

NATS Holdings Limited
Annual Report and Accounts
Year ended 31 March 2017

Company Number: 04138218

Who we are

NATS Holdings Limited (NATS) provides air traffic control (ATC) services through two principal subsidiaries: NATS (En Route) plc and NATS (Services) Limited.

NATS (En Route) plc (NERL) is our core business and the sole provider of ATC services for aircraft flying 'en route' in UK airspace and the eastern part of the North Atlantic. It is regulated by the Civil Aviation Authority (CAA) within the framework of the European Commission's (EC) Single European Sky (SES) and operates under licence from the Secretary of State for Transport.

NATS (Services) Limited (NATS Services) provides ATC services to 14 UK airports and engineering services to these and other airport operators. It provides Defence services to the UK MOD through Aquila, a joint venture with Thales fulfilling Project Marshall¹, including ATC services at 4 airfields and asset and service support. Other UK Business includes information, design and data services to airlines and airspace users. International services are provided primarily to customers in Asia Pacific and the Middle East. FerroNATS, a joint venture with Ferrovial Servicios, provides ATC services to 9 airports in Spain.

Our purpose

Advancing aviation, keeping the skies safe.

We are making the skies an even safer and more efficient environment for flying.

Our objectives

- Deliver a safe, efficient and reliable service every day.
- Deliver SESAR² 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 125 of this report. Abbreviations used in this report are provided on page 124.

Financial highlights

Financial year ended 31 March (£m unless otherwise specified)	2017	2016	Change %
Revenue	919.3	898.1	+2.4
Profit before tax and goodwill impairment	136.5	137.1	-0.4
Profit before tax	125.5	44.4	+182.7
Capital expenditure	156.4	147.6	+6.0
Net debt ¹	132.7	303.3	-56.2
Gearing ² (%)	35.9%	49.1%	-26.9
Dividends	24.0	81.7	-70.6

¹Excludes derivative financial instruments

²Ratio of the net debt to regulatory assets of the economically regulated business (NERL)

Deliver a safe, efficient and reliable service every day

- The volume of flights we handled increased by 7.6% to 2.45 million (2016: 2.28 million). We maintained our safety record, with no risk-bearing Airprox³ attributable to NATS (2016: nil).
- Average en route delay per flight increased to 10.9 seconds (2016: 4.3 seconds), reflecting in part higher than expected traffic. We enabled additional annual savings for airline customers of 55,900 tonnes of CO₂ emissions.

Deliver SESAR and transform the business for the future

- We consulted customers on our revised investment plan for RP2, which accelerates the deployment of SESAR technology.
- Important milestones included: implementation of our new flight data processor (iTec⁴) into Prestwick upper airspace, and live trials of electronic flights strips by the Terminal Control (TC) operation.

Win and retain commercial business

- We were awarded ATC and engineering contracts by George Best Belfast City Airport and an airspace design contract for Thailand. FerroNATS secured ATC contracts at three additional Spanish airports.
- We renewed ATC contracts with Aberdeen, Glasgow and Southampton and extended our ATC contract with Luton for one year. We also renewed the engineering service with Highlands and Islands Airports.
- Edinburgh Airport's ATC service will transfer to a competitor in March 2018.

Other priorities for 2016/17

- We invested in April 2017 in Searidge Technologies, a provider of technology for remote tower services and continue to develop a remotely-operated airport control tower capability at Swanwick.
- We are supporting Aquila with the MOD's Project Marshall and we have formed a task force with our partner, Thales, to re-plan the delivery of the asset provision milestones.

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Chairman's statement

Financial performance and dividends

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

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

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

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

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

Defined benefit pension scheme

The Trustees' 2015 triennial valuation reported an increase in the deficit to £459m (2012 triennial valuation: £383m). As a result, the group has agreed

to increase its contributions to the scheme and expects to meet this increase through an adjustment to NERL's prices in the next Performance Plan period (based on the EU performance scheme regulations) and from NATS Services' operating cash flows.

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

UK's EU referendum decision

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

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

This would also be the most reliable means of ensuring that NERL continues to be able to finance its operating and investing activities.

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

Capital investment

We are upgrading our operation by deploying new technology, to replace legacy systems and introduce more advanced systems which will support new and

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

HM Government's shareholding

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

Governance

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

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

Outlook

The first two years of RP2 have been challenging as we have faced much higher than expected air traffic. Next year we will be consulting our customers on our

Initial Performance Plan for RP3. As the RP2 ATC environment is turning out to be quite different to the one assumed, we will be making the case for a Performance Plan in RP3 with more financial headroom to respond to changing industry conditions (e.g. to adjust the level of investment and resources) and to provide enhanced operational resilience. We think this is in the interests of our customers.

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

Dr Paul Golby, CBE FREng

Chairman

Chief Executive's review

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

Priorities for 2017	How we did
Provide a safe, efficient and reliable service every day from our airports and centres	✓
Deliver SESAR technology and transform the business for the future:	
<ul style="list-style-type: none"> • Complete the introduction of iTEC into Scottish Upper Airspace • Deploy and operate electronic flight strips in Swanwick Terminal Control 	✓ ✓
Win and retain commercial business:	
<ul style="list-style-type: none"> • Establish a remote tower capability • Establish further strategic partnerships with our airport customers • Achieve Mode S Surveillance capability for Project Marshall 	✓ ✓ ✗

Provide a safe, efficient and reliable service every day

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

The basic structure of the UK's airspace (its routes, sectors and holding patterns) was designed over 50 years ago when traffic volumes were far lower than they are today. Airspace in the South East is now operating to its maximum capacity during the

busiest times of the year. When the airspace is at capacity our service performance is very sensitive to the timing and distribution of traffic flows across the country. This was evident last summer when periods of bad weather combined with industrial action in neighbouring countries (causing flights to divert into UK airspace) changed the patterns of flights across the UK. We faced similar operational challenges when particularly high demand coincided with the introduction of new systems (e.g. iTEC) into our operation.

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

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

Deliver SESAR technology and transform the business for the future

The longer term solution to minimising delay during periods of high demand is the combination of new technology and modern UK airspace structures.

The process of modernising airspace started in the previous financial year but further stages have been paused pending Government consultation on a UK aviation strategy over the next year.

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

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

We consulted customers during the year on a revised capital investment plan for RP2. This follows changes that we have seen in the business environment (such as higher than expected traffic growth) and progress made by the industry in developing SESAR technologies, such as iTEC. In a programme we refer to as Deploying SESAR⁵, we propose to accelerate the deployment of new technology to deliver capacity and safety benefits to customers more quickly while reducing our investment in legacy systems and their running costs. To achieve this, we expect to invest up to £160m more than the RP2 Performance Plan assumed. In order to mitigate the impact of this additional investment on prices in future, we have secured £100m of EU (INEA) funding and we are applying for a further £30m.

As we deploy new technology we will be retiring our legacy systems. This requires significant change to our operation, including the need to train our people in the use of these new systems and in new methods of operation. While the transition will be challenging we will be doing all we can to minimise any operational impacts for our customers. This year we achieved key programme milestones, developing our ability to manage similar transitions in future: we delivered a new system to control upper airspace from our Prestwick Centre and we have started trial operational use of electronic flight strips in our Swanwick terminal control operation.

Win and retain commercial business

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

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

Digital towers (which see air traffic controllers manage aircraft from remote facilities instead of in traditional airport towers) are becoming a demonstrably viable option for airports and have the potential to transform the way air navigation

services at airports are delivered: London City has announced plans for a digital tower service in the future. In April 2017, we invested £5m to acquire a 50% interest in Searidge Technologies, a Canadian provider of digital tower capability, and during the year we continued to develop a digital tower capability at Swanwick. Together these enable us to offer a wider choice of digital tower solutions to customers depending on their requirements.

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

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

Our people

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

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

As noted above, a large part of our strategy over the next five years is to replace much of our technical

infrastructure. This infrastructure has served us well but is coming to the end of its useful life. Updating this technology will be a significant change for everyone working for NATS and this priority recognises that we will need to support our people through this transformation.

Our priorities for 2018

- Provide safe and resilient air traffic services from our airports and centres;
- Focus on our people and employee relations as we transform our infrastructure;
- Achieve Swanwick site acceptance testing for London City Digital Tower;
- Deliver key Deploying SESAR milestones: expanding electronic flight strips in Terminal Control and fit out Combined Operations room at Swanwick;
- Provide support to Heathrow and Hong Kong for their third runways; and
- Enhance the Oceanic technical platform and Operations at Prestwick.

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

Martin Rolfe, Chief Executive

Financial review

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

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

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

Regulatory return

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

RP2 Performance Plan and which offset higher operating costs, which exclude staff pensions, than the economic regulator assumed.

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

Comparison of reported profit and regulatory return

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

- lower historical cost depreciation compared with regulatory depreciation which is indexed to inflation; and
- lower accounting pension costs using best estimate assumptions prescribed by accounting standards compared with cash contributions agreed with Trustees, which include a margin for prudence.

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

Revenue

Revenue at £919.3m (2016: £898.1m) improved by £21.2m, including Airspace UK en route revenue which was £19.3m higher. While Airspace customers benefited from RP2's real price reductions this was more than offset by additional revenue from the increase in flights that we

handled. The latter mitigated a small service penalty of £0.4m (2016: £4.6m bonus), relating to increased delays largely due to capacity. Other Airspace revenue improved by £3.7m.

Airports revenue was £12.1m lower, following the transfer of the Gatwick contract to another provider in March 2016. Defence revenue increased by £15.7m as we continued to support our Aquila joint venture with the MOD's Project Marshall contract. Other UK business generated lower revenue from windfarm mitigation services. Our International business reflected a stronger performance in the Asia Pacific region.

Operating costs

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

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

Staff costs of £415.3m (2016: £439.1m) were 5.4% lower, mainly due to lower accounting pension costs compared to such costs in the previous year. Before staff salary sacrifice and past service costs, the accrual rate for the defined benefit scheme this year was 36.0% (2016: 45.4%) of pensionable pay. This offset a £9.1m increase in other staff costs. The average number of staff employed during the year was 4,216 (2016: 4,196) and there were 4,247 (2016: 4,176) staff in post at 31 March 2017.

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

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

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

Goodwill impairment

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

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

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

Net finance costs

Net finance costs of £43.2m were £17.0m higher than the prior year (2016: £26.2m) mainly reflecting the change in market value of the index-linked swap

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

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

Share of results of joint ventures and associates

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

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

Taxation

The tax charge of £21.7m (2016: £16.8m) was at an effective rate of 17.3% (2016: 37.8%, mainly reflecting the goodwill impairment charge). This is lower than the headline rate of 20%, mainly reflecting the deferred tax impact of the reduction in the corporation tax rate to 17% from April 2020

and the lower tax rate on patent box income. This is partially offset by the goodwill impairment charge, which is not tax deductible.

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

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

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

Dividends

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

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

Balance sheet

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

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

Capital investment

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

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

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

Defined benefit pensions

The group operates a final salary defined benefit pension scheme in which 2,768 staff participated at 31 March 2017 (2016: 3,324). The scheme was

closed to new entrants from 1 April 2009 and staff who are not members of this scheme are able to benefit from a defined contribution scheme. More information on our pension arrangements and their governance is provided in note 30 to the consolidated financial statements.

a. Accounting deficit under IAS19

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

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

* including salary sacrifice

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

b. Trustee valuation and funding obligations

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

rise to a different valuation than that disclosed under international accounting standards.

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

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

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

NERL's share of these contributions is higher than the regulator assumed for RP2 and we expect to recover these through higher prices in subsequent reference periods. NATS Services will meet its share of these obligations from cash reserves. The Trustees intend to bring forward their next valuation to 31 December 2017 to better inform NERL's Initial Performance Plan for RP3.

Net debt

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

At 31 March 2017, borrowings were £426.3m (2016: £560.4m) and cash and investments were

£293.6m (2016: £257.1m). Net debt decreased by £170.6m to £132.7m (2016: £303.3m).

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

Cash flow

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

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

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

Outlook for 2018

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

Nigel Fotherby,

Finance Director

Going concern

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

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

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

Viability statement

The directors have assessed the viability of the group based on its current position and future prospects, its business strategy and available financial resources.

The directors have also assessed the potential financial and operational impacts in plausible downside scenarios of the principal risks and uncertainties facing the business set out on page 23

and the effectiveness of currently available mitigating actions. On this basis, the directors have a reasonable expectation that the group will be able to continue in operation and meet its liabilities falling due over the three year period to 31 March 2020.

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

Specific consideration has been given to:

- Brexit: the directors considered the risk of lower revenue in RP2 from a reduction in en route air traffic volumes to be mitigated by the traffic volume risk sharing provisions of NERL's licence and EC Regulations. New traffic forecasts will be agreed with the economic regulator for RP3;
- Recovery of capital investment: after extensive consultation with customers and the economic regulator in 2017, the directors considered that the increase in capital expenditure over the RP2 Performance Plan would be recovered by NERL's revenue allowances in RP3 and subsequently;
- Airports revenue: the directors considered the competitive environment for airport ATC services and the terms of the group's contracts, including their length and renewal prospects; and
- Defined benefit pensions: the directors considered the group's ability to fund the contributions agreed with Trustees following their 2015 valuation and its resilience to a credible increase in contributions in 2019 following the Trustees' 2017 valuation (see page 24). For NERL, the directors considered such an increase would be recoverable through prices in RP3 and subsequently, and for NATS Services, from the company's cash and operating cash flows.

Key performance indicators

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

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

Description	Financial year 2017 or calendar year 2016	Financial year 2016 or calendar year 2015
Financial KPIs		
Profit before tax: NATS Group	£125.5m	£44.4m
NERL	£104.8m	£22.4m
NATS Services	£17.3m	£22.3m
Non-financial KPIs		
Safety performance:		
NATS Group: category A or B Airprox ³ attributable to NATS (financial year)	nil	nil
Calendar year metrics:		
NATS Group KPI: RAT ⁶ points (12 month rolling)	1,280	1,497
NERL KPI: RAT points (per 100,000 flights, 12 month average)	41.5	38.3
NATS Services KPI: RAT points (per 100,000 flights, 12 month average)	17.8	34.5
Service performance and resilience:		
NATS Group: customer satisfaction score (%)	81%	85%
<u>NERL KPIs</u>		
Average delay (seconds per flight, financial year)	10.9	4.3
Average delay (seconds per flight, calendar year)	12.8	2.4
Impact score ⁷ (weighted seconds per flight, calendar year)	25.0	5.2
Variability score ⁸ (weighted seconds per flight, calendar year)	176.7	14.2
3Di ⁹ score (calendar year)	30.3	30.1
Environmental performance (financial year):		
NATS Group KPI: enabled fuel CO ₂ reduction (cumulative % vs 2006 baseline)	5.0%	4.7%

Safety

Safety performance

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

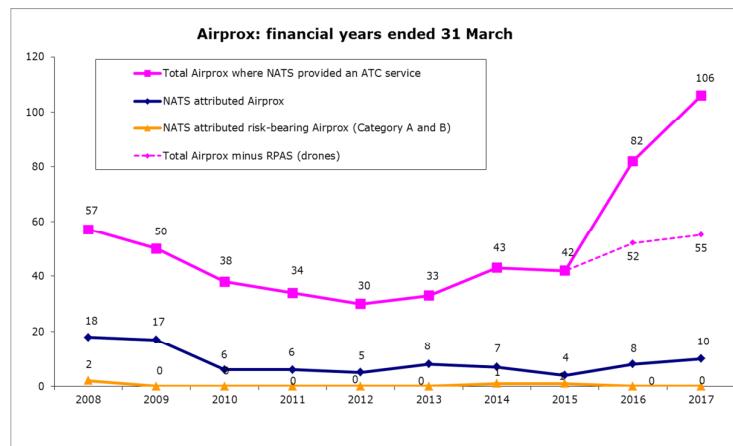
We have continued to meet the three safety performance targets set by the UK and European regulators in the SES performance scheme for the end of RP2, which were based on: the effectiveness of safety management; the use of the Risk Analysis Tool (RAT) to assess the severity of safety events; and the extent of Just Culture training¹⁰.

In a year of unexpectedly high traffic growth, particularly at some airports, and as we invested in changes to our operation, we safely handled 7.6% more flights. However, we did not meet the self-imposed, internal safety target we set for RP2 calculated using the RAT. This set a RAT score which represents a reduction in safety risk (defined as the accident risk per flight) of 13% by the end of RP2 for both our airport and en route ATC service. Our performance for the 2016 calendar year achieved a RAT score⁶ of 1,280 against a target of below 1,100. This was due to an increase in the number of low severity events within the RAT scoring scheme. To address this, we are focusing on tactical activities that will target known risks, while also exploring 'predict and prevent' analysis techniques to help us to direct our efforts. These actions will ensure we

maintain a safe operation as we Deploy SESAR.

