UK Hydrographic Office

Enabling a deeper understanding of the world's oceans

Annual Report and Accounts 2018/19

ADMIRALTY
Maritime Data Solutions

HC2618

UK Hydrographic Office

Annual Report and Accounts 2018/19

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Highlights

Revenue

£157.7m

(2017/18: £151.6m)

Profit on ordinary activities before interest

£34.6m

(2017/18: £28.7m)

Dividend

£10.7m

(2017/18: £19.1m)

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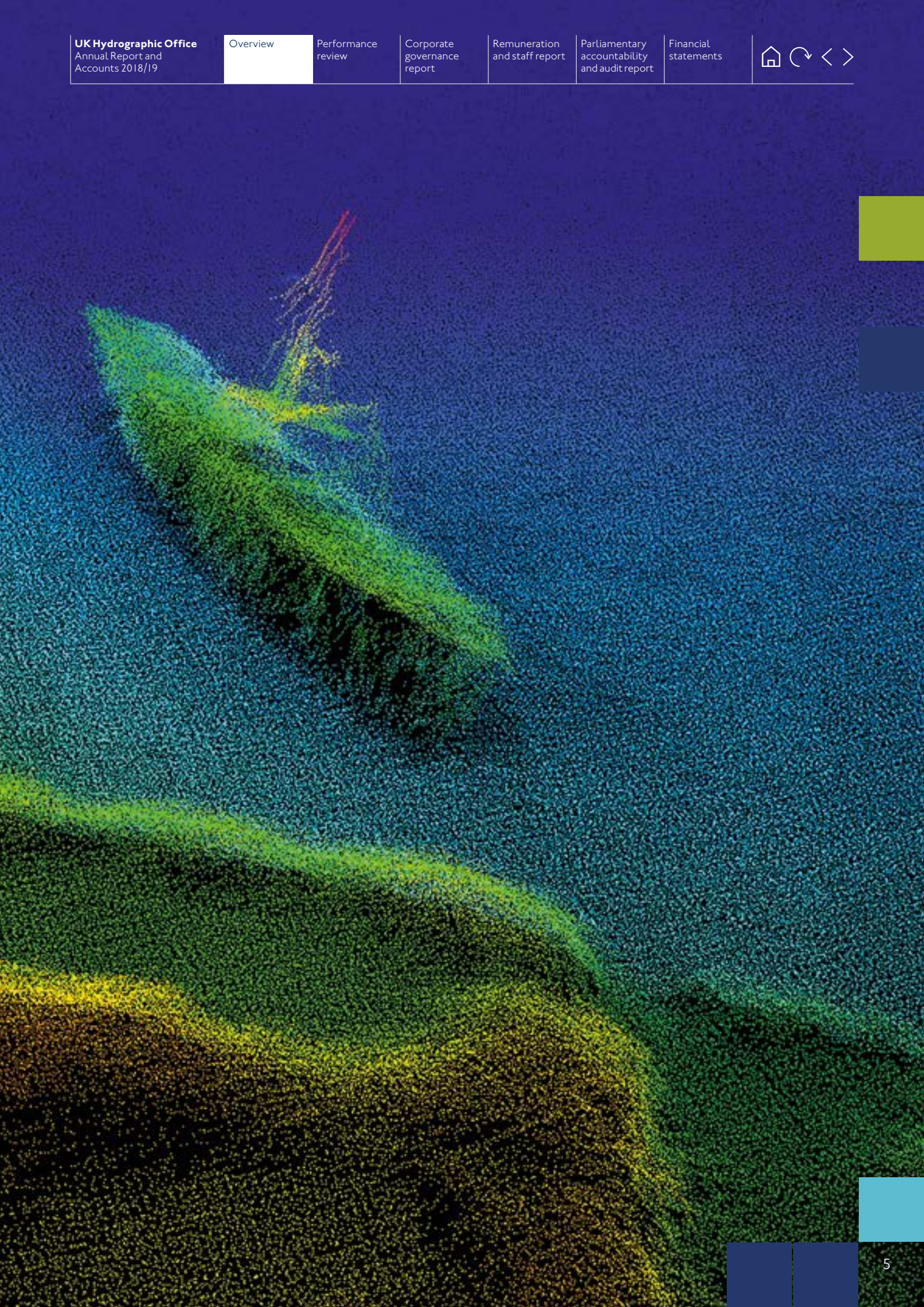
Enabling a deeper understanding of the world's oceans...

We are the UK government's hydrographic and marine geospatial experts.

Read more: p21



...for defence and security...

Our specialist support ensures our armed forces have a truly global reach.

Read more: p23

...for safer navigation...

Trusted by mariners for safe, efficient and compliant navigation. Supporting safe navigation across the globe is at the heart of what we do.

Read more: p31

...for the marine economy...

We hold marine geospatial data from the seabed, to the coast, offshore and beyond, enabling better use of the marine environment.

Read more: p19

...and for the future of our planet.

Our work supports sustainable development and economic growth in the UK and across the globe.

Read more: p35

Chair's foreword

The UKHO remains well placed to meet the opportunities of the future

When William the Conqueror arrived in England in 1066 he asked the same question every incoming Chief Executive Officer asks today: "What," he wanted to know, "have we got in the warehouse?"

The result was a complete inventory of the resources available at particular locations, otherwise known as the Domesday Book.

I saw a copy when I visited the British Library's Anglo-Saxon Kingdoms exhibition, and it gave me an insight into the value of our work at the UK Hydrographic Office (UKHO). Why? Because our digital products also offer an inventory of conditions and resources, pinned to precise locations. They add up to a 21st-century Domesday Book of the sea.

We call it marine geospatial information, but that word, 'geospatial', is not always well understood outside our sector. Our charts have long shown the precise latitudes and longitudes of marine features, along with depths. Our geospatial products offer a series of new dimensions at new levels of precision, taking in everything from depth to temperatures and densities, water and air speeds, marine habitats and mineral resources.

All this data enables safe, sustainable and efficient exploitation of the available resources – which is precisely what the Domesday Book was intended to achieve, as well.

The UKHO has performed well in the last financial year. We remain self-financing, and in 2018/19 we will continue to pay a dividend to the MOD. Higher sales, improved margins and active control of operating costs resulted in profit on ordinary activities this year of £34.6m, an increase of £5.9m on last year.

A significant moment was the completion, in January 2019, of our new Taunton headquarters. The state-of-the-art building encourages collaboration and uses the latest technology.

> "The new building is friendly, encourages collaboration and uses the latest data technology.

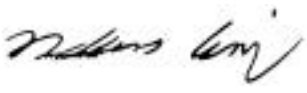
In a commercial environment where blockchain and machine learning are now transforming everything from fleet deployment to transparency in global supply chains, our data capability is crucial. So is our ethos: we now operate within a knowledge economy that is all about the return path – in other words, feedback, whether that is from hydrographic surveying or listening to the needs of our customers. The resulting collaborations enhance the value of our data. Parallels can be drawn with how, over 200 years ago, the Royal Navy made ADMIRALTY navigation charts available to mariners, who in turn provided additional detail, making charts even more accurate. New onboard and other data sets are rapidly emerging, not least from autonomous surveying and navigation, an area in which the UKHO is now involved.

As the industry embraces the power of data science and Artificial Intelligence, the UKHO has the capability and capacity to take a lead in the maritime domain.

This achievement, and this ethos, is in no small part the work of our previous Chief Executive, John Humphrey who left the UKHO on 31 January 2019. I would like to thank John for his leadership and vision over the last four years. He has successfully supported the UK government's 'Global Britain' ambitions and helped establish the UKHO as a world-leading provider of navigational and geospatial services.

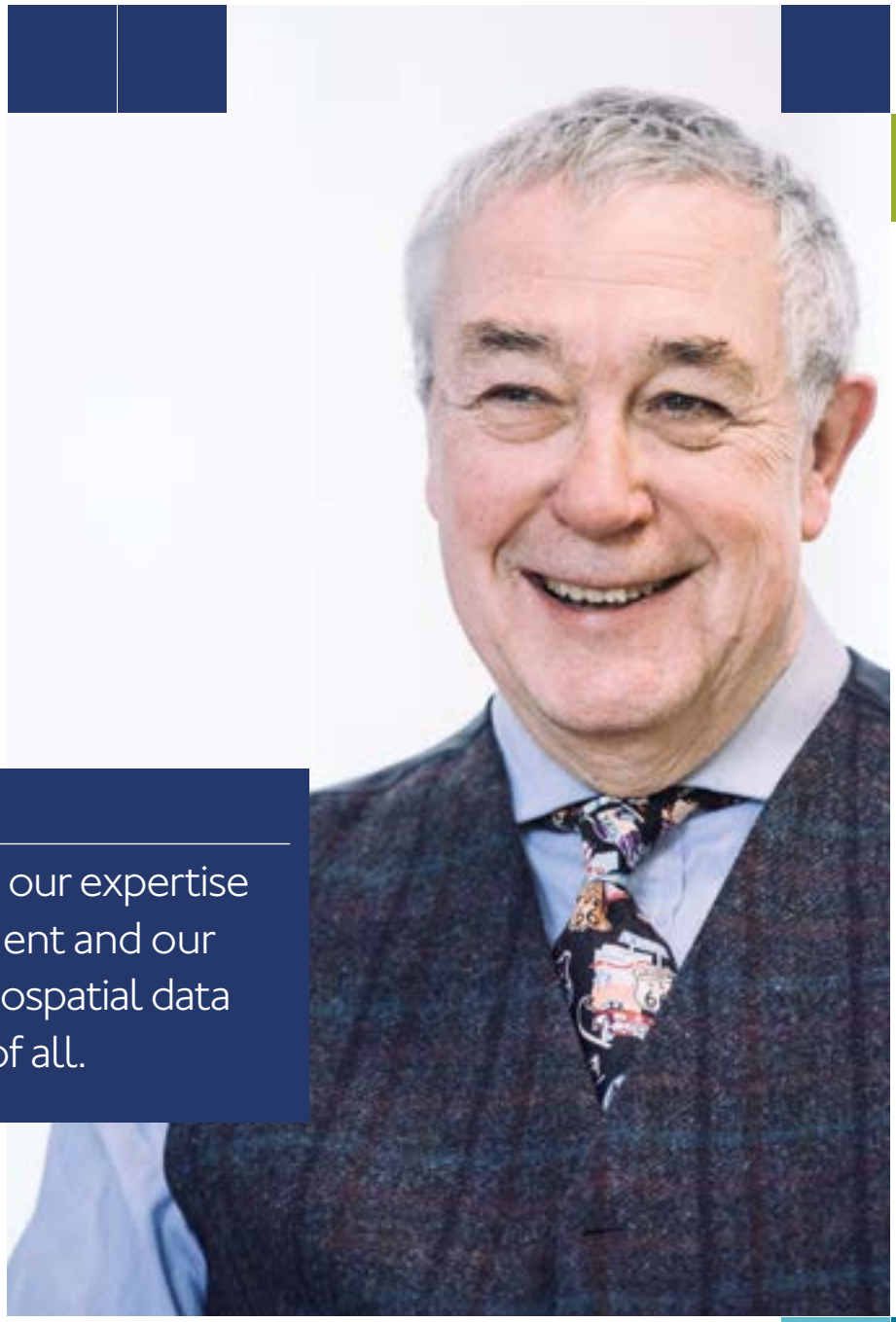
I am delighted to announce that our acting Chief Executive Rear Admiral Tim Lowe CBE will assume the Chief Executive role permanently when he leaves the Navy later this year. Under his leadership, the UKHO remains well placed to meet the opportunities of the future.

We will continue to use our expertise in the marine environment and our unique capabilities in geospatial data science for the benefit of all. Disruption can fundamentally change the economics of an industry, but it can also enable positive transformation.



Adam Singer
Non-Executive Chair

Chair's foreword continued



> We will continue to use our expertise in the marine environment and our unique capabilities in geospatial data science for the benefit of all.

Chief Executive's foreword

We have the opportunity, as never before, to guide our marine economies into the future

For over 200 years, the UKHO has focused on helping inform maritime decisions around the world. We have delivered the most accurate and reliable marine data available from the latest technologies and techniques of the day. Our expertise and the data we hold are national assets that can play a vital support role in tackling many of society's challenges. These include from the protection of marine habitats to building resilience against forces of nature, and from defence and security to trade and sustainable development.

Traditionally the users of our products and services have been mariners. They have trusted us to keep crews, cargo, ships and the environment safe. However, the underlying data we provide has untapped potential far beyond its traditional use. In this era of data revolution, it can deliver and enable so much more. Data gathered from our seas and oceans, for example, is the foundation to support the development of sustainable and resilient blue economies. This promises to be a force for positive change in the United Kingdom and globally.

> "The data revolution is changing the world around us at an unprecedented rate and it is incumbent on all who have access to marine geospatial data to meet this challenge, wherever it arises.

Chief Executive's foreword continued

Throughout our long history, the UKHO team have been pioneers and innovators, constantly embracing scientific and technological advances. This pioneering spirit continues today, giving us the imagination and ambition to support a new and ever-expanding domain of data utilisation.

Technological advances in surveying methods and processing tools such as machine-learning are making it possible to discover and process volumes of data far greater than humans working alone could ever have managed.

Our new, modern office building, that was formally opened by HRH The Princess Royal in April 2019, will allow us to make the best possible use of technology and create a more open, collaborative and agile working culture. This will fundamentally change how we develop solutions for mariners and people working in marine environments, enabling a deeper understanding of the world's oceans.

Over the past year we have continued to support the mariner and marine user on a global scale. We have assisted developing coastal states as part of our contribution to the Commonwealth Marine Economies and the UK Overseas Territories Seabed Mapping Programmes. Helping others to build capacity and capability in hydrography and cartography remains a core part of our wider activities in support of the international maritime and marine community.

Closer to home we have worked across wider government to deliver maritime geospatial expertise. We are pleased to be recognised in the Department for Transport's Maritime 2050 report, as a key organisation supporting the UK's ambitions for maritime data, mapping and autonomy. For the many UK industries that rely on the maritime domain, realising those ambitions is critical.

Similarly, we were delighted to become one of six founding agencies of the Cabinet Office's Geospatial Commission. This initiative will help maximise the true value of publicly held, location-based information. It will enable users to access and utilise geospatial data, and help them realise greater economic returns. Of course, our position as an island nation with a significant maritime space – over 90% of goods are imported by sea – means that maritime policy and marine geospatial data impacts every citizen of our country.

In the last financial year we generated a profit of £34.6m and returned dividends of £10.7m to government. We have invested in building our capabilities, from expanding our team of world-leading data scientists, to developing our core data platform and embracing new technological advances. For the UKHO, the message is clear. We must continue to collaborate with our friends and partners across government and around the world. We must fully harness the power of marine geospatial data. We must provide world-leading marine geospatial information, and offer truly ground-breaking data solutions for new and existing users.

This is a pivotal year for the UKHO. Looking to the future, we have a unique opportunity as we bring our data platform to life to enable others to make the most of our oceans in safer, more secure and more sustainable ways. The 2020s are going to be immensely exciting and demanding for producers and users of geospatial data alike. We must continue to embrace radical change and new technological advances. The UKHO is eager to seize the opportunities offered by the data revolution, and we are well-placed to do so.

> "Throughout our long history, the UKHO team have been pioneers and innovators, constantly embracing scientific and technological advances.

Throughout my career over the last 37 years I have seen radical change in the way that marine geospatial data is acquired, processed, delivered and used; experiencing at first-hand the leveraging, utilisation and adoption of digitised marine data. In reality we have only created a ripple on the surface and I am certain that marine geospatial data has the potential to create and enable so much more, for all those who wish to make sustainable use of the world's oceans.

As we look ahead to the Decade of Ocean Science, and reflect on the goals of the Charlevoix Blueprint for Healthy Oceans, Seas and Resilient Coastal Communities, signed at the G7 summit in June 2018, it is incumbent on us all to gather and maximise the availability and accessibility of the data and information we hold. At the UKHO we will continue to use our expertise to fulfil that obligation, and to support the UK's status as a global geospatial nation.

Rear Admiral Tim Lowe CBE
Acting Chief Executive and
UK National Hydrographer

Strategic review

We support maritime navigation, safety, security and marine development around the UK and worldwide

About us

We specialise in providing accurate and reliable marine geospatial information and expertise, helping others to unlock a deeper understanding of the world's oceans. We support defence, safe maritime navigation and marine development around the UK and worldwide.

We share this geospatial information with governments, businesses and researchers across the globe. We also make it available through our portfolio of ADMIRALTY Maritime Data Solutions. This includes a world-leading range of charts, publications and custom data sets, and can be found on over 90% of ships trading internationally.

Working with a wide variety of data suppliers and partners, we source, process and provide access to marine geospatial data, ranging from below the seabed to above the sea surface, and from coast to coast. This data and expertise helps others make best use of our oceans in safer, more secure and more sustainable ways.

We're continuing to innovate so that we can meet the evolving needs of our existing users and reach new users in wider markets. As our marine data and technology capabilities grow, we will help people working in the blue economy to make better decisions and truly make the most of the world's oceans.

We are an Executive Agency of the Ministry of Defence (MOD) with Trading Fund Status, and we fulfil our public task at no additional expense to the taxpayer.

90%

of ships trading internationally rely on ADMIRALTY Maritime Data Solutions

Strategic review continued

What is geospatial information

Location information is changing the way we see the world and live our lives. From using devices that tell us where we are, to how many steps we take to make a journey. From avoiding traffic jams to guiding self-driving vehicles.

In the marine environment, there are significant opportunities for location-specific geospatial information.

Marine geospatial information is much more than latitude, longitude and depth. It also includes precise, location-specific information about the speed, direction, temperature and density of water and air above the oceans. It includes information about seasonal changes, marine life, the structure of the seabed and many other aspects of the marine environment.

Why is marine geospatial information so important

Our oceans are critical to so many aspects of our day-to-day lives.

In the UK alone, the oceans provide jobs for over 500,000 people, contribute more than £47 billion to the economy, and are the means through which 95% of all physical goods reaches the UK. Globally, we rely on our oceans for trade, food, energy and other valuable resources.

Collectively, this activity is now known as the 'blue economy' and it is estimated that it will be worth more than US$3 trillion by 2030. This figure implies an increase in maritime trade and significant growth in industries such as aquaculture and offshore energy.

Sustainable growth in the blue economy requires marine geospatial information. It is needed to identify the optimal location for port development, wind turbine or hotel, for instance. And as the investment costs for these infrastructure developments often run into millions of dollars, the need for accurate and reliable information to inform complex decisions is critical.

Marine geospatial information is also required for climate change mitigation projects, defence and security improvements, and the protection of marine habitats. Driven by greater economic and environmental scrutiny, and the need for greater sustainability, international hydrographic organisations are facing ever-increasing demand. This goes far beyond the traditional needs of navigators, and exists for a far wider variety of formats.

As our reliance on our oceans increases, so too will the need for comprehensive , accurate and up-to-date data that enables us to make use of the marine environment in a responsible way.

As the UK Hydrographic Office, we specialise in marine geospatial information. And by working with our partners, we can help others to use this information to make critical decisions in the rapidly developing maritime sphere.

> "The Ocean Economy will outperform the global economy; doubling its value-added contribution from US$1.5 trillion to US$3 trillion.

The Organisation for Economic Co-operation and Development (OECD) global projections between 2010 and 2030 on a "business-as-usual" basis

Strategic review continued

Supporting the government's 'Global Britain' ambitions

The then Minister of State for Defence, The Rt Hon. Earl Howe PC addressing over 30 senior Member State representatives from across the international hydrographic community. World Hydrography Day reception, October 2018, Trinity House, London

Helping the UK to promote peace and prosperity

Marine geospatial information is key to helping coastal nations protect their resources and thrive in an ever-changing global environment.

That's why we work with the UK government, from our armed forces to the Foreign and Commonwealth Office, to help develop the skills, services and expertise needed to unlock the potential of the global blue economy.

Here in the UK this has led to supporting key policies, such as Maritime 2050, that ensure we remain a leading maritime nation in years to come. And as part of the Cabinet Office's Geospatial Commission, we're working alongside partners to maximise the value of location-based data in the UK.

Overseas we provide the information needed to support Commonwealth Small Island Developing States and Overseas Territories. Our work helps these communities to protect themselves against natural disasters and to develop their marine-based economies.

