

NATS Holdings Limited
Annual Report and Accounts
Year ended 31 March 2018

Company Number: 04138218

Who we are

NATS provides air traffic control (ATC) services to aircraft flying in airspace over the UK and the eastern part of the North Atlantic, and at 13 UK airports (from April 2018). It also provides other ATC and related services to customers in the UK and overseas. Further information is provided in the description of our business model.

Our purpose

Advancing aviation, keeping the skies safe.

Our objectives

- Deliver a safe, efficient and reliable service every day.
- Deliver SESAR¹ and transform the business for the future.
- Win and retain commercial business.

Our values

- We are safe in everything we do.
- We rise to the challenge.
- We work together.

¹ A number of explanatory notes are provided on page 121 of this report. Abbreviations used in this report are provided on page 120.

Financial highlights

Financial year ended 31 March (£m unless otherwise specified)	2018	2017	Change %
Revenue	913.1	919.3	-0.7
Profit before tax and goodwill impairment	132.8	136.5	-2.7
Profit before tax	132.8	125.5	+5.8
Capital expenditure	185.6	156.4	+18.7
Net debt ^a	71.5	132.7	-46.1
Gearing ^b (%)	27.5%	35.9%	-23.4
Dividends	57.0	24.0	+137.5

^a Excludes derivative financial instruments

^b Ratio of the net debt to regulatory assets of the economically regulated business (NERL)

Deliver a safe, efficient and reliable service every day

- We handled 2.52 million flights (2017: 2.45 million), 2.7% more than last year, and maintained our safety record with no risk-bearing Airprox² attributable to NATS (2017: nil).
- En route delay per flight improved to 7.2 seconds (2017: 10.9 seconds). Also, we made technical changes to our operations which enable additional annual savings for airlines of 228,073 tonnes of CO₂ emissions (2017: 59,768t), based on projections of the volume of flights likely to take advantage of these changes.
- We are consulting with customers on a safety and service-led initial business plan for reference period 3 (RP3: 2020 - 2024).

Deliver SESAR and transform the business for the future

- We consulted customers and the CAA on our capital investment plan, which accelerates the deployment of new technology. We will invest £750m-£780m over the reference period (RP2: 2015 - 2019) in sustaining and modernising our infrastructure, which will be completed in RP3.
- Electronic flight strips³ were introduced into the Terminal Control (TC) operation in a phased transition which completed in June 2018.
- We recently presented a feasibility study for the modernisation of airspace over the London area to the Secretary of State for Transport.

Win and retain commercial business

- We strengthened our UK Airports business with new contracts from Belfast International, Farnborough, London City and Luton. We are building the infrastructure to provide London City with the UK's first remote digital tower ATC service in 2020. We also won a contract to provide air traffic controllers to the Airport Authority of Hong Kong, increasing the scale of our Asia Pacific business.
- We acquired 50% of Searidge Technologies⁴, a provider of technology for remote tower services and with them and other partners we are developing a digital tower prototype for Singapore's Changi Airport.
- Aquila, our joint venture with Thales, agreed a revised delivery schedule for the asset provision element of the MOD's Project Marshall⁵.
- In May 2018 we invested £51.0m to acquire a strategic minority interest in Aireon⁶, which provides satellite-based air traffic surveillance systems with global coverage capable of tracking and monitoring aircraft in real-time.

	Page
Strategic report	
Our business	1
Highlights	2
Chairman's statement	4
Chief Executive's review	6
Financial review	9
Going concern and viability statements	13
Key performance indicators	14
Safety, regulatory and economic environment	15
Our business model	18
Principal risks and uncertainties	20
Service line performance	23
People and non-financial reporting	25
Governance report	
Directors of NATS Holdings	28
NATS governance framework	31
Reports from Board Committees	35
Report of the directors	55
Independent auditor's report	58
Financial statements	
Consolidated income statement	64
Consolidated statement of comprehensive income	64
Consolidated balance sheet	65
Consolidated statement of changes in equity	66
Consolidated cash flow statement	67
Notes forming part of the consolidated accounts	68
Company balance sheet	116
Company statement of changes in equity	117
Notes forming part of the company accounts	118
Abbreviations and definitions	120
Explanatory notes	121

Chairman's statement

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.

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

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.

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 Swanwick⁸ 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

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)	<u>(0.9)</u>	
	5.3	
Airports	3.7	
Defence	(15.4)	
Other UK business	(0.4)	
International	<u>0.6</u>	
		(6.2)
Operating cost changes		
Staff costs	(21.1)	
Non-staff costs (net of other income)	(4.8)	
Depreciation & amortisation, net of grants	11.6	
Disposal of assets	<u>(0.1)</u>	
		(14.4)
Goodwill impairment		11.0
Finance cost changes		
Fair value movement on derivative contract	18.9	
Other finance costs (net)	<u>1.0</u>	
		19.9
Results of associate & joint ventures		(3.0)
2018 profit before tax		132.8

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.

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	2017
	£m	£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	2017
	£m	£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

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.

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

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		Borrowings	Net debt
	£m	£m	£m	£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

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 20 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

Description	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%
<u>NERL KPIs:</u>		
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)*	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

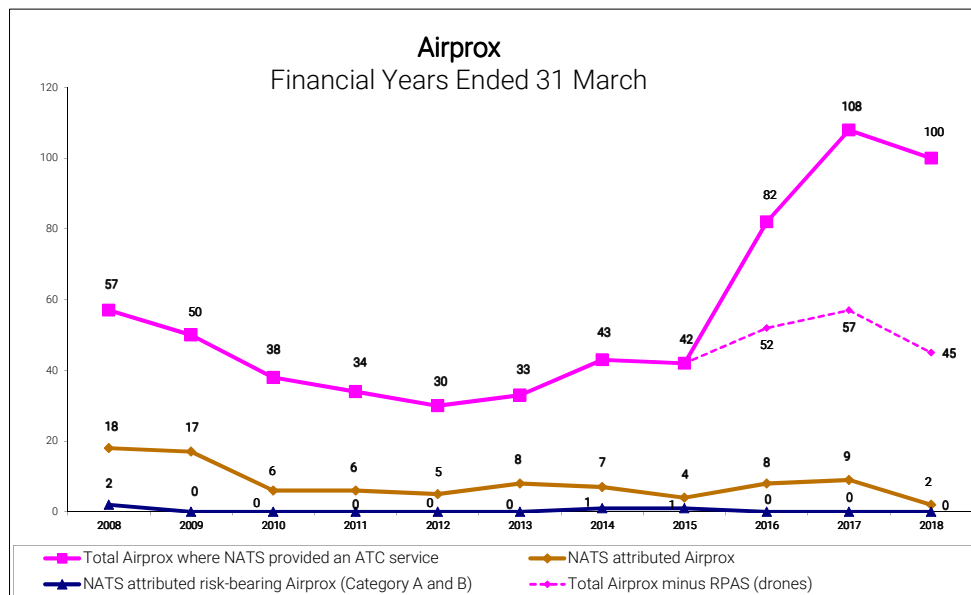
Safety performance

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 (RAT⁹) 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) have 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).

Managing safety & 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 equipment 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.

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.

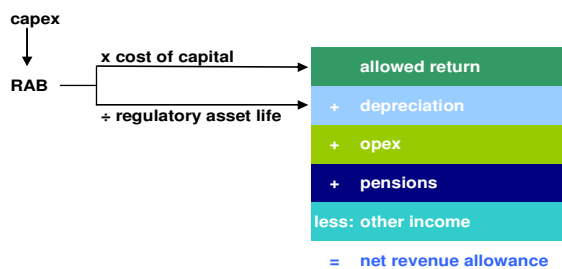
Our business model

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 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 • 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 13. A summary of internal control and risk management processes is on page 37.

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.

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, though 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 18 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	2017	Year on year change
	('000s)	('000s)	%
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).

Service performance: calendar years	2017		2016	
	Target	Actual	Target	Actual
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.

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 Temhill 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.

Other service lines

	2018	2017
Financial performance:		
Revenue (£m)	25.4	24.4
- Other UK business	15.2	14.8
- International	10.2	9.6
Service line contribution (£m)	5.4	3.5
- Other UK business	6.5	3.7
- International	(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

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 page 14 and below) 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.

Governance		Impact on strategy	Risk management	Measurement	Outcome / outlook
Anti-bribery and corruption					
Anti-bribery & corruption	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.	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.	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.	Not applicable.	We are currently refreshing our training, employee awareness campaign and procedures for monitoring performance, which will be implemented in 2018/19.
Employee matters					
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.
Environmental matters					
ATM-related CO ₂ emissions	We have a target to reduce ATM-related CO ₂ emissions per flight by 10% by 2020, relative to a 2006 baseline. Oversight rests with the Executive and an Environmental Benefit Delivery Panel is responsible for overseeing delivery of initiatives to meet environmental targets.	We recognise that our progress against the ATM CO ₂ emissions target has a material impact on our business, strategy and ultimately our financial performance. 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 CO ₂ emissions reduction target by 2020 as committed to in the RP2 business plan.	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 CO ₂ emissions outside the main airspace change portfolio.	Progress against 10% enabled ATM-related CO ₂ emissions reduction target, 2018: 6.4% (2017: 5.0%). Modelled enabled ATM-related CO ₂ reduction (tonnes), 2018: 228,073*, (2017: 59,768 - restated).	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 CO ₂ emissions.

	Governance	Impact on strategy	Risk management	Measurement	Outcome / outlook
Environmental matters (continued)					
3Di	Our licence sets an airspace efficiency target and we report on progress quarterly. 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.	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.	The programme to deliver the 10% reduction in ATM-related CO ₂ emissions includes activities to manage and improve the 3Di score.	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.	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.
Business impact on the environment	Under SI 2016/1245 we are required to report on the impact of our business on the environment. Oversight rests with the Executive and our Chief Executive is responsible for the company's environment strategy. A Steering Group acts on behalf of the Executive to oversee management of estate-related environmental matters. Our latest CDP ¹³ report is publicly available.	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.	Environmental risks are included in NATS' risk management system. Mitigation plans are maintained and reviewed regularly. ISO14001 certification requires regular internal and external audit.	We have adopted a 6% CO ₂ reduction target from energy use and in 2018 we achieved 28%. 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.	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.
Social and community matters					
Aircraft noise	Current oversight rests with the Executive.	We recognise that community concerns on noise have a material impact on our business strategy and our performance. 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.	We manage this 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.	Responsibility for measuring noise rests with airport operators. Our focus is on achieving locally agreed rates for continuous climb and descent operations.	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.

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



Richard Churchill-Coleman
Secretary

Director's biographies

The directors and officers of NATS Holdings Limited who were serving as at the date of approval of the accounts were as follows:

Chairman

Dr Paul Golby CBE FREng

Paul served as Chief Executive Officer of E.ON UK plc from 2002 to 2011 and is a Fellow of the Royal Academy of Engineering. He is Chairman of Costain Group plc, the Engineering and Physical Sciences Research Council and a non-executive director of National Grid plc. Paul chairs the Nomination Committee and is a member of the Audit Committee. Paul also attends the Remuneration Committee, Safety Review Committee and Technical Review Committee by invitation.

Executive Directors

Martin Rolfe, Chief Executive Officer

Martin took up the post of Chief Executive in May 2015 having been Managing Director, Operations since 2012, with responsibility for NATS' economically regulated UK and North Atlantic services. An engineer by training, Martin holds a Master's degree in Aerospace Systems Engineering from the University of Southampton. He has 20 years of experience in the defence and aerospace industry, and prior to joining NATS was the Managing Director of Lockheed Martin's Civil Division with responsibility for worldwide Air Traffic Management programmes as well as UK Government business. Martin has also worked for the European Space Agency and Logica plc.

Nigel Fotherby, Finance Director

Nigel joined NATS in 1999 as Finance Director and led the Finance team through the transition to PPP (2001) and, following the events of 9/11, the financial restructuring and refinancing of

NERL in 2003. In addition to his responsibilities for finance, Nigel leads NERL's economic regulatory team and represented the company in the economic regulator's review of NERL's charges for CP3 and RP2. Previously, he worked for Lex Service plc as Finance Director of its retail group and then for BT Cellnet, where he was Deputy Finance Director. He began his career with Coopers & Lybrand where he qualified as a Chartered Accountant.

Non-Executive Directors

Maria Antoniou

Maria is Senior Vice President HR/Executive HR based in E.ON's headquarters in Germany, a position she has held since 2013.

Maria joined E.ON in 2008 as the UK HR Director. During her time in the UK the business was significantly restructured and emphasis given to becoming a customer focused organisation. Prior to joining E.ON, Maria spent two years in the public sector as Group HR Director for Transport for London and 20 years with Ford Motor Company. Maria's last role at Ford was as global HR Director for Jaguar, Land Rover and Aston Martin. Maria chairs the Remuneration Committee and is a member of the Nomination Committee. She is also a director and chairs the NATS Employee Sharetrust.

Dr Harry Bush CB

Harry is Vice-Chairman of UCL Hospitals NHS Foundation Trust. He spent most of his career in HM Treasury where he focused latterly on policies towards growth, science funding and privatisation and private finance. He was UK

Director at the European Investment Bank from 2001 to 2002. Harry left HM Treasury in 2002 to join the CAA Board as Group Director Economic Regulation responsible for the economic regulation of the designated airports and NATS, as well as the CAA's economic analysis generally. He was a member of Eurocontrol's Performance Review Commission from 2005 to 2009 and of the UK's Commission for Integrated Transport from 2006 to 2010. Since leaving the CAA in 2011, Harry has been a consultant on economic regulation, undertaking assignments across a range of industries in the UK and overseas. He is a Fellow of the Royal Aeronautical Society. Harry is a director of AG and NATS Employee Sharetrust, and a member of the Audit Committee.

Mike Campbell

Mike has spent the last 11 years at easyJet initially as Group People Director and subsequently as Group Director Europe. During his time at easyJet he has also been Group Director, Transformation and has led on a series of strategic projects including the integration of GB Airways and the successful development of easyJet's presence in Europe.

Mike's early career has covered a range of sectors, from high end luxury goods to high volume, low margin electronics and he has direct experience across a number of disciplines. Mike has a Bachelor's degree in Mathematics and a Masters in Fluid Dynamics with a background in education and HR. He has operated in organisations across the world and has led businesses and change programmes across all of these. Mike is Chairman of AG, Chairman of the Technical Review Committee

and a member of the Nomination and Remuneration Committees.

Chris Hope

Chris has held a number of senior leadership roles during his career, which has spanned over 30 years in the aviation industry. He is currently responsible for easyJet's operation at London Gatwick. During his 10 years with easyJet, Chris has also been responsible for Flight Operations, Crew Planning and Operations Strategy. Chris started his career as a professional pilot and prior to joining easyJet he spent 19 years with Britannia Airways (later TUI Airways) latterly holding the post of Chief Pilot/Head of Flight Operations. Chris is an energetic leader, who is passionate about delivering business change through innovation and team work. He is a director of AG and a member of the Safety Review Committee.

Richard Keys

Richard is a non-executive director of Merrill Lynch International, Wessex Water Services Limited, the Department for International Development and the Department for Transport. He was previously a non-executive director of Sainsbury's Bank plc and a Council member of the University of Birmingham. He retired from PricewaterhouseCoopers in 2010 where he was a senior partner and Global Chief Accountant. Richard chairs the Audit Committee and is a member of the Nomination Committee and Technical Review Committee.

Kathryn Leahy

Kathryn is currently Director of Operations at Heathrow Airport, where she holds functional responsibility for airside and airfield operations, as well as umbrella responsibility for the day-to-

day management and operations of the Airport Operations Centre, resilience and emergency planning. Kathryn sits on the Sustainability Leadership Board and leads the Airspace Governance Board for Heathrow. She joined Heathrow Airport in 2010 as Risk and Safety Director and has held a number of senior operational roles.

Kathryn started her career in financial services working for AIG, and moved to the aviation industry in 1997. She spent 13 years at Virgin Atlantic Airways running their Risk and Safety Management team, as well as establishing the Internal Audit department and Board Audit Committee. She is a member of the Safety Review Committee.

Iain McNicoll CB CBE

Iain served 35 years in the Royal Air Force, retiring in 2010 as an Air Marshal. In his last appointment he was responsible for generating and delivering all of the RAF's front line operational capability. He was a member of the Air Command main Board and co-chaired the principal Board sub-committee. He had RAF responsibility for all safety and environmental matters, and was the RAF's first Chief Information Officer. Iain is now an aerospace, defence and security consultant. He is a Fellow of the Royal Aeronautical Society and a Chartered Director Fellow of the Institute of Directors. Iain chairs the Safety Review Committee and is a member of the Technical Review Committee.

Gavin Merchant

Gavin joined Universities Superannuation Scheme (USS) in 2011 as Senior Investment Manager with responsibility for sourcing, evaluating and monitoring co-investments within the infrastructure portfolio. Gavin serves on a number of portfolio company boards for USS as well as a number of advisory boards for infrastructure funds. Gavin has worked in the infrastructure sector in the UK and Australia for 15 years. Prior to joining USS, Gavin was a Director at Equitix Limited. Gavin graduated with an honours degree in Law from the University of Edinburgh and is a member of the Institute of Chartered Accountants of Scotland. Gavin is a director of AG and a member of the Remuneration Committee.

Officer

Richard Churchill-Coleman, Legal Director

Richard is Legal Director which includes the role of Company Secretary. He joined NATS in June 2007 from TUI Northern Europe Limited where he held the position of Group Legal Counsel. Richard has more than 30 years' experience in the aviation industry having begun his career as an undergraduate aerospace engineer with British Aerospace plc before qualifying as a solicitor with Norton Rose and subsequently as a Chartered Secretary. Richard has previously held positions at Thomsonfly, Virgin Atlantic Airways and DHL Worldwide Express and holds a private pilot's licence.

NATS Governance framework

Introduction

NATS was formed as a Public Private Partnership in July 2001. In addition to its memorandum and articles, a key element in its governance structure is the Strategic Partnership Agreement (SPA) between its main shareholders: the Secretary of State for Transport; The Airline Group Limited (AG); and LHR Airports Limited (LHRA).

The SPA sets out the relative responsibilities of the signatories and, in particular, requires the group and the directors to adhere to the UK Corporate Governance Code so far as reasonably practicable and save to the extent inconsistent with the other provisions of the SPA.

The Board and Directors

Ultimate responsibility for the governance of NATS rests with the Board of NATS Holdings, which provides strategic direction and leadership and is responsible for ensuring that the NATS group is run safely, efficiently, effectively and legally, with appropriate internal controls to safeguard shareholders' investment and group assets.

The boards of the subsidiary companies within the group are accountable to the NATS Holdings Board for all aspects of their business activities. As at the date of approval of the accounts, the NATS Holdings Board comprised a non-executive Chairman and 10 directors, as follows:

Executive Directors

- Chief Executive Officer (CEO); and
- Finance Director.

Non-Executive Directors

- a Chairman, appointed by AG, subject to the prior approval of the Crown Shareholder;
- four directors appointed by AG;
- three Partnership directors, appointed by the Crown Shareholder; and
- one director appointed by LHRA.

Changes to the Directors

From 1 April 2017 to the date of approval of the accounts, the changes to the directors were:

Non-Executive Directors	
Peter Read	Resigned 25 May 2017
Will Facey	Resigned 30 June 2017
Andrew Barker	Resigned 29 September 2017
Derek Provan	Resigned 28 February 2018
Mike Campbell	Appointed 26 May 2017
Chris Hope	Appointed 27 July 2017
Kathryn Leahy	Appointed 31 May 2018

The roles of the Chairman, Chief Executive and executive management

The Chairman of the NATS group is responsible for the leadership of the Board and for its governance. He has no day-to-day involvement in the running of the group. Day-to-day management of the NATS group is the responsibility of the CEO, Martin Rolfe, supported by the NATS executive team. The NATS executive team is responsible for delivering NATS' overall strategy. To achieve its strategic priorities the executive team is structured as follows:

- CEO;
- Finance Director;
- Operations Director;
- Safety Director;
- Commercial Director;
- HR & Corporate Services Director;
- Technical Services Director;
- Communications Director; and
- Legal Director.

The responsibilities of the Board

The Board has adopted a schedule of matters reserved for its decision and has put in place arrangements for financial delegations to ensure that it retains overall control of the business. The Board also has oversight of key business drivers and risks. Matters reserved for the Board include the monitoring of NATS' safety performance, appointments to the NATS executive team, and issues with political, regulatory or public relations implications. In addition to the schedule of

matters reserved to the Board, specific matters are reserved for Partnership directors, AG directors and the LHRA director, as follows:

Partnership and AG directors

- adoption of the business plan;
- entry into significant debts, charges or contingent liabilities;
- major agreements outside the ordinary course of business;
- significant litigation proceedings; and
- external investments, and acquisition and disposal of material assets.

LHRA director

- acquisition or disposal of any asset representing more than 10% of the total assets of the business;
- any aspects of the business plan which could adversely affect NERL’s service to UK airports;
- disposal of NATS Services shares by NATS.

Access to legal and professional advice

All directors have access to the advice and services of the Legal Director, Richard Churchill-Coleman, who acts as Secretary to the Board. If necessary, in furtherance of their duties, directors may take independent professional advice at the group’s expense.

Board meetings

The Board routinely meets seven times per year in January, March, May, June, July, September and November, and supplements these scheduled meetings with additional meetings as business priorities require. This year, the Board met ten times with each member (who served as a director during the year) attending as follows:

Name	Number of meetings attended / Number of eligible meetings
Paul Golby	10/10
Martin Rolfe	10/10
Nigel Fotherby	10/10
Maria Antoniou	9/10
Andrew Barker	2/5
Harry Bush	10/10

Mike Campbell	8/9
Will Facey	2/3
Chris Hope	6/6
Richard Keys	7/10
Iain McNicoll	10/10
Gavin Merchant	8/10
Derek Provan	7/8

The non-executive directors meet with the Chairman, but without the executive directors present, before and after each Board meeting. Reports and papers are circulated to Board members in a timely manner in preparation for meetings, and this information is supplemented by any information specifically requested by directors from time to time. The directors also receive monthly management reports and information to enable them to review the group’s performance. The group’s performance is also reviewed monthly by the executive team. This includes reviewing performance against operational targets (including safety, delays, project performance and risk management) and against financial targets (including revenue and capital budgets).

The Board’s performance

Board effectiveness review

The Board is committed to continuous improvement and a performance evaluation of the Board, its committees, and the Chairman is conducted each year. This year, the Board Effectiveness Review was administered by the Company Secretarial Department using structured questionnaires. The results were assessed by the Board at its 28 March 2018 meeting and appropriate actions agreed.

Director induction

Following their appointment, the Company Secretary consults with new directors on the scope of induction to NATS which they require and a personalised induction programme is developed. During the year, such programmes were started for Mike Campbell, Chris Hope and Kathryn Leahy. These programmes included briefings on

governance and the NATS business, presentations from relevant executive management, and visits to key operational centres. In addition to an induction programme, all Board members are briefed on a continuing basis on key business issues.

The Board's Committees

The Board has established five standing committees which operate within approved terms of reference. These are the:

- Audit Committee;
- Nomination Committee;
- Remuneration Committee;
- Safety Review Committee; and
- Technical Review Committee.

The number of meetings held by the principal Board committees, and attendance by non-executive director committee members, is provided in the table below.

	Number of meetings attended / Number of eligible meetings				
	Audit	Nomination	Remuneration	Safety Review	Technical Review
Paul Golby	4/4	1/1			
Maria Antoniou		1/1	7/7		
Andrew Barker			2/3		
Harry Bush	4/4				
Mike Campbell		1/1	4/4		4/5
Will Facey				1/1	
Chris Hope				3/3	
Richard Keys	4/4	1/1			5/6
Gavin Merchant			5/7		
Iain McNicoll				4/4	6/6
Derek Provan				2/3	

The terms of reference for the Board and its committees are available to all employees and shareholders and can be made available externally with the agreement of the Legal Director. Reports from each of the standing committees are set out on pages 35 to 54. However, in addition to the standing committees, from time to time the Board may form committees on an ad hoc basis to deal with specific business issues. During the year the Board formed two committees: the RP3

Subcommittee (comprising the Chairman, Nigel Fotherby, Martin Rolfe, Harry Bush, Richard Keys and Iain McNicoll) to consider the RP3 Initial Performance Plan; and the Brexit Subcommittee (comprising the Chairman, Nigel Fotherby, Martin Rolfe, Harry Bush and Richard Churchill-Coleman) to consider the implications of, and the company's position on, Brexit.

Meetings with shareholders

A shareholders meeting is held once a year and provides the group with an opportunity to update the shareholders on the progress of the annual business plan and long term strategy. The meeting was the Annual General Meeting held on 27 July 2017. Shareholders may also meet informally with the Chairman, CEO, Finance Director and other members of executive management upon request.

Due to the manner in which non-executive directors are appointed by the shareholders under the SPA, there is no senior independent director.

Compliance with the UK Corporate Governance Code

NATS is committed to maintaining the highest standards of corporate governance. The SPA requires the group and the directors to adhere to the UK Corporate Governance Code so far as reasonably practicable and save to the extent inconsistent with the other provisions of the SPA. For the financial year ended 31 March 2018, the applicable standard is the 2016 UK Corporate Governance Code (the Code).

NATS has applied the principles of the Code to the extent considered appropriate by the Board throughout the year ended 31 March 2018.

However, a number of principles and provisions in the Code are not relevant to the partnership nature of the NATS group's ownership and the principal areas where NATS did not comply are summarised below.

Code A.3.1: Independence of the Chairman

The Chairman is nominated by AG, his appointment being subsequently approved by the Secretary of State for Transport. He therefore does not fully meet the independence criteria as set out in the Code and this affects NATS' compliance with a number of Code provisions.

Code A.4.1, B.1: Independence of Directors and appointment of Senior Independent Director

The arrangements for appointing non-executive directors, as set out in the SPA, are such that none of the directors meet the Code's criteria for independence. This affects NATS' ability to comply with a number of the Code's provisions, including the requirement to appoint a senior independent director.

Code B.2.1, D.2.1: Composition of the Nomination and Remuneration Committees

Details of the work of the Nomination and Remuneration Committees are set out below. However, the manner in which directors are appointed, as noted above, means that these committees' processes do not fully comply with the Code as regards independence.

Code B.3.2: The terms and conditions of non-executive directors

As noted in the Remuneration Committee report, the AG Nominee directors and Partnership directors do not have service contracts with NATS and, as a result, the terms and conditions of appointment cannot be made available for inspection. The Partnership directors are engaged on three-year fixed-term contracts and have letters of appointment from the Department for Transport. The Chairman has a service contract with NATS, details of which are set out in the Remuneration Committee report.

Code B.7: Re-election of Directors

The non-executive directors are appointed by the shareholding groups and are therefore subject to the relevant shareholding groups' selection

processes, rather than those included in the provisions of the Code. They are therefore not subject to periodic re-election as stipulated by Section B.7 of the Code, although Partnership directors are appointed by the Government on three-year fixed-term contracts. This aligns with the recommendation in B.7.1 that the maximum period between re-election is three years.

The tenure of non-executive directors at 31 March 2018 was as follows:

Name	Date of appointment	Years of service to 31/3/18*
Paul Golby	1/9/14	3 years 7 months
Maria Antoniou	1/8/16	1 year 8 months
Andrew Barker	28/9/16	12 months**
Harry Bush	27/5/14	3 years 10 months
Mike Campbell	26/5/17	10 months
Will Facey	27/11/14	2 years 8 months ^^
Chris Hope	27/7/17	8 months
Richard Keys	1/9/13	4 years 7 months
Iain McNicoll	1/9/13	4 years 7 months
Gavin Merchant	20/3/14	4 years
Derek Provan	28/1/16	2 years 1 month***
Peter Read	23/9/02	14 years 8 months^

* Years of service to resignation, if earlier; **Served until 29 September 2017; ***Served until 28 February 2018; ^Served until 25 May 2017; ^^Served until 30 June 2017

The group is mindful of the principles behind the guidance in the Code relating to directors who serve for longer than nine years.

Code Section E: Relations with shareholders

Within the PPP structure, there are no institutional or public shareholders. However, the nature of the Strategic Partnership is such that the shareholders have representatives amongst the directors with whom they enjoy a close working relationship. All non-executive directors are invited to relay the views of their respective shareholders into Board discussions. The Board is therefore able to take decisions in the best interests of the group, having taken account of the views of the shareholders. The Chairman also has regular discussions with shareholders in addition to the formal meetings noted under the 'Meetings with shareholders' section above.

Audit Committee report

The role of the Audit Committee

The Committee meets four times per year. It is chaired by Richard Keys; Paul Golby and Harry Bush are the remaining two members of the Committee. The Committee members all have wide-ranging commercial and management experience and Richard Keys, a former audit partner at PricewaterhouseCoopers LLP (PwC) has recent, relevant financial and audit experience. The Committee members maintain their competence in the sector and on company specific issues (such as pensions) through targeted training and briefing at Committee meetings.

The CEO, Finance Director, Group Financial Controller, Head of Internal Audit, NATS Risk Manager and the external auditors are invited to attend each meeting by standing invitation.

Part of each meeting is set aside as required for members of the Committee to hold discussions without executive management present, including holding separate discussions with the external and internal auditors.

The duties of the Committee include:

- monitoring the integrity and compliance of the group's financial statements;
- reviewing the effectiveness of the external auditors and the Internal Audit department;
- reviewing the scope and results of internal and external audit work; and
- reviewing NATS' systems of internal controls and risk management.

The Committee makes recommendations to the Board on matters relating to the appointment, independence and remuneration of the external auditors and, to ensure independence, monitors the extent of non-audit

services provided by the external auditors (as explained below). The Committee also reviews whistleblowing arrangements under which employees may confidentially report suspected wrongdoing in financial reporting or other matters with the objective of confirming that arrangements in place for their investigation and follow-up are appropriate. The Committee reviews its Terms of Reference annually and recommends any changes to the Board for approval.

Main activities of the Committee during the year

a. Financial reporting

The primary role of the Committee in relation to financial reporting is to review with both management and the external auditors the annual financial statements of the group and its subsidiaries and NERL's regulatory accounts, having regard as appropriate to:

- the suitability of accounting policies adopted by the group;
- the clarity of disclosures and compliance with Companies Act legislation and financial reporting standards, including the requirements of NERL's air traffic services licence; and
- whether significant estimates and judgements made by management are appropriate.