For the 2017 financial year, there were no category A or B Airprox³ events attributable to NATS (2016: nil). The overall number of Airprox events in NATS airspace was 106 (2016: 82), with 10 attributable to NATS. The increase in Airprox overall was driven by events involving Remotely Piloted Aircraft Systems (RPAS or drones), none of which are attributable to NATS (see graph).

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



Managing safety and change

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

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

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

Safety improvements

The most significant operational risks we deal with are infringements of controlled airspace, human performance, level busts¹¹ and issues on the ground at airports, including runway-related events.

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

During the year, we participated in the CAA's Solent collaborative airspace trial to help reduce the risks of infringements in the Southampton and Solent areas. This increased the use by the general aviation

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community of specific transponder codes, enabling an air traffic controller to identify an aircraft and to provide navigational assistance.

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

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

The number of level busts remained flat during the year. We have continued to work with the CAA and airlines to ensure best practice is followed by both pilots and controllers. We are providing data to airlines to improve their visibility of these incidents. Our UK Airport service participates in the CAA's ground handling operations safety activity. NATS is working alongside ground handlers to improve safety awareness and performance and to encourage effective regulation of ground handlers by the CAA. Also, to improve runway safety, NATS is contributing to the development of a European action plan for the prevention of runway incursions by sharing our experience of high intensity runways in the UK.

Regulatory environment

Single European Sky (SES)

SES is a European initiative to improve the way Europe's airspace is managed. Its purpose is to modernise Europe's airspace structures, air traffic

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management technologies and associated operational procedures so as to ensure forecast growth in air traffic can be met, safely and sustainably, whilst reducing costs and improving environmental performance.

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

The UK market for Terminal Air Navigation Services (TANS) is subject to the market conditions test within EC SES Regulations. If conditions are not met TANS are more heavily monitored and targeted by the EC. In October 2016, the EC agreed with the UK

Government's assessment that market conditions for TANS have been established for RP2. This will be subject to re-assessment for RP3.

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

NATS has deployed the tools of Time-Based Separation (TBS) and Extended Arrival Manager for Heathrow operations so far. TBS significantly enhances landing rates on the windiest days.

Extended Arrival Manager (XMAN) coordinates with neighbouring ANSPs to slow down Heathrow arrivals when runway capacity delays of seven minutes or more are predicted, delivering fuel, cost and

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environmental savings to customers. In time, TBS will be delivered at Gatwick Airport and XMAN introduced for Gatwick, Manchester and Stansted. European funding is available through INEA to support the deployment of SESAR technology. To date, NERL has secured INEA funding of £100m which ultimately reduces the cost to customers.

UK regulation

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

Also, the basis for a specific licence requirement for NERL to set out detailed plans to raise the UK Transition Altitude¹³ to 18,000 feet by 2018 and implement the terminal airspace redesign associated with LAMP¹⁴ has been removed as these changes are not in NERL's direct control and are dependent on public consultation and other stakeholders. As explained below, certain aspects of LAMP will now be delivered in RP3.

NERL's investment programme for RP2

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

The investment programme comprises two main areas: airspace and technology. This year NERL consulted its customers on a revised capital investment plan for RP2. This follows changes in the business environment and technological landscape since NERL's RP2 Performance Plan was produced, such as: higher than expected traffic growth, reduced

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fuel prices, the EU requirement to implement PCPs and the development of SESAR capable systems such as iTEC. Increased traffic volume means that continuing to exploit our legacy systems is no longer cost-effective or efficient and accelerating investment in new future technologies that enhance capacity and efficiency is necessary. Additionally, adverse public reaction to initial airspace changes coupled with uncertainty about new runway developments, led stakeholders to be wary about supporting changes to lower airspace assumed in NERL's RP2 Performance Plan.

NERL's technology programme updates its core ATC infrastructure, replacing legacy systems that are reaching end of life and deploying a modern and more advanced system to support new operational concepts and modern airspace designs. The new systems will not only further enhance safety, service performance and resilience but will also allow us to meet our obligations in line with the PCP and related EU regulations. This programme will continue to sustain legacy systems to ensure they remain resilient and fit for purpose throughout the transition from old systems and operations to new ones.

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

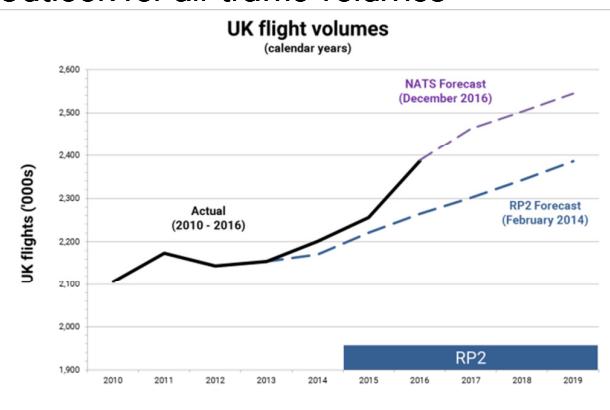
Safety, regulatory and economic environment

The revised airspace and technology plans for RP2:

- Ensure that beneficial airspace changes can be delivered in RP2 and the capability is in place to deliver subsequent changes in RP3;
- Accelerate the deployment of SESAR capable systems and replacement of NERL's ageing legacy systems essential to improve service performance and deliver airspace capacity;
- Prioritise early replacement of technology that will soon become obsolete and increasingly difficult to maintain, to avoid the risk of service degradation;
- Deliver a single, common technology platform and capability across both Prestwick and Swanwick to provide improved service resilience and operational flexibility;
- Optimise the overall level of capital investment required over RP2 and RP3; and
- Secure the maximum European INEA funding to support deployment projects and benefit customers through reduced future prices.

In summary, the focus of NERL's RP2 Performance Plan is delivering airspace change that can largely be delivered using existing systems and transforming NERL's systems and capabilities supporting upper airspace. The focus of RP3 will be transforming NERL's systems supporting lower airspace and delivering airspace change dependent on these new systems including Free Route Airspace and modernised airspace in the London TMA¹⁵.

Outlook for air traffic volumes



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

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

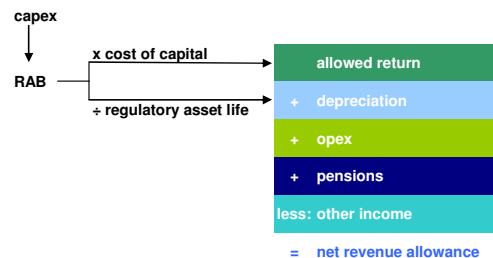
Our business model

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

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

NERL also provides the MOD with engineering, surveillance and communications services. These activities are reported within Airspace.

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



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

The EC legislation provides: a risk-sharing mechanism to protect against certain variations in traffic volumes from the level assumed; an adjustment to charges for differences between actual inflation and assumed inflation; and an adjustment to charges in subsequent reference periods where cash contributions to the defined benefit pension scheme differ from those assumed due to unforeseen financial market conditions. The CAA also sets a target and cap on the level of NERL's gearing at 60% and 65% of net debt to RAB, respectively. Charges may be adjusted on a year 'n+2 basis' for service performance incentives, traffic volume risk-sharing and for inflation.

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

The UK Airports service provides ATC services to 14 of the UK's major airports as well as engineering support and airport optimisation services to UK

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

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

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

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

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

Our business model

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

Principal risks and uncertainties

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

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

These principal risks have been considered in preparing the viability statement on page 14. A summary of internal control and risk management processes is on pages 43 and 44.

Safety: the risk of an aircraft accident

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

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

Maintaining continuous operations

a. Loss of service from ATC centre

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

b. Operational systems resilience

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

required and to identify any emerging trends requiring investigation.

Political environment and economic regulation

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

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

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

package of other airspace changes that have industry support.

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

Defined benefit pension scheme

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

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

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

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

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

The impact of the UK's decision to leave the EU has not had a material adverse impact on our revenue to date. In the short term the continuing uncertainty could affect the demand for air travel and the volume of air

traffic NATS handles, though any impact would be mitigated by traffic volume risk-sharing arrangements.

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

Under the UK Transport Act 2000 the CAA has a duty to ensure that NERL does not find it unduly difficult to finance its activities. Such a duty is not provided for in SES legislation.

After leaving the EU, we expect that the UK will no longer be able to participate, with a vote, in the process of drafting and approving SES legislation. Therefore, in our view the logical outcome is for the UK to re-establish national economic regulation of UK ATM outside of the SES.

Security: electronic and other external and internal threats

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

The company has enhanced the physical security of its principal sites and is continuing to enhance its cyber security processes and controls. The company maintains a close liaison with the relevant Home Office

Constabularies as well as Government security agencies and departments including security advice from the Centre for the Protection of National Infrastructure (CPNI).

Employee relations

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

Technology

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

Financial risks

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

description of each of these risks and specific mitigations are set out in note 19.

Service line performance

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

A brief description is provided under the section entitled 'Our business model'. This service line structure was introduced in this financial year, to align financial reporting with the group's operational focus on its customers. Prior year service line information has been restated on a like for like basis. This section explains the financial and operational performance of each service. The principal financial measures are revenue and contribution. The former includes intra-group revenue, while the latter reflects the operating costs which managers are able to influence directly. A reconciliation of service line contribution to operating profit is provided in the notes to the financial statements.

Airspace

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

* for the calendar year to 31 December.

Overall, the volume of UK flights handled by NATS increased by 7.6% this year, reflecting strong growth in transatlantic arrivals and departures and overflights. The growth in chargeable service units (CSUs¹⁶) reflected more northerly routes taken by transatlantic flights due to the jet stream, resulting in longer distances flown in UK airspace. By contrast, the RP2 settlement assumed flight volumes and CSUs would grow by 1.9% and 1.8% per annum on average.

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

Airspace generated revenue of £733.5m, a 2.6% increase on the previous year.

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

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

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

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

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

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

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

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

Airports

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

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

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

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

One of our strategic objectives is to win and retain UK airport contracts. During the year we were awarded the ATC and engineering

contracts by George Best Belfast City Airport. We also renewed our contracts with Aberdeen, Glasgow and Southampton, agreed extensions with Luton and London City and renewed our engineering contract at Highlands and Islands Airports. The Edinburgh contract will transfer to another provider in March 2018. We completed a number of major engineering projects in the year including instrument landing systems for Heathrow and Belfast International. We are also upgrading voice communications for Bristol and Luton airports.

Defence

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

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

Project Marshall is a 22-year concession for the provision of ATC services and the upgrade of MOD ATC infrastructure. The service provision element of this contract is provided by NATS Services and is performing extremely well. We now provide ATC services to RAF Wattisham and Gibraltar Airport and, after transferring to NATS Services in the year, to RAF Netheravon and RAF Middle Wallop. However, the asset provision element has faced schedule challenges. Together with our

joint venture partner, Thales, we are committing more resources in 2017/18 to re-plan and execute the delivery schedule for asset provision.

Other service lines

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

* Service provided by our FerroNATS joint venture

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

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

International revenues grew by £1.6m to £9.6m (2016: £8.0m). The Asia Pacific region performed more strongly while there were limited opportunities in the Middle East. Of note this year was the award of an airspace design contract in Thailand. At a contribution level our international activities reported a loss of £0.2m (2016: £1.5m loss). This includes a share of the FerroNATS profit which was offset by losses from the Asia Pacific and Middle East where we continue to build our

presence. FerroNATS secured ATC contracts at Andorra - La Seu d'Urgell, Lleida and Córdoba airports, which are yet to transfer from the incumbent service provider.

People

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

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

In support of this we have committed to creating an enhanced partnership relationship with our employees and Trades Unions to ensure NATS has a workforce that is prepared and equipped for future challenges. We have established an employee relations improvement project to identify ways to work more effectively with the Trades Unions, enhancing our ability to jointly solve problems

and deliver essential change. We have also created a series of one-day workshops for managers to better equip them to communicate with their teams and to improve their understanding of how the business works and the challenges we face.

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

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

Responsible business

Our Responsible Business report is available on our website.

Our Chief Executive is responsible for the company's environment policy, which is underpinned by an Environmental Management System that is subject to internal

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

The data has been collected using the operational control approach and covers the UK sites of NATS Holdings Limited and its Aquila joint venture, which is based at NATS' head office. ATM CO₂ data for 2016 marked * has been restated to reflect improvements in the accuracy of modelling and in the quality and availability of industry data, updates to traffic forecasts, and changes to NATS' airport portfolio. For 2016 data marked +, actuals have replaced some data estimates for the end of the reporting period and the figures have been restated where applicable. Certain environmental performance metrics in the table above as at 31 March 2017 have been subject to external assurance by PricewaterhouseCoopers LLP (PwC). PwC have carried out a limited assurance engagement on selected 2017 metrics marked ^ . A copy of the assurance opinion is available at www.nats.aero/environment/cr, as well as the reporting criteria for the selected energy and environmental performance metrics above.

and external audit as part of ISO certification.

Key energy and environmental data has also been independently assured as per the table above. Our environmental policy describes our commitment to limit and, where possible, reduce the impact of ATM on the environment.

Aircraft noise

NATS currently holds the Chair of the Sustainable Aviation coalition in the UK and is using its influence across industry to focus on improvements to continuous climb and descent operations at airports, which reduces noise and aircraft CO₂ emissions.

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

ATM related CO₂ emissions

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

customers value this support to fuel efficient flight planning.

NATS has also been working with customers to minimise aircraft taxiing at airports to reduce CO₂ emissions and improve local air quality and reduce noise.

In the 2017 financial year NATS enabled further savings of 55.9kT ATM related CO₂ emissions and has achieved 5.0% towards its 10% target for 2020. These savings derive both from large projects and minor changes to airspace made in consultation with customers. This will continue in 2018 as part of NATS' Flight Efficiency Partnership.

Airspace efficiency

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

require a reduction in the score to 27.7 by the end of RP2.

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

Minimising the environmental impact of our estate

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

We are actively taking steps to reduce our energy consumption and since the 2006 baseline year, our energy use has reduced by 38%, which is the equivalent to 20,851 tonnes of CO₂.

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

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

Supply chain

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

expertise and formed a dedicated team to support projects and suppliers.

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

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

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



Richard Churchill-Coleman

Secretary

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.

Andrew Barker

Andrew is IAG's Head of Group Finance Development and Investor Relations, responsible for financial strategy and the Group's €4.5bn equity base. Previously, he was Managing Director of UBS Investment Bank where he spent 16 years. He led the global transport research team and was voted

Europe's and the world's number one transport analyst in successive annual investor polls. His final role at UBS was as the bank's Head of European Market Strategy.

He subsequently spent four years as a Director of easyJet, where he was responsible for strategy, fleet and network planning and Government affairs; and he also set up and ran the world's first global transport sector hedge fund. Andrew is a director of The Airline Group Limited (AG) and a member of the Remuneration Committee.

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.

Will Facey

Will is the Director for Network Operations at easyJet Airline Company. He joined easyJet in

2008 having previously worked for DHL Express for 20 years. His last role within DHL was as the Director of Network Control for the European overnight delivery network. Previous positions included a mix of operational leadership and European regional functional roles. He has spent most of his working career based in continental Europe – primarily in Denmark and Belgium and moved back to the UK to take up the role with easyJet. Will is a director of AG and a member of the Safety Review 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 and a member of the Technical Review Committee and Nomination Committee.

Richard Keys

Richard is a non-executive director of Merrill Lynch International, Wessex Water Services Limited and the Department for International Development. 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.

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.

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, on an interim basis, is also chairing the Technical Review Committee.

Derek Provan

Derek is Future Heathrow Director at Heathrow, responsible for the design and operating models for future Heathrow Airport under the expansion programme. His remit includes airfield, airspace, terminal, baggage, fuel, surface access, master planning and commercial design and development. He is active in numerous aviation forums within the UK and is a founding member of the Performance Based Regulation Industry Group working with the CAA to ensure that the industry forms an integral part of future regulation in UK Aviation. He is a member of the Safety Review 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) (previously BAA Limited).

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 Limited, 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 Limited Board comprised a non-executive Chairman and 11 directors, as follows:

Executive Directors

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

Non-Executive Directors

- a non-executive Chairman, appointed by AG, subject to the prior approval of the Crown Shareholder;
- five further non-executive directors appointed by AG;
- three non-executive Partnership directors, who are appointed by the Crown Shareholder; and
- one non-executive director appointed by LHRA.