These contributions, along with the endorsement of the importance of marine geospatial data by the Government's Chief Scientific Adviser's Foresight Future of the Sea Report, are testament to our role within the field of marine geospatial information. They also demonstrate the increasing importance of marine location-specific data to protect the marine environment and realise its future economic potential.

> "Seabed mapping is a key enabler of sustainable and resilient seas, oceans and coastal communities.

The Rt Hon. Earl Howe PC
Former Minister of State for Defence and Deputy Leader of the House of Lords

Public task

UKHO's Public Task is given to us by our owner – The Ministry of Defence

As the UK government's hydrographic and marine geospatial experts, we:

- **Support the UK National Security Strategy (NSS)**
  To improve the effectiveness of UK national defence and security.
- **Satisfy Safety of Life at Sea (SOLAS) obligations in all waters of UK national responsibility**
  To improve maritime safety, maritime trade, and protect the marine environment. This task is carried out on behalf of the Maritime and Coastguard Agency (MCA).
- **Represent and advise the UK government**
  We represent the UK as experts in the fields of hydrography, oceanography, marine cartography, maritime boundaries and limits, and computational astronomy. We do this within the International Hydrographic Organization and its associated bodies. We also provide authoritative advice to other parts of UK government on matters relating to these fields.
- **Comply with all relevant legal obligations which fall to the UKHO as a public body**

We are self-funding and continue to deliver our public task at no net cost to the UK taxpayer.

UK government

Supporting maritime policy and strategy

The sea remains a key part of our lives in the UK and across our Overseas Territories, for supporting tourism, marine-based livelihoods, trade and defence.

But our relationship with the sea is changing. New opportunities are emerging, along with new environmental threats.

As part of government, we are being called upon to help prepare key maritime evidence papers, and strategy and policy documents, all with the aim of protecting our oceans and supporting sustainable economic growth.

This year, for example, the Government Office for Science published its Foresight Future of the Sea report. As a key evidence paper used to inform government policy, the report highlighted the importance of marine geospatial data and the value of seabed mapping. It recognised both as the foundation of sustainable blue economies. The report also acknowledged the UKHO's expertise in collecting and processing this data.

We also worked with government partners including the Foreign & Commonwealth Office (FCO) on the development of a set of G7 commitments to support a more sustainable and climate-resilient future for oceans and coastal communities.

This was followed by a commitment to increase the availability and sharing of scientific knowledge and data including seabed mapping. We continue to work with partners across government on meeting this commitment.

The Humanitarian and Disaster Relief protocol, also signed with FCO, has called on the UKHO to support pre-crisis planning and disaster relief efforts should British Overseas Territories be affected by storms, tsunamis or other severe weather events in the future.

This recognition of the value of marine geospatial information and our capabilities as a marine geospatial agency has also put us at the centre of UK maritime policy. This was recently shown in the government's Maritime 2050 strategy, published by the Department for Transport (DfT). This strategy highlights the need to collect better seabed-mapping data in support of maritime trade. The strategy called on our expertise to help fulfil this need.

Strategic review continued

Defence

Supporting UK and wider NATO security

Strategic review continued

Our work with the UK armed forces and NATO goes way beyond the provision of navigational support.

We provide products and services relating to mine warfare, anti-submarine operations and amphibious activity, which can support both military and humanitarian interventions.

We offer specialist support to planners, commanders and tactical operators. This covers surface and submarine navigation, situational awareness, geospatial intelligence, Law of the Sea and maritime security. We provide this support both in home waters and overseas, ensuring that our armed forces have a global reach.

Through our international defence partnerships, we promote standardisation and best practice, to improve our ability to deliver assured data to our collective armed forces. We do this by working with our partner Specialist Geospatial Centres – the Met Office, Defence Geographic Centre and No 1 Aeronautical Information Documents Unit (NO1 AIDU).

The past year has seen us deliver a number of key defence activities across the globe:

- In October 2018, the UKHO's Defence team supported Exercise Saif Sareea 3 in the Middle East. This exercise was aimed at reinforcing the long-standing and close military relationship between the UK and Oman. It also tested the new logistic base at Duqm port, where the UKHO was previously involved in work to verify safe port approaches
- We supported the Royal Navy's contribution to NATO exercise Trident Juncture 2019 in Norwegian waters, providing products that helped inform more effective use of the marine environment
- We also provided specialist intelligence to Royal Marines training the armed forces in Cameroon in support of their fight against Boko Haram. We provided further support for maritime operations in the Far East
- Our surveyors were seconded to Royal Navy survey ships to exchange surveying experience and data processing skills.

We support

90+

Defence vessels including Royal Fleet Auxiliary ships

UK economy

Helping the UK government to **drive economic growth**

The Geospatial Commission, which is part of the Cabinet Office, aims to drive economic growth by unlocking the value of publicly held location-based information, estimated to be worth up to £11 billion a year to the UK economy.

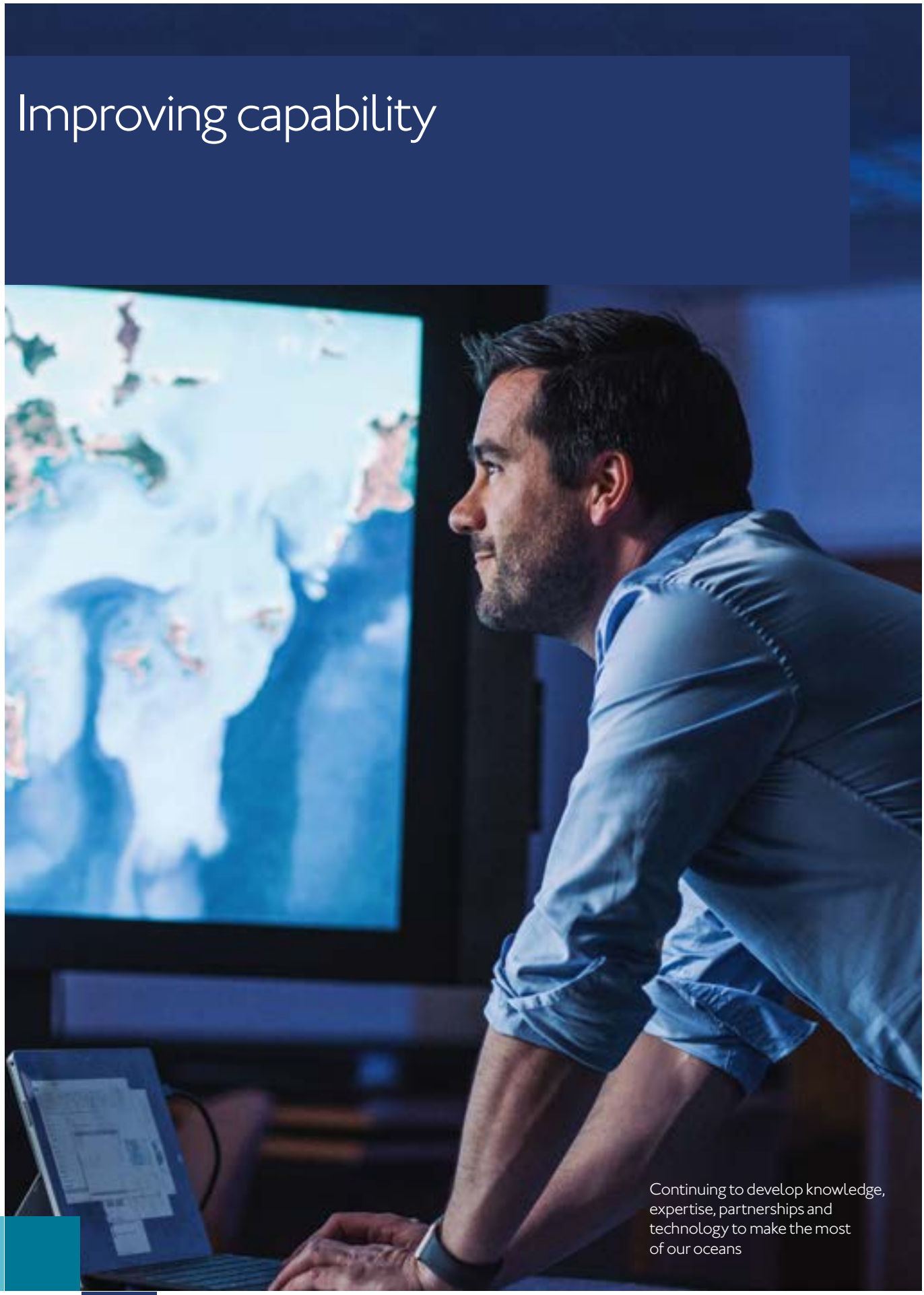
Recognised as marine geospatial experts and holding some of the UK's most valuable location data, UKHO has been appointed as one of six founding partner bodies, alongside the Ordnance Survey, HM Land Registry, British Geological Survey, Valuation Office Agency and Coal Authority. Together we are working to support the commission's vision by improving access to and links between high-quality data held by government.

Our work has included leading a project to enhance the government's core data asset through collection and sharing between partner bodies. We have also supported the development of a single data exploration licence to help UK business use public data to research and develop products.

> "Alongside maintaining a secure, trusted data environment, the government has an important role to play in laying the foundations for a flourishing data-driven economy.
>
> **HM Treasury 2018**
> The Economic Value of Data

Strategic review continued

Improving capability



Continuing to develop knowledge, expertise, partnerships and technology to make the most of our oceans

Enabling, inspiring and collaborating

Fostering a more collaborative environment, both internally and externally.

People are our greatest asset and supporting their development encourages innovation, agility and entrepreneurship. We have an active apprenticeship scheme providing the apprentices with the opportunity to gain qualifications and workplace experience while being paid. We also have accredited ambassadors encouraging young people into science, technology, engineering and mathematics (STEM) careers.

Our new building is already enabling a more open, collaborative and agile working culture, which will fundamentally change our approach to developing solutions for our customers.

Apprenticeship scheme

Supporting apprenticeships

Our apprenticeship scheme gives applicants the opportunity to gain an industry-recognised qualification, while getting hands-on experience in the workplace as a paid employee.

We currently employ 58 apprentices across a wide range of roles including digital, data and technology, management, finance, human resources, marketing and customer services.

Since launching in 2016, our apprenticeship scheme has won a number of awards, with its success continuing over the past 12 months. At the 2018 National Apprenticeship Awards, we won 'Large Employer of the Year' in the South West finals and 'Highly Commended' at the national awards. The UKHO was also shortlisted in the 'Large Employer' category at the 2019 Somerset Apprenticeship Awards.

The outstanding achievements of our apprentices has also been recognised individually. At the Bridgwater and Taunton College Apprenticeship Awards, Partnering and Engagement Officer Sam Winchester won 'Apprenticeship Advocate of the Year', and at the Somerset Apprenticeship Awards, Digital Marketing Communications Executive Sophie Prescott achieved the 'Career Development' award.

Our success looks set to continue next year, with both UKHO and our apprentices being selected as finalists at the forthcoming Bridgwater and Taunton Apprenticeship Awards. Going forward, as part of the South West Apprentice Ambassador Network, we're now also establishing a Young Apprentices Ambassador Network to encourage more young people to consider apprenticeships.

50+

number of apprentices we employ across the business

"To meet these exciting challenges we depend on our people and the skills and knowledge that they bring with them. Apprenticeships are being used to harness new talent and bring in fresh ideas as well as to re-train or upskill existing team members.

Amy Carrillo
Head of People, UKHO

Strategic review continued

New headquarters

A new environment fostering **improved ways of working**

A key moment in our transformation to becoming a Marine Geospatial Information Agency was the construction of our new office headquarters, completed earlier this year.

The new office is truly fit for purpose, built to support smarter ways of working. Within it, we champion a culture of collaboration and creativity, where flexible working is embraced. By offering new technologies and modern office practices, this will help us to work in more efficient, agile and responsive ways. It will also reflect our role as a modern geospatial data organisation that attracts, retains and inspires the best talent.

Key to the project's success was the cross-functional collaboration between all construction partners, who worked together to deliver the build on time and within budget.

Built on our existing site on Admiralty Way, the new headquarters will secure our future in Taunton for many years to come, and allows us to promote ourselves locally in a more open way.

This more outward-facing approach will enable the Taunton community to see the economic and employment benefits of having a world-class organisation based in the town.

Strategic review continued

Inspiring the next generation

Promoting science, technology, engineering and mathematics (STEM)

We have embraced the challenge of inspiring the next generation about the importance of STEM, and have become a leading force behind the promotion of STEM locally.

We currently have 31 accredited STEM ambassadors who have worked with over 3,000 young people in the South West over the last two years. As a result, our STEM Ambassador outreach programme work gained national recognition in receiving 'Highly Commended' in the 'Large Employer' category at the National STEM Inspiration Awards.

Some of the outreach work in which we're actively involved includes providing advanced coding mentoring and facilitating Digital Academy hands-on workshops. We guest lectured at a 'Science of the Sea' community event in Taunton to celebrate British Science Week, participated in the regional Big Bang Near Me science fairs and spoke at digital community conferences and school events.

The UKHO's STEM outreach programme is run in partnership with a range of community groups including Digital Taunton, Code Club in the South West, Soroptimist International, STEM Learning UK, Marine Biological Association, British Science Association, The Big Bang, Somerset County Council, Taunton Library and The Glass Box.

We are committed to encouraging more young people into STEM careers, with plans to work with a further 13,500 young people and 41,000 members of the public over the course of the next 12 months.

> "A more open, collaborative and agile working culture will fundamentally change our approach to developing solutions for our customers.

Rear Admiral Tim Lowe CBE
Acting Chief Executive and
UK National Hydrographer

Improving data gathering through strong partnerships and modern technology

We are continuing to strengthen relationships and leverage cutting-edge survey technology.

We gather vast amounts of ocean data using a host of vessels, from ships, smaller launches and autonomous underwater vehicles to light aircraft, satellites and aerial drones.

Underpinning this physical data acquisition is a network of strong and mutually beneficial relationships with data suppliers and partners. These relationships stretch across government, industry and academic institutions, both internationally and nationally, and they offer a further benefit: they help countries and regions that do not yet have their own hydrographic capabilities to fulfil their international maritime obligations, and make the most of their marine environments.

> “We have the opportunity, as never before, to guide our marine economies into the future.

Rear Admiral Tim Lowe CBE
Acting Chief Executive and
UK National Hydrographer

We are the Primary Charting Authority for

71

coastal states across the globe

Technology

Using state-of-the-art **surveying technology**

We have collaborated with the survey industry to develop new LiDAR (light detection and ranging) technology that meets International Hydrographic Organization standards.

This resulted in the commissioning of two large-scale LiDAR surveys in the Caribbean region, covering the Turks and Caicos Islands (7,395km^2) and Belize (2,575km^2).

These surveys were carried out by a specifically modified light aircraft fitted with state-of-the-art sensors to accurately measure the depth of the water.

Where previous surveys had to make repeated flights over a body of water, the new sensors have 10 times the point density (like a camera with 10 times the resolution), allowing the surveyors to meet the new specification in a single flight.

Alongside the technology’s decreased size and power consumption, this means smaller aircraft can be used for a shorter period, considerably reducing the environmental impact of the surveys and making them more cost-effective.

Analysis of these surveys has been presented at international events, demonstrating how UKHO is leading the field in maritime surveying.

Strategic review continued

Partnerships

Strengthening **international partnerships** to help inform maritime decisions

UKHO's marine geospatial information is increasingly recognised for its uses beyond enabling safer navigation. Over the past few years, scientific, academic, charitable, commercial, governmental and international organisations have approached the UKHO, seeking our data and expertise.

At UKHO, marine geospatial data is our lifeblood. Our success is based on our ability to gather geospatial data, and negotiate access to it with our data partners across the world. Our Global Partnering and Engagement team has introduced new software to enable the growth of our data supply network both in the UK and internationally, and has successfully increased the number of data supply arrangements to over 110 outside the UK and 140 inside the UK. We have also broadened the scope of these data-licensing and permission arrangements.

These improvements maximise access to marine geospatial information, enabling us to produce and distribute new products and services.

The UKHO is the Primary Charting Authority (PCA) for 71 coastal states. We are responsible for helping them optimise their marine geospatial data, in support of their prosperity within the blue economy.

Aligning with mainstream GIS

Collaborating on new **international standards**

Current International Hydrographic Organization (IHO) standards are universally important to safe and compliant maritime navigation.

They cover the creation, validation and encryption of Electronic Navigational Charts, as well as how they are displayed and used in Electronic Chart Display and Information Systems (ECDIS).

However, the next generation of data standards and product specifications that the international hydrographic community is developing will go far beyond this common goal.

That's because the hydrographic, maritime and wider Geospatial Information System (GIS) industries now require a greater variety of maritime-related data sources and products. And these will be developed based on the new IHO S-100 framework.

Working closely with the IHO and hydrographic offices around the world, we are actively involved in ensuring the S-100 framework is aligned with mainstream GIS. This ensures new components are not developed in isolation and that hydrographic data is easier to use and reaches beyond hydrographic offices and ships equipped with ECDIS.

UKHO is also a co-sponsor of the S-121 Maritime Limits and Boundaries pilot project. We're providing financial backing and our expertise in Law of the Sea.

As we embrace the standards landscape outside of navigation, we are also continuing our collaboration within the Open Geospatial Consortium (OGC) as a technical member of the organisation. As part of our commitment to using OGC web mapping standards, we have adopted this specification in our new AVCS Online product.

We see working with the wider geospatial information communities, as a foundation for providing marine geospatial information in the future, serving users in wider markets.

Harnessing innovation to deliver more value

Digital innovation is transforming the maritime industry in dramatic and positive ways.

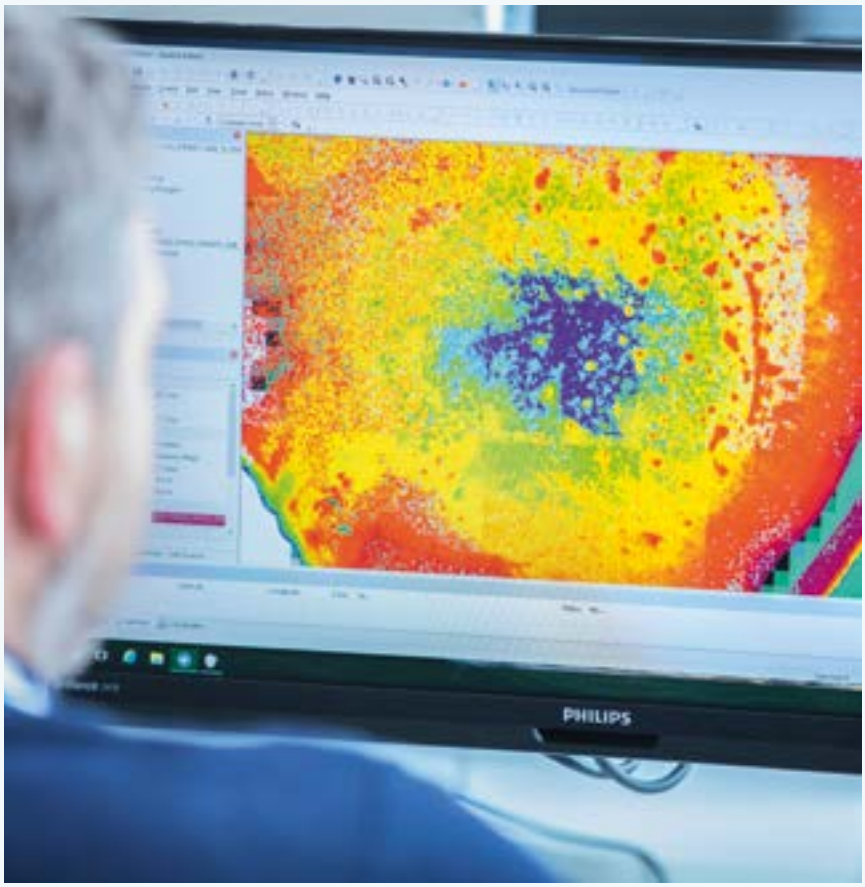
The growing need for precise location information around the world is bringing about significant technological advances in data collection, processing and analysis. In response, the maritime industry is also innovating. Thanks to technologies such as machine-to-machine interconnectivity (also known as the 'internet of things') and autonomous vehicles, vast amounts of global marine data can be gathered and used more easily than ever before.