In addition, the Committee assists the Board in its assessment of whether the Annual Report and Accounts taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the group's position and performance, business model and strategy.

To aid its reviews the Committee considers reports from the Finance Director and reports

from the external auditors on the outcome of the annual audit.

The Committee considered the following significant accounting judgements and sources of estimation uncertainty in the year:

The carrying value of goodwill

This is a focus for the Committee because of the materiality of the group's goodwill (£198.3m at 31 March 2018) and the inherent subjectivity in impairment testing. The judgements relate to: the assumptions underlying the calculation of value in use, including the extent to which business plan cash flow projections are achievable taking account of the outcome of regulatory reference period reviews; and assessing fair value less costs of disposal, including the extent of any premium to the value of regulatory assets.

The Committee addressed these matters by having regard to the higher of value in use and fair value less costs of disposal and considering: NERL's revenue allowances from the RP2 settlement and the cash flows implied by its latest business plan; the cost of capital assumption used to discount value in use; and the value of NERL's regulatory assets, including a premium to reflect the scope for out-performance of regulatory settlements and premia implied by market transactions in regulated entities. The Committee was satisfied with management's analysis and the explanations and disclosures provided in note 13 to the accounts.

Retirement benefits

The pension funding position determined under international accounting standards requires a number of actuarial assumptions to be made, including judgements in relation to long term interest rates, inflation, longevity and salary

growth. The Committee reviewed the basis for determining these assumptions. The final calculations in respect of the defined benefit pension scheme are performed by a qualified actuary, independent of the scheme. Note 30 sets out the main actuarial assumptions used, including sensitivity analysis.

The Committee also considered the adequacy of the explanations for the different basis of valuation for the Trustees funding assessment and for the balance sheet position under international accounting standards.

Revenue recognition and the recoverability of revenue allowances

The economic regulatory price control for UK en route services allows for the recovery (or reimbursement) of revenue allowances where actual traffic volumes or inflation are different to the regulator's forecasts made at the start of the reference period, where actual service performance is different to the regulator's annual targets and for adjustments brought forward from the previous charge control period. NATS' policy is to recognise these revenue adjustments in the year of service, based on traffic, inflation and service performance experienced. Where regulatory revenue adjustments are assessed after the end of a reference period, their recoverability (or reimbursement) is dependent on the assessment of the economic regulator and recognised on this basis.

The Committee reviewed the nature and value of the regulatory revenue adjustments and considered the relevant EC Charging Regulations and the conditions of NERL's air traffic services licence for RP2 in determining whether their recognition was appropriate. The recoverable and the reimbursable revenue

allowances are reported in notes 16 and 20 respectively.

Other matters

The Committee also received reports on the impact of IFRS15: *Revenue from Contracts with Customers* and the method of its adoption in the financial year ending 31 March 2019, reviewed financial reports issued to shareholders under the terms of the Strategic Partnership Agreement, the group's tax strategy and relevant guidance on realised and distributable profits. The Committee will be reviewing the impact of new accounting standard IFRS16: *Leases*, which will apply in 2019/20, during the 2018/19 financial year.

b. Internal control

The Board is responsible for the group's system of internal control and for reviewing its effectiveness.

NATS' system of internal control is designed to ensure that the significant financial, operational, safety, legal, compliance and business risks faced by the group are identified, evaluated and managed to acceptable levels. This system was in place during the year and up to the date of approval of the Annual Report and Accounts and was specifically considered for the year under review at its June 2018 Committee meeting. However, as with all such systems, internal controls can provide reasonable but not absolute assurance against misstatement or loss.

The Committee's ongoing work in the area of internal control includes reviewing reports by the internal and external auditors, reviewing reports of any attempted or actual frauds, receiving reports from the management's Tax and Treasury Committees, and consideration of the circumstances of whistleblowing reports.

In overseeing NATS' whistleblowing procedures, the Committee reviewed the appointment of an independent provider for NATS' whistleblowing hotline and was satisfied the associated procedures continue to meet best practice and are promulgated effectively throughout the company and to interested stakeholders and third parties.

Since its previous report, the Committee's reviews of internal audit work have included those on: cyber security arrangements, including a review of arrangements and processes at certain key suppliers as they impact services to NATS; group insurance arrangements; the operating and governance arrangements in place at a material joint venture in conjunction with the internal systems and processes of the joint venture partner; and GDPR readiness. The Committee also approved the internal audit programme for 2018/19 including the continuing review by internal audit of the assurance processes in place across the group audit universe through the operation of the 'three lines of defence', with particular focus on the first and second line activities and accountabilities. The Committee continues to monitor the follow-up by internal audit of management actions taken to address the internal audit recommendations arising from their work.

c. Risk management

Risk management is essential in seeking to minimise the threat that an event or action might have on the group's ability to achieve its objectives and to execute its strategies effectively. Successful risk management ensures that the group is prepared to deal with events that could disrupt the business' ability to consistently deliver services to its customers

and meet the needs and expectations of its shareholders in a fast changing and uncertain environment.

The Board takes the management of risk very seriously, paying particular attention to areas such as safety, service delivery, operating efficiency, pension funding, financial control, project delivery, regulatory compliance, financing and IT systems.

This system for the identification, evaluation and management of risks is embedded within the group's management, business planning and reporting processes, accords with the UK Corporate Governance Code, and is aligned with the ISO31000 risk management standard. Detailed risk identification is carried out at business unit and departmental levels and is recorded and measured in a structured and controlled enterprise-wide database. NATS' risks are mapped against risk tolerance statements which have been agreed by the Board. Risk update reports are submitted to the NATS Executive team which address changes in risk tolerance, business controls and the progress of mitigating actions associated with NATS' risks.

The Committee reviews the processes in place to identify, assess, mitigate and manage risk in order to satisfy itself that they are appropriate and within the specified risk tolerance. The Board formally reviews the principal risks to NATS and the risk management processes and mitigations in place on a six monthly basis. NATS directors have carried out a robust assessment of the principal risks facing the business. In each monthly set of Executive reports to the Board, any changes in gross or residual risk of a 'top risk' are highlighted by exception, but particularly if the change means

a risk falls outside the agreed tolerance. The Committee and Board have assessed the group's principal risks and the performance against mitigation plans during the year to 31 March 2018. The Committee and the Board also review the extent of warranties and guarantees entered into by the group, with particular focus on any unlimited liability indemnities entered into as part of commercial arrangements.

d. Internal audit

The group's internal audit department reviews the controls in place to mitigate NATS' business risks, which includes reviews of internal financial control. In order to access the specialist skills required to perform assessments across the wide range of areas in which NATS operates, the internal audit function is operated as a co-source arrangement, primarily with PwC but with other providers if required.

The results of internal audits and agreed actions are reported as appropriate to relevant directors, executives and managers. The Committee also oversees and monitors the actions taken by management to address internal audit findings and considers the ongoing independence of internal audit. The Committee oversees the performance of internal audit through the receipt of a report on its work presented to each Committee meeting and agrees the annual work plan in the context of the group's audit and assurance universe.

e. External audit

BDO LLP was re-appointed as external auditor at the Annual General Meeting on 27 July 2017. The Committee reviewed the performance and the continuing independence of BDO at its June meeting and recommended to the Board that

BDO be re-appointed. Accordingly, a resolution recommending their re-appointment will be tabled at the AGM on 26 July 2018.

f. Non-audit work performed by the external auditors

From time to time the external auditors perform non-audit services for the group. Part of the Committee's remit is to ensure that such engagements do not impair the auditors' objectivity or independence. The Committee does this by implementing a policy on non-audit services. It monitors the level of non-audit fees against a limit of 70% of the average statutory audit fee incurred over the prior three years and approves work by the external auditors in accordance with this policy.

The principal non-audit services performed by BDO in the year ended 31 March 2018 were an assurance certificate in respect of NERL's regulatory accounts and independent reviews of claims for European grant funding. The cost of non-audit services is disclosed in note 6 of the 'Notes forming part of the consolidated accounts'.

The Committee considered the nature and cost of these services and concluded that they did not impair the independence of the external auditor.

Richard Keys

Chairman of the Audit Committee

Nomination Committee report

The role of the Nomination Committee

The Nomination Committee is chaired by the Chairman Paul Golby and, during the year, comprised three further non-executive directors, Mike Campbell, Richard Keys and Maria Antoniou. The Committee meets when considered necessary by its members and may invite executives and advisors to attend meetings as appropriate.

Appointments to the Board are made by the relevant sponsoring shareholder under the terms of the SPA. The Committee has the task of evaluating the balance of skills, knowledge and expertise required on the Board and making recommendations to the shareholders with regard to Board appointments. It also reviews succession plans for executive directors and senior executives.

Main activities of the Committee during the year

During the year, the Committee met once in January 2018 to receive an update on talent strategy implementation and review the succession plan with a particular focus on successors into Executive roles. The Committee also received a progress update on the Safety Director appointment and reviewed its terms of reference. The appointment of Chris Hope as an AG appointed director was made on 27 July 2017 and Kathryn Leahy was appointed as LHRA appointed director on 31 May 2018.

The Committee's terms of reference require it to give due regard to the benefits of diversity, including gender, on the Board.

Paul Golby

Chairman of the Nomination Committee

Remuneration Committee report

Remuneration Committee report

This report has been prepared by the Remuneration Committee and approved by the Board. The information in this report is not subject to audit.

Purpose and responsibilities

The Committee meets when necessary and is responsible for:

- considering and approving, on behalf of the Board, the arrangements for determining the remuneration, benefits in kind and other terms of employment for the Chairman and executive directors and the company's Personal Contract Group (which comprises c.375 senior managers);
- considering and approving company incentive targets for executive directors and other members of the wider executive team;
- considering and approving a statement of remuneration policy;
- confirming details of the remuneration of each executive director for inclusion in the Annual Report and Accounts;
- confirming reward arrangements for all executive team members; and
- considering exit arrangements for executive team members.

The terms of reference for the Committee require it to ensure the company's remuneration policy complies with the current Corporate Governance Code, as far as practicable under the SPA. No director is involved in decisions relating to his or her own remuneration.

Activities in the year

The Committee met seven times in 2017/18 and its main activities during the year were to:

- review and approve the annual performance related pay targets for executive directors, the executive team and Personal Contract Group;
- review and approve achievement of the Long Term Incentive Plan (LTIP) cycle 4 targets and resulting payments;
- review the Independent Remuneration Committee Advisor role and undertake a full tender process to ensure good governance;
- review NATS gender pay report and statutory declaration in line with the legal requirements and examples of best practice;
- review the effectiveness of the current LTIP against market practice and consider alternative structures to better align with objectives of the plan; and
- agree remuneration for new executive team roles and termination payments for departing executive team members.

Membership

The Remuneration Committee of the Board is comprised entirely of non-executive directors. It is chaired by Maria Antoniou. Other members are Gavin Merchant and Mike Campbell (who replaced Andrew Barker in November 2017). Paul Golby also attends the meeting (but is absent for discussion about his own remuneration).

Advisers and other attendees

As appropriate, the CEO and HR & Corporate Services Director are invited to attend Committee meetings.

The company also takes external advice on various aspects of remuneration policy and competitive pay levels from independent consultants. New Bridge Street (NBS), part of Aon Hewitt, were reappointed in December

2017 following a tender process as independent advisers to the Committee. NBS has no other commercial relationship with the company. NBS is a member of the Remuneration Consultants Group and is a signatory to its code of conduct.

Remuneration policy

It is the company's policy to establish and maintain competitive pay rates that take full account of the different pay markets relevant to its operations. In return, employees are expected to perform to the required standards and to provide the quality and efficiency of service expected by its customers. In fulfilling this policy, the company fully embraces the principles of and complies with the provisions of the UK Corporate Code on directors' remuneration as outlined below.

The level of executive directors' remuneration takes into account competitive practice across comparator companies (which are based on organisations, as agreed with the Committee, from which NATS might seek to recruit employees or which are similar to NATS in other respects) together with the need to attract and retain talent. Executive directors are rewarded on the basis of responsibility, competence and contribution, and salary increases take account of pay awards made elsewhere in the group. Performance-related elements form a substantial part of the total remuneration package and are designed to align the interests of directors with those of shareholders and other stakeholders and to promote the long term success of the company.

Performance is measured against a portfolio of key business objectives and payment is determined based on performance beyond that

expected of directors as part of their normal responsibilities. In implementing this strategy the Committee adopts the principle that incentive scheme targets must be stretching and in line with the Board's agreed strategic growth and business plans.

Executive directors

The remuneration package for executive directors is reviewed each year and consists of, but is not restricted to:

- annual salary;
- pension or pension cash alternative, life assurance and income protection or ill health;
- annual performance related incentive scheme;
- long term performance related incentive scheme;
- All-Employee Share Ownership Plan; and
- other benefits: including company car or car allowance, financial advice, private medical cover and health screening.

Full details of directors' remuneration paid in relation to 2017/18 are set out on page 46.

Salaries

Salary policy summary

The Committee determines, where appropriate, annual increases to executive directors' salaries having regard to their experience, responsibility, individual contribution, market comparatives and pay increases elsewhere in the group.

Operation

Executive directors' salaries are normally reviewed annually and fixed for the 12 months commencing on 1 April. The Committee takes into consideration:

- role, experience and performance of the individual;

- internal and external relative positioning for total reward; and
- the average budgeted increase in base salaries elsewhere in the group.

Implementation for 2017/18

In determining the base salaries for 2018/19, the Committee has determined that following a benchmarking exercise the following salaries will be applied with effect from 1 April 2018:

	Salaries effective 1 April (unless otherwise stated)	
	2017	2018
M Rolfe	£430,000	£450,000
N Fotherby	£293,761	£304,630

Executive salary increases were considered by the Remuneration Committee in line with the agreed principles and benchmarked against the agreed comparator groups. The increase applied for Martin Rolfe at 1 April 2018 takes into account performance against set targets and positions the new salary against appropriate benchmarks.

Pensions and life assurance

Pension and life assurance policy summary

To provide income in retirement through either:

- Defined Benefit Pension Scheme (pre April 2009) with 4 times final pensionable earnings, death in service and ill health arrangements; or
- Defined Contribution Pension Scheme (post April 2009) with 8 times basic salary, death in service and income protection arrangements; or
- A cash alternative in lieu of employer pension contributions (for those impacted by the lifetime allowance tax regime)¹⁴.

Operation

Executive directors' pensions and life assurance are based on salary only, with performance-related pay and other discretionary benefits excluded. There are two principal methods of securing pensions for executive directors:

- the Civil Aviation Authority Pension Scheme (CAAPS), a defined benefit scheme. This scheme was closed to new participants on 1 April 2009; and
- the NATS Defined Contribution Pension Scheme which came into operation on 1 April 2009.

NATS also offers a company-wide cash alternative payment scheme in lieu of pension contributions for those with total pension savings close to the Lifetime Allowance, which is also available to eligible executive directors.

Implementation for 2017/18

The schemes will operate as described above. Martin Rolfe is a member of the Defined Contribution Pension Scheme (in order to make employee only contributions) and continues to take the cash alternative in lieu of employer pension contributions. Nigel Fotherby opted out of CAAPS with effect from 31 March 2017, electing to take the pension cash alternative in lieu of employer pension contributions.

Annual incentive scheme

An Annual Management Performance Related Pay Scheme (AMPRPS) is in place for the executive team and all employees in the Personal Contract Group.

AMPRPS policy summary

The AMPRPS is designed to reward on-going delivery and contribution to strategic targets during a one-year period. Targets are set

annually and are a mix of financial and personal performance.

Operation

AMPRPS payouts are determined by the Committee after the performance year end, based on performance against pre-determined financial and personal objectives. The Committee may apply discretion as appropriate.

AMPRPS is paid entirely in cash. The Committee may determine that vesting should not be applied for any particular participant(s) should the Committee consider that individual performance or other circumstances makes this an appropriate outcome. This power would only be exercised in circumstances when the Committee decides that there has been or could be significant damage to the reputation of the company either during the performance years or as a result of the award. In these cases, the decision would be referred to the non-executive directors of the Board for ratification.

In addition, a claw-back provision applies whereby individuals are liable to repay or forfeit some or all of their AMPRPS if there is a material misstatement of results.

Performance metrics

Company performance: 75% of maximum
 Personal performance: 25% of maximum
 Further details of the targets set for 2017/18 are provided in the outcome section on page 45.

Maximum AMPRPS opportunity

CEO: 70% of salary

Finance Director: 55% of salary

AMPRPS for 2018/19

The AMPRPS will run on an unchanged basis.

Performance targets are set in line with business strategy and will be set out, to the extent they are not commercially sensitive, in next year's report.

Long term incentive scheme

A Long Term Incentive Plan (LTIP) is in place for members of the executive team.

The LTIP is benchmarked against the market and aligned to retain market comparative maximum award levels combined with clear stretch in target values. A full description of how the revised LTIP structure operates is set out below.

LTIP policy summary

The LTIP is designed to reward the achievement of a set of financial and strategic targets for rolling three-year periods.

Operation

Awards of notional shares are made annually with vesting dependent on the achievement of performance conditions over the three subsequent years.

To the extent that performance conditions are met awards will normally vest in three tranches, 50% in the third financial year, 25% in the fourth financial year and 25% in the fifth financial year. Transitional arrangements are in place for the cycle 5 award which creates a shorter performance window for this cycle to allow for a delay in implementation whilst considering scheme design.

Notional shares are linked to the NATS All-Employee Share Ownership Plan share price and participants receive cash payments in relation to the value at the time of vesting.

Recovery and withholding provisions apply to the LTIP at the discretion of the Committee in the event of material misstatement of results,

an error in the calculation of outcome or in instances of individual gross misconduct.

Performance metrics

Profitability, growth and strategic targets will be set out (to the extent they are not commercially sensitive at the time an award vests). These will be subject to the overarching event clause and adjusted to take account of traffic levels.

Maximum LTIP opportunity

For cycles with a first performance year of 2017/18:

CEO: 110% of salary

Finance Director: 90% of salary

Active LTIP Cycles

Cycle 5

The cycle 5 award was made in April 2016. This award is subject to a two-year performance period, with 75% of the award vesting on the second anniversary of grant and 25% of the award vesting on the third anniversary of grant. Performance metrics are linked to profitability, growth and strategic targets.

Cycle 6 and 7

These cycles were awarded in April 2016 (cycle 6) and April 2017 (cycle 7). The awards are subject to a three-year performance period, with 50% of the award vesting on the third anniversary of grant, 25% of the award vesting on the fourth anniversary of grant and 25% of the award vesting on the fifth anniversary of grant. Performance metrics are linked to profitability, growth and strategic targets.

All-Employee Share Ownership Plan

The NATS All-Employee Share Ownership Plan is designed to give every employee (including executive directors but not non-executive directors) an equal opportunity to acquire a

stake in the future success of the company. The share plan holds 5% of the shares in NATS and is administered by a special trustee company with three directors – one each appointed by HM Government, AG and the Trades Unions (collectively known as the Trustee). Maria Antoniou chairs the Trustee meetings.

At the date of this report, Martin Rolfe holds 624 shares and Nigel Fotherby holds 3,101 shares.

The current HM Revenue and Customs approved valuation, for the period 1 January 2018 to 30 June 2018, values the shares at £3.40 each.

Employment contracts

The employment contracts of Martin Rolfe and Nigel Fotherby provide for 12 months' notice in the event of termination by the company or the executive director.

Non-Executive directors

Charges for the services of non-executive directors are determined in agreement with the relevant sponsoring body - the Department for Transport in the case of the Partnership directors and AG in the case of AG directors. The Partnership directors received the following annual remuneration in the financial year: Maria Antoniou £44,000 (£36,000 salary and £8,000 as Chairman of the Remuneration Committee), Richard Keys £44,000 (£36,000 salary and £8,000 as Chairman of the Audit Committee), Iain McNicoll £49,333 (£36,000 salary, £8,000 as Chairman of the Safety Review Committee and £8,000 pro-rated as Chairman of the Technical Review Committee between June 2017 and January 2018). AG directors received no remuneration for their

services to the NATS Board. However, a payment of £204,000 per annum is made to AG in lieu of remuneration for these directors. This sum is used to fund the activities of AG. Derek Provan was employed and remunerated by LHRA as part of his contract. The same arrangements will apply for Kathryn Leahy.

Paul Golby has a contract specifying the remuneration he receives from the company, being £165,120 on an annualised basis.

The Partnership directors are normally engaged on three-year fixed-term contracts and have letters of appointment from the Department for Transport.

Annual management performance related pay scheme outcome for 2017/18

Targets relating to the company element of the AMPRPS for 2017/18 were only partly achieved (yielding 67.5% out of an available 75% of the award) and personal performance ratings for the executive directors ranged between 22.5% and 25% (out of an available 25%).

The AMPRPS targets feature 3 key measures:

- Group EBITDA –81.2% of the available weighting achieved;
- Customer focus measures – year end delay performance 100%;
- Operational measures relating to: the start of transitional limited operational service for electronic flight strips in TC by January 2018; and completion of Swanwick site acceptance testing for London City Airport's digital tower capability, resulting in an overall 100% payout.

Long term incentive scheme outcome for LTIP Cycle 5 2017/18

The performance targets were partly achieved (yielding 80% of the maximum achievable for cycle 5). 75% of this award will vest following

the share valuation results (around July 2018), after which participants will be able to exercise this portion of the award, and 25% will vest around a year later in July 2019, after which participants will be able to exercise the remaining portion of the award.

Maria Antoniou

Chairman of the Remuneration Committee

Audited information

Directors' remuneration

Emoluments (excluding pension arrangements which are reported in the tables below) of the Chairman and directors were as follows:

	Notes	Salary or fees*		Benefits*		Performance related payments*		Long term incentive plan*		Pension Cash Alternative*		Total*	
		2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
		£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000
Chairman													
Dr Paul Golby CBE	1	163	160	6	7	-	-	-	-	-	-	169	167
Executive directors													
Martin Rolfe	2, 3, 4	420	390	15	17	278	211	332	236	65	60	1,110	914
Nigel Fotherby	3, 4	294	281	30	13	145	121	198	210	63	-	730	625
Non-executive directors													
Maria Antoniou		44	24	-	-	-	-	-	-	-	-	44	24
Richard Keys		44	36	-	-	-	-	-	-	-	-	44	36
Iain McNicoll CB CBE	1	49	36	1	1	-	-	-	-	-	-	50	37
Michael Campbell	5	-	-	-	-	-	-	-	-	-	-	-	-
Dr Harry Bush CB	5	-	-	-	-	-	-	-	-	-	-	-	-
Chris Hope	5	-	-	-	-	-	-	-	-	-	-	-	-
Gavin Merchant	5	-	-	-	-	-	-	-	-	-	-	-	-
Former directors (at 31 March 2018)													
Baroness Dean of Thornton-le-Fylde		-	12	-	-	-	-	-	-	-	-	-	12
Peter Read	5	-	-	-	-	-	-	-	-	-	-	-	-
Andrew Barker	5	-	-	-	-	-	-	-	-	-	-	-	-
Will Facey	5	-	-	-	-	-	-	-	-	-	-	-	-
Derek Provan	6	-	-	-	-	-	-	-	-	-	-	-	-
		1,014	939	52	38	423	332	530	446	128	60	2,147	1,815

* For year, or from date of appointment or up to date of resignation.

- Benefits paid to the Chairman and non-executive directors represent the reimbursement of travel costs.
- Martin Rolfe is a member of the defined contribution scheme in order to make employee pension contributions only. Under the company's pension salary sacrifice arrangement, Martin sacrificed £10,000 of his salary in lieu of contributions to the scheme in the year. The company did not make any employer contributions. The principal terms of the scheme are explained in note 30 to the financial statements.
- Martin Rolfe and Nigel Fotherby were eligible for the pension cash alternative payment scheme in lieu of employer pension contributions. Under the pension cash alternative payment scheme, Martin Rolfe received £64,500 for the year (2017: £60,000) and Nigel Fotherby received £62,916 for the year (2017: nil).
- Martin Rolfe and Nigel Fotherby participate in the Long Term Incentive Plan. The values for 2018 reflect the estimated value of Cycle 5 at 31 March 2018 (see below).
- These directors are appointed by The Airline Group (AG) who charged NATS a total of £51,000 per quarter (2017: £45,000 per quarter) for the services of the directors. Peter Read resigned from the Board on 25 May 2017 and Mike Campbell was appointed effective 26 May 2017. Will Facey resigned from the Board on 30 June 2017 and Chris Hope was appointed 27 July 2017. Andrew Barker resigned from the Board on 29 September 2017.
- Derek Provan was appointed to the Board by LHR Airports Limited (LHRA) and received no fees from NATS for his services. He resigned on 28 February 2018.

Interests of the directors in the Long Term Incentive Plan (LTIP):

From Cycle 5 onwards the maximum entitlement under the LTIP scheme is based on an award of notional shares and therefore the amount available is also linked to the movement in the value of an employee share. Due to the timing of the review of the LTIP structure, Cycle 5 was a transitional award implemented in April 2016 with a reduced two-year performance period. Cycles 6 and 7, vesting after April 2019, will vest 50% after the end of the performance period and following the determination of the value of an employee share (around July for each cycle), and 25% per year for the following two years, resulting in an overall five year term for each plan (with the exception of the transitional Cycle 5 which will have a reduced overall four year term).

The maximum entitlement of the executive directors for each cycle as a percentage of average annual salary is shown below:

	Cycles 5, 6 & 7
Martin Rolfe	110%
Nigel Fotherby	90%

The outcome of the LTIP is not known until the end of each cycle. Accordingly, the emoluments table will reflect amounts when qualifying performance conditions in relation to each cycle are met. The performance period for Cycle 5 ended 31 March 2018 with 75% of the award vesting around July 2018 and 25% one year later. The value of the LTIP included in the table above for 2018 reflects an estimate of the value of the award based on the share price at 31 March 2018 of £3.40. An adjustment may be necessary to the 2018 value in the 2019 annual report to reflect the actual share price at the vesting date. The previous year's LTIP value reflects the outcome of Cycle 4 which achieved a pay-out of 96.3%, and was paid on 30 June 2017.

Audited information

Directors' remuneration continued

Pension benefits:

Nigel Fotherby was a member of the CAA Pension Scheme, a defined benefit pension scheme, until he opted out on 31 March 2017. No pension benefits accrued from that date. The value of his accrued pension benefit in the previous year is shown below:

	2018 £000	2017 £000
Nigel Fotherby	-	147

Directors' shareholdings and interests in shares:

Aggregate emoluments disclosed above do not include any amounts for the value of shares awarded under the company's All-Employee Share Ownership Plan. The directors did not sell any shares during the year.

Details of shares held by directors during the year are as follows:

Name of Director	Date from which exercisable:			Total holding (number of shares)	Value at	Value at
	Exercisable (brought forward)	29/05/2019 (brought forward)	30/10/2021 (brought forward)		31 March 2018 (at £3.40 each)	31 March 2017 (at £3.95 each)
					£	£
Martin Rolfe	312	150	162	624	2,122	2,465
Nigel Fotherby	2,939	-	162	3,101	10,543	12,249
	<u>3,251</u>	<u>150</u>	<u>324</u>	<u>3,725</u>	<u>12,665</u>	<u>14,714</u>

In August 2017 employees, including executive directors, were offered the option to participate in an award of 200 partnership shares at fair value (being the lower of the share price at the start of the accumulation period of £3.30 and the end of the accumulation period) by deductions from gross salary over a 12 month accumulation period which ends in September 2018. Participants will also receive one free matching share for every partnership share purchased. Both of the executive directors are participating in this offer.

The executive directors received dividends during the financial year based on their shareholdings at the distribution date.

Safety Review Committee report

Role of the Committee

The Safety Review Committee supports the Board in discharging its accountabilities for the safe provision of air traffic services and for security arrangements across NATS. It meets quarterly as a formal committee and receives separate in-depth briefings as required. Its remit includes the requirements to:

- monitor and review the effectiveness of the safety arrangements in place in the group;
- review the delivery of the group's safety and security objectives through its operations, structures and processes;
- review the group's safety performance;
- monitor the implementation of safety enhancement programmes; and
- make recommendations to the Board for improving the group's safety and security management systems.

The Committee is chaired by Iain McNicoll and there were three other non-executive directors as members in the year: Chris Hope, Will Facey and Derek Provan. Will Facey stepped down as a non-executive director in June 2017 after two and a half years of service to the Committee and was replaced by Chris Hope in July 2017. Derek Provan stepped down in February 2018 and was replaced by Kathryn Leahy in May 2018.

At least two of the following four members of NATS Executive team are required to attend routine meetings: CEO, Safety Director, Operations Director and Technical Services Director.

Director Swanwick, Director Prestwick, Director Airports, Director Operations & Commercial Safety, and Director Safety & Assurance Technical Services are invited to attend routine meetings, but may not be required. Attendance is coordinated through the Executive team.

The Head of Facilities Management and the Chief Information Officer formally report to the Committee on the security arrangements in NATS twice per annum. In addition, FerroNATS and Aquila provide an update on their safety performance once per annum.

During the year, the Committee took advice from the following special advisors, who were invited to each meeting by standing invitation:

- George Bearfield, Systems Safety Director for the Rail Safety and Standards Board (RSSB);
- Captain John Monks, Head of Aviation Safety, British Airways;
- Professor Don Harris, Professor of Human Factors, Faculty of Engineering and Computing at Coventry University (to September 2017).

In addition to the quarterly meetings, the Committee may request briefing sessions on key topics. During the year the Committee has requested three such sessions. Topics for these workshop style meetings included: the NATS Training & Development Process for Air Traffic Controllers; Deploying SESAR Safety Assurance; and Safety Performance Target Setting for RP3. The sessions gave members and advisors the opportunity to receive detailed briefings, and to question and discuss topics in-depth with expert teams.

