



# Met Office

An Executive Agency of the Ministry of Defence

## Annual Report and Accounts 2008/9

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as amended by the Government Trading Act 1990

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# OUR VISION:

**To be recognised as the best  
weather and climate service  
in the world.**



# Directors' report

## INTRODUCTION

From its founding in 1854, the Met Office has grown from a small meteorological department set up by the Board of Trade and led by Vice-Admiral Robert FitzRoy, into one of the world's leading authorities on the weather and climate.

By 1914, separate meteorological units had been created for the Armed Forces and in 1920 we became part of the Air Ministry. We joined the Ministry of Defence (MoD) in 1964 and since then have played a vital role in supporting its domestic and overseas operations.

Following Statutory Instrument SI 1996/774, we became an Executive Agency in 1990 and a Government Trading Fund in 1996. Owned by the MoD, the Met Office must operate like a business — generating income to invest in the development of our world-leading science and research. We're now the only institution in the world that provides internationally-renowned weather and climate science and services.

### Critical support for the military

Wherever military action is taking place, Met Office specialists in the Mobile Met Unit (MMU) — a sponsored Reserve Unit of the RAF — provide critical weather and environmental advice on the ground. UK and coalition forces in Afghanistan and Iraq have benefited enormously from the support of the MMU, advising the MoD on the environment of each region and its effect on operations.

### Providing essential services

Our history and strong heritage have given us an enduring brand across the UK and internationally. From the general public and Government to local authorities, civil aviation, utilities and transport, our capacity to predict the weather, as well as our seasonal and longer-term climate forecasts, makes us a critical partner in decision-making and contingency planning.

To the majority of people in the UK, we are known for our Public Weather Service which critically includes our National Severe Weather Warning Service, Environmental Monitoring and Response Centre and Public Weather Service Advisors.

The Met Office Hadley Centre leads the world in understanding and predicting climate change. It offers expert advice to help governments, businesses and societies around the world make better-informed decisions such as controlling harmful emissions and safeguarding energy provision for the future.

### Facing up to a climate of change

The climate this year has been challenging. Not just in terms of the weather, but the changing economic circumstances too. The budgetary impact of the global financial storm has affected our business. We've needed to look critically at our products and services to make sure they meet our customers' needs, provide value to UK taxpayers and offer a return on the Government's investment.

By installing a new supercomputer and working with other National Meteorological Services and academic institutions across the globe, we're building on our reputation for excellence and furthering our science to grow our business. Over time, this will make us less dependent on Government funds.

Meeting the goals set in our new Corporate Plan 2009–2013, which was published in early 2009, will require a sustained effort from us all — from science and IT to operations and customer service. This year, we have focused on delivering internal projects and people-management processes to make sure everyone has the necessary skills and training to help the Met Office flourish.

Despite these turbulent times, the Met Office has achieved some notable successes. In this Annual Report and Accounts we've selected twenty short stories from 2008/9 which, we feel, endorse the Met Office's reputation as a world-leading provider of weather and climate services.

For the fourth year in succession we've achieved our Key Performance Targets (KPTs) on Return on Capital Employed, Business Profitability and Customer-Supplier Agreements. This year, we narrowly missed achieving the Probability of Precipitation element of the Forecasting Accuracy KPT and this has provided a key area of focus for the setting of the Forecast Accuracy target for 2009/10.

### Water, water everywhere...

If there was one prevailing weather theme for the year, it would be water — in all its guises.

A wet summer in the UK followed damply on from the floods of 2007 and more advanced warnings introduced by the Met Office anticipated a number of flash floods. Joining forces with the Environment Agency in England and Wales and the Scottish Environment Protection Agency, we piloted Extreme Rainfall Alerts for emergency responders, helping them to take the necessary preventative action. The new Flood Forecasting Centre, now open for business in London, builds on this important work, with Met Office forecasters working alongside flood experts from the Environment Agency.

Further afield, the 2008 North Atlantic hurricane season was particularly active, wreaking havoc across a large swathe of the Caribbean and some coastal areas of the United States. For the second year in a row, the Met Office accurately estimated the number of tropical storms that developed between July and November.

Back at home, December 2008 was the coldest start to winter since 1996, while early February 2009 saw many areas of the UK experience the heaviest snowfall for 20 years. In such adverse conditions, accurate forecasts and clear communication from the Met Office helped to keep the country moving.

### A first-rate service

Success for the Met Office through 2009 and into 2010 will come from continuing to deliver a first-rate public service and an exceptional commercial performance. We recognise that the current economic climate might not be the most conducive to growth, but we're confident our strong foundations will stand us in good stead.

Ultimately, success will mean fulfilling the huge potential of our leading skills, knowledge and people — and realising our vision of being recognised as the best weather and climate service in the world.



## INTRODUCTION FROM THE CHAIR OF THE MET OFFICE BOARD

In conversation with Robert Napier, Met Office Chairman:

**Exceptional people are at the heart of every successful organisation. Is there anyone to whom you wish to extend a special welcome? Or any other staff-related achievement you'd like to highlight?**

We're privileged at the Met Office to have some of the most committed and highly qualified staff of any equivalent organisation. It gives me great pleasure to welcome our distinguished new Chief Scientist, Julia Slingo. She'll be an important addition to Chief Executive John Hirst's management team as we continue to lead the way in weather forecasting and climate change research.

I'd also like to congratulate Met Office staff who have worked so hard during the Government's ongoing Operational Efficiency Review. This was commissioned by the Shareholder Executive and HM Treasury in autumn 2008 and reported progress in April 2009. Its key finding that, "The Met Office is a world-leading provider of weather forecasts and climate change modelling and advice to the general public" is a credit to all.

**What were your highlights of the year?**

The Met Office delivered in its two core roles — weather forecasting and climate change research. I'm delighted therefore that we hit nearly all our Key Performance Targets, falling short in just one, precipitation. In terms of predicting key weather events we got most things right, including the severe snow — always a forecasting challenge — that so many of us experienced in February 2009.

Our success in predicting the snow comes down to a drive, underpinned by our first-rate science, to satisfy our customers' needs and continually improve our performance. As Chairman I'm impressed by such commitment. It's inspiring.

**And the top challenge?**

Our customers, quite rightly, demand much from us. And our management has done a great deal of work to make the needs of customers much more central to what we do. Right across the Met Office there's now a far greater understanding that we need to listen to what our customers want. We're on a journey, with some way to go, but we're getting much better.

**Is the Met Office succeeding in getting across the climate change message?**

When it comes to climate change, the issue is thankfully rising up the political, business and media agendas. Increased recognition of the global problems we all face has enabled the Met Office Hadley Centre to apply our science not just in mitigation of climate change effects, but, increasingly, to facilitate adaptation in anticipation of the impacts.

We're also making our views heard at numerous conferences and other scientific fora, where we're not only being listened to, we're becoming increasingly respected as the authoritative voice that clearly communicates the realities of climate change science to everyone.

We don't exaggerate. We say what the evidence tells us. As a result, we're gaining a reputation for being clear, confident and inspiring — but, perhaps most importantly, we're seen as having integrity and are trusted.

**What were the year's most significant advances?**

Agreement on the funding of the Met Office's new supercomputer has been really important, as it will allow us to run forecasts at a much higher resolution of 1.5 km. This will strengthen us as the only facility in the world to offer seamless prediction from tomorrow through the next 100 years.

Alongside powerful new hardware, we've invested heavily in developing new partnerships. This includes work with the Natural Environment Research Council with whom we have created the Joint Climate Research Programme, and the new Flood Forecasting Centre where Met Office forecasters are working side by side with flood experts from the Environment Agency. Here, we've responded with joined-up purpose to the Pitt Review that followed the floods of 2007.

**How important are international relationships? And how are they being developed?**

Alongside our UK collaborations, we're committed to working with other international organisations to share our expertise as well as our data. We continue to licence our Unified Model™ to many countries around the world. In early 2009 we were delighted to hold one of our Board meetings at the European Centre for Medium-Range Weather Forecasting with whom we enjoy an excellent working relationship — a good sign of our strong international reputation.

**What will be the biggest challenges as you look ahead to 2009/10?**

Government funding is clearly going to be under pressure — an issue of obvious importance given that 85% of our revenue comes indirectly from the taxpayer. Our response will be to continue to deliver, and demonstrate that we're good value for money, whilst maintaining the integrity of our world-class services and research. We will, with our strong management, also continue to develop a greater self-confidence in our huge potential.





## CHIEF EXECUTIVE'S OVERVIEW

In conversation with John Hirst, Met Office Chief Executive:

**What steps did the Met Office take last year to strengthen its position as a leading climate change specialist?**

Three things really stand out. We authored the science content of the UK Climate Projections 2009 which are the latest findings from the UK Climate Impacts Programme, funded by the Department for Environment, Food and Rural Affairs. We secured funding for a new supercomputer which will improve our ability to forecast and model climate change into the future. And, as part of our work with leading scientists around the world, we launched the Joint Research Programme with the Natural Environment Research Council to provide a framework for our extensive collaborations with UK academics.

**How are you taking the climate change message out to a wider audience?**

By speaking at fora, to the media and at face-to-face meetings — in particular, we're changing the language of climate change to help people better understand the impacts. Scientific facts can be hedged in uncertainty and probability and this can undermine, for some people, the thoroughly researched science that shows climate change to be a certainty.

Increasingly, we're also trying to paint pictures of what life might be like in 20 or 30 years' time as a result of climate change. Some people think it will only affect their grandchildren's grandchildren. But climate change will happen in our lifetimes — with irrevocable consequences unless we act.

**How has the Met Office been making its work more relevant and useful to customers?**

Previously we'd say 'here's the weather' and allow people to interpret it for themselves. Now we're helping our customers to better understand the impacts of the weather on their lives and lifestyles, and their businesses.

One example is our new Extreme Rainfall Alert that was piloted from July 2008 for local authorities and emergency responders. Following the exceptionally wet summer of 2007 and recommendations in the Pitt Review, these more advanced warnings anticipated a number of flash floods in summer 2008 — which was another damp season — so that pre-emptive action could be taken. At the new Flood Forecasting Centre in London, we've joined forces with the Environment Agency to sharpen up this service even further.

**Although the severity of some of last winter's weather was a shock to many, the Met Office was widely praised for its forecasts — especially during the snow. What underpinned this accuracy?**

Years of investment in our science, technology and people — these days, for instance, our four-day weather forecasts are as accurate as our one-day forecasts were 30 years ago. This means that, today, we're able to look further ahead at what's in store and with greater accuracy so that our customers and the public can be prepared, whatever the weather.

Our commitment to modelling the atmosphere in ever-greater detail using a powerful supercomputer and getting a team of expert forecasters to interpret the output, is pivotal to our forecasting success. Praise for the Met Office was widespread, for example, during the snow in February 2009 — the heaviest snowfalls in the UK for 20 years — and is another testament to our focus on giving the public, government and businesses the tools they need to prepare for the impacts of severe weather.

**What specifically does the arrival of the new supercomputer in 2009 signify for Met Office services around the world?**

The supercomputer will help us define new science and develop new opportunities to collaborate with other scientific and academic organisations around the world. By allowing us to experiment further, it will also enhance the science we already do but haven't been able to use for want of extra modelling capacity.

More accuracy, more partnerships, more happy customers and more business are, in short, what we want from more supercomputing power.

**How is the need to operate like a business — generating income as a Government Trading Fund — continuing to shape Met Office operations?**

The marriage of science and service really is important, so that we're not just a research establishment but one that represents service excellence. Having good Government contracts puts a 'sharp edge' on our science, ultimately making it better because it's for the public good.

But given the increasing pressure on the Government's purse, we also need to continue seeking out new sources of revenue by selling our products and services. We can

then invest more in the science and increase performance — the two things go hand in hand. And to do that we need to understand much more intimately what our customers want, so that we deliver what they need.

**What was the biggest challenge the Met Office faced — and overcame — last year?**

Above all, we need to build our self-belief — I want Met Office people to be proud of what we do, and the people we serve to really understand what we have to offer.

We've always had passion for our science and services — the lifeblood of the Met Office — but, at times, we've kept it to ourselves and not made an outward show of it. To inspire customers to understand and benefit from our science and services, we need to communicate with clarity and confidence.

**What will be the Met Office's biggest challenges as you look ahead into 2009/10?**

Installing our new supercomputer and getting it up, running and number-crunching as soon as possible. The same goes for getting the Flood Forecasting Centre in London fully operational — fast.

We also need to get on with our commercial sales to build our business and prove our worth. On the Government side, we need to get even better at doing more with less and prove our value for money.

We already share a great deal of information and data with National Meteorological Services around the world — licensing use of our Unified Model™ to countries as far afield as Australia, Norway, India and South Korea this year, for example. Science is at the core of all Met Office business and we need to draw in more of it from academic institutions and our collaborations worldwide; in return, helping them to see the practical application and benefits of their work through our operations.

Overall, we need to continue developing our science, IT, operations, customer service and people towards our vision of being recognised as the best weather and climate service in the world.

# Management structures

## Met Office Owner's Council

Strategic oversight on behalf of our Owner, the Secretary of State for Defence, is provided by the Met Office Owner's Council.

## Met Office Board

The Met Office Board, that includes a number of Non-Executive Directors, helps to develop and recommend the strategic direction of the Met Office and oversees its performance.

## Executive

The Executive is responsible for the strategic and corporate management of the Met Office on a day-to-day basis. It is accountable to the Met Office Board.