At the UKHO, we are also adopting the use of cutting-edge technologies and tools. Our capabilities in Artificial Intelligence and big data science now allow us to manage billions of data points in ever more effective and innovative ways. One such example is how we've improved our processing efficiency. Previously, it would take us two days to process tidal data from a range of ports around the UK. With our new data platform, we have reduced this process to just two minutes.

This capability and expertise is allowing us to make the marine geospatial information we hold more accessible and more meaningful, and ultimately more valuable to those using it to make decisions about the marine environment.

> "Working at the frontier of data science and Artificial Intelligence we're building skills and applying solutions that create new understanding.

Terry Makewell
Chief Technology Officer, UKHO



Blue data

Leveraging **expertise** and data processing

We provide access to extensive data sets in partnership with many government-appointed authorities from around the world.

Data reaches us from a global network of sources – from information provided by hydrographic offices and port authorities, to data sets derived from satellite imagery and Automatic Identification Systems (AIS) installed on ships across the globe.

By leveraging our expertise and new data processing capabilities, we are transforming the way we develop and make new products and services available.

Our customers will be able to access specific data to fulfil their needs, addressing a far wider range of marine and maritime issues than previously possible. As a result, governments, scientists, business and the wider public will be able to solve problems and make more informed maritime decisions.

Over the coming year, we will continue to add more data sets from the natural environment, human terrain and navigational infrastructure, so that we can grow, manage and further refine the variety and volume of information we hold.

Strategic review continued

Artificial Intelligence

Using **satellites** and **Artificial Intelligence** for safer navigation

We're investing in data science to help us handle complex geospatial data in new and innovative ways.

We've scanned over 1 million km^2 of sea this year to identify almost 500 previously unreported offshore objects – many of which are navigationally significant.

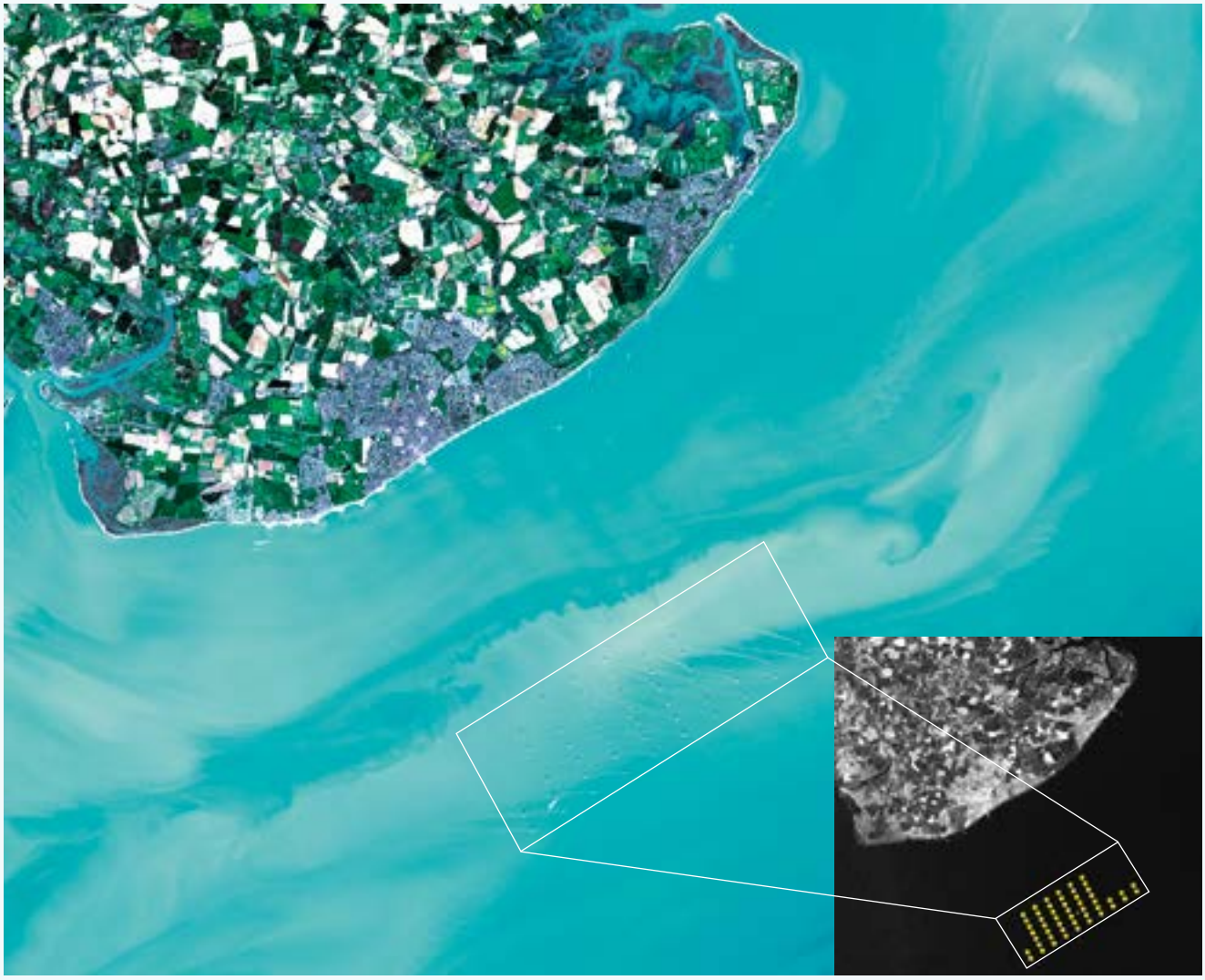
Our system takes satellite imagery and runs a detection algorithm that identifies objects visible on the surface of the ocean, such as wind turbines, oil and gas platforms or other energy infrastructure. As the AI system learns to classify the objects, it can then predict what they might be with increasing accuracy.

Once these objects have been verified by the relevant authorities, we then update navigational charts and notify mariners as appropriate.

The initial development of this project was supported by the UK government Digital Service's Data Science Accelerator programme.

1 million+

square kilometres scanned using our AI system



Enabling others to make the most of our oceans

Making marine geospatial information more accessible, more meaningful and more valued.

We enable others to make critical maritime decisions – unlocking the potential of the global blue economy and helping people to use marine environments in safer, more secure and more sustainable ways.

We do this by maximising the availability and accessibility of the data, knowledge, insight and expertise we hold. And we work collaboratively with others so that they can apply their expertise as well.

We continue to innovate to meet the evolving needs of users and deliver an ever-broader range of solutions. Scientific, academic, charitable, commercial, governmental and international organisations need the most accurate and reliable marine geospatial information possible. Our role is to make that data available to them.

> "The potential for users, from commercial and government to philanthropic and aid, to use this data is limitless.

Cathrine Armour
Director of Customer Division, UKHO

Programming interface

Software developers benefit from **UKHO's new tidal interface service**

MeyGen Tidal Array deployed in Scotland. SIMEC Atlantis Energy

Our pioneering Tidal Application Programming Interface (API) gives software developers access to online data from the UK's largest authoritative network of tidal stations.

Launched in June 2018, this API brings together data from over 600 government tidal stations located around the UK coastline, allowing developers to build tidal height and time predictions into their own applications.

600+

government tidal stations around the UK

This information gives businesses a clearer picture of coastal conditions around the UK up to six days in advance. This informs a wide range of activities and tasks, from helping emergency services plan rescue operations to supporting maritime infrastructure planning and development. It can also inform the optimal location of tidal and currents energy harvesting, or predict where the best surfing conditions are likely to be.

The tidal API service serves as a prime example of how the marine geospatial information we hold enables businesses to explore new commercial markets and develop innovative products and services.

Safer navigation

Improving safety in one of the world's busiest waterways

In August 2018 we launched a new Electronic Navigational Chart (ENC) to help mariners navigate the Dover Strait with greater safety and confidence. The new chart provides more detailed information on depth.

As the Strait is notoriously busy, narrow and challenging to navigate, ships must take part in a traffic separation scheme to ensure that they pass through it safely.

We worked with the UK Civil Hydrography Programme's survey data and processed billions of bathymetric data points to allow the contours of the seabed to be drawn at one-metre intervals.

This additional information allows mariners to show safety parameters more accurately on their chart display systems, based on the specific depth of water required for their ships to transit safely, whether they are loaded or unloaded.

This new generation ENC covers a part of the Dover Strait within the UK's Territorial Waters.

Strategic review continued

Data portal

Portal **improves access** and increases the range of marine data available

This year we have also launched the new ADMIRALTY Marine Data Portal. It allows users of UK waters to search and use a wide range of valuable marine information within the UK Exclusive Economic Zone (EEZ).

This improved service gives access to searchable and downloadable data covering ships' routeing measures, maritime limits and boundaries, bathymetric surveys from 1970 to the present day, the details of over 8,000 wrecks, and general information on seabed composition.

The portal also contains data on Practice and Exercise Areas (PEXA), used for defence exercises such as live firing and bombing practice. It also holds extensive information relating to wind turbines, meteorological (met) masts and the associated platforms within the UK EEZ.

We also provide users of the portal with access to our wide range of tidal information services, including ADMIRALTY EasyTide, Tidal Prediction Service and the UK Tidal API.

Online chart solution

A shore-based version of the world's leading professional maritime chart service

This financial year we have developed AVCS Online in support of shipping companies, government agencies and other professional users who need a shore-based version of AVCS.

AVCS is the world's leading maritime chart service, used on over 90% of ships trading internationally.

This new service, which was launched in May 2019, gives customers an online chart solution with world-leading coverage and similar functionality to AVCS. AVCS Online supports shore-based maritime decision-making including vessel tracking, planning and responses to accidents and emergencies.

The service displays geospatial data using internationally recognised Open Geospatial Consortium (OGC) standards and internet-accessible Web Map Service (WMS) protocols. This means it can be integrated into existing systems as a standalone chart solution, or as a base layer with other data layers added.

Strategic review continued

Working collaboratively to develop the global blue economy

Representatives from 10 UK Overseas Territories attended a capacity building seminar to help support safe maritime trade in their waters

Strategic review continued

Our work supports sustainable development and economic growth in the UK and worldwide

Island and coastal states depend on their marine environments to create jobs, drive economic growth, reduce poverty and ensure food security.

The sustainable use of the oceans to create economic growth is known as the 'blue economy'. As it develops worldwide, accurate and reliable marine geospatial information is becoming increasingly in demand.

Marine geospatial information is essential to helping island and coastal states make the most of their natural maritime advantages. It provides the foundation for making more informed decisions concerning trade, maritime safety and security – decisions that enable the sustainable use of marine resources and development of infrastructure. This data can also help protect the natural marine environment – securing habitats, supporting humanitarian and disaster relief efforts, and ensuring resilience against the forces of nature (including mitigating the effects of climate change).

We support growth in the blue economy by conducting surveys, analysing the data and sharing knowledge with our partners. This builds local capacity, provides valuable foundation data and supports internationally compliant navigational products and services, and can have a huge impact on the livelihoods of communities.

Internationally, we are working towards several goals to promote a greater understanding of our oceans and their resources. These include supporting international organisations and bodies like the United Nations (UN), the Paris Climate Change Agreement and the Nippon Foundation-GEBCO Seabed 2030 projects. By working with our partners, we will continue to support a sustainable and thriving blue economy for the future.

40 million

people will work in ocean-based industries by 2030

> "The CME Programme is an opportunity to support the ongoing efforts to balance environmental resilience with sustainable development – a means for shaping a prosperous blue economy.

Melanie Hopkins
British High Commissioner and Head of the South Pacific Network, Fiji

Strategic review continued

Maritime infrastructure

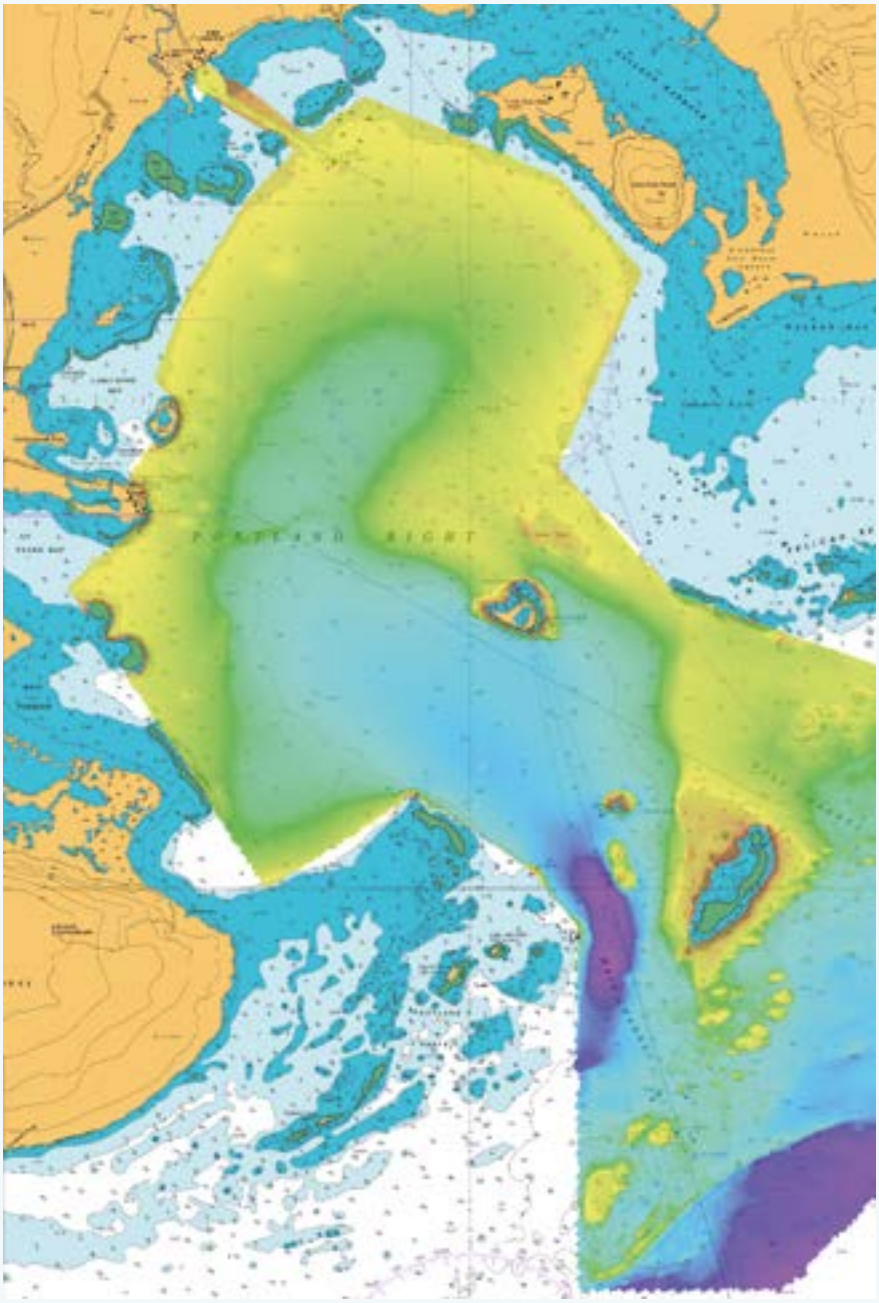
Transforming
Jamaica's blue economy

We're supporting Jamaica's ambition to become the transhipment and logistics hub for the Caribbean region, helping the island state make the most of its natural marine resources.

On behalf of the Jamaican government, the UKHO published high-resolution navigational charts based on data captured during recent seabed mapping surveys.

These new charts enable larger cargo and cruise ships to visit Jamaica and transit its territorial waters with greater confidence, and also pose a reduced risk to the country's marine environment. These charts also help Jamaica meet its international obligations under various conventions.

In November 2018, detailed marine geospatial information from the surveys was made available to the Jamaican authorities. This data will help Jamaica to optimise its coastal zone management strategies and inform its strategic decisions on the development of marine infrastructure. This activity was conducted under the UK's CME Programme.



International hydrographic programmes

Supporting Overseas Territories and Commonwealth Small Island Developing States

In support of UK Overseas Territories and Commonwealth Small Island Developing States (SIDS), the UKHO is conducting two multi-year international hydrographic programmes. Both of these programmes are supported by the UK Foreign & Commonwealth Office's Conflict, Stability and Security Fund (CSSF).

Overseas Territories Seabed Mapping Programme (OTSMP)

The OTSMP is designed to assess the hydrographic legislation and governance framework of UK Overseas Territories. The respective Overseas Territories' navigational charts and products are also being updated, drawing on improved data from new hydrographic surveys. This work will ensure that the UK Overseas Territories improve their maritime safety and compliance, allowing them to meet their international obligations and better protect their marine environments.

During 2018/19, UKHO carried out two surveys in the Turks and Caicos Islands, as well as surveying St Helena, Anguilla and the British Virgin Islands.

As part of the programme, and alongside colleagues at the Maritime and Coastguard Agency, we delivered a Hydrographic Awareness Seminar at our head office in Taunton. Ten representatives from the Overseas Territories were invited to learn more about their hydrographic and international obligations.

We are also currently completing a new chart in the Antarctic with plans for a further four charts covering this region. Other future work will include surveys of Bermuda, the Cayman Islands and the Falkland Islands, training on how to conduct multibeam sonar surveys for Montserrat, and further hydrographic workshops.

Commonwealth Marine Economies (CME) Programme

The CME Programme provides 17 Commonwealth SIDS with accurate hydrographic and scientific data relating to their marine environment, as well as offering training for national bodies in how to build marine capacity.

In order to deliver this programme, we are working in partnership with the National Oceanography Centre (NOC), Centre for Environment, Fisheries and Aquaculture Science (Cefas), and the Foreign & Commonwealth Office (FCO).

The partner agencies also support the FCO in the production of country reports and plans, highlighting opportunities where the UK can apply and leverage its world-leading expertise to make significant, cost-effective and lasting positive impacts on each country.

During 2018/19, we conducted hydrographic surveys for St Lucia, Dominica, Belize and Kiribati, and provided training in capacity building for Fiji. Equipment has been purchased for Jamaica and Guyana, and data-handover workshops took place in these countries too.

We are currently installing survey equipment and conducting training in Antigua, and we are supervising a Maritime Risk Assessment study currently being conducted by a PhD student from the University of the West Indies.

Strategic review continued

Developing coastal economies

Supporting Commonwealth countries

During the Commonwealth Heads of Government Meeting (CHOGM) summit in April 2018, we demonstrated the important work we've done so far with our partners through the CME Programme.

The event took place over two days aboard HMS Belfast and the research ship Cefas Endeavour on the River Thames.

Here, we explained the vital role that marine data and expertise can play in supporting Commonwealth SIDS to develop their coastal economies and meet international obligations.

Addressing an audience ranging from international government ministers and policy-makers to cadets and schoolchildren, our teams detailed how data gathered from seabed mapping surveys can provide a foundation to developing sustainable marine economies.

Meeting global commitments

Supporting a **global understanding** of our oceans and their resources

We support extraterritorial organisations and bodies across the world.

Under UNESCO goals, the United Nations (UN) has marked 2021 to 2030 as the 'Decade of Ocean Science', with the aim of promoting a greater understanding of our oceans and their resources. A fundamental goal of this initiative is to enable governments to make informed policy decisions about their marine resources. This makes the context for ocean science – and our own work as a world-leading marine geospatial agency – stronger than ever before.

As the Primary Charting Authority for 71 coastal states, we are helping them meet additional global commitments alongside their safe navigation and hydrographic governance responsibilities.

These can include the Paris Climate Change Agreement and the UN's 2030 Agenda for Sustainable Development. The specific Sustainable Development Goals (SDG) where our work can be directly applied include 'Zero hunger' (SDG number 2) 'Industry, innovation and infrastructure' (SDG 9), 'Climate action' (SDG 13) and 'Life below water' (SDG 14).

The Nippon Foundation–General Bathymetric Chart of the Oceans (GEBCO) Seabed 2030 is a collaborative project between an international group of experts who have committed to produce a definitive chart of the world's ocean floor by 2030.

1 billion

number of people that depend directly on seas for their primary source of food

Sustainability Report

At UKHO we are committed to meeting our objectives in a sustainable way, in line with the Greening Government Commitments. This means minimising our environmental impact, acting in a positive way in our dealings with our staff, customers and suppliers and maximising our contribution to the wider community.