Changes to the Directors

From 1 April 2016 to the date of approval of the accounts, the following changes to the directors were made:

<i>Non-executive Directors</i>	
Baroness Dean of Thornton-le-Fylde	Resigned 28 July 2016
Tony Tyler	Resigned 28 July 2016
Andy Lord	Resigned 28 September 2016
Peter Read	Resigned 25 May 2017
Will Facey	Resigned 30 June 2017
Maria Antoniou	Appointed 1 August 2016
Andrew Barker	Appointed 28 September 2016
Mike Campbell	Appointed 26 May 2017

The roles of the Chairman, Chief Executive Officer 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 has recently been 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. 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. These include the following:

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; and
- 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. During this year, the Board met eight 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	8/8
Martin Rolfe	8/8
Nigel Fotherby	8/8
Maria Antoniou	4/4
Andrew Barker	3/3
Harry Bush	7/8
Baroness Dean of Thornton-le-Fylde	3/4
Will Facey	8/8
Richard Keys	8/8
Andy Lord	5/5
Iain McNicoll	8/8
Gavin Merchant	7/8
Derek Provan	8/8
Peter Read	8/8
Tony Tyler	3/4

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 those relating to 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 30 March 2017 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 a programme was started for Maria Antoniou and Andrew Barker. This programme 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. The committee structure comprises 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	3/3			
Maria Antoniou		1/1	2/2		
Andrew Barker			1/1		
Harry Bush	4/4				
Baroness Dean of Thornton-le-Fylde			2/2		
Will Facey				4/4	
Richard Keys	4/4	3/3			8/8
Andy Lord			3/3		
Iain McNicoll				4/4	7/8
Gavin Merchant			4/5		
Derek Provan				4/4	
Peter Read		3/3			8/8

The terms of reference for the Board and its committees are available to all staff 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 41 to 61. 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 a committee (comprising the Chairman and Chief Executive) to review non-executive director fees which will meet annually going forward.

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 28 July 2016. 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 2017, the applicable standard is the 2014 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 2017. 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.

Corporate Governance 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.

**Corporate Governance 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.

Corporate Governance 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.

Corporate Governance 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.

Corporate Governance 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 2017 was as follows:

Name	Date of appointment	Years of service to 31/3/17*
Paul Golby	1/9/14	2 years 7 months
Maria Antoniou	1/8/16	8 months
Andrew Barker	28/9/16	6 months
Harry Bush	27/5/14	2 years 10 months
Baroness Dean of Thornton-le-Fylde**	24/7/06	10 years
Will Facey	27/11/14	2 years 5 months
Richard Keys	1/9/13	3 years 7 months
Andy Lord^	26/2/09	7 years 7 months
Iain McNicoll	1/9/13	3 years 7 months
Gavin Merchant	20/3/14	3 years
Derek Provan	28/1/16	1 year 2 months
Peter Read	23/9/02	14 years 6 months
Tony Tyler**	1/7/13	3 years

* Years of service to resignation, if earlier.

** Served until 28 July 2016

^ Served until 28 September 2016

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

Corporate Governance 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 Audit 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 Audit 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 staff may confidentially report suspected wrongdoing in financial reporting or other matters.

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 values of goodwill, other intangible and tangible assets

The group has goodwill of £198.3m, other intangible assets of £512.7m and tangible assets of £488.9m. As we explain in our accounting policies, goodwill, intangible and tangible assets are tested annually for impairment.

The judgement in relation to the carrying value of goodwill and other intangible and tangible assets 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 values less costs of disposal, including the extent of any premium to regulatory asset values.

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 Reference Period 2 (RP2) settlement and the cash flows implied by its latest business plan, for determining value in use; the cost of capital assumption used to discount value in use; the value of NERL's regulatory assets, including the scope for out-performance of regulatory settlements as well as premia to regulatory assets implied by market transactions in regulated entities, for determining value in use and also fair value less costs of disposal; the outcome of internal reviews of the carrying values of other intangible and tangible assets; and appropriate sensitivities. With respect to goodwill, the

Committee considered value in use and fair value less costs of disposal and considered that an impairment charge of £11.0m was required. Further information is provided in notes 13, 14 and 15 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 had regard to the Trustees' triennial valuation as at 31 December 2015, which reported a larger deficit than the 2012 triennial valuation. The 2015 triennial valuation requires higher contributions from the company and the Committee considered the adequacy of the group's funding arrangements to meet the increase in contributions required by Trustees.

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

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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

This year, the Committee also enquired as to the company's plans for assessing the impact of IFRS15: *Revenue from Contracts with Customers*, and the accounting impacts of contractual risks associated with joint ventures. The Committee also reviewed financial reports issued to shareholders under the terms of the Strategic Partnership Agreement.

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,

Reports from Board Committees

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 2017 Audit Committee meeting. However, as with all such systems, internal controls can provide reasonable but not absolute assurance against misstatement or loss.

The Audit 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 particular this year the Committee reviewed the results of internal audits of anti-fraud controls in areas of highest risk, and is monitoring management actions designed to ensure that NATS' whistleblowing procedures continue to meet best practice and are understood throughout the company and amongst stakeholders and third parties. The Committee also considered cyber security risks including the establishment of an Executive Management Committee supported by independent advice which will assist all the Board's Committee's in their understanding and governance of cyber security aspects across all of NATS' top risks.

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

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effectively. Successful risk management ensures that the group is able 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 ISO 31000 risk management standard. Detailed risk identification is carried out at business unit and departmental levels and is recorded and measured in a controlled and managed 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 Audit 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. The directors have carried out a robust assessment of the principal risks facing the business. In each monthly set of Executive reports to the Board,

Reports from Board Committees

any changes in gross or residual risk of a 'top risk' will be highlighted by exception, but particularly if the change means a risk falls outside of the agreed tolerance. The Audit Committee and Board have assessed the group's principal risks and the performance against mitigation plans during the year ended 31 March 2017, and agreed the actions and mitigations in place for the principal risks as at the date of this report. The Audit Committee and the Board also review the extent of warranties and guarantees entered into by the company, 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 manage 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 Audit Committee also oversees and monitors the actions taken by management to address Internal Audit findings and considers the ongoing independence of Internal Audit. The Audit Committee oversees the performance of Internal Audit through the receipt of a report on its work presented to each Audit 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 auditors at the Annual General Meeting on 28 July 2016. The Committee reviewed the performance and the continuing independence of BDO at its June meeting and recommended to the Board that BDO are re-appointed. Accordingly, a resolution recommending their re-appointment will be tabled at the AGM on 30 July 2017.

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 Audit 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 2017 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, Peter Read, 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 three times: in May 2016, September 2016 and February 2017 and considered Board and Committee composition and non- executive director appointment. The Committee also undertook a review of NATS' talent strategy and succession plan.

The appointment of Maria Antoniou by HMG as a Partnership Director and Andrew Barker by AG were made during the year. Peter Read announced his retirement as Chairman of the Airline Group and a director of NATS with effect from 25 May 2017. Mike Campbell was appointed by AG as his successor. Will Facey, an AG appointed director, resigned from the Board on 30 June 2017. AG will begin the search for a successor.

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

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.300 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 five times in 2016/17 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 3 targets and resulting payments;
- review and update the terms of the executive team contracts in line with best market practice; 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 (who replaced Andy Lord as Chairman), Gavin Merchant and Andrew Barker (who replaced Brenda Dean). 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, are 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

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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:

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- annual salary;
- pension, 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 2016/17 are set out on page 53.

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 2017/18, the Committee has determined that following a benchmarking exercise there will be an increase of £30,000 in Martin Rolfe's salary from 1 April 2017 in order to align more closely to the market position. His initial base salary,

on appointment to the role in October 2015, was positioned below market median with a view to progression into the role. Nigel Fotherby's salary was increased by £2,042.

	Salaries effective for the financial years	
	2016/17	2017/18
Martin Rolfe	£400,000	£430,000
Nigel Fotherby	£291,719	£293,761

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) pension scheme with 8 x 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)¹⁷.

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 offers a company-wide cash alternative payment scheme in lieu of employer pension

contributions for those with total pension savings close to the Lifetime Allowance, which is also available to eligible executive directors.

Implementation for 2016/17

The schemes will operate as described above. Martin Rolfe is a member of the defined contribution pension scheme in order to make employee pension contributions only. During April 2016, the company paid employer contributions of £20,346 relating to the financial year ended 31 March 2016, in line with employee entitlements for that year. In 2016/17 he was eligible for the cash alternative payment scheme in lieu of employer pension contributions. Cash alternative payments of £60,000 are included in his salary and fees in the directors' remuneration table below.

Nigel Fotherby was a member of CAAPS during the year.

The salaries of both directors are reported net of employee pension contributions made under salary sacrifice arrangements.

Annual incentive scheme

An Annual Management Performance Related Pay Scheme (AMPRPS) is in place for the executive team and all staff 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 year end, based on performance against pre-determined financial and personal objectives. The Committee may apply discretion as appropriate.

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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 2016/17 are provided in the outcome section on page 52.

Maximum AMPRPS opportunity

CEO: 70% of salary

Finance Director: 55% of salary

AMPRPS for 2017/18

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 plan

A Long Term Incentive Plan (LTIP) is in place for members of the executive team. Following the review last year the LTIP is now aligned to the market, retaining market comparative maximum award levels combined with greater

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stretch in target values with an overall aim of retaining broadly similar total reward levels to the previous scheme. 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 2016/17:

CEO: 110% of salary

Finance Director: 90% of salary

Active LTIP Cycles

Cycle 4

The cycle 4 award was made in April 2014 and covers a three-year performance period to 31 March 2017. Performance metrics are linked to financial and strategic targets and payout will be made following the end of the cycle and final audited results of these measures. The maximum LTIP opportunity for this Cycle is as follows:

CEO: 75% of salary

Finance Director: 75% of salary

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 third anniversary of grant and 25% of the award vesting on the fourth anniversary of grant. Performance metrics are linked to profitability, growth and strategic targets.

Cycle 6

The cycle 6 award was also made in April 2016. This award is 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 member of staff

(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 2017 to 30 June 2017, values the shares at £3.95 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 each received annual remuneration of £36,000 in the financial year. AG directors received no remuneration for their services to the NATS Board. However, a payment of £180,000 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 is employed and remunerated by LHRA as part of his contract.

Governance report

During the year a sub-committee of the Board comprising the Chairman and Chief Executive, reviewed the fees paid to non-executive directors. It determined that the base fee of £36,000 p.a. should remain unchanged, but that a supplemental fee of £8,000 be paid (effective 1 April 2017) to those non-executive directors who chair the Audit, Remuneration, Safety Review and Technical Review Committees of the Board, to reflect the additional work involved in preparing and chairing the Committees. For AG appointed non-executive directors, it was agreed that the supplemental fee would be covered by fees paid to AG. It also agreed that the fees paid to AG be increased from £180,000 to £204,000 in recognition of the full employer cost of the AG directors and recommended that non-executive director fees be reviewed on an annual basis.

Paul Golby has a contract specifying the remuneration he receives from the company, being £160,000 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 2016/17

Targets relating to the company element of the AMPRPS for 2016/17 were only partly achieved (yielding 52.8% out of an available 75% of the award).

The AMPRPS targets feature three key measures:

- Group EBITDA – c82% of the available weighting achieved;
- Customer focus measures – year end delay performance was below threshold value, therefore no payout for this element;

Reports from Board Committees

- Time Based Separation - savings created in excess of the stretch target, therefore full payout;
- Operational measures relating to key airspace milestones were achieved; and
- the Commercial milestone was not achieved.

The personal performance payouts for the executive directors were 22.5% (out of an available 25%).

Overall this resulted in a total payout of 75.3% out of an available 100%.

Long term incentive scheme outcome for LTIP Cycle 4 2016/17

This results in a total payout of 96.3% of the maximum achievable for cycle 4, which will be payable in June 2017.

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 ^(*)		Pay in lieu of notice ^(*)		Total ^(*)	
		2017 £'000	2016 £'000	2017 £'000	2016 £'000	2017 £'000	2016 £'000	2017 £'000	2016 £'000	2017 £'000	2016 £'000	2017 £'000	2016 £'000
Chairman													
Dr Paul Golby CBE	1	160	160	7	5	-	-	-	-	-	-	167	165
Executive directors													
Martin Rolfe	2,3,4	450	319	17	14	211	268	236	121	-	-	914	722
Nigel Fotherby	2,4	281	281	13	13	121	147	210	129	-	-	625	570
Non-executive directors													
Maria Antoniou	5	24	-	-	-	-	-	-	-	-	-	24	-
Richard Keys		36	36	-	1	-	-	-	-	-	-	36	37
Iain McNicoll CB CBE	1	36	36	1	1	-	-	-	-	-	-	37	37
Andrew Barker	6	-	-	-	-	-	-	-	-	-	-	-	-
Dr Harry Bush CB	6	-	-	-	-	-	-	-	-	-	-	-	-
Will Facey	6	-	-	-	-	-	-	-	-	-	-	-	-
Gavin Merchant	6	-	-	-	-	-	-	-	-	-	-	-	-
Peter Read	6	-	-	-	-	-	-	-	-	-	-	-	-
Derek Provan	7	-	-	-	-	-	-	-	-	-	-	-	-
Former directors (at 31 March 2017)													
Baroness Dean of Thornton-le-Fylde	8	12	36	-	-	-	-	-	-	-	-	12	36
Andy Lord	6	-	-	-	-	-	-	-	-	-	-	-	-
Tony Tyler	6	-	-	-	-	-	-	-	-	-	-	-	-
Roger Cato	-	27	-	-	-	-	-	-	-	-	9	-	36
Richard Deakin	-	111	-	5	-	-	-	-	-	-	251	-	367
		999	1,006	38	39	332	415	446	250	-	260	1,815	1,970

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

- 1 Benefits paid to the Chairman and non-executive directors represent the reimbursement of travel costs.
- 2 Martin Rolfe and Nigel Fotherby participate in the company's pension salary sacrifice arrangement. The salaries of both directors are reported net of employee pension contributions made under salary sacrifice arrangements. The contributions paid via salary sacrifice are included within the pension figures reported in the analysis of pensions below.
- 3 Martin Rolfe was eligible for the cash alternative payment scheme in lieu of employer pension contributions. Cash alternative payments of £60,000 are included in his salary and fees for the financial year ended 31 March 2017 (2016: nil). With respect to his salary for the prior year, Martin Rolfe was appointed interim Chief Executive Officer (CEO) on 18 May 2015 and his annual salary increased from £241,904 to £300,000 on that date. On 13 October 2015 Martin was appointed CEO on an annual salary of £400,000 and received a bonus of £50,000 for his service as interim CEO, which is reported within performance related payments.
- 4 Martin Rolfe and Nigel Fotherby participate in the Long Term Incentive Plan. As explained in the report above, the outcome for Cycle 4 resulted in a payout of 96.3% of the maximum achievable. The prior year LTIP reflects the outcome for Cycle 3 which resulted in a payout of 60% of the maximum achievable. In Martin's case, the increase in his LTIP also reflects the increase in his salary following his appointment as CEO.
- 5 Maria Antoniou was appointed to the Board on 1 August 2016.
- 6 These directors are appointed by The Airline Group (AG) who charged NATS a total of £45,000 per quarter (2016: £45,000 per quarter) for the services of the directors. Andrew Barker was appointed to the Board on 28 September 2016. Andrew Lord resigned from the Board on 28 September 2016. Tony Tyler resigned from the Board on 28 July 2016. Peter Read resigned from the Board on 25 May 2017 and Mike Campbell was appointed effective 26 May 2017.
- 7 Derek Provan is appointed to the Board by LHR Airports Limited (LHRA). He receives no fees from NATS for his services.
- 8 Baroness Dean of Thornton-le-Fylde resigned from the Board on 28 July 2016.

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

From April 2011, the company introduced a rolling three-year executive LTIP, entitling the executive directors to performance related pay contingent on achieving financial and strategic targets. Cycle 4 commenced in April 2014 and vested on 31 March 2017. From Cycle 5 the maximum entitlement is changed into Notional shares and therefore the amount available will also be linked to the movement in the share price. Due to the timing of the review of the LTIP structure, a transitional award (Cycle 5) was implemented in April 2016 with a reduced two-year performance period. Effective from April 2018, the LTIP schemes will vest 50% at the end of the performance period, 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 four year term).

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

	Cycle 4	Cycles 5 & 6
Martin Rolfe	75%	110%
Nigel Fotherby	75%	90%

The outcome of the LTIP is not known until the end of each cycle. Accordingly, the emoluments table will reflect amounts when qualifying conditions in relation to each cycle are met. The table values above reflect the outcome of LTIP Cycle 4.

Audited information

Directors' remuneration continued

Pension benefits:

Nigel Fotherby was a member of the CAA Pension Scheme, a defined benefit pension scheme, during the year. The value of his accrued pension benefit in the year was as follows:

	2017 £000	2016 £000
Nigel Fotherby	<u>147</u>	<u>114</u>

The pension value represents the additional benefit accrued in the year (excluding inflation as measured by the Consumer Prices Index (CPI)) multiplied by a factor of 20. The pension value includes contributions paid by the employer on behalf of Nigel via a salary sacrifice arrangement.

The principal terms of the company's defined contribution scheme (DC scheme) are explained in note 30 to the financial statements. Martin Rolfe is a member of the scheme in order to make employee pension contributions only. During April 2016, the company paid employer contributions of £20,346 relating to the financial year ended 31 March 2016, in line with employee entitlements for that year. Under the company's pension salary sacrifice arrangement, Martin sacrificed £10,173 of his salary in lieu of contributions to the DC scheme in the year.