Main activities during the year

a. Operational Safety

As part of its safety governance and oversight of the NATS operations, the Committee receives regular in-depth reports and briefings on safety performance and associated improvement activities. Key topics throughout the last year were:

- **Safety Performance**

The Safety Review Committee has a major role in overseeing the company's safety performance. With safety performance in parts of the en route

operation proving to be challenging during calendar year 2017 against the aspirational internal targets, the Committee and the Board have engaged in extensive discussions with the business. The discussions have provided the reassurance that, when compared to periods of equivalent traffic and taking a range of indicators into account, safety performance has improved over the last 10 years. Using RAT scoring methodology, the safety performance of calendar year 2017 was 28% better than that of calendar year 2007 at the same traffic levels.

- **General Aviation Infringements and Drones**

The Committee has continued to focus on actions which reduce safety risk from infringements of controlled airspace by general aviation (GA). Regrettably, there has not yet been a significant reduction in these incursions, but a large number of joint actions with the CAA and the GA community are in hand, encompassing regulatory, procedural and technical measures. One example is a technical improvement to NATS' surveillance capability, which increases the conspicuity to our controllers of air traffic nearing controlled airspace. In the medium term, requiring all airspace users to be visible through cooperative technology (just as all commercial air traffic is today) is the most promising way ahead; this will require a major regulatory change.

The number of drone Airprox and infringements of controlled airspace has continued to increase. The Committee has welcomed the legislative changes announced by the DfT in response to this problem. The Committee is keeping developments in the use of drones under close review and will continue to support regulatory and user community actions that reduce the risk to commercial aviation from drones, and also support NATS training and awareness activities that help mitigate the risks. For example, in partnership with a world leader in

commercial drone-based inspection services and training, NATS has enhanced its ability to deliver training to the growing commercial drone sector and the emergency services.

- **Safety Collaboration - Comparative Analysis**

This year the Committee was briefed on a study that had compared London Terminal Control with a comparable terminal area in the United States. The study, which engaged operational and analytical experts from NATS and the Federal Aviation Authority (FAA), provided a new level of understanding for NATS of how safety is delivered in both operations, together with valuable insight into how a programme of technological change and systemisation needs to be delivered to ensure safety performance is maintained.

- **Maintaining Safety in Light of Increased Traffic Growth**

The Safety Review Committee and the Board have sought to understand the performance drivers and the plans in place to deliver improvements. We are entering a period of potentially unprecedented traffic levels; in anticipation of this and in preparation for a new Reference Period (RP3: 2020-2024) the Committee posed the business with a challenging question, to explore the interrelationships between system capacity and growth, workload and safety. We have already seen work that begins to explain the complexity of these relationships and the discussions will continue into the coming year with a view to ensuring that NATS can continue to deliver the safe operation, which remains its overriding priority, in an increasingly challenging environment.

- **Digital Towers**

The development of digital remote towers is the beginning of a new age in airport operations. In December the Committee was provided with a detailed brief on the new technology and was brought up to date with the plans to develop the

capability. The briefing provided the Committee with safety assurance oversight, which included physical and cyber security considerations. NATS continues to engage closely with the Regulator on this programme and there is more to do. However, the Committee was fully reassured that safety is at the forefront of planning for this exciting new chapter for NATS.

b. Cyber Security

As the sole provider of UK en route air traffic management, NATS is part of the UK's critical national infrastructure. NATS is also increasingly diverse in its business operations, with activities underway in the UK and expanding into overseas territories. NATS relies on effective digital operations to deliver all these services and therefore places a very high priority on cyber security. It is recognised that NATS must be prepared for a variety of threats from a multitude of sources. NATS remains committed to the active management of cyber security risks and has, over the past 12 months, kept the Committee informed of the continued progress in the following areas:

- NATS has expanded its ISO27001 certification, the international standard of information security management, to include all current operational systems. We believe NATS is one of a very few ANSPs globally to achieve this level of certification.
- The arrival of new legislation, in the form of the NIS Regulation and GDPR has been a priority, and movement toward successful compliance has been prioritised and tracked by NATS.
- NATS achieved compliance with Cyber Essentials Plus, a UK standard which is required to enable participation in UK Government and Defence commercial projects.
- As the 'human firewall' remains a key control, the focus on NATS security aware culture continued. Employees take mandatory security

awareness training which is supported by innovative and engaging workshops, interactive training and testing, and a regular communications campaign.

- NATS continues to drive security into the heart of new systems, working with the National Cyber Security Centre (NCSC), CAA and trusted suppliers to ensure that the next-generation air traffic systems are cyber-secure at the point of design and delivery. Similarly, NATS has committed to continual improvement of existing cyber capabilities and programmes of work are in place to continue to assess and improve the cyber security of all NATS' services, including business, operational and airports.
- NATS has continued to take opportunities to strengthen relationships with the NCSC, DfT and the CAA, liaising with functions as appropriate to share threat insights and best practice. Activities are also underway to establish a global network of security leaders within Air Traffic management.

Cyber security is a major challenge for all industries; threats constantly develop, and attempted attacks, both targeted and non-targeted, are frequent. Security therefore requires constant improvement, investment and vigilance. Through regular review of the strategy, and progress of the detailed cyber plan, the Committee has been assured that a high level of protection of people, data, infrastructure and operations has been maintained and that NATS has an appropriate, active security management system.

c. Physical Security

NATS' Corporate Security department provides assurance reports to the Safety Review Committee, covering all aspects of physical security, internal and external threats to NATS, vetting, travel security, data protection and crisis management

(incorporating business continuity). The principal focus for the Committee in the past year has been:

- **Governance:** This ensures and maintains engagement at all levels of the business, from business area to Executive and Board level. The Committee has confirmed that suitable governance processes are in place and are robust.
- **Threat Level:** Following the increase in the UK National Threat level in May 2017, NATS undertook a complete review of all security procedures associated with such a change. When the UK National Threat level was raised in September 2017, the revised plans, which included a much better communication plan, were considered by the Committee to be sound at all levels.
- **Vetting:** National security vetting within NATS has continued well. Although the average time to clear individuals has increased slightly (26 days in 2016 to 29 in 2017) this has been attributable to the transition of all Government vetting activities under one agency, UKSV, which formally became the lead agency in October 2017.
- **Security Awareness:** Security awareness has continued to be delivered and Corporate Security has again played an active role in the 'Safe in Everything We Do' campaign. Face-to-face presentations have been the preferred delivery method, but this has been enhanced with online information. Feedback has been very positive.
- **General Data Protection Regulation (GDPR):** Preparations for the implementation of the new EU-wide data protection legislation, GDPR, which came in to force in May 2018, have been monitored by the Committee and have progressed well. Comprehensive reviews of both online and hardcopy data have been undertaken,

an independent assessment of all NATS data protection policies and procedures completed, and extensive briefings and specific training for employees who handle personal information given.

- **Insider Threat:** The Committee have been briefed on the support given by Corporate Security to the 'Insider Threat' work that was conducted by Coventry University. The work, led by Professor Ros Searle, has now been completed and the final report and associated tool kits for managers and practitioners published. Work is now underway assessing the output to see how best the findings can be used within NATS.
- **Incident Management/Business Continuity:** Work has continued to ensure that NATS is fully prepared should it be necessary to invoke its Incident Management Procedures. All employees involved in responding to any incident are required to undergo extensive training and annual refresher training to ensure competency. A number of people have undergone dedicated training with police agencies in order to further enhance the understanding of each other's requirements when responding to incidents. Joint training exercises with multi-agency partners have taken place; these have had participation which has included the NATS Executive, NATS Senior Leadership Teams, and senior Government (including MOD) and Emergency Services personnel.

Iain McNicoll, CB CBE

Chairman of the Safety Review Committee

Technical Review Committee report

The role of the Technical Review Committee

The role of the Technical Review Committee (TRC) is to support the Board in monitoring the development and introduction of cost effective technical systems and services in support of its operations. Its remit includes:

- ensuring that business objectives are clearly reflected in the requirements laid on technology programmes;
- reviewing the technical strategies proposed to meet the agreed requirements, with appropriate regard to other (European and worldwide) initiatives and developments, and the likely impact on service provided to customers;
- reviewing the effectiveness of the operations, programmes, structures and processes employed in delivering the group's technical objectives; and
- making recommendations to the Board on means for improving the group's technical systems, their implementation and performance.

The Committee was temporarily chaired by Iain McNicoll following Peter Read's retirement from the Board, until the appointment of Mike Campbell as permanent chairman. There are two other non-executive directors as members: Iain McNicoll and Richard Keys. The NATS Chairman, Paul Golby, also attends. The following are invited to attend each meeting by standing invitation:

- CEO;
- Technical Services Director;
- Director Service Design and Transition;
- Director Service Strategy and Transformation;
- Director Strategic Assurance; and
- Chief Engineer.

Main activities of the Committee during the year

As part of its governance and oversight of the NATS operations, the Committee receives regular in-depth reports and briefings on the existing and planned investment programmes, and the technical risk profiles. The following issues have received focus by the Committee.

Deploying SESAR¹

SESAR is the European wide standard for future systems, designed to produce a step change in safety, performance, and efficiency. The main challenge in the years ahead is the introduction of SESAR compliant systems which NATS will achieve through its Deploying SESAR Programme. Each of the main programme components represents a significant change to the operation and its systems. The size and complexity of the composite programme brings an additional scale of risk to the business as a whole, which the Committee is committed to review on a continuing basis, in order to provide the necessary levels of reassurance to the Board.

At the heart of the programme is iTEC. This is the new generation of core flight data processing systems which will underpin all NATS future operations and will operate on a common modern architecture to support all of UK airspace.

Following significant progress in previous years in defining requirements and in developing delivery plans, this year has focused on a major period of delivery, including completing contracting of all major elements of the programme. During this time the TRC has maintained its high level oversight of all aspects of the programme including investment governance, programme delivery and lessons learned.

Additionally, during the last year the Committee has increased its focus on the business transformation approach that will be implemented with the system changes to ensure that the benefits of the

programme can be fully realised. This included improved approaches to transition and training to assist implementation and new methods of working that will be in place once the transformation is complete.

Key elements of the programme delivered this year are described below:

a. Deployment Point Flight Strips

This deployment point moves London Terminal Control off paper flight strips onto electronic flight strips using the Extended Computer Display System (EXCDS) providing safety and efficiency benefits. The EXCDS product has been integrated into our existing operational systems as a stepping stone towards deployment of iTEC in lower airspace. During 2017 an extended period of configuration and evaluation took place to ensure that it could operate effectively leading to a phased transition which will run from November 2017 to June 2018. NATS has worked closely with airlines to minimise impact during transition and this process has worked very effectively to date.

b. Deployment Point Voice

This deployment point will introduce a modern voice over IP communications system initially into Area Control, together with a higher performance backup system. This will reduce the risk associated with the existing system which is nearing end of life and provides improved resilience and increased flexibility to operations. During the year, the Factory Acceptance Test (FAT) was completed for the second system while detailed development continued for the main system leading towards FAT planned for late 2018. Delivery of the new voice solution is a necessary pre-cursor to Deployment Point En Route.

c. Deployment Point En Route

This deployment point will transition Upper Airspace at both Swanwick and Prestwick onto a common ATM system based on iTEC and

advanced tools called FourSight. For Swanwick this will move Area Control and military into a new common operations room based on the new systems, while for Prestwick this will mean an upgrade to the latest version of iTEC supported by FourSight. 2017/18 saw the culmination of the first phase of this programme with the creation of the Base Platform, an initial version of the whole platform (hardware and software) integrated in the newly created common operations room at Swanwick. While there is still much work to do this represented a critical milestone in the complex development, integration, testing and validation programme. This programme will lead to a system fully ready for use in early 2020, with the detailed transition timescale to be developed and agreed between customers and operations.

Airspace Change

The second key element of NATS' modernisation programme is airspace change, which will allow the opportunity to deliver significant customer benefits by redesigning airspace routes and procedures whilst at the same time making use of the latest airborne and ground-based technology. However, a number of developments in the industry environment gave rise to challenges in the delivery of the planned airspace programme during RP2, particularly in lower level airspace. These included:

- Unprecedented public reaction to changes in noise patterns;
- Planned public consultation on both the Airspace Change process and the UK Government policies including the treatment of noise;
- Government decision timeline on runways in the South East; and
- Negative public reaction linked to uncertainty about runway expansion, severely limiting airports' willingness to support LAMP developments.

As a result, NATS engaged with key stakeholders around the impact of these challenges and subsequently consulted customers around revisions to the planned delivery of major airspace changes. The new plan focuses on the inclusion of mainly higher level airspace changes during RP2 with the intention of delivering the necessary lower level airspace changes in RP3.

The TRC continues to maintain high level oversight of the airspace programme, particularly in the light of the revised Airspace Change Process now in place and the continuing challenge to delivering lower level airspace change. Notably, several aspects of NATS' planned programme have been delayed by decisions at the affected airports in relation to the consultation process, including the Prestwick Lower Airspace Systemisation project and the plan for Independent Parallel Approaches at Heathrow.

Key aspects of the revised airspace programme delivered this year have included airspace changes in both Swanwick and Prestwick airspace as well as enhancements to the Arrival Management capability and Time Based Separation. All have delivered tangible benefits to customers and are the prelude to further enhancements during RP2 and RP3.

Resilience

Resilience of operational systems results from a combination of reliability and powers of recovery. Over many years NATS has been successful in implementing highly resilient systems, necessary to the fulfilment of its mission. The Committee regularly reviews the approach taken to deliver and maintain resilience with the objective to balance the levels of investment against realistic expectations of resilience in a complex systems environment.

Mike Campbell

Chairman of the Technical Review Committee

Report of the directors

The directors present their annual report on the affairs of the group, together with the financial statements and the auditor's report for the year ended 31 March 2018.

The Governance report is set out on pages 31 to 34 and forms part of this report.

A review of the group's key business developments in the year and an indication of likely future developments is included within the Strategic report.

Information about the use of financial instruments by the group is given in note 19 to the financial statements.

Dividends

The company paid two interim dividends of £28.5m each (19.92 pence per share) during the year, totalling £57.0m (2017: £24.0m). The Board recommends a final dividend for the year of £nil (2017: £nil).

In May 2018, the Board approved an interim dividend for the year ending 31 March 2019 of 20.62 pence per share, totalling £29.5m, which was paid in June 2018.

Directors and their interests

The directors of the company at the date of this report are set out on pages 28 to 30. Details of changes in the Board during the year and to the date of this report are set out in the Governance report on page 31.

The interests of the directors in the share capital of the parent company, through their participation in the All-Employee Share Ownership Plan, are set out on page 47.

None of the directors have, or have had, a material interest in any contract of significance in relation to the group's business.

Directors' indemnities

The company has made qualifying third party indemnity provisions for the benefit of its directors which were made during the year and remain in force at the date of this report.

Employees

The group continues its commitment to the involvement of employees in the decision-making process through effective leadership at all levels in the organisation. Employees are frequently involved through direct discussions with their managers, cross company working groups and local committees. Regular employee consultations cover a range of topics affecting the workforce, including such matters as corporate performance and business plans. The NATS CEO maintains high visibility with employees through visits to NATS sites where he talks to them about current business issues and takes questions in an open and straightforward manner. Also, employees' views are represented through an open dialogue with Prospect and the Public and Commercial Services Union (PCS), the recognised unions on all matters affecting employees. This has been enhanced through the Working Together programme aimed at working towards partnership principles as the basis for our relationship with the Trades Unions. Formal arrangements for consultation with employees exist through a local and company-wide framework agreed with the Trades Unions.

It is the group's policy to establish and maintain competitive pay rates which take full account

of the different pay markets relevant to its operations. In return, employees are expected to perform to the required standards and to provide the quality and efficiency of service expected by its customers.

The group is an equal opportunities employer. Its policy is designed to ensure that no applicant or employee receives less favourable treatment than any other on the grounds of sex, age, disability, marital status, colour, race, ethnic origin, religious belief or sexual orientation, nor is disadvantaged by conditions or requirements applied to any post which cannot be shown to be fair and reasonable under relevant employment law or codes of practice.

The group is also committed to improving employment opportunities for disabled people. The group will continue to promote policies and practices which provide suitable training and retraining, and development opportunities for disabled employees, including any individuals who become disabled, bearing in mind their particular aptitudes and abilities and the need to maintain a safe working environment.

The group strives to maintain the health, safety and wellbeing of employees through an appropriate culture, well-defined processes and regular monitoring. Line managers are accountable for ensuring health and safety is maintained and responsibility for ensuring compliance with both legal requirements and company policy rests with the Safety Director.

Going concern, viability statement and subsequent events

The directors' assessment of going concern and their viability statement are set out on page

13. Subsequent events are disclosed in note 34 to the financial statements.

Directors' responsibilities

The directors are responsible for preparing the annual report and the financial statements in accordance with applicable laws and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have elected to prepare the financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU). Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the group and of the parent company, and of the profit or loss of the group and the parent company for that period. In preparing these financial statements, International Accounting Standard 1 requires that directors:

- properly select and apply accounting policies;
- present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- provide additional disclosures when compliance with the specific requirements in IFRSs are insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity's financial position and financial performance; and
- make an assessment of the group's ability to continue as a going concern.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the group's transactions and disclose with reasonable accuracy at any time the financial position of the group and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Each person who is a director at the date of approval of these financial statements confirms that:

- so far as the director is aware, there is no relevant audit information of which the group's auditors are unaware; and
- the director has taken all the steps that he/she ought to have taken as director in order to make himself/herself aware of any relevant audit information and to establish that the group's auditors are aware of that information.

This information is given and should be interpreted in accordance with the provisions of s418 of the Companies Act 2006.

The directors are responsible for the maintenance and integrity of the corporate and financial information included on the group's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

We confirm that to the best of our knowledge:

- the financial statements, prepared in accordance with IFRS as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit of the group;
- the Strategic report includes a fair review of the development and performance of the business and the position of the group, together with a description of the principal risks and uncertainties that it faces; and
- the annual report and financial statements, taken as a whole, are fair, balanced and understandable and provide the information necessary for shareholders to assess the group's position and performance, business model and strategy.

Auditor

A resolution to re-appoint BDO LLP as statutory auditor will be proposed at the Annual General Meeting.

Approved by the Board of directors and signed on behalf of the Board by:



Richard Churchill-Coleman

Secretary

5 July 2018

Registered office

4000 Parkway, Whiteley, Fareham, Hampshire
PO15 7FL

Registered in England and Wales
Company No. 04138218

Opinion	<p>We have audited the financial statements of NATS Holdings Limited (the 'parent company') and its subsidiaries (the 'group') for the year ended 31 March 2018 which comprise the consolidated income statement, the consolidated statement of comprehensive income, the consolidated and company balance sheets, the consolidated and company statement of changes in equity, the consolidated cash flow statement and the related notes to the financial statements, including a summary of significant accounting policies as required by the ISA's. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union and, as regards the parent company financial statements, as applied in accordance with the provisions of the Companies Act 2006.</p> <p>In our opinion:</p> <ul style="list-style-type: none"> • the financial statements give a true and fair view of the state of the group's and of the parent company's affairs as at 31 March 2018 and of the group's profit for the year then ended; • the group financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union; • the parent company financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union and as applied in accordance with the provisions of the Companies Act 2006; and • the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.
Separate opinion in relation to IFRSs as issued by the IASB	<p>As explained in note 2 to the consolidated financial statements, the group, in addition to preparing consolidated financial statements in accordance with IFRSs as adopted by the European Union, has also applied IFRSs as issued by the International Accounting Standards Board (IASB).</p> <p>In our opinion, the group financial statements give a true and fair view of the consolidated financial position of the group as at 31 March 2018 and of its consolidated financial performance and consolidated cash flows for the year then ended in accordance with IFRSs as issued by the IASB.</p>
Basis for opinion	<p>We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the group and the parent company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.</p>
Conclusions relating to principal risks, going concern and viability statement	<p>We have nothing to report in respect of the following information in the annual report, in relation to which the ISAs (UK) require us to report to you whether we have anything material to add or draw attention to:</p> <ul style="list-style-type: none"> • the disclosures in the annual report set out on page 20 that describe the principal risks and explain how they are being managed or mitigated; • the directors' confirmation set out on page 13 in the annual report that they have carried out a robust assessment of the principal risks facing the group, including those that would threaten its business model, future performance, solvency or liquidity; • the directors' statement set out on page 13 in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting in preparing the financial statements and the directors' identification of any material uncertainties to the group and the parent

company's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements;

- whether the directors' statement relating to going concern is materially inconsistent with our knowledge obtained in the audit; or
- the directors' explanation set out on page 13 in the annual report as to how they have assessed the prospects of the group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified, including those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	How we addressed the matter
<p>Revenue recognition: Recoverability of the regulatory assets As detailed on pages 71 and 79, in determining Airspace revenues recognised, management makes key judgements about material revenue allowances that are recoverable or payable in subsequent accounting periods.</p> <p>Long term contracts As detailed on pages 74 and 80, the group has significant long term contracts which include material assumptions on margin and percentage completion.</p>	<p>We have reviewed each significant revenue stream to ensure that we concur with the accounting policies applied. We have reviewed and tested each of the revenue streams to ensure that the revenue is being recognised in line with the group policy and, in the case of Airspace, to ensure that it is in line with the provisions of the air traffic services licence, the regulatory charging mechanisms for the reference period and the RP2 settlement.</p> <p>We have specifically considered and challenged management over the amounts recoverable or payable as revenue allowances under the EC Charging Regulation. We have also reviewed individual judgements to management calculations and tested against contract documentation, performance to-date and any subsequently agreed modifications, including the margin assumptions on significant long term projects, and contract accounting judgements in relation to percentage of completion and margin.</p>
<p>Pension scheme actuarial valuation: The NATS Holdings Limited group operates a defined benefit pension scheme, which is accounted for in accordance with IAS 19: <i>Employee Benefits</i> which requires complex calculations and disclosures. As detailed on page 79 and in note 30, management makes a number of judgements and actuarial assumptions, with assistance from their actuaries, which have a significant impact on the valuation of pension scheme assets and liabilities shown in the balance sheet and hence on the amounts shown in the consolidated income statement and the consolidated statement of comprehensive income.</p>	<p>We have reviewed the pension scheme data and accounting treatment and disclosures and considered them in light of the pension assumptions made. We have worked with our pension specialists to assess the validity of assumptions applied, in particular discount and inflation rates and mortality assumptions and performed a detailed review of the scheme actuary's annual valuation report.</p> <p>In addition we have performed audit procedures in order to substantiate the value of the scheme assets. This included selecting a sample of investments held at the balance sheet date and comparing their value to third party asset confirmations and statements.</p>

Key audit matter	How we addressed the matter
<p>Carrying value of goodwill: In accordance with the group's accounting policies, management has undertaken an impairment review of the carrying value of goodwill by comparison with the recoverable amount. This has resulted in no impairment in the year. In calculating an appropriate valuation for the recoverable amount of the regulatory business, the premium applied to the regulatory asset base (RAB) continues to be a key judgement.</p>	<p>We have reviewed and tested management's current assessment of the carrying amount of goodwill. We have reviewed, with the assistance of our own specialists, the overall methodology, which in accordance with IAS 36 this year is based on fair value less costs of disposal, as it is higher than value in use. We have also reviewed benchmarking available to support the RAB premium applied in determining the fair value less costs of disposal.</p>
<p>Capital investment programme: As detailed on page 80 and notes 14 and 15, the group invests significant sums in the sustainment and development of air traffic control infrastructure. A substantial proportion of the costs incurred are the amounts charged by staff employed by the group which are capitalised to specific projects. A key judgement is that either time is not appropriately capitalised or the quantum of the labour rate used could be misstated. In addition management makes judgements around the useful economic lives of currently deployed systems, assesses indicators of impairment and considers feasibility.</p>	<p>We have worked with the project managers outside of the group finance team in order to gain an understanding of the capital projects, and assessed them for impairment factors. We have tested a sample of capitalised projects which included reviewing the appropriateness of the labour rates being used and the amount of labour time being capitalised per project. By reviewing useful economic lives to prior years and working with project managers to assess performance to date and expected out turn we have assessed management's judgement of the useful economic lives of currently deployed systems to ensure that the position taken is reasonable. We have considered management's assessment of any indicators of impairment for a sample of current capital projects carried forward as either tangible or intangible fixed assets. In addition we have tested a sample of externally generated assets to test existence and that costs are materially accurate.</p>
<p>Our application of materiality</p>	<p>The materiality we applied to the group equates to 5% of profit before tax (2017: 1% of revenue). We consider profit before tax to be the most significant determinant of the group's financial performance used by shareholders. The materiality we applied to the parent company equates to 2% of total assets (2017: 2% of total assets).</p> <p>Whilst materiality for the financial statements as a whole was £6.0 million (2017: £9.1 million), each significant component of the group was audited to a lower materiality of between £1.1 million and £5.7 million.</p> <p>Performance materiality is set at a level lower than materiality, which was 75% of group materiality totalling £4.5 million. In setting the level of performance materiality, we considered a number of factors including the expected total value of known and likely misstatements (based on past experience and other factors) and management's attitude towards proposed adjustments. Performance materiality is set to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements in the financial statements exceeds materiality for the financial statements as a whole.</p> <p>We agreed with the Audit Committee that we would report to them all individual audit differences identified during the course of our audit above clearly trivial, which for significant components was in excess of £55,000 (2017: £67,500). We also</p>

agreed to report differences below that threshold that, in our view, warranted reporting on qualitative grounds.

We apply the concept of materiality both in planning and performing our audit, and in evaluating the effect of misstatements. We consider materiality to be the magnitude by which misstatements, including omissions, could influence the economic decisions of reasonable users that are taken on the basis of the financial statements. Importantly, misstatements below these levels will not necessarily be evaluated as immaterial as we also take account of the nature of identified misstatements, and the particular circumstances of their occurrence, when evaluating their effect on the financial statements as a whole.

An overview of the scope of our audit

Our group audit was scoped by obtaining an understanding of the group and its environment, including the group's system of internal control, and assessing the risks of material misstatement in the financial statements at the group level.

We carried out full scope audits on all significant components, being NATS Holdings Limited, NATS Limited, NATS (En Route) plc, NATS (Services) Limited, which covered 99% of the group's revenue and 99% of the group's profit before tax. We performed both audit procedures and limited procedures on the remaining components. Together with the parent company, which was also subject to a full scope audit, these represent the four significant components of the group.

There has been no significant change in the group's operations, therefore the assessed risks of material misstatement described below, which are those that had the greatest effect on the audit strategy, the allocation of resources in the audit and directing the efforts of the audit team, are the same risks as in the prior year.

Audits of the four components were performed at a materiality level calculated by reference to a proportion of group materiality appropriate to the relative scale of the business concerned. The audits of each of these components were principally performed in the UK at both the Scottish Accounting Unit, Edinburgh, and Corporate Technical Centre, Whiteley. Each of the audits was conducted by the BDO LLP group audit team using a team with experience of auditing the business before, and large corporate entities.

The remaining components of the group were considered non-significant and these components were principally subject to analytical review procedures, together with audit procedures being completed on those components requiring a statutory audit opinion.

Opinion on other matters

In our opinion the part of the directors' remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006 that would apply if the company was a listed company.

Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

In this context, we also have nothing to report in regard to our responsibility to

specifically address the following items in the other information and to report as uncorrected material misstatements of the other information where we conclude that those items meet the following conditions:

- **Fair, balanced and understandable** set out on page 57, the statement given by the directors that they consider the annual report and financial statements taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the group's position and performance, business model and strategy, is materially inconsistent with our knowledge obtained in the audit; or
- **Audit Committee reporting** set out on page 35, the section describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee; or
- **Directors' statement of compliance with the UK Corporate Governance Code** set out on page 33, the parts of the directors' statement relating to the company's compliance with the UK Corporate Governance Code do not properly disclose a departure from a relevant provision of the UK Corporate Governance Code.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic report and the Report of the directors' for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic report and the Report of the directors' have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In light of the knowledge and understanding of the group and the parent company and its environment obtained in the course of the audit, we have not identified material misstatements in the Strategic report or Report of the directors'.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of directors	<p>As explained more fully in the directors' responsibilities statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.</p> <p>In preparing the financial statements, the directors are responsible for assessing the group's and the parent company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the parent company or to cease operations, or have no realistic alternative but to do so.</p>
Auditor's responsibilities for the audit of the financial statements	<p>Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.</p> <p>A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.</p>
Other matters	<p>Following the recommendation of the Audit Committee in 2014, we were appointed to audit the financial statements for the year ending 31 March 2015 and subsequent financial periods. The period of total uninterrupted engagement is four years, covering the years ending 31 March 2015 to 31 March 2018.</p> <p>The non-audit services prohibited by the FRC's Ethical Standard were not provided to the group or the parent company and we remain independent of the group and the parent company in conducting our audit.</p> <p>Our audit opinion is consistent with the additional report to the Audit Committee.</p>
Use of our report	<p>This report is made solely to the parent company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the parent company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the parent company and the parent company's members as a body, for our audit work, for this report, or for the opinions we have formed.</p>



Malcolm Thixton (senior statutory auditor)
For and on behalf of BDO LLP, statutory auditor
Southampton
United Kingdom

5 July 2018

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127).

