initiatives are focused on improving the 3Di score, but achieving the par target set by the CAA for the remainder of RP2 remains challenging. We will continue to monitor progress each quarter.</p>
Business impact on the environment	<p>Under SI 2016/1245 we are required to report on the impact of our business on the environment.</p> <p>Oversight rests with the Executive and our Chief Executive is responsible for the company's environment strategy.</p> <p>A Steering Group acts on behalf of the Executive to oversee management of estate-related environmental matters.</p> <p>Our latest CDP¹³ report is publicly available.</p>	<p>Our environmental impact has a material effect on our business strategy and our performance. Demonstrating environmental stewardship, including a certified environmental management system, is increasingly a requirement of contracts we bid for.</p>	<p>Environmental risks are included in NATS' risk management system. Mitigation plans are maintained and reviewed regularly. ISO14001 certification requires regular internal and external audit.</p>	<p>We have adopted a 6% CO₂ reduction target from energy use and in 2018 we achieved 28%.</p> <p>We measure and report on a number of KPIs relating to direct (scope 1), energy indirect (scope 2) and other indirect (scope 3) greenhouse gas emissions and water and energy consumption. These are set out in the table of key performance indicators above.</p>	<p>After implementing new technology to enable airspace modernisation in RP3 we expect to reduce our technical energy load (in kWh) by 30%. In the short term, our energy load will reflect a period of dual running of new and old equipment for operational safety. We expect to adopt a renewable electricity tariff in the near future, where we have operational control.</p>

People and non-financial reporting

Employee matters

	Governance	Impact on strategy	Risk management	Measurement	Outcome / outlook
Employee relations	An established people and organisation strategy is reviewed by the Board twice a year.	Employees deliver our operational service, which means employee relations are material to our business strategy and performance.	The Executive sponsors employee relations to ensure 'Working Together' with Trades Unions is effective in facilitating constructive dialogue, and minimising potential disruption. Regular meetings, including with the Executive, provide oversight and direction.	Our most recent employee survey achieved a response rate of 85% from managers and 81% from Trades Unions members.	We are developing an action plan to address areas for continuing improvement.
Just Culture	Oversight rests with the Executive management team.	The aviation industry pioneered the no-blame culture. Underpinning this is a culture where employees and contractors feel able to raise any concerns and a workplace of trust where incidents, errors and risks are openly and honestly discussed. Our Just Culture has a material impact on our business strategy and ultimately our financial performance.	Our Just Culture approach is not to sanction employees for actions, omissions or decisions consistent with their experience and training. Gross negligence, wilful violations and destructive acts are not tolerated. We also have a whistleblowing facility, which is set out in the Code of Ethics and on our website for third parties, such as customers or suppliers.	Not applicable.	Historically aimed at employees in the air traffic operations rooms, this year we have rolled out these principles into the wider organisation.
Diversity	We monitor, and are committed to, developing the diversity of our workforce. We report our gender pay under The Equality Act 2010 (Gender Pay Gap Information) Regulations 2017. Oversight rests with the Executive.	We recognise that developing a more diverse organisation will benefit the business by bringing different experience and perspectives. This is particularly important as we transform the business and respond to broader changes in the external environment.	We are committed to developing a more diverse and inclusive organisation and to addressing the imbalance in gender pay. An action plan is in our gender pay report and embedded in our Responsible Business policy and Human Resources business plan. We are developing our broad Diversity & Inclusion Strategy and action plan in 2018/19.	Our report on gender pay is available on our website.	The Executive is implementing the action plan set out in the gender pay report and is developing the Diversity & Inclusion Strategy and action plan.

The Strategic report was approved by the Board of directors on 5 July 2018 and signed on its behalf by:



Richard Churchill-Coleman
Secretary