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	Value at 31 March 2017	Value at 31 March 2016
	Exercisable	25/09/2017	29/05/2019			
	(brought forward /granted in year)	(brought forward)	(brought forward)			
Martin Rolfe	312	-	150	162	624	2,465
Nigel Fotherby	2,739	200	-	162	3,101	12,249
	<u>3,051</u>	<u>200</u>	<u>150</u>	<u>324</u>	<u>3,725</u>	<u>14,714</u>
						<u>12,923</u>

In October 2015 employees, including executive directors, were offered the option to participate in an award of 150 partnership shares at fair value (being the lower of the share price at the start of the accumulation period of £3.95 and the end of the accumulation period being £3.65 per share) by deductions from gross salary over a 12 month accumulation period which ended in September 2016. Due to the decrease in share price, under the terms of the scheme, 162 shares were awarded to staff members applying for 150 shares. Participants also received one free matching share for every partnership share purchased. Both of the executive directors participated in this offer and were awarded 324 shares on 31 October 2016.

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 two other non-executive directors as members in the year: Will Facey and Derek Provan. The following are invited to attend each meeting by standing invitation:

- Chairman of the NATS Board;
- CEO;
- Safety Director;
- Operations Director;
- Technical Services Director;
- Commercial Director;
- Directors Swanwick, Prestwick and Airports; and
- Directors Safety Operations and Technical Services.

The Head of Facilities Management and the Chief Information Officer formally report to the

Committee on the security arrangements in NATS twice per annum.

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

- Dr Don Lloyd, Director Health & Safety and Environment for Genel Energy plc and Visiting Professor in Risk at Brunel University to September 2016;
- Professor Don Harris, Professor of Human Factors, Faculty of Engineering and Computing at Coventry University; and
- Captain John Monks, Head of Aviation Safety, British Airways.

The Committee would like to thank Dr Don Lloyd for his advice over the years and welcomes George Bearfield, Systems Safety Director, for the Rail Safety and Standards Board (RSSB) as the Committee's new advisor from February 2017.

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:

• Infringements of controlled airspace

The CAA has the lead responsibility and, whilst NATS can, and has, taken mitigating actions to protect aircraft operating within controlled airspace from infringing aircraft, solutions to the root causes require the inclusion of the regulator. The Committee has continued to support the NATS Board and Executive in engaging with the CAA.

Governance report

The Solent Collaborative airspace trial was successfully completed. This proved the value of the Frequency Monitoring Transponder Codes in helping to reduce infringements. We supported a CAA Infringements Seminar which had over 90 delegates from across the general aviation (GA) community. As a result of this and further NATS engagement with the CAA, a five point plan is now in action covering the use of technology by GA pilots, improvements to navigation training, a review of airmanship skills, continuation of robust enforcement action by the CAA, and better use of the Airspace Infringement Working Group to deliver improvements.

We will continue to support these projects, and maintain a close dialogue with the CAA.

• Safety Performance Targets Review

The Committee and the Safety and Airspace Regulation Group (SARG) requested that a review be conducted of the internal safety targets to confirm they remain fit for purpose.

Whilst it was agreed that NATS' safety targets are challenging, the Committee and the Board fully supported the review recommendation to retain the existing targets and to introduce the monitoring of overall RAT points, and the addition of a count of NATS and overall A, B and C events as reported metrics. These changes will enable the Committee and the Board to continue to monitor the safety performance of NATS operations effectively.

• Safety Strategy and Safety Plan

The delivery of the NATS Safety Strategy and Plan has continued, with briefings on: Human Performance enhancement, particularly during change; the risks and benefits from the technology and airspace change programme;

Reports from Board Committees

and the existing and developing procedural and technical mitigations to the risk of inadvertent entry onto an active runway.

• Understanding Safety Performance

To ensure the Committee remains fully informed of new developments it receives regular briefings on emerging topics. Of specific interest this year has been a range of activities related to the evolving understanding of safety performance. Key developments that were shared with the Committee were three 'in house' initiatives: first, testing of hypotheses of the driving factors in our performance; secondly, forecasting benefits from our change programme; and thirdly, the prediction of where safety events are likely to occur in our operations. We were also briefed on the application of the European Accident Incident Model to NATS data. We were encouraged by these initiatives and will continue to monitor and promote the use and development of new methods.

• European Regulation

As part of the Committee's assurance that future risks and opportunities are being managed, we have been briefed on emerging European aviation safety legislation. Whilst such changes are a longer term issue, the potential to affect the way in which we implement safety management in NATS is significant. The Committee will continue to monitor the developments in safety regulation.

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 maintained ISO27001 certification, the international standard of information security management, for elements of our business and has plans to increase the scope during 2017;
- The cyber-aware culture of NATS has continued to improve. Staff take mandatory security awareness training which is supported by innovative and engaging workshops, over 50 of which were run in calendar year 2016. In addition, the staff security culture and awareness level was evaluated as part of the organisation wide Safety Culture survey (with methodology developed and benchmarked by EUROCONTROL);
- NATS continues to assess and improve the cyber security of all our services, including business, operational and airports;
- NATS welcomed a variety of external reviews from experts such as top tier professional services firms and Her Majesty's Government. The reviews demonstrated NATS commitment to continual improvement of our cyber capabilities; and
- NATS has taken opportunities to strengthen relationships with the

National Cyber Security Centre, Department for Transport and the Civil Aviation Authority.

However, cyber security is a major challenge for all industries; threats constantly develop, and 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 assured that a high level of protection of people, data, infrastructure and operations has been maintained and that NATS has an active security management system.

c. Corporate / physical security (external threats)

NATS' Corporate Security department provides assurance reports, 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. Reporting to the Committee is on a bi-annual basis, in June and December, where confirmation is provided that governance processes are in place and are robust.
- **Travel Security:** The Committee has been briefed on the NATS response to security events in Paris and Brussels, including appropriate travel restrictions, and on the established approval and escalation procedures following any major incident. Further assurance of the travel

Governance report

security risk assessments for locations that NATS staff travel to, the use of Hostile Environment training, and the development of an online travel risk tool that will quickly identify the location of NATS staff have been provided. The NATS Travel Security Governance Group and the NATS Travel Steering Group have been combined to form the NATS Travel and Travel Security Steering Group. Formal Terms of Reference for the new Steering Group have been approved.

- **Crisis/Incident Management:** The Committee has supported the continued work of the Executive and operational leadership teams in fully embedding Crisis/Incident Management policies and procedures in the culture of the organisation. Detailed Gold, Silver and Bronze Team procedures are in place and regular exercising of Gold and Silver Teams has taken place. In addition, exercises are also undertaken with many outside agencies including the emergency services, DfT and CAA.

- **Vetting:** Security vetting continues to be the foundation of our protection from the 'insider' threat. Vetting clearance times during calendar year 2016 averaged 26 days and, although a very slight increase on 2015, this is still significantly better than the majority of vetting agencies.

- **Security Awareness:** Face to face security awareness presentations to staff and contractors have been conducted across NATS sites. Police and security agencies have commented favourably on the content and delivery. The RUN, HIDE, TELL methodology has been well received by staff. Corporate Security played an active part in the 'Safe in Everything We Do' campaign and received

Reports from Board Committees

extremely positive feedback on both the content and method of message delivery.

- **Physical Security:** Following the increase of the CPNI security status of CTC, Prestwick and Swanwick, considerable work was undertaken to ensure that all plans, procedures and response measures were up to date and fit for purpose. External validation of all physical security measures was undertaken by specialist staff from CPNI and fully endorsed by them. Work has continued to build on the excellent working relationships with Police and Security Agencies.

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

- Chief Executive Officer;
- Technical Services Director;
- Director Service Design and Transition;

- Director Service Strategy and Transformation;
- Director Strategic Assurance; and
- Chief Systems Architect.

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 SESAR

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. Each of the main programme components represents a significant change to the operation and to the 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.

Significant progress has been made this year in developing and refining the plans and improving the reporting and oversight of the programme. Key elements of the programme during RP2 are:

- a. **Prestwick Centre (PC) Upper Airspace**
Transition into Full Operational Service (FOS) of iTEC within Prestwick Upper Airspace. This represents the first deployment of a new Flight

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Data Processing (FDP) System in UK upper airspace for over 40 years, and a key first step to roll out through NATS airspace.

b. TC: Electronic Flight Strips

TC moves off paper flight strips onto electronic flight strips, providing safety and efficiency benefits and enabling the necessary stepping stones towards a full tool-based interface with iTEC and FourSight (advanced controller tools).

c. Area Control (AC): Voice Communications

AC moves over to a new Voice over IP communications system together with a higher performance backup system. This reduces the risk associated with the existing voice system which is end of life, provides increased resilience to failure and increases flexibility of operations.

d. En Route: AC & PC Upper

AC and military move into the combined operations room at Swanwick supported by iTEC and FourSight. Prestwick Upper Airspace moves onto the latest version of iTEC with FourSight, common across both centres. This transition provides a 4D trajectory based FDP with the technology to support Free Route Airspace and more flexible airspace designs. Additionally, it provides improved resilience and contingency, and the capability to support new ATC concepts e.g. dynamic sectorisation. It also removes legacy assets from service.

Airspace Change

The second key element of NATS' investment 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 had

Reports from Board Committees

given rise to challenges in the delivery of the airspace programme, particularly in lower level airspace. These include:

- Unprecedented public reaction to a change 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 key aspects of the revised airspace programme during RP2 are identified below:

- Delivery of a 'Point Merge' approach system for London City Airport and a number of related changes completed in February 2016;
- The redesign of certain aspects of the London Area Control operation to optimise performance and reduce emissions/fuel usage;
- A single vehicle to develop and deliver consistent and systemised airspace in the North of England and Scotland through the Prestwick Lower Airspace Project;

- The delivery of Free Route Airspace, where traffic will not be constrained by existing route structures and will be able to fly user-preferred direct routes across large swathes of airspace to optimise route profiles; and
- Independent Parallel Approaches at Heathrow, subject to HAL completing some key dependencies (i.e. successful outcome of public consultation and securing CAA approval of the Airspace Change Proposal).

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 is considering the subject in more depth as a result of a small number of significant events in recent years. The objective is to balance the levels of investment against realistic expectations of resilience in a complex systems environment.

Iain McNicoll, CB CBE
Interim 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 2017.

The Governance report is set out on pages 36 to 40 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 dividends of £24.0m (16.78 pence per share) in the year (2016: £81.7m).

The Board recommends a final dividend for the year of £nil (2016: £nil).

In May 2017, the Board approved and the company paid an interim dividend of £28.5m (19.92 pence per share) for the year ending 31 March 2018.

Directors and their interests

The directors of the company at the date of this report are set out on pages 33 to 35. 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 36.

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 51.

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. Staff are frequently involved through direct discussions with their managers, cross company working groups and local committees. Regular staff 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 staff 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. Formal arrangements for consultation with staff 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 staff, 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 and safety 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 HR & Corporate Services Director.

Going concern, viability statement and subsequent events

The directors' assessment of going concern and their viability statement are set out on page 14. 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. 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 International Financial Reporting Standards 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

30 June 2017

Registered office

4000 Parkway, Whiteley, Fareham, Hampshire
PO15 7FL

Registered in England and Wales
Company No. 04138218

Opinion on financial statements of NATS Holdings Limited**In our opinion:**

- the financial statements give a true and fair view of the state of the group's and the parent company's affairs as at 31 March 2017 and of the group's profit for the year then ended;
- the group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) 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.

The financial statements 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.

The financial reporting framework that has been applied in their preparation is applicable law and 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.

Separate opinion in relation to IFRSs as issued by the IASB

As explained in note 2 to the financial statements, in addition to complying with its legal obligation to apply IFRSs as adopted by the European Union, the group has also applied IFRSs as issued by the International Accounting Standards Board (IASB).

In our opinion the group financial statements comply with IFRSs as issued by the IASB.

Respective responsibilities of directors and auditor

As explained more fully in the statement of directors' responsibilities, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Financial Reporting Council's (FRC's) Ethical Standards for Auditors.

As a result of a contractual agreement between the company's shareholders requiring compliance with certain aspects of the UK Corporate Governance Code, the directors have included a corporate governance statement relating to the company's compliance with the UK Corporate Governance Code, a statement in relation to going concern, longer term viability and a directors' remuneration report and have asked us to report on these statements as if the company were listed.

This report is made solely to the 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 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 company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Our assessment of risks of material misstatement and overview of the scope of our audit	<p>A description of the scope of an audit of financial statements is provided on the FRC's website at www.frc.org.uk/auditscopeukprivate.</p> <p>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.</p> <p>We carried out full scope audits on all significant components which covered 99% of the group's revenue. We performed limited procedures on the remaining components. There has been no significant change in the group's operations nor in our assessment of materiality, 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.</p> <p>We set out below the risks that had the greatest impact on our audit strategy and scope. The Audit Committee's consideration of these matters is set out on pages 41 to 45.</p>
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Risk	How the scope of our audit responded to the risk
<i>Revenue recognition and the recoverability of the regulatory assets:</i> The group generates revenue in relation to Airspace, Airports, Defence and other services. In determining the revenues recognised, management makes key judgements about material revenue allowances that are recoverable or payable in subsequent accounting periods.	<p>We have reviewed each significant revenue stream to ensure that we concur with the accounting policies applied.</p> <p>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.</p> <p>We have also reviewed individual judgements including the margin assumptions on Project Marshall, and contract accounting judgements in relation to percentage of completion and margin.</p>
<i>Pension scheme valuation:</i> The NATS Holdings Limited group operates a defined benefit pension scheme, which is accounted for in accordance with IAS 19 'Employee Benefits' which requires complex calculations and disclosures. Management makes a number of judgements and actuarial assumptions 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>We have reviewed the pension scheme data and accounting treatment and disclosures and considered them in light of the pension assumptions made.</p> <p>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 supporting documentation.</p>

Risk	How the scope of our audit responded to the risk
<i>Carrying value of goodwill:</i>	<p>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 a charge to the consolidated income statement of £11.0m.</p> <p>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, alongside the estimate of future cash flows.</p>
<i>Capital investment programme:</i>	<p>The group invests significant sums in the sustainment and development of air traffic control infrastructure.</p> <p>A substantial proportion of the costs incurred are the amounts charged by staff employed by the group which are capitalised to specific projects.</p> <p>A key judgement is that either time is not appropriately capitalised or the quantum of the labour rate used could be misstated.</p> <p>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 reviewed and tested management's current assessment of the carrying amount of goodwill.</p> <p>We have reviewed, with the assistance of our own specialists, the overall methodology, cash flow forecasts, discount rate assumptions and benchmarking available to support the RAB premium applied in determining terminal values and the fair value less costs to dispose. Our audit testing of operating cash flows included comparing forecasts to recent financial performance and budgets approved by the Board.</p> <p>We tested the integrity of the model and considered the impact of management's sensitivity calculations.</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.</p> <p>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.</p> <p>We have assessed management's judgement of the useful economic lives of currently deployed systems to ensure that the position taken is reasonable.</p> <p>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.</p> <p>In addition we have tested a sample of externally generated assets to test existence and that costs are materially accurate.</p>

Our application of materiality	<p>We apply the concept of materiality both in planning and performing our audit, and in evaluating the effect of misstatements. For planning, 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. In order to reduce to an appropriately low level the probability that any misstatements exceed materiality, we use a lower materiality level, performance materiality, to determine the extent of testing needed. 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.</p> <p>The materiality for the group financial statements as a whole was set at £9.1m. This was determined with reference to a benchmark of revenue of which it represents one per cent which we consider to be one of the principal considerations for members of the company in assessing the financial performance of the group.</p> <p>Performance materiality was set at seventy five per cent of the above materiality levels.</p> <p>Materiality levels are not significantly different from those applied in the previous year.</p> <p>We agreed with the Audit Committee that we would report to the committee all individual audit differences in excess of £273,000. We also agreed to report differences below this threshold that, in our view, warranted reporting on qualitative grounds.</p>
Opinion on other matters prescribed by the Companies Act 2006	<p>In our opinion, based on the work undertaken in the course of the audit:</p> <ul style="list-style-type: none"> • 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.
Opinion on other matters	<p>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.</p>
Statement regarding the directors' assessment of principal risks, going concern and longer term viability of the company	<p>We have nothing material to add or to draw attention to in relation to:</p> <ul style="list-style-type: none"> • the directors' confirmation in the annual report that they have carried out a robust assessment of the principal risks facing the entity, including those that would threaten its business model, future performance, solvency or liquidity; • the disclosures in the annual report that describe those risks and explain how they are being managed or mitigated; and • the directors' statement in the financial statements about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them and their identification of any material uncertainties to the entity's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements.

**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'.

Under the ISAs (UK and Ireland), we are required to report to you if, in our opinion, information in the annual report is:

- materially inconsistent with the information in the audited financial statements;
- apparently materially incorrect based on, or materially inconsistent with, our knowledge of the company acquired in the course of performing our audit; or
- is otherwise misleading.

In particular, we are required to consider whether we have identified any inconsistencies between our knowledge acquired during the audit and the directors' statement that they consider the annual report is fair, balanced and understandable and whether the annual report appropriately discloses those matters that we communicated to the Audit Committee which we consider should have been disclosed.