Despite some temporary increases in waste and water consumption, related to the construction and move into our new building, we continue to see a steady reduction in our environmental impact. This includes recycling most of our waste where possible, investing in energy efficient buildings and equipment and minimising unnecessary energy use, water consumption and travel.

Emissions

	2018/19 tCO_2e	2017/18 tCO_2e	2016/17 tCO_2e
Scopes 1 & 2 (energy)			
Electricity	1,497	2,488	2,524
Gas	564	570	645
Total for scopes 1 & 2	2,061	3,058	3,169
Scope 3 (business travel)	961	1,065	1,052
Total for scopes 1, 2 & 3	3,022	4,123	4,221
	£k	£k	£k
Expenditure on official travel	728	751	830
Expenditure on energy	435	542	552
Total expenditure on energy and travel	1,163	1,293	1,382

Commentary

We are reducing our emissions year-on-year. Our print production process (which was moved from Admiralty Way to Bridgwater in May 2018) has continued to reduce in size as we transition from printed paper products to digital products and services.

Waste

	2018/19 tonnes	2017/18 tonnes	2016/17 tonnes
Reused/recycled incinerated/energy from waste	128	242	410
Landfill	54	4	2
Reused/recycled	1	4	4
	183	250	416

Commentary

Overall waste generated has been reduced, largely through the reduction in paper waste from printing charts. This reduction arose as fewer paper charts have been produced and from the introduction of more efficient printing processes.

However, an initiative throughout 2018 to dispose of redundant items, in preparation for the move to the new building, significantly increased our landfill waste. Regular waste audits were undertaken by the Defence Infrastructure Organisation. Recycling remains a priority for the MOD estate.

Water

	2018/19 m^3	2017/18 m^3	2016/17 m^3
Water consumption	18,339	14,070	14,390
	£k	£k	£k
Water supply costs	73	56	55

Commentary

Overall water consumption has increased this year, largely due to constructing the new building and operating the old buildings and new building in parallel.

Energy

	2018/19 MkWh	2017/18 MkWh	2016/17 MkWh
Energy consumption			
Renewable electricity	2.80	4.70	4.84
Gas	2.97	3.00	3.40
Total energy consumption	5.77	7.70	8.24
	£k	£k	£k
Energy supply costs	435	542	512

Commentary

There was an ongoing reduction in paper chart sales, together with more paper charts being printed on demand by our chart agents. This resulted in a significant reduction of in-house printing and consequent energy use.

Our energy consumption should further reduce now that our new building, for which we are aiming to achieve an 'Excellent' BREEAM rating, is complete. However, since January 2019 we have effectively been running two sets of buildings. This continued until the decommissioning of the old buildings in July 2019.

Sustainable procurement

Analysis is undertaken for relevant contracts and sustainability targets are agreed with suppliers. We have adopted simple incentive initiatives where appropriate.

We aim to ensure that our approved suppliers reflect our sustainability goals in the contracts we agree with them.

Performance review

Financial review

Revenue overall increased by £6.0m, with revenue from digital products up by £15m (18%) compared to 2017/18. This was offset by a continued decline in paper product revenues of £10m compared to 2017/18.

Our continued transition to digital has resulted in 61% (51%: 2017/18) of our gross margin now being earned from digital products.

Higher sales, improved margins and active control of operating costs resulted in profit on ordinary activities this year of £34.6m (2017/18: £28.7m), allowing us to declare ordinary dividends of £10.7m (2017/18: £8.6m) to our sole shareholder, the MOD.

The reduction in cash generated from operating activities is as a result of a £4.6m movement in receivables compared to 2017/18, principally prepayments and accrued income, and a movement in payables of £13.0m compared to 2017/18 now that the new building is completed and paid for.

	Financial statements note	2018/19 £m	2017/18 £m
Revenue	2	157.6	151.6
Cost of sales		(61.2)	(58.3)
Gross profit		**96.4**	93.3
Staff costs	4	(39.7)	(40.2)
Other costs		(16.5)	(14.8)
Depreciation	4	(5.6)	(9.6)
Operating profit		**34.6**	28.7
Cash generated from operating activities	20	22.5	46.5

In 2018/19 we adopted a new measure: Human Capital Value Added. This focuses on increasing efficiency, growing revenue streams as well as controlling costs. This is calculated by dividing operating profit plus staff costs by the number of staff. The result indicates the average profit before staff costs generated by each member of staff. We achieved £91k per full-time equivalent employee against a target of £65k.

Delivery against the 2018 corporate plan

Our corporate planning process identifies key performance measures (KPM) that are agreed with our owner. Together these represent achievement of our overall corporate plan. In 2018/19, our performance against these measures was:

	Key performance measure	Achievement
1. Defence	Achieve a score of 95 for a composite index measuring the quality and timeliness of deliveries of the Defence programme	Exceeded
2. Safety	Achieve over 99% of High Priority Radio Navigation Warnings (RNW) issued within 30 minutes Fewer than 240 Notices to Mariners (NMs) taking over 32 days to issue Fewer than 200 NMs issued to correct an error	Exceeded
3. Financial return	Achieve an average 9% Return on Capital over the last three years	Exceeded
4. Human Capital Value Added	Target £65k. Achieved £91k (2017/18: £82k)	Exceeded
5. Strategic plan	To achieve at least 70% of 27 strategic plan programme deliverables. These measures of achievement together provide a balanced scorecard reflecting our overall programme delivery. We achieved 25 (93%).	Exceeded

Performance review continued

Principal risks and uncertainties

Risk	Impact	Mitigation of risk
A safety error in our products or services contributes to a maritime incident which causes significant loss of life, environmental impact or damage to property or services.	Financial and reputational loss	Production and charting processes are designed to minimise risk. Continuous improvement and simplification of these processes.
Failure to adapt, diversify and stay relevant to our customers in the face of a declining traditional market, new market demands and potential new market entrants with new business models, resulting in a loss of revenue.	Financial loss and potential change in status	Improve efficiency of our business. Establish a business development team to explore new markets. Increase our awareness of wider technology and data market trends.
Failure to meet customer demands due to a loss of key data supply relationships or an inability to source the new data and necessary terms resulting in damage to our business model and loss of revenue.	Financial and reputational loss	Develop and implement our data sourcing and supply strategy and build strong relationships with current and future data suppliers.
Failure to recruit and retain people with the right leadership, technical and business skills and diversity of thought to support our transformation and beyond, resulting in a failure to make the necessary changes and build the necessary new capabilities to achieve our vision.	Financial loss and inability to remain a sustainable business	Seek freedoms to offer market rates for scarce skills and experience. Improve our marketing of the range of leading-edge technical work we offer to attract people to these exciting roles.
Failure to provide the leadership and organisational culture needed to inspire and engage our staff, resulting in reduced productivity, lower levels of commitment and ultimately a failure to achieve our vision.	Output and capability	Deliver the Ways of Working programme. Engage with our staff regularly to help them better understand our vision and the behaviours we need of them to make our vision possible.
A cyber-attack on our IT networks causes a compromise of our data or the inability for us to deliver products and services to our customers, resulting in damage to our business model and loss of revenue and reputation.	Output, capability and reputational loss	Ensure systems and controls are in place to mitigate risk of attack. Maintain ISO27001 accreditation.
UKHO will be unable to transform to become a Marine Geospatial Information Agency (MGIA) if we fail to build and deploy the core data platform, re-train our staff and understand and manage our data relationships, resulting in a loss of revenue, and an impact on wider government and UKHO's public task.	Financial loss	Pricing Strategy and market segmentation are developed. Data is made available to customers through the external portal. Data requirements are driven by customer need.

Supplier payment performance

Where invoices are undisputed, the Government aims to observe the Prompt Payment Code and pay 80% of suppliers within five days. We achieved 78.0% (2017/18: 79.4%). The reduction in performance resulted from a shortage of staff resources during the year. This has now been rectified and we are achieving over 80% in Q1 2019/20.

UKHO Directors' report

Executive Directors

Rear Admiral Tim Lowe CBE
Acting Chief Executive
(from 1 February 2019)
and UK National Hydrographer

Damian Bowler
Director of Corporate Services
(up to 31 May 2019)

Cathrine Armour
Director of Customer Division

Amy Carrillo
Head of People

Terry Makewell
Chief Technology Officer

David Tomaney
Director of Operations

John Humphrey
Chief Executive
(up to 31 January 2019)

Peter Davis
Director of Corporate Services
(up to 30 April 2018)

UKHO Directors' report continued

Non-Executive Directors

Adam Singer
Non-Executive Chairman

Heather Tayler
Non-Executive Director
(MOD Director Finance Strategy)

Tom Loosemore
Non-Executive Director

Captain Gary Hesling
Captain HM
and Hydrographer of the Navy
(up to 5 July 2019)

Marion Leslie
Non-Executive Director

Alison Henwood
Non-Executive Director

Find out more about our Directors at gov.uk/ukho.

Conflicts of interest

Members of the Board, the Executive Committee and their direct reports must declare conflicts of interest with current or potential customers and suppliers. No conflicts of interest were reported during the year. We maintain a register of interests which can be inspected at our Taunton office.

Pensions

Our staff pensions are provided through the Civil Service pension provider, MyCSP. Details are covered in the Remuneration and Staff Report and Accounting Policy Note 1 of the financial statements.

Auditor

Our financial statements are audited by the Comptroller and Auditor General of the National Audit Office (NAO) in accordance with section 4(6) of the Government Trading Funds Act 1973. The cost of performing the statutory audit was £81k (2017/18: £73k).

The Comptroller and Auditor General provided no other services to the UKHO in 2018/19.

Financial instruments

The accounting treatment of financial instruments, policies and associated risks is reported in Accounting Policies Note 1K and Note 17 of the financial statements.

Post-reporting period events

There have been no events after the reporting period requiring adjustments to the financial statements.

Rear Admiral Tim Lowe CBE
Interim Accounting Officer and Acting Chief Executive
29 August 2019

Statement of Responsibilities of the Chief Executive as Accounting Officer

Under section 4(6) (a) of the Government Trading Funds Act 1973 the UK Hydrographic Office is required to prepare, for each financial year, a statement of accounts in the form and on the basis set out in the Accounts Direction issued by HM Treasury on 19 December 2018. The accounts are prepared on an accruals basis and must give a true and fair view of the state of affairs of the Trading Fund and of its income and expenditure, Statement of Financial Position, changes in taxpayers' equity and cash flows for the financial year.

In preparing the accounts, the Accounting Officer is required to comply with the requirements of the Government Financial Reporting Manual (FReM), and in particular to:

- Ensure all relevant audit information has been made available to the auditors
- Observe the Accounts Direction issued by HM Treasury, including the relevant accounting and disclosure requirements to apply suitable accounting policies on a consistent basis
- Make judgements and estimates on a reasonable basis
- State whether applicable accounting standards as set out in the FReM have been followed, and disclose and explain any material departures in the financial statements
- Prepare the accounts on a going concern basis.

As far as the Accounting Officer is aware, there is no relevant audit information of which the entity's auditors are unaware, and he has taken all the steps that he ought to have taken to make himself aware of any relevant audit information and to establish that the entity's auditors are aware of that information.

The Accounting Officer confirms that the Annual Report and Accounts as a whole is fair, balanced and understandable and that he takes personal responsibility for the Annual Report and Accounts and the judgements required for determining that it is fair, balanced and understandable.

With the departure of the previous Chief Executive and Accounting Officer on 31 January 2019, HM Treasury has appointed the acting Chief Executive as Accounting Officer for the UK Hydrographic Office. The responsibilities of an Accounting Officer are set out in Managing Public Money published by HM Treasury. These include responsibility for the propriety and regularity of the public finances for which the Accounting Officer is answerable, keeping proper records and safeguarding the UK Hydrographic Office's assets.

Governance statement

Scope of responsibility

Up to the 31 January 2019 John Humphrey was the Accounting Officer. I was appointed interim Accounting Officer from 1 February 2019 and I am responsible for signing the annual report and accounts .As Accounting Officer, I maintain a sound system of internal control that supports the achievement of our policies, aims and objectives, while safeguarding the public funds and departmental assets for which I am personally responsible. This is in accordance with the responsibilities assigned to me in Managing Public Money.

To form an opinion on our system of internal control for the period 1 April 2018 to 31 March 2019, I have received advice and assurances from various sources including:

- Defence Internal Audit
- National Audit Office
- Other external assurance providers
- UKHO internal assurance
- The Board and its sub-committees
- The Directors and senior managers through their annual assurance statements.

Ownership and financial structure

Established as a Trading Fund in 1996 in accordance with Statutory Instrument SI 1996/773, we are 100% owned by the Secretary of State for Defence by way of public dividend capital.

Our financial statements, drawn up to 31 March each year, are prepared in accordance with the HM Treasury accounts direction of 19 December 2018 as per section 4(6) (a) of the Government Trading Funds Act 1973.

Status and governance framework

Our governance structure is defined in our Framework Document which, together with our Public Task Statement, can be found at: www.gov.uk/government/organisations/uk-hydrographic-office/about#our-framework-document.

Minister and UKHO Owner's Council

The minister responsible for the UKHO is the Minister of State for Defence ('the Minister'). During the financial year the Minister was the Rt Hon. Earl Howe. On 26 July 2019 Earl Howe was replaced as the Minister by the Rt Hon. Baroness Goldie.

The Minister approves our Corporate Plan and financial projections covering a five-year period. There were no Ministerial Directions given to us during the year.

The Minister also chairs the UKHO Owner's Council. The UKHO Owner's Council is the senior level group of stakeholders from across and outside Government which advises the Secretary of State for Defence on their responsibilities concerning the UKHO. It is comprised of the Minister and key stakeholders, including the Ministry of Defence, the Maritime and Coastguard Agency (MCA) and representatives of the shipping industry. The Owner's Council reviews our performance and approves, where necessary, major investments.

UKHO Board

The UKHO Board provides the strategic leadership for the UKHO in delivering its objectives. It provides a forum for independent, non-executive, support and constructive challenge to UKHO's Chief Executive and their Executive Directors.

During the year an independent effectiveness review was completed. This highlighted areas where the Boards effectiveness could be increased and actions are in place to exploit these opportunities. The quality of management information provided to the Board is reviewed regularly. The Board is satisfied that the information provided is fit for purpose.

The attendance of Board members at the Board and it's sub-committees (during their tenure in office) was:

	Board	ARAC	REMNCO
Tim Lowe	6/6		
John Humphrey (up to 31 January 2019)	5/5		
Peter Davis (up to 30 April 2018)	0/0		
Adam Singer	6/6		
Heather Tayler	6/6	3/3	3/3
Marion Leslie	5/6	2/3	2/3
Alison Henwood	6/6	3/3	3/3
Tom Loosemore	5/6		
Gary Hesling (up to 5 July 2019)	6/6	3/3	3/3
Average attendance	96%	92%	92%

Audit and Risk Assurance Committee (ARAC)

The ARAC is a sub-committee of the Board. The role of the ARAC is to support the UKHO Board and Chief Executive, as the Accounting Officer, in monitoring the organisation's corporate governance, control systems and risk management. Typically meeting four times a year (2018/19: -3; 2017/18: -5), its membership consists of four Non-Executive Directors, one of whom chairs the committee. Invited members of the Executive Committee, the National Audit Office (NAO) and our appointed internal auditors, Defence Internal Audit (DIA), attend its quarterly meetings as required. The Chair of the ARAC reports to the Board.

Annually, the Chair of the ARAC reports to the Accounting Officer summarising the activities of the ARAC during the previous year and confirming that, in their opinion, there is no reason why the Accounting Officer should not sign the governance statement.

Remuneration and Nomination Committee (REMNCO)

The REMNCO is a sub-committee of the Board. The role of the REMNCO is to advise the UKHO Chair on appointments to the UKHO Board (except for the Chair, whose appointment is the responsibility of the Owner); advise the Owner, Chief Executive and the Board on matters relating to the UKHO pay and reward strategy and on the remuneration for senior UKHO executives, operating within the framework set by Government-wide and Departmental guidelines and where applicable, those for the Senior Civil Service. The committee comprises four Non-Executive Directors who meet as required. The Chair of the committee reports on its proceedings to the UKHO Board.

Governance statement continued

Safety of Navigation Advisory Committee (SONAC)

The SONAC is an advisory committee that advises the Board on product and other safety matters. It is chaired by the Hydrographer to the Navy. It includes a range of independent experts from the Royal Navy, the Maritime and Coastguard Agency, the Royal National Lifeboat Institution, Trinity House, Associated British Ports, the Marine Accident Investigation Branch, the UK Chamber of Shipping and the Royal Yachting Association.

The Chair of SONAC reports to the ARAC and the Board.

Executive Committee (ExCo)

The purpose of the Executive Committee is to support the Chief Executive in managing the UKHO. It currently comprises Executive Directors who are the persons in senior positions that have authority or responsibility for directing or controlling the major activities of the UKHO.

Compliance with the corporate governance code

The Board has assessed itself against HM Treasury's corporate governance code and with two exceptions is deemed to comply. Contrary to the requirements of the code, the director responsible for finance was not professionally qualified. It is considered that this was successfully mitigated by the support of professionally qualified staff within the UKHO and by 2 non-executive directors (including the MOD NED) being professionally qualified. We are in the process of recruiting a new director of finance who will be professionally qualified.

In addition the Board framework has not been updated within the last 2 years as required by the code. The current Board framework, instituted in 2015, is currently under review and is expected to be revised in 2019/20. The Board considers the existing framework is still suitable.

The Board considers that it complies with all other aspects of the corporate governance code as far as is deemed relevant and practical.

Admiralty Holdings Limited (AHL)

AHL is a private limited company. It was established in 2002/03 to exploit commercial opportunities if needed. The Secretary of State for Defence, who owns 100% of AHL, has delegated its management to the UKHO. AHL is currently dormant.

UKHO internal control

As documented above, our governance supports a system of internal control designed to cost-effectively manage risk to an acceptable level, in line with our status and our corporate risk appetite. This system of internal control was in operation throughout the year ended 31 March 2019 and up to the date of approval of this Annual Report and Accounts.

Each year we seek to improve this system of internal control by refining our system of controls using continuous improvement.

Corporate governance and risk management

Executive Committee members and senior managers provide written assurance to me as the Interim Accounting Officer on the integrity and accuracy of:

- Performance reports
- Maintenance of effective controls in relation to the delivery of business objectives
- Security (physical and data)
- Financial propriety and fraud prevention
- General conduct of business
- Management of internal audit recommendations
- Identification of contingent liabilities
- Compliance with staff reporting requirements, including the provision of appropriate business skill capabilities.

Staff must complete training on information assurance and business resilience, countering fraud, bribery and corruption, contract awareness, equality, diversity, conscious and subconscious bias and security.

We have governance structures, processes and activities in place to manage our risks. Our risk management policy is aligned to the MOD risk management framework. Corporate risks are owned by divisional heads and are subject to review and challenge by the Executive Committee, the Board and the ARAC. Corporate risks can be found on page 41.

All employees have access to the business risk management policy and to guidance on identifying and mitigating risk. This sets out clear accountabilities and a structured process for identifying, accessing, communicating and managing risk.

Financial control

We have a mature system of financial control, evidenced in 2017/18 by Defence Internal Audit (DIA) giving a full assurance opinion in its audit. As a result higher risk areas were selected for internal audit in 2018/19 and no audit of the financial controls was carried out in 2018/19.

Financial authority is delegated from the Chief Executive to senior managers.

Spend against detailed plans is monitored monthly, with budget holders, by our Executive Committee and by the Board at every meeting. These plans collectively form the annual budget which in turn is derived directly from our Corporate Plan. This ensures our activities are directly aligned with our short-term financial plans and our long-term financial objectives.

The Executive Committee also reviews a range of KPMs, both financial and non-financial, each month. These measures give the Board confidence that all aspects of the business are being scrutinised and provide a framework for early intervention when required. This ensures that management scrutinises the assumptions underlying all major programmes and projects to ensure that they remain valid. All major programmes are subject to normal management disciplines.

We operate our commercial function in accordance with relevant Government procurement and regulatory requirements.

Management regularly reviews its commercial strategy to ensure that procurement accountabilities are clearly defined.