Consolidated income statement
for the year ended 31 March

	Notes	2018	2017		Result for the year £m
		Result for the year £m	Result before goodwill impairment £m	Goodwill impairment £m	
Revenue	4	913.1	919.3	-	919.3
Staff costs	7	(436.4)	(415.3)	-	(415.3)
Services and materials		(90.1)	(97.3)	-	(97.3)
Repairs and maintenance		(40.7)	(38.2)	-	(38.2)
Depreciation, amortisation and impairment	6	(137.7)	(149.3)	(11.0)	(160.3)
Profit on disposal of non-current assets		-	0.1	-	0.1
Other operating charges		(57.4)	(46.6)	-	(46.6)
Other operating income		5.5	4.2	-	4.2
Deferred grants released	6	0.7	0.7	-	0.7
Net operating costs		(756.1)	(741.7)	(11.0)	(752.7)
Operating profit	6	157.0	177.6	(11.0)	166.6
Share of results of associate and joint ventures	32	(0.9)	2.1	-	2.1
Investment revenue	8	2.0	1.9	-	1.9
Fair value movement on derivative contract	9	1.3	(17.6)	-	(17.6)
Finance costs	10	(26.6)	(27.5)	-	(27.5)
Profit before tax		132.8	136.5	(11.0)	125.5
Tax	11	(20.1)	(21.7)	-	(21.7)
Profit for the year attributable to equity shareholders		112.7	114.8	(11.0)	103.8

Consolidated statement of comprehensive income
for the year ended 31 March

	Notes	2018 £m	2017 £m
Profit for the year after tax		112.7	103.8
Items that will not be reclassified subsequently to profit and loss:			
Actuarial gain/(loss) on defined benefit pension scheme	30	449.9	(291.2)
Deferred tax relating to items that will not be reclassified subsequently	23	(80.6)	52.6
Items that may be reclassified subsequently to profit and loss:			
Change in fair value of hedging derivatives	18	(0.9)	6.3
Transfer to income statement on cash flow hedges		(0.7)	(3.0)
Exchange differences arising on translation of foreign operations		(0.3)	(0.4)
Currency translation differences arising on consolidation of equity accounted foreign operations	32	0.1	0.2
Deferred tax relating to items that may be reclassified subsequently	23	0.2	(0.6)
Other comprehensive income/(loss) for the year, net of tax		367.7	(236.1)
Total comprehensive income/(loss) for the year attributable to equity shareholders		480.4	(132.3)

Consolidated balance sheet
at 31 March

	Notes	2018 £m	2017 £m
Assets			
Non-current assets			
Goodwill	13	198.3	198.3
Other intangible assets	14	571.5	512.7
Property, plant and equipment	15	478.0	488.9
Interests in associate and joint ventures	32	9.2	5.4
Loans to joint ventures	32	19.7	14.9
Retirement benefit asset	30	110.6	-
Trade and other receivables	16	20.7	19.0
Derivative financial instruments	18	1.2	2.0
		<u>1,409.2</u>	<u>1,241.2</u>
Current assets			
Trade and other receivables	16	180.8	166.9
Current tax assets		1.5	-
Short term investments	19	38.3	39.4
Cash and cash equivalents	19	269.6	254.2
Derivative financial instruments	18	2.0	2.3
		<u>492.2</u>	<u>462.8</u>
		<u>1,901.4</u>	<u>1,704.0</u>
Total assets			
Current liabilities			
Trade and other payables	20	(213.1)	(159.0)
Current tax liabilities		-	(6.7)
Borrowings	17	(44.6)	(46.6)
Provisions	22	(5.0)	(4.6)
Derivative financial instruments	18	(11.0)	(8.8)
		<u>(273.7)</u>	<u>(225.7)</u>
		<u>218.5</u>	<u>237.1</u>
Net current assets			
Non-current liabilities			
Trade and other payables	20	(170.2)	(132.6)
Borrowings	17	(334.8)	(379.7)
Retirement benefit obligations	30	-	(350.8)
Deferred tax liability	23	(115.5)	(19.6)
Provisions	22	(6.8)	(6.8)
Derivative financial instruments	18	(119.5)	(131.3)
		<u>(746.8)</u>	<u>(1,020.8)</u>
		<u>(1,020.5)</u>	<u>(1,246.5)</u>
Total liabilities			
		<u>880.9</u>	<u>457.5</u>
Net assets			
Equity			
Called up share capital	24	140.6	140.6
Share premium account	25	0.4	0.4
AESOP reserve		(0.3)	(0.3)
Hedge reserve		1.3	2.7
Translation reserve		(0.6)	(0.4)
Other reserves		(34.7)	(34.7)
Retained earnings		774.1	349.1
		<u>880.8</u>	<u>457.4</u>
Equity attributable to the shareholders		880.8	457.4
Non-controlling interest	26	0.1	0.1
		<u>880.9</u>	<u>457.5</u>
Total equity			

The financial statements (Company No. 04138218) were approved by the Board of directors and authorised for issue on 5 July 2018 and signed on its behalf by:



Paul Golby
Chairman



Nigel Fotherby
Finance Director

Consolidated statement of changes in equity
for the year ended 31 March

	Equity attributable to equity holders of the group									Total equity £m
	Share capital £m	Share premium account £m	AESOP reserve £m	Hedge reserve £m	Translation reserve £m	Other reserves ¹ £m	Retained earnings £m	Sub-total £m	Non- controlling interest £m	
At 1 April 2016	140.6	0.4	(0.3)	-	(0.2)	(34.7)	507.9	613.7	0.1	613.8
Profit for the year	-	-	-	-	-	-	103.8	103.8	-	103.8
Other comprehensive income/(loss) for the year	-	-	-	2.7	(0.2)	-	(238.6)	(236.1)	-	(236.1)
Total comprehensive income/(loss) for the year	-	-	-	2.7	(0.2)	-	(134.8)	(132.3)	-	(132.3)
Dividends paid	-	-	-	-	-	-	(24.0)	(24.0)	-	(24.0)
At 31 March 2017	140.6	0.4	(0.3)	2.7	(0.4)	(34.7)	349.1	457.4	0.1	457.5
At 1 April 2017	140.6	0.4	(0.3)	2.7	(0.4)	(34.7)	349.1	457.4	0.1	457.5
Profit for the year	-	-	-	-	-	-	112.7	112.7	-	112.7
Other comprehensive (loss)/income for the year	-	-	-	(1.4)	(0.2)	-	369.3	367.7	-	367.7
Total comprehensive (loss)/income for the year	-	-	-	(1.4)	(0.2)	-	482.0	480.4	-	480.4
Dividends paid	-	-	-	-	-	-	(57.0)	(57.0)	-	(57.0)
At 31 March 2018	140.6	0.4	(0.3)	1.3	(0.6)	(34.7)	774.1	880.8	0.1	880.9

¹ Other reserves arose on the completion of the PPP transaction in July 2001.

Consolidated cash flow statement
for the year ended 31 March

	Notes	2018 £m	2017 £m
Net cash from operating activities	27	338.0	387.7
Cash flows from investing activities			
Interest received on short term investments		1.1	1.2
Purchase of property, plant and equipment and other intangible assets		(180.7)	(148.9)
Proceeds of disposal of property, plant and equipment		-	0.1
Investment in joint venture		(4.9)	-
Changes in short term investments		1.1	(10.5)
Dividends received from joint venture and associate		1.1	0.2
Loans to joint ventures		(3.9)	(10.5)
Net cash outflow from investing activities		(186.2)	(168.4)
Cash flows from financing activities			
Interest paid		(23.5)	(31.1)
Interest received on derivative financial instruments		0.2	0.5
Repayment of bond principal		(47.2)	(39.2)
Bank loan repayments		-	(95.4)
Repayments of obligations under finance leases		(0.2)	(0.2)
Index-linked swap repayments		(8.1)	(3.8)
Bank facility arrangement fees		(0.4)	(0.4)
Dividends paid		(57.0)	(24.0)
Net cash outflow from financing activities		(136.2)	(193.6)
Increase in cash and cash equivalents during the year		15.6	25.7
Cash and cash equivalents at 1 April		254.2	228.2
Exchange (loss)/gain on cash and cash equivalents		(0.2)	0.3
Cash and cash equivalents at 31 March		269.6	254.2
Net debt (representing borrowings net of cash and short term investments)		(71.5)	(132.7)

1. General information

NATS Holdings Limited is a private limited company incorporated in England and Wales and domiciled in the United Kingdom and acting under the Companies Act 2006. The address of the registered office is on page 57. The nature of the group's operations and its principal activities are set out in the Report of the directors and in the Strategic report.

These financial statements are presented in pounds sterling because that is the currency of the primary economic environment in which the group operates.

2. Accounting policies

The following accounting policies have been applied consistently both in the current and prior years in dealing with items which are considered material in relation to the group's financial statements.

Basis of preparation and accounting

The financial statements have been prepared on the going concern basis. For further detail please refer to page 13. The financial statements have been prepared in accordance with International Financial Reporting Standards (IFRSs) and International Financial Reporting Interpretations Committee (IFRIC) interpretations as endorsed by the European Union (EU) and therefore the group financial statements comply with Article 4 of the EU IAS Regulation. The financial information has also been prepared in accordance with IFRSs.

In the current year, the group has applied a number of amendments to IFRSs issued by the International Accounting Standards Board (IASB) that are effective for accounting periods beginning on or after 1 January 2017.

- IAS 7 (amendments): *Disclosure Initiative*
- IAS 12 (amendments): *Recognition of Deferred Tax Assets for Unrealised Losses*

The application of these amendments has not resulted in any material impact on the financial statements of the group.

At the date of authorisation of these financial statements, the following Standards and Interpretations which have not been applied in these financial statements were in issue but not yet effective (and in some cases had not yet been adopted by the EU):

- IFRS 9: *Financial Instruments*
- IFRS 15: *Revenue from Contracts with Customers*
- IFRS 16: *Leases*
- IAS 19 (amendments): *Plan Amendment, Curtailment or Settlement*
- IAS 28 (amendments): *Long-term Interests in Associates and Joint Ventures*
- IFRIC 22: *Foreign Currency Transactions and Advance Consideration*
- IFRIC 23: *Uncertainty over Income Tax Treatments*

IFRS 9: *Financial Instruments* deals with classification, measurement and derecognition of financial assets and financial liabilities, hedge accounting and introduces a new expected loss impairment model.

The standard is effective for reporting periods beginning on or after 1 January 2018. The standard is expected to have one main impact on the group, being the adoption of the expected loss impairment model in assessing the level of impairment provision required for trade and contract receivables.

The group expects to recognise lifetime expected credit losses (i.e. losses arising from default over the life of a financial instrument) for its trade and contract receivables. In general, the directors anticipate that the application of the expected credit loss model of IFRS 9 will result in earlier recognition of credit losses. Based on initial reviews, the adoption of this standard is unlikely to have a material impact and therefore at the date of initial application, any adjustments will be reflected in retained earnings at 1 April 2018.

IFRS 15: *Revenue from Contracts with Customers* will replace IAS 18: *Revenue* and IAS 11: *Construction Contracts*, and provides enhanced detail on the principle of recognising revenue to reflect the transfer

of goods and services to customers at a value which the group expects to be entitled to receive. The standard also updates revenue disclosure requirements.

The standard is effective for annual periods beginning on or after 1 January 2018. The directors will adopt the standard in the financial statements for the year ending 31 March 2019 and expect to apply the standard retrospectively with the cumulative effect of initially applying the standard recognised as an adjustment to retained earnings at 1 April 2018.

The group is undertaking a detailed assessment of the impact of the standard by reviewing major contracts from each source of revenue. This assessment is subject to change. The assessment has identified two material changes to revenue recognition under IFRS 15: the recognition of the recovery or rebate of the difference in pension contributions paid and those assumed by the economic regulator (pension pass through costs); and recharges to airport customers of property related costs and safety regulation charges.

The major part of the group's revenue is derived from service contracts which include performance obligations which are satisfied over time, as customers simultaneously receive and consume the benefits provided by the group's performance as the group performs, or which include enforceable rights to payment for performance completed to date. These revenues mainly relate to NERL's economically regulated Airspace services, provided to the licence customer base, and to UK Airport ATC contracts.

Airspace services include variable consideration for traffic volume risk sharing, inflation adjustments, service performance incentives, financing components and pension pass through costs. UK Airport services include variable consideration for traffic volume risk sharing and service performance incentives. Under existing accounting standards, with the exception of pension pass through costs, variable consideration is recognised as services are provided.

Airspace: defined benefit scheme pension contributions not subject to risk sharing with customers ('pension pass through')

Pension pass through costs are subject to regulatory scrutiny and are approved by the CAA and the EC after the end of a regulatory reference period. Amounts are then recovered over a 15 year period as an adjustment to the unit charge and this is the basis of recognition under IAS 18. For this reason pension pass through costs give rise to variable consideration.

A pension pass through amount of £14.2m was approved in 2015 relating to Reference Period 1 (RP1: 2011-2014). The group expects pension pass through for RP2 (2015-2019) to be scrutinised and assessed by CAA and the EC in the early part of RP3 (2020-2024).

IFRS 15 requires variable consideration for a performance obligation which has been fulfilled to be recognised to the extent that it is not subject to a significant risk of reversal. The directors consider that there is a significant risk pension pass through costs may be restricted by either CAA or the EC. For this reason, the group expects to recognise pension pass through in the financial year in which it is approved, rather than when it is received through the unit rate. This means that as at 1 April 2018, a residual balance of pension pass through of £11.7m relating to RP1 will be recognised in retained earnings and any pension pass through costs relating to RP2 will be recognised in the early part of RP3. We expect this to result in earlier recognition of revenue.

UK Airports: property related costs and safety regulation charges

A number of UK Airport ATC contracts require the group to rent the airport control tower building from the airport operator and to recover the property costs through the fee charged to the airport operator for ATC services.

The fees for recovering property costs amounted to £17.0m for 2017/18 and are expected to be £6.7m for

2018/19. For reporting under IAS 18 for 2017/18, the recovery of these costs is recognised as revenue. Under IFRS 15 the provision of the air traffic control tower is not considered to be distinct from the provision of ATC services. For 2018/19 these fees will be reported as an offset against rental charges in operating costs. This change has no impact on the group's result or its retained earnings on the initial application of IFRS 15.

The group also recharges to airport customers the cost of the CAA's safety regulation charges for those airports. Fees for recovering these costs amounted to £2.8m for 2017/18 and are expected to be £2.7m for 2018/19. For reporting under IAS 18 for 2017/18, the recovery of these costs is recognised as revenue. Under IFRS 15, the group is not satisfying a performance obligation in the provision of this service and, for 2018/19, the fees will be offset against the CAA's safety regulation charges in operating costs. This change has no impact on the group's result or its retained earnings on the initial application of IFRS 15.

IFRS 16: *Leases* specifies how a company will recognise, measure, present and disclose leases. The standard provides a single lessee accounting model, requiring lessees to recognise assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value.

As at 31 March 2018, the group has non-cancellable operating lease commitments of £132.0m as disclosed in note 28. A preliminary assessment indicates that these arrangements will meet the definition of a lease under IFRS 16, and hence the group will recognise an increase to total property, plant and equipment and a corresponding liability in respect of these leases, unless they qualify for exemption as low value or short-term leases upon the application of IFRS 16.

The group's preliminary assessment is that as at 31 March 2020, property, plant and equipment is likely to increase by c.£70.5m, lease liabilities by c.£80.5m and

accruals are likely to decrease by c.£10.0m (relating to the balance of rent free period incentives not recognised on transition). Over the life of leased assets, there will be no profit impact from adopting IFRS 16 but profit will vary between financial years as interest charges on finance leases are higher at the beginning of the lease term and reduce as the lease principal is repaid. Profit before tax for the year ending 31 March 2020 is expected to be c.£0.5m lower following adoption of this standard.

The directors are still in the process of assessing the full impact of the application of IFRS 16 on the group's financial statements. The estimated impact assumes we adopt the modified retrospective approach, with the right of use asset equal to the lease liability. The group will continue to assess the impact and as a result the above preliminary assessment is subject to change. The standard is effective for annual periods beginning on or after 1 January 2019. The directors do not intend to apply the standard earlier and have not yet assessed the transition accounting method to be used upon adoption.

The directors do not expect that the adoption of the other standards and interpretations listed above will have a material impact on the financial statements in future periods.

The financial information has been prepared on the historical cost basis. The principal accounting policies adopted are set out below.

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the company and entities controlled by the company (its subsidiaries). Control is achieved where the company has the power over the investee, exposure or rights to variable returns from involvement with the investee and the ability to use power over the investee to affect the amount of an investor's returns.

All intra-group transactions, balances, income and expenses are eliminated on consolidation.

Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable and represents amounts receivable for goods or services provided in the normal course of business, net of discounts, VAT and other sales related taxes. Revenue is recognised as follows:

- ◆ Income from the rendering of services is recognised when the outcome can be reliably estimated and then by reference to the stage of completion of the transaction at the balance sheet date and in accordance with NATS (En Route) plc's air traffic services licence (including volume risk sharing, service performance incentives, costs exempt from risk sharing and inflation adjustments) and airport contracts and other contracts. Amounts receivable (and payable) include revenue allowed under the charge control conditions of the air traffic services licence and EC Charging Regulations.
- ◆ Sales of goods are recognised when they are delivered and title has passed.
- ◆ Dividend income is recognised when the shareholder's rights to receive payment have been established.
- ◆ Interest income is recognised on a time-proportion basis using the effective interest method. This is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

Operating segments

Operating segments are reported in a manner consistent with the internal reporting provided to the group's Executive team, which is considered to be the chief operating decision maker. An operating segment represents a service line organised by

customers who receive common products or services. Operating segment operating results are reviewed regularly by the Executive team to make decisions about resources to be allocated to the segment and to assess its performance, and for which discrete financial information is available.

Inter-segment transfers or transactions are entered into under the normal commercial terms and conditions that would also be available to unrelated third parties. Segment performance is assessed by service line revenue and contribution. Further information is provided in note 5.

Exceptional items and goodwill impairment charges

Exceptional items deemed as such by the directors by virtue of their nature or size, and goodwill impairment charges which may recur, are included under the statutory classification appropriate to their nature but are separately disclosed on the face of the income statement to assist in understanding the group's financial performance.

Operating profit

Operating profit is stated after charging restructuring costs but before the group's share of results of joint ventures and associates, investment income, the fair value movement in the index-linked swap contracts, finance costs and taxation.

Goodwill

Goodwill in relation to NATS (En Route) plc, being the excess of consideration over the values of the net assets acquired at the date of the Public Private Partnership (PPP), is recognised as an asset and reviewed for impairment at least annually. Any impairment is recognised immediately in the income statement and is not subsequently reversed. For the purpose of impairment testing NATS assesses the carrying value of goodwill against the recoverable amount of the cash generating unit to which goodwill has been allocated. Where the recoverable amount is

less than the carrying value, the impairment loss is allocated to goodwill.

Recoverable amount is the higher of fair value less costs of disposal and value in use. Fair value less costs of disposal is assessed by reference to the Regulatory Asset Base (RAB) of the economically regulated activities and costs of disposal. In assessing value in use, the estimated future cash flows (with a RAB terminal value, as a proxy for future cash flows) are discounted to their present value using the pre-tax nominal regulated rate of return. A premium is applied to the RAB (see note 3), as market precedent transactions indicate economically regulated businesses attract valuations in excess of RAB.

Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other items are classified as operating leases.

Assets held under finance leases are recognised as assets of the group at their fair value or, if lower, at the present value of the minimum lease payments, each determined at the inception of the lease. The corresponding liability to the lessor is included in the balance sheet as a finance lease obligation. Lease payments are apportioned between finance expenses and the reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance expenses are recognised immediately in profit or loss, unless they are directly attributable to qualifying assets in which case they are capitalised in accordance with the group's policy on borrowing costs (see below).

Rentals payable under operating leases are charged to income on a straight-line basis over the term of the relevant lease. Benefits received and receivable as an incentive to enter into an operating lease are also spread on a straight-line basis over the lease term.

Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and any provision for impairment in value. The cost of property, plant and equipment includes internal and contracted labour costs directly attributable to bringing the assets into working condition for their intended use. Depreciation is provided on a straight-line basis to write off the cost, less estimated residual value, of property, plant and equipment over their estimated useful lives as follows:

- ◆ Freehold buildings: 10-40 years
- ◆ Leasehold buildings: over the remaining life of the lease to a maximum of 20 years
- ◆ Air traffic control systems: 8-15 years
- ◆ Plant and other equipment: 3-15 years
- ◆ Furniture, fixtures and fittings: 10 years
- ◆ Vehicles: 5 years

Freehold land and assets in the course of construction and installation are not depreciated.

The gain or loss arising on the disposal or retirement of an asset is determined as the difference between the sale proceeds and the carrying amount of the asset and is recognised in income.

Borrowing costs

IAS 23: *Borrowing Costs*, requires costs of borrowings directly attributable to the acquisition, construction or production of a qualifying asset are capitalised as part of the cost of the asset. Qualifying assets are those which take a substantial time to get ready for intended use. These do not include assets which are ready for use when acquired.

For NATS, qualifying assets relate to any additions to new projects that began from 1 April 2009, included in assets under construction.

When funds are borrowed specifically for the purpose of acquiring or constructing a qualifying asset, the amount of borrowing costs eligible for capitalisation is

the actual cost of borrowing incurred in the period. IAS 23 requires that where a qualifying asset is funded from a pool of general borrowings, the amount of borrowing costs eligible for capitalisation should be determined by applying an appropriate capitalisation rate (based on the weighted average of borrowing costs applicable to the general outstanding borrowings during the period) to the expenditure during the period, to determine the borrowing costs eligible for capitalisation.

For NATS, the percentage rate for interest capitalisation is calculated as a proportion of the interest costs to the average level of borrowings in the period that relate to qualifying capital expenditure. All qualifying capital expenditure is then inflated by this percentage which has the effect of capitalising related interest costs.

Government grants and other grants

Government grants relating to property, plant and equipment are treated as deferred income and released to the income statement by equal annual instalments over the expected useful economic lives of the related assets.

Grants of a revenue nature are credited to income in the period to which they relate (and are reported on the face of the income statement).

Funding received from the Innovation and Network Agency (INEA) for SESAR deployment projects is deferred on the balance sheet. Under EC rules, this funding represents a contribution towards future revenue allowances. For this reason, the relevant amounts of INEA funding will be recognised as revenue in the period when customer charges are adjusted and discounted for INEA funding received.

Investments in associates and joint ventures

An associate is an entity over which the group is in a position to exercise significant influence, but not control, through participation in the financial and operating policy decisions of the investee. Significant

influence is the power to participate in the financial and operating policy decisions of the investee but is not control over those policies.

The results, assets and liabilities of associates are incorporated in these financial statements using the equity method of accounting.

A joint venture is an arrangement in which two or more parties have joint control. The investors in the joint venture have rights to the net assets of the jointly controlled entity. The results of joint ventures are incorporated in these financial statements using the equity method of accounting.

Investments in associates and joint ventures are carried in the balance sheet at cost as adjusted by post-acquisition changes in the group's share of the net assets of the associate or joint venture, less any impairment in the value of individual investments.

Internally-generated intangible assets – research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from the group's development activities is recognised only if all of the following conditions are met:

- ◆ the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- ◆ the intention to complete the intangible asset and use or sell it;
- ◆ the ability to use or sell the intangible asset;
- ◆ how the intangible asset will generate probable future economic benefits;
- ◆ the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and

- ◆ the ability to measure reliably the expenditure attributable to the intangible asset during its development.

Internally-generated intangible assets are amortised on a straight-line basis over their useful lives, typically over 3 to 12 years. Assets in the course of construction are not amortised until ready for use. Where no internally-generated intangible asset can be recognised, development expenditure is recognised as an expense in the period in which it is incurred.

Impairment of tangible and intangible assets excluding goodwill

At each balance sheet date, the group reviews the carrying amounts of its tangible and intangible assets, including those in the course of construction, to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment (if any). Where the asset does not generate cash flows that are independent from other assets, the group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of fair value less costs of disposal and the value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using the pre-tax nominal regulated rate of return for NERL (with a RAB terminal value as a proxy for future cash flows) and for NATS Services the weighted average cost of capital.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised as an expense immediately.

Where an impairment loss on an intangible or tangible asset, excluding goodwill, subsequently reverses, the

carrying amount of the asset (cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (cash-generating unit) in prior years. A reversal of an impairment loss is recognised in the income statement immediately.

Amounts recoverable on contracts

Where the outcome of a contract can be estimated reliably, revenue and costs are recognised by reference to the stage of completion of the contract activity at the balance sheet date. This is normally measured by the proportion that contract costs incurred for work performed to date bear to the estimated total contract costs, except where this would not be representative of the stage of completion. Variations in contract work, claims and incentive payments are included to the extent that they have been, or are more likely than not to be, agreed with the customer.

Where the outcome of a contract cannot be estimated reliably, contract revenue is recognised to the extent of contract costs incurred that it is probable will be recoverable. Contract costs are recognised as expenses in the period in which they are incurred.

When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately.

Share-based payments

The group has applied the requirements of IFRS 2: *Share-Based Payments*.

In 2001, the company established an All Employee Share Ownership Plan (AESOP) for the benefit of its employees to hold 5% of the share capital of NATS Holdings Limited. The Plan was initially established through the transfer of shares by the Crown Shareholder at the PPP to NATS Employee Sharetrust Limited (NESL) for £nil consideration. Following

financial restructuring in March 2003, further shares were transferred to NESL by The Airline Group Limited (AG) for £nil consideration and NESL was gifted cash of £279,264 to acquire additional shares to maintain the Plan's interest at 5% of the share capital of NATS Holdings Limited. This amount is reflected in the AESOP reserve. The Plan is administered by NESL, a trustee company. The employee ordinary shares may only be owned by employee shareholders and can only be sold to the trust company.

Shares awarded by the Plan are treated as cash-settled liabilities. A liability is recognised for shares awarded over the period from award to when the employee becomes unconditionally entitled to the shares and are measured initially at their fair value. At each balance sheet date until the liability is settled, as well as at the date of settlement, the fair value of the liability is re-measured based on independent share valuations with any changes in fair value recognised in profit or loss for the year.

In respect of the award schemes, the group provides finance to the NESL to enable the trust company to meet its obligations to repurchase vested or eligible shares from employees.

The costs of running the employee share trust is charged to the income statement.

Taxation

The tax expense represents the sum of the tax currently payable and deferred tax.

Current tax is provided at amounts expected to be paid or recovered using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying values of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method. Deferred tax

liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the tax profit nor the accounting profit.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the balance sheet date. Deferred tax is charged or credited to the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also dealt with in equity.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current liabilities and when they relate to taxes levied by the same taxation authority and the group intends to settle its current tax assets and liabilities on a net basis.

Under the Finance (No.2) Act 2015 which was enacted on 18 November 2015, the corporation tax rate was reduced to 19% with effect from 1 April 2017. Under the Finance Act 2016, the corporation tax rate will be reduced to 17% with effect from 1 April 2020. The future main tax rate reductions are expected to have a similar impact on the group's financial statements as outlined above, subject to the impact of other developments in the group's tax position which may

reduce the beneficial effect of this in the group's tax rate.

Foreign currency translation

The individual financial statements of each group company are presented in the currency of the primary economic environment in which it operates (its functional currency). For the purpose of the consolidated financial statements, the results and financial position of each group company are expressed in pounds sterling, which is the functional currency of the holding company, and the presentation currency for the consolidated financial statements. For the purpose of presenting consolidated financial statements, the assets and liabilities of the group's foreign operations are translated at exchange rates prevailing at the balance sheet date. Income and expense items are translated at the average rates for the period, unless exchange rates fluctuate significantly during the period, in which case the exchange rate at the date of transactions is used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity in the Translation reserve (and attributed to non-controlling interests as appropriate).

In preparing the financial statements of the individual companies, transactions in currencies other than pounds sterling are recorded at the rates of exchange prevailing on the dates of the transactions. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at the rates prevailing at the balance sheet date. Non-monetary assets and liabilities carried at fair value that are denominated in foreign currencies are translated at the rates prevailing at the date when the fair value was determined. Gains and losses arising on retranslation are included in the income statement for the period.

In order to hedge its exposure to certain foreign exchange risks, the group enters into forward contracts (see below for details of the group's

accounting policies in respect of such derivative financial instruments).

Retirement benefit costs

The Civil Aviation Authority Pension Scheme is a funded defined benefit scheme. The assets of the scheme are held in a separate trustee administered fund. The cost of providing benefits is determined using the Projected Unit Credit Method, with actuarial valuations being carried out at the end of each reporting period. Remeasurement comprising actuarial gains and losses and return on scheme assets (excluding interest) are recognised immediately in the balance sheet with a charge or credit to the statement of comprehensive income in the period in which they occur. Remeasurement recorded in the statement of comprehensive income is not recycled.

Past service cost is recognised immediately to the extent that the benefits are already vested.

Net interest is calculated by applying the discount rate to the net defined benefit liability or asset. Defined benefit costs are split into three categories:

- current service cost, past service cost and gains and losses on curtailments and settlements;
- net interest expense or income; and
- remeasurement.

The retirement benefit obligation recognised in the balance sheet represents the deficit or surplus in the group's defined benefit scheme. Any surplus resulting from this calculation is limited to the present value of available refunds or reductions in future contributions to the scheme.

Since 2009, the group and Trustees have introduced a number of pension reforms, as explained in note 30. These include: closing the defined benefit scheme to new entrants with effect from 1 April 2009, and establishing a defined contribution scheme for new entrants from 1 April 2009, limiting the rate of

increase in pensionable pay and changing the indexation reference rate for future service.

Contributions to the defined contribution pension scheme are expensed as incurred.

Provisions

Provisions are recognised when the group has a present obligation as a result of a past event, and it is probable that the group will be required to settle that obligation. Provisions are measured at the directors' best estimate of expenditure required to settle the obligation at the balance sheet date, and are discounted to present value where the effect is material.

Financial instruments

Financial assets and financial liabilities are recognised on the group's balance sheet when the group becomes a party to the contractual provisions of the instrument. Detailed disclosures are set out in notes 16 to 21.

Financial assets

Financial assets, other than hedging instruments, can be divided into the following categories:

- loans and receivables;
- financial assets at fair value through the profit and loss;
- available for sale financial assets; and
- held to maturity investments.

Financial assets are assigned to different categories on initial recognition. The classification depends upon the nature and purpose of the financial asset. A financial instrument's category is relevant to the way it is measured and whether the resulting income is recognised through the income statement or directly in equity. Subsequent to initial recognition financial assets are measured at either fair value or at amortised cost according to the category in which they are classified.

Investments are recognised and derecognised on a trade date where the purchase or sale of an investment is under a contract whose terms require delivery of the investment within the time frame established by the market concerned, and are initially measured at fair value plus transaction costs.

The group has financial assets in the categories of other loans and receivables and financial assets at fair value through the profit and loss. The group does not have financial assets in other categories.

Loans and receivables

Trade receivables and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as loans and receivables. Receivables are measured at amortised cost using the effective interest method, less any impairment.

Impairment of financial assets

Financial assets are rigorously assessed for indicators of impairment at half year and year end.

Financial assets are impaired where there is objective evidence that, as a result of one or more events that occurred after initial recognition of the financial asset, the estimated future cash flows of the investment have been impacted.

Impairment losses on trade receivables are recognised using allowance accounts. When a trade receivable is considered irrecoverable, it is written off against the allowance account, any subsequent recoveries are credited to the allowance account. Changes in the allowance account are recognised in the income statement.