Under the Companies Act 2006 we are required 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.

Other matters

We have also reviewed:

- the directors' statements on page 14, in relation to going concern and longer term viability; and
- the part of the corporate governance statement relating to the company's compliance with the provisions of the UK Corporate Governance Code for review by the auditor in accordance with Listing Rule 9.8.10 R(2) if the company was a listed company.

We have nothing to report in respect of these matters.



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

30 June 2017

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	Result before goodwill impairment £m	Goodwill impairment £m	Result for the year £m	Result before goodwill impairment £m	Goodwill impairment £m	Result for the year £m
Revenue	4	919.3	-	919.3	898.1	-	898.1
Staff costs	7	(415.3)	-	(415.3)	(439.1)	-	(439.1)
Services and materials		(97.3)	-	(97.3)	(87.6)	-	(87.6)
Repairs and maintenance		(38.2)	-	(38.2)	(42.3)	-	(42.3)
Depreciation, amortisation and impairment	6	(149.3)	(11.0)	(160.3)	(128.7)	(92.7)	(221.4)
Profit on disposal of non-current assets		0.1	-	0.1	7.1	-	7.1
Other operating charges		(46.6)	-	(46.6)	(49.5)	-	(49.5)
Other operating income		4.2	-	4.2	3.1	-	3.1
Deferred grants released	6	0.7	-	0.7	0.7	-	0.7
Net operating costs		<u>(741.7)</u>	<u>(11.0)</u>	<u>(752.7)</u>	<u>(736.3)</u>	<u>(92.7)</u>	<u>(829.0)</u>
Operating profit	6	177.6	(11.0)	166.6	161.8	(92.7)	69.1
Share of results of associates and joint ventures	32	2.1	-	2.1	1.5	-	1.5
Investment revenue	8	1.9	-	1.9	3.6	-	3.6
Fair value movement on derivative contract	9	(17.6)	-	(17.6)	2.6	-	2.6
Finance costs	10	(27.5)	-	(27.5)	(32.4)	-	(32.4)
Profit before tax		136.5	(11.0)	125.5	137.1	(92.7)	44.4
Tax	11	(21.7)	-	(21.7)	(16.8)	-	(16.8)
Profit for the year attributable to equity shareholders		<u>114.8</u>	<u>(11.0)</u>	<u>103.8</u>	<u>120.3</u>	<u>(92.7)</u>	<u>27.6</u>

Consolidated statement of comprehensive income
for the year ended 31 March

	Notes	2017 £m	2016 £m
Profit for the year after tax		103.8	27.6
Items that will not be reclassified subsequently to profit and loss:			
Actuarial (loss)/gain on defined benefit pension scheme	30	(291.2)	288.0
Deferred tax relating to items that will not be reclassified subsequently	23	52.6	(58.0)
Items that may be reclassified subsequently to profit and loss:			
Change in fair value of hedging derivatives	18	6.3	(2.3)
Transfer to income statement on cash flow hedges	4,6	(3.0)	7.4
Exchange differences arising on translation of foreign operations		(0.4)	(0.1)
Currency translation differences arising on consolidation of equity accounted foreign operations	32	0.2	0.2
Deferred tax relating to items that may be reclassified subsequently	23	(0.6)	(1.1)
Other comprehensive (loss)/income for the year, net of tax		<u>(236.1)</u>	<u>234.1</u>
Total comprehensive (loss)/income for the year attributable to equity shareholders		<u>(132.3)</u>	<u>261.7</u>

Consolidated balance sheet
at 31 March

	Notes	2017 £m	2016 £m
Assets			
Non-current assets			
Goodwill	13	198.3	209.3
Other intangible assets	14	512.7	439.5
Property, plant and equipment	15	488.9	555.0
Interests in associate and joint ventures	32	5.4	3.6
Loans to joint ventures	32	14.9	1.4
Trade and other receivables	16	19.0	24.0
Derivative financial instruments	18	2.0	0.2
		<u>1,241.2</u>	<u>1,233.0</u>
Current assets			
Loans to joint ventures	32	-	2.4
Trade and other receivables	16	166.9	235.6
Short term investments	19	39.4	28.9
Cash and cash equivalents	19	254.2	228.2
Derivative financial instruments	18	2.3	0.4
		<u>462.8</u>	<u>495.5</u>
Total assets		<u>1,704.0</u>	<u>1,728.5</u>
Current liabilities			
Trade and other payables	20	(159.0)	(171.0)
Current tax liabilities		(6.7)	(6.7)
Borrowings	17	(46.6)	(38.9)
Provisions	22	(4.6)	(8.7)
Derivative financial instruments	18	(8.8)	(7.8)
		<u>(225.7)</u>	<u>(233.1)</u>
Net current assets		<u>237.1</u>	<u>262.4</u>
Non-current liabilities			
Trade and other payables	20	(132.6)	(83.6)
Borrowings	17	(379.7)	(521.5)
Retirement benefit obligations	30	(350.8)	(77.4)
Deferred tax liability	23	(19.6)	(70.5)
Provisions	22	(6.8)	(7.5)
Derivative financial instruments	18	(131.3)	(121.1)
		<u>(1,020.8)</u>	<u>(881.6)</u>
Total liabilities		<u>(1,246.5)</u>	<u>(1,114.7)</u>
Net assets		<u>457.5</u>	<u>613.8</u>
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		2.7	-
Translation reserve		(0.4)	(0.2)
Other reserves		(34.7)	(34.7)
Retained earnings		349.1	507.9
Equity attributable to the shareholders		<u>457.4</u>	<u>613.7</u>
Non-controlling interest	26	0.1	0.1
Total equity		<u>457.5</u>	<u>613.8</u>

The financial statements (Company No. 04138218) were approved by the Board of directors and authorised for issue on 30 June 2017 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									
	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	Total equity £m
At 1 April 2015	140.6	0.4	(0.3)	(4.0)	(0.3)	(34.7)	332.0	433.7	-	433.7
Profit for the year	-	-	-	-	-	-	27.6	27.6	-	27.6
Other comprehensive income for the year	-	-	-	4.0	0.1	-	230.0	234.1	-	234.1
Total comprehensive income for the year	-	-	-	4.0	0.1	-	257.6	261.7	-	261.7
Adjustments arising from non- controlling interest	-	-	-	-	-	-	-	-	0.1	0.1
Dividends paid	-	-	-	-	-	-	(81.7)	(81.7)	-	(81.7)
At 31 March 2016	140.6	0.4	(0.3)	-	(0.2)	(34.7)	507.9	613.7	0.1	613.8
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

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	2017 £m	2016 £m
Net cash from operating activities	27	387.7	341.7
Cash flows from investing activities			
Interest received on short term investments		1.2	1.5
Purchase of property, plant and equipment and other intangible assets		(149.1)	(155.3)
Proceeds of disposal of property, plant and equipment		0.1	7.4
Changes in short term investments		(10.5)	0.8
Dividend received from associate		0.2	0.2
Loan to non-controlling interest		-	(0.1)
Loan to joint ventures		(10.5)	(3.3)
Net cash outflow from investing activities		(168.6)	(148.8)
Cash flows from financing activities			
Interest paid		(31.1)	(31.8)
Interest received on derivative financial instruments		0.5	0.6
Repayment of bond principal		(39.2)	(30.8)
Bank and other loans		(95.4)	(56.6)
Index linked swap repayments		(3.8)	-
Bank facility arrangement fees		(0.4)	(1.9)
Dividends paid		(24.0)	(81.7)
Proceeds on issue of shares to non-controlling interest		-	0.1
Net cash outflow from financing activities		(193.4)	(202.1)
Increase/(decrease) in cash and cash equivalents during the year		25.7	(9.2)
Cash and cash equivalents at 1 April		228.2	237.3
Exchange gains on cash and cash equivalents		0.3	0.1
Cash and cash equivalents at 31 March		254.2	228.2
Net debt (representing borrowings net of cash and short term investments)		(132.7)	(303.3)

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 64. 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 14. 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 2016.

IAS 1 (amendments): *Disclosure Initiative*

IAS 16 and IAS 38 (amendments): *Clarification of Acceptable Methods of Depreciation and Amortisation*

IAS 27 (amendments): *Equity Method in Separate Financial Statements*

IFRS 10, IFRS 12 and IAS 28 (amendments): *Applying the Consolidation Exemption*

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 7 (amendments): *Disclosure Initiative*

IAS 12 (amendments): *Recognition of Deferred Tax Assets for Unrealised Losses*

IFRIC 22: *Foreign Currency Transactions and Advance Consideration*

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 expected to have two main impacts on the group: the adoption of the expected loss impairment model in assessing the fair value of trade and contract receivables and loans to joint ventures; and the option to recognise the impact of changes in own credit risk in other comprehensive income rather than the income statement.

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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 and loans to joint ventures. 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.

The group is also assessing whether the new standard will be implemented with a restatement of the previous period. If this is deemed impracticable at the date of initial application, an adjustment will be reflected in retained earnings.

The standard is effective for reporting periods beginning on or after 1 January 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 group's principal sources of revenue are Airspace, Airports, Defence, Other UK Business and International as described in note 5.

The group is undertaking a preliminary assessment of the impact of the standard by reviewing major contracts from each source of revenue. This assessment is subject to change. The principal impact identified from this assessment to date is the reclassification of airport ATC revenue. A number of airport ATC contracts require the group to rent the airport control tower buildings 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 amount to c.£17m per annum and are recognised as revenue

Notes forming part of the consolidated accounts

under IAS18. Under IFRS15, the provision of the air traffic control tower is not considered to be distinct from the provision of ATC services. Accordingly, the fee for recovering property costs would be reclassified from revenue and netted in operating costs against rental charges in the income statement, with no impact to the result.

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. In addition, the transaction price for NERL's economically regulated services and certain airport ATC contracts include variable consideration for traffic volume risk sharing, inflation adjustments, service performance incentives and financing components. The group's preliminary assessment is that the nature, timing and amount of revenue for these service contracts is not materially different under IFRS15.

The standard is effective for annual periods beginning on or after 1 January 2018. The directors do not intend to adopt the standard earlier and expect to use the full retrospective method upon adoption which requires the restatement of comparative financial information.

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 2017, the group has non-cancellable operating lease commitments of £94.5m as disclosed in note 28. A preliminary

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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 all these leases, unless they qualify for low value or short-term leases upon the application of IFRS 16.

The group's preliminary assessment is that property, plant and equipment is likely to increase by c.£100m, lease liabilities by c.£110m and accruals are likely to decrease by c.£10m (relating to the balance of rent free period incentives not recognised on transition) as at 31 March 2020.

Over the life of leased assets, there will be no profit impact from adopting IFRS16 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.£1.5m 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 consolidated financial statements 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, subject to EU endorsement. 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.

Notes forming part of the consolidated accounts

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.

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- ◆ 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, where contribution represents revenue less costs directly attributed to individual service lines. Segment results that are reported to the Executive team include items directly attributed to a segment as well as those that can be allocated on a reasonable basis. Costs that are not attributed to service lines include the cost of central support functions, depreciation and amortisation (net of government grants), goodwill impairment, employee share scheme (costs)/credits, redundancy and relocation costs, above the line tax credits and any profit or loss on disposal of non-current assets.

Notes forming part of the consolidated accounts

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 financial performance of the group.

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 contract, 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 Bases (RABs) 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

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present value using the pre-tax nominal regulated rate of return. A premium is applied to the RAB (see note 3).

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:

Notes forming part of the consolidated accounts

- ◆ Leasehold land: over the term of the lease
- ◆ 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

Following the amendments of IAS 23: *Borrowing Costs*, the 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 (i.e. there is no longer a choice to expense such costs). 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 this assumes qualifying assets relate to any additions to new projects that began from 1 April 2009, included in assets under construction, and excludes acquisitions that are acquired in a state ready for use.

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

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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 and reported as a liability falling due after more than one year (at 31 March 2017). Under EC rules, this funding represents a contribution towards future revenue allowances. For this reason, once the relevant assets are deployed, the relevant amounts of INEA funding will be recognised as revenue.

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.

Notes forming part of the consolidated accounts

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.

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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 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

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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

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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

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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

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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, and otherwise is amortised on a straight-line basis over the average period until the benefits become 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.

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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

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- 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

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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.

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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

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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,

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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 was assessed at the balance sheet date to be 5-6% (2016: 5-6%). If the actual outcome should differ or changes in expectations arise, impairment charges may be required which would materially impact on operating results. Refer to 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

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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 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 £3.5m of net payable allowances relating to previous regulatory reference periods (2016: £63.2m of recoverable allowances) and £47.4m of payable allowances relating to the current regulatory reference period (2016: £14.3m 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

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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.

4. Revenue

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

	2017 £m	2016 £m
Airspace	707.6	689.6
Airports	155.8	167.9
Defence	36.0	20.3
Other UK Business	10.3	12.3
International	9.6	8.0
	<hr/>	<hr/>
	919.3	898.1
Other operating income	4.2	3.1
Investment revenue (see note 8)	1.9	3.6
	<hr/>	<hr/>
	925.4	904.8

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 £3.5m gain (2016: £7.4m loss).

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 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, 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.

A change to the service line management reporting structure was introduced from 1 April 2016. The effect of this is to change the reporting of operating segments based on the principal products and services provided by the group to one based on key customers. As a result the prior period comparatives for the year ended 31 March 2016 have been presented on a consistent basis.

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

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

	2017			2016		
	Revenue £m	Intra-group revenue £m	External revenue £m	Revenue £m	Intra-group revenue £m	External revenue £m
Airspace	733.5	(25.9)	707.6	715.1	(25.5)	689.6
Airports	167.9	(12.1)	155.8	180.2	(12.3)	167.9
Defence	36.4	(0.4)	36.0	20.6	(0.3)	20.3
Other UK Business	14.8	(4.5)	10.3	18.8	(6.5)	12.3
International	9.6	-	9.6	8.0	-	8.0
	962.2	(42.9)	919.3	942.7	(44.6)	898.1

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:

	2017 £m	2016 £m
Airspace	359.0	323.1
Airports	32.0	39.7
Defence	5.9	2.7
Other UK Business	3.7	2.7
International	(0.2)	(1.5)
Service line contribution	400.4	366.7
Costs not directly attributed to service lines:		
Depreciation and amortisation (net of deferred grants released)	(148.6)	(128.0)
Impairment of goodwill	(11.0)	(92.7)
Profit on disposal of non-current assets	0.1	7.1
Employee share scheme credit	0.6	0.3
Redundancy and relocation costs	(1.8)	(6.5)
Other costs not directly attributed to service lines	(72.6)	(78.1)
R&D expenditure above the line tax credits	1.6	1.8
Less: share of results of associates and joint ventures	(2.1)	(1.5)
Operating profit	166.6	69.1

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

Non-current assets additions

The group reports additions to non-current assets by the service lines above, a table of the capital expenditure by service line is shown below:

	2017 £m	2016 £m
Airspace	151.4	141.1
Airports	4.0	1.2
Defence	0.1	0.3
Other UK Business	0.9	5.0
International	-	-
	156.4	147.6

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) by geographical location:

	Revenue	Non-current assets		
	2017 £m	2016 £m	2017 £m	2016 £m
United Kingdom	487.8	484.0	1,202.7	1,205.0
Other European countries	133.7	126.7	5.0	4.0
Republic of Ireland	88.3	80.5	-	-
United States of America	82.9	87.0	-	-
Countries in Asia	52.0	49.6	0.1	0.1
Germany	48.2	45.8	-	-
Other North American Countries	20.4	18.6	0.7	0.8
Countries in Africa	3.6	3.4	-	-
Countries in Oceania	1.4	1.4	-	-
Countries in South America	1.0	1.1	-	-
	919.3	898.1	1,208.5	1,209.9

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):

	2017 £m	2016 £m
CAA regulatory charges in respect of NERL's air traffic services licence	4.9	5.4
CAA regulatory charges for safety regulation at airports	2.7	3.1
Impairment of goodwill	11.0	92.7
Depreciation of property, plant and equipment	103.6	94.8
Impairment of property, plant and equipment	0.5	0.4
Amortisation of intangible assets	45.2	33.2
Impairment of intangible assets	-	0.3
Deferred grants released	(0.7)	(0.7)
Redundancy costs	2.4	1.6
Staff relocation costs (net of credits for revisions to estimates) following site closure	(0.6)	4.9
Research and development costs	7.0	12.1
R&D expenditure above the line tax credits	(1.6)	(1.8)
Auditor's remuneration for audit services (see below)	0.1	0.1

The analysis of auditor's remuneration is as follows:

	2017 £m	2016 £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	-	-
Total audit fees	0.1	0.1

Total non-audit fees of £73,133 (2016: £82,058) include tax services of £8,867 (2016: £74,947) and other services of £64,266 (2016: £7,111).

Total fees payable to the company's auditor for the audit of the subsidiary accounts was £23,800 (2016: £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 £0.5m (2016: £nil).