Governance statement continued

MinT Programme (Marine Intelligence)

MinT is a data platform development programme instituted to support the transition of the UKHO to an MGIA. It improves production efficiency of existing paper and digital products and enables the UKHO to generate new business from existing data beyond our traditional navigation market. The 2018/19 MinT Programme was reviewed by Defence Internal Audit (DIA) and they concluded the following:

"The current MINT programme had not been subject to a distinct process of appraisal and evaluation, nor a separate approvals decision. The underpinning case for change and approval decision are deemed to have been made through the annualised strategic planning process and the ministerial approval of the UKHO Corporate Plan. Therefore, a standalone extant business case does not exist for the MINT programme. Consequently, there is insufficient evidence to demonstrate all aspects of the proposal were appropriately assessed prior to approval and there is a lack of a clear audit trail for the purposes of public accountability. Whilst, the UKHO Corporate Plan does articulate a compelling case for change and provides a clear understanding of the rationale and drivers for undertaking the MINT programme, there is no evidence to confirm that the investment decision was based on a fully developed and holistic set of proposals."

DIA was satisfied that appropriate project delivery controls were in place. Overall, it concluded that there was limited assurance that adequate control had been applied to the programme.

Based on the findings from DIA, the UKHO has, from 2019/20, instituted a more robust and transparent approvals process that is designed to be flexible and adaptive but also provide evidence of the necessary controls and governance to ensure Value for Money is not only achieved but also demonstrated.

Exchange rate risk

As digital charts are sold in US dollars (USD), an increasing proportion of our sales are made in USD. As the related data costs are also in USD, we have a natural hedge. We review USD holdings quarterly against forecast requirements. Any excess is sold at the spot rate on the day of transaction. We do not use derivatives such as currency options or forward currency exchange contracts to manage our exchange rate risk.

Improving quality

The UKHO successfully transitioned to the new ISO9001:2015 standard in December 2016, recertified in December 2018, and this standard and our quality management system continue to underpin our approach to quality and our customers.

We have revised our change delivery governance to an Agile Delivery Governance framework which is aligned to our current ways of working and our approach of guide, trust and verify. We continue to monitor performance against our corporate plan through a monthly performance dashboard with detailed feedback and measurement against key financial, staff and production targets. Additional effort is going into development of more detailed performance measures within teams.

The role of internal audit

The ARAC approves the internal audit programme each year. The internal audit for 2018/19 was contracted out to DIA.

DIA carried out independent checks on the control process on my behalf. In line with Public Sector Internal Audit Standards, DIA also carried out a programme of risk-based audits. It submitted regular reports, including its opinion on the adequacy and effectiveness of our internal control. It made findings, which are agreed with management, which then form the basis of improvement actions. Where appropriate, the Executive Committee monitors outstanding improvement actions to ensure they are implemented.

DIA's opinion on the work completed during 2018/19 was that there were largely adequate and effective internal controls in operation and therefore an overall opinion of 'Substantial Assurance' was given. DIA went on to comment that:

"Based on the scope and results of our internal audit work, we concluded that the systems reviewed largely had adequate and effective control frameworks in place and controls were operating mainly as intended, although there were some minor weaknesses identified. As noted above, significant weaknesses were identified in the review of MinT Programme around investment appraisals and the production of an appropriate business case for the project. Where weaknesses have been identified in systems reviewed, actions have been agreed to mitigate risks.

UKHO management indicate there are no high priority areas of weakness where audit actions are overdue or past implementation dates at the end of the reporting period.

On balance, given the processes reviewed and the weaknesses identified, we can provide an overall Substantial Assurance Opinion that the systems of internal control were largely in place and operating effectively."

Governance statement continued

Fraud and whistleblowing

We seek to conduct our business honestly and with integrity at all times. However, it is acknowledged that all organisations face the risk of their activities going wrong from time to time, or of unknowingly harbouring malpractice. We have a zero-tolerance approach to fraud. Our staff have easy access to advice on the UKHO's Intranet on what to do if they suspect fraudulent activity which includes the protection they receive if they report their suspicions. Staff are also provided with an annual update on fraud issues and a reminder of UKHO's expectations. During the year, the UKHO also took part in the civil service whislteblowing awareness campaign.

Any staff member having a genuine concern about an issue of impropriety or malpractice, is encouraged to raise it. In a majority of instances the most appropriate place for a worker to raise concerns will be with their line manager or a more senior manager; in other cases a concern may be reported to a member of the UKHO's Executive Committee or, in their absence, to the Chief Executive.

We had one instance of fraud during the year, this related to false reporting of attendance time with an intent to take off flexi-time over and above that rightfully earned. This case has been subject to our disciplinary processes.

Cyber security

Cyber security risks are increasing as the UKHO's digital transformation journey continues. More data is being migrated to the cloud and attacks are becoming more sophisticated.

In response to this complex and changing set of risks, UKHO takes a defence in depth-in-approach towards cyber security which is underpinned by our ISO27001:2013 Information Security Management System (ISMS). This is essentially a set of policies, procedures and controls for protecting the confidentiality, integrity and availability of our information. Additional assurance may also be gained from the fact that the UKHO has largely eliminated our legacy IT estate and have developed a security monitoring capability.

Business continuity

Our business continuity management (BCM) system is aligned to the requirements of ISO22301. Our BCM processes were subject to independent external review during 2018/19, as part of our ISO27001 certification process, with no non-conformities or observations raised.

In May 2018, we invoked our crisis management plan in response to a data centre outage caused by a small UPS fire. Throughout this incident our critical activities continued to operate, and the data centre was operational again within four hours.

Information Assurance (IA)

We continue to operate at level 3 of the IA Assessment Framework as required by the Cabinet Office. Employees and contractors undertake the Civil Service annual Responsible for Information training and all third parties bidding for new contracts are subject to a cyber risk assessment under the Defence Cyber Protection Partnership.

We have retained certification to ISO27001 and have implemented the requirements of the Data Protection Act 2018, including the EU General Data Protection Regulation (GDPR), which came into force in May 2018.

New office

The move into our new office was successfully achieved with the building handed over in January 2019. Staff have all moved in and are settling in to the new modern environment.

Conclusion

I have carefully considered the governance and control issues noted above, and the plans to address them. After taking this, the report from the ARAC chair, and all of the other evidence provided with regards to the production of the annual Governance Statement into consideration, I conclude that the organisation's overall governance, risk management and internal control structures are effective.

Rear Admiral Tim Lowe CBE
Interim Accounting Officer and Acting Chief Executive
29 August 2019

Remuneration and staff report

Remuneration policy

Executive Director is interpreted to mean persons in senior positions having authority or responsibility for directing or controlling the major activities of the organisation. Executive Directors are also all members of the UKHO's Executive Committee, which supports the Chief Executive in managing the UKHO.

The Chief Executive and from time to time other Executive Directors are also members of the UKHO Board.

The Chief Executive at 31 March 2019 was on secondment from the Royal Navy. His remuneration is set and paid by the Royal Navy.

The previous chief executive, John Humphrey, was appointed Chief Commercial Officer and Deputy Chief Executive (Corporate) on a permanent SCS contract from 1 April 2014. John was appointed Chief Executive from 1 February 2015 and left on 31 January 2019.

Six of the Executive Directors employed during the year, were Senior Civil Servants (SCS) subject to SCS terms and conditions. Their bonus arrangements fell under SCS rules rather than the UKHO's performance-award system.

One of the Executive Directors is employed under UKHO terms.

The Non-Executive Directors are not UKHO employees but, apart from two who are Government employees, are paid a fee for their services.

All other employees have their pay determined by us in accordance with Government policy and consultation with the MOD and HM Treasury before negotiation with employee representatives.

The outcome of negotiations is reported back to HM Treasury through the annual outturn statement.

A corporate performance award is payable to all staff (except SCS) if we meet our KPMs 1 to 4 and at least 70% of KPM5. Partial achievement of KPM5 will result in a proportionate reduction of the award available.

Service contracts

The Constitutional Reform and Governance Act 2010 requires Civil Service appointments to be made on merit on the basis of fair and open competition. The Recruitment Principles published by the Civil Service Commission specify the circumstances when appointments may be made otherwise. Unless otherwise stated below, the officials covered by this report hold appointments which are open-ended. Early termination, other than for misconduct, would result in the individual receiving compensation as set out in the Civil Service Compensation Scheme.

Further information about the work of the Civil Service Commission can be found at: www.civilservicecommission.org.uk.

The Chief Executive has delegated authority for recruitment up to, but not including, SCS. The duration of contracts and notice periods are in accordance with the Civil Service Management Code and business needs. The appointments of Non-Executive Directors are in accordance with MOD guidelines and The Office of the Commissioner for Public Appointments Code of Practice.

Our Directors

Salary entitlements

The table on page 50 provides details of the remuneration and pension interests of the executive members of the UKHO Board and other Executive Directors.

Salary

Salary includes gross salary, overtime, recruitment and retention allowances, private office allowances and any other allowance, to the extent that it is subject to UK taxation.

Benefits in kind

The monetary value of benefits in kind covers any benefits provided by the UKHO and treated by HM Revenue and Customs as taxable. No benefits in kind were provided during the year (2017/18: £nil).

Performance awards

Performance awards are based on performance assessed in the appraisal process. Performance awards relate to the year in which they become payable to the individual. The performance awards reported in 2018/19 relate to performance in 2018/19 and the comparative performance awards reported for 2017/18 relate to 2017/18.

Pensions

Executive Directors who are employed under SCS or UKHO terms are members of the Civil Service Pension Schemes. Full details of the pension schemes are provided later in this note.

The pension figures quoted for Executive Directors show pension earned in the Principal Civil Service Pension Scheme (PCSPS) or Civil Servants and Others Pension Scheme (alpha) – as appropriate. Where the Executive Director has benefits in both the PCSPS and alpha the figure quoted is the combined value of their benefits in the two schemes.

The accrued benefits figures quoted are the pension and lump sum the Executive Director is entitled to receive when they reach pension age, or immediately on ceasing to be an active member of the scheme if they are already at or over pension age. Pension age is 60 for members of classic, premium and classic plus and 65 for members of nuvos sections of the PCSPS, and the higher of 65 or State Pension Age for members of alpha.

A Cash Equivalent Transfer Value (CETV) is the actuarially assessed capitalised value of the pension scheme benefits accrued by an Executive Director at a particular point in time. The benefits valued are the Executive Director's accrued benefits and any contingent spouse's pension payable from the scheme. A CETV is a payment made by a pension scheme or an arrangement to secure pension benefits in another pension scheme or an arrangement when the member leaves a scheme and chooses to transfer the benefits accrued in their former scheme.

CETVs are worked out in accordance with The Occupational Pension Schemes (Transfer Values) (Amendment) Regulations 2008 and do not take account of any actual or potential reduction to benefits resulting from Lifetime Allowance Tax which may be due when pension benefits are taken.

The Real Increase in CETV reflects the increase in CETV that is funded by the employer. It does not include the increase in accrued pension due to inflation, or contributions paid by the employee (including the value of any benefits transferred from another pension scheme or arrangement) and uses common market valuation factors for the start and end of the period.

The pension figures and CETVs shown relate to the benefits that the individual has accrued as a consequence of their total membership of the pension scheme, not just their service in a senior capacity to which disclosure applies. The figures include the value of any pension benefit in another scheme or arrangement which the member has transferred to the Civil Service pension arrangements. They also include any additional pension benefit accrued to the member as a result of their buying additional pension benefits at their own cost.

Remuneration and staff report continued

Remuneration details

2018/19	Notes	Salary Band £k	Performance Awards £k	Total £k	Pension Benefit £k
Rear Admiral Tim Lowe – Acting Chief Executive and National Hydrographer*	1	125 – 130	–	125 – 130	–
David Tomaney – Director of Operations		75 – 80	–	75 – 80	31
Damian Bowler – Director of Corporate Services (up to 31 May 2019)		80 – 85	0 – 5	85 – 90	32
Terry Makewell – Chief Technology Officer (from 30 April 2018)		95 – 100 (105 – 110)	–	95 – 100	38
Cathrine Armour – Director of Customer Division (from 30 July 2018)		65 – 70 (95 – 100)	–	65 – 70	26
Amy Carrillo – Head of People (from 1 August 2018)	2	40-45 (65 – 70)	–	40-45 (65 – 70)	25
John Humphrey – Chief Executive (up to 31 January 2019)*	3	95 – 100 (115 – 120)	–	95 – 100	38
Peter Davis – Director of Corporate Services (up to 30 April 2018)*	4	5 – 10 (65 – 70)	–	5 – 10	24

2017/18	Notes	Salary Band £k	Performance Awards £k	Total £k	Pension Benefit £k
John Humphrey – Chief Executive*	3	115 – 120	–	115 – 120	46
Rear Admiral Tim Lowe – National Hydrographer*	1	120 – 125	–	120 – 125	–
Peter Davis – Director of Corporate Services*	4	65 – 70	–	65 – 70	12
David Tomaney – Director of Operations		75 – 80	0 – 5	75 – 80	28
Damian Bowler – Commercial Director		85 – 90	10 – 15	95 – 100	33

* UKHO Board member

Notes

1. Rear Admiral Tim Lowe is a serving Royal Navy Officer on loan to the UKHO. While the Royal Navy charges for his services are based on loan capitation rates, the figures above reflect his actual salary. He is remunerated in line with his parent service. Pension and CETV figures are not disclosed. Tim was appointed National Hydrographer and Deputy Chief Executive (Hydrography) on 11 August 2015. Tim was subsequently appointed Acting Chief Executive and interim Accounting Officer on 1 February 2019.
2. Amy Carrillo joined the UKHO on 15 September 2014 and joined ExCo on 1 August 2018.
3. John Humphrey was appointed Chief Executive from 1 February 2015. John left on 31 January 2019.
4. Peter Davis was appointed Director of Corporate Services on 11 April 2016, on a temporary two-year assignment from the MOD. Peter left on 30 April 2018.
5. The value of Pension Benefit disclosed is calculated as the real increase in pension multiplied by 20 plus the real increase in any lump sum less the contributions made by the individual during the year. The real increases exclude increases due to inflation or any increases or decreases due to a transfer of pension rights. This is an estimate of the assumed value of the increase in pension that will be payable on retirement to the individual and has not been paid in the year.

Pension benefits

(This section has been subject to audit)

	Accrued benefits *		Real increase in benefits		CETV	CETV	CETV
	Pension (Note a) £k	Lump sum (Note a) £k	Pension (Note a) £k	Lump sum £k	31/03/2018 £k	31/03/2017 £k	Real increase £k
David Tomaney	15 – 20	Note b	0 – 2.5	Note b	228	182	19
Damian Bowler	20 – 25	Note b	0 – 2.5	Note b	241	189	15
Terry Makewell	10 – 15	Note b	0 – 2.5	Note b	136	98	16
Cathrine Armour	0 – 5	Note b	0 – 2.5	Note b	19	0	14
Amy Carrillo	5 – 10	Note b	0 – 2.5	Note b	69	47	11
John Humphrey	30 – 35	Note b	2.5 – 5	Note b	501	420	24
Peter Davis	40 – 45	Note b	0 – 2.5	Note b	676	655	19

* As at 31 March 2019

Notes

a. Pension are as at pension age.

b. No automatic lump sum payable as member is in the premium/nuvos scheme.

Remuneration and staff report continued

Fees paid to Non-Executive Directors (NEDs)

NEDs are appointed for an initial term of three years, which can be extended by mutual agreement normally for a further three years. NED contracts are not pensionable and there is no compensation for early termination.

Contracts may be terminated at one month's notice by either party or on dissolution of the Board, except in the case of gross misconduct when termination is immediate.

NEDs and their fees as at 31 March 2019 were:

	Notes	2018/19 £k	2017/18 £k
Adam Singer	1	25 – 30	25 – 30
Alison Henwood	2	15 – 20	15 – 20
Marion Leslie	3	15 – 20	15 – 20
Tom Loosemore (from 1 September 2017)	4	15 – 20	10 – 15 (15–20)*
Heather Tayler	5		–
Captain Gary Hesling (up to 5 July 2019)	6		–

* Full year equivalent

1. Adam Singer, Chairman, was appointed on 3 May 2014. This contract has been extended for a further three years until 2 May 2020.
2. Alison Henwood was appointed on 26 January 2017.
3. Marion Leslie was appointed on 1 January 2015. This contract has been extended until 31 December 2020.
4. Tom Loosemore was appointed on 1 September 2017.

The following NEDs do not receive separate remuneration for their role:

5. Heather Tayler is an MOD SCS representing our owner.
6. Captain Gary Hesling is a serving Royal Navy Officer.

Fair Pay Report

(This section has been subject to audit)

	2018/19 £k	2017/18 £k
Band of highest paid Director's remuneration (£'000)	125 – 130	120 – 125
Median of all UKHO employees	32.4	31.0
Ratio	3.9	4.0

Reporting bodies are required to disclose the relationship between the remuneration of the highest-paid director in their organisation and the median remuneration of the organisation's workforce. The banded remuneration of the highest-paid director in the UKHO in the financial year 2018/19, as disclosed in Directors remuneration details, was £125k to £130k (2017/18: £120k to £125k). This was 3.9 times (2017/18: 4.0) the median remuneration of the workforce, which was £32.4k (2017/18: £31.0k).

Remuneration ranged from £17,477 to £125,000-£130,000 (2017/18: £17,167 to £120,000-£125,000). Total remuneration includes salary, non-consolidated performance-related pay and benefits-in-kind. It does not include severance payments, employer pension contributions and the cash equivalent transfer value of pensions.

Our staff

Staff numbers (Averages over the year)

	2018/19	2017/18
Civil servants	825	843
Agency staff	26	40
Service personnel	5	6
Total staff numbers	856	889

Staff costs

	2018/19 £k	2017/18 £k
Salaries, wages etc.	29,617	29,439
Social security costs	2,966	2,949
Pension costs	5,711	5,712
Apprentice levy	130	128
Agency staff costs	1,575	1,825
Service personnel costs	769	911
Staff costs capitalised within intangible assets	(1,023)	(733)
Total staff costs	39,745	40,231

Members of the Owner's Council receive no remuneration for their services. The costs of full-time Government officials are borne by their parent departments.

Service personnel are included in employee numbers above. However, they are on loan to us and we are charged a capitation rate. We carry no pension liability for service personnel.

Agency staff

Agency staff are individual temporary workers engaged to cover business-as-usual or service-delivery activities, mainly under short-term arrangements.

Consultancy

It does not make economic sense for the UKHO to maintain all the specialist skills needed permanently in house, and access to some level of private-sector expertise is consequently of enduring value. We have therefore needed to contract short term both for independent advice and for specialist skills which cannot currently be found among our permanent workforce.

During the year the UKHO spent £476k on consultancy (2017/18: £452k). Of these amounts £377k (2017/18: £371K) related to consultants supporting the building of the UKHO's new offices.

Remuneration and staff report continued

Staff composition (Number of staff at 31 March)

2018/19	Male	Female
Number of persons of each sex who were Executive Directors at year end	4	2
Number of persons of each sex who were senior managers at year end*	40	17
Total number of persons who were employed at the year end	575	250

2017/18	Male	Female
Number of persons of each sex who were Directors at year end	5	–
Number of persons of each sex who were senior managers at year end*	43	16
Total number of persons who were employed at the year end	602	272

* Senior managers have been defined as anyone of a UKHO band C or above

Diversity

We are committed to improving all forms of diversity. The Chief Executive and his Executive Committee (ExCo) all have personal objectives supporting improved diversity and we see this as an integral part of our future success as an innovative and forward looking organisation.

Some of the actions that we have implemented include:

- Creating a Diversity and Inclusion forum and Affiliated networks such as a Women's Network, Mental Health Awareness Group, Christian Fellowship, STEM, LGBTQ+ and Disability Group
- Inclusion of an Equality Analysis in ExCo papers, change charters and in our Agile governance framework
- Commitment to a Mental Health Strategy and Implementation plan, and launch of a peer support group
- Improving diversity in recruitment through the guaranteed interview scheme, being a Disability Confident employer, the use of a Gender Decoder algorithm for all adverts and gender diverse panels.

Despite these actions, improving gender diversity will continue to be a challenge; the technical skills we will increasingly need are skills that traditionally are under-represented by females.