## Prospect

With over 70 years' experience in the public sector, Prospect is the only recognised Trade Union for Met Office staff. Current membership is in excess of 70% of employees.

## Register of Interests

The Met Office maintains a public Register of Interests which details company directorships and other significant interests held by Board members which may conflict with their management responsibilities. Persons wishing to view the Register should apply in writing to Alex Bailey, Private Secretary to Chief Executive, Met Office, FitzRoy Road, Exeter, EX1 3PB.

## Executive Directors



**John Hirst**  
Chief Executive



**Prof. John Mitchell**  
Climate Science  
Director



**Prof. Julia Slingo**  
Chief Scientist



**Rob Varley**  
Government  
Services Director



**Keith Groves**  
Operations Director



**Dr. Alan Dickinson**  
Science & Technology  
Director



**Diana Chaloner**  
Director of  
Human Resources



**Dr. Phil Johnston**  
Commercial  
Business Director



**Nick Jobling**  
Chief Financial Officer



**Peter Whittle**  
Executive Director



**Alan Shepherd**  
Strategic Marketing  
& Product Director

## Non-Executive Directors



**Robert Napier**  
Chairman



**Denise Harker**  
Non-Executive Director



**Prof. Sir Brian Hoskins**  
Non-Executive Director



**Dr. Mike Goodfellow**  
Non-Executive Director



**James Currie**  
Non-Executive  
Director



**Peter Shortt**  
Non-Executive Director  
— Shareholder Executive  
Representative



**Terence Jagger**  
Non-Executive  
Director — MoD  
Representative

Met Office Owner's Council	Met Office Board	Executive	Audit Committee	Membership as 31 March 2009
●	●	●	*	John Hirst (Chief Executive)
		●		Prof. John Mitchell OBE FRS (Climate Science Director) <sup>3</sup>
	●	●		Keith Groves (Operations Director)
		●		Rob Varley (Government Services Director)
		●		Dr. Alan Dickinson (Science & Technology Director)
	●	●		Prof. Julia Slingo OBE (Chief Scientist) <sup>3</sup>
		●		Alan Shepherd (Strategic Marketing & Product Director) <sup>2</sup>
		●		Dr. Phil Johnston (Commercial Business Director)
		●		Peter Whittle (Executive Director) <sup>1</sup>
*	●	●	*	Nick Jobling (Chief Financial Officer)
●	●			Robert Napier (Chairman)
	●		●	Denise Harker (Non-Executive Director and Chair of Audit Committee)
	●			Prof. Sir Brian Hoskins CBE FRS (Non-Executive Director)
	●		●	Dr. Mike Goodfellow (Non-Executive Director)
	●			James Currie (Non-Executive Director)
	*			Philippa Childs (Prospect National Negotiator)
●			●	David Filkin (MOOC member)
●	●			Peter Shortt (Non-Executive Director, Shareholder Executive Representative)
●	●		●	Terence Jagger (Non-Executive Director, Financial Management Director, MoD) <sup>4</sup>
●				Kevan Jones MP (Under Secretary of State — Chair)
●				Jon Thompson (Director General Finance, MoD)
●				Nick Baldwin (Chairman, Public Weather Service Customer Group)
●				Captain Peter Griffiths (DfT Customer Representative)
●				David Warrilow (DECC Customer Representative)
●				Kathryn Packer (Defra Customer Representative)
●				Prof. Mark Welland (Scientific Advisor, MoD)

\* Invited attendees

<sup>1</sup> Six-month contract to 1 September 2008 — contract extended to June 2009

<sup>2</sup> Replaced Peter Whittle in January 2009

<sup>3</sup> Replaced John Mitchell in February 2009. John Mitchell moved to Climate Science Director

<sup>4</sup> Replaced Peter Shortt as MoD Non-Executive Director in December 2008

# Management commentary

## KEY PERFORMANCE TARGETS

For the fourth year in succession we have achieved our Key Performance Targets (KPTs) on Return on Capital Employed (ROCE), Business Profitability, and Customer-Supplier Agreements (CSAs). This year, we narrowly missed achieving the Probability of Precipitation element of the Forecasting Accuracy KPT and this has provided a key area of focus for the setting of the Forecast Accuracy target for 2009/10.

In the interests of continuity and stability, the Met Office will continue to use the same group of KPTs in 2009/10 as in 2008/9. These are Forecast Accuracy, Return on Capital Employed, Business Profitability, and Customer-Supplier Agreements output delivery targets.

These KPTs support the Met Office Top Level Objectives as documented in the 2009–2013 Corporate Plan:

- Services to the public
- Services to central Government
- Services provided on a commercial basis
- Organisational excellence

### Forecast Accuracy

We assess forecast accuracy against four different measures:

- UK & global Numerical Weather Prediction (NWP) Index
- Probability of Precipitation
- Maximum Temperature
- Minimum Temperature

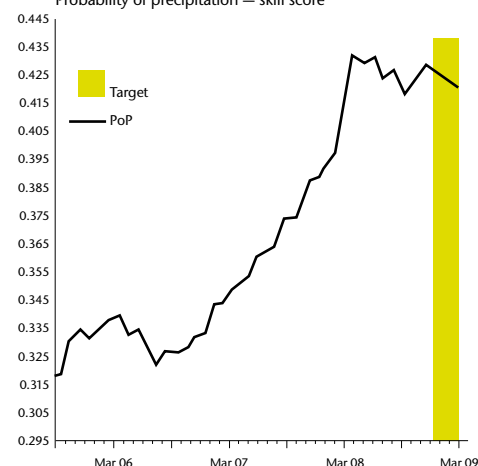
Globally, and over the UK, we look at the performance of our computer-based forecasting systems using an NWP Index. This allows month-by-month comparisons of performance and we have demonstrated a sustained improvement in the accuracy of our forecasts since 1998. By March 2009, the combined NWP Index was 125.8 against a target of the same figure.

Closer to home we also measure the accuracy of our UK forecasts by comparing 24-hour forecasts of minimum and maximum temperatures with what actually happened at 11 UK locations. The maximum and minimum temperature accuracy scores were achieved with values of 86.8% and 84.9% respectively, against targets of 86.2% and 84.4%.

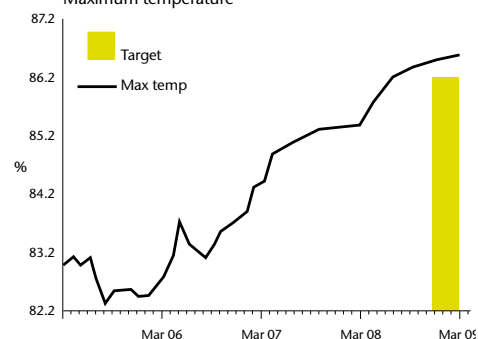
2008/9 was the first year that a fully automated forecast was used for the Probability of Precipitation at 11 locations around the UK. An exceptional level of performance at the end of 2007/8 set a high standard for our forecasts this year. Less accurate forecasts than expected for Stornoway in the Outer Hebrides, combined with weather patterns in June and October that resulted in rainfall events that were not captured well by our forecast models, or those used by other forecasting centres, were the main reasons for missing the target. The Probability of Precipitation measure ended the year at 0.421 against a target of 0.433. Despite this, we are confident that forecasts of significant rainfall throughout 2008/9 have been good. Our customers, who mostly receive forecasts that have been enhanced by our skilled staff, received an excellent service.

The implementation of a higher resolution model during 2009/10 is expected to provide improvements to these forecasts; and, for 2009/10, expansion of our measures to include forecasts for 139 sites will provide a more reliable measure of performance.

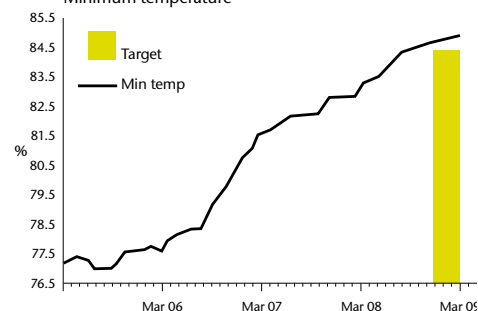
Probability of precipitation – skill score



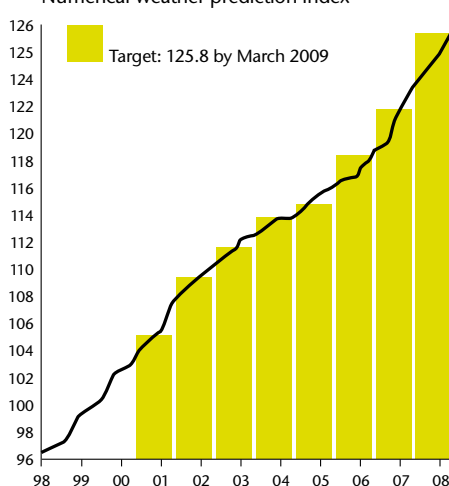
Maximum temperature



Minimum temperature



Numerical weather prediction index

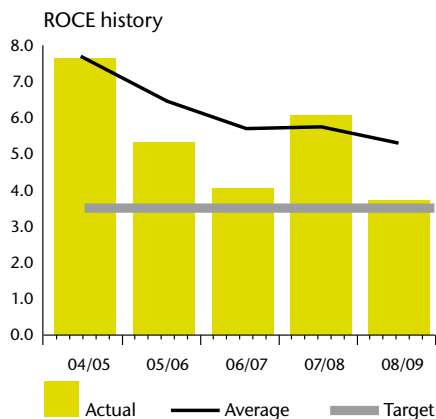


## Return on Capital Employed

Return on Capital Employed (ROCE) is a measure of the return a company makes from the capital invested in the business. ROCE can be defined in several ways, but the resulting ratio represents the efficiency with which capital is being utilised to generate profits.

The ROCE must support the longer term target set by HM Treasury, “...for the five-year period from 1 April 2004 to 31 March 2009... to achieve a return, averaged over the period as a whole, of at least 3.5 per cent...”. In 2004/5 ROCE was 7.6%, in 2005/6 it was 5.3%, in 2006/7 we achieved 4.0% and in 2007/8 it was 6.1%. The figure achieved in 2008/9 is 3.7%, giving an average across the five years of 5.3%, comfortably exceeding the required target.

The ROCE target for the next five-year period covering 1 April 2009 to 31 March 2014 is expected to be at least 3.5%.



## Customer Service Agreement output delivery

The Customer Service Agreement (CSA) output delivery KPT measures, as its name implies, the delivery of our outputs to our key government customers, namely the Public Weather Service, Defence services and the Integrated Climate Programme.

In 2008/9 we met the necessary thresholds in order to achieve the KPT. A total of 37 outputs in terms of products, targets, services and milestones were all met within the tolerances agreed with our customers.

## Business Profitability

Business Profitability is based on profit generated from the key areas of our business selected for development, and includes all operational commercial business as well as some competed Government business. For 2008/9 we generated a business profit of £7.5 million exceeding the target of £7 million.

2009/10 is expected to be a challenging year for many businesses, including the Met Office. The economic climate is expected to affect sales and this, combined with significant investment for the future and a simplification of accounting, will see a profitability target on a newly agreed basis for 2009/10 of £5.3 million.

The Business Profitability achieved in 2008/9 restated on this revised basis would be £6.1 million.



## CORPORATE RESPONSIBILITY

At the Met Office, we always strive to work in the most sustainable way possible; not only for the benefit of our staff, customers and suppliers, but for the wider community. This year, we worked closely with Business in the Community to benchmark our progress in the area of Corporate Responsibility.

### Reducing our impact on the environment

#### Our KPIs

As one of the world's leading users of supercomputers — and with a steadily increasing demand — our greatest challenge is making our supercomputing as energy efficient as possible. Although power-hungry, the supercomputer is vital for providing critical safety information to the public, Government and businesses. Our new IBM system is ranked within the top 200 'greenest' supercomputers in the world and we are working in other ways to reduce our impact on the environment.

As expected, our overall energy consumption in 2008/9 increased but we made great strides in reducing the energy consumption not related to the supercomputers. We have also set ourselves a new, challenging, target to achieve a further reduction in energy consumption across the Exeter site.

#### Our office

For the fourth year in a row, our Exeter office has received an 'excellent' rating against the world-leading Building Research Establishment Environmental Assessment Method (BREEAM). At the same time, our environmental system remains certified to the ISO 14001 standard of 'excellence'.

We have introduced a new series of initiatives to keep our energy consumption in check. These include:

- automatically switching off lights in our meeting rooms on the hour, every hour;
- producing our own electricity using a combined heat and power plant which also helps us to cool our supercomputers;
- conducting feasibility studies into using wind power, solar power and a bio-mass plant to generate electricity.

### Our carbon footprint

We are also taking steps to reduce the carbon footprint of our business travel. During the past year we have:

- reduced the number of business air miles flown by more than 11% compared to 2007/8;
- changed to a diesel-powered fleet of pool cars resulting in a reduction in CO<sub>2</sub> emissions of more than 16%.

Other, new environmental initiatives at the Exeter site are in place and beginning to show real benefits:

- A borehole became operational during the year, reducing mains-water consumption by an estimated 21%.
- We are now recycling more than 72% of waste produced on site, passing our target by 7%.
- Food waste produced on site is removed and taken to a local company where it is composted to make a peat-free organic soil improver.

### Making a positive impact on our community

Our community spans the world and includes people in the local areas around our offices, the wider UK population that we support with weather and climate-change services and the companies that we do business with.