Government grants relating to the purchase of property, plant and equipment and Ministry of Defence contributions received prior to 1 April 2001 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**

	2017 £m	2016 £m
Salaries and staff costs, including directors' remuneration, were as follows:		
Wages and salaries	310.6	309.4
Social security costs	38.1	34.0
Pension costs (note 7b)	108.5	141.4
	<hr/>	<hr/>
	457.2	484.8
Less: amounts capitalised	(41.9)	(45.7)
	<hr/>	<hr/>
	415.3	439.1

Wages and salaries include redundancy costs of £2.0m (2016: £0.8m), share-based payment credits or charges, other allowances and holiday pay.

Pension costs include £0.4m (2016: £0.8m) for redundancy related augmentation payments which staff elected to receive in lieu of severance payments.

b. Pension costs

	2017 £m	2016 £m
Defined benefit pension scheme costs (note 30)		
Defined contribution pension scheme costs	98.0	132.7
	10.5	8.7
	<hr/>	<hr/>
	108.5	141.4

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

c. Staff numbers

	2017 No.	2016 No.
The monthly average number of employees (including executive directors) was:		
Air traffic controllers	1,670	1,656
Air traffic service assistants	647	668
Engineers	931	937
Others	968	935
	<hr/>	<hr/>
	4,216	4,196

8. Investment revenue

	2017 £m	2016 £m
Interest on bank deposits		
Other loans and receivables	1.0	1.5
	0.9	2.1
	<hr/>	<hr/>
	1.9	3.6

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 the loan to our joint venture, Aquila.

9. Fair value movement on derivative contract

	2017 £m	2016 £m
(Charge)/credit arising from change in the fair value of derivatives not qualifying for hedge accounting (before credit value adjustment)		
Credit value adjustment on derivatives not qualifying for hedge accounting	(17.6)	3.8
	-	(1.2)
	<hr/>	<hr/>
	(17.6)	2.6

10. Finance costs

	2017 £m	2016 £m
Interest on bank overdrafts, loans and hedging instruments	0.1	1.1
Bond and related costs including financing expenses	25.7	28.2
Other finance costs	1.7	3.1
	<u>27.5</u>	<u>32.4</u>

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

11. Tax

	2017 £m	2016 £m
Corporation tax		
Current tax	25.1	25.5
Adjustments in respect of prior year	(4.5)	(1.5)
Foreign taxation	-	0.6
	<u>20.6</u>	<u>24.6</u>
Deferred tax (see note 23)		
Origination and reversal of temporary timing differences	0.9	(1.2)
Adjustments in respect of prior year	4.9	1.0
Effects of tax rate change on opening balance	(4.7)	(7.6)
	<u>1.1</u>	<u>(7.8)</u>
	<u>21.7</u>	<u>16.8</u>

Corporation tax is calculated at 20% (2016: 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:

	2017 £m	2016 £m
Profit on ordinary activities before tax	<u>125.5</u>	<u>44.4</u>
Tax on profit on ordinary activities at standard rate in the UK of 20% (2016: 20%)	25.1	20.0%
Tax effect of change in corporation tax from 20% to 17% (2016: 20% to 18%)	(4.7)	(3.7%)
Patent box	(1.4)	(1.1%)
Employee share scheme award of partnership and matching shares	(0.4)	(0.3%)
Profit on disposal of non-current assets	-	-
Goodwill impairment	2.2	1.7%
Tax effect of prior year adjustments: current tax	(4.5)	(3.6%)
Tax effect of prior year adjustments: deferred tax	4.9	3.9%
Joint ventures and associates	(0.4)	(0.3%)
Unrecognised deferred tax assets on overseas subsidiaries	-	0.4
R&D expenditure increased deductions	1.1	0.9%
Other permanent differences	(0.2)	(0.2%)
Tax charge for year at an effective tax rate of 17.3% (2016: 37.8%)	<u>21.7</u>	<u>17.3%</u>
Deferred tax (credit)/charge taken directly to equity (see note 23)	<u>(52.0)</u>	<u>59.1</u>

12. Dividends

	2017 £m	2016 £m
Amounts recognised as dividends to equity shareholders in the year.		
First interim dividend of 16.78 pence per share (2016: 38.03 pence per share)	24.0	54.4
Second interim dividend of nil pence per share (2016: 19.08 pence per share)	-	27.3
	<hr/>	<hr/>
	24.0	81.7
	<hr/>	<hr/>

In May 2017, the Board approved and the company paid an interim dividend for the year ending 31 March 2018 of 19.92 pence per share, totalling £28.5m.

13. Goodwill

	£m
Cost	
At 31 March 2017 and 31 March 2016	351.0
	<hr/>
Accumulated impairment losses	
At 1 April 2015	49.0
Impairment provision recognised in income statement	92.7
At 31 March 2016	141.7
Impairment provision recognised in income statement	11.0
At 31 March 2017	152.7
	<hr/>
Carrying amount	
At 31 March 2017	198.3
	<hr/>
At 31 March 2016	209.3
	<hr/>
At 1 April 2015	302.0
	<hr/>

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%, 2016: 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 RP2 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 9.10% (2016: 9.08%) for cash flows arising in Reference Period 2. The value of the regulatory asset bases at the balance sheet date were £1,037.8m (2016: £1,127.4m). Goodwill is allocated to the Airspace service line. The impairment charge arose in the year 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 2015	199.3	73.2	26.2	253.1	551.8
Additions internally generated	0.4	0.5	-	29.5	30.4
Additions externally acquired	7.8	1.8	2.8	46.7	59.1
Other transfers during the year	14.6	2.2	17.3	(33.4)	0.7
At 31 March 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
Accumulated amortisation and impairment					
At 1 April 2015	93.3	43.1	15.7	16.9	169.0
Charge for the year	21.0	9.9	2.3	-	33.2
Impairment provision recognised in income statement	-	-	-	0.3	0.3
Transfer of impairment provision	-	-	1.2	(1.2)	-
At 31 March 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
Carrying amount					
At 31 March 2017	293.5	24.3	23.5	171.4	512.7
At 31 March 2016	107.8	24.7	27.1	279.9	439.5
At 1 April 2015	106.0	30.1	10.5	236.2	382.8

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 2015	241.7	52.8	1,279.0	19.9	79.6	1,673.0
Additions during the year	1.3	0.4	29.7	2.3	24.4	58.1
Disposals during the year	-	(7.4)	(5.8)	-	-	(13.2)
Other transfers during the year	0.6	0.2	49.7	2.2	(53.4)	(0.7)
At 31 March 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
Accumulated depreciation and impairment						
At 1 April 2015	113.8	39.8	909.8	14.3	0.8	1,078.5
Provided during the year	8.0	1.8	83.0	2.0	-	94.8
Impairment provision recognised in income statement	-	-	-	-	0.4	0.4
Transfer of impairment provision	-	-	0.1	-	(0.1)	-
Disposals during the year	-	(5.7)	(5.7)	(0.1)	-	(11.5)
At 31 March 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
Carrying amount						
At 31 March 2017	116.1	8.8	309.4	7.0	47.6	488.9
At 31 March 2016	121.8	10.1	365.4	8.2	49.5	555.0
At 1 April 2015	127.9	13.0	369.2	5.6	78.8	594.5

The group conducts annual reviews of the carrying values of its property, plant, equipment and intangible assets. During the year, impairment charges of £0.5m (2016: £0.7m) 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 £1.1m (2016: £1.1m) of general borrowing costs at a capitalisation rate of 1.9% (2016: 2.2%), in accordance with IAS 23: *Borrowing Costs*, relating to both property, plant and equipment and other intangible assets.

During the prior year, the group entered into a finance lease for certain network related assets. The fair value of the assets held under finance lease are £1.8m (2016: £2.0m) 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

	2017	2016
	£m	£m
Non-current		
Other debtors	0.3	0.4
Prepayments	3.2	2.5
Accrued income	15.5	21.1
	<hr/>	<hr/>
	19.0	24.0
Current		
Receivable from customers gross	75.2	80.7
Allowance for doubtful debts	(4.4)	(4.6)
	<hr/>	<hr/>
	70.8	76.1
Amounts recoverable under contracts	0.8	0.6
Other debtors	3.4	10.9
Prepayments	16.0	15.9
Accrued income	75.9	132.1
	<hr/>	<hr/>
	166.9	235.6

The average credit period taken on sales of services is 30 days (2016: 30 days). Interest is charged by Eurocontrol to UK en route customers at 9.88% (2016: 10.30%) 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 £4.4m (2016: £4.6m). 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 repaid after 31 March 2018. Accrued income which is current includes unbilled revenue for services provided in March 2017. Prior year accrued income included unbilled revenue for services provided in March 2016 and regulatory adjustments for calendar year 2014 which were recovered by 31 March 2017.

Ageing of past due but not impaired trade receivables

	2017	2016
	£m	£m
31-90 days		
91-365 days	0.2	0.2
> 365 days	-	0.1
	<hr/>	<hr/>
	0.1	0.2
	<hr/>	<hr/>
	0.3	0.5

Movement in the allowance for doubtful debts

	2017	2016
	£m	£m
Balance at the beginning of the year		
Balance at the beginning of the year	4.6	4.4
Increase in allowance recognised in the income statement	0.1	0.7
Foreign exchange movement in the year	0.3	0.3
Amounts recovered during the year	0.1	-
Amounts written off as irrecoverable	(0.7)	(0.8)
	<hr/>	<hr/>
Balance at end of year	4.4	4.6

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 £2.4m (2016: £2.8m) 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**

	2017 £m	2016 £m
31-90 days	0.4	0.3
91-365 days	0.7	1.0
> 365 days	3.3	3.3
	<hr/>	<hr/>
	4.4	4.6
	<hr/>	<hr/>

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, would be £475.2m (2016: £502.1m).

17. Borrowings

	2017 £m	2016 £m
Secured loans at amortised cost		
£600m 5.25% Guaranteed Secured Amortising Bond due 2026	428.4	467.4
Bank loans (variable rate revolving term loan and revolving credit facility expiring 2021)	-	95.0
	<hr/>	<hr/>
	428.4	562.4
Unsecured loans at amortised cost		
Bank overdraft	-	0.4
Obligations under finance leases (see note 21)	1.8	2.0
	<hr/>	<hr/>
Gross borrowings	430.2	564.8
Unamortised bond issue costs	(2.2)	(2.7)
Unamortised bank facility arrangement fees	(1.7)	(1.7)
	<hr/>	<hr/>
	426.3	560.4
Amounts due for settlement within 12 months	<hr/>	<hr/>
	46.6	38.9
Amounts due for settlement after 12 months	<hr/>	<hr/>
	379.7	521.5

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 2017 were £1,472.3m (2016: £1,510.6m), including goodwill of £198.3m (2016: £209.3m). Further security provisions are also provided by NATS Holdings Limited and by NATS Limited.

The average effective interest rate on the bank loans in the year was 1.1% (2016: 1.4%) and was determined based on LIBOR rates plus a margin and utilisation fee.

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

	2017 £m	2016 £m
Undrawn committed facilities expire as follows:		
Expiring in more than two years	400.0	305.0

At 31 March 2017, NERL had no outstanding drawings against its committed bank facilities. These facilities expire in July 2021, after NERL opted to extend the bank facility in May 2016 from July 2020 to July 2021.

NATS Services has an uncommitted overdraft facility of £1.0m that was undrawn as at 31 March 2017 and 31 March 2016 and is not included in the table above.

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

	2017 £m	2016 £m
Non-current assets		
Derivative financial instruments in designated hedge accounting relationships		
Forward foreign exchange contracts (cash flow hedges)	2.0	0.2
Current assets		
Derivative financial instruments in designated hedge accounting relationships		
Forward foreign exchange contracts (cash flow hedges)	2.3	0.4
Current liabilities		
Derivative financial instruments in designated hedge accounting relationships		
Forward foreign exchange contracts (cash flow hedges)	(0.9)	(4.1)
Derivative financial instruments classified as held for trading		
Index-linked swap	(7.9)	(3.7)
	<hr/>	<hr/>
	(8.8)	(7.8)
Non-current liabilities		
Derivative financial instruments in designated hedge accounting relationships		
Forward foreign exchange contracts (cash flow hedges)	(0.6)	-
Derivative financial instruments classified as held for trading		
Index-linked swap	<hr/>	<hr/>
	(130.7)	(121.1)
	<hr/>	<hr/>
	(131.3)	(121.1)

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 2017, NERL had a corporate rating of A+ from Standard & Poor's (2016: AA-) and A2 from Moody's (2016: 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 2017 was 35.9% (2016: 49.1%).

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:

	2017 £m	2016 £m
Financial assets		
Loans and receivables, excluding prepayments	181.6	245.0
Cash and cash equivalents and short term investments	293.6	257.1
Derivative financial instruments in designated hedge accounting relationships	4.3	0.6
	<hr/>	<hr/>
	479.5	502.7
Financial liabilities		
Derivative financial instruments in designated hedge accounting relationships	(1.5)	(4.1)
Derivative financial instruments classified as held for trading	(138.6)	(124.8)
Other financial liabilities at amortised cost	(628.3)	(747.3)
	<hr/>	<hr/>
	(768.4)	(876.2)

Loans and receivables, excluding prepayments includes balances relating to loans to the joint ventures of £14.9m (2016: £3.8m).

Other financial liabilities at amortised cost includes balances for trade and other payables (excluding deferred income of £93.5m (2016: £72.1m)) and including tax and social security, 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, £3.8m (2016: £nil) was repaid as semi-annual amortisation payments commence from 2017. The charge arising from the change in fair value of £17.6m has been recorded in the income statement in the year (2016: £2.6m credit).

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 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 65% of the group's turnover (2016: 64%). 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 1.0% of external revenue (2016: 0.8%). 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	
	2017 £m	2016 £m	2017 £m	2016 £m
Euro	107.8	98.7	(14.5)	(29.8)
Singapore dollar	2.1	0.6	(0.2)	-
US dollar	1.6	2.0	(3.9)	(4.0)
Thai baht	1.6	-	(0.2)	-
UAE dirham	1.5	1.0	(0.1)	(0.3)
Omani rial	0.4	0.4	-	-
Qatari riyal	0.4	0.2	-	-
Philippine peso	0.4	0.2	-	-
Swedish krona	0.4	-	(0.6)	-
Hong Kong dollar	0.3	0.1	-	(0.2)
Canadian dollar	0.3	0.4	(1.8)	(0.2)
Kuwaiti dinar	0.1	0.6	-	-
Norwegian krone	0.1	0.1	(0.2)	(0.2)
Danish krone	-	0.1	-	-
	117.0	104.4	(21.5)	(34.7)

Foreign currency sensitivity analysis

The group has assets and liabilities denominated in foreign currencies including cash balances of £12.9m at 31 March 2017 (2016: £5.6m) in euro, US dollars, UAE dirham, Swedish krona, Canadian dollars, Omani rial, Qatari riyal, Singapore dollars, Hong Kong dollars, Norwegian krone and Kuwaiti dinar. 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. These contracts are not reflected on the balance sheet but are reported in the table below.