Sickness absence

The average number of days lost through sickness in 2018/19 was 5.92 (2017/18: 7.1).

Disability

We are dedicated to achieving a more diverse and inclusive workforce and recruiting the best people, regardless of whether they have a disability.

Our aims are that disabled staff should feel valued and supported; that line managers of disabled staff should have access to consistent advice and expertise; and that necessary reasonable adjustments will be made in a timely manner.

We have an anonymous sifting process for recruitment to help us ensure a 'level playing field' in the assessment process. All staff complete managing unconscious bias training and equality and diversity training to help them identify where potential issues may arise.

We are a 'Disability Confident' employer and we also participate in the Guaranteed Interview Scheme, whereby individuals who declare a disability are guaranteed an interview, if they meet the minimum requirements.

Also, to encourage and support applications from a more diverse applicant pool, we no longer have a minimum educational qualifications threshold for entry roles to the Civil Service.

All staff have access to our Employee Assistance Programme (EAP) and we have a contract with Occupational Health Services, to enable us to gain tailored advice for individuals who may have a short or long-term health condition, which also enables us to consider reasonable adjustments.

We are also fully committed to supporting staff who become disabled whilst employed by the UKHO and a range of learning and support is available to them. Our approach to training, career development and promotion is inclusive, and opportunities are offered on a fair and open basis. We actively promote talent programmes such as the Positive Action Pathway which is open to under-represented groups, including those with a disability.

Staff engagement

Throughout the year we hold corporate and team staff events to reflect our performance and look ahead to the next period of our corporate plan. The Chief Executive and other members of the senior management team actively contribute, including interactive Q&A sessions and discussions. Regular updates are also published on our intranet, which hosts a Yammer feed where employees can raise or take part in discussions. For 2019, a broad range of staff have helped shape the corporate plan and how it is communicated.

Staff are encouraged to complete the Civil Service People Survey each year and results are reported to the Board. This survey gives us an annual measure of employee engagement.

Senior managers work with staff to understand the outcomes from the survey and to make improvements.

Trade unions are actively encouraged to contribute to studies and other reviews and are represented at the Board. Formal consultations on a wide range of issues are conducted through the Whitley Committee.

People are key to our success and the UKHO regularly monitors performance and creates personal development plans linked directly to the organisation's objectives. A number of professional frameworks help monitor and track development, and our new apprenticeship programme is nurturing our own talent.

Remuneration and staff report continued

Health, safety and welfare

Health, safety and welfare is a key priority for the UKHO and we maintain a number of policies to support this.

We track health and safety incidents including any reported near misses. Our health and safety record shows the following health and safety incidents.

	2018/19	2017/18
RIDDOR reportable (Incidents reportable under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations)	-	-
Incidents (Health and safety incidents, from minor injuries not requiring first aid, up to incidents just below the RIDDOR threshold)	13	9
Near misses (Health and safety incidents not resulting in any injury)	2	7

Of the incidents reported in 2018/19, 1 required hospital treatment (2017/18: 1).

Mental health welfare

Two in every three of the UK population will at some stage experience symptoms of poor mental wellbeing. As an employer, the UKHO is adapting to these changes to maintain a mentally healthy working population. The physical and mental health and wider wellbeing of UKHO people contributes directly to our operational capability; improving both is therefore a high priority.

In May 2019, the UKHO's Mental Health and Wellbeing Action Plan was launched, which built on and consolidated the vital efforts made by our Mental Health Awareness network group, which formed in June 2017. The plan describes where we have come from, the improvements we aim to achieve and how we will measure these.

UKHO's aims are to:

- **Break down barriers** – encourage an open culture, where there is no stigma to speak about mental health.
- **Develop a supporting environment** – provide timely access to safe, effective and trained mental healthcare support, as well as networks, policies, procedures, guidance and training.
- **Measure and share** – produce and share statistics, survey results and other measures to increase our understanding of mental health and wellbeing at the UKHO, as well as the national picture.

Pensions

Employer pension contribution rates are as follows:

Scheme and annual salary bands to which rates apply	2019/20 %	2018/19 %
PCSPS – Band 1–£23,000 and under	26.6	20.0
PCSPS – Band 2–£23,001 to £45,500	27.1	20.9
PCSPS – Band 3–£45,501 to £77,000	27.9	22.1
PCSPS – Band 4–£77,001 and over	30.3	24.5

The Principal Civil Service Pension Scheme (PCSPS) is an unfunded, multi-employer defined benefit scheme and we are unable to identify our share of the underlying assets and liabilities. The Government Actuary's Department valued the scheme as at 31 March 2016. Details can be found in the resource accounts of the Cabinet Office: Civil Superannuation (www.civilservicepensionscheme.org.uk).

For 2018/19, employers' contributions of £5,680k were payable to the PCSPS (2017/18: £5,676k). The scheme's actuary usually reviews employer contributions every four years following a full scheme valuation. The contribution rates are set to meet the cost of the benefits accruing during 2018/19 to be paid when the member retires and not the benefits paid during this period to existing pensioners. Employees can opt for a partnership pension account, a stakeholder pension with an employer contribution. Employer contributions of £31.3k (2017/18: £35.5k) were paid to stakeholder pension providers. Employer contributions are age-related and range from 8% to 14.75% of pensionable pay.

Contributions due to the partnership pension providers at 31 March 2019 were £3.5k (2017/18: £6.6k). There were no prepaid contributions at that date.

Civil Service pensions

Pension benefits are provided through the Civil Service pension arrangements. From 1 April 2015 a new pension scheme for civil servants was introduced – the Civil Servants and Others Pension Scheme or alpha, which provides benefits on a career average basis with a normal pension age equal to the member's State Pension Age (or 65 if higher). From that date all newly appointed civil servants and the majority of those already in service joined alpha. Prior to that date, civil servants participated in the Principal Civil Service Pension Scheme (PCSPS). The PCSPS has four sections: Three providing benefits on a final salary basis (classic, premium or classic plus) with a normal pension age of 60; and one providing benefits on a whole career basis (nuvos) with a normal pension age of 65.

These statutory arrangements are unfunded with the cost of benefits met by monies voted by Parliament each year. Pensions payable under classic, premium, classic plus, nuvos and alpha are increased annually in line with the Pensions Increase legislation. Existing members of the PCSPS who were within 10 years of their normal pension age on 1 April 2012 remained in the PCSPS after 1 April 2015. Those who were between 10 years and 13 years and 5 months from their normal pension age on 1 April 2012 will switch into alpha sometime between 1 June 2015 and 1 February 2022. All members who switch to alpha have their PCSPS benefits 'banked', with those with earlier benefits in one of the final salary sections of the PCSPS having those benefits based on their final salary when they leave alpha. Members joining from October 2002 may opt for either the appropriate defined benefit arrangement or a 'money purchase' stakeholder pension with an employer contribution (partnership pension account).

Employee contributions are salary-related and range between 4.6% and 8.05% for members of classic, premium, classic plus, nuvos and alpha. Benefits in classic accrue at the rate of 1/80th of final pensionable earnings for each year of service. In addition, a lump sum equivalent to three years' initial pension is payable on retirement. For premium, benefits accrue at the rate of 1/60th of final pensionable earnings for each year of service. Unlike classic, there is no automatic lump sum.

Remuneration and staff report continued

Classic plus is essentially a hybrid with benefits for service before 1 October 2002 calculated broadly as per classic and benefits for service from October 2002 worked out as in premium. In nuvos, a member builds up a pension based on their pensionable earnings during their period of scheme membership. At the end of the scheme year (31 March) the member's earned pension account is credited with 2.3% of their pensionable earnings in that scheme year and the accrued pension is uprated in line with the Pensions Increase legislation. Benefits in alpha build up in a similar way to nuvos, except that the accrual rate is 2.32%. In all cases, members may opt to give up (commute) pension for a lump sum up to the limits set by the Finance Act 2004.

The partnership pension account is a stakeholder pension arrangement. The employer makes a basic contribution of between 8% and 14.75% (depending on the age of the member) into a stakeholder pension product chosen by the employee from a panel of providers. The employee does not have to contribute, but where they do make contributions, the employer will match these up to a limit of 3% of pensionable salary (in addition to the employer's basic contribution). Employers also contribute a further 0.5% of pensionable salary to cover the cost of centrally provided risk benefit cover (death in service and ill-health retirement).

Further details about the Civil Service pension arrangements can be found at the website www.civilservicepensionscheme.org.uk

Off-payroll engagements

Off-payroll engagements as at 31 March for more than £245 per day and that last for more than six months are as follows:

	2018/19	2017/18
No. of existing engagements as at 31 March	**12**	**34**
Of which …		
No. that have existed for less than one year	9	27
No. that have existed for between one and two years	3	3
No. that have existed for between two and three years	–	3
No. that have existed for between three and four years	–	1
No. that have existed for four or more years	–	–

No. of new engagements, or those that reached six months in duration, during the year.	2018/19 **12**	2017/18 **14**
Of which …		
No. assessed as caught by IR35	12	13
No. assessed as not caught by IR35	–	1
No. engaged directly and/or on UKHO's payroll	–	–
No. of engagements reassessed for consistency/ assurance purposes during the year	–	–
No. of engagements that saw a change to IR35 status following the consistency review	–	–

Board members and/or senior officials with significant financial responsibility, during the year	2018/19	2017/18
No. of off-payroll engagements or Board members, and/or, senior officials with significant financial responsibility, during the financial year	–	–
No. of individuals that have been deemed 'Board members, and/or, senior officials with significant financial responsibility', during the financial year	14	13

Civil Service exit packages

(This section has been subject to audit)

Exit package cost band	Total number of exit packages by cost band 2018/19	2017/18
< £10,000	5	–
£10,000 – £25,000	4	1
£25,000 – £50,000	10	–
£50,000 – £100,000	1	3
Total number of exit packages	20	4
Total cost (£k)	534	193

Redundancy and other departure costs have been paid in accordance with the provisions of the Civil Service Compensation Scheme.

Exit costs are accounted for in the year of departure and include lump sums and any annual compensation payments which are paid each year until they retire. Where we have agreed early retirements, the additional costs are met by us and not by the PCSPS.

Ill-health retirement costs are met by the pension scheme and not included in the table.

2018/19 exit packages include the cost and legal fees (£56k) of settling an employment dispute.

All other costs in the table above for both years relate to staff leaving under the Voluntary Early Release Scheme terms.

There were no compulsory redundancies in either 2018/19 or 2017/18. No ex-gratia costs were paid.

Rear Admiral Tim Lowe CBE
Interim Accounting Officer and Acting Chief Executive
29 August 2019

Parliamentary accountability

The Chief Executive is personally responsible for the performance and management of the Trading Fund. Our Annual Report and Accounts are subject to audit by the Comptroller and Auditor General, who heads the National Audit Office and is responsible for scrutinising public spending and safeguarding the interests of taxpayers on behalf of Parliament. The audit certificate is presented on page 56.

More information on our Parliamentary Accountability is published in our Framework Document, this can be found at: www.gov.uk/government/organisations/uk-hydrographic-office/about#our-framework-document.

Statement of Parliamentary Supply

(This section has been subject to audit)

As a trading fund agency, we do not have a Statement of Parliamentary Supply.

Public spending and administration budgets

As a trading fund agency, we receive neither a departmental net expenditure limit nor an administrative control total. All our operating expenditures are funded by receipts from trading operations. Our Chief Executive receives his letter of authority directly from the Parliamentary Under Secretary of State for Defence.

Pricing and charges

(This section has been subject to audit)

Our products are priced with reference to their cost, and to our assessment of their market value in relation to other similar products and the value our end-users derive from these products. Our revenue, analysed by our operating segments, can be found in note 2 page 68.

Regularity of expenditure

(This section has been subject to audit)

	2018/19 £k	2017/18 £k
Unrecoverable trade receivables	71	41
Unrecoverable payments to staff	–	–
Fruitless payments	–	–
Special payments	56	–
Realised foreign exchange losses/ (gains)	247	(537)

The special payment relates to the settlement cost and legal fees relating to an employment dispute that was resolved after the year end. During the year the UKHO spent £7k sponsoring Marine Environmental Data and Information Network (MEDIN).

Long-term expenditure trends

2017/18 was the final year of a five-year programme to reduce staff and other operating costs by a targeted 5% per annum.

We have now adopted a new KPM: Human Capital Value Added. This measure focuses on productivity through a combination of maintaining margin, reducing cost and increasing sales.

Remote contingent liabilities

(This section has been subject to audit)

Error in our products and services

The Government ultimately carries the risk in the event that an error in our products and services contributes to an incident at sea. All of our safety and quality systems are focused on mitigating this risk. We carry Professional Indemnity insurance to cover the first £50m of any claim. Any liability beyond this is considered to be under-written by our parent department, the MOD.

Leaving the European Union

The UKHO has been conducting activities associated with the UK's preparation to leave the EU. These activities can be broadly considered as: a) supporting other Government departments with specialist products and services as part of their preparations, b) generic resource under Operation Yellow Hammer, c) mitigation of any issues associated with supply chain, data acquisition, distribution of products and in any future trading agreements in the context of the UKHO's status as a state-owned enterprise and d) engaging with Government to see where UKHO's position can support broader policy development especially as part of Global Britain.

The certificate and report of the Comptroller and Auditor General to the Houses of Parliament

Opinion on financial statements

I certify that I have audited the financial statements of the UK Hydrographic Office for the year ended 31 March 2019 under the Government Trading Funds Act 1973. The financial statements comprise: the Statement of Comprehensive Income, Statement of Financial Position, Statement of Changes in Taxpayers' Equity and Statement of Cash Flows; and the related notes, including the significant accounting policies. These financial statements have been prepared under the accounting policies set out within them. I have also audited the information in the Accountability Report that is described in that report as having been audited.

In my opinion:

- the financial statements give a true and fair view of the state of the UK Hydrographic Office's affairs as at 31 March 2019 and of its retained profit for the year then ended; and
- the financial statements have been properly prepared in accordance with the Government Trading Funds Act 1973 and HM Treasury directions issued there under.

Opinion on regularity

In my opinion, in all material respects, the income and expenditure recorded in the financial statements have been applied to the purposes intended by Parliament and the financial transactions recorded in the financial statements conform to the authorities which govern them.

Basis of opinions

I conducted my audit in accordance with International Standards on Auditing (ISAs) (UK) and Practice Note 10 'Audit of Financial Statements of Public Sector Entities in the United Kingdom'. My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of my certificate. Those standards require me and my staff to comply with the Financial Reporting Council's Revised Ethical Standard 2016. I am independent of the UK Hydrographic Office in accordance with the ethical requirements that are relevant to my audit and the financial statements in the UK.

My staff and I have fulfilled our other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Conclusions relating to going concern

I am required to conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the UK Hydrographic Office's ability to continue as a going concern for a period of at least twelve months from the date of approval of the financial statements. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the entity to cease to continue as a going concern. I have nothing to report in these respects.

Responsibilities of the Chief Executive as Accounting Officer for the financial statements

As explained more fully in the Statement of Responsibilities of the Chief Executive as Accounting Officer, the Chief Executive as Accounting Officer is responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view.

Auditor's responsibilities for the audit of the financial statements

My responsibility is to audit, certify and report on the financial statements in accordance with the Government Trading Funds Act 1973.

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (UK), I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

The certificate and report of the Comptroller and Auditor General to the Houses of Parliament continued

- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the UK Hydrographic Office's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I am required to obtain evidence sufficient to give reasonable assurance that the income and expenditure recorded in the financial statements have been applied to the purposes intended by Parliament and the financial transactions recorded in the financial statements conform to the authorities which govern them.

Other Information

The Chief Executive as Accounting Officer is responsible for the other information. The other information comprises information included in the annual report, but does not include the parts of the Accountability Report described in that report as having been audited, the financial statements and my auditor's report thereon. My opinion on the financial statements does not cover the other information and I do not express any form of assurance conclusion thereon.

In connection with my audit of the financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact. I have nothing to report in this regard.

Opinion on other matters

In my opinion:

- the parts of the Accountability Report to be audited have been properly prepared in accordance with HM Treasury directions made under the Government Trading Funds Act 1973;
- in the light of the knowledge and understanding of the entity and its environment obtained in the course of the audit, I have not identified any material misstatements in the Performance Report or the Accountability Report; and
- the information given in the Performance Report and Accountability Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

Matters on which I report by exception

I have nothing to report in respect of the following matters which I report to you if, in my opinion:

- adequate accounting records have not been kept or returns adequate for my audit have not been received from branches not visited by my staff;
- the financial statements and the parts of the Accountability Report to be audited are not in agreement with the accounting records and returns;
- I have not received all of the information and explanations I require for my audit; or
- the Governance Statement does not reflect compliance with HM Treasury's guidance.

Report

I have no observations to make on these financial statements.

Gareth Davies
Comptroller and Auditor General
4 September 2019

National Audit Office
157-197 Buckingham Palace Road
Victoria, London
SW1W 9SP

Statement of comprehensive income

For the year ended 31 March 2019

	Note	2018/19 £k	2017/18 £k
Revenue	2	157,657	151,650
Cost of sales		(61,235)	(58,316)
Gross margin		**96,422**	93,334
Operating expenses		(61,241)	(64,210)
Operating profit		**35,181**	29,124
Exceptional items	3	(580)	(473)
Profit on ordinary activities before interest and after exceptional items		**34,601**	28,651
Interest receivable and similar income	5	872	420
Profit before taxation		**35,473**	29,071
Taxation	6	–	–
Profit after taxation		**35,473**	29,071
Dividends	7	(10,734)	(19,062)
Retained profit for the financial year		**24,739**	10,009
Other comprehensive income			
Revaluation of non-current assets		2,015	10,168
Total comprehensive income		**26,754**	20,177

The notes on pages 62 to 77 form part of these accounts.

Statement of comprehensive income

For the year ended 31 March 2019

	Note	2018/19 £k	2017/18 £k
Non-current assets			
Property, plant and equipment	8	49,163	33,023
Intangible assets	9	7,436	8,627
Total non-current assets		56,599	41,650
Current assets			
Inventories	10	1,014	1,278
Trade and other current receivables	11	44,695	40,091
Cash and cash equivalents	12	97,951	102,203
Total current assets		143,660	143,572
Total assets		200,259	185,222
Current liabilities			
Trade and other current payables	13	(69,661)	(80,530)
Provisions	14	(2,526)	(3,359)
Total current liabilities		(72,187)	(83,889)
Assets less current liabilities		128,072	101,333
Non-current liabilities			
Provisions	14	–	(15)
Total non-current liabilities		–	(15)
Assets less liabilities		**128,072**	101,318
Taxpayers' equity			
Public dividend capital	15	13,267	13,267
Revaluation reserve	16	11,214	16,491
Profit and loss account		103,591	71,560
Total taxpayers' equity		**128,072**	101,318

The notes on pages 62 to 77 form part of these accounts.

Rear Admiral Tim Lowe CBE
Interim Accounting Officer and Acting Chief Executive
29 August 2019

Statement of cash flows

For the year ended 31 March 2019

	Note	2018/19 £k	2017/18 £k
Net cash flow from operating activities	20	22,535	46,485
Cash flows from investing activities			
Interest received		872	419
Purchase of property, plant and equipment	8	(17,380)	(17,077)
Purchase of intangible assets	9	(1,647)	(766)
Net cash outflow from investing activities		(18,155)	(17,424)
Cash flows from financing activities			
Dividends paid		(8,632)	(16,951)
Net cash outflow from financing activities		(8,632)	(16,951)
Net financing			
Net increase in cash and cash equivalents in the year		(4,252)	12,110
Cash and cash equivalents at the beginning of the year	12	102,203	90,093
Cash and cash equivalents at the end of the year		**97,951**	102,203

The notes on pages 62 to 77 form part of these accounts.