### Sustainability and our suppliers

We work with our suppliers to agree ways we can operate in a sustainable way at an early stage in the procurement process, thereby including sustainability and environmental impacts more effectively. Through the procurement evaluation process, suppliers who offer a sustainable solution are given credit for their approach; as demonstrated through our supercomputer procurement. We assess all contracts for general sustainability risks and identify necessary management actions. Where appropriate, we also agree targets with key suppliers to improve sustainability.

The Procurement team is also working with Exeter City Council to adopt its Green Accord which is an accreditation that drives sustainability and demonstrates best practise in the reduction of environmental impacts through the whole supply chain. In conjunction with suppliers, the Green Accord encourages better working practices by demanding practical actions through business.

Our 'excellent' Exeter office



Working with our local communities





## Charity work

Throughout 2008 and into 2009 we continue to support our corporate charity WaterAid, which works to provide clean water, sanitation and hygiene education to the world's poorest people in Africa and Asia. Instead of sending traditional paper Christmas cards this year, we sent an electronic greetings card and donated £2,500 to WaterAid. In June 2009, this three-year relationship will come to an end and we will identify a new corporate charity to support for the next three years.

While much of our charity work is on an international basis, we are also involved in initiatives closer to our offices. To help reach out to the local community, we open the Exeter building to the public four times a year. But in November 2008 an extra Open Day was held in partnership with a local newspaper to raise money for its 'We Care' campaign.

We also support the work of the Prince's Trust locally and assist other charities in raising awareness of their work.

## Other efforts

Through their personal commitments, our staff make a significant contribution to the communities in which they live, in roles as varied as school governors to parish counsellors. We are proud of the work they do.

Our support for the University of Exeter's public lecture series 'Shaping the Future' brought some high-profile speakers to the city throughout the year. Among the speakers were Sir Richard Dearlove, former Chief of the Secret Intelligence Service, Dame Carol Black, National Director for Health and Work, and James Smith, Chairman of Shell UK.

## Making a positive impact worldwide

Our active involvement with the World Meteorological Organization's Voluntary Cooperation Programme continues. By providing funding, equipment, expert advice and training, we help meteorological organisations in developing countries offer better services, in a more sustainable way.

We also provide seasonal forecasts to developing countries. By offering our PRECIS (Providing Regional Climates for Impacts Studies) model free to developing countries we can help them assess their vulnerability to climate change and develop strategies to cope with its possible impacts.

And when natural disasters do hit, we respond as quickly as possible to help stricken areas restore vital forecasting capability.

Other support this year includes:

- assisting observing stations at Seychelles, Gough Island and several Pacific Islands;
- improving information and training for forecasters in developing countries, particularly concerning high-impact weather;
- improving delivery of broadcast services — especially weather warnings — through training and new software for TV weather presenting;
- building skills through online training, including a course on management techniques, and through fellowships to develop future leaders;
- developing climatology databases for planning, risk analysis and climate-change indicators;
- providing training and expertise in using climate data: this year-two online 'Statistics in Applied Climatology' course was delivered to a total of 75 delegates;
- improving access to weather and climate information locally. For example, we have been working with ComputerAid International in Uganda to install computers in observing stations that enable staff to deliver information to their local communities.

## Protecting personal data

No protecting personal-data related incidents were reported to the Information Commissioner's Office during 2008/9. And there were no such incidents centrally recorded but not formally reported to the Information Commissioner's Office during the year.

## The next steps

Everyone at the Met Office is proud of our record in Corporate Responsibility. But there is always more to be done and we will continue to look for ways we can improve.

## Helping others to succeed



# Top 20 highlights of 2008/9

Here's a selection of short stories from 2008/9 which, we feel, endorse the Met Office's role in providing a world-leading weather and climate service:

## A Google eye on climate change

There are few hotter issues facing mankind today than climate change. Following a major collaboration between the Met Office, Google and the UK Government, the world can now watch as global temperatures rise — simply by logging on.

At the Google Zeitgeist conference on 20 May 2008, a new online tool from the Met Office called 'Climate Change in Our World' was launched by Prime Minister Gordon Brown under the Act On CO<sub>2</sub> banner. It took just six weeks to develop and is freely available to everyone through Google Earth's Outreach site.

The application is designed to provide a hundred-year picture from 2000 to 2100. With the temperature map model provided by the Met Office Hadley Centre and the ice-sheet layer by the British Antarctic Survey, this interactive snapshot of the planet informs the general public, interest groups and policymakers alike. It comes with some very handy features too. Users can zoom in and out of different geographic locations, month by month. And a range of illustrative information is presented as pushpin 'pop-ups', such as changes to crop yields in a selected area.

By reporting the impact of rising temperatures on the richest and poorest nations in this innovative way, it should be easier to grasp what's happening with issues such as health, water resources, sea-levels, ecosystems and greenhouse gas emissions. Ultimately, it could help mobilise global commitment to tackling climate change, now and in the future.

## The right move

Transferring from a rented office to dedicated facilities at Millbank Studios turned the Met Office Media unit into an around-the-clock operation — and meant we could offer innovative new services.

As one of only three commercial divisions, the Met Office Media unit has revenue targets. These have traditionally been met by providing weather data, graphics, presenters and training to the BBC and other UK broadcasters. But new opportunities — especially in the area of new media — made it essential to extend and enhance these services.

When the Met Office became the first organisation in the world to offer on-demand national weather forecasts for phones and other mobile media, it was tangible proof of the positive effect of the Millbank move. Launched in October 2008, the service has proved extremely popular, and extensions into regional forecasts are planned.

We have also launched a two-day course, making the Met Office a leading trainer of TV weather presenters in the UK. Weather presenting is an art, requiring an understanding of meteorology as well as the ability to engage an audience. The exceptional technical facilities at Millbank, combined with the unique depth of knowledge at the Met Office, provide an invaluable resource.

As interest in all things environmental continues to rise, our weather services are helping broadcasting clients attract sponsorship and advertising.



The home of Met Office Media

## Processing change

The Met Office has always been at the forefront of computer technology. But the arrival of a new supercomputer will take processing power to the next level and raise the standards of our services for the public, government and businesses.

The new supercomputer will be one of the most powerful in the world, capable of 125 trillion calculations per second. And, once a planned upgrade takes place in 2011, it will be up to 30 times more powerful than the existing supercomputer.

This level of computing power will enable the Met Office to produce forecasts in greater detail than ever before — modelling the atmosphere at a resolution of up to 1.5 km rather than the existing 4 km maximum. The difference this will make to localised forecasts alone could be huge. It will help predict potentially dangerous conditions such as snow, fog and surface flooding — conditions that can cause major disruption and damage in the UK.

A vast range of additional uses is promised by the supercomputer. One half will be dedicated to the weather and the other to climate change. And it will be used extensively for collaborative work — particularly the Joint Research Programme between the Met Office and Natural Environment Research Council that was launched on 13 March 2009.

With the supercomputer's arrival at the Met Office comes the possibility of brand new services that weren't possible before — taking weather and climate-change forecasting into an exciting new future.



## Forewarned is forearmed

A warmer climate can encourage diseases such as Bluetongue to take hold in the UK. But an innovative project, funded by the Department for Environment, Food and Rural Affairs (Defra), sees the Met Office and the Institute for Animal Health (IAH) providing a strong first line of defence.

Carried by midges, Bluetongue virus infects sheep and cows with devastating financial consequences for farmers. The determining factors are many and complex: the virus replicates inside the midge, but only above a certain temperature; the insects fly only in light winds but can be carried long distances on a breeze; and, if it's raining, they stay on the ground.

The Met Office and IAH approached Defra and offered to untangle the complex relationship between the midges and the weather, to develop an early warning system for the UK. This was immediately tested when the first outbreak of Bluetongue occurred in Belgium in 2006.

In 2007, an outbreak in the UK was successfully predicted by the two organisations and, since then, the system has been developed into a daily web-based service. Met Office and IAH scientists spend time discussing the disease with the farming community and helped to initiate the vaccination programme which kept the UK free of Bluetongue in 2008, despite more than 20,000 cases being reported in France and as far north as Norway.

Today, the research continues as there's still much to learn about Bluetongue. But the project's success to date shows that close collaboration between scientific organisations can deliver powerful results.

More accuracy and business start here



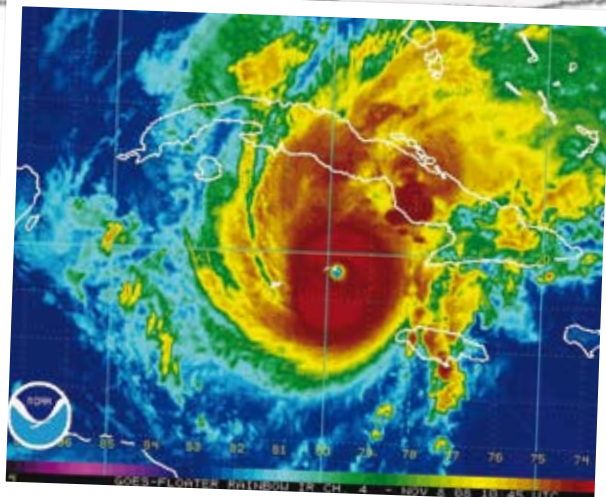
## Storm force

The 2008 North Atlantic hurricane season was the fourth most active since detailed records began. At the start of the season, the Met Office estimated that there would be 15 tropical storms between July and November — exactly the number observed during that period.

Eight of these storms developed into hurricanes — one of the most devastating weather phenomena known to mankind. For the second year in a row, the Met Office used a version of a dynamic numerical climate model called GloSea to forecast tropical storm activity; and, for a second year, it produced accurate guidance on the number that occurred.

Using a climate model to forecast storms is an unconventional approach. While more traditional models are based on statistics — or past events — GloSea looks at current events to deduce what might occur in the future. It takes a vast range of environmental factors into consideration such as sea temperature, which can have a huge influence on tropical storms. While traditional systems would restrict forecasters to using recorded sea temperatures from previous years, GloSea takes actual, current temperatures as a starting point for determining forecasts.

Recent research carried out with European partners has shown that dynamical systems such as GloSea are now challenging, or even overtaking, some proven statistical methods in this area. This new approach has certainly given the Met Office the edge in predicting tropical storm numbers.



## Protecting London

Evidence from around the UK shows that the sea-level is rising — in 2003, the Thames Barrier was closed on 14 consecutive tides. Not surprisingly, London's existing emergency flood plans needed to change.

Research by the Met Office Hadley Centre shows that sea-levels are expected to rise faster in the future. In addition, a greater frequency of extreme weather will probably increase the water flowing down the River Thames after the heaviest torrential rain.

The Met Office is a key player in the Thames Estuary 2100 (TE2100) project along with co-experts from the Environment Agency, Proudman Oceanographic Laboratory and the Centre for Ecology and Hydrology. Tasked with protecting London from flooding now and into the next century, the climate scientists involved in TE2100 are studying precisely how future changes will impact the Thames Estuary and using this to inform defensive strategies.

Recent work, reported in September 2008, suggested that current Government predictions for sea-level rise in the Thames Estuary are realistic, so forecasting and modelling from the Met Office will help to make sure investment is directed where it will be needed most. For example, while the Thames Barrier is expected to hold fast based on ten-, 50- and 100-year forecasts, it is likely that upstream plans will need adapting to handle increased water run-off from torrential winter rains.

The Met Office Hadley Centre has also highlighted a need for continuous monitoring of sea-level rise around the UK as an early warning of any unexpected changes.

## The burning issue

Climate change remains a pressing political issue. Over the past year, the Met Office has continued to be at the forefront of this hot topic, using our latest science to educate, influence and inform decisions around the world.

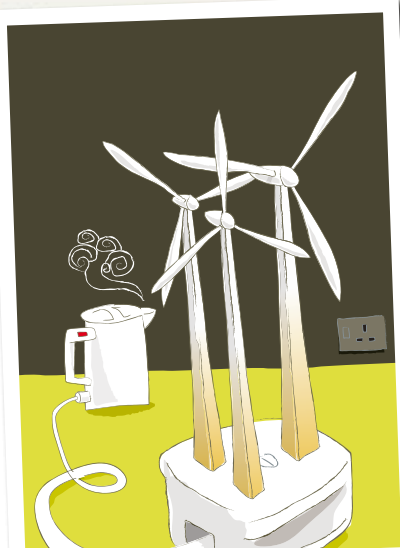
In 2008 this included attending a United Nations (UN) conference in Poznań, Poland. At this event, attended by more than 190 government delegations, the Met Office highlighted dangerous climate change and its impacts, and what the world must do to keep temperatures below dangerous levels.

At an exhibition stand as well as through talks and printed materials, our scientists demonstrated the interconnected nature of climate change, air quality and human health; the affects of deforestation; and the devastating impact that just a small rise in global temperatures will have.

This event also provided an opportunity to demonstrate the PRECIS (Providing Regional Climates for Impacts Studies) model. Designed to run on most computers, this software, provided free to some countries, shows the impact of climate change for specific user-defined regions — an invaluable tool for developing nations.

In March 2009, work on dangerous climate change continued at a UN climate congress in Copenhagen where leading scientists from the Met Office and around the world gathered to share the latest thinking.

Both events are important steps along the road to the UN Climate Change Conference in Copenhagen, December 2009. Here, the highest decision-making authorities will address climate change and begin to draw up a framework to succeed the seminal Kyoto Protocol. The Met Office, as ever, will be there.