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and demand deposits and other highly liquid investments (with a maturity of 3 months or less) that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

Financial liabilities

Financial liabilities are classified according to the substance of the contractual arrangements entered into. Financial liabilities are either financial liabilities at 'fair value through the profit and loss' or 'other financial liabilities'.

Fair value through the profit and loss

Financial liabilities at fair value through the profit and loss are measured initially at fair value and subsequently stated at fair value, with any resultant gain or loss recognised in the income statement. The net gain or loss recognised in the income statement incorporates any interest paid on the financial liability.

Other financial liabilities: including bank, other borrowings, loan notes and debt securities

Interest-bearing bank loans, other borrowings, loan notes and debt securities are recorded at the proceeds received, net of direct issue costs. Finance charges, including premia payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis in the income statement using the effective interest method and are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

Effective interest method

The effective interest method is a method of calculating amortised cost of a financial asset or financial liability and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts the estimated future cash receipts over the expected life of the financial asset.

Equity

Equity instruments are also classified according to the substance of the contractual arrangements entered into. An equity instrument is any contract that evidences a residual interest in the assets of the group after deducting all of its liabilities.

Equity instruments issued by the group are recorded at the proceeds received, net of direct issue costs.

Reserves

The consolidated statement of changes in equity includes the following reserves not otherwise explained in this note:

- ◆ Other reserves, which arose on the completion of the PPP transaction in July 2001;
- ◆ Non-controlling interest, which represents the share of equity attributable to the minority investor in NATS Services LLC.

Derivative financial instruments and hedging activities

The group's activities expose it primarily to the financial risks of changes in interest rates, inflation and foreign currency exchange rates. The group uses interest rate and index-linked swap contracts and forward foreign exchange contracts to hedge these exposures. These are disclosed in notes 18 and 19 to the accounts.

Under IFRS derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently measured at their fair value. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged.

The use of financial derivatives is governed by the group's policies approved by the Board of directors, which provides written principles on the use of financial derivatives. The group documents at the inception of the transaction the relationship between hedging instruments and the hedged items, as well as its risk management objectives and strategy for undertaking various hedge transactions. The group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

Changes in the fair value of derivative financial instruments that are designated and effective as

hedges of future cash flows are recognised directly in equity (in the Hedge reserve) and the ineffective portion is recognised immediately in the income statement. If a hedge of a forecast transaction subsequently results in the recognition of a financial asset or a financial liability, the associated gains or losses that were recognised directly in equity are reclassified into the income statement in the same period or periods during which the asset acquired or liability assumed affects profit or loss. For hedges that do not result in the recognition of an asset or a liability, amounts deferred in equity are recycled to the income statement in the same period in which the hedged item affects the income statement.

Changes in the fair value of derivative financial instruments that do not qualify for hedge accounting are recognised in the income statement as they arise.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, or exercised, or no longer qualifies for hedge accounting. At that time, any cumulative gain or loss on the hedging instrument recognised in equity is retained in equity until the forecast transaction occurs. If a hedging transaction is no longer expected to occur, the net cumulative gain or loss recognised in equity is transferred to net income or expense for the period.

Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives when their risks and characteristics are not closely related to those of host contracts and the host contracts are not carried at fair value with unrealised gains or losses reported in the income statement.

3. Critical judgements and key sources of estimation uncertainty

Impairment of goodwill, intangible and tangible assets

In carrying out impairment reviews of goodwill, intangible and tangible assets (including assets in the course of construction), a number of significant assumptions have to be made when preparing cash flow projections and assessing fair values less costs

of disposal. These include air traffic growth, future cash flows, the value of the regulated asset bases, market premia for regulated businesses, NERL's licence period and the outcome of the regulatory price control determinations. The market premium, which is applied to the RAB when determining the carrying value of goodwill, was assessed at the balance sheet date to be 5-6% (2017: 5-6%). The market premium is assessed by reference to both market precedent transactions and internal quantitative models. If the actual outcome should differ or changes in expectations arise, impairment charges may be required which would materially impact operating results. A reduction in market premium by less than 1% would result in the recoverable amount being equal to the carrying amount of goodwill. See notes 13, 14 and 15.

Retirement benefits

The group accounts for its defined benefit pension scheme such that the net pension scheme position is reported on the balance sheet with actuarial gains and losses being recognised directly in equity through the statement of comprehensive income.

A number of key assumptions have been made in calculating the fair value of the group's defined benefit pension scheme which affect the balance sheet position and the group's reserves and income statement. Refer to note 30 of the notes to the consolidated accounts for a summary of the main assumptions and sensitivities. Actual outcomes may differ materially from the assumptions used and may result in volatility in the net pension scheme position.

Recoverability of/obligation for revenue allowances

The economic regulatory price controls for UK en route services established annual revenue allowances that are recovered through a price based on the economic regulator's forecasts of traffic volumes and inflation made at the start of the price control period. Where traffic volumes or inflation differ from the regulator's forecasts, revenue actually recovered may

be higher or lower than the revenue allowance. Where this is the case, the EC Charging Regulation requires an adjustment to be made to the price two years later to reflect any over or under-recovery. At the balance sheet date there were £3.3m of net payable allowances relating to previous regulatory reference periods (2017: £3.5m net payable allowances) and £100.4m of payable allowances relating to the current regulatory reference period (2017: £47.4m of net payable allowances). The legal right to recover or the obligation to rebate the revenue adjustments discussed above is provided by the EC Charging Regulation and NERL's air traffic services licence.

Capital investment programme

The group is undertaking a significant capital investment programme to upgrade existing air traffic control infrastructure. This programme requires the group to enter into substantial contracts for the development of infrastructure assets and information systems. Whilst covered by contractual arrangements, it is in the nature of such complex projects that, from time to time, variations to the original specifications may necessitate the renegotiation of original contract scope or price and affect amounts reported in these accounts. The group also capitalises internal labour where this is directly attributable to the development of assets.

Long term contracts

The group is fulfilling a number of long term contracts, including providing support to its Aquila joint venture which is undertaking Project Marshall. In assessing the amount of revenue to be recognised in respect of these contracts, judgements are made on the extent of contract completion and the proportion that costs incurred to date bear to the estimated total costs of the contract.

4. Revenue

An analysis of the group's revenue is provided as follows:

	2018 £m	2017 £m
Airspace	712.9	707.6
Airports	159.5	155.8
Defence	20.6	36.0
Other UK Business	9.9	10.3
International	10.2	9.6
	<u>913.1</u>	<u>919.3</u>
Other operating income	5.5	4.2
Investment revenue (see note 8)	2.0	1.9
	<u>920.6</u>	<u>925.4</u>

All revenue is derived from continuing operations. Note 5 summarises the source of revenue by operating segment. Other revenue is described on the face of the income statement and is included in note 8.

A portion of the group's revenue from the provision of services denominated in foreign currencies is cash flow hedged. Included in revenue is the recycling of the effective amount of foreign currency derivatives that are used to hedge foreign currency revenue. The amount included in revenue is a £0.7m gain (2017: £3.5m gain).

5. Operating segments

The group's Executive team is considered to be the chief operating decision maker as defined by IFRS 8. The segmental analysis is based on the information that the Executive team uses internally for the purposes of evaluating the performance of operating segments and determining resource allocation between segments. The business is organised into service lines, aligned with our customers: Airspace, Airports, Defence, Other UK Business and International, and the products and services provided to each.

The performance of operating segments is assessed based on service line revenue and contribution. Service line contribution represents the revenue and costs which are directly attributed to a service line. Costs which are not directly attributed to a service line include: costs managed outside of service lines, depreciation and amortisation (net of government grants), goodwill impairment, profit/(loss) on disposal of non-current assets, employee share scheme (costs)/credits, redundancy and relocation costs and above the line tax credits. A reconciliation of service line contribution to operating profit is set out below.

Principal activities

The following table describes the activities of each operating segment:

Airspace	This includes all of the group's economically regulated activities and encompasses services to en route, oceanic and terminal customers provided from our Prestwick and Swanwick centres, together with all the supporting communications, navigation and surveillance infrastructure and facilities. Airspace includes air traffic services for helicopters operating in the North Sea, approach services for London airports, infrastructure services to the Ministry of Defence (MOD) for their en route operations and European projects in conjunction with other air traffic organisations.
Airports	The provision of air traffic control, engineering support and airport optimisation services to UK airport customers.
Defence	The provision of air traffic control, engineering support and other services to the UK MOD and to our joint venture for the UK MOD's Marshall contract.
Other UK Business	Other services provided to UK customers including: consultancy, offering airspace development, capacity improvement and training; and information, providing data to enable future efficiency and flight optimisation.
International	The provision of air traffic control and related services (including consultancy, engineering, training and information services) to overseas customers.

5. Operating segments (continued)**Revenue**

Service line revenue includes intra-group revenue. This is eliminated in deriving the group's third party revenue below:

	2018			2017		
	Revenue	Intra-group revenue	External revenue	Revenue	Intra-group revenue	External revenue
	£m	£m	£m	£m	£m	£m
Airspace	739.3	(26.4)	712.9	733.5	(25.9)	707.6
Airports	171.8	(12.3)	159.5	167.9	(12.1)	155.8
Defence	20.9	(0.3)	20.6	36.4	(0.4)	36.0
Other UK Business	15.2	(5.3)	9.9	14.8	(4.5)	10.3
International	10.2	-	10.2	9.6	-	9.6
	<u>957.4</u>	<u>(44.3)</u>	<u>913.1</u>	<u>962.2</u>	<u>(42.9)</u>	<u>919.3</u>

Operating profit

Service line contribution represents the revenue and costs which are directly attributed to a service line.

A reconciliation of service line contribution to operating profit is provided below:

	2018	2017
	£m	£m
Airspace	345.0	359.0
Airports	28.7	32.0
Defence	(6.2)	5.9
Other UK Business	6.5	3.7
International	(1.1)	(0.2)
Service line contribution	<u>372.9</u>	<u>400.4</u>
Costs not directly attributed to service lines:		
Depreciation and amortisation (net of deferred grants released)	(137.0)	(148.6)
Impairment of goodwill	-	(11.0)
Profit on disposal of non-current assets	-	0.1
Employee share scheme credit	2.8	0.6
Redundancy and relocation costs	(3.4)	(1.8)
Other costs not directly attributed to service lines	(81.0)	(72.6)
R&D expenditure above the line tax credits	1.8	1.6
Less: share of results of associates and joint ventures	0.9	(2.1)
Operating profit	<u>157.0</u>	<u>166.6</u>

The performances of Airspace and Defence include the group share of the results of European Satellite Services Provider SAS (ESSP SAS) and Aquila Air Traffic Management Services Limited respectively. The performance of International includes the group share of the results of FerroNATS Air Traffic Services SA and Searidge Technologies Inc (see note 32). Other costs not directly attributed to service lines include corporate costs providing central support functions.

Non-current assets additions

Additions to non-current assets are presented by service line below:

	2018	2017
	£m	£m
Airspace	180.0	151.4
Airports	2.3	4.0
Defence	1.0	0.1
Other UK Business	2.3	0.9
	<u>185.6</u>	<u>156.4</u>

5. Operating segments (continued)**Geographical segments**

The following table provides an analysis of the group's revenue by geographical area based on the geographical location of its customers, and non-current assets (excluding financial assets and retirement benefit assets) by geographical location:

	Revenue from external customers		Non-current assets	
	2018 £m	2017 £m	2018 £m	2017 £m
United Kingdom	465.6	487.8	1,253.1	1,202.7
Other European countries	138.6	133.7	5.0	5.0
Republic of Ireland	88.1	88.3	-	-
United States of America	85.7	82.9	-	-
Countries in Asia	56.9	52.0	-	0.1
Germany	48.9	48.2	-	-
Other North American countries	21.7	20.4	5.7	0.7
Countries in Africa	5.6	3.6	-	-
Countries in Oceania	1.3	1.4	-	-
Countries in South America	0.7	1.0	-	-
	<u>913.1</u>	<u>919.3</u>	<u>1,263.8</u>	<u>1,208.5</u>

Revenue is attributed to countries on the basis of the customer's country of domicile. Individual countries have not been shown where revenue from these countries of domicile are less than 5% of total revenue.

6. Operating profit for the year

Operating profit for the year has been arrived at after charging/(crediting):

	2018 £m	2017 £m
CAA regulatory charges in respect of NERL's air traffic services licence	4.9	4.9
CAA regulatory charges for safety regulation at airports	2.9	2.7
Impairment of goodwill	-	11.0
Depreciation of property, plant and equipment	80.3	103.6
Impairment of property, plant and equipment	0.9	0.5
Amortisation of intangible assets	51.7	45.2
Impairment of intangible assets	4.8	-
Deferred grants released	(0.7)	(0.7)
Redundancy costs	3.9	2.4
Staff relocation costs (net of credits for revisions to estimates) following site closure	(0.5)	(0.6)
Research and development costs	8.6	7.0
R&D expenditure above the line tax credits	(1.8)	(1.6)
Auditor's remuneration for audit services (see below)	<u>0.2</u>	<u>0.1</u>

The analysis of auditor's remuneration is as follows:

	2018 £m	2017 £m
Fees payable to the company's auditor for the audit of the company's annual accounts	0.1	0.1
Fees payable to the company's auditor and their associates for other services to the group		
- The audit of the company's subsidiaries	<u>0.1</u>	<u>-</u>
Total audit fees	<u>0.2</u>	<u>0.1</u>

Total non-audit fees of £37,769 (2017: £73,133) include tax services of £nil (2017: £8,867) and other services of £37,769 (2017: £64,266).

Total fees payable to the company's auditor for the audit of the subsidiary accounts was £60,366 (2017: £23,800).

A portion of the company's costs are denominated in foreign currencies and are cash flow hedged. Included in operating profit is the recycling of the effective amount of foreign currency derivatives that are used to hedge foreign currency costs. The amount included in operating profit is £nil (2017: £0.5m loss).

Government grants relating to the purchase of property, plant and equipment contributions received are treated as deferred income which is credited to the income statement by equal annual instalments over the expected useful lives of the related assets.

Research and development costs represent internal labour costs incurred in support of research and development activities.

7. Staff costs

a. Staff costs	2018 £m	2017 £m
Salaries and staff costs, including directors' remuneration, were as follows:		
Wages and salaries	336.8	310.6
Social security costs	40.8	38.1
Pension costs (note 7b)	105.9	108.5
	<u>483.5</u>	<u>457.2</u>
Less: amounts capitalised	(47.1)	(41.9)
	<u>436.4</u>	<u>415.3</u>

Wages and salaries include redundancy costs of £3.9m (2017: £2.0m), share-based payment credits or charges, other allowances and holiday pay.

Pension costs include £nil (2017: £0.4m) for redundancy related augmentation payments which staff elected to receive in lieu of severance payments.

b. Pension costs

	2018 £m	2017 £m
Defined benefit pension scheme costs (note 30)	92.6	98.0
Defined contribution pension scheme costs	13.3	10.5
	<u>105.9</u>	<u>108.5</u>

The company operates a salary sacrifice arrangement for staff pension contributions. Wages and salaries and pension costs reflect this arrangement.

c. Staff numbers

	2018 No.	2017 No.
The monthly average number of employees (including executive directors) was:		
Air traffic controllers	1,722	1,670
Air traffic service assistants	652	647
Engineers	906	931
Others	1,030	968
	<u>4,310</u>	<u>4,216</u>

8. Investment revenue

	2018 £m	2017 £m
Interest on bank deposits	0.9	1.0
Other loans and receivables	1.1	0.9
	<u>2.0</u>	<u>1.9</u>

Interest on bank deposits has been earned on financial assets, including cash and cash equivalents and short term investments.

Other loans and receivables includes the effect of unwinding the discount on amounts receivable after more than one year and interest accrued on loans to our joint ventures, Aquila and Searidge.

9. Fair value movement on derivative contract

	2018 £m	2017 £m
Credit/(charge) arising from change in the fair value of derivatives not qualifying for hedge accounting (before credit value adjustment)	1.3	(17.6)
	<u>1.3</u>	<u>(17.6)</u>

10. Finance costs

	2018 £m	2017 £m
Interest on bank overdrafts, loans and hedging instruments	0.6	0.1
Bond and related costs including financing expenses	23.6	25.7
Other finance costs	2.4	1.7
	<u>26.6</u>	<u>27.5</u>

Other finance costs includes the effect of unwinding the discount on amounts payable after more than one year.

11. Tax

	2018 £m	2017 £m
Corporation tax		
Current tax	9.9	25.1
Adjustments in respect of prior year	(5.3)	(4.5)
	<u>4.6</u>	<u>20.6</u>
Deferred tax (see note 23)		
Origination and reversal of temporary timing differences	12.6	0.9
Adjustments in respect of prior year	5.2	4.9
Effects of tax rate change on opening balance	(2.3)	(4.7)
	<u>15.5</u>	<u>1.1</u>
	<u>20.1</u>	<u>21.7</u>

Corporation tax is calculated at 19% (2017: 20%) of the estimated assessable profit for the year.

The charge for the year can be reconciled to the profit per the income statement as follows:

	2018 £m		2017 £m	
Profit on ordinary activities before tax	<u>132.8</u>		<u>125.5</u>	
Tax on profit on ordinary activities at standard rate in the UK of 19% (2017: 20%)	25.2	19.0%	25.1	20.0%
Tax effect of change in corporation tax from 19% to 17% (2017: 20% to 17%)	(3.3)	(2.5%)	(4.7)	(3.7%)
Patent box	(1.5)	(1.2%)	(1.4)	(1.1%)
Employee share scheme award of partnership and matching shares	-	-	(0.4)	(0.3%)
Goodwill impairment	-	-	2.2	1.7%
Tax effect of prior year adjustments: current tax	(5.3)	(4.0%)	(4.5)	(3.6%)
Tax effect of prior year adjustments: deferred tax	5.2	3.9%	4.9	3.9%
Joint ventures and associate	-	-	(0.4)	(0.3%)
Unrecognised deferred tax assets on overseas subsidiaries	0.5	0.4%	-	-
R&D expenditure increased deductions	0.6	0.5%	1.1	0.9%
Other permanent differences	(1.3)	(1.0%)	(0.2)	(0.2%)
Tax charge for year at an effective tax rate of 15.1% (2017: 17.3%)	<u>20.1</u>	15.1%	<u>21.7</u>	17.3%
Deferred tax charge/(credit) taken directly to equity (see note 23)	<u>80.4</u>		<u>(52.0)</u>	

12. Dividends

	2018 £m	2017 £m
Amounts recognised as dividends to equity shareholders in the year:		
First interim dividend of 19.92 pence per share (2017: 16.78 pence per share)	28.5	24.0
Second interim dividend of 19.92 pence per share (2017: nil pence per share)	28.5	-
	<u>57.0</u>	<u>24.0</u>

In May 2018, the Board approved an interim dividend for the year ending 31 March 2019 of 20.62 pence per share, totalling £29.5m, which was paid in June 2018.

13. Goodwill

	£m
Cost	
At 31 March 2018 and 31 March 2017	<u>351.0</u>
Accumulated impairment losses	
At 1 April 2016	141.7
Impairment provision recognised in income statement	11.0
At 31 March 2017	<u>152.7</u>
Impairment provision recognised in income statement	-
At 31 March 2018	<u>152.7</u>
Carrying amount	
At 31 March 2018	<u>198.3</u>
At 31 March 2017	<u>198.3</u>
At 1 April 2016	<u>209.3</u>

The group tests goodwill annually for impairment, or more frequently if there are indications that goodwill might be impaired.

The recoverable amount of goodwill is determined by reference to the higher of its fair value less costs of disposal and value in use. Fair value less costs of disposal is determined by reference to the value of the regulatory asset bases of UK Air Traffic Services and North Atlantic Air Traffic Services, representing the relevant cash generating units, including opportunities for out-performance of regulatory settlements and market premia for economically regulated businesses (assumed at 5%-6%, 2017: 5%-6%) and estimated costs of disposal. The key assumptions for value in use calculations are the discount rate, future cash flows to the end of Reference Period 2 (31 December 2019) for both cash generating units as assumed in the group's business plans, and a terminal value at that date, reflecting the projected regulatory asset bases and a market premium, which is assessed annually. The group's business plans reflect the outcome of the Reference Period 2 price control review and include forecasts of traffic volumes, inflation and pension costs reflecting the current economic environment. The discount rate is a pre-tax nominal rate of 9.05% (2017: 9.10%) for cash flows arising in Reference Period 2. The value of the regulatory asset bases at the balance sheet date were £1,006.4m (2017: £1,037.8m). Goodwill is allocated to the Airspace service line. The carrying value at 31 March 2018 is supported by fair value less costs of disposal using the valuation methodology consistent with the IFRS 13 Level 3 hierarchy. The prior year impairment charge arose following a reduction in value in use. Further details are provided in the Strategic Report. See also note 3.

14. Other intangible assets

	Operational software £m	Non-operational software £m	Airspace and resectorisation £m	Assets in course of construction £m	Total £m
Cost					
At 1 April 2016	222.1	77.7	46.3	295.9	642.0
Additions internally generated	6.0	0.1	-	10.7	16.8
Additions externally acquired	5.1	5.5	-	90.4	101.0
Other transfers during the year	217.8	3.7	0.6	(225.2)	(3.1)
At 31 March 2017	451.0	87.0	46.9	171.8	756.7
Additions internally generated	6.8	0.1	1.5	26.5	34.9
Additions externally acquired	8.1	5.1	-	69.4	82.6
Disposals during the year	-	(1.1)	-	-	(1.1)
Other transfers during the year	20.1	2.9	1.0	(26.2)	(2.2)
At 31 March 2018	486.0	94.0	49.4	241.5	870.9
Accumulated amortisation and impairment					
At 1 April 2016	114.3	53.0	19.2	16.0	202.5
Charge for the year	31.3	9.7	4.2	-	45.2
Transfer of impairment provision	11.9	-	-	(15.6)	(3.7)
At 31 March 2017	157.5	62.7	23.4	0.4	244.0
Charge for the year	38.8	8.7	4.2	-	51.7
Impairment provision recognised in income statement	-	1.1	-	3.7	4.8
Transfer of impairment provision	3.1	0.1	-	(3.2)	-
Disposals during the year	-	(1.1)	-	-	(1.1)
At 31 March 2018	199.4	71.5	27.6	0.9	299.4
Carrying amount					
At 31 March 2018	286.6	22.5	21.8	240.6	571.5
At 31 March 2017	293.5	24.3	23.5	171.4	512.7
At 1 April 2016	107.8	24.7	27.1	279.9	439.5

An annual review is performed to assess the carrying value of other intangible assets, including assets in the course of construction. The accumulated amortisation of assets in the course of construction represents impairment provisions.

15. Property, plant and equipment

	Freehold land and buildings £m	Improvements to leasehold land and buildings £m	Air traffic control systems, plant and equipment £m	Vehicles, furniture and fittings £m	Assets in course of construction and installation £m	Total £m
Cost						
At 1 April 2016	243.6	46.0	1,352.6	24.4	50.6	1,717.2
Additions during the year	0.8	0.1	13.0	0.3	24.4	38.6
Disposals during the year	-	-	(1.0)	(0.1)	-	(1.1)
Other transfers during the year	1.1	-	28.6	0.1	(26.7)	3.1
At 31 March 2017	245.5	46.1	1,393.2	24.7	48.3	1,757.8
Additions during the year	0.4	0.1	7.3	0.4	59.9	68.1
Disposals during the year	-	(0.2)	(1.0)	-	-	(1.2)
Other transfers during the year	0.1	-	14.5	0.4	(12.8)	2.2
At 31 March 2018	246.0	46.0	1,414.0	25.5	95.4	1,826.9
Accumulated depreciation and impairment						
At 1 April 2016	121.8	35.9	987.2	16.2	1.1	1,162.2
Provided during the year	7.6	1.4	93.0	1.6	-	103.6
Impairment provision recognised in income statement	-	-	-	-	0.5	0.5
Transfer of impairment provision	-	-	4.6	-	(0.9)	3.7
Disposals during the year	-	-	(1.0)	(0.1)	-	(1.1)
At 31 March 2017	129.4	37.3	1,083.8	17.7	0.7	1,268.9
Provided during the year	7.8	1.3	70.0	1.2	-	80.3
Impairment provision recognised in income statement	-	-	0.8	-	0.1	0.9
Transfer of impairment provision	-	-	0.2	-	(0.2)	-
Disposals during the year	-	(0.2)	(1.0)	-	-	(1.2)
At 31 March 2018	137.2	38.4	1,153.8	18.9	0.6	1,348.9
Carrying amount						
At 31 March 2018	108.8	7.6	260.2	6.6	94.8	478.0
At 31 March 2017	116.1	8.8	309.4	7.0	47.6	488.9
At 1 April 2016	121.8	10.1	365.4	8.2	49.5	555.0

The group conducts annual reviews of the carrying values of its property, plant, equipment and intangible assets. During the year, impairment charges of £5.7m (2017: £0.5m) were made in respect of operational assets and assets in the course of construction reflecting a reassessment of certain projects and assets, and the likelihood of benefits being realised in full.

During the year the group capitalised £nil (2017: £1.1m) of general borrowing costs at a capitalisation rate of 0.0% (2017: 1.9%), in accordance with IAS 23: *Borrowing Costs*, relating to both property, plant and equipment and other intangible assets.

The group has a finance lease for certain network related assets. The fair value of the assets held under finance lease are £1.6m (2017: £1.8m) and are included within the cost for air traffic control systems, plant and equipment above.

16. Financial and other assets

The group had balances in respect of financial and other assets as follows:

Trade and other receivables

	2018	2017
	£m	£m
Non-current		
Other debtors	0.2	0.3
Contract spare parts	0.5	0.5
Prepayments	6.3	2.7
Accrued income	13.7	15.5
	<u>20.7</u>	<u>19.0</u>
Current		
Receivable from customers gross	79.3	75.2
Allowance for doubtful debts	(5.0)	(4.4)
	<u>74.3</u>	<u>70.8</u>
Amounts recoverable under contracts	1.0	0.8
Other debtors	4.9	3.4
Prepayments	15.8	16.0
Accrued income	84.8	75.9
	<u>180.8</u>	<u>166.9</u>

The average credit period taken on sales of services is 30 days (2017: 29 days). Interest is charged by Eurocontrol to UK en route customers at 9.74% (2017: 9.88%) on balances outstanding after more than 30 days. All other balances are non-interest bearing. An allowance has been made for estimated irrecoverable amounts from sales to customers of £5.0m (2017: £4.4m). Full provision is made for receivables from UK en route customers that are overdue as, based on past experience, this is an indicator of impairment. Debts that are neither impaired nor overdue are assessed for credit quality and reviewed periodically. Receivables in respect of other customers are provided for where there is an identified loss event, such as administration, receivership or liquidation or where there is evidence of a reduction in the recoverability of the cash flows.

Accrued income which is non-current represents regulatory revenue adjustments for the previous control period, which will be recovered after 31 March 2019. Accrued income which is current includes unbilled revenue for services provided in March 2018. Prior year accrued income included unbilled revenue for services provided in March 2017 and regulatory adjustments for the previous control period which were recovered by 31 March 2018.

Ageing of past due but not impaired trade receivables

	2018	2017
	£m	£m
31-90 days	3.2	0.2
91-365 days	0.2	-
> 365 days	0.2	0.1
	<u>3.6</u>	<u>0.3</u>

Movement in the allowance for doubtful debts

	2018	2017
	£m	£m
Balance at the beginning of the year	4.4	4.6
Increase in allowance recognised in the income statement	0.6	0.1
Foreign exchange movement in the year	0.1	0.3
Amounts recovered during the year	0.1	0.1
Amounts written off as irrecoverable	(0.2)	(0.7)
Balance at the end of the year	<u>5.0</u>	<u>4.4</u>

In determining the recoverability of a trade receivable the group considers any change in credit quality of the trade receivable from the date credit was initially granted up to the reporting date. The directors believe that there is no further credit provision required in excess of the allowance for doubtful debts.

Included in the allowance for doubtful debts are individually impaired trade receivables with a balance of £3.6m (2017: £2.4m) which are in administration, receivership or liquidation. The impairment recognised represents the carrying amount of these trade receivables. The group does not hold any collateral over these balances.

16. Financial and other assets (continued)**Ageing of impaired receivables**

	2018 £m	2017 £m
31-90 days	0.2	0.4
91-365 days	1.6	0.7
> 365 days	3.2	3.3
	<u>5.0</u>	<u>4.4</u>

The directors consider that the carrying amount of trade and other receivables approximates to their fair value.

Cash and cash equivalents

Cash and cash equivalents comprise cash held by the group and short term bank deposits with an original maturity of three months or less. The directors consider that the carrying amount of these assets approximates to their fair value.

Overall, the maximum credit risk for the items discussed above and loans to joint ventures, excluding prepayments, VAT receivables and contract spare parts, would be £503.5m (2017: £473.6m).

17. Borrowings

	2018 £m	2017 £m
Secured loans at amortised cost		
£600m 5.25% Guaranteed Secured Amortising Bond due 2026	381.3	428.4
Unsecured loans at amortised cost		
Obligations under finance leases (see note 21)	1.6	1.8
Gross borrowings	<u>382.9</u>	<u>430.2</u>
Unamortised bond issue costs	(1.8)	(2.2)
Unamortised bank facility arrangement fees	(1.7)	(1.7)
	<u>379.4</u>	<u>426.3</u>
Amounts due for settlement within 12 months	<u>44.6</u>	<u>46.6</u>
Amounts due for settlement after 12 months	<u>334.8</u>	<u>379.7</u>

The £600m 5.25% Guaranteed Secured Amortising Bond is secured by way of a debenture by which NERL grants its lenders a first legal mortgage over certain properties in England and Wales, a first fixed charge over all other real estate, plant and equipment and a floating charge over all other assets. Any drawings made by NERL under its £400.0m committed bank facilities are similarly secured. Total assets of NERL as at 31 March 2018 were £1,652.8m (2017: £1,472.3m), including goodwill of £198.3m (2017: £198.3m). Further security provisions are also provided by NATS Holdings Limited and by NATS Limited.