Statement of changes in taxpayers' equity

For the year ended 31 March 2019

	Note	Profit and Loss Reserve £k	Revaluation Reserve £k	Public Dividend Capital £k	Total Reserves £k
Balance at 1 April 2017		**57,992**	**9,882**	**13,267**	**81,141**
Other comprehensive income					
Revaluation of property, plant and equipment (PPE)	8	–	494	–	494
Revaluation of intangible assets	9	–	9,674	–	9,674
Reversal of PPE revaluation surplus due to impairment		3,559	(3,559)	–	–
Total other comprehensive income		3,559	6,609	–	10,168
Net income for the period		29,071	–	–	29,071
Total recognised income and expense for the period		32,630	6,609	–	39,239
Dividend	7	(19,062)	–	–	(19,062)
Balance at 31 March 2018		**71,560**	**16,491**	**13,267**	**101,318**
Balance at 1 April 2018		**71,560**	**16,491**	**13,267**	**101,318**
Other comprehensive income					
Revaluation of property, plant and equipment (PPE)	8	–	2,015	–	2,015
Revaluation of intangible assets	9	–	–	–	–
Transfer between reserves		2,617	(2,617)	–	–
Release of revaluation reserve on disposal of PPE		1,099	(1,099)	–	–
Release revaluation reserve on disposal of intangible assets		3,576	(3,576)	–	–
Total other comprehensive income		7,292	(5,277)	–	2,015
Net income for the period		35,473	–	–	35,473
Total recognised income and expense for the period		42,765	(5,277)	–	37,488
Dividend	7	(10,734)	–	–	(10,734)
Balance at 31 March 2019		**103,591**	**11,214**	**13,267**	**128,072**

The notes on pages 62 to 77 form part of these accounts.

Notes to the accounts

1. Accounting policies

A. Basis of accounting

These accounts have been prepared in accordance with the Government Financial Reporting Manual (FReM) issued by HM Treasury. The accounting policies contained in the FReM apply International Financial Reporting Standards (IFRS) as adapted or interpreted for the public sector context in the UK.

Where the FReM permits a choice of accounting policy, the accounting policy which is judged to be most appropriate to the circumstances of the UKHO for giving a true and fair view has been selected. The policies adopted are described below and have been applied consistently in dealing with items that are considered material to the accounts.

All figures within the financial statements and associated notes are in British pounds rounded to the nearest thousand (£k).

We operate as a Trading Fund within the MOD in accordance with Statutory Instrument SI 1996/773. The accounts have been prepared in accordance with the direction given by HM Treasury on 19 December 2018 in pursuance of section 4(6) (a) of the Government Trading Funds Act 1973.

B. Accounting convention

These financial statements have been prepared on an accruals basis under the historical cost convention, modified by the revaluation of intangible assets and property, plant and equipment assets.

C. Going concern

The UKHO has prepared a 5 year corporate plan from 2019/20 on a prudent basis. The plan indicates that we have sufficient cash to meet our requirements during this period.

The financial statements have therefore been prepared on the basis that the UKHO is a going concern.

D. Basis of consolidation

The UKHO has a number of wholly owned subsidiary companies, none of these companies traded during the year and their assets and liabilities are immaterial to these financial statements. On this basis none of the companies have been consolidated.

The UKHO also operates the International Centre for Electronic Navigational Charts (IC-ENC). IC-ENC has 45 member nations that collaborate on the quality control and distribution of ENCs.

The substance of these arrangements are such that the UKHO does not have control over the activities of IC-ENC members and their activities are therefore not consolidated.

These financial statements therefore only cover the UKHO.

E. Changes in accounting policies and disclosures

The following IFRS are effective from 2018/19 and UKHO's accounting policies have been amended to reflect their requirements.

IFRS 9 Financial Instruments

This standard, which is effective from 2018/19, includes requirements for classification, recognition and measurement, impairment, derecognition and general hedge accounting.

The significant majority of the UKHO's financial instruments are trade receivables and payables. Receivables are shown net of expected credit loss. These accounts do not include transition disclosures in respect of IFRS 9, due to the effect of IFRS 9 on the UKHO's accounts not being significant. The UKHO does not operate hedge accounting, so the specific requirements of IFRS 9 for hedging instruments do not apply.

IFRS 15 Revenue from Contracts with Customers

This standard, which is effective from 2018/19, provides a comprehensive standard for revenue recognition. The UKHO recognises revenue primarily from provision of hydrographic and marine geospatial services.

The UKHO's revenue recognition under IFRS 15 is at the same point in time, and at the same amount, as under IAS 18. As there is no impact from IFRS 15 on the UKHO's accounts, these accounts are not restated, nor do they show a cumulative catch up in the statement of taxpayers' equity, to reflect the change in accounting policy.

Notes to the accounts continued

Performance obligations

The table below sets out, for each income stream, when performance obligations are typically satisfied, the significant payment terms, and the nature of the goods or services which the UKHO supplies. All income streams usually have a contract of a duration of one year or less, and therefore the transaction price allocated to remaining performance obligations is not disclosed, applying the practical expedient in IFRS 15.121.

Income stream	Description of income stream	Performance obligation	Payment terms
Paper charts and publications	Charts and other publications provided on paper	Delivery of the product to the customer	Payment in arrears on satisfaction of performance obligation
Digital licensing (charts and publications)	Charts and other publications provided digitally as a service for a period of time	Provision of the digital product and any updates over the period of the license	Payment is made in arrears on satisfaction of the initial performance obligation A portion of this payment is in advance of satisfaction of the performance obligation to provide updates
Licensing revenue	Licenses sold for the use of UKHO data	Provide data and updates to the data as they arise during the license period	Payment in arrears on satisfaction of performance obligation
MOD services	Overarching contract for the delivery of goods and services to MOD	Delivery of the product or service to the customer	Payment in arrears on satisfaction of performance obligation
UK government surveying contracts	Contracts held with UK government to carry out hydrographic surveys	Delivery of the product or service to the customer	Payment in arrears on satisfaction of performance obligation

Contract balances

Contract assets (accrued income) primarily relate to the UKHO's right to consideration for work completed but not yet billed at the reporting date.

Contract liabilities, reported under IFRS 15, are disclosed separately in the note for trade payables and other current liabilities. Contract liabilities are recognised on receipt of cash for services and derecognised at the point of provision of those services. Contract liabilities (deferred income) primarily relate to the consideration received from customers in advance of transferring a good or service.

F. IFRSs, amendments and interpretations in issue but not yet effective or adopted

IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors, require disclosures in respect of new IFRSs, amendments and interpretations that are, or will be applicable after the reporting period. There are a number of IFRSs, amendments and interpretations that have been issued by the International Accounting Standards Board (IASB) that are effective for financial statements after this reporting period.

The following have not been adopted early:

IFRS 16 Leases

The new standard requires lessees to recognise nearly all leases on the balance sheet, which will reflect their right to use an asset for a period of time and the associated liability for payments.

UK government has decided to adopt this standard from 1 April 2020. UKHO have only one relevant lease, a property lease in respect of a print facility in Bridgwater. The current annual rental charge is £97k and the lease is due to expire by 31 March 2021.

The likely impact on assets and liabilities from 2020/21 is not expected to be material.

G. Property, plant and equipment non-current assets

Recognition

For furniture, plant and machinery, new acquisitions are capitalised where the cost exceeds £5,000. In respect of all other asset classes, new additions and improvements are capitalised where the value of discrete items exceeds £1,000. Assets are recognised initially at cost, which comprises purchase price, construction costs, after deducting for any discounts or rebates and any costs directly attributable to bringing the asset into the location and condition necessary for it to be capable of operating in the manner intended.

Notes to the accounts continued

Assets will also be recognised where collectively, a number of items have a cost of at least £5,000 and individually have cost of more than £250, and the assets are functionally interdependent, had broadly simultaneous purchase dates, are anticipated to have similar disposal dates and are under single managerial control.

Assets Under Construction are capitalised during the period of construction and on completion, balances are released into the appropriate asset category.

Valuation

After initial recognition Building and Plant and Machinery Assets are expressed at their fair value through professional valuation and/or the application of indices. Furniture and fittings and Information technology assets are retained at historic cost due to their short-term economic life. Assets under construction are not subject to indexation.

Buildings are subject to a quinquennial revaluation by external valuers in accordance with IAS 16 as interpreted by the FReM.

Assets which are not held for their service potential are valued in accordance with IFRS 5 – Non Current Assets Held for Sale and Discontinued Operations or IAS 40 – Investment Property, depending on whether the asset is actively held for sale.

Assets which are surplus are valued in accordance with IFRS 13 Fair Value. The UKHO interprets surplus to mean that the assets are no longer required and there is no clear plan to bring them back into service.

Depreciation, impairment and review of estimated useful life

Freehold land is not depreciated. Depreciation on other assets is calculated to write off the original cost or revalued amount, over their estimated useful lives, taking account of any residual second-hand or scrap value or disposal costs. Assets are depreciated on a straight-line basis as over the following periods:

- Buildings not exceeding 100 years
- Plant and equipment between 1 and 20 years
- Furniture and fittings over 3 years
- Information technology assets between 2 and 5 years.

Useful economic lives are reviewed at least annually. The bases for estimating useful economic life include experience of previous similar assets, the condition and performance of the asset and knowledge of technological advances and obsolescence.

All property, plant and equipment non-current assets are tested for impairment when there are indications that the carrying value may not be recoverable. Any impairment losses in excess of any amounts held in the revaluation reserve in respect of the asset being impaired, are recognised immediately in the Statement of Comprehensive Income.

H. Intangible non-current assets

Recognition

Intangible assets are non-monetary assets without physical substance. They are recognised only where it is probable that future economic benefits will flow to, or service potential be provided to the UKHO and where the cost of the asset can be measured reliably.

Software licences

Purchased software, is capitalised as an intangible asset.

Developed software

Developed software costs are capitalised in accordance with IAS 38 – Intangible Assets (as adapted in the FReM). Specifically, databases and other software that are established for the internal use of management (such as payroll or HR systems) are not recognised as intangibles.

Research costs are charged to the Statement of Comprehensive Income in the period in which they are incurred. Costs are capitalised only where all of the following can be demonstrated:

- The project is technically feasible to the point of completion and will result in an intangible asset for sale or use
- The UKHO intends to complete the asset and sell or use it
- The UKHO has the ability to sell or use the asset
- How the software will generate probable future economic or service delivery benefits, e.g., the presence of a market for it or its output, or where it is to be used for internal use, the usefulness of the asset
- Adequate financial, technical and other resources are available to the UKHO to complete the development and sell or use the asset and
- The UKHO can measure reliably the expenses attributable to the asset during development.

Internally generated intangible assets

Internally generated goodwill, brands, mastheads, publishing titles, customer lists and similar items are not capitalised as intangible assets.

Notes to the accounts continued

Valuation

The UKHO's capitalisation threshold is £5,000. Intangible assets are recognised initially at cost, comprising all directly attributable costs needed to create, produce and prepare the asset to the point that it is capable of operating in the manner intended by management.

Software licences are retained at historical cost due to their short-term economic life.

Subsequently developed software is revalued to current value in existing use, using a market value where an active market exists. Where no market exists, indices are used to revalue the intangible asset to Depreciated Replacement Cost (DRC) or, if the asset is income generating, to value in use if lower than DRC. Intangible Assets Under Construction are not subject to indexation where the costs capitalised during the period of construction are deemed to reflect fair value.

Intangible assets held for sale are measured at the lower of their carrying amount or "fair value less costs to sell".

Amortisation, impairment and review of estimated useful life

Intangible assets are amortised on a straight-line basis over their useful economic lives, from the date economic benefit starts to be derived.

Software licences are amortised over the useful economic lives of between two and five years. Developed software assets are amortised over the useful economic lives of between five and ten years.

All intangible assets are tested for impairment when there are indications that the carrying value may not be recoverable. Any impairment losses in excess of any amounts held in the revaluation reserve in respect of the asset being impaired, are recognised immediately in the Statement of Comprehensive Income.

The following factors are considered in estimating useful lives: expected use of the asset, the effects of obsolescence, changes in demand, competing products, and other economic factors, including the stability of the market and known technological advances. Useful lives are reviewed on a regular basis to ensure they remain appropriate.

I. Hydrographic data

In carrying out our business, we utilise raw hydrographic data provided by the MOD, the MCA, and foreign governments and private companies. This data is owned by these third parties and we pay a royalty or data cost to use it. Accordingly, we do not carry the value of the data on our Statement of Financial Position, charging all costs of acquiring and maintaining the data to the Statement of Comprehensive Income as incurred.

J. Inventories and work in progress

Raw material inventory is valued at the lower of cost or net current replacement cost. Finished goods inventory and work in progress is valued at the lower of cost and realisable value. Provision is made, where necessary, for obsolete, slow-moving and defective inventories.

K. Financial instruments

We account for financial instruments in accordance with IFRS 7, IFRS 9 and IAS 39.

Trade and other receivables

All receivables, including trade and VAT receivables, staff loans and advances are initially recognised at fair value (plus transaction costs) and subsequently at their amortised cost. Discounting is relevant to those receivables and loans which carry a nil or a subsidised rate of interest. However, our receivables that are due within one year are not discounted on the grounds of materiality.

Trade and other payables

Liabilities covering trade payables, accruals, VAT, tax and loans are classified as other liabilities and are initially recognised at fair value (plus transaction costs), and subsequently at their amortised cost. This applies to those liabilities carrying a nil or a subsidised rate of interest. On the grounds of materiality, our liabilities falling due within one year are not discounted.

Cash and cash equivalents

We administer our cash management process to provide value for money to us. Wherever possible, cash is held in interest-earning accounts and each deposit is at a fixed rate of interest until the deposit is returned. These are recognised initially at fair value net of transaction costs, and subsequently at amortised cost under the effective interest rate.

L. Cash and cash equivalents

Cash and cash equivalents comprises cash held at bank and in hand.

The UKHO holds cash due to the members of IC-ENC in a UKHO bank account. The UKHO does not have full control over the use of this cash nor does it have the right to the future economic benefits from this cash. This cash is therefore not recognised as an asset but it is disclosed in note 12 of these financial statements.

M. Investments

Surplus cash is held in interest-bearing accounts and invested for specific periods to ensure cash availability meets the demands of the business.

Notes to the accounts continued

N. Provisions

Provisions for liabilities and charges have been established under the criteria of IAS 37 Provisions, Contingent Liabilities and Contingent Assets and are based on realistic estimates of the expenditure required to settle legal or constructive obligations that exist at 31 March 2019.

Provisions are discounted by the rate advised by HM Treasury – the short-term rate for financial year 2018/19 being 0.76%. (2017/18: 2.42%). The discount is unwound over the remaining life of the provision and shown as an interest charge in the Statement of Comprehensive Income.

Early retirement costs

We provide in full for the cost of meeting pensions up to the normal retirement age in respect of early retirement programmes. Early departure provisions under pension scheme rules are discounted at the pensions' discount rate, issued annually by HM Treasury, 2018/19: 0.29% (2017/18: 0.10%). Pensions payable after the normal retirement age are met by the Civil Service pension arrangement. However, any additional element payable beyond normal retirement age, which derives from the enhancement of reckonable service, continues to be met by us. Redundancies are provided for in full.

Allowance for doubtful debts

We set aside an allowance for doubtful debts based on payment history, external credit reference reports and financial information.

O. Capital and Reserves

Public dividend capital

Public dividend capital represents the capital invested by the Ministry of Defence in the UKHO on becoming a Trading Fund on 1 April 1996.

Public dividend capital is not an equity instrument as defined in IAS 32 Financial Instruments.

General reserve

The general reserve represents the cumulative retained net income (after dividends) since the UKHO became a Trading Fund.

Revaluation reserve

The revaluation reserve reflects the unrealised element of the cumulative balance of indexation and revaluation adjustments to assets. Increases arising on revaluation are taken to the revaluation reserve. A revaluation decrease is charged to the revaluation reserve to the extent that there is a balance on the reserve for the asset and, thereafter, to the income statement.

P. Foreign currencies

Assets and liabilities denominated in a foreign currency are translated into sterling at the rate of exchange ruling as at 31 March 2019. Transactions are recorded at the rate ruling at the time of the transaction. Exchange differences are taken to the Statement of Comprehensive Income.

Q. Revenue

All revenue is recognised in accordance with IFRS 15. Revenue is recognised when a performance obligation included within a contract with a customer is satisfied, at the transaction price allocated to that performance obligation.

For physical products, revenue is recognised at the point of physical delivery. In the case of service agreements (e.g. sales of digital products), revenue is realised equally over the licence period. A contract asset will be created and revenue will be accrued where work is complete and there is certainty of future payment.

Revenue, which is stated net of any VAT, is from the provision of hydrographic and marine geospatial services.

A provision is made against current sales in respect of future credits for superseded inventories held by ADMIRALTY Chart Agents. The provision represents a 5% credit allowance for returns of inventory following release of new editions and a 1% credit allowance in relation to inventory cleanses.

R. Operating segments

The operating segments are reported based on financial information provided to the UKHO's Executive Committee (EXCO). EXCO is considered to be the Chief Operating Decision Maker (CODM) and is responsible for allocating resources and assessing the performance of the operating segments.

Three segments have been identified by the UKHO and discrete financial information, consisting of revenue and cost of sales and gross margin, for these segments is provided to the CODM. All operating segments derive their revenue from the provision of hydrographic and marine geospatial services.

EXCO evaluates performance of the segments based on segment revenue and gross margin.

S. Royalties and data costs

The conditions governing the payment and receipt of royalties and data costs are covered by appropriate formal agreements with third parties and accounted for on an accruals basis.

T. Treatment of leases

All expenditure incurred in respect of operating leases is charged to operating expenses in the Statement of Comprehensive Income in the year in which they arise. We have no finance leases.

Notes to the accounts continued

U. Salaries, wages and employment-related payments

Short-term benefits – salaries, wages and employment-related payments are recognised in the period in which the service is received from employees. Where material, performance pay and annual leave earned but not taken by the year-end are recognised on an accruals basis in the financial statements.

V. Retirement benefit costs

Our staff are covered by the provisions of the Principal Civil Service Pension Scheme (PCSPS), which is an unfunded multi-employer defined benefit scheme. However, since we are unable to identify its share of the underlying assets and liabilities, it is accounted for as a defined contribution scheme. As a result, the amount charged to the Statement of Comprehensive Income represents the contributions payable to the scheme in respect of the accounting period.

Contributions are paid at rates determined from time to time by the scheme's actuary.

Details of rates and amounts of contributions during the year are given in the Remuneration and staff report (pages 49 to 54). Our staff may be in one of five statutory-based defined benefit schemes; alpha, classic, premium, classic plus, and nuvos (classic, premium, classic plus and nuvos are now closed to new members).

New entrants after 1 April 2015 may choose between membership of alpha or joining a money purchase stakeholder pension agreement with a significant employer contribution (partnership pension account).

W. Exceptional items

Exceptional items are those significant items which individually, or if of a similar type in aggregate, are separately disclosed by virtue of their size or incidence to enable a full understanding of our financial performance. Business restructurings are considered exceptional in nature (as detailed in Note 3).

X. Taxation

Corporation Tax

The UKHO, as a Trading Fund, is exempt from corporation tax and consequently the requirements to account for current and deferred corporation tax are not relevant.

VAT

The UKHO is registered for VAT. Costs are included net of recoverable VAT. Income from services provided to third parties is included within operating income, net of related VAT. Where it arises, irrecoverable VAT is charged to the relevant expenditure category or included in the capitalised purchase cost of non-current assets.

Y. Critical accounting judgements and key sources of estimation uncertainty

The preparation of these financial statements requires the UKHO to make judgements, estimates and assumptions in respect of a range of activities that affect the application of policies and reported amounts of assets and liabilities, income and expenditure . Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts and liabilities within the next financial year are addressed below.

Valuation of Non-Current Intangible and Property, Plant and Equipment assets

Certain Non-Current Intangible and Property, Plant and Equipment assets are expressed at their fair value or at DRC. This requires the application of estimates and judgements. Land and property assets are revalued at least every five years from the anniversary of their initial recognition in accordance with FReM requirements. Between valuations, the UKHO updates asset values through the application of indices produced by Defence Statistics. The selection and application of indices represents a key judgement, and there is a risk that this could result in different values in the intervening years compared to a full valuation if these had been undertaken each year.

The useful lives of assets are based on an estimated out-of-service date or the estimated period of use, which is subject to change. The useful lives are reviewed annually.

In addition to considering the valuation of Non-Current Intangible and Property, Plant and Equipment assets, the UKHO considers more broadly whether there are any indications of impairments to the carrying amounts of UKHO's assets. Where such an indication exists, the UKHO makes a judgement as to the impairment required to bring the asset to the value it considers it should be held at.

Notes to the accounts continued

2. Operating segments

The UKHO has three reportable business segments, and these are disclosed to enable the users of these financial statements to evaluate the nature and financial effects of UKHO's business activities.