Climate change will impact our everyday lives

## Side by side

MODERN communications make working life much easier, but sometimes there's no substitute for human contact. So when the Met Office and Environment Agency were given a joint task — to improve the forecasts of flooding in England and Wales — we set up a team of meteorologists and hydrologists to work side by side.

Flooding is often caused by a combination of rain and overflowing drains, rivers and lakes or rising sea-levels. Yet, traditionally, these phenomena have been treated very separately — the Met Office forecasting the rain and sea-levels and the Environment Agency studying water at, and below, ground level. The Pitt Review, which followed the devastating UK floods in 2007, identified a need for joined-up thinking in this area and recommended that the two organisations worked together more closely.

The Flood Forecasting Centre was born following a six-month trial of Extreme Rainfall Alerts. Based in London, it sees Met Office meteorologists working side by side with hydrologists from the Environment Agency.

By combining weather prediction and flooding expertise into one integrated team, the Flood Forecasting Centre will vastly increase the capacity to deliver longer lead-time alerts of extreme rainfall, river floods and coastal surges. The Centre also provides a national alert and guidance service for Category 1 Responders (police, fire and ambulance services; public health organisations; local councils) and Category 2 Responders (utilities companies; transport operators; other public bodies).

When the weather is exceptionally severe, Met Office is involved at the highest level through briefings to the Civil Contingencies Secretariat and Cabinet Office Briefing Room.

Working together, the Met Office and Environment Agency succeed in getting accurate, targeted information out to the people who respond to flood warnings, as well as to those directly affected — fast.

## Winning over winter

Gloomy winter weather can lower moods and energy levels and bring on a range of debilitating conditions — the most well-known being Seasonal Affective Disorder (SAD). So, earlier this year, the Met Office tested an innovative new service called Brighter Outlook to help those affected.

For the initial feasibility study, run jointly with the Cornwall and Isles of Scilly NHS and Outlook SouthWest, 80 people who are prone to SAD completed a psychological questionnaire with the support of a health practitioner. The Met Office then provided the volunteers with a special automated phone call, email or text message forecasting details of the gloomy weather to come.

The alerts forecast weather two days in advance to help sufferers plan their day-to-day activities as well as when to use their light-box — a tool that can help people overcome the feelings of gloom and sadness. But the scheme achieved far more than this. It also helped legitimise the condition as a chemical response to a lack of daylight and therefore remove any stigma that it's a psychological disorder.

Following the success of this 'proof of concept' test — and a huge amount of interest from places as far afield as the Shetland Islands and New Zealand — a larger study is planned this winter. With the potential benefits for people at risk from SAD, the Met Office hopes even more individuals and Primary Care Trusts will subscribe to the Brighter Outlook service as the nights start drawing in.

## High-flying services

For airlines, cost and efficiency are vital to both reputation and profits. With 98% accuracy over three years, the Met Office's Aircraft De-icing Forecast Service has helped our aviation customers stay on time and in the air.

In December 2008 alone, there were over 200 incidents of ice at 14 airfields across the UK and the near-continent. What's more, forecasting airframe ice in such a cold winter was further complicated by nights of patchy cloud cover which, due to its insulating affect on the Earth, makes frost formation harder to predict. Even so, the Met Office has a proven track record of 98% accuracy in predicting ice on parked aircraft.

De-icing is expensive, with an average cost per plane of £1,000 — and even more for the larger jumbo jets. So no airline wants to order out de-icers unnecessarily. Plus, with charges of up to £50 a minute for delaying take off, they can't risk leaving planes on the ground because of ice either. So when it comes to de-icing, accurate forecasts are critical.

Part of the reason the Met Office's service — the only one of its kind in the world — is so successful, is that it was developed in close collaboration with the aviation industry. Designed to meet the specific challenges it faces, the service provides weather information as and when it's needed using web-based and email updates with text- and fax messages.

Today, leading airlines that use this service have a proven reduction in icing-related delays of 85% and reduced icing costs of up to 30%.



Help is available in autumn and winter



## February's big freeze

Most people will remember February 2009 as a month of snow; but, in reality, a mix of snow and rain, combined with freezing temperatures, swept across the country — making the weather highly changeable. In such adverse conditions, accurate forecasts and clear communication from the Met Office helped to keep the country moving.

In the first ten days of February, the country was hit by no less than five significant weather events, which contributed to one of the heaviest snowfalls in the UK in 20 years. Such conditions could have brought parts of the country to a standstill. The media was quick to predict that worse was to come and political pressure mounted as grit for the roads ran low and schools closed.

But in the midst of the storm, there was calm. Despite the challenging conditions, the Met Office accurately forecast the weather. What's more, the way the forecasts were communicated made a huge difference. Using new techniques, Public Weather Service Advisors were able to convey incredibly clear information to people and organisations around the country and beyond.

With a solid understanding of when to expect the next snowfall, people were better placed to make the most of 'weather windows' when they occurred — vital opportunities for important repairs and maintenance, or simply clearing driveways.

Praise for the Met Office was widespread during this period — testament to our focus on giving the public, government and businesses the tools they need to prepare for the impacts of severe weather.



Keeping the country moving

## Together, we're stronger

The highly versatile Unified Model™ (UM) has been in continuous development since 1990 and underpins much of the Met Office's work. A series of new licensing agreements promises to add enormous value to the system and open it up for use by others around the world.

The UM™ is the Met Office's numerical modelling system and the basis of much of the weather forecasts and climate-change projections we produce. But its development is increasingly becoming a collaborative process, drawing in the knowledge and expertise of other organisations. In fact, at the end of 2008, operational users in Australia, India, New Zealand, Norway, South Africa and South Korea, and research users in universities at home and abroad, were all contributing to the UM™.

One project in Australia, for example, is increasing the accuracy of the way radiation is represented in the UM™. In India, scientists are evaluating UM™ forecasts of monsoons, which affect millions of people's lives and livelihoods. In Norway, improvements are being made to the way the UM™ models snow in densely forested areas. And finally a long-term collaboration with UK universities will see the incorporation of a chemistry and aerosol model in the UM™.

All of these licensees have the opportunity to attend workshops and tutorials run by the Met Office. These forums provide further opportunities to exchange information and increase UM™ usability. Ultimately, the aim is to produce more accurate weather forecasts and climate projections — and that can only be achieved through genuine collaboration.

## Digging for answers

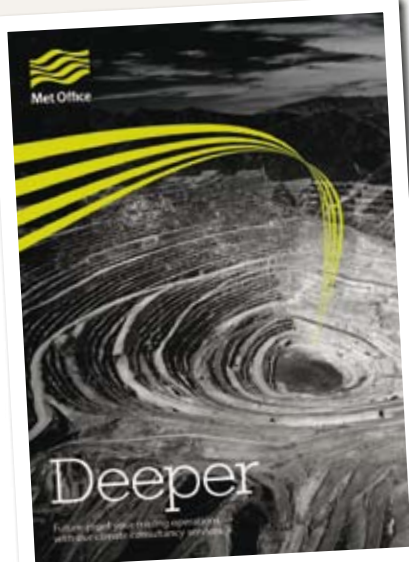
When an international mining company is planning a new project, you wouldn't necessarily expect it to consult the Met Office. But if that project could potentially change the delicate weather patterns of a surrounding rainforest, the Met Office is one of the few organisations around the world that can help.

The proposed mining development involves removing a large section of a mountaintop in an environmentally-sensitive area of the Tropics. The challenge for the mining company was not only to satisfy itself that the works wouldn't damage the delicate ecosystem — but also international agencies, potential financiers and the country's government.

The mountains are such an important feature that there was justifiable concern the works could affect rainfall in the area. So, in a groundbreaking project, the Met Office was employed to generate some answers for the mining company.

To calculate the impact of a change to the landscape, the Met Office used a weather forecast model at a very high resolution. Our scientists ran the model with the mountain unchanged using case studies of historical weather patterns known to be important for the sustainability of the local ecosystem. The model was then run a second time, reworking calculations to show the impact of the proposed mine.

While the results of the study have not yet been published, the project shows the varied applications of our science. It also highlights the importance of close collaboration with the Met Office when assessing the environmental impact of large scale engineering projects.



No project too big or deep, tall or broad, for our consultants



## A joining of minds

Last year, the Met Office continued to build strong relationships in a number of collaborative projects. One such project was with the University of Exeter.

While the Met Office's computer models are incredibly powerful tools for forecasting climate change, they're only a starting point to understanding the consequent impacts on individuals, communities and economies. That's why we were involved in the establishment of posts in the social science departments at the University of Exeter.

Together, the two organisations are studying how people are likely to adapt their behaviour as the climate changes around the world. The collaboration includes studies of the health, well-being and economic success of people for a sustainable future and in translating climate change scenarios into policy development.

On 22–24 September 2008, the University of Exeter hosted a major international conference that helped initiate this new climate change programme. Delegates attended from the Met Office, University of Exeter and a number of other international universities and research bodies, the Department of Energy and Climate Change (DECC) and charity organisations such as Oxfam.

The conference concluded that the key issue facing humankind was not so much the scale of climate change but how fast it's happening. And with the Climate Change Act (2008) setting a target for reducing UK greenhouse gas emissions by 80% by 2050, the Met Office's work with academic institutions — such as the University of Exeter — will continue to guide everyone on the risks and impacts as our climate changes.

## Remembrance

6 June is a significant date in the Met Office's calendar. It was on this day in 1944 that Operation Overlord took place — the amphibious assault on the shores of occupied France and a critical point in the D-Day landings that helped change the course of World War II.

The operation was originally planned for 5 June 1944. But fortuitously, Group Captain Stagg, Chief Meteorologist to the Supreme Headquarters Allied Expeditionary Force at the time, spotted that a 36-hour weather window was more likely to begin the following day and informed General Eisenhower. This break in the weather was crucial as it gave troops the visibility they needed to reach the beaches.

To commemorate our colleagues who died in both World Wars, including Met Office volunteer observers, a Roll of Honour was engraved with 75 names. Unfortunately, this was damaged in the move from our old Bracknell offices to Exeter; and, as it represented such an important part of our history, it had to be replaced.

A new glass plaque was commissioned and finally unveiled on 6 June 2008. Chaplain-in-Chief (Air Vice-Marshal) Pete Mills led a moving ceremony, along with relatives and VIPs such as Squadron Leader Peter Rackliff and Wing Commander Colin ('Tiny') Mentz who flew with some of those remembered. A minute's silence marked the sacrifice made by Met Office employees.



## Weather wisdom

On 31 July 2008, the Met Office signed a memorandum of understanding with Help the Aged, further strengthening this long-standing relationship. Through it, as well as partnerships with other charities, we're using our knowledge to advise, inform and, ultimately, save lives.

Every year, extremes in hot and cold weather claim the lives of thousands of elderly people. As the planet warms, these extremes — particularly in cities — will become ever more prevalent.

The Met Office works closely with Help the Aged to improve the information available to the elderly and delivers services to those involved with looking after vulnerable people. These services, such as Heatwave Alerts, inform health- and social care professionals ahead of time and advise them what to do when extreme weather is expected.

Professor James Goodwin, Head of Research at Age Concern and Help the Aged said, "It's vital that the Met Office and the newly-merged charity continue to work closely together. Both hot and cold weather can have an enormous impact on older people. In the summer of 2003, in Europe, many thousands of older people died as a result of the extreme heat. Each and every winter, thousands of older people die needlessly as a result of cold-related illnesses here in the UK.

"However, there are steps that older people can take in order to keep well — whatever the weather. That's why our continuing relationship with the Met Office is such a positive aspect of our campaigning on excess deaths in cold and hot weather."

A different type of gathering on 6 June



## Spreading the word

Since holding the first Climate Change Seminar in September 2008, the Met Office has presented key findings to more than 100 representatives of the UK Government. Each delegate is given the facts behind climate change, so that word spreads on its likely impacts and what needs to be done about it.

Responding to the increasing thirst for climate change knowledge around the world was an obvious step for the Met Office. We have the scientific expertise as well as the training resources to take the message to a wider audience. To do this, we designed a seminar that could be rolled-out at the request of our customers.

Delivered by specialist Met Office presenters and supported by our scientists, the seminars help people plan environmental policies and projects, whatever their level of scientific qualification or understanding.

The first section of the seminar focuses on defining climate and climate change, busting myths and presenting the very latest evidence of change. Other sessions describe potential impacts and then suggest mitigation and adaptation strategies. But it soon emerged that one of the seminar's most important tasks was to provide delegates with the tools to make the case for change themselves.

The seminars and information packs have since evolved to reflect this. Every delegate now leaves with a set of slides and detailed accompanying notes to enable them to share the key information with others in their organisation.

With the Met Office's skill in communicating science in a way that everyone can understand, these Climate Change Seminars are playing a valuable role in engaging policymakers across the country and ensuring climate change plays an important role in the decisions they make today and for tomorrow.

## Managing risk in a changing world

Today, weather and climate are firmly on the global business agenda. Many companies now realise they have to adapt their business models to meet the challenges posed by a changing natural world. That's why one of the world's leading banks has forged a new agreement with the Met Office to help its customers manage risk more effectively.

The agreement is the driving force behind the creation of a new initiative — the HSBC Climate Change Research Facilitation Programme. Through the programme, Met Office Consulting provides weather and climate change information to fund managers trading on the HSBC Climate Change Index — many of whom look after pension portfolios. The information will be an additional tool in their armoury, helping them manage the risks posed to their investments by both natural and man-made climate change.

The agreement is the first of its kind for the Met Office and shows a new approach to working in closer collaboration with commercial partners. It was made possible, in part, by an innovative approach to the fee structure for commissioned research.

The agreement is just one way financial institutions can access Met Office services, which include commodity forecasts and reports, seasonal hurricane forecasts, climate forecasts (up to decades ahead), expert environmental advice, and executive training and seminars. As the Met Office continues to build its business knowledge and study climate change, the range of services it can offer the commercial world will also continue to expand in innovative ways.



Climate change threatens property, infrastructure and lives

## Why it's best to AVOID

It is widely accepted that climate change poses many dangers to humankind. For governments to create policies to combat this threat, it takes a deep understanding of the complex science that underpins it. That's where AVOID comes in.

AVOID is short for 'Avoiding Dangerous Climate Change through stabilising Greenhouse Gas concentrations' and was jointly commissioned by the Department of Energy and Climate Change (DECC) and the Department for Environment, Food and Rural Affairs (Defra). The core programme will be carried out by four of the UK's leading climate organisations: the Met Office, the Tyndall Centre, the Walker Institute and the Grantham Institute at Imperial College, but will grow in future to include other research institutes.

The research programme aims to put the latest scientific knowledge about dangerous climate change into the hands of policymakers in Government. The AVOID consortium informs key people of the relevance of the latest research, including impacts on natural and managed systems as well as economies and society.

One of the biggest challenges for AVOID is making the science of climate change accessible to a wider audience, so the communication side of the programme is critical to its success. The programme includes a Knowledge Integrator whose role it is to make sure all messages are clear, understandable and delivered in a timely manner.

AVOID is a unique initiative that tackles, head on, how best to provide solid scientific research on which to base workable policies. It deals not only with the complexity of the science but also the art of communicating it.

## World Climate Conference - 3

Better climate information for a better future



## All the right signals

In Africa, forecasting the rainy seasons can mean the difference between a successful harvest and disaster. So a recent funding agreement with the Department for International Development (DFID) could benefit subsistence farmers across the continent.

The funding will go directly to Regional Climate Outlook Forums (RCOFs) that provide forecast products to regions around the world. The Met Office has been closely involved with RCOFs since their inception in 1997, providing training, workshops and capacity building.

Long-range forecasts can make the world of difference for people in Africa — and, though seasonal forecasting is a developing science, a reasonable level of accuracy can be achieved. Certain major events such as El Niño provide strong indicators for the coming season in some regions and these can be combined with an ever-improving understanding of future climate variability to produce a very helpful picture.

The funding will allow research and development in applications of the forecast information. In particular, it will enable the Met Office to develop river-basin flow predictions, to help major industries such as hydroelectricity generation to plan ahead and work more efficiently.

The World Climate Conference-3 in 2009 is likely to re-endorse RCOFs as a key component in generating and using climate information. This will add extra impetus for the Met Office to continue providing its expertise and experience to assist the developing world.

# Financial review

## FINANCIAL PERFORMANCE AND POLICIES

Turnover increased in year by 4.6%, from £176.6 million in 2007/8 to £184.8 million. Growth has been in both Government and Commercial revenue streams. The upward trend in commercial revenue has continued during 2008/9 rising to £29.4 million (2007/8 £27.0 million), largely derived from growth in the Health and Marine programmes together with increased telephone sales of core products.

Revenue received in respect of the Public Weather Service (PWS), Defence and Civil Sector Services have increased compared to 2007/8. This is largely attributable to a full year of revenue in respect of the contract for the operational management of the Radioactive Incident Monitoring Network (RIMNET), the commencement of the Flood Forecasting Centre and increased PWS revenue due to contracted price escalation and funding for higher international costs.

Total expenditure increased from £164.0 million in 2007/8 to £177.2 million in 2008/9. Staff costs increased by £6.0 million compared to 2007/8 as a result of the increase in staff numbers. Equipment and services costs were £3.8 million higher predominantly as a result of the RIMNET contract being in operation for the whole financial year and higher operating costs in respect of the research aircraft. Accommodation costs increased from £8.3 million in 2007/8 to £10.4 million in 2008/9, primarily as a result of higher fuel and energy costs

Operating profit decreased from £12.7 million in 2007/8 to £7.6 million in 2008/9. The main contributors to this decline were higher fuel and energy costs as noted above and investment in the Met Office IT infrastructure to enhance its business effectiveness. In addition, there was no recurrence of the exceptional gain encountered in 2007/8 as a result of the leasehold provision being released following the assignation of a lease relating to one of the Bracknell leasehold properties.

Business profitability, a measure of profitability on revenue from services provided on a competed basis amounted to £7.5 million in 2008/9 exceeding the target of £7 million. Return on Capital Employed (ROCE) decreased from 6.1% in 2007/8 to 3.7%, remaining above the 3.5% target. The ROCE target contained with the Met Office's Treasury Minute of 3.5% for the 5 year period to 31 March 2009 was exceeded at 5.3%.

### Cash flows and liquidity

Cash balances totalled £33.5 million as at 31 March 2009, a reduction of £0.4 million when compared to 31 March 2008. Of this balance £0.8 million comprised cash in transit at the year end (2007/8, £0.6m). Net cash inflows from operating activities increased to £32.9 million (2007/8, £30.1 million).

Trade debtor balances increased by £0.8 million compared to 2007/8. This was primarily due to the increase in turnover, up £8.1 million compared with 2007/8. Average debtor days increased to 44 days at 31 March 2009 from 42 days at 31 March 2008. Total creditor balances increased by £6.4 million compared to 2007/8. The larger movements contributing to this were increases in dividends payable (£4m), accruals (£3m), and loans due (£1.7m) with reductions in VAT payable (£1.5m) and trade creditors (£1.1m or 27%), the latter being the direct result of our commitment to the Government's initiative to ensure payments to small and medium-sized enterprise (SME) suppliers are made within 10 working days.

### Dividends

In line with the continued improvement in Met Office performance, dividends paid to our Owner, the Ministry of Defence (MoD), have increased for the fifth year in a row. Total dividends paid and payable were £17.2 million in respect of 2008/9 (2007/8 £11.1 million).

### Payment policy

Our normal policy is to pay all suppliers within contracted payment terms or, where there are no specifically agreed terms, within 30 days of receiving a valid invoice or of the delivery date. In 2008/9, we paid 99.03% of our bills on time against a target of 99% (2007/8, 99.21%). During the latter half of the year, the Met Office supported the central Government objective of paying SME businesses within 10 working days.

### Treasury policy

Certain payments to international bodies in respect of international subscriptions and contribution to satellite programmes are paid in foreign currency. To manage the foreign exchange risk the Met Office policy is to buy forward foreign currency to meet these payments in accordance with the anticipated payment profile. During 2008/9 the Met Office adopted hedge accounting for such transactions. The Met Office follows HM Treasury rules by investing all

surplus funds on deposit with the UK Debt Management Office at HM Treasury.

The Met Office has limited exposure to liquidity risk due to loan funding from the MoD.

Further details of our derivatives and other financial instruments are contained in note 25 to the Accounts.

### International Financial Reporting Standards

The Met Office continues to prepare for the full implementation of International Financial Reporting Standards (IFRS), as interpreted for the public sector in 2009/10. As part of the Trigger Point process set out by HM Treasury, the Met Office completed a restatement of the 31 March 2008 balance sheet on an IFRS basis during 2008/9. The restatement exercise was also subject to audit by the National Audit Office.

In addition Financial Reporting Standards 25, 26 and 29 relating to Financial Instruments have been adopted by the Met Office during 2008/9.

### Staff absence data

In 2008/9 the average working days lost per person was 5.7 days (2007/8 5.5 days).

### Disclosure of information to auditors

In accordance with the s418 of the Companies Act 2006:

- so far as the Accounting Officer is aware, there is no relevant audit information of which the entity's auditors are unaware, and
- the Accounting Officer 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.



## PERFORMANCE AGAINST KEY MINISTERIAL TARGETS

Year	2005/6		2006/7		2007/8		2008/9	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Targets met		5/5		4/4		4/4		3/4
ROCE	3.5% in year (3.5% average 04/04-03/09)	5.3% (6.5% average 04/04-03/09)	3.5% in year (3.5% average 04/04-03/09)	4.0% (5.6% average 04/04-03/09)	3.5% in year (3.5% average 04/04-03/09)	6.1% (5.7% average 04/04-03/09)	3.5% in year (3.5% average 04/04-03/09)	3.7% (5.3% average 04/04-03/09)
Business Profitability	£2.8m	£2.9m	£3.6m	£3.9m	£4.3m	£4.4m		
Business Profitability (revised calculation)						£5.8m	£7.0m	£7.5m
NWP Index	114.9	116.0	118.5	118.5				
NWP Index (revised calculation)					122.4	123.5	125.8	125.8
Max Temp Accuracy	83.0%	83.0%	83.5%	84.6%	84.8%	85.5%	86.2%	86.8%
Min Temp Accuracy	78.0%	78.0%	79.0%	81.8%	82.0%	83.5%	84.4%	84.9%
Precip Accuracy (forecaster)	0.855	0.855						
Use Brier Skill Score (forecaster)			0.345	0.349				
Automated Prob of Precip					0.403	0.433	0.438	0.421
Cust Serv Agreements with central govt cust.	Create and Agree	Achieved						
Pricing mechanism for Defence	Establish	Achieved						
Costed output-based CSAs to all Govt cust			Introduce where agreed	Agreed				
Incentivised pricing			Prep for intro 01/04/07	Agreed				
Baseline for 07/08 efficiency targets			Create	Agreed				
Deliver outputs of CSAs for for PWS, Defence and Defra					Deliver	Achieved	Deliver	Achieved
Staff satisfaction Benchmark	Establish	Achieved						

 Target achieved

 Target failed

# Performance

## KEY PERFORMANCE TARGETS 2009/10

Key Performance Targets (KPTs) have been set for the Chief Executive of the Met Office for the financial year 2009/10. The targets are designed to drive continued improvements in the Agency's performance and are as follows:

### KPT 1. Forecast Accuracy

To achieve at least three out of the four following forecast accuracy measures:

- a. To maintain the forecasting skill, using the UK Numerical Weather Prediction (NWP) Index, to **117.0**.
- b. Improve the forecasting skill, using the Global Numerical Weather Prediction (NWP) Index, to **138.1**.
- c. More skilfully predict whether precipitation will occur at 139 Met Office observing sites, to achieve a skill score of at least **0.267**.
- d. To achieve the UK Cities Automated Temperature Index of at least **0.666**.

### KPT 2. Business Profitability

To achieve a Business Profitability Target on a newly agreed basis of **£5.3 million**.

### KPT 3. Return on Capital Employed

To achieve a Return on Capital Employed (ROCE) of at least 3.2%, in line with Treasury requirements of achieving at least 3.5%, averaged over the period 2009/10 to 2013/14.

### KPT 4. Support to wider Government goals

To deliver the outputs of the Customer Supplier Agreements (CSA) for Public Weather Services, Defence and Defra within the tolerances agreed with the customers and defined in the CSAs.

## REPORT BY THE COMPTROLLER AND AUDITOR GENERAL ON THE MET OFFICE'S STATEMENT OF PERFORMANCE AGAINST 2008/9 KEY PERFORMANCE TARGETS

The Chief Executive has asked me to validate the Met Office's performance against the 2008/9 Key Performance Targets (KPTs).

### Respective responsibilities of the Met Office, the Chief Executive and the Auditor

The Met Office and the Chief Executive are responsible for the measurement and reporting of the Met Office's performance against its KPTs.

I examine and conclude on whether the Met Office has:

- provided full details of performance against all the Met Office's KPTs; and
- ensured that all performance information is reliable and fairly presented.

### Basis of conclusion

The validation includes an examination, on a test basis, of evidence relevant to the amounts and disclosures of the outturns and achievements included within the Statement. It also includes an assessment of the significant judgements and methodologies made by the Met Office and the Chief Executive in the Statement's preparation.

### Conclusion

The Statement of Performance includes all of the Met Office's 2008/9 KPTs and it reliably and fairly presents the Trading Fund's performance against the KPTs.

I have no observations to make on this Statement.

Amyas Morse  
Comptroller and Auditor General  
National Audit Office  
151 Buckingham Palace Road  
Victoria  
London  
SW1W 9SP

5 June 2009

# Remuneration report

## Remuneration policy

The members of the Met Office Executive are either members of the Senior Civil Service (SCS) or Met Office employees.

The remuneration of Senior Civil Servants is set by the Prime Minister following independent advice from the Review Body on Senior Salaries.

In reaching its recommendations, the Review Body has regard to the following considerations:

- the need to recruit, retain and motivate suitably able and qualified people to exercise their different responsibilities;
- regional/local variations in labour markets and their effects on the recruitment and retention of staff;
- Government policies for improving public services including the requirement on departments to meet the output targets for the delivery of departmental services;
- the funds available to departments as set out in the Government's departmental expenditure limits;
- Government's inflation target.

The Review Body takes account of the evidence it receives about wider economic considerations and the affordability of its recommendations.

Further information about the work of the Review Body can be found at [www.ome.uk.com](http://www.ome.uk.com)

Met Office employees have their remuneration determined by a process consistent with the Civil Service Pay Guidance from HM Treasury. The Chief Executive has authority to determine pay and conditions for all Met Office employees, which are appropriate to its business needs and which take account of Government policies on Public Sector Pay. This delegation requires the Chief Executive to consult with the MoD, the Cabinet Office and HM Treasury and to gain their approval before negotiating any changes to pay and grading systems and arrangements with the recognised Trade Union. This is achieved through the Civil Service Pay Remit process. The Met Office Reward Strategy approved by the Chief Executive is designed to drive the behaviours required to deliver the Corporate Plan. The Met Office Reward Strategy is aligned with the Met Office's Corporate Plan and is consistent with the Civil Service Reward Principles. Further details of the Civil Service Reward Principles can be found at [www.civilservice.gov.uk/people/pay\\_and\\_reward/guidance.aspx](http://www.civilservice.gov.uk/people/pay_and_reward/guidance.aspx)

## Service contracts

Civil service appointments are made in accordance with the Civil Service Commissioners' Recruitment Code, which requires appointment to be on merit and on the basis of fair and open competition but also includes the circumstances when appointments may otherwise be made.

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 Commissioners can be found at [www.civilservicecommissioners.org](http://www.civilservicecommissioners.org)

## Met Office Reward and Remuneration Committee

The Reward and Remuneration Committee is a sub-committee of the Met Office Board.

The members of the Reward and Remuneration Committee are the Non-Executive Directors of the Met Office Board, together with the Chief Executive. The Committee is chaired by the Non-Executive Chairman of the Met Office Board.

The purpose of the Committee includes the consideration and approval of the Met Office annual pay remit; consideration of distributions to employees under the Met Office Corporate Bonus scheme, based on an assessment of the performance of the Met Office against its Key Performance Targets and the level of declared profit.

The Committee also considers, if appropriate, whether Senior Civil Servants at the Met Office should either be included in the Met Office Corporate Bonus scheme or the wider MoD SCS bonus scheme, and subsequently:

- either to agree the bonus to be paid to Met Office Senior Civil Servants within the overall amount of money set for distribution under the Met Office Corporate Bonus scheme;
- or to review and approve the Chief Executive's recommendations on Met Office Senior Civil Servants bonuses to the MoD Pay Committee.

## Salary and pension entitlements

The following sections provide details of the remuneration and pension interests of the Executive Directors of the Met Office:

### Remuneration

(This information is subject to audit)

Name	Note	2008/9	2007/8
		Salary, including performance pay £000	Salary, including performance pay £000
J Hirst Chief Executive		195–200	85–90 (155–160 full year equivalent)
JFB Mitchell Climate Science Director	2	100–105	100–105
K Groves Operations Director		75–80	20–25 (70–75 full year equivalent)
R Varley Government Services Director		75–80	35–40 (60–65 full year equivalent)
A Dickinson Science and Technology Director		75–80	70–75
P Johnston Commercial Business Director		125–130	120–125
N Jobling Chief Financial Officer		95–100	55–60 (70–75 full year equivalent)
P Whittle Executive Director		150–155	10–15 (145–150 full year equivalent)
A Shepherd Strategic Marketing and Product Director (from 26 January 2009)		25–30 (140–145 full year equivalent)	N/A
J Slingo Chief Scientist (from 2 February 2009)		20–25 (125–130 full year equivalent)	N/A
D Chaloner Director of Human Resources (from 21 May 2008)		50–55 (55–60 full year equivalent)	N/A

1. No Director received any benefits in kind in either 2008/9 or 2007/8.

2. Includes taxable allowances

### Salary

‘Salary’ includes gross salary; performance pay or bonuses; overtime; reserved rights to London weighting or London allowances; recruitment and retention allowances any other allowance to the extent that it is subject to UK taxation.



## Pension benefits

(This information is subject to audit)

Name	Note	Accrued pension at pension age as at 31/03/09 plus pension taken at partial retirement £000	Accrued lump sum at pension age as at 31/03/09 plus lump sum taken on partial retirement	Real increase in pension and related lump sum at pension age £000	CETV at 31/03/09 £000	CETV at 31/03/08* £000	Real increase in CETV £000
J Hirst		5-10		2.5-5	71	21	42
JFB Mitchell	1	Accrued pension 20-25 Pension in payment 10-15	Accrued lump sum 65-70 Lump sum already paid 40-45	0-2.5 plus 0-2.5 lump sum	888	835	-
K Groves		30-35	95-100	0-2.5 plus 2.5-5 lump sum	749	660	34
R Varley		20-25	65-70	0-2.5 plus 5-7.5 lump sum	351	289	35
A Dickinson		30-35	95-100	0-2.5 plus 0-2.5 lump sum	757	689	6
P Johnston		5-10		0-2.5	68	42	19
N Jobling		0-5		0-2.5	65	46	12
P Whittle		0-5		2.5-5	56	4	46
A Shepherd		0-5		0-2.5	7	-	6
J Slingo		0-5		0-2.5	7	-	6
D Chaloner		0-5		0-2.5	18	8 CETV at 21/05/08	7

\* The figure may be different from the closing figure in last year's remuneration report. This is due to the CETV factors being updated to comply with the Occupational Pension Schemes (Transfer Values) (Amendment) Regulations 2008

1. JFB Mitchell took partial retirement on 1 December 2008. Under the scheme rules, people who reshape their job so their pensionable earnings are reduced by at least 20% may take partial retirement. They may draw all or part of their pension and may choose to draw a pension commencement lump sum (PCLS) and their pension comes into payment in the normal way. The CETV figures listed above include the entire pension/lump sum benefits

## Civil Service Pensions

Pension benefits are provided through the Civil Service pension arrangements. From 30 July 2007, civil servants may be in one of four defined benefit schemes; either a 'final salary' scheme (Classic, Premium or Classic Plus); or a 'whole career' scheme (Nuvos). 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 and Nuvos are increased annually in line with changes in the Retail Prices Index (RPI). Members who joined from October 2002 could opt for either the appropriate defined benefit arrangement or a good quality 'money purchase' stakeholder pension with a significant employer contribution (partnership pension account).

Employee contributions are set at the rate of 1.5% of pensionable earnings for Classic and 3.5% for Premium, Classic Plus and Nuvos. 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' 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. 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 his 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, immediately after the scheme year end, the accrued pension is uprated in line with RPI. In all cases members may opt to give up (commute) pension for 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 3% and 12.5% (depending on the age of the member) into a stakeholder pension product chosen by the employee. 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 0.8% of pensionable salary to cover the cost of centrally-provided risk benefit cover (death in service and ill-health retirement).

The accrued pension quoted is the pension the member 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.

Further details about the Civil Service pension arrangements can be found at the website [www.civilservice-pensions.gov.uk](http://www.civilservice-pensions.gov.uk)

## Cash Equivalent Transfer Values

A Cash Equivalent Transfer Value (CETV) is the actuarially assessed capitalised value of the pension scheme benefits accrued by a member at a particular point in time. The benefits valued are the member's accrued benefits and any contingent spouse's pension payable from the scheme. A CETV is a payment made by a pension scheme or arrangement to secure pension benefits in another pension scheme or arrangement when the member leaves a scheme and chooses to transfer the benefits accrued in their former scheme. The pension figures 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 individual has transferred to the Civil Service pension arrangements. They also include any additional pension benefit accrued to the member as a result of their purchasing additional pension benefits at their own cost. CETVs are calculated in accordance with The Occupational Pension Schemes (Transfer Values) (Amendments) Regulations 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.

### Real increase in CETV

This reflects the increase in CETV that is funded by the employer. It does not include the increase in accrued pension due to inflation, 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.

### Fees paid to Non-Executive Directors

Met Office Non-Executive Directors are not Met Office employees and are not members of the Principal Civil Service Pension Scheme

Fees paid to Non-Executive Directors were as follows:

	2008/9 £000	2007/8 £000
R Napier	35–40	35–40
B Hoskins	0–5	5–10
D Harker	15–20	15–20
M Goodfellow	15–20	15–20
J Currie	15–20	10–15
T Jagger	–	N/A
P Shortt	–	N/A

P Shortt and T Jagger have been appointed in conjunction with their responsibilities at Shareholder Executive and MoD respectively. They are not entitled to receive separate remuneration in undertaking their Met Office duties.



Mr J Hirst  
Chief Executive  
1 June 2009

# Accounts

## STATEMENT ON INTERNAL CONTROL

### Scope of responsibility

As Accounting Officer, I have responsibility for maintaining a sound system of internal control that supports the achievement of the Met Office policies, aims and objectives, whilst safeguarding the public funds and departmental assets for which I am personally responsible, in accordance with the responsibilities assigned to me in Managing Public Money.

The Met Office is a Trading Fund within the Ministry of Defence and, as such, is accountable to the Secretary of State for Defence. A revised Framework Document, which sets out the purpose, vision, roles and governance arrangements for the Met Office was signed by the Secretary of State for Defence in early 2007 and remains valid until the next revision — due no later than mid-2011. Historically, in pursuing its objectives, the Met Office has not always used all the freedoms implied in its Framework Document, partly due to the MoD exercising closer management control than expected. The Met Office and the MoD are, as part of the Operational Efficiency Programme process, identifying areas where the Met Office can usefully operate with greater freedoms while maintaining appropriate control over the use of public funds. The Met Office Owner's Council (MOOC), chaired by the Under-Secretary of State and which acts as the representative of the owner, convenes bi-annually (or as required) to review the performance of the Met Office against its Key Performance Targets and Corporate Plan objectives, which have been approved by Parliament. The MOOC also advises me on the management of major strategic risks. In addition, the Audit Committee comprising Non-Executive members of both the MOOC and the Met Office Board, and which reports to the Met Office Board, supports me in my Accounting Officer role.

### The purpose of the system of internal control

The system of internal control is designed to manage risk to a reasonable level rather than to eliminate all risk of failure to achieve policies, aims and objectives; it can therefore only provide reasonable and not absolute assurance of effectiveness. The system of internal control is based on an ongoing process designed to identify and prioritise the risks to the achievement of departmental policies, aims and objectives, to evaluate the likelihood of those risks being realised and the impact should they be realised, and to manage them efficiently, effectively and economically. The system of internal control has been in place in the Met Office for the year ended 31 March 2009 and up to the date of approval of the Annual Report and Accounts, and accords with Treasury guidance.

### Capacity to handle risk

Risk management is embedded throughout the Met Office, led by a Risk Manager with the full support of the Met Office Executive. The Risk Manager reports to the Executive on a monthly basis and holds a quarterly formal review session to discuss risk in more detail. The Met Office Executive team is also responsible for the identification, management and co-ordination of the risk process. The corporate Risk Review Committee comprises senior staff chaired by an Executive lead. This Committee reviews actions on all corporate and significant business risks and is ideally placed to provide top level corporate-wide risk horizon scanning. Key business and project risks are managed by the appropriate responsible staff and are reviewed at least quarterly by the Executive lead for that function. The Audit Committee reviews risk at each quarterly meeting, which sets the agenda for internal audit plans to audit key risks and their mitigation.

During the year, the Audit Committee, the Risk Review Committee and the Risk Manager have worked together to review the approach to risk management across the Met Office, put forward proposals and worked with others to seek effective implementation. An alignment of the Corporate Plan with risk has resulted in a more focused Corporate Risk Register and this has been endorsed by both the Executive and, following a risk workshop, the Board. An internal audit of corporate Risk Management recognised the progress that has been made but supported the need for further improvements regarding strategic alignment, roles and responsibilities and corporate commitment, all of which are being progressed as indicated by the work alluded to above.

## The risk and control framework

Risk management is now an accepted element of the standard decision-making process across the Met Office; whether at corporate, programme, project or operating level, and is framed in the context of the organisation's environment and strategic goals. The Met Office recognises that the aim is to reduce a risk to an acceptable level, balancing the risk to the business should the risk materialise against the cost of further mitigation. Whilst the risks are held in separate Risk Registers appropriate to the owner, the criteria and thresholds used to assess risks follow a common approach across the organisation. Each Programme Risk Register is reviewed regularly by the appropriate Executive Director, and all Risk Registers (corporate, programme and (key) projects) are highlighted to the monthly Executive Performance Review meetings. Internal audits of the risk management process are undertaken periodically to assess its design and effectiveness.

Appropriate consideration of business continuity is seen as one component of the risk management approach being adopted, and considerable steps have been taken over the past year to develop, introduce and test key elements. These include table-top exercises for significant staff risks and live testing of our operational facility back-up plan at our Exeter site. Full cognisance is made of the MoD continuity requirements, with particular attention paid to security of our people, assets and data, as well as continuity of services to customers.

## Information assurance

Cabinet Office and MoD issued directives on measures that needed to be taken to meet the requirements of the Data Handling Review (Hannigan and Burton reports). The Met Office immediately instigated a review and now has in place a Senior Risk Manager and Senior Data Protection Officer, both of whom are Executive Directors. Information Asset Owners (IAOs) have been established and policies implemented relating to the protection of personal data held by the Met Office. Key information risks have been identified and actions are underway to minimise risk to personal data. Policies have been established on the use of removable media and these are being aligned with ongoing work to gain full MoD security accreditation to our data networks; interim accreditation being granted in early 2009. To further minimise risks, a training and awareness campaign on all security issues, including compliance with the Data Protection Act, is underway with further activity planned.

Assessment of compliance with the Data Handling Review has taken place through a high-level Defence Internal Audit review and a Met Office internal audit, the latter supporting the need to further improve training and support for the IAOs, management of the action plan and alignment of activities with recently issued Cabinet Office guidance. Actions arising are being addressed as a matter of priority and in conjunction with guidance from MoD.

## Review of effectiveness

As Accounting Officer, I have responsibility for reviewing the effectiveness of the system of internal control. My review of the effectiveness of the system of internal control is informed by the work of the internal auditors and the managers within the Met Office who have responsibility for the development and maintenance of the internal control framework, and comments made by the external auditors in their management letter and other reports. I have been advised on the implications of the result of my review of the effectiveness of the system of internal control by the Board, the Audit Committee and the Risk Committee; and a plan to address weaknesses and ensure continuous improvement of the system is in place.

The primary controls on the risk management process come through the internal audit programme which is approved and monitored by the Audit Committee.

The internal audit function previously provided solely by PwC has been further strengthened during the year via the recruitment of additional experienced resource, improvements to aspects of its core operation, and the assignment of the Head of Internal Audit role to in-house resource with effect from 1 April 2008. There has also been greater coordination with key audit partners at Defence Internal Audit and the National Audit Office, improving the efficiency of audit activities impacting the Met Office.

The audit plan is based on an assessment of risk across the organisation. Further controls come through the extended remit of the Risk Review Committee, working with the Risk Manager, which reports regularly to the Executive and the Board. During the year, there have been external audits by MoD and the National Audit Office which related to aspects of financial control. These audits did not identify any significant or systemic failings, although a small number of specific opportunities for improvement were noted and are being addressed. Of the 32 audits conducted by Internal Audit, ten concluded that existing controls only gave limited assurance that objectives would be achieved and risks were being managed effectively. Required improvements in control related to the management and disposal of removable media stock, aspects of project management, HR pay and pensions processing involving our external service provider, and physical and personal security. In all cases, steps have been taken to improve and embed controls to ensure that the issues identified are addressed and do not recur.

To ensure this statement reflects the full year, I have specifically sought confirmation from key senior staff and Non-Executive Directors who were present over the full period that this indeed is a fair reflection.

## Conclusion

Based on the outcomes of the reviews and procedures that have been described above, I am confident that this Statement of Internal Control accurately reflects the position of the Met Office in respect of controls, governance and risk management. Actions are already in hand to address those areas where weaknesses have been identified and therefore I am content to sign this Statement.



Mr J Hirst  
Chief Executive  
1 June 2009

## STATEMENT OF THE RESPONSIBILITIES OF THE AGENCY AND THE CHIEF EXECUTIVE

Under section 4(6)a of the Government Trading Funds Act 1973, HM Treasury has directed the Met Office to prepare a statement of accounts for the 2008/9 financial year in the form and on the basis set out in the Accounts Direction issued on 18 December 2008. The accounts are prepared on an accruals basis and must give a true and fair view of the Met Office's state of affairs at the year-end and of its income and expenditure, recognised gains and losses 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 and, in particular, to:

- observe the Accounts Direction issued by HM Treasury, including the relevant accounting and disclosure requirements, and 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 Government Financial Reporting Manual, have been followed and disclose and explain any material departures in the financial statements;
- prepare the financial statements on the 'going concern' basis.

HM Treasury has appointed the Chief Executive of the Met Office as the Accounting Officer for the Trading Fund. His responsibilities as Accounting Officer, including responsibility for the propriety and regularity of the public finances, for which he is answerable, for the keeping of proper records and for safeguarding the Met Office's assets, are set out in Managing Public Money published by HM Treasury.



## THE CERTIFICATE AND REPORT OF THE COMPTROLLER AND AUDITOR GENERAL TO THE HOUSES OF PARLIAMENT

I certify that I have audited the financial statements of the Met Office for the year ended 31 March 2009 under the Government Trading Funds Act 1973. These comprise the Profit and Loss Account, the Balance Sheet, the Cash Flow Statement and Statement of Total Recognised Gains and Losses and the related notes. These financial statements have been prepared under the accounting policies set out within them. I have also audited the information in the Remuneration Report that is described in that report as having been audited.

### Respective responsibilities of the Met Office, Chief Executive and Auditor

The Met Office and Chief Executive as Accounting Officer are responsible for preparing the Annual Report, which includes the Remuneration Report, and the financial statements in accordance with the Government Trading Funds Act 1973 and HM Treasury directions made thereunder and for ensuring the regularity of financial transactions. These responsibilities are set out in the Statement of Responsibilities of the Chief Executive and the Met Office.

My responsibility is to audit the financial statements and the part of the Remuneration Report to be audited in accordance with relevant legal and regulatory requirements, and with International Standards on Auditing (UK and Ireland).

I report to you my opinion as to whether the financial statements give a true and fair view and whether the financial statements and the part of the Remuneration Report to be audited have been properly prepared in accordance with the Government Trading Funds Act 1973 and HM Treasury directions made thereunder. I report to you whether, in my opinion, the information, which comprises the Management Commentary, the Directors' Report, the Financial Review and the unaudited part of the Remuneration Report, included in the Annual Report, is consistent with the financial statements. I also report whether, in all material respects, the expenditure and income have been applied to the purposes intended by Parliament and the financial transactions conform to the authorities which govern them.

In addition, I report to you if the Met Office has not kept proper accounting records, if I have not received all the information and explanations I require for my audit, or if information specified by HM Treasury regarding remuneration and other transactions is not disclosed.

I review whether the Statement on Internal Control reflects the Met Office's compliance with HM Treasury's guidance, and I report if it does not. I am not required to consider whether this statement covers all risks and controls, or form an opinion on the effectiveness of the Met Office's corporate governance procedures or its risk and control procedures.

I read the other information contained in the Annual Report and consider whether it is consistent with the audited financial statements. This other information comprises the Management Commentary, the Directors' Report, the Financial Review and the unaudited part of the Remuneration Report. I consider the implications for my report if I become aware of any apparent misstatements or material inconsistencies with the financial statements. My responsibilities do not extend to any other information.

### Basis of audit opinions

I conducted my audit in accordance with International Standards on Auditing (UK and Ireland) issued by the Auditing Practices Board. My audit includes examination, on a test basis, of evidence relevant to the amounts, disclosures and regularity of financial transactions included in the financial statements and the part of the Remuneration Report to be audited. It also includes an assessment of the significant estimates and judgments made by the Met Office and Chief Executive in the preparation of the financial statements, and of whether the accounting policies are most appropriate to the Met Office's circumstances, consistently applied and adequately disclosed.

I planned and performed my audit so as to obtain all the information and explanations which I considered necessary in order to provide me with sufficient evidence to give reasonable assurance that the financial statements and the part of the Remuneration Report to be audited are free from material misstatement, whether caused by fraud or error, and that in all material respects the expenditure and income have been applied to the purposes intended by Parliament and the financial transactions conform to the authorities which govern them. In forming my opinion I also evaluated the overall adequacy of the presentation of information in the financial statements and the part of the Remuneration Report to be audited.

## Opinions

In my opinion:

- the financial statements give a true and fair view, in accordance with the Government Trading Fund Act 1973 and directions made thereunder by HM Treasury, of the state of the Met Office's affairs as at 31 March 2009 and of its profit, recognised gains and losses and cash flows for the year then ended;
- the financial statements and the part of the Remuneration Report to be audited have been properly prepared in accordance with the Government Trading Funds Act 1973 and HM Treasury directions made thereunder; and
- information, which comprises the Management Commentary, the Directors' Report, the Financial Review and the unaudited part of the Remuneration Report, included within the Annual Report, is consistent with the financial statements.

## Opinion on regularity

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

## Report

I have no observations to make on these financial statements.

Amyas Morse  
Comptroller and Auditor General  
National Audit Office  
151 Buckingham Palace Road  
Victoria  
London  
SW1W 9SS

5 June 2009

## Profit and loss account for the year ended 31 March 2009

	Notes	2008/9 £ '000	2007/8 £ '000
Turnover	3	184,781	176,580
Cost of sales	4, 8	(153,312)	(142,788)
Gross profit		31,469	33,792
Selling and distribution costs	4, 8	(10,563)	(9,337)
Administrative expenses	4, 8	(13,312)	(11,857)
Other operating income / (expense)	5	(20)	64
Operating profit		7,574	12,662
Loss on disposal of fixed assets	6	(28)	(19)
Profit on ordinary activities		7,546	12,643
Interest receivable		1,455	1,883
Interest payable	7	(328)	(513)
Profit for the financial year		8,673	14,013
Dividend		(17,177)	(11,077)
Retained profit / (loss)		(8,504)	2,936
Return on Capital Employed (ROCE)	2	3.7%	6.1%

The notes on pages 42 to 63 form part of these Accounts.

The movement on the General Reserve is set out at note 19 on page 58.

## Balance sheet as at 31 March 2009

		31 March 2009		31 March 2008	
	Notes	£ '000	£ '000	£ '000	£ '000
Non-current assets					
Tangible fixed assets	9		182,699		181,248
Derivative Financial Assets	15		1,603		-
			184,302		181,248
Current assets					
Stocks	10	968		890	
Debtors and prepayments	11	39,047		41,373	
Derivative Financial Assets	15	3,000		-	
Cash on deposit	12	32,356		32,907	
Cash at bank and in hand	12	1,192		967	
		76,563		76,137	
Creditors: amounts falling due within one year	13	(50,167)		(43,197)	
Net current assets			26,396		32,940
Total assets less current liabilities			210,698		214,188
Creditors: amounts falling due after more than one year	13		(3,509)		(4,106)
Provisions for liabilities and charges	16		(2,786)		(4,294)
Net assets			204,403		205,788
Capital and reserves					
Public dividend capital			58,867		58,867
Revaluation reserve	17		29,622		28,926
Hedging reserve	18		4,603		-
General reserve	19		111,311		117,995
Total Government funds			204,403		205,788



Mr J Hirst  
Chief Executive  
1 June 2009

The notes on pages 42 to 63 form part of these Accounts.

## Cash flow statement for the year ended 31 March 2009

	Notes	2008/9 £ '000	2007/8 £ '000
Net cash inflow from operating activities	21	32,913	30,116
Payments for exceptional items	21	(1,196)	(1,947)
Returns on investments and servicing of finance	21	1,184	1,448
Net capital expenditure	21	(21,864)	(13,891)
Dividends paid		(13,077)	(10,667)
Management of liquid resources	21	551	(2,889)
Increase / (decrease) in financing	21	1,714	(2,533)
<b>Increase / (decrease) in cash</b>		<b>225</b>	<b>(363)</b>

The notes on pages 42 to 63 form part of these Accounts.

## Statement of total recognised gains and losses for the year ended 31 March 2009

	Notes	2008/9 £ '000	2007/8 £ '000
Retained profit / (loss) for the year		(8,504)	2,936
Change in discount rate applied to early retirement provision		7	11
Movement on revaluation of fixed assets charged to the Revaluation Reserve	17	696	1,274
Movement on hedging reserve		4,603	-
<b>Total recognised gains and losses relating to the year</b>		<b>(3,198)</b>	<b>4,221</b>

## Reconciliation of movements in Government funds

	2008/9 £ '000	2007/8 £ '000
Government funds at 1 April	205,788	198,700
Total recognised gains and losses relating to the year	(3,198)	4,221
Transfer to General Reserve	1,813	2,867
Net movement in Government funds	(1,385)	7,088
<b>Balance at 31 March</b>	<b>204,403</b>	<b>205,788</b>

The notes on pages 42 to 63 form part of these Accounts.

## 1. NOTES TO THE ACCOUNTS

### Accounting policies

#### (a) Basis of accounting

These financial statements have been prepared in compliance with an Accounts Direction dated 18 December 2008 in accordance with Section 4(6)(a) of the Government Trading Funds Act 1973 and the 2008/9 Government Financial Reporting Manual (FReM) issued by HM Treasury. The accounting policies contained in the FReM follow UK generally accepted accounting practice for companies (UK GAAP) to the extent that it is meaningful and appropriate to the public sector. Where the FReM permits a choice of accounting policy, the accounting policy which has been judged to be most appropriate to the particular circumstances of the Trading Fund for the purpose of giving a true and fair view has been selected.

The accounts follow the accruals concept and have been prepared under the historical cost convention, modified to account for the revaluation of fixed assets and stocks.

#### (b) Exceptional items

Items are treated as exceptional if they derive from events or transactions that fall within ordinary operating activities and which individually, or if of a similar type in aggregate, need to be disclosed, by virtue of their size or incidence, for the financial statements to give a true and fair view.

#### (c) Turnover

Turnover comprises the accrued value of services (net of VAT) supplied to the private sector, Government departments and the wider public sector. Revenue is recognised in accordance with the substance of the customer's contractual arrangements and to the extent that the Met Office has performed or partially performed its contractual obligations. Where payments received from customers are greater than the revenue recognised under the contract, the amount in excess of the revenue recognised is treated as deferred income and included within creditors. Where revenue is recognised as contract activity progresses and subject to the contractual arrangements, revenue is accrued. To the extent that the revenue is in advance of an invoice being raised the amount is shown as accrued income within debtors.

#### (d) Research and development

Expenditure on research is charged to the Profit and Loss Account as incurred. Development expenditure is charged to the Profit and Loss Accounts unless the expenditure meets the capitalisation criteria set out in SSAP 13 - Research and Development. Where development expenditure comprises internal costs that relate to activities that can only be undertaken by in-house staff, such expenditure is not capitalised. As there is no expenditure meeting SSAP13 capitalisation criteria, all development expenditure has been charged to the Profit and Loss Account.

#### (e) Tangible fixed assets

##### Valuation

Freehold land and buildings in continuing use are revalued by qualified valuers every five years, in accordance with the Practice Statements and Guidance Notes set out in the Appraisal and Valuation Manual of the Royal Institution of Chartered Surveyors. Valuations are based on open market values for existing use, except where the asset is considered specialised and valued on the basis of depreciated replacement cost.

Plant, equipment and information technology equipment is capitalised where the useful life exceeds three years and the cost of acquisition and installation exceeds £5,000 (excluding VAT). Networked minor computers and related equipment, which individually do not meet the criteria, have also been capitalised. Major items of plant and equipment are revalued annually using the Gross Domestic Product Deflator Index. In 2008/9 the preliminary GDP deflator of 3% has been used as an estimate of the final GDP deflator. The final GDP deflator published post year end was 2.5%. Using the GDP Deflator of 3% as opposed to the final GDP Deflator of 2.5% has resulted in the net book value of fixed assets and the revaluation reserve being £187,000 higher.

Certain meteorological equipment installed in commercial aircraft or at sea is not capitalised as it is outside the direct control of the Met Office and has an uncertain operational life.

Funding received under collaborative arrangements for the capital installation of rainfall radar systems is credited as deferred income within creditors until tangible fixed assets are acquired.



The Met Office, on behalf of the UK, is a member of EUMETSAT and, as such, contributes to the cost of its satellite programmes. The Met Office and its customers benefit from the data and services resulting from these programmes. Expenditure other than research and development on programmes to date is capitalised and revalued annually using the Aerospace Combined Input Cost Index published by the Office for National Statistics.

## Depreciation

Freehold land is not depreciated. Depreciation on buildings is calculated to write off the cost, or value, by equal instalments over the asset's estimated useful life (not exceeding 50 years). Plant, equipment and information technology assets are depreciated by the straight-line method at a rate calculated to write off the cost, or value, over the asset's estimated useful life. Current policy is to write off plant and equipment over three to 30 years and information technology equipment over three to five years. Satellite assets are depreciated using the straight-line method over their estimated useful life. The remaining life of the current satellite programme (Meteosat Second Generation - MSG) at 31 March 2009 is currently assessed as 9.50 years providing the full operational service and a further 1.75 years as the operational hot spare for the follow on programme. This method reflects the principle that the economic benefit of satellite data remains constant between individual satellites.

Fixtures and fittings include improvements to leasehold buildings and are depreciated over five to 25 years. Assets in the course of construction are not depreciated.

Where there is evidence of impairment, fixed assets are written down to recoverable amount.

## (f) Leased assets

Assets held under finance leases are included in the balance sheet as tangible fixed assets at their equivalent capital value and are depreciated over their estimated economic lives or the finance lease period, whichever is shorter. The finance lease period includes the primary lease term together with further terms where it is reasonably certain at the inception of the lease that the Met Office will exercise its option to extend. The corresponding liability is recorded as a creditor. The interest element of the rental costs is charged against profits, using the actuarial method, over the period of the lease. A supercomputer is held under a finance lease. Rents for those leasehold properties and vehicles which are held under operating leases are charged against profits.

## (g) Stocks

Stocks are valued at the lower of cost, or net current replacement cost if materially different, and net realisable value.

## (h) Insurance

The Met Office reviews its risk exposures and ensures that appropriate insurance is provided.

## (i) Pensions

Pension benefits are provided through the Civil Service pension arrangements. Met Office staff, as civil servants, may be in one of four statutory based defined benefit schemes (Classic, Premium, Classic Plus and Nuvos). Classic, Premium and Classic Plus are now closed to new members. New entrants after 30 July 2007 may choose between membership of Nuvos or joining a good quality "money purchase" stakeholder based arrangement with a significant employer contribution (partnership pension account).

### • Classic Scheme

Benefits accrue at the rate of 1/80th of pensionable salary for each year of service. In addition, a lump sum equivalent to three years' pension is payable on retirement. Members leaving after 1 October 2007 also have an option to commute some of their pension for a further lump sum up to a maximum of 33 / 14 times pension (the commutation rate is £12 of lump sum for each £1 of pension given up). Members pay contributions of 1.5 per cent of pensionable earnings. On death, pensions are payable to the surviving spouse at a rate of half the member's pension. On death in service, the scheme pays a lump sum benefit of twice pensionable pay and also provides a service enhancement on computing the spouse's pension. The enhancement depends on length of service and cannot exceed ten years. Medical retirement is possible in the event of serious ill health. In this case, pensions are brought into payment immediately without actuarial reduction and with service enhanced as for widow(er) pensions.

#### • Premium Scheme

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, but members may commute some of their pension to provide a lump sum up to a maximum of 30 / 7 times pension (the commutation rate is £12 of lump sum for each £1 of pension given up). For the purposes of pension disclosure the tables assume maximum commutation. Members pay contributions of 3.5 per cent of pensionable earnings. On death, pensions are payable to the surviving spouse or eligible partner at a rate of 1/160th the member's final pensionable earnings for each year of reckonable service. On death in service, the scheme pays a lump-sum benefit of three times pensionable earnings and also provides a service enhancement on computing the spouse's pension. The enhancement depends on length of service and cannot exceed ten years. Medical retirement is possible in the event of serious ill health. In this case, pensions are brought into payment immediately without actuarial reduction. Where the member's ill health is such that it permanently prevents them undertaking any gainful employment, service is enhanced to what they would have accrued at age 60.

#### • Classic Plus Scheme

This is essentially a variation of premium, but with benefits in respect of service before 1 October 2002 calculated broadly as per classic.

#### • Nuvos Scheme

Benefits accrue at the rate of 2.3 per cent of pensionable earnings for each year of service. The maximum pension that Nuvos will provide is 75 per cent of pensionable earnings. Nuvos has a pension age of 65. There is no automatic lump sum, but members may commute some of their pension to provide a lump sum up to a maximum of 30 / 7 times pension (the commutation rate is £12 of lump sum for each £1 of pension given up). For the purposes of pension disclosure the tables assume maximum commutation. Members pay contributions of 3.5 per cent of pensionable earnings. On death, pensions are payable to the surviving spouse or eligible partner at a rate of 3/8ths the member's pension (before any commutation). On death in service, the scheme pays a lump-sum benefit of two times pensionable earnings and also provides a service enhancement on computing the spouse's pension. The enhancement depends on length of service and cannot exceed ten years. Medical retirement is possible in the event of serious ill health. In this case, pensions are brought into payment immediately without actuarial reduction. Where the member's ill health is such that it permanently prevents them undertaking any gainful employment, service is enhanced to what they would have accrued at age 65.

Pensions payable under Classic, Premium, Classic Plus and Nuvos are increased in line with the Retail Prices Index.

#### • Partnership Pension Account

This is a stakeholder-type arrangement where the employer pays a basic contribution of between 3% and 12.5% (depending on the age of the member) into a stakeholder pension product. The employee does not have to contribute but where they do make contributions, these will be matched by the employer up to a limit of 3% (in addition to the employer's basic contribution). Employers also contribute a further 0.8% of pensionable salary to cover the cost of risk benefit cover (death in service and ill health retirement). The member may retire at any time between the ages of 50 and 75 and use the accumulated fund to purchase a pension. The member may choose to take up to 25% of the fund as a lump sum.

#### (j) Cash

Cash includes cash in hand and deposits payable on demand with any qualifying institution, less overdrafts from any qualifying institution repayable on demand. Cash also includes any surplus funds held by EUMETSAT that are attributable to the Met Office.

#### (k) Financial instruments

Financial assets and financial liabilities are recognised on the balance sheet when the Met Office becomes a party to the contractual provisions of the instrument. Financial assets or financial liabilities are initially recognised at its fair value plus, in the case of a financial asset or financial liability not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability. Short-term receivables and payables are measured at the original invoice amount where the effect of discounting is immaterial. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Met Office has transferred substantially all risks and rewards of ownership.

Financial assets and liabilities, including derivative financial instruments, denominated in foreign currencies are translated into Sterling at period-end exchange rates. Gains and losses are dealt with through the income statement, unless hedge accounting treatment is available.

Public Dividend Capital is not an equity instrument as defined in FRS 25 Financial Instruments: Presentation.

### Cash and cash equivalents

Cash and cash equivalents includes cash at bank and in hand and short-term deposits payable (original maturity of three months or less) on demand with any qualifying institution, less overdrafts from any qualifying institution repayable on demand. Cash also includes any surplus funds held by EUMETSAT that are attributable to the Met Office.

### Borrowings

Borrowings are recognised initially at the proceeds received. After initial recognition financial liabilities are subsequently measured at amortised cost using the effective interest method. The substance of a financial instrument, rather than its legal form, governs its classification on the Met Office's balance sheet

### Derivative financial instruments and hedge accounting

The Met Office uses derivative financial instruments such as foreign currency contracts to hedge the risks associated with changes in foreign exchange rates in relation to amounts payable to certain international bodies. The payments are in respect of annual subscriptions and contributions including payments for satellite programmes. The Met Office policy is to buy forward foreign currency for payments to international bodies as soon as amounts can be reliably estimated. The use of financial derivatives is governed by the Met Office's hedging strategy, approved by the Met Office Executive, that provide written principles on the use of financial derivatives consistent with the Office's risk management strategy. There is no trading activity in derivative financial instruments.

All the Met Office derivatives are designated as cash flow hedging instruments. In order to qualify for hedge accounting, the Met Office is required to document the relationship between the item being hedged and the hedging instrument. At the inception of a hedging transaction entailing the use of derivative financial instruments, the Met Office documents the relationship between the hedged item and the hedging instrument together with its risk management objective and the strategy underlying the proposed transaction. The Met Office also documents its assessment, both at the inception of the hedging relationship and subsequently on an ongoing basis, of the effectiveness of the hedge in offsetting movements in the cash flow of the hedged items.

Derivative financial instruments are recognised as assets and liabilities measured at their fair values at the balance sheet date. Where derivative financial instruments do not fulfil the criteria for hedge accounting contained in FRS 26, changes in their fair values are recognised in the income statement.

Where the hedging relationship is classified as a cash flow hedge, to the extent that the hedge is effective, changes in the fair value of the hedging instrument arising from the hedged risk are recognised directly in equity rather than in the income statement. Where the forecasted transaction or commitment results in a non-financial asset or non-financial liability, any gains or losses previously deferred in equity are recycled and included in the initial carrying amount of the related asset or liability. The ineffective portions of any gain or loss on the hedging instrument are recognised in the profit and loss account.

Such derivative financial instruments are initially measured at fair value on the contract date, and are remeasured to fair value at subsequent reporting dates.

Additional information can be found in note 15 to the financial statements.

### (I) Consolidated accounts

The Met Office has no subsidiaries, associates or joint ventures which require the production of group accounts.

## 2. KEY FINANCIAL TARGETS

The Met Office's key financial targets for 2008/9, as announced in Parliament (4 June 2008, Column 61WS), were:

- a) To achieve a return on capital employed of at least 3.5 per cent in support of a longer term target to average 3.5 per cent over the five year period commencing 1 April 2004;
- b) To achieve a business profitability target of £7.0 million.

### Results

#### a) Return on Capital Employed (ROCE)

ROCE is a measure of how effectively an organisation is using its capital. It is calculated as the surplus on ordinary activities before interest and dividends, expressed as a percentage of average capital employed. Capital employed equates to the capital and reserves (excluding the hedging reserve).

The table below shows the in-year and averaged ROCE over the period from the beginning of the current target period (1 April 2004) to 31 March 2009.

	2008/9	2007/8
Actual	3.7%	6.1%
Target - in year	3.5%	3.5%
Average - current target period	5.3%	5.7%
Target - 5 year average	3.5%	3.5%

#### b) Business profitability

This measures profitability on revenue from services provided on a commercial basis from sources not directly funded by the Exchequer, including local government organisations, public bodies overseas and private sector companies. This will normally be in competition with other service providers. The Met Office is permitted to seek business from central government departments, provided a process of competition applies to assure value for money to the taxpayer.

	2008/9	2007/8 Restated	2007/8 Reported
	£ '000	£ '000	£ '000
Actual	7,592	5,811	4,444
Target	7,020		4,300

The 2007/8 business profitability figure has been restated to provide a comparable basis to that used in 2008/9. The change related to the review of which elements of Government Business should come under the scope of this Key Performance Target.

### 3. TURNOVER AND SEGMENTAL ANALYSIS

	2008/9 £ '000	2007/8 £ '000
Public Weather Service	86,876	84,428
Defence	36,256	34,764
Civil Sector Services	10,766	8,315
Climate Research	21,079	21,800
Commercial	29,421	26,989
Other	383	284
<b>Total turnover</b>	<b>184,781</b>	<b>176,580</b>

- (i) All turnover relates to the same class of business, the provision of meteorological and related services. There were no acquisitions or discontinued operations.
- (ii) The Public Weather Service (PWS) enables the UK public to make informed decisions in their day-to-day activities, to optimise or mitigate against the impact of the weather, and to contribute to the protection of life, property and basic infrastructure. The data produced by the Public Weather Service are also an essential input to a wide range of other Met Office services.

The Public Weather Service is funded as follows:

	2008/9 £ '000	2007/8 £ '000
Ministry of