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	2017		2016	
	Impact £m	Impact £m	Impact £m	Impact £m
Euro	(2.2)		7.7	
Singapore dollar	(0.2)		-	
US dollar	(2.6)		(3.2)	
Thai baht	0.4		-	
UAE dirham	(0.2)		(0.1)	
Canadian dollar	(0.2)		(0.1)	
Kuwaiti dinar	-		(0.1)	
Norwegian krone	-		(0.2)	
	(5.0)		4.0	

The group's sensitivity to the euro decreased during the year reflecting a net increase in euro denominated monetary assets and a net decrease in euro denominated forward contracts taken out to hedge future receipts. The group's sensitivity to the US dollar has decreased during the year, reflecting a net decrease in US dollar denominated forward contracts taken out to hedge future payments to a US supplier relating to the group's capital investment programme, partly offset by a net increase in US dollar denominated monetary assets. 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 of equipment. The group has designated these forward contracts as cash flow hedges. The following contracts were outstanding at year end:

	2017			2016		
	Average exchange rate				Average exchange rate	
Euro sold	£m	€m	Euro sold	£m	€m	Average exchange rate
0-90 days	149.8	174.1	0.8602	0-90 days	165.1	214.3 0.7704
91-365 days	0.5	0.6	0.8200	91-365 days	0.1	0.2 0.7417
> 365 days	0.2	0.2	0.7586	> 365 days	0.5	0.6 0.7524
	<hr/> 150.5	<hr/> 174.9	<hr/> 0.8600		<hr/> 165.7	<hr/> 215.1 0.7703
Euro bought	€m	£m	Euro bought	€m	£m	
0-90 days	5.8	5.0	0.8552	0-90 days	2.1	1.6 0.7630
91-365 days	21.0	18.3	0.8704	91-365 days	19.1	15.4 0.8075
> 365 days	63.5	56.0	0.8828	> 365 days	3.5	2.9 0.8197
	<hr/> 90.3	<hr/> 79.3	<hr/> 0.8782		<hr/> 24.7	<hr/> 19.9 0.8056
US dollar sold	£m	US\$m	US dollar sold	£m	US\$m	
0-90 days	3.8	4.7	1.2443	0-90 days	-	- n/a
US dollar bought	US\$m	£m	US dollar bought	US\$m	£m	
0-90 days	11.3	9.0	1.2511	0-90 days	3.3	2.3 1.4558
91-365 days	13.5	9.6	1.4150	91-365 days	16.1	11.0 1.4596
> 365 days	19.8	13.4	1.4765	> 365 days	30.4	20.6 1.4726
	<hr/> 44.6	<hr/> 32.0	<hr/> 1.3950		<hr/> 49.8	<hr/> 33.9 1.4677
Canadian dollar bought	C\$m	£m	Canadian dollar bought	C\$m	£m	
0-90 days	3.2	1.9	1.6882	0-90 days	-	- n/a
91-365 days	0.4	0.2	1.9936	91-365 days	-	- n/a
> 365 days	2.2	1.2	1.8004	> 365 days	1.6	0.8 1.9915
	<hr/> 5.8	<hr/> 3.3	<hr/> 1.7474		<hr/> 1.6	<hr/> 0.8 1.9915
Norwegian krone sold	£m	NOKm	Norwegian krone sold	£m	NOKm	
0-90 days	0.1	1.3	11.1126	0-90 days	-	- n/a
91-365 days	0.1	1.3	11.1105	91-365 days	-	- n/a
	<hr/> 0.2	<hr/> 2.6	<hr/> 11.1115		<hr/> -	<hr/> - n/a
Norwegian krone bought	NOKm	£m	Norwegian krone bought	NOKm	£m	
0-90 days	1.4	0.1	11.7480	0-90 days	0.1	0.8 12.3776
91-365 days	-	-	n/a	91-365 days	0.1	0.8 12.3760
> 365 days	1.5	0.1	11.7395	> 365 days	-	- n/a
	<hr/> 2.9	<hr/> 0.2	<hr/> 11.7437		<hr/> 0.2	<hr/> 1.6 12.3768
Swedish krona bought	SEKm	£m	Swedish krona bought	SEKm	£m	
0-90 days	2.1	0.2	11.1031	0-90 days	-	- n/a
91-365 days	4.2	0.4	11.0746	91-365 days	-	- n/a
	<hr/> 6.3	<hr/> 0.6	<hr/> 11.0841		<hr/> -	<hr/> - n/a
Philippine peso sold	£m	PHPm	Philippine peso sold	£m	PHPm	
0-90 days	0.3	21.3	63.4464	0-90 days	-	- n/a
Thai baht sold	£m	THBm	Thai baht sold	£m	THBm	
0-90 days	1.7	73.9	44.5600	0-90 days	-	- n/a
91-365 days	2.7	123.1	45.1515	91-365 days	-	- n/a
> 365 days	1.4	62.2	45.9100	> 365 days	-	- n/a
	<hr/> 5.8	<hr/> 259.2	<hr/> 45.1205		<hr/> -	<hr/> - n/a

19. Financial instruments (continued)

At 31 March 2017, 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 £3.3m (2016: £nil). 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 2017 to sell euro anticipated to be received in July 2017 in respect of UK en route revenues. The value of these cash flows is £60.0m. These contracts are also designated as cash flow hedges. They are not included in the table above.

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 2017 (2016: NATS Limited £0.4m).

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 2017 (2016: none).

Economic interest rate exposure

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

Currency	Amount £m	2017			Short term deposits			Total £m	
		Cash		Average maturity days	Amount £m	Economic interest rate %	Average maturity days		
		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		
	254.2			39.4			293.6		

Currency	Amount £m	2016			Short term deposits			Total £m	
		Cash		Average maturity days	Amount £m	Economic interest rate %	Average maturity days		
		Economic interest rate %	Average maturity days						
Sterling	222.6	0.5	14	28.9	0.6	183.0	251.5		
Euro	2.5	-	1	-	-	-	2.5		
US dollar	1.6	-	1	-	-	-	1.6		
Kuwaiti dinar	0.5	-	1	-	-	-	0.5		
Canadian dollar	0.4	-	1	-	-	-	0.4		
Omani rial	0.3	-	1	-	-	-	0.3		
Norwegian krone	0.1	-	1	-	-	-	0.1		
Qatari riyal	0.1	-	1	-	-	-	0.1		
Danish krone	0.1	-	1	-	-	-	0.1		
	228.2			28.9			257.1		

19. Financial instruments (continued)

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 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	430.2	-	-	430.2		

At 31 March 2016

Sterling:	467.4	-	-	467.4	5.26%	5.7
Bank loans	95.0	95.0	-	-	1.11%	0.5
Obligations under finance leases	2.0	-	-	2.0	3.10%	4.9
Bank overdraft	0.4	0.4	-	-	1.50%	-
Total	564.8	95.4	-	469.4		

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 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	430.2	-	192.0	238.2		
At 31 March 2016						
Sterling:						
5.25% guaranteed secured bonds	267.4	-	-	267.4	5.27%	5.7
5.25% guaranteed secured bonds	200.0	-	200.0	-	4.97%	0.5
Bank loans	95.0	95.0	-	-	1.11%	0.5
Obligations under finance leases	2.0	-	-	2.0	3.10%	4.9
Bank overdraft	0.4	0.4	-	-	1.50%	-
Total	564.8	95.4	200.0	269.4		

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

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.

	2017 £m	2016 £m
Net debt	132.7	303.3
	£m	%
Fixed (net of bond discount and issue costs)	236.0	177.8
Index-linked	192.0	144.7
Floating (net of cash, short term investments and facility costs)	(295.3)	(222.5)
	132.7	100.0
	£m	%
	266.7	87.9
	200.0	65.9
	(163.4)	(53.8)
	303.3	100.0

At 31 March 2017, NERL had net debt, including an intercompany loan of £22.5m, of £301.0m (2016: net debt £481.1m). NATS Limited held net cash of £4.8m (2016: £5.4m), NATS Services had cash of £136.9m (2016: £147.7m), NATSNav had cash of £0.3m (2016: £0.8m), NATS (USA) Inc had cash of £0.6m (2016: £0.5m), NATS Services DMCC had cash of £1.1m (2016: £nil), NATS Services (Asia Pacific) had cash of £1.8m (2016: £0.6m) and NATS Services LLC had cash of £0.3m (2016: £0.3m).

19. Financial instruments (continued)

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.

	2017 £m	2016 £m		
Net debt	301.0	481.1		
	£m	%	£m	%
Fixed (net of bond discount and issue costs)	236.0	78.4	266.7	55.4
Index-linked	192.0	63.8	200.0	41.6
Floating (net of cash, short term investments and facility costs)	(127.0)	(42.2)	14.4	3.0
	<u>301.0</u>	<u>100.0</u>	<u>481.1</u>	<u>100.0</u>

In order to reduce its exposure to interest rate risk on its cash balances, NERL adopts a strategy of hedging net debt rather than gross debt. This is an economic hedge whereby exposure to floating rate debt is offset by interest on cash balances.

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.

	2017 Impact £m	2016 Impact £m
Cash at bank and short term deposits (2017: £293.6m, 2016: £257.1m)	2.9	2.6
Borrowings (2017: £nil, 2016: £95.4m)	-	(1.0)
	<u>2.9</u>	<u>1.6</u>

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

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 2017 the notional principal had reduced to £192.0m. 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 breakeven inflation arising from the index-linked swap. The difference between fixed rate and index-linked gilts reflects the market's expectations of future RPI and is a proxy for the breakeven inflation rate. 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 breakeven 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.

The following table shows the effect of a 1% increase in breakeven 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%.

	2017 Impact £m	2016 Impact £m
Change in swap interest and mark to market value	(12.7)	(18.4)

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 £7.5m (2016: £7.8m). There would be an equal and opposite impact on profit and equity if discount rates decreased by 1%.

19. Financial instruments (continued)**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)	Number of institutions	2017		2016	
		£m	By credit rating %	£m	By credit rating %
AAAm	6	163.7	55.8	5	110.7
AA-	2	47.5	16.2	3	55.1
A+	1	9.4	3.2	1	9.3
A	5	57.1	19.4	6	58.3
A-	2	8.5	2.9	2	10.8
BBB+	1	7.4	2.5	2	12.9
		293.6	100.0	257.1	100.0

The deposits of £7.4m with a BBB+ rated institution were held in various current accounts that are not subject to the above investment limits.

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:

- a. 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 £39.4m used to fund interest, fees and bond amortisation payments scheduled in the next six months and a 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;
- b. 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 2017 NERL had access to bank facilities totalling £400m available until 31 July 2021. The facilities comprise a £350m revolving term loan facility, a £45m revolving credit facility and a £5m overdraft facility;
- c. ensure access to long term funding to finance its long term assets. This is achieved in the form of a £600m amortising sterling bond with a final maturity date of 2026;
- d. ensure that the ratio of bank funding to total gross borrowings does not exceed 75%; and
- e. maintain a portfolio of debt diversified by source and maturity. This is achieved through the issuance of a £600m sterling bond that started to amortise in 2012 and has a final maturity date of 2026 and by having available shorter dated committed bank facilities.

19. Financial instruments (continued)

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

	2017 £m	2016 £m
Average monthly UK en route services income	49.4	48.3
Free cash at 31 March	87.1	51.2
Ratio of free cash to UK en route services income	1.8	1.1

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

	2017 £m	2016 £m
Bank borrowings	-	95.4
Gross borrowings	430.2	564.8
Bank borrowings as a percentage of gross borrowings	-	16.9%

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.

	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	69.8	141.4	211.4	0.7	65.3	157.2	223.2
Between one and two years	0.2	65.3	34.7	100.2	0.2	71.0	13.4	84.6
Due between two and five years	0.7	172.8	17.4	190.9	0.7	281.7	5.2	287.6
Due in more than five years	0.9	239.9	4.6	245.4	1.1	294.9	6.7	302.7
	2.0	547.8	198.1	747.9	2.7	712.9	182.5	898.1
Effect of interest, discount and unamortised bond issue and bank facility arrangement fees	(0.2)	(123.3)	-	(123.5)	(0.3)	(154.9)	-	(155.2)
	1.8	424.5	198.1	624.4	2.4	558.0	182.5	742.9

Other liabilities above include trade and other payables excluding deferred income of £93.5m (2016: £72.1m).

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.

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
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)
	(5.3)	(10.2)	(43.2)	(84.7)	(143.4)
2016					
Net settled:					
Index-linked swap payable	(3.4)	(8.0)	(38.2)	(102.4)	(152.0)
Gross settled:					
Foreign exchange forward contract receivables	195.8	10.6	14.3	-	220.7
Foreign exchange forward contract payables	(200.2)	(10.6)	(14.0)	-	(224.8)
	(7.8)	(8.0)	(37.9)	(102.4)	(156.1)

19. Financial instruments (continued)**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

	2017				2016			
	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	-	4.3	-	4.3	-	0.6	-	0.6
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Financial liabilities								
Derivative financial instruments in designated hedge accounting relationships	-	(1.5)	-	(1.5)	-	(4.1)	-	(4.1)
Derivative financial instruments classified as held for trading	-	(138.6)	-	(138.6)	-	(124.8)	-	(124.8)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	-	(140.1)	-	(140.1)	-	(128.9)	-	(128.9)

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 calculated by adding a credit value adjustment to an amount 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 at a rate that reflects the credit risk of the various counterparties. The credit value adjustment is determined by the group to reflect own credit risk by reference to bank margins appropriate to NERL's credit rating;
- the fair value of the £600m bond has been derived from its externally quoted price.

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	
	2017 £m	2016 £m	2017 £m	2016 £m
Financial liabilities				
£600m 5.25% Guaranteed Secured Amortising Bond	(428.4)	(467.4)	(510.3)	(543.9)
	<hr/>	<hr/>	<hr/>	<hr/>

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:

	2017 £m	2016 £m
Current		
Trade payables	23.4	54.3
Other payables	15.3	3.3
Tax and social security	11.6	10.6
Accruals and deferred income		
deferred grants	0.7	0.7
other	108.0	102.1
	<hr/>	<hr/>
	159.0	171.0
Non-current		
Other payables	38.8	16.7
Accruals and deferred income		
deferred grants	3.9	4.6
other	89.9	62.3
	<hr/>	<hr/>
	132.6	83.6
	<hr/>	<hr/>
	291.6	254.6

Other payables that are non-current represent regulatory revenue adjustments for calendar year 2016, the period January to March 2017 and previous regulatory control periods, which will be repaid after 31 March 2018 through 2018 and 2019 charges. Other payables that are current represent regulatory revenue adjustments for calendar years 2015 and 2016 and previous regulatory control periods, which will be recovered by 31 March 2018 through 2017 and 2018 charges.

Trade payables and accruals principally comprise amounts outstanding for trade purchases and ongoing costs. The average credit period taken for trade purchases is 43 days (2016: 40 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	
	2017 £m	2016 £m	2017 £m	2016 £m
Within one year	0.2	0.3	0.2	0.2
In the second to fifth years inclusive	0.9	0.9	0.8	0.8
After five years	0.9	1.1	0.8	1.0
	<hr/>	<hr/>	<hr/>	<hr/>
	2.0	2.3	1.8	2.0
Less: future finance charges	(0.2)	(0.3)	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
	1.8	2.0	1.8	2.0
Analysed as:				
			2017 £m	2016 £m
Current			0.2	0.2
Non-current			1.6	1.8
			<hr/>	<hr/>
			1.8	2.0

The group entered into a finance lease arrangement for certain network equipment in the prior year. The term of this lease is 10 years. For the year ended 31 March 2017, 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 their carrying amount.

22. Provisions

	Redundancy £m	Relocation £m	Other £m	Total £m
At 1 April 2016	4.4	3.9	7.9	16.2
Additional provision in the year	2.4	0.1	1.2	3.7
Release of provision in the year	-	(0.7)	-	(0.7)
Utilisation of provision	(5.5)	(1.2)	(1.1)	(7.8)
At 31 March 2017	1.3	2.1	8.0	11.4

	2017 £m	2016 £m
Amounts due for settlement within 12 months	4.6	8.7
Amounts due for settlement after 12 months	6.8	7.5
	11.4	16.2

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 2017. 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 £m	Retirement benefits £m	Financial instruments £m	Other £m	Total £m
At 1 April 2015	103.2	(70.6)	(9.2)	(4.2)	19.2
(Credit)/charge to income	(7.9)	(2.5)	1.7	0.9	(7.8)
Charge to equity	-	58.0	1.1	-	59.1
At 31 March 2016	95.3	(15.1)	(6.4)	(3.3)	70.5
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

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.

	2017 £m	2016 £m
Deferred tax liabilities		
Deferred tax assets	(95.1)	(95.3)
	75.5	24.8
	(19.6)	(70.5)

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 2017 and 31 March 2016	<u>144,100,007</u>	144.1	<u>131,000,007</u>	131.0
Ordinary A shares of 80 pence each				
At 31 March 2017 and 31 March 2016	<u>54,272,594</u>	43.4	<u>12,048,193</u>	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 2017 and 31 March 2016	<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 2017, 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

	2017 £m	2016 £m
Operating profit from continuing operations	166.6	69.1
Adjustments for:		
Impairment of goodwill	11.0	92.7
Depreciation of property, plant and equipment	103.6	94.8
Amortisation of intangible assets	45.2	33.2
Impairment losses	0.5	0.7
Deferred grants released	(0.7)	(0.7)
Profit on disposal of property, plant and equipment	(0.1)	(7.1)
R&D expenditure above the line tax credits	(1.6)	(1.8)
Adjustment for pension funding	(17.8)	12.4
Operating cash flows before movements in working capital	306.7	293.3
Decrease in trade and other receivables	74.1	14.8
Increase in trade, other payables and provisions	23.3	64.0
Cash generated from operations	404.1	372.1
Tax paid	(16.4)	(30.4)
Net cash from operating activities	387.7	341.7

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.

28. Financial commitments

	2017 £m	2016 £m
Amounts contracted but not provided for in the accounts	63.4	60.8
Minimum lease payments under operating leases recognised in the income statement	20.4	22.5

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:

	2017 £m	2016 £m
Within one year	17.9	19.5
In the second to fifth years inclusive	25.0	35.1
After five years	51.6	57.3
	<hr/>	<hr/>
	94.5	111.9

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 2017 was £7.0m (2016: £5.5m).

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 2017	No. employee shares outstanding at 31 March 2016
Date of share awards			
Free share awards			
21 September 2001	3,353,742	311,410	347,558
20 October 2003	2,459,000	293,784	325,784
10 September 2004	1,966,000	444,409	500,611
11 January 2008	1,071,840	353,289	403,920
18 September 2009	963,200	403,555	465,655
Partnership shares			
1 March 2011	694,783	380,758	475,031
26 September 2012	714,959	574,396	597,969
30 May 2014	496,738	429,133	444,839
31 October 2016	530,303	520,614	-
Matching shares			
1 March 2011	694,783	382,246	477,729
26 September 2012	714,959	574,746	598,369
30 May 2014	496,738	429,133	444,839
31 October 2016	530,303	520,614	-
		5,618,087	5,082,304
Dividend shares issued on 28 June 2005	247,017	37,289	41,686
Total employee shares in issue at 31 March		<u>5,655,376</u>	<u>5,123,990</u>

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

	Movement in the no. of shares during the year ended 31 March 2017	Movement in the no. of shares during the year ended 31 March 2016
Balance at 1 April	5,123,990	5,624,252
Granted during the year	1,060,606	-
Forfeited during the year	(6,735)	(4,700)
Exercised during the year	(522,485)	(495,562)
Balance at 31 March	<u>5,655,376</u>	<u>5,123,990</u>

These shares are valued every six months by independent valuers using discounted cash flow and income multiple methods of valuation. As at 31 March 2017 the price of an employee share was valued at £3.95 (2016: £4.20). A valuation at 30 June 2016 valued the shares at £3.65. The liability for the employee shares at 31 March 2017 was £20.8m (2016: £21.1m) included in other accruals and deferred income. The income statement includes a credit of £0.6m (2016: £0.3m credit). The payments made to employees for the shares they exercised during the year was £2.0m (2016: £2.1m).

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 2017 employer contributions of £7.0m (2016: £5.8m), excluding employee salary sacrifice contributions of £3.5m (2016: £2.9m), represented 14.6% of pensionable pay (2016: 14.5%).

The defined contribution scheme had 1,043 members at 31 March 2017 (2016: 825).

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.

Pensionable pay awards made for calendar years 2016 and 2017 were in line with CPI.

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

	2017	2016
	No.	No.
Active members	2,768	3,324
Deferred members	1,260	1,189
Pensioners	2,586	2,413
	<hr/>	<hr/>
	6,614	6,926

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 2015 and used the projected unit credit method. The assumptions which have the most significant effect on the result of the valuation are those relating to the rate of return on investments and the rates of increase in salaries and pensions.

The market value of the NATS' section's assets as at 31 December 2015 was £4,544.0m. 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 £458.7m, corresponding to a funding ratio of 90.8%.

The 2015 valuation showed that, based on long term financial assumptions, the contribution rate required to meet future benefit accrual was 36.9% of pensionable salaries (31.1% employers and 5.8% employees). In addition, NATS makes payments to the scheme to cover administration costs, including the Pension Protection Fund (PPF) levy, of 0.7% of pensionable salaries.

Contributions to the pension scheme

Following the 2015 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 were paid at 29.4% of pensionable pay until 31 December 2016 and are being paid at 31.8% from 1 January 2017 to 31 December 2026. Deficit recovery contributions were made at £2.4m per month for calendar year 2016 and increase by 2.37% annually thereafter until 31 December 2023. An additional £825,000 per month is payable from 1 January 2017 until 31 December 2026 and this also increases by 2.37% annually until 31 December 2026.

During the year the group paid cash contributions to the scheme of £115.8m (2016: £120.3m). This amount included £13.3m (2016: £14.7m) 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 43.6% (2016: 40.6%) of pensionable pay.

The estimated contributions expected to be paid to the scheme during the financial year ending 31 March 2018 is £115.3m, including salary sacrifice contributions estimated at £11.4m.

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 2015, 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 2015 was updated to 31 March 2017 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:

	2017	2016	2015
RPI inflation	3.10%	2.90%	2.95%
CPI inflation	2.00%	1.80%	1.85%
Increase in:			
- salaries	2.00%	1.80%	2.10%
- deferred pensions	3.10%	2.90%	2.95%
- pensions in payment	3.10%	2.90%	2.95%
Discount rate for net interest expense	2.55%	3.65%	3.35%

The mortality assumptions have been drawn from actuarial tables 95% S2PMA light and 93% S2PFA light (2016: 101% S1PMA light and 99% S1PFA light) with future improvements in line with CMI 2014 (2016: CMI 2011) projections for male/female members, subject to a long term improvement of 1.5% p.a. (2016: 1.5% p.a.). These tables assume that the life expectancy, from age 60, for a male pensioner is 29.4 years and a female pensioner is 30.8 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 31.0 years and for females to 32.6 years.

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

- a. 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 under-perform 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.
- b. 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.
- c. 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.
- d. 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 11.5%/increase by 13.5%
Rate of inflation	Increase/decrease by 0.5%	Increase by 13.3%/decrease by 11.4%
Rate of pensionable salary growth	Increase/decrease by 0.5%	Increase by 3.5%/decrease by 3.2%
Rate of mortality	1 year increase in life expectancy	Increase by 3.1%

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.

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:

	2017 £m	2016 £m
Current service cost	(94.6)	(120.1)
Past service cost	(0.4)	(0.8)
Net interest expense	(0.8)	(9.8)
Administrative expenses	(2.2)	(2.0)
Components of defined benefit costs recognised within operating profit	<u>(98.0)</u>	<u>(132.7)</u>

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

	2017 £m	2016 £m
Return on plan assets (excluding amounts included in net interest expense)	1,101.4	(140.1)
Actuarial gains and losses arising from changes in financial assumptions	(1,522.5)	425.7
Actuarial gains and losses arising from changes in demographic assumptions	119.6	-
Actuarial gains and losses arising from experience adjustments	10.3	2.4
	<u>(291.2)</u>	<u>288.0</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:

	2017 £m	2016 £m
Present value of defined benefit obligations	(5,786.3)	(4,760.0)
Fair value of scheme assets	5,435.5	4,682.6
Deficit in scheme	<u>(350.8)</u>	<u>(77.4)</u>

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

	2017 £m	2016 £m
At 1 April	(4,760.0)	(5,050.2)
Current service cost	(94.6)	(120.1)
Past service cost	(0.4)	(0.8)
Interest expense on defined benefit scheme obligations	(162.4)	(166.7)
Actuarial gains and losses arising from changes in financial assumptions	(1,522.5)	425.7
Actuarial gains and losses arising from changes in demographic assumptions	119.6	-
Actuarial gains and losses arising from experience adjustments	10.3	2.4
Contributions from scheme members	-	(0.1)
Benefits paid	623.7	149.8
At 31 March	<u>(5,786.3)</u>	<u>(4,760.0)</u>

The average duration of the scheme's liabilities at the end of the year is 24.9 years (2016: 23.6 years). The present value of the defined benefit obligation can be analysed by member group as follows:

	2017 £m	2016 £m
Active members	2,904.5	2,517.2
Deferred members	602.1	429.5
Pensioners	2,279.7	1,813.3
	<u>5,786.3</u>	<u>4,760.0</u>

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

	2017 £m	2016 £m
At 1 April	4,682.6	4,697.2
Interest income on scheme assets	161.6	156.9
Return on plan assets (excluding amounts included in net interest expense)	1,101.4	(140.1)
Contributions from scheme members	-	0.1
Contributions from sponsoring company	115.8	120.3
Benefits paid	(623.7)	(149.8)
Administrative expenses	(2.2)	(2.0)
At 31 March	<u>5,435.5</u>	<u>4,682.6</u>

30. Retirement benefit schemes (continued)

The major categories of scheme assets were as follows:

	2017 £m	2016 £m
Cash and cash equivalents	65.0	61.3
Equity instruments		
- UK	419.3	342.9
- Europe	119.7	96.1
- North America	341.7	281.4
- Japan	48.1	39.2
- Pacific (excluding Japan)	135.2	115.8
- Emerging markets	428.5	367.3
- Global	804.0	669.1
	<hr/>	<hr/>
Bonds	2,296.5	1,911.8
- Corporate bonds	942.5	895.2
- Index-linked gilts over 5 years	1,457.7	1,161.4
	<hr/>	<hr/>
Other investments	2,400.2	2,056.6
- Property	241.7	255.0
- Hedge funds	215.9	206.1
- Global tactical asset allocation	130.8	117.7
- Private equity funds	140.0	136.2
	<hr/>	<hr/>
Derivatives	728.4	715.0
- Futures contracts	(54.6)	(62.1)
	<hr/>	<hr/>
	5,435.5	4,682.6

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 2017 was £1,263.0m (2016: £16.8m).

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, Thomson 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 2017	Year ended 31 March 2016	Year ended 31 March 2017	Year ended 31 March 2016	Year ended 31 March 2017	Year ended 31 March 2016	Year ended 31 March 2017	Year ended 31 March 2016
	£m	£m	£m	£m	£m	£m	£m	£m
LHR Airports Limited	54.1	56.0	8.1	7.9	7.4	4.7	-	-
Ministry of Defence (MOD)	49.4	49.3	4.1	3.7	5.4	5.4	11.6	36.2
The Airline Group Limited	-	-	0.2	0.2	-	-	-	-
Department for Transport (DfT)	0.7	0.6	-	-	-	-	-	-
Meteorological Office	0.3	0.3	0.7	0.7	-	-	0.1	0.1
European Satellite Services Provider SAS	0.1	0.3	-	-	-	-	-	-
FerroNATS Air Traffic Services SA	0.6	0.3	-	-	-	-	-	-
Aquila Air Traffic Management Services Limited	31.5	24.9	-	-	1.9	0.2	-	-

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 (2016: £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.

	2017 £m	2016 £m
Short term employee benefits	5.8	6.2
Post-employment benefits	0.9	1.6
Other long term benefits	0.8	0.1
Termination benefits	0.6	0.7
	<hr/> <hr/> 8.1	<hr/> <hr/> 8.6

32. Subsidiaries, joint ventures and associates

The group's principal subsidiaries at 31 March 2017, 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
NATSNavi 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. PHT-I2, 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

* 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 two joint ventures as at 31 March 2017, 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

The associates and joint ventures are indirectly held by NATS Holdings Limited. The investment in ESSP is held by NATSNavi Limited and the investments in FerroNATS and Aquila are held by NATS (Services) Limited.

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

On 1 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 2016. For the purposes of applying the equity method of accounting, the financial statements of ESSP for the year ended 31 December 2016 have been used. These financial statements have been adjusted for a final dividend of €0.4m (£0.4m) declared by ESSP at its AGM on 29 March 2017. No other adjustments are required to be made for the effects of significant transactions between 31 December 2016 and 31 March 2017.

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 2017.

During the year FerroNATS repaid loan finance of £0.1m to the group (2016: £0.4m). At 31 March 2017, the loan (including interest) outstanding was £nil (2016: £0.1m).

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.

During the year, Aquila drew down loan finance of £10.6m (2016: £3.7m) from the group. At 31 March 2017, the loan (including interest) outstanding was £14.9m (2016: £3.7m).

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

	2017			2016		
	Associate ESSP £m	Joint venture FerroNATS £m	Joint venture Aquila £m	Associate ESSP £m	Joint venture FerroNATS £m	Joint venture Aquila £m
Non-current assets	0.9	0.1	0.7	0.7	0.4	0.3
Current assets	27.8	7.1	54.9	24.3	5.5	28.1
Current liabilities	(17.2)	(2.2)	(47.3)	(15.7)	(2.6)	(24.0)
Non-current liabilities	(4.1)	-	(5.1)	(1.9)	-	(2.9)
Net assets of associate/joint venture	7.4	5.0	3.2	7.4	3.3	1.5
Group share	1.3	2.5	1.6	1.2	1.7	0.7
Revenue	52.3	11.2	81.2	47.7	9.7	74.4
Profit after tax for the year	2.8	1.5	1.8	2.7	1.1	0.9
Group share	0.5	0.7	0.9	0.4	0.6	0.5
Dividends received	(0.6)	-	-	(0.2)	-	-
Other comprehensive income	0.1	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 26 April 2017, NATS Services established a Canadian subsidiary, NATS (Services) Canada Inc. The subsidiary was established in order to invest in Searidge Technologies Inc. The investment is a 50% joint venture with NAV CANADA. Searidge Technologies 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.

In May 2017, the Board approved and the company paid an interim dividend for the year ending 31 March 2018 of 19.92 pence per share, totalling £28.5m.

Balance sheet
at 31 March

	Notes	2017 £m	2016 £m
Assets			
Non-current assets			
Investments	4	141.0	141.0
		141.0	141.0
Net assets			
		141.0	141.0
Equity			
Share capital	5	140.6	140.6
Share premium account	5	0.4	0.4
Retained earnings		-	-
		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 2017 the company recognised a profit of £24.0m (2016: £81.7m).

The financial statements (Company No. 04138218) were approved by the Board of directors and authorised for issue on 30 June 2017 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 2015	140.6	0.4	-	141.0
Profit for the year	-	-	81.7	81.7
Other comprehensive income for the year	-	-	-	-
Total comprehensive income for the year	-	-	81.7	81.7
Dividends paid	-	-	(81.7)	(81.7)
At 31 March 2015	140.6	0.4	-	141.0
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 2016	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:

	2017 £m	2016 £m
Staff costs	-	-
Auditor's remuneration	-	-

	2017 No.	2016 No.
Executive directors	2	2
Non-executive directors	10	11
	<u>12</u>	<u>13</u>

The company incurred no charge to current or deferred taxes in the year (2016: £nil).

Dividends:	2017 £m	2016 £m
Amounts recognised as distributions to equity holders in the period:		
First interim dividend of 16.78 pence per share (2016: 38.03 pence per share) paid in June 2016	24.0	54.4
Second interim dividend of nil pence per share (2016: 19.08 pence per share)	-	27.3
	<u>24.0</u>	<u>81.7</u>

4. Investments

	Investments in subsidiary undertakings £m
Investments at 31 March 2017 and 31 March 2016	<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 2017 (2016: 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 26 April 2017, NATS Services established a Canadian subsidiary, NATS (Services) Canada Inc. The subsidiary was established in order to invest in Seairidge Technologies Inc. The investment is a 50% joint venture with NAV CANADA. Seairidge Technologies 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.

In May 2017, the Board approved and the company paid an interim dividend for the year ending 31 March 2018 of 19.92 pence per share, totalling £28.5m. The company recognised a dividend in May 2017 of £28.5m from its subsidiary, NATS Limited.

Abbreviations and definitions

2016	Financial year ended 31 March 2016
2017	Financial year ended 31 March 2017
3Di	3 Dimensional Flight Inefficiency Metric
AESOP	All-Employee Share Ownership Plan
AG	The Airline Group Limited
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
CDO	Continuous Descent Operations
CEO	Chief Executive Officer
CP3	Control Period 3 (2011-2014)
CPI	Consumer Prices Index
DRA	Direct Route Airspace
EC	European Commission
ESSP	European Satellite Services Provider SAS
EU	European Union
ExCDS	Extended Computer Display System
FAB	Functional Airspace Block
FerroNATS	FerroNATS Air Traffic Services SA
FRC	Financial Reporting Council
GAAP	Generally Accepted Accounting Principles
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
ISO	International Organisation for Standardisation
INEA	Innovation and Networks Executive Agency
IPA	Independent Parallel Approach
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
PPP	Public Private Partnership
PCP	Pilot Common Project
RAB	Regulatory Asset Base
RP1	Reference Period 1 (2012-2014)
RP2	Reference Period 2 (2015-2019)
RP3	Reference Period 3 (2020-2024)
RPI	Retail Prices Index
SES	Single European Sky
SESAR	SES ATM Research
SPA	Strategic Partnership Agreement
TANS	Terminal Air Navigation Services
TBS	Time-Based Separation
TMA	Terminal Manoeuvring Area
USS	USS Sherwood Limited
XMAN	Extended Arrival Manager

Explanatory notes

- 1 Project Marshall is a 22 year contract 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.
- 2 Single European Sky ATM Research: a programme to modernise Europe's airspace structure and air traffic management technologies.
- 3 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.
- 4 interoperability Through European Collaboration.
- 5 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.
- 6 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.
- 7 Impact score is a measure of delay placing greater weight on long delays and departures in the morning and the evening peaks.
- 8 Variability score is a daily excess delay score based on weighted delays exceeding pre-determined thresholds on a daily basis.
- 9 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.
- 10 Training to promote an atmosphere of trust where front line staff feel encouraged to provide essential safety-related information and with clear lines drawn between acceptable and unacceptable behaviour.
- 11 An aircraft deviation of 300 feet or more from its assigned level.
- 12 EU Member States are required by SES legislation to form Functional Airspace Blocks with neighbouring ANSPs. FABs are blocks of airspace based on operational requirements and established regardless of State boundaries.
- 13 The transition altitude is a published height above sea level at which pilots climbing to their cruising level change their barometric altimeter from the regional pressure setting to a common international standard setting.
- 14 London Airspace Management Programme.
- 15 London Terminal Manoeuvring Area: the designated area of controlled airspace surrounding London airports and which forms part of the London Airspace Management Programme (LAMP).
- 16 Chargeable service units are the billing unit for recovering UK en route revenue allowances and a function of aircraft weight and distance flown.
- 17 Death in service, ill-health, and income protection arrangements may be restricted or cease if benefits are transferred out of NATS pension arrangements.