Costs associated with the issue of the £600m bond are being amortised over the life of the bond. Costs incurred to refinance bank facilities are being amortised over the facility term. Costs not fully amortised at the date of subsequent refinancing are written off.

Undrawn committed facilities

	2018 £m	2017 £m
Undrawn committed facilities expire as follows:		
Expiring in more than two years	<u>400.0</u>	<u>400.0</u>

At 31 March 2018, NERL had no outstanding drawings against its committed bank facilities. These facilities expire in July 2022, after NERL opted to extend the bank facility in May 2017 from July 2021 to July 2022.

NATS Services has an uncommitted overdraft facility of £1.0m that was undrawn as at 31 March 2018 and 31 March 2017 and is not included in the table above.

18. Derivative financial instruments**Fair value of derivative financial instruments**

	2018 £m	2017 £m
Non-current assets		
Derivative financial instruments in designated hedge accounting relationships		
Forward foreign exchange contracts (cash flow hedges)	1.2	2.0
Current assets		
Derivative financial instruments in designated hedge accounting relationships		
Forward foreign exchange contracts (cash flow hedges)	2.0	2.3
Current liabilities		
Derivative financial instruments in designated hedge accounting relationships		
Forward foreign exchange contracts (cash flow hedges)	(0.8)	(0.9)
Derivative financial instruments classified as held for trading		
Index-linked swap	(10.2)	(7.9)
	<u>(11.0)</u>	<u>(8.8)</u>
Non-current liabilities		
Derivative financial instruments in designated hedge accounting relationships		
Forward foreign exchange contracts (cash flow hedges)	(0.5)	(0.6)
Derivative financial instruments classified as held for trading		
Index-linked swap	(119.0)	(130.7)
	<u>(119.5)</u>	<u>(131.3)</u>

Further details on derivative financial instruments are provided in note 19. The index-linked swap is classified under international accounting standards as held for trading as it does not qualify for hedge accounting. The index-linked swap was taken out in August 2003 to hedge against the risk of low inflation and previously qualified as a hedge under UK generally accepted accounting principles prior to the group's adoption of international accounting standards.

19. Financial instruments**Capital risk management**

The group manages its capital to ensure that entities in the group are able to continue as going concerns, to ensure that NERL is able to meet its obligations under the air traffic services licence, for NATS Services to meet obligations to its customers, and to fund returns to shareholders.

The capital structure of the group consists of debt as disclosed in note 17, cash and cash equivalents and short term investments, as shown in this note, and equity attributable to shareholders as disclosed in the consolidated statement of changes in equity.

External capital requirements

NERL's air traffic services licence requires the company to use reasonable endeavours to maintain an investment grade issuer credit rating (BBB-/Baa3 or better). Separately, it is the objective of the group to target a credit profile for NERL that exceeds BBB-/Baa3.

As at 31 March 2018, NERL had a corporate rating of A+ from Standard & Poor's (2017: A+) and A2 from Moody's (2017: A2).

Gearing ratio

The group does not seek to maintain a target gearing level at group level but rather sets a gearing target for NERL, the economically regulated subsidiary, based on a ratio of net debt to its regulatory asset base (RAB). In addition, the CAA has set NERL a gearing target of 60% and a cap of 65% of net debt to RAB with a requirement for NERL to remedy the position if this cap is exceeded. NERL's gearing ratio at 31 March 2018 was 27.5% (2017: 35.9%).

Significant accounting policies

Details of the significant accounting policies and methods adopted, including the criteria for recognition, the basis of measurement and the basis on which income and expenses are recognised, in respect of each class of financial asset, financial liability and equity instrument are disclosed in note 2 to the financial statements.

19. Financial instruments (continued)**Categories of financial instrument**

The carrying values of financial instruments by category at 31 March were as follows:

	2018 £m	2017 £m
Financial assets		
Loans and receivables, excluding prepayments, VAT and contract spare parts	195.6	180.0
Cash and cash equivalents and short term investments	307.9	293.6
Derivative financial instruments in designated hedge accounting relationships	3.2	4.3
	<u>506.7</u>	<u>477.9</u>
Financial liabilities		
Derivative financial instruments in designated hedge accounting relationships	(1.3)	(1.5)
Derivative financial instruments classified as held for trading	(129.2)	(138.6)
Other financial liabilities at amortised cost	(640.2)	(616.7)
	<u>(770.7)</u>	<u>(756.8)</u>

Loans and receivables, excluding prepayments includes balances relating to loans to the joint ventures of £19.7m (2017: £14.9m) and excludes VAT of £3.0m (2017: £1.6m).

Other financial liabilities at amortised cost includes balances for trade and other payables (excluding deferred income of £112.5m (2017: £93.5m) and taxes and social security liabilities of £13.5m (2017: £11.6m)) and including the bond, bank borrowings (excluding unamortised bond issue costs and bank facility arrangement fees) and finance lease obligations.

The index-linked swap is categorised as held for trading. During the year, £8.1m (2017: £3.8m) was repaid as semi-annual amortisation payments. The credit arising from the change in fair value of £1.3m has been recorded in the income statement in the year (2017: £17.6m charge).

Financial risk management objectives

The group's Treasury function is mandated by the Board to manage financial risks that arise in relation to underlying business needs. The function provides services to the business, co-ordinates access to financial markets and monitors and manages financial risks relating to the operations of the group. The function has clear policies and operating parameters. The Treasury Committee provides oversight and meets at least three times a year to approve strategy and to monitor compliance with Board policy. The Treasury function does not operate as a profit centre and the undertaking of speculative transactions is not permitted. The principal financial risks arising from the group's activities include market risk (including currency risk, interest rate risk and inflation risk), credit risk and liquidity risk. The principal financial risk in these entities is credit risk. Specific policies on interest rate and liquidity risk management apply principally to NERL.

Market risk

The group's activities expose it primarily to the financial risks of changes in foreign currency exchange rates, interest rates and inflation rates. These risks are explained below. The group enters into a variety of derivative financial instruments to manage its exposure to these risks, including:

- forward foreign exchange contracts to hedge the exchange risk arising on services provided to UK en route customers that are billed in euro, and purchases from foreign suppliers settled in foreign currencies;
- interest rate swaps to mitigate the risk of rising interest rates; and
- an index-linked swap to mitigate the risk of low inflation.

Foreign currency risk management

The group's principal exposure to foreign currency transaction risk is in relation to UK en route services revenue, accounting for 66% of the group's turnover (2017: 65%). Charges for this service are set in sterling, but are billed and collected in euro by applying a conversion rate determined monthly by Eurocontrol, who administer the UK en route revenue collection. The conversion factor used is the average of the daily closing rates for the month prior to the billing period. To mitigate the risk that exchange rates move between the date of billing and the date on which the funds are remitted to NERL, forward foreign currency contracts are entered into. NERL seeks to hedge 95% of the UK en route income that is forecast to arise by entering into forward foreign exchange contracts on a monthly basis.

The group's international activities account for 1.1% of external revenue (2017: 1.0%). The group trades with and provides finance to its overseas joint ventures and subsidiaries. Where appropriate the transactions are conducted in sterling.

The group also enters into contracts for the purchase and sale of goods and services with overseas suppliers and customers who operate in foreign currencies. To mitigate currency risk the contract value is hedged when a firm commitment arises, either through the use of forward foreign currency contracts or by purchasing foreign currency at spot rates on the date the commitment arises or by setting aside already available foreign currency.

19. Financial instruments (continued)

The carrying amount of the group's foreign currency denominated monetary assets and monetary liabilities at 31 March was as follows:

	Assets		Liabilities	
	2018	2017	2018	2017
	£m	£m	£m	£m
Euro	102.9	107.8	(14.2)	(14.5)
Singapore dollar	3.1	2.1	(0.2)	(0.2)
Thai baht	4.2	1.6	(0.1)	(0.2)
UAE dirham	1.6	1.5	(0.2)	(0.1)
US dollar	1.5	1.6	(1.8)	(3.9)
Canadian dollar	1.4	0.3	(1.4)	(1.8)
Hong Kong dollar	1.3	0.3	-	-
Qatari riyal	0.9	0.4	-	-
Omani rial	0.4	0.4	-	-
Philippine peso	0.4	0.4	-	-
Kuwaiti dinar	0.3	0.1	-	-
Norwegian krone	0.2	0.1	-	(0.2)
Swedish krona	-	0.4	-	(0.6)
	<u>118.2</u>	<u>117.0</u>	<u>(17.9)</u>	<u>(21.5)</u>

Foreign currency sensitivity analysis

The group has assets and liabilities denominated in foreign currencies including cash balances of £6.7m at 31 March 2018 (2017: £12.9m) in euro, UAE dirham, Hong Kong dollars, US dollars, Thai baht, Kuwaiti dinar, Omani rial, Canadian dollars, Qatari riyal, Danish krone, Singapore dollars and Swedish krona. Furthermore, the group has entered into forward foreign currency contracts to hedge exchange risk relating to customer receipts and supplier costs which will arise in future periods.

The following table details the group's sensitivity to a 10% increase or decrease in the value of sterling against relevant foreign currencies. 10% is the sensitivity rate that represents the reasonably possible change in foreign currency exchange rates in a financial year. The sensitivity analysis includes foreign currency cash balances, trade receivables, trade payables and forward foreign exchange contracts and adjusts their translation at the period end for a 10% change in foreign currency rates.

The table below shows the effect of a 10% strengthening of sterling against the relevant currency (to the nearest £0.1m). A positive number below indicates an increase in profit and equity and a negative number a reduction in profit and equity. There would be an equal and opposite impact on profit and equity if sterling devalues by 10% against the relevant currency.

Currency	2018	2017
	Impact	Impact
	£m	£m
Euro	(0.1)	(2.2)
Singapore dollar	0.1	(0.2)
Thai baht	0.2	0.4
UAE dirham	(0.1)	(0.2)
US dollar	(3.4)	(2.6)
Canadian dollar	(0.2)	(0.2)
Hong Kong dollar	(0.1)	-
Qatari riyal	(0.1)	-
Omani rial	(0.1)	-
Philippine peso	(0.1)	-
Norwegian krone	(0.1)	-
Swedish krona	(0.1)	-
Danish krone	(0.1)	-
	<u>(4.2)</u>	<u>(5.0)</u>

The group's sensitivity to the euro decreased during the year reflecting a net decrease in euro denominated monetary assets and a net decrease in euro denominated forward contracts. The group's sensitivity to the US dollar has increased during the year, reflecting a net increase in US dollar denominated forward contracts taken out to hedge future payments, partly offset by a net decrease in US dollar denominated monetary liabilities. Exposure to other currencies has remained fairly constant. NATS believes that this sensitivity analysis accurately reflects its inherent foreign exchange risk.

19. Financial instruments (continued)

Forward foreign exchange contracts

The group entered into forward foreign exchange contracts to sell euro forecast to be received from Eurocontrol in respect of UK en route revenues and to sell other currencies it will receive on its overseas contracts. In addition, the group entered into other forward foreign exchange contracts to fund purchases. The group has designated these forward contracts as cash flow hedges. The following contracts were outstanding at year end:

2018				2017			
	£m	€m	Average exchange rate		£m	€m	Average exchange rate
Euro sold				Euro sold			
0-90 days	149.0	168.4	0.8846	0-90 days	149.8	174.1	0.8602
91-365 days	9.0	10.0	0.9007	91-365 days	0.5	0.6	0.8200
> 365 days	24.3	26.6	0.9136	> 365 days	0.2	0.2	0.7586
	<u>182.3</u>	<u>205.0</u>	<u>0.8891</u>		<u>150.5</u>	<u>174.9</u>	<u>0.8600</u>
Euro bought	€m	£m		Euro bought	€m	£m	
0-90 days	22.2	19.8	0.8936	0-90 days	5.8	5.0	0.8552
91-365 days	22.2	19.4	0.8748	91-365 days	21.0	18.3	0.8704
> 365 days	61.9	55.5	0.8956	> 365 days	63.5	56.0	0.8828
	<u>106.3</u>	<u>94.7</u>	<u>0.8909</u>		<u>90.3</u>	<u>79.3</u>	<u>0.8782</u>
US dollar sold	£m	US\$m		US dollar sold	£m	US\$m	
0-90 days	-	-	-	0-90 days	3.8	4.7	1.2443
US dollar bought	US\$m	£m		US dollar bought	US\$m	£m	
0-90 days	25.8	18.3	1.4067	0-90 days	11.3	9.0	1.2511
91-365 days	5.6	3.9	1.4254	91-365 days	13.5	9.6	1.4150
> 365 days	17.8	12.2	1.4658	> 365 days	19.8	13.4	1.4765
	<u>49.2</u>	<u>34.4</u>	<u>1.4297</u>		<u>44.6</u>	<u>32.0</u>	<u>1.3950</u>
Canadian dollar bought	C\$m	£m		Canadian dollar bought	C\$m	£m	
0-90 days	1.7	1.0	1.6866	0-90 days	3.2	1.9	1.6882
91-365 days	0.7	0.4	1.8471	91-365 days	0.4	0.2	1.9936
> 365 days	1.3	0.7	1.7921	> 365 days	2.2	1.2	1.8004
	<u>3.7</u>	<u>2.1</u>	<u>1.7531</u>		<u>5.8</u>	<u>3.3</u>	<u>1.7474</u>
Danish krone bought	DKK\$m	£m		Danish krone bought	DKK\$m	£m	
0-90 days	1.4	0.2	8.5309	0-90 days	-	-	-
> 365 days	4.4	0.5	8.3410	> 365 days	-	-	-
	<u>5.8</u>	<u>0.7</u>	<u>8.3866</u>		<u>-</u>	<u>-</u>	<u>-</u>
Norwegian krone sold	£m	NOK\$m		Norwegian krone sold	£m	NOK\$m	
0-90 days	0.2	1.6	10.4125	0-90 days	0.1	1.3	11.1126
91-365 days	0.1	1.6	10.4251	91-365 days	0.1	1.3	11.1105
	<u>0.3</u>	<u>3.2</u>	<u>10.4188</u>		<u>0.2</u>	<u>2.6</u>	<u>11.1115</u>
Norwegian krone bought	NOK\$m	£m		Norwegian krone bought	NOK\$m	£m	
0-90 days	3.3	0.3	11.4569	0-90 days	1.4	0.1	11.7480
91-365 days	5.6	0.5	11.2597	91-365 days	-	-	-
> 365 days	-	-	-	> 365 days	1.5	0.1	11.7395
	<u>8.9</u>	<u>0.8</u>	<u>11.3324</u>		<u>2.9</u>	<u>0.2</u>	<u>11.7437</u>
Singapore dollar sold	£m	SGD\$m		Singapore dollar sold	£m	SGD\$m	
0-90 days	1.1	2.1	1.8414	0-90 days	-	-	-
91-365 days	1.5	2.8	1.8202	91-365 days	-	-	-
> 365 days	1.1	2.1	1.8428	> 365 days	-	-	-
	<u>3.7</u>	<u>7.0</u>	<u>1.8333</u>		<u>-</u>	<u>-</u>	<u>-</u>

19. Financial instruments (continued)

Swedish krona bought	SEKm	£m	Swedish krona bought	SEKm	£m
0-90 days	2.7	0.2	0-90 days	2.1	0.2
91-365 days	3.3	0.3	91-365 days	4.2	0.4
> 365 days	4.7	0.4	> 365 days	-	-
	<u>10.7</u>	<u>0.9</u>		<u>6.3</u>	<u>0.6</u>
					<u>11.0841</u>

Philippine peso sold	£m	PHPm	Philippine peso sold	£m	PHPm
0-90 days	-	-	0-90 days	0.3	21.3
					<u>63.4464</u>

Thai baht sold	£m	THBm	Thai baht sold	£m	THBm
0-90 days	5.8	259.2	0-90 days	1.7	73.9
91-365 days	-	-	91-365 days	2.7	123.1
> 365 days	-	-	> 365 days	1.4	62.2
	<u>5.8</u>	<u>259.2</u>		<u>5.8</u>	<u>259.2</u>
					<u>44.4514</u>
					<u>45.1205</u>

At 31 March 2018, the aggregate amount of the unrealised gain under forward foreign exchange contracts deferred in the hedge reserve relating to the exposure on these future transactions was £1.7m (2017: £3.3m). The majority of these contracts will mature within the next financial year at which stage the amount deferred in equity will be realised in the income statement.

In addition to the above, NERL has entered into average rate forward agreements with a fixing date after 31 March 2018 to sell euro anticipated to be received in July 2018 in respect of UK en route revenues, for this reason they are not included in the table above. The value of these cash flows is £56.4m (2017: £60.0m). These contracts are also designated as cash flow hedges.

Interest rate risk management

The group is exposed to interest rate risk to the extent that it holds borrowings at fixed, floating and index-linked interest rates. Its interest rate risk management policies, which are kept under continuous review, are specific to NERL. Except for NERL, no other entity within the NATS group had borrowings at 31 March 2018 (2017: none).

The group seeks to minimise NERL's exposure to movements in interest rates by ensuring NERL holds an appropriate balance of fixed, floating and index-linked debt as a percentage of its net debt by the use of interest rate swap contracts and index-linked swap contracts.

The group's exposure to interest rates on financial assets and financial liabilities is detailed in the liquidity risk management section of this note. The group held no interest rate swaps at 31 March 2018 (2017: none).

Economic interest rate exposure

The group's cash and short term deposits were as follows:

Currency	Cash			Short term deposits			Total £m
	Amount £m	Economic interest rate %	Average maturity days	Amount £m	Economic interest rate %	Average maturity days	
Sterling	262.9	0.4	11	38.3	0.8	181.0	301.2
Euro	2.9	-	3	-	-	-	2.9
UAE dirham	0.8	-	3	-	-	-	0.8
Hong Kong dollar	0.7	-	3	-	-	-	0.7
US dollar	0.6	-	3	-	-	-	0.6
Thai baht	0.4	-	3	-	-	-	0.4
Kuwaiti dinar	0.3	-	3	-	-	-	0.3
Omani rial	0.3	-	3	-	-	-	0.3
Canadian dollar	0.2	-	3	-	-	-	0.2
Qatari riyal	0.2	-	3	-	-	-	0.2
Danish krone	0.1	-	3	-	-	-	0.1
Singapore dollar	0.1	-	3	-	-	-	0.1
Swedish krona	0.1	-	3	-	-	-	0.1
	<u>269.6</u>			<u>38.3</u>			<u>307.9</u>

19. Financial instruments (continued)

Currency	Cash			2017 Short term deposits			Total £m
	Amount £m	Economic interest rate %	Average maturity days	Amount £m	Economic interest rate %	Average maturity days	
Sterling	241.3	0.3	10	39.4	0.4	182.0	280.7
Euro	8.7	(0.4)	3	-	-	-	8.7
US dollar	1.4	-	3	-	-	-	1.4
UAE dirham	1.0	-	3	-	-	-	1.0
Swedish krona	0.4	-	3	-	-	-	0.4
Canadian dollar	0.3	-	3	-	-	-	0.3
Omani rial	0.3	-	3	-	-	-	0.3
Qatari riyal	0.2	-	3	-	-	-	0.2
Singapore dollar	0.2	-	3	-	-	-	0.2
Hong Kong dollar	0.2	-	3	-	-	-	0.2
Norwegian krone	0.1	-	3	-	-	-	0.1
Kuwaiti dinar	0.1	-	-	-	-	-	0.1
	<u>254.2</u>			<u>39.4</u>			<u>293.6</u>

The economic interest rate reflects the true underlying cash rate that the group was paying on its borrowings or receiving on its deposits at 31 March. The economic interest rate exposure of the group's loans is presented below with and without the effect of derivatives, as follows:

Excluding derivatives

	Total £m	Variable rate £m	Inflation rate £m	Fixed rate £m	Economic interest rate %	Weighted average time rate is fixed years
At 31 March 2018						
Sterling:						
5.25% guaranteed secured bonds	381.3	-	-	381.3	5.26%	4.6
Obligations under finance leases	1.6	-	-	1.6	3.10%	3.9
Total	<u>382.9</u>	<u>-</u>	<u>-</u>	<u>382.9</u>		
At 31 March 2017						
Sterling:						
5.25% guaranteed secured bonds	428.4	-	-	428.4	5.26%	5.1
Obligations under finance leases	1.8	-	-	1.8	3.10%	4.4
Total	<u>430.2</u>	<u>-</u>	<u>-</u>	<u>430.2</u>		

Including derivatives

	Total £m	Variable rate £m	Inflation rate £m	Fixed rate £m	Economic interest rate %	Weighted average time rate is fixed years
At 31 March 2018						
Sterling:						
5.25% guaranteed secured bonds	205.3	-	-	205.3	5.27%	4.6
5.25% guaranteed secured bonds	176.0	-	176.0	-	5.25%	0.5
Obligations under finance leases	1.6	-	-	1.6	3.10%	3.9
Total	<u>382.9</u>	<u>-</u>	<u>176.0</u>	<u>206.9</u>		
At 31 March 2017						
Sterling:						
5.25% guaranteed secured bonds	236.4	-	-	236.4	5.27%	5.1
5.25% guaranteed secured bonds	192.0	-	192.0	-	5.10%	0.5
Obligations under finance leases	1.8	-	-	1.8	3.10%	4.4
Total	<u>430.2</u>	<u>-</u>	<u>192.0</u>	<u>238.2</u>		

The interest rate payable under the index-linked swap is adjusted semi-annually in line with the movement in RPI.

19. Financial instruments (continued)

The following table shows the percentage of fixed, index-linked and floating rate debt as a percentage of group net debt. Net debt is defined for this purpose as borrowings net of cash and short term investments, as distinct from the definition used for financial covenants purposes.

	2018		2017	
	£m		£m	
Net debt	<u>71.5</u>		<u>132.7</u>	
	£m	%	£m	%
Fixed (net of bond discount and issue costs)	205.1	286.8	236.0	177.8
Index-linked	176.0	246.2	192.0	144.7
Floating (net of cash, short term investments and facility costs)	<u>(309.6)</u>	<u>(433.0)</u>	<u>(295.3)</u>	<u>(222.5)</u>
	<u>71.5</u>	<u>100.0</u>	<u>132.7</u>	<u>100.0</u>

At 31 March 2018, NERL had net debt, including an intercompany loan of £22.5m, of £207.3m (2017: net debt £301.0m), NATS Limited held net cash of £5.7m (2017: £4.8m), NATS Services had cash of £104.0m (2017: £136.9m), NATSNav had cash of £0.7m (2017: £0.3m), NATS (USA) Inc had cash of £0.5m (2017: £0.6m), NATS Services DMCC had cash of £0.1m (2017: £1.1m), NATS Services (Asia Pacific) had cash of £2.0m (2017: £1.8m) and NATS Services LLC had cash of £0.3m (2017: £0.3m).

The following table shows the percentage of fixed, index-linked and floating rate debt as a percentage of NERL net debt, reflecting the application of the interest rate risk management policies that are specific to NERL.

	2018		2017	
	£m		£m	
Net debt	<u>207.3</u>		<u>301.0</u>	
	£m	%	£m	%
Fixed (net of bond discount and issue costs)	205.1	98.9	236.0	78.4
Index-linked	176.0	84.9	192.0	63.8
Floating (net of cash, short term investments and facility costs)	<u>(173.8)</u>	<u>(83.8)</u>	<u>(127.0)</u>	<u>(42.2)</u>
	<u>207.3</u>	<u>100.0</u>	<u>301.0</u>	<u>100.0</u>

Interest rate sensitivity analysis

The sensitivity analysis below has been determined based on the exposure to interest rates on floating rate assets and liabilities. The analysis is prepared assuming the amount of assets or liabilities at the balance sheet date were in place for the whole year. A 1% increase or decrease is considered to represent a reasonably possible change in interest rates.

The following table shows the effect of a 1% increase in interest rates on the group's cash and floating rate bank loans on profit for the year and on equity. A positive number represents an increase in profit and equity and a negative number a decrease in profit and equity.

	2018	2017
	Impact	Impact
	£m	£m
Cash at bank and short term deposits (2018: £307.9m, 2017: £293.6m)	<u>3.1</u>	<u>2.9</u>

Overall the group's sensitivity to interest rates is slightly higher than prior year, reflecting the net change in cash.

Inflation rate risk

The regulatory charge control conditions that apply to NERL's UK en route and North Atlantic services determines a revenue allowance for financing charges that is linked to inflation (now CPI but previously RPI). To achieve an economic hedge of part of this income, in August 2003 coincident with the issue of its £600.0m 5.25% fixed rate bond, NERL entered into an amortising index-linked swap with a notional principal of £200.0m for the period up to March 2017 reducing semi-annually thereafter and expiring in March 2026. As at 31 March 2018 the notional principal had reduced to £176.0m. Under the terms of this swap, NERL receives fixed interest at 5.25% and pays interest at a rate of 3.43% adjusted for the movement in RPI. The index-linked swap cannot be designated as a cash flow hedge under IFRS, although it provides an economic hedge of certain of NERL's inflation-linked revenues.

The value of the notional principal of the index-linked swap is also linked to movements in RPI.

Inflation rate sensitivity analysis

The sensitivity analysis below has been determined based on the exposure to inflation arising from the index-linked swap. The analysis is prepared assuming that the index-linked swap at the balance sheet date was in place for the whole year. A 1% increase or decrease in inflation is considered to represent a reasonably possible change in inflation. An increase in the rate of RPI will increase the future index-linked payments that NERL is required to make under the swap contract and so impacts its mark to market value.

19. Financial instruments (continued)

The following table shows the effect of a 1% increase in inflation on the amount of interest payable in respect of this swap and the impact on its value when marked to market. A positive number indicates an increase in profit and equity and a negative number a reduction in profit and equity. There would be an equal and opposite impact on profit and equity if breakeven inflation falls by 1%.

	2018 Impact £m	2017 Impact £m
Change in swap interest and mark to market value	<u>(12.1)</u>	<u>(12.7)</u>

The mark to market value of the index-linked swap is also sensitive to the discount rates that are used to determine the net present value of the cash flows under the swap agreement. The discount rate is determined by reference to market yields on interest rate swaps. The effect of a 1% increase in the discount rate would be to increase profit and equity by £6.1m (2017: £7.5m). There would be an equal and opposite impact on profit and equity if discount rates decreased by 1%.

Credit risk management

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the group. The group's exposure to credit risk arises from the risk of default by customers on settlement of trade receivables and from the risk of a failure of a financial institution in which funds are invested for return or held for trading purposes or with whom derivative contracts are entered into. The risk of loss from default by customers and the mitigations against this risk are explained in note 16. With regard to funds or contracts held with financial institutions, the group's policy is to transact with counterparties that hold a minimum credit rating as supplied by independent rating agencies: Standard & Poor's, Moody's and Fitch Ratings.

The group's policy is to allocate limits to the value of investments, foreign exchange transactions and interest rate hedging transactions that may be entered into with a bank or financial institution and to allocate an aggregate credit risk limit. The limits are based upon the institution's credit rating with Standard & Poor's and Moody's; the Fitch rating is only used if one of these agencies does not provide a rating. Where there is a difference in the rating then the lowest rating is applied.

Currently, the group's investments take the form of bank time deposits and money market fund investments. Investments in bank time deposits with maturities up to 3 months and between 3 and 6 months are only entered into with institutions holding a long term minimum credit rating of A- and A+ respectively from Standard & Poor's or Fitch Ratings and A3 and A1 respectively from Moody's. However, dependent on market conditions, tighter restrictions on rating requirements and lower limits may be placed on the duration of deposits. Money market fund investments are restricted to AAAM rated liquidity funds.

The table below sets out the investment limits that are applied to each institution based on its credit rating:

Rating (Standard & Poor's)	Limit per Institution £m
AAA & AAAM	70.0
AA+	56.0
AA	42.0
AA-	28.0
A+	21.0
A	14.0
A-	10.5

The following table shows the distribution of the group's deposits at 31 March by credit rating (Standard & Poor's):

Rating (Standard & Poor's)	2018			2017		
	Number of institutions	£m	By credit rating %	Number of institutions	£m	By credit rating %
AAAM	6	190.9	62.0	6	163.7	55.8
AA-	3	51.6	16.8	2	47.5	16.2
A+	-	-	-	1	9.4	3.2
A	6	55.4	18.0	5	57.1	19.4
A-	1	7.5	2.4	2	8.5	2.9
BBB+	1	2.5	0.8	1	7.4	2.5
		<u>307.9</u>	<u>100.0</u>		<u>293.6</u>	<u>100.0</u>

The deposits of £2.5m with a BBB+ rated institution were held in various current accounts that are not subject to the above investment limits.

19. Financial instruments (continued)**Liquidity risk management**

The responsibility for liquidity risk management, the risk that the group will have insufficient funds to meet its obligations as they fall due, rests with the Board with oversight provided by the Treasury Committee. The group manages liquidity by maintaining adequate reserves and borrowing facilities by monitoring actual and forecast cash flows, including contributions to the defined benefit pension scheme, and ensuring funding is diversified by source and maturity and available at competitive cost.

With regard to NERL, the group's policy is to:

- maintain free cash equal to between one and two months of UK en route services revenues (see below). Free cash is defined as cash and cash equivalents and short term investments, excluding a debt service reserve account of £38.3m used to fund interest, fees and bond amortisation payments scheduled in the next six months and a required liquidity reserve account of £21.3m held to provide liquidity in the event of certain pre-defined circumstances, particularly to ensure compliance with financial covenants;
- ensure access to bank facilities sufficient to meet 110% of forecast requirements that are not otherwise covered by operating cash flows or other sources of finance through the period of the business plan. At 31 March 2018 NERL had access to bank facilities totalling £400m available until 31 July 2022. The facilities comprise a £350m revolving term loan facility, a £45m revolving credit facility and a £5m overdraft facility;
- ensure access to long term funding to finance its long term assets. This is achieved in the form of the fixed rate amortising sterling bonds with a final maturity date of 2026;
- ensure that the ratio of bank funding to total gross borrowings does not exceed 75%; and
- maintain a portfolio of debt diversified by source and maturity. This is achieved through the issuance of the fixed rate amortising bonds and by having available shorter dated committed bank facilities.

The following table shows the ratio of free cash in NERL to average monthly UK en route services income during the year:

	2018 £m	2017 £m
Average monthly UK en route services income	50.5	49.4
Free cash at 31 March	135.0	87.1
Ratio of free cash to UK en route services income	<u>2.7</u>	<u>1.8</u>

The following table shows the ratio of the group's bank borrowings to its gross borrowings at 31 March:

	2018 £m	2017 £m
Bank borrowings	-	-
Gross borrowings	382.9	430.2
Bank borrowings as a percentage of gross borrowings	<u>0%</u>	<u>0%</u>

It is company policy not to issue new guarantees in respect of the borrowings of subsidiaries or to allow the creation of any new mortgages or other charges over group assets.

Maturity of borrowings

The following table sets out the remaining contractual maturity of the group's non-derivative financial liabilities. The tables have been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the group can be required to repay. The table includes both interest and principal cash flows.

	2018				2017			
	Unsecured loans £m	Secured loans £m	Other liabilities £m	Total £m	Unsecured loans £m	Secured loans £m	Other liabilities £m	Total £m
Due within one year or less	0.2	65.3	168.9	234.4	0.2	69.8	129.8	199.8
Between one and two years	0.2	60.8	56.6	117.6	0.2	65.3	34.7	100.2
Due between two and five years	0.7	164.8	26.3	191.8	0.7	172.8	17.4	190.9
Due in more than five years	0.7	187.0	5.5	193.2	0.9	239.9	4.6	245.4
	<u>1.8</u>	<u>477.9</u>	<u>257.3</u>	<u>737.0</u>	<u>2.0</u>	<u>547.8</u>	<u>186.5</u>	<u>736.3</u>
Effect of interest, discount and unamortised bond issue and bank facility arrangement fees	(0.2)	(100.1)	-	(100.3)	(0.2)	(123.3)	-	(123.5)
	<u>1.6</u>	<u>377.8</u>	<u>257.3</u>	<u>636.7</u>	<u>1.8</u>	<u>424.5</u>	<u>186.5</u>	<u>612.8</u>

Other liabilities above include trade and other payables excluding deferred income of £112.5m (2017: £93.5m), and taxes and social security liabilities of £13.5m (2017: £11.6m).

In order to manage the liquidity risk arising on the contractual maturity of its borrowings, it is the group's intent to replace bank facilities and bonds with facilities of a similar nature at least 12 months in advance of contractual maturity.

19. Financial instruments (continued)

The following table sets out the maturity profile of the group's derivative financial liabilities. Cash flows under the index-linked swap are not fixed and are subject to movements in inflation. Accordingly, the cash flows associated with the index-linked swap have been derived from the group's long term forecasts of inflation as used for business planning purposes. The table shows undiscounted net cash inflows/(outflows) on these derivatives.

	Due within one year or less £m	Due between one and two years £m	Due between two and five years £m	Due in more than five years £m	Total £m
2018					
Net settled:					
Index-linked swap payable	(10.2)	(12.6)	(49.7)	(67.5)	(140.0)
Gross settled:					
Foreign exchange forward contract receivables	287.3	42.7	51.4	-	381.4
Foreign exchange forward contract payables	(286.1)	(43.1)	(50.7)	-	(379.9)
	<u>(9.0)</u>	<u>(13.0)</u>	<u>(49.0)</u>	<u>(67.5)</u>	<u>(138.5)</u>
2017					
Net settled:					
Index-linked swap payable	(7.9)	(10.0)	(43.6)	(84.7)	(146.2)
Gross settled:					
Foreign exchange forward contract receivables	264.4	25.2	47.4	-	337.0
Foreign exchange forward contract payables	(261.8)	(25.4)	(47.0)	-	(334.2)
	<u>(5.3)</u>	<u>(10.2)</u>	<u>(43.2)</u>	<u>(84.7)</u>	<u>(143.4)</u>

Foreign exchange forward contract payables due within one year or less include estimates of the payables associated with average rate forward agreements that have fixing rates after 31 March 2018. At 31 March 2018, NERL had entered into such agreements to sell euro in July 2018 in exchange for £56.4m (2017: £60.0m).

Fair value measurements

Set out below is information about how the group determines fair values of various financial assets and financial liabilities.

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable.

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities.

- Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Fair value measurements recognised on the balance sheet

	2018				2017			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Financial assets								
Derivative financial instruments in designated hedge accounting relationships	-	3.2	-	3.2	-	4.3	-	4.3
Financial liabilities								
Derivative financial instruments in designated hedge accounting relationships	-	(1.3)	-	(1.3)	-	(1.5)	-	(1.5)
Derivative financial instruments classified as held for trading	-	(129.2)	-	(129.2)	-	(138.6)	-	(138.6)
	<u>-</u>	<u>(130.5)</u>	<u>-</u>	<u>(130.5)</u>	<u>-</u>	<u>(140.1)</u>	<u>-</u>	<u>(140.1)</u>

There were no transfers between individual levels in the year.

Valuation techniques and key inputs

The fair value of the financial instrument is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the balance sheet date.

The fair values of the financial instruments held at fair value have been determined based on available market information at the balance sheet date and the valuation methodologies listed below:

- the fair values of forward foreign exchange contracts are calculated with reference to well recognised proprietary financial models used by bank counterparties, and verified using discounted cash flow modelling;

- the fair value of the index-linked swap is provided by bank counterparties using proprietary financial models. This is validated using discounted cash flow modelling and observable forward inflation indices at the reporting date and contracted inflation rates, discounted with reference to the interest rate swap curve at the reporting date; and

- the fair value of the fixed rate bond has been derived from its externally quoted price.

19. Financial instruments (continued)

Except as detailed in the following table, the directors consider that the carrying amounts of financial assets and financial liabilities recorded at amortised cost in the financial statements approximate their fair values:

	Carrying amount		Fair value	
	2018 £m	2017 £m	2018 £m	2017 £m
Financial liabilities				
£600m 5.25% Guaranteed Secured Amortising Bond	(381.3)	(428.4)	(440.6)	(510.3)

20. Financial and other liabilities**Trade and other payables**

The group had balances in respect of other non-interest bearing financial and other liabilities as follows:

	2018 £m	2017 £m
Current		
Trade payables	18.4	23.4
Other payables	44.4	15.3
Tax and social security	13.5	11.6
Accruals and deferred income		
deferred grants	0.6	0.7
other	136.2	108.0
	<u>213.1</u>	<u>159.0</u>
Non-current		
Other payables	60.7	38.8
Accruals and deferred income		
deferred grants	3.2	3.9
other	106.3	89.9
	<u>170.2</u>	<u>132.6</u>
	<u>383.3</u>	<u>291.6</u>

Other payables that are non-current represent regulatory revenue adjustments for calendar year 2017, the period January to March 2018 and previous regulatory control periods, which will be repaid after 31 March 2019 through 2019 and 2020 charges. Other payables that are current represent regulatory revenue adjustments for calendar years 2016 and 2017 and previous regulatory control periods, which will be recovered by 31 March 2019 through 2018 and 2019 charges.

Trade payables and accruals principally comprise amounts outstanding for trade purchases and ongoing costs. The average credit period taken for trade purchases is 34 days (2017: 43 days). The directors consider that the carrying amount of the trade payables approximates to their fair value.

21. Obligations under finance leases

	Minimum lease payments		Present value of minimum lease payments	
	2018 £m	2017 £m	2018 £m	2017 £m
Within one year	0.2	0.2	0.2	0.2
In the second to fifth years inclusive	0.9	0.9	0.8	0.8
After five years	0.7	0.9	0.6	0.8
	<u>1.8</u>	<u>2.0</u>	<u>1.6</u>	<u>1.8</u>
Less: future finance charges	(0.2)	(0.2)	-	-
	<u>1.6</u>	<u>1.8</u>	<u>1.6</u>	<u>1.8</u>
Analysed as:			2018 £m	2017 £m
Current			0.2	0.2
Non-current			1.4	1.6
			<u>1.6</u>	<u>1.8</u>

The group has a finance lease arrangement for certain network equipment. The term of this lease is 10 years. For the year ended 31 March 2018, the effective borrowing rate was 3.1%. All leases are on a fixed repayment basis.

The fair value of the group's lease obligations is approximately equal to its carrying amount.

22. Provisions

	Redundancy £m	Relocation £m	Other £m	Total £m
At 1 April 2017	1.3	2.1	8.0	11.4
Additional provision in the year	4.0	-	1.3	5.3
Release of provision in the year	(0.1)	(0.5)	(1.3)	(1.9)
Utilisation of provision	(1.6)	(0.8)	(0.6)	(3.0)
At 31 March 2018	<u>3.6</u>	<u>0.8</u>	<u>7.4</u>	<u>11.8</u>
			2018 £m	2017 £m
Amounts due for settlement within 12 months			5.0	4.6
Amounts due for settlement after 12 months			6.8	6.8
			<u>11.8</u>	<u>11.4</u>

The redundancy provision represents the best estimate of the future cost of redundancy payments to employees that have committed to the redundancy terms at 31 March 2018. The ageing of the provision reflects the expected timing of employees leaving the group.

The relocation provision represents the best estimate of the future cost of relocating staff when the site they work at closes and they are relocated to another site. The ageing of the provision reflects the expected timing of the settlement of relocation costs.

The other provisions represent the best estimate of other liabilities, including property-related costs. The ageing of the provision reflects the best estimate of when these potential liabilities will fall due.

23. Deferred tax

The following are the major deferred tax assets and liabilities recognised by the group and movements thereon during the current and prior reporting period.

	Accelerated tax depreciation	Retirement benefits	Financial instruments	Other	Total
	£m	£m	£m	£m	£m
At 1 April 2016	95.3	(15.1)	(6.4)	(3.3)	70.5
(Credit)/charge to income	(0.2)	3.6	(2.1)	(0.2)	1.1
(Credit)/charge to equity	-	(52.6)	0.6	-	(52.0)
At 31 March 2017	95.1	(64.1)	(7.9)	(3.5)	19.6
At 1 April 2017	95.1	(64.1)	(7.9)	(3.5)	19.6
Charge to income	11.0	2.3	1.8	0.4	15.5
Charge/(credit) to equity	-	80.6	(0.2)	-	80.4
At 31 March 2018	106.1	18.8	(6.3)	(3.1)	115.5

Certain deferred tax assets and liabilities have been offset. The following is the analysis of the deferred tax balances (after offset) for financial reporting purposes.

	2018 £m	2017 £m
Deferred tax liabilities	(124.9)	(95.1)
Deferred tax assets	9.4	75.5
	<u>(115.5)</u>	<u>(19.6)</u>

24. Share capital

	Authorised		Called up, allotted and fully paid	
	Number of shares	£m	Number of shares	£m
Ordinary shares of £1 each				
At 31 March 2018 and 31 March 2017	144,100,007	144.1	131,000,007	131.0
Ordinary A shares of 80 pence each				
At 31 March 2018 and 31 March 2017	54,272,594	43.4	12,048,193	9.6
		<u>187.5</u>		<u>140.6</u>

Each class of ordinary shares has the same voting rights and rights to dividends.

Special share

The authorised and issued share capital of NATS Holdings Limited includes one special rights redeemable preference share with a nominal value of £1. The share is redeemable at any time after the shareholding of the Crown falls below 25%. This share can only be held by a Minister of the Crown, the Treasury Solicitor or any other person acting on behalf of the Crown. The special shareholder is entitled to attend and speak at meetings. The special share does not carry any rights to vote at general meetings except in the following circumstances:

- alterations to the company's share capital;
- alterations to voting rights of any of the company's shares; and
- the removal of any director appointed by a Crown representative.

If an attempt is made to approve any of these events or to pass a resolution to wind up the company at a general meeting, on an ordinary resolution, the special shareholder will have no less than one vote more than the total number of all other votes cast, and on a special resolution, he shall have no less than one vote more than 25% of the total votes cast.

25. Share premium account

	£m
Balance as at 31 March 2018 and 31 March 2017	<u>0.4</u>

26. Non-controlling interest

The non-controlling interest (a 30% ownership interest in NATS Services LLC) recognised at the acquisition date was measured by reference to the fair value of the non-controlling interest and amounted to £0.1m (Omani rial 0.1m).

As at 31 March 2018, a loan to the non-controlling interest amounted to £0.1m (Omani rial 0.1m) and is included in other debtors (see note 16).

27. Notes to the cash flow statement

	2018 £m	2017 £m
Operating profit from continuing operations	157.0	166.6
Adjustments for:		
Impairment of goodwill	-	11.0
Depreciation of property, plant and equipment	80.3	103.6
Amortisation of intangible assets	51.7	45.2
Impairment losses	5.7	0.5
Deferred grants released	(0.7)	(0.7)
Profit on disposal of property, plant and equipment	-	(0.1)
R&D expenditure above the line tax credits	(1.8)	(1.6)
Adjustment for pension funding	(11.5)	(17.8)
Operating cash flows before movements in working capital	<u>280.7</u>	<u>306.7</u>
(Increase)/decrease in trade and other receivables	(14.6)	74.1
Increase in trade, other payables and provisions	<u>78.7</u>	<u>23.3</u>
Cash generated from operations	344.8	404.1
Tax paid	<u>(6.8)</u>	<u>(16.4)</u>
Net cash from operating activities	<u><u>338.0</u></u>	<u><u>387.7</u></u>

Cash and cash equivalents, which are presented as a single class of asset on the face of the balance sheet, comprise cash at bank and short term highly liquid investments with a maturity of three months or less.

Reconciliation of net financial liabilities

The table below analyses those net financial liabilities for which cash flows arise from financing activities in each of the periods presented.

	2018 £m	2017 £m
Cash and cash equivalents	269.6	254.2
Short term investments	<u>38.3</u>	<u>39.4</u>
Cash and liquid investments	307.9	293.6
Gross debt - fixed interest rates	(381.1)	(428.0)
Gross debt - variable interest rates	<u>1.7</u>	<u>1.7</u>
Net debt	(71.5)	(132.7)
Index-linked swap	<u>(129.2)</u>	<u>(138.6)</u>
Net financial liabilities	<u><u>(200.7)</u></u>	<u><u>(271.3)</u></u>

27. Notes to the cash flow statement (continued)**Reconciliation of net financial liabilities (continued)**

The table below reconciles the movements in financial assets and financial liabilities arising from financing activities in the period.

	Assets		Liabilities from financing activities (excluding derivatives)				Net debt	Derivatives	Net financial liabilities
	Cash and cash equivalents £m	Short term investments £m	Finance leases £m	£600m 5.25% Guaranteed Secured Amortising Bonds £m	Bank loans (i) £m	Bank overdrafts £m	Sub-total £m	Index-linked swap £m	Total net financial liabilities £m
Net financial liabilities as at 1 April 2016	228.2	28.9	(2.0)	(464.7)	(93.3)	(0.4)	(303.3)	(124.8)	(428.1)
Cash flows	25.7	10.5	0.2	39.2	95.0	0.4	171.0	3.8	174.8
Bank facility arrangement fees	-	-	-	-	0.4	-	0.4	-	0.4
Foreign exchange adjustments	0.3	-	-	-	-	-	0.3	-	0.3
Fair value movements	-	-	-	-	-	-	-	(17.6)	(17.6)
Other non-cash movements (ii)	-	-	-	(0.7)	(0.4)	-	(1.1)	-	(1.1)
Net financial liabilities as at 31 March 2017	254.2	39.4	(1.8)	(426.2)	1.7	-	(132.7)	(138.6)	(271.3)
Cash flows	15.6	(1.1)	0.3	47.2	-	-	62.0	8.1	70.1
Bank facility arrangement fees	-	-	-	-	0.4	-	0.4	-	0.4
Foreign exchange adjustments	(0.2)	-	-	-	-	-	(0.2)	-	(0.2)
Fair value movements	-	-	-	-	-	-	-	1.3	1.3
Other non-cash movements (ii)	-	-	(0.1)	(0.5)	(0.4)	-	(1.0)	-	(1.0)
Net financial liabilities as at 31 March 2018	269.6	38.3	(1.6)	(379.5)	1.7	-	(71.5)	(129.2)	(200.7)

(i) The group has no outstanding drawings on its bank facilities. The amount reported under bank loans represents unamortised bank facility arrangement fees.

(ii) Other non-cash flow movements include interest charges, amortisation of bond issue costs and bank facility arrangement fees.

28. Financial commitments

	2018 £m	2017 £m
Amounts contracted but not provided for in the accounts	106.3	63.4
Minimum lease payments under operating leases recognised in the income statement	20.1	20.4

At the balance sheet date the group had outstanding commitments for future minimum lease payments under non-cancellable operating leases, which fall due as follows:

	2018 £m	2017 £m
Within one year	15.3	17.9
In the second to fifth years inclusive	56.3	25.0
After five years	60.4	51.6
	132.0	94.5

Operating lease payments represent rentals payable by the group for certain properties, equipment used for air navigation and vehicles. Leases are negotiated on varying terms depending on the type of asset leased.

Guarantees

NATS Holdings Limited has given guarantees to the Ministry of Defence in relation to NERL's performance under its Future Military Area Radar Services contract with the MOD.

NATS Services has provided a parent company guarantee to the MOD to secure the performance by Aquila of its obligations under the Project Marshall contract.

NATS Services has provided a parent company guarantee to the sellers of shares in Searidge Technologies Inc, to secure the performance by NATS (Services) Canada Inc under the Share Purchase Agreement for any contingent consideration relating to those shares.

As part of the tendering process for new contracts, the NATS group may be required to put in place a tender or bid guarantee which expires once the contract is awarded. Where tenders are successful, contractual terms may also require performance or advance payment guarantees. These guarantees vary in length depending on the life of the contract and may run until the expiry of the contract. The total guarantees provided in these respects at 31 March 2018 was £7.8m (2017: £7.0m).

29. Share based payments

The company operates an All-Employee Share Ownership Plan for the benefit of employees to hold 5% of the share capital of the company. The plan is administered by NATS Employee Sharetrust Limited. The scheme allows for free shares, dividend shares, partnership shares and matching shares to be awarded to employees. The free shares and matching shares have a vesting period of three years from date of award and may be cash-settled from this date. The shares may be forfeited if the employee leaves within three years of the date of the award, depending on conditions of departure.

A liability is recognised for the current fair value of shares in issue at each balance sheet date. Changes in fair value of the liability are charged or credited to the income statement. The number of shares outstanding at the balance sheet date was:

	No. shares awarded to employees	No. employee shares outstanding at 31 March 2018	No. employee shares outstanding at 31 March 2017
Date of share awards			
Free share awards			
21 September 2001	3,353,742	284,317	311,410
20 October 2003	2,459,000	265,886	293,784
10 September 2004	1,966,000	396,957	444,409
11 January 2008	1,071,840	314,859	353,289
18 September 2009	963,200	351,657	403,555
Partnership shares			
1 March 2011	694,783	325,365	380,758
26 September 2012	714,959	422,365	574,396
30 May 2014	496,738	406,176	429,133
31 October 2016	530,303	495,273	520,614
Matching shares			
1 March 2011	694,783	325,624	382,246
26 September 2012	714,959	421,028	574,746
30 May 2014	496,738	406,176	429,133
31 October 2016	530,303	495,273	520,614
		4,910,956	5,618,087
Dividend shares issued on 28 June 2005	247,017	33,701	37,289
Total employee shares in issue at 31 March		4,944,657	5,655,376

The movement in the number of employee shares outstanding is as follows:

	Movement in the no. of shares during the year ended 31 March 2018	Movement in the no. of shares during the year ended 31 March 2017
Balance at 1 April	5,655,376	5,123,990
Granted during the year	-	1,060,606
Forfeited during the year	(7,350)	(6,735)
Exercised during the year	(703,369)	(522,485)
Balance at 31 March	4,944,657	5,655,376

These shares are valued every six months by independent valuers using discounted cash flow and income multiple methods of valuation. As at 31 March 2018 the price of an employee share was valued at £3.40 (2017: £3.95). A valuation at 30 June 2017 valued the shares at £3.30. The liability for the employee shares at 31 March 2018 was £16.1m (2017: £20.8m) included in other accruals and deferred income. The income statement includes a credit of £2.8m (2017: £0.6m credit). The payments made to employees for the shares they exercised during the year was £2.4m (2017: £2.0m).

30. Retirement benefit schemes**Defined contribution scheme**

The group provides a defined contribution scheme to all qualifying employees who are not members of the defined benefit scheme. The assets of the scheme are held separately from those of the group in funds under the control of a board of Trustees.

The group operates a salary sacrifice arrangement whereby employees sacrifice an element of their salary in favour of contributions to the scheme in a ratio of 2:1, up to a maximum employer contribution of 18%. For the year ended 31 March 2018 employer contributions of £8.7m (2017: £7.0m), excluding employee salary sacrifice contributions of £4.6m (2017: £3.5m), represented 14.7% of pensionable pay (2017: 14.6%).

The defined contribution scheme had 1,343 members at 31 March 2018 (2017: 1,043).

Defined benefit scheme

NATS Limited (formerly National Air Traffic Services Limited), the company's wholly-owned subsidiary, entered into a deed of adherence with the CAA and the Trustees of the Civil Aviation Authority Pension Scheme (CAAPS) whereby the company was admitted to participate in CAAPS from 1 April 1996. CAAPS is a fully funded defined benefit scheme providing benefits based on final pensionable salaries. At 31 March 2001, the business of NATS was separated from the CAA. As a consequence, NATS became a 'non associated employer' which requires the assets relating to the liabilities of NATS active employees at 31 March 2001 to be separately identified within the CAAPS. CAAPS was divided into two sections to accommodate this, namely the CAA section and the NATS section, and a series of common investment funds was established in which both sections participate for investment purposes. The assets and membership of the scheme prior to transfer were allocated between these sections in accordance with Statutory Instrument 2001 Number 853, Transport act 2000 (Civil Aviation Authority Pension Scheme) Order 2001. The assets of the scheme are held in a separate trustee administered fund. CAAPS is governed by a board of Trustees which is responsible for implementing the funding and investment strategy. The board comprises 6 employer (NATS and CAA) and 6 member-nominated trustees, as well as an independent chairman.

During 2009 the group introduced a number of reforms to manage the cost and risk of pensions. The defined benefit pension scheme was closed to new joiners with effect from 31 March 2009. In addition, from 1 January 2009, annual increases in pensionable salaries were limited to a maximum increase in the retail prices index (RPI) plus 0.5%. A defined contribution scheme was also introduced for new joiners (see above). Finally, pension salary sacrifice arrangements were introduced with effect from 1 April 2009.

During 2013 the group consulted on further pension reforms to mitigate rising pension costs. These included a change to the limit on increases in pensionable salaries to a maximum of the consumer prices index (CPI) plus 0.25%. In addition, the Trustees consulted members of the scheme on a change to the indexation of future service at CPI, rather than RPI. These reforms were agreed by staff.

The defined benefit scheme had the following membership at 31 March:

	2018 No.	2017 No.
Active members	2,089	2,768
Deferred members	1,072	1,260
Pensioners	2,669	2,586
	<u>5,830</u>	<u>6,614</u>

Trustees' funding assessment

A Trustees' funding assessment of the NATS section is prepared at least every three years by the pension scheme actuary at the request of the Trustees in order to establish the financial position of the NATS section and to determine the level of contributions to be paid by NATS in the future.

The last Trustees' funding assessment of the NATS' section was carried out at 31 December 2017 and used the projected unit credit method. The assumptions which have the most significant effect on the liabilities assessed at the valuation and hence the contribution requirement are those relating to the rate of return on investments, the rate of increase in salaries, the rate of increase in pensions and life expectancy.

The market value of the NATS' section's assets as at 31 December 2017 was £4,540.4m. For the purpose of the Trustees' funding assessment assets were taken at market value. The shortfall of assets relative to the value of benefits that had accrued to existing members was £270.4m, corresponding to a funding ratio of 94.4%.

The 2017 valuation showed that, based on long term financial assumptions, the contribution rate required to meet future benefit accrual was 47.6% of pensionable salaries (41.8% employers and 5.8% employees). The employer contribution includes an allowance to cover administration costs, including the Pension Protection Fund (PPF) levy.

Contributions to the pension scheme

Following the 2017 valuation, NATS and the Trustees agreed a recovery plan which would see the funding deficit repaid by 2026. Under the schedule of contributions, normal contributions will continue to be paid at 31.8% until December 2019 and paid at 41.7% from 1 January 2020 onwards. The NATS group paid deficit recovery contributions of £39.9m in the 2017 calendar year and will pay £40.8m in 2018 and £41.8m in 2019. From 1 January 2020 to 31 December 2023, deficit recovery contributions will be paid at £25.4m in 2020 and increase annually by 2.37% for 2021 to 2023. No contributions will be paid in 2024. Further deficit recovery contributions will be paid in 2025 and 2026 of £2.3m per year.

During the year the group paid cash contributions to the scheme of £104.1m (2017: £115.8m). This amount included £9.7m (2017: £13.3m) of wages and salaries sacrificed by employees in return for pension contributions. Excluding the effect of salary sacrifice and past service costs, employer cash contributions were paid at a rate of 55.3% (2017: 43.6%) of pensionable pay.

The estimated contributions expected to be paid to the scheme during the financial year ending 31 March 2019 is £99.2m, including salary sacrifice contributions estimated at £8.8m.

Contributions to the scheme are ultimately funded by NATS' two principal operating subsidiaries: NERL and NATS Services, in proportion to their pensionable payrolls.

30. Retirement benefit schemes (continued)**Company's accounting valuation under international accounting standards**

For the purpose of accounting for the scheme in these financial statements, the company obtains an updated valuation from a qualified independent actuary that is prepared in accordance with IAS 19: *Employee Benefits*.

This valuation differs from the Trustees' funding assessment explained above in a number of critical respects, including for example, differences in timing and frequency as well as in valuation assumptions. The Trustees' last funding assessment was prepared as at 31 December 2017, whereas the company's accounting valuation is prepared annually at 31 March. As a result, at each valuation date, the market conditions on which the assumptions are based will be different. Also, the assumptions adopted for the Trustees' funding assessment are set by the Trustees and include appropriate margins for prudence, whereas those adopted for the company's accounting valuation are prescribed by international accounting standards and reflect best estimates.

If an accounting valuation reveals a surplus at the balance sheet date, this is recognised in full to the extent that it can be realised in full by the company.

The Trustees' funding assessment carried out as at 31 December 2017 was updated to 31 March 2018 for the company's accounting valuation under IAS 19. The major assumptions used by the actuary for the purposes of the IAS 19 figures at the relevant year ends are set out in the table and narrative below:

	2018	2017	2016
RPI inflation	3.00%	3.10%	2.90%
CPI inflation	1.90%	2.00%	1.80%
Increase in:			
- salaries	1.90%	2.00%	1.80%
- deferred pensions	3.00%	3.10%	2.90%
- pensions in payment	3.00%	3.10%	2.90%
Discount rate for net interest expense	2.65%	2.55%	3.65%

The mortality assumptions have been drawn from actuarial tables 97% S2PMA light and 102% S2PFA light (2017: 95% S2PMA light and 93% S2PFA light) with future improvements in line with CMI 2016 (2017: CMI 2014) projections for male/female members, subject to a long term improvement of 1.5% p.a. (2017: 1.5% p.a.). These tables assume that the life expectancy, from age 60, for a male pensioner is 28.9 years and a female pensioner is 29.5 years. Allowance is made for future improvements in longevity, such that based on the average age of the current membership (45), when these members reach retirement, life expectancy from age 60 will have increased for males to 30.2 years and for females to 30.9 years.

The principal risks to the financial performance of the group arising from the scheme are in respect of:

- asset volatility: for accounting purposes, scheme liabilities are determined using a discount rate set by reference to high quality corporate bond yields. If scheme assets underperform relative to this yield, this will create a deficit. As explained below, NATS and Trustees are reviewing measures to de-risk the scheme by investing more in assets which better match the liabilities.
- changes in bond yields: a decrease in the yield on high quality corporate bonds will increase scheme obligations, although this is partly mitigated by an increase in the value of the scheme's holdings of bonds.
- inflation risk: the scheme's benefit obligations are linked to inflation, and higher inflation will lead to higher liabilities. The majority of the scheme's assets (such as equities) are real in nature and so provide some inflation protection, but overall, an increase in inflation will adversely impact on the funding position.
- life expectancy (mortality): the majority of the scheme's obligations are to provide benefits for the life of a member, so an increase in life expectancy will result in an increase in the scheme's obligations.

Sensitivities regarding the principal assumptions used to measure the scheme liabilities are set out below:

Assumption	Change in assumption	Impact on scheme liabilities
Discount rate (bond yields)	Increase/decrease by 0.5%	Decrease by 10.2%/increase by 11.9%
Rate of inflation	Increase/decrease by 0.5%	Increase by 11.7%/decrease by 10.2%
Rate of pensionable salary growth	Increase/decrease by 0.5%	Increase by 3.0%/decrease by 2.8%
Rate of mortality	1 year increase in life expectancy	Increase by 3.2%

Each sensitivity above is based on changing one assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to variations in significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as for calculating the liability recognised on the balance sheet.

The directors consider that the criteria for recognition of the pension surplus under IFRIC 14 are met.

30. Retirement benefit schemes (continued)

Amounts recognised in income, in the staff costs line item, in respect of the defined benefit scheme are as follows:

	2018 £m	2017 £m
Current service cost	(81.9)	(94.6)
Past service cost	-	(0.4)
Net interest expense	(7.6)	(0.8)
Administrative expenses	(3.1)	(2.2)
Components of defined benefit costs recognised within operating profit	<u>(92.6)</u>	<u>(98.0)</u>

Remeasurements recorded in the statement of comprehensive income are as follows:

	2018 £m	2017 £m
Return on plan assets (excluding amounts included in net interest expense)	36.5	1,101.4
Actuarial gains and losses arising from changes in financial assumptions	214.2	(1,522.5)
Actuarial gains and losses arising from changes in demographic assumptions	162.4	119.6
Actuarial gains and losses arising from experience adjustments	36.8	10.3
	<u>449.9</u>	<u>(291.2)</u>

The amount included in the consolidated balance sheet arising from the group's obligations in respect of its defined benefit scheme is as follows:

	2018 £m	2017 £m
Present value of defined benefit obligations	(4,375.0)	(5,786.3)
Fair value of scheme assets	4,485.6	5,435.5
Surplus/(deficit) in scheme	<u>110.6</u>	<u>(350.8)</u>

Movements in the present value of the defined benefit obligations were as follows:

	2018 £m	2017 £m
At 1 April	(5,786.3)	(4,760.0)
Current service cost	(81.9)	(94.6)
Past service cost	-	(0.4)
Interest expense on defined benefit scheme obligations	(132.1)	(162.4)
Actuarial gains and losses arising from changes in financial assumptions	214.2	(1,522.5)
Actuarial gains and losses arising from changes in demographic assumptions	162.4	119.6
Actuarial gains and losses arising from experience adjustments	36.8	10.3
Contributions from scheme members	-	-
Benefits paid	1,211.9	623.7
At 31 March	<u>(4,375.0)</u>	<u>(5,786.3)</u>

The average duration of the scheme's liabilities at the end of the year is 22.1 years (2017: 24.9 years). The present value of the defined benefit obligation can be analysed by member group as follows:

	2018 £m	2017 £m
Active members	1,749.5	2,904.5
Deferred members	457.0	602.1
Pensioners	2,168.5	2,279.7
	<u>4,375.0</u>	<u>5,786.3</u>

Movements in the fair value of scheme assets during the year were as follows:

	2018 £m	2017 £m
At 1 April	5,435.5	4,682.6
Interest income on scheme assets	124.5	161.6
Return on plan assets (excluding amounts included in net interest expense)	36.5	1,101.4
Contributions from sponsoring company	104.1	115.8
Benefits paid	(1,211.9)	(623.7)
Administrative expenses	(3.1)	(2.2)
At 31 March	<u>4,485.6</u>	<u>5,435.5</u>

30. Retirement benefit schemes (continued)

The major categories of scheme assets were as follows:

	2018 £m	2017 £m
Cash and cash equivalents	154.4	65.0
Equity instruments		
- UK	132.1	419.3
- Europe	36.0	119.7
- North America	106.1	341.7
- Japan	14.8	48.1
- Pacific (excluding Japan)	40.9	135.2
- Emerging markets	130.7	428.5
- Global	889.6	804.0
	<u>1,350.2</u>	<u>2,296.5</u>
Bonds		
- Corporate bonds	957.6	942.5
- Index-linked gilts over 5 years	1,394.7	1,457.7
	<u>2,352.3</u>	<u>2,400.2</u>
Other investments		
- Property	245.5	241.7
- Hedge funds	223.5	215.9
- Global tactical asset allocation	135.0	130.8
- Private equity funds	125.6	140.0
	<u>729.6</u>	<u>728.4</u>
Derivatives		
- Futures contracts	(100.9)	(54.6)
	<u>4,485.6</u>	<u>5,435.5</u>

The scheme assets do not include any investments in the equity or debt instruments of group companies or any property or other assets used by the group.

Virtually all equity and debt instruments have quoted prices in active markets. Investments are well diversified, such that the failure of any single investment would not have a material impact on the overall level of assets. A large portion of the assets consist of equities and bonds, although the scheme also invests in property, cash and investment (private equity and hedge) funds.

NATS and Trustees implemented a liability driven investment (LDI) programme in 2012 in order to hedge the impact of changes in inflation and interest rates on the value of the scheme's obligations, which are sensitive to inflation and movements in yields in the gilt market. The strategy includes establishing trigger levels which define the rates of interest and inflation rates at which hedging transactions will be executed. In addition, and as an acceleration of the existing strategy, NATS and Trustees agreed during 2014 to increase the level of hedging of interest rates and inflation to 50%, as measured on the Trustee funding basis. Swap transactions are executed with carefully scrutinised banks and collateral is provided in the form of index-linked gilts to protect against the unlikely event of default by a counterparty bank.

At NATS' request, Trustees have also considered further de-risking over time to protect the scheme from the impact of volatility in the value of return-seeking assets. This would involve progressively converting from return-seeking assets into hedging assets to increase the level of matching of the scheme's liabilities. As changing the mix of assets changes the returns achieved, this would impact on contributions payable. Before changing this strategy, NATS and Trustees are likely to consult with CAA on the implications for customers. The strategy will aim to maintain an appropriate balance between the potential impact on contributions and the reduction in volatility of return-seeking assets, and therefore reduced investment risk.

Derivative instruments are used by investment managers to reduce risk or gain exposure to investment classes without the requirement to hold the underlying investment. Trustees monitor derivative positions to ensure that, when combined with the underlying physical position, the aggregate falls within specified investment guidelines.

The actual return on scheme assets for the year ended 31 March 2018 was £161.0m (2017: £1,263.0m).

31. Related party transactions

The NATS group has four shareholders - the Crown, The Airline Group Limited (AG), LHR Airports Limited and the NATS Employee Sharetrust Limited. During the year transactions with the Crown have taken place with the Meteorological Office, the Department for Transport (DfT) and the Ministry of Defence (MOD). In addition there have been transactions with LHR Airports Limited and AG.

AG is a consortium of British Airways plc, Deutsche Lufthansa AG, easyJet Airline Company Limited, the Pension Protection Fund, Thomas Cook Airlines Limited, TUI Airways Limited, Virgin Atlantic Airways Limited and USS Sherwood Limited. AG has a 42% stake in NATS Holdings Limited. The directors of NATS Holdings Limited are satisfied that the eight members of AG have not exercised undue influence on the group either acting individually or in concert and therefore the individual transactions with each member of AG have not been disclosed in this set of accounts.

Contractual arrangements existed during the year between LHR Airports Limited and NATS Services in relation to air navigation services provided at Heathrow Airport.

Transactions between the company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note. Transactions between the company and its subsidiaries are disclosed in the subsidiary companies' financial statements.

Transactions between the company and its joint ventures and associate, which are related parties, are disclosed below.

Trading transactions

During the year, group companies entered into the following transactions with related parties.

	Sales		Purchases		Amounts owed by related parties		Amounts owed to related parties	
	Year ended 31 March 2018	Year ended 31 March 2017	Year ended 31 March 2018	Year ended 31 March 2017	Year ended 31 March 2018	Year ended 31 March 2017	Year ended 31 March 2018	Year ended 31 March 2017
	£m	£m	£m	£m	£m	£m	£m	£m
LHR Airports Limited	59.2	54.1	8.3	8.1	6.0	7.4	-	-
Ministry of Defence (MOD)	47.0	49.4	4.7	4.1	5.5	5.4	19.5	11.6
The Airline Group Limited	-	-	0.2	0.2	-	-	-	-
Department for Transport (DfT)	0.9	0.7	-	-	-	-	-	-
Meteorological Office	-	0.3	1.1	0.7	-	-	0.1	0.1
European Satellite Services Provider SAS	0.1	0.1	-	-	-	-	-	-
FerroNATS Air Traffic Services SA	0.4	0.6	-	-	-	-	-	-
Aquila Air Traffic Management Services Limited	17.2	31.5	0.2	-	0.8	1.9	0.2	-
Searidge Technologies Inc	-	-	0.9	-	-	-	-	-

Sales are made to related parties at the group's usual rates and purchases at market prices. The amounts outstanding are unsecured and will be settled in cash. No guarantees have been received. No provisions (2017: £nil) have been made for doubtful debts in respect of amounts owed by related parties.

Remuneration of key management personnel

The remuneration of key management personnel of the group, is set out below in aggregate for each of the categories specified in IAS 24: *Related Party Disclosures*. Key management includes the Board of directors of the company and the group's principal subsidiaries. Further information about the remuneration of individual directors is provided in the audited part of the Remuneration Committee report.

	2018 £m	2017 £m
Short term employee benefits	7.4	5.8
Post-employment benefits	-	0.9
Other long term benefits	0.6	0.8
Termination benefits	-	0.6
	8.0	8.1

32. Subsidiaries, joint ventures and associates

The group's principal subsidiaries at 31 March 2018, all of which have been consolidated in these accounts were:

Name of company	Principal activity	Proportion of ordinary shares and voting rights held	Country of registration	Country of operation
Direct holding:				
NATS Limited*	Corporate services	100%	England and Wales	United Kingdom
Indirect holding:				
NATS (En Route) plc*	En route air traffic services	100%	England and Wales	United Kingdom
NATS (Services) Limited*	Airport air traffic services	100%	England and Wales	United Kingdom
NATS Solutions Limited*	Airport and airfield air traffic services	100%	England and Wales	United Kingdom
NATSNav Limited*	Satellite based navigation	100%	England and Wales	United Kingdom
NATS Employee Sharetrust Limited*	Corporate trustee of employee share plan	100%	England and Wales	United Kingdom
NATS Services DMCC, Suite 1201, Platinum Tower, Plot No. PH1-12, Jumeirah Lake Towers, PO Box 392497, Dubai, United Arab Emirates	ATM consultancy	100%	UAE	UAE
NATS Services LLC, PO Box 533, Ruwi, PC 112, Muscat, Sultanate of Oman	ATM consultancy	70%	Oman	Oman
NATS Services (Asia Pacific) Pte. Limited, 3 Raffles Place, #06-01 Bharat Building, Singapore 048617	Airport and ATM consultancy	100%	Singapore	Singapore
NATS (USA) Inc, The Corporation Trust Company, 1209 Orange Street, Wilmington, New Castle County, Delaware, United States	Engineering and ATM consultancy	100%	USA	USA
NATS (Services) Canada Inc, 100 King Street West, Suite 6200, 1 First Canadian Place, Toronto, Ontario, M5X 1B8, Canada	Digital airport air traffic services	100%	Canada	Canada

* The registered office address of the entities registered in England and Wales is: 4000 Parkway, Whiteley, Fareham, Hampshire, PO15 7FL, United Kingdom.

The group had one associate and three joint ventures as at 31 March 2018, details are as follows:

Name of company	Principal activity	Date of acquisition	Proportion of ordinary shares held	Country of incorporation
European Satellite Services Provider SAS, 18, Avenue Edouard Belin - BPI 602, 31 401 Toulouse Cedex 9, France	Satellite based navigation	1 September 2008	16.67%	France
FerroNATS Air Traffic Services SA, Calle Principe de Vergara, 135, 28002, Madrid, Spain	Airport air traffic services	28 January 2011	50.00%	Spain
Aquila Air Traffic Management Services Limited, 2 Dashwood Lang Road, The Bourne Business Park, Addlestone, Surrey, KT15 2NX, United Kingdom	Asset provision and ATM services to UK MOD	9 October 2014	50.00%	United Kingdom
Searidge Technologies Inc, 19 Camelot Drive, Nepean, Ontario, K2G 5W6, Canada	Digital airport air traffic services	28 April 2017	50.00%	Canada

The associates and joint ventures are indirectly held by NATS Holdings Limited. The investment in ESSP is held by NATSNav Limited, investments in FerroNATS and Aquila are held by NATS (Services) Limited and the investment in Searidge Technologies is held by NATS (Services) Canada Inc.

32. Subsidiaries, joint ventures and associates (continued)**Summarised financial information relating to the associate and joint ventures****European Satellite Services Provider SAS (ESSP)**

In September 2008, the group acquired 16.67% of the issued share capital of ESSP for cash consideration of €0.2m (£0.1m).

The associate is accounted for using the equity method. Pursuant to the shareholder agreement, the group has the right to cast 16.67% of the votes at shareholder meetings. The financial year end is 31 December. For the purposes of applying the equity method of accounting, the financial statements of ESSP for the year ended 31 December 2017 have been used (no adjustments are required to be made for the effects of significant transactions between that date and 31 March 2018).

Although the group holds less than 20% of the equity shares of ESSP, the group exercises significant influence by virtue of representation on the Board of directors, participation in policy making decisions of ESSP and the provision of essential technical information to ESSP.

Summarised financial information in respect of ESSP is set out below. These amounts have been prepared in accordance with French GAAP and converted from euro, ESSP's functional currency.

FerroNATS Air Traffic Services SA

In January 2011, the group acquired 50% of the issued share capital of FerroNATS Air Traffic Services SA for a cash consideration of €0.1m (£0.1m). In June 2011 the group purchased an additional €0.4m (£0.3m) of share capital, maintaining a 50% holding of the issued share capital. FerroNATS is a joint venture with Ferrovial Servicios SA.

FerroNATS draws up its accounts to 31 December. For the purpose of these financial statements management accounts have been used to derive its performance as at 31 March 2018.

FerroNATS prepares its accounts in accordance with Spanish GAAP and its functional currency is the euro.

Aquila Air Traffic Management Services Limited

In October 2014, the group acquired 50% of the issued share capital of Aquila Air Traffic Management Services Limited (Aquila) for a cash consideration of £0.1m. Aquila provides air traffic management services at military airfields in the delivery of Project Marshall for the Ministry of Defence. Aquila draws up its accounts to 31 March and therefore these accounts have been used to determine its performance for the financial year. It prepares its accounts under IFRS and its functional currency is pounds sterling.

The group has consolidated its share of Aquila's result of £0.1m, despite its reported net assets being £2.0m at 31 March 2018. The difference is a result of an impairment charge recognised due to differences in accounting policies and the uncertainty surrounding future profit forecasts.

During the year, Aquila drew down loan finance of £2.8m (2017: £10.6m) from the group. At 31 March 2018, the loan (including interest) outstanding was £18.6m (2017: £14.9m).

Searidge Technologies Inc

On 26 April 2017, NATS (Services) Limited incorporated a 100% subsidiary entity, NATS (Services) Canada Inc. On 28 April 2017, NATS (Services) Canada Inc. acquired 50% of the voting equity interest of Searidge Technologies Inc. (Searidge). Searidge works with airports around the world, providing technology that helps reduce delays, increase efficiency, and overall safety. This includes the delivery of digital tower solutions, which see air traffic controllers managing aircraft from remote facilities instead of in traditional airport towers.

Details of the purchase consideration, the net assets acquired and goodwill are as follows:

	C\$ m	£ m
Purchase consideration:		
Cash paid	7.9	4.7
Acquisition-related costs	0.3	0.2
Contingent consideration	1.5	0.9
Total purchase consideration	<u>9.7</u>	<u>5.8</u>

Acquisition-related costs includes professional fees for legal services and due diligence. These have been capitalised in accordance with IAS 28.

The assets and liabilities recognised as a result of the acquisition are as follows:

	Fair value C\$ m	Fair value £ m
Property, plant and equipment	1.1	0.6
Cash	0.3	0.2
Receivable from customers (net of doubtful debts)	0.3	0.2
Amounts recoverable under contracts	2.1	1.2
Prepayments	0.1	-
Other receivables	0.5	0.3
Trade payables	(1.5)	(0.9)
Accruals and deferred income	(0.3)	(0.2)
Loan to related party	(1.5)	(0.9)
	<u>1.1</u>	<u>0.5</u>
NATS 50% share of net identifiable assets acquired	0.5	0.3
Add: Goodwill	9.2	5.5
	<u>9.7</u>	<u>5.8</u>

The goodwill is attributable to expected synergies from combining the operation of Searidge with those of NATS (Services) Limited. Goodwill is not deductible for tax purposes.

32. Subsidiaries, joint ventures and associates (continued)**Significant estimate: contingent consideration**

Additional consideration is payable if the joint venture meets a cumulative EBITDA threshold of C\$ 4.17m for the period 1 September 2017 to 31 August 2020, up to a maximum of C\$ 1.5m at cumulative EBITDA of C\$ 4.92m. The potential undiscounted amount payable under the agreement is C\$ nil for EBITDA below C\$ 4.17m and C\$ 1.5m for EBITDA above C\$ 4.92m over that period. Every C\$ 1 of EBITDA above C\$ 4.17m earns C\$ 2 of contingent consideration, up to the cap of C\$ 1.5m.

The fair value of the contingent consideration was estimated to be the maximum amount payable of C\$ 1.5m, based on the latest business plan which has been approved by the Searidge Board.

Acquired receivables

The fair value of acquired amounts recoverable under contracts is C\$ 2.1m (£1.2m).

Profit contribution

The joint venture contributed a loss of C\$ 0.7m (£0.4m) to the group for the period from 28 April 2017 to 31 March 2018. If the acquisition had occurred on 1 April 2017, the consolidated pro-forma loss for the year ended 31 March 2018 would have been C\$ 0.9m (£0.5m).

Result for the year

Searidge prepares its accounts in accordance with Canadian GAAP and its functional currency is the Canadian dollar.

Searidge draws up its accounts to 31 August. For the purpose of these financial statements management accounts to 28 February 2018 have been used. No adjustments are required to be made for the effects of significant transactions between 1 March 2018 and 31 March 2018. The Searidge management accounts include unrealised tax losses of C\$ 2.8m (£1.6m) that cannot be recognised in accordance with Canadian GAAP. The group has recognised a deferred tax asset of £0.4m on consolidation as the group considers that these losses will be set off against future taxable profits.

An impairment review of the goodwill recognised on consolidation has been performed based on the latest business plan. No impairment provision is considered necessary at 31 March 2018.

During the year, Searidge drew down loan finance of C\$ 2.0m (£1.1m) from the group. At 31 March 2018, the loan (including interest) outstanding was C\$ 2.0m (£1.1m).

The summarised financial information above is reconciled to the carrying amount recognised in the consolidated financial statements as follows:

	2018				2017		
	Associate ESSP £m	Joint venture FerroNATS £m	Joint venture Aquila £m	Joint venture Searidge £m	Associate ESSP £m	Joint venture FerroNATS £m	Joint venture Aquila £m
Non-current assets	0.9	0.1	1.7	0.5	0.9	0.1	0.7
Current assets	29.1	7.0	52.9	3.7	27.8	7.1	54.9
Current liabilities	(18.1)	(2.3)	(38.0)	(1.7)	(17.2)	(2.2)	(47.3)
Non-current liabilities	(1.4)	-	(12.6)	(2.5)	(4.1)	-	(5.1)
Net assets of associate/joint ventures	10.5	4.8	4.0	-	7.4	5.0	3.2
Group share	1.7	2.4	2.0	-	1.3	2.5	1.6
Goodwill on acquisition of joint venture	-	-	-	5.5	-	-	-
Exchange difference on goodwill since acquisition	-	-	-	(0.4)	-	-	-
Other adjustments (see above)	-	-	-	(0.1)	-	-	-
Impairment provision recognised in income statement	-	-	(1.9)	-	-	-	-
Carrying amount of the group's interest in associate/ joint ventures	1.7	2.4	0.1	5.0	1.3	2.5	1.6
Revenue	51.2	11.9	71.7	2.9	52.3	11.2	81.2
Profit/(loss) after tax for the year	2.9	1.2	0.9	(0.8)	2.8	1.5	1.8
Group share	0.4	0.6	0.4	(0.4)	0.5	0.7	0.9
Impairment provision recognised in income statement	-	-	(1.9)	-	-	-	-
Group share of profit/(loss) after tax and impairment	0.4	0.6	(1.5)	(0.4)	0.5	0.7	0.9
Dividends received	-	(0.8)	-	-	(0.6)	-	-
Other comprehensive income	-	0.1	-	-	0.1	0.1	-

33. Ultimate controlling party

There is no ultimate controlling party of NATS Holdings Limited. Under the shareholders' agreement, The Airline Group Limited and the Crown have similar reserve rights in respect of material decisions affecting the company.

34. Events after the reporting period

On 4 April 2018, NATS (Services) Limited established a Hong Kong subsidiary, NATS Services (Hong Kong) Limited to provide air traffic control consultancy services in Hong Kong.

On 16 May 2018 NATS (USA) Inc., a wholly owned subsidiary of NATS (Services) Limited, made a strategic investment of £51.0m (US\$68.75m) to acquire convertible preferred interests with voting rights of 9.143% of Aireon LLC, a limited liability company incorporated in Delaware USA which is developing a space-based air traffic surveillance system. The investment is intended to result in fully diluted ordinary interests with voting rights of 11.111% by 2 January 2021. NATS is entitled to appoint one of the eleven Board members.

In May 2018, the Board approved an interim dividend for the year ending 31 March 2019 of 20.62 pence per share, totalling £29.5m, which was paid in June 2018.

Balance sheet
at 31 March

	Notes	2018 £m	2017 £m
Assets			
Non-current assets			
Investments	4	141.0	141.0
		<hr/>	<hr/>
Net assets		<hr/>	<hr/>
		141.0	141.0
Equity			
Share capital	5	140.6	140.6
Share premium account	5	0.4	0.4
Retained earnings		-	-
Total equity		<hr/>	<hr/>
		141.0	141.0

As permitted by section 408 of the Companies Act 2006 the company has elected not to present its own income statement for the year. For the year ended 31 March 2018 the company recognised a profit of £57.0m (2017: £24.0m).

The financial statements (Company No. 04138218) were approved by the Board of directors and authorised for issue on 5 July 2018 and signed on its behalf by:



Paul Golby
Chairman



Nigel Fotherby
Finance Director

Statement of changes in equity
for the year ended 31 March

	Share capital £m	Share premium £m	Retained earnings £m	Total £m
At 1 April 2016	140.6	0.4	-	141.0
Profit for the year	-	-	24.0	24.0
Other comprehensive income for the year	-	-	-	-
Total comprehensive income for the year	-	-	24.0	24.0
Dividends paid	-	-	(24.0)	(24.0)
At 31 March 2017	140.6	0.4	-	141.0
At 1 April 2017	140.6	0.4	-	141.0
Profit for the year	-	-	57.0	57.0
Other comprehensive income for the year	-	-	-	-
Total comprehensive income for the year	-	-	57.0	57.0
Dividends paid	-	-	(57.0)	(57.0)
At 31 March 2018	140.6	0.4	-	141.0

Notes to the financial statements**1. Cash flow statement**

No cash flow statement has been provided because the company does not maintain a bank account or have any cash transactions. Dividends were transacted by the company's subsidiary NATS Limited.

2. Significant accounting policies

The separate financial statements of the company are presented as required by the Companies Act 2006. As permitted by that Act, the separate financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the EU.

The financial statements have been prepared on the historical cost basis. The principal accounting policies are the same as those set out in note 2 to the consolidated financial statements.

Investments in subsidiaries are designated as held to maturity and stated at cost less, where appropriate, provisions for impairment. Income from subsidiaries is recognised when received.

3. Profit for the year and dividends

Profit for the year has been arrived at after charging:

	2018 £m	2017 £m
Staff costs	-	-
Auditor's remuneration	-	-

	2018 No.	2017 No.
Executive directors	2	2
Non-executive directors	9	10
	<u>11</u>	<u>12</u>

The company incurred no charge to current or deferred taxes in the year (2017: £nil).

	2018 £m	2017 £m
Dividends		
Amounts recognised as distributions to equity holders in the period:		
First interim dividend of 19.92 pence per share (2017: 16.78 pence per share)	28.5	24.0
Second interim dividend of 19.92 pence per share (2017: nil pence per share)	28.5	-
	<u>57.0</u>	<u>24.0</u>

4. Investments

	Investments in subsidiary undertakings £m
Investments at 31 March 2018 and 31 March 2017	<u>141.0</u>

The company's investments in subsidiary undertakings are as set out in note 32 to the consolidated financial statements.

Pursuant to a loan agreement entered into by NERL, the company has granted a legal mortgage and fixed charge over its shares in NATS Limited, NERL's parent company, and a floating charge over all other assets.

5. Share capital and share premium accounts

The movements on these items are disclosed in the consolidated statement of changes in equity and notes 24 and 25 of the consolidated financial statements.

6. Financial instruments

The company held no financial instruments at 31 March 2018 (2017: none).

7. Ultimate controlling party

There is no ultimate controlling party of NATS Holdings Limited. Under the shareholders' agreement, The Airline Group Limited and the Crown have similar reserve rights in respect of material decisions affecting the company.

8. Events after the reporting period

On 4 April 2018, NATS (Services) Limited established a Hong Kong subsidiary, NATS Services (Hong Kong) Limited to provide air traffic control consultancy services in Hong Kong.

On 16 May 2018 NATS (USA) Inc., a wholly owned subsidiary of NATS (Services) Limited, made a strategic investment of £51.0m (US\$68.75m) to acquire convertible preferred interests with voting rights of 9.143% of Aireon LLC, a limited liability company incorporated in Delaware USA which is developing a space-based air traffic surveillance system. The investment is intended to result in fully diluted ordinary interests with voting rights of 11.111% by 2 January 2021. NATS is entitled to appoint one of the eleven Board members.

In May 2018, the Board approved an interim dividend for the year ending 31 March 2019 of 20.62 pence per share, totalling £29.5m, which was paid in June 2018. The company recognised a dividend in June 2018 of £29.5m from its subsidiary, NATS Limited.

Abbreviations and definitions

2017	Financial year ended 31 March 2017
2018	Financial year ended 31 March 2018
2019	Financial year ending 31 March 2019
3Di	3 Dimensional Flight Inefficiency Metric
ACP	Airspace Change Process
ADS-B	Automatic Dependent Surveillance-Broadcast
AESOP	All-Employee Share Ownership Plan
AG	The Airline Group Limited
AIM	Aeronautical Information Management
AMAN	Arrival Management
ANSP	Air Navigation Service Provider
AQUILA	Aquila Air Traffic Management Services Limited
ATC	Air Traffic Control
ATFM	Air Traffic Flow Management
ATM	Air Traffic Management
CAA	Civil Aviation Authority
CAAPS	Civil Aviation Authority Pension Scheme
CEO	Chief Executive Officer
CP3	Control Period 3 (2011-2014)
CPI	Consumer Prices Index
CPNI	Centre for the Protection of National Infrastructure
DfT	Department for Transport
DNV GL	DNV GL is a quality assurance and risk management company
EC	European Commission
ESSP	European Satellite Services Provider SAS
EU	European Union
ExCDS	Extended Computer Display System
FAB	Functional Airspace Block
FAA	Federal Aviation Authority
FerroNATS	FerroNATS Air Traffic Services SA
FRC	Financial Reporting Council
GAAP	Generally Accepted Accounting Principles
GDPR	General Data Protection Regulation
GHG	Green house gas
HMG	Her Majesty's Government
IAS	International Accounting Standard
IASB	International Accounting Standards Board
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standards
INEA	Innovation and Networks Executive Agency
ISO	International Organisation for Standardisation
iTEC	Interoperability Through European Collaboration
KPI	Key Performance Indicator
LAMP	London Airspace Management Programme
LHRA	LHR Airports Limited
LIBOR	London Interbank Offered Rate
LTIP	Long Term Incentive Plan
MOD	Ministry of Defence
NATS	NATS Holdings Limited and its subsidiaries, together the NATS group
NATS Services	NATS (Services) Limited
NERL	NATS (En Route) plc
NESL	NATS Employee Sharetrust Limited
NHL	NATS Holdings Limited
PLAS	Prestwick Lower Airspace Systemisation
PPP	Public Private Partnership
RAB	Regulatory Asset Base
RAT	Risk Analysis Tool
RP1	Reference Period 1 (2012-2014)
RP2	Reference Period 2 (2015-2019)
RP3	Reference Period 3 (2020-2024)
RP4	Reference Period 4 (2025-2029)
RPAS	Remotely Piloted Airborne Systems
RPI	Retail Prices Index
SES	Single European Sky
SESAR	SES ATM Research
SIP	Service and Investment Plan
SPA	Strategic Partnership Agreement
STEM	Science, technology, engineering and mathematics
TANS	Terminal Air Navigation Services
TBS	Time Based Separation
TC	Terminal Control
USS	USS Sherwood Limited

Explanatory notes

- 1 Single European Sky ATM Research: a programme to modernise Europe's airspace structure and air traffic management technologies.
References in this document to Deploying SESAR relate to NERL's investment programme which implements a number of SESAR compliant technologies and methodologies, rather than the European Sky ATM Research programmes that are defining and driving the deployment of technologies and methodologies at the European-wide level.
- 2 An Airprox is a situation in which, in the opinion of a pilot or controller, the distance between aircraft as well as their relative positions and speeds have been such that the safety of the aircraft involved was or may have been compromised. The severity of these incidents is assessed periodically by the UK Airprox Board, an independent body, in the interests of enhancing flight safety.
- 3 Electronic flight strips replace the paper strips for recording aircraft movements previously used in Terminal Control. This represents a stepping stone towards the use of controller electronic tool interfaces as part of the Deploying SESAR programme.
- 4 Searidge Technologies Inc. is a Canadian provider of digital tower capability. Searidge is jointly owned with NAV CANADA, the Canadian air navigation service provider.
- 5 Project Marshall is a 22 year contract awarded to the Aquila joint venture to transform the military's terminal Air Traffic Control technical services. It was initiated by the MOD to modernise ATM for over 100 MOD locations, of which over 60 are airfields or ranges, including overseas. It provides the foundation to deliver efficient and cost effective terminal ATM services and ensures that this capability keeps pace with modern regulatory demands and Single European Sky standards. NATS provides services to Aquila to enable it to deliver Project Marshall.
- 6 Aireon LLC provides a space-based air traffic surveillance system with global coverage capable of tracking and monitoring aircraft in real-time. This improves ATC and surveillance over regions with limited or no radar coverage and backup surveillance for regions with full radar coverage. Aireon is a private company whose investors are Iridium Communications, NAV CANADA, ENAV, IAA, Naviar and NATS.
- 7 Source: an Oxford Economics report commissioned by the Airport Operators Association. The value reflects direct, indirect and induced contributions: £22.3 billion through the output of the aviation sector (airlines, airports and ground services, aerospace); £16.7 billion indirectly through the aviation sector's procurement from its domestic supply chain; and £12.9 billion contributed through the wage-financed spending by the employees of the aviation sector and its direct supply chain.
- 8 Swanwick Combined Operations shall establish the common operational environment to ensure that NATS can provide one ATC operation across two Centres.
- 9 The severity of ground and airborne incidents is scored against six criteria: minimum separation achieved; rate of closure; detection of potential conflict; plan to achieve required separation; execution of the plan; and recovery when separation is lost.
- 10 Impact score is a measure of delay placing greater weight on long delays and departures in the morning and the evening peaks.
- 11 Variability score is a daily excess delay score based on weighted delays exceeding pre-determined thresholds on a daily basis.
- 12 3Di score measures airspace efficiency with reference to the deviation from the preferred profile to the actual radar track of each flight in UK airspace.
- 13 CDP, formerly the Carbon Disclosure Project, runs a global disclosure system on behalf of investors that enables companies and cities to measure and manage their environmental impacts.
- 14 Death in service, ill health and income protection arrangements may be restricted or cease if benefits are transferred out of NATS pension arrangements.