All operating segments derive their revenue from the provision of hydrographic and marine geospatial services.

	Commercial 2018/19 £k	Defence 2018/19 £k	Other government 2018/19 £k	Total 2018/19 £k	Commercial 2017/18 £k	Defence 2017/18 £k	Other government 2017/18 £k	Total 2017/18 £k
Revenue	137,084	12,129	8,444	157,657	133,169	13,118	5,363	151,650
Cost of sales	(52,384)	(2,218)	(6,633)	(61,235)	(51,148)	(3,108)	(4,060)	(58,316)
Gross profit	84,700	9,911	1,811	96,422	82,021	10,010	1,303	93,334
Operating expenses				(61,241)				(64,210)
Exceptional items				(580)				(473)
Interest receivable				872				420
Total per financial statements				35,473				29,071

Overhead costs, assets and liabilities are not included in the financial information provided to review the performance of operating segments and are therefore not disclosed.

All revenue reported below is derived from external customers. There is no inter-segment revenue.

Information about major customers

Revenue from one customer (2017/18: two customers) exceeded 10% of the UKHO's total income.

	Commercial 2018/19 £k	Defence 2018/19 £k	Other government 2018/19 £k	Total 2018/19 £k	Commercial 2017/18 £k	Defence 2017/18 £k	Other government 2017/18 £k	Total 2017/18 £k
Customer 1	18,854	–	–	18,854	19,875	–	–	19,875
Customer 2	–	–	–	–	16,164	–	–	16,164

Revenue by geographical market

	2018/19 £k	2017/18 £k
Europe, Middle East & Africa	117,118	111,291
Asia-Pacific	31,701	31,950
North America	8,643	8,071
Central & Latin America	195	338
Total revenue	**157,657**	151,650

Revenue has been attributed to geographical markets based on the location of the customer supplied.

Timing of revenue recognition

	2018/19 £k	2017/18 £k
Products transferred at a point in time	66,474	73,310
Products and services transferred over time	91,183	78,340
Total revenue	**157,657**	**151,650**
Revenue recognised from amounts included in contract liability (deferred income) at the beginning of the period	21,603	24,425

3. Exceptional items

	2018/19 £k	2017/18 £k
Voluntary early release scheme	534	193
Early retirement	46	280
Total exceptional items	**580**	473

Notes to the accounts continued

4. Profit on ordinary activities before interest

Profit on ordinary activities before interest is stated after charging the following:

	2018/19 £k	2017/18 £k
Salaries, wages etc.	29,617	29,439
Social security costs	2,966	2,949
Pension costs	5,711	5,712
Apprentice levy	130	128
Agency staff costs	1,575	1,825
Service personnel costs	769	911
Staff costs capitalised within intangible assets	(1,023)	(733)
Total staff costs	**39,745**	40,231
Depreciation	2,783	2,512
Amortisation – software licences	55	74
Amortisation – developed software	2,755	3,418
Loss on disposal of non-current assets	50	32
Impairment adjustments	–	3,559
Realised foreign exchange loss/(gain)	247	(537)
Unrealised foreign exchange (gain)/loss	(1,516)	1,538
Auditor's remuneration	81	73
Development and transformational activities	5,962	1,975

5. Interest receivable and similar income

This relates to interest receivable from a commercial bank's high interest accounts and short-term investments for varying periods of between 3 and 12 months.

	2018/19 £k	2017/18 £k
Interest receivable and similar income	**872**	420

6. Taxation

The UKHO , as a trading fund, is exempt for corporation tax and consequently no current or deferred tax is accounted for.

7. Dividends

	2018/19 £k	2017/18 £k
Ordinary dividend	10,734	8,632
Special dividend	–	10,430
Total dividends	**10,734**	19,062

Special dividends are declared and paid in the same year.

Notes to the accounts continued

8. Property, plant and equipment non-current assets

	Freehold land £k	Buildings £k	Plant & machinery £k	Furniture & fittings £k	Information technology £k	Assets under construction £k	Total £k
Cost or valuation							
At 1 April 2017	8,881	21,845	3,181	240	4,886	3,962	42,995
Additions	–	–	1	–	2,037	15,039	17,077
Transfers	–	–	–	–	172	(172)	–
Disposals	–	(950)	(281)	–	(335)	–	(1,566)
Revaluation	1,532	(501)	188	–	–	–	1,219
Impairment	(3,500)	(59)	–	–	–	–	(3,559)
At 31 March 2018	6,913	20,335	3,089	240	6,760	18,829	56,166
At 1 April 2018	6,913	20,335	3,089	240	6,760	18,829	56,166
Additions	–	–	–	784	1,863	14,733	17,380
Transfers	–	32,596	–	–	513	(33,109)	–
Expensed	–	–	–	–	–	(453)	(453)
Disposals	–	(16,383)	(793)	(240)	(4,232)	–	(21,648)
Revaluation	(485)	440	–	–	–	–	(45)
At 31 March 2019	**6,428**	**36,988**	**2,296**	**784**	**4,904**	**–**	**51,400**
Depreciation							
At 1 April 2017	–	16,350	1,239	113	3,738	–	21,440
Charged	–	1,150	370	96	896	–	2,512
Disposals	–	(950)	(262)	1	(323)	–	(1,534)
Revaluation	–	661	64	–	–	–	725
At 31 March 2018	–	17,211	1,411	210	4,311	–	23,143
At 1 April 2018	–	17,211	1,411	210	4,311	–	23,143
Charged	–	1,224	290	52	1,217	–	2,783
Disposals	–	(16,375)	(785)	(240)	(4,229)	–	(21,629)
Revaluation	–	(2,060)	–	–	–	–	(2,060)
At 31 March 2019	**–**	**–**	**916**	**22**	**1,299**	**–**	**2,237**
Net book value							
At 31 March 2019	**6,428**	**36,988**	**1,380**	**762**	**3,605**	**–**	**49,163**
At 31 March 2018	6,913	3,124	1,678	30	2,449	18,829	33,023
Net book value excluding revaluation							
At 31 March 2019	**2,500**	**34,572**	**1,303**	**762**	**4,321**	**–**	**43,458**
At 31 March 2018	2,500	2,146	1,559	30	2,449	18,829	27,509

All property, plant and equipment are owned by the UKHO.

Freehold land impairment: In 2019/20 most of our older existing buildings will be demolished and the surplus land sold. The estimated fair value of the land we will sell is £3.65m. However, the estimated cost of asbestos removal and demolition is also £3.5m. We have therefore held the impairment of the land at £3.5m.

Assets Under Construction related to building of new offices at Admiralty Way, which was completed and brought into use in January 2019.

Building disposals includes buildings that have either been demolished or are scheduled to be demolished. All assets that were not transferred into the new building from the buildings scheduled to be demolished have been impaired.

A professional valuation was carried out 27 February 2019 by James McLearon BSc from the valuation office agency (VOA).

Notes to the accounts continued

9. Intangible non-current assets

	Software licences £k	Developed software £k	Assets under construction £k	Total £k
Cost or valuation				
At 1 April 2017	16,566	33,472	–	50,038
Additions	–	–	766	766
Reclassification	(7,436)	7,436	–	–
Disposals	(2,673)	(9,424)	–	(12,097)
Revaluation	–	(1,474)	–	(1,474)
At 31 March 2018	6,457	30,010	766	37,233
At 1 April 2018	6,457	30,010	766	37,233
Additions	–	159	1488	1,647
Transfer	–	766	(766)	–
Disposals	(5,888)	(1,650)	–	(7,538)
At 31 March 2019	**569**	**29,285**	**1,488**	**31,342**
Amortisation				
At 1 April 2017	16,009	32,350	–	48,359
Charged	74	3,418	–	3,492
Reclassification	(7,436)	7,436	–	–
Disposals	(2,673)	(9,424)	–	(12,097)
Revaluation	–	(11,148)	–	(11,148)
At 31 March 2018	5,974	22,632	–	28,606
At 1 April 2018	5,974	22,632	–	28,606
Charged	55	2,755	–	2,810
Disposals	(5,860)	(1,650)	–	(7,510)
At 31 March 2019	**169**	**23,737**	**–**	**23,906**
Net book value				
At 31 March 2019	**400**	**5,548**	**1,488**	**7,436**
At 31 March 2018	483	7,378	766	8,627
Net book value excluding revaluation				
At 31 March 2019	**400**	**785**	**1,488**	**2,673**
At 31 March 2018	483	-	766	1,249

All intangible non-current assets are owned by the UKHO.

Developed software was revalued on 31 March 2018.

Notes to the accounts continued

Analysis of intangible non-current assets

The disclosure below shows individual intangible assets that are material to our financial statements.

Project	Description	Carrying value 31/03/2019 £k	Remaining amortisation period (months)
Hydrographic Database and Chart Production Tools (HDB)	Production system for holding data and compiling charts	3,635	48
e-Navigator	ADMIRALTY e-Navigator is our integrated digital catalogue, product viewer and passage planning aid for organising, updating and consolidating all paper and digital information needed for planning safe voyages while simplifying essential tasks	1,161	12

10. Inventories

	2018/19 £k	2017/18 £k
Finished inventories	803	1,015
Materials	211	263
Total inventories	**1,014**	1,278

11. Trade and other current receivables

	2018/19 £k	2017/18 £k
Trade receivables	27,632	25,598
Prepayments	12,828	10,789
Contract assets-accrued income	4,204	3,662
Other receivables	31	42
Total receivables	**44,695**	40,091

Notes to the accounts continued

12. Cash and cash equivalents

	2018/19 £k	2017/18 £k
Balance at 1 April	102,203	90,093
Net change in cash and cash equivalent balances	(4,252)	12,110
Balance at 31 March	**97,951**	102,203

The following balances at 31 March were held at:

	2018/19 £k	2017/18 £k
Commercial banks – short-term investments	55,887	20,000
Commercial banks – instant access, high-interest accounts	42,064	74,347
Third-party assets*	–	7,856
Cash and cash equivalents	**97,951**	102,203

* The UKHO holds £10,152k in cash on behalf of the members of IC-ENC. This cash represents income due to IC-ENC members. Following a change in the year of the management arrangements of IC-ENC a review of the accounting treatment of IC-ENC assets and liabilities was undertaken. That review concluded that the cash held for IC-ENC was not an asset of the UKHO and should no longer be included in the UKHO accounts as third-party assets. The corresponding liability to the IC-ENC members is also no longer recognised.

The carrying amounts of cash and cash equivalents approximate their fair values.

Commercial banks – instant access, high-interest account earns interest at 0.15%. Short-term investments earn at 0.65% interest and are made for varying periods of between 3 and 12 months.

Net cash and cash equivalents held in currencies other than sterling have been converted into sterling at 31 March 2019.

13. Trade and other current payables

	2018/19 £k	2017/18 £k
Accruals	19,335	22,462
Contract liabilities-deferred income	30,261	21,603
Proposed dividend	10,734	8,630
Trade payables	8,555	26,649
Other taxation and social security	776	1,186
Total payables	**69,661**	80,530
Analysis of total payables		
Other central government bodies	11,997	12,080
Bodies external to government	57,664	68,450
Total payables	**69,661**	80,530

Notes to the accounts continued

14. Provisions

	Balance at 1 April 2017 £k	Charged to operating cost £k	Unwinding of discount £k	Applied £k	Reclassification £k	Balance at 31 March 2018 £k
Current liabilities						
Sales credits	3,618	3,326	–	(3,618)	–	3,326
Rationalisation	62	–	–	(62)	33	33
Total current liabilities	3,680	3,326	–	(3,680)	33	3,359
Non-current liabilities						
Rationalisation	48	–	–	–	(33)	15
Royalties	161	–	–	(161)	–	–
Total non-current liabilities	209	–	–	(161)	(33)	15
Total liabilities at 31 March 2018	3,889	3,326	–	(3,841)	–	3,374

	Balance at 1 April 2018 £k	Charged to operating cost £k	Unwinding of discount £k	Applied £k	Reclassification £k	Balance at 31 March 2019 £k
Current liabilities						
Sales credits	3,326	2,520	–	(3,326)	–	2,520
Rationalisation	33	(42)	9	–	6	6
Total current liabilities	3,359	2,478	9	(3,326)	6	**2,526**
Non-current liabilities						
Rationalisation	15	–	–	(9)	(6)	–
Total non-current liabilities	15	–	–	(9)	(6)	**–**
Total liabilities at 31 March 2019	3,374	2,478	9	(3,335)	–	**2,526**

Analysis of expected timing of cash flows at 31 March 2018

	2018/19 £k	2019/20 £k	2020/21 2021/22 £k	Balance at 31 March 2018 £k
Sales credits	3,326	–	–	3,326
Rationalisation	33	15	–	48
Total	3,359	15	–	3,374

Analysis of expected timing of cash flows at 31 March 2019

	2019/20 £k	2020/21 £k	2021/22 2022/23 £k	Balance at 31 March 2019 £k
Sales credits	2,520	–	–	2,520
Rationalisation	6	–	–	6
Total	2,526	–	–	**2,526**

15. Public dividend capital

	2018/19 £k	2017/18 £k
Public dividend capital	**13,267**	13,267

Public dividend capital represents the deemed equity shareholding in the UKHO.

Notes to the accounts continued

16. Revaluation reserve

	Land	Buildings	Plant & machinery	Developed software	Total £k
Balance at 1 April 2017	5,876	2,408	316	1,282	9,882
Revaluation	1,532	(1,162)	124	9,674	10,168
Reversal of PPE revaluation surplus due to impairment	(3,500)	(59)	-	-	(3,559)
Balance at 31 March 2018	3,908	1,187	440	10,956	16,491

	Land	Buildings	Plant & machinery	Developed software	Total £k
Balance at 1 April 2018	3,908	1,187	440	10,956	16,491
Revaluation	(485)	2,500	-	-	2,015
Transfer to profit and loss accounts	-	-	-	(2,617)	(2,617)
Disposal of PPE assets	-	(742)	(357)		(1,099)
Disposal of intangible assets	-	-	-	(3,576)	(3,576)
Balance at 31 March 2019	**3,423**	**2,945**	**83**	**4,763**	**11,214**

17. Financial instruments

The UKHO's financial instruments comprise cash deposits and other items such as trade receivables, trade payables and provisions. The main purpose of these financial instruments is to finance the UKHO's operations.

The UKHO has limited powers to borrow or invest surplus funds. The main risks arising from the UKHO's financial instruments are foreign exchange, credit and liquidity risks. The UKHO's policies for managing these risks are set to achieve compliance with the regulatory framework including the rules contained within Managing Public Money.

Foreign exchange risk

The UKHO receives significant income in US dollars (USD) from the sale of digital products and makes significant USD payments to data owners in respect of those products. In order to manage this foreign exchange risk, the UKHO policy is to create a natural hedge by holding USD received to pay USD liabilities. We review USD holdings quarterly against forecast requirements and any excess is sold at the spot rate on the day of transaction. We do not use any derivatives such as forward currency exchange contracts.

Credit risk

The UKHO is subject to some credit risk. The carrying amount of trade receivables, which is net of impairment losses (bad debt provision), contract assets and the amount of cash and cash receivables represents the UKHO's maximum exposure to credit risk.

Trade and other receivables consist of a large number of diverse government and non-government customers spread over a diverse geographical area. For trade receivables, the UKHO measures a provision for expected credit losses at an amount equal to lifetime expected credit losses, estimated by reference to past experience and relevant forward-looking factors.

The UKHO's assessment is that credit risk in relation to sales to government customers is extremely low as the probability of default is insignificant; therefore the provision for expected credit losses is immaterial in respect of receivables from these customers. For all non-government commercial customers, the UKHO assesses expected credit losses, however this is not considered material to the financial statements.

The UKHO manages the credit risk on trade receivables through the application of a credit control policy and credit insurance.

For contract assets the expected credit loss provision is immaterial as the probability of default is insignificant.

Notes to the accounts continued

The following table provides details of trade receivables beyond the due date and impairments made:

Trade receivables beyond the due date

2017/18	Not overdue £k	Overdue 0–3 months £k	Overdue 3–6 months £k	Overdue 6–12 months £k	Overdue Over 12 months £k	Total £k
Receivables – not impaired	23,200	2,727	60	13	15	26,015
Allowance for doubtful debts	(340)	(77)	–	–	–	(417)
Net trade receivables	22,860	2,650	60	13	15	25,598

2018/19	Not overdue £k	Overdue 0–3 months £k	Overdue 3–6 months £k	Overdue 6–12 months £k	Overdue Over 12 months £k	Total £k
Receivables – not impaired	24,864	1,568	1,382	–	9	27,823
Allowance for doubtful debts	–	–	(191)	–	–	(191)
Net trade receivables	24,864	1,568	1191	–	9	**27,632**

The credit risk on cash and cash equivalents is managed by a Treasury policy that requires cash deposits and investments to be held by suitably credit-worthy commercial banks. The maximum exposure to credit risk is limited to the carrying value of cash and cash equivalents on the Statement of Financial Position as at the reporting date. Based on historical experience and no defaults, the credit quality of financial assets that are neither past due or impaired is considered to be very high.

Liquidity risk

Liquidity risk is the risk that the UKHO may not be able to settle or meet its obligations on time or at a reasonable price. The UKHO's finance department is responsible for management of liquidity risk, which includes funding, settlements, related processes and policies. The UKHO manages liquidity risk by maintaining adequate reserves and monitoring actual cash flow against forecast.

The table below sets out the UKHO's financial liabilities which are all due in less than one year of the Statement of Position date.

	2018/19 £k	2017/18 £k
Financial liabilities		
Trade and other payables	**69,661**	80,530

Fair values

We are subject to some credit risk. The carrying amount of receivables, net of impairment losses (doubtful debt provision), represents the current value of all our financial instruments is considered to equate to fair value at 31 March 2019.

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 instrument are disclosed in Note 1 to the financial statements.

18. Commitments under leases

Operating leases

Commitments under operating leases to pay rentals after 31 March are analysed as follows:

	2018/19 £k	2017/18 £k
Property		
Due within one year	97	97
Due after one year but within five years	97	194
Total	**194**	291
Plant and equipment		
Due within one year	–	59
Due after one year but within five years	–	–
Total	**–**	59
Total leases	**194**	350

The property lease relates to a five-year lease on a new print facility in Bridgwater.

Notes to the accounts continued

19. Capital commitments

	2018/19 £k	2017/18 £k
Capital expenditure that has been contracted for, but has not been provided for in these financial statements		
Property, plant and equipment	–	17,816
Intangible assets	360	–
Total capital commitments	**360**	17,816

20. Reconciliation of profit on ordinary activities before interest to net cash inflow from operating activities

Reconciliation of Trading Fund cash flow	2018/19 £k	2017/18 £k
Profit on ordinary activities before interest and after exceptional items	34,601	28,651
Depreciation and amortisation	5,593	6,004
Impairment	–	3,559
Previously recognised assets expensed	453	–
Loss on sale and disposal of non-current assets	50	32
Decrease in inventories	265	684
(Increase)/Decrease in receivables	(4,604)	587
(Decrease)/Increase in payables	(12,975)	7,484
(Decrease) in provisions	(848)	(516)
Net cash inflow from operating activities	**22,535**	46,485

21. Contingent liabilities

The Government ultimately carries the risk in the event that an error in our products and services causes an incident at sea. All of our safety and quality systems are focused on mitigating this risk. We carry Professional Indemnity insurance for the first £50m of any claim and any liabilities beyond this are considered to be under-written by our parent department, the MOD.

22. Related party transactions

The UKHO is a Trading Fund owned by the MOD. The MOD, as our parent department, is regarded as a related party. During the year, we have also entered into material transactions with the department and with other entities for which the department is regarded as the parent department. All these transactions were carried out under standard contract terms.

Other related parties

We have had various material transactions with other Government departments and other central government bodies. Most of these transactions have been with the Cabinet Office and the Foreign and Commonwealth Office. All transactions are carried out on standard contract terms.

23. Events after the reporting period

The accounts were authorised for issue on the date of certification by the Comptroller and Auditor General.

On 31 May it was announced that Rear Admiral Tim Lowe CBE would become the permanent Chief Executive and Accounting Officer on a date to be agreed during 2019/20.

No other events have occurred subsequent to the financial year-end that require disclosure in these financial statements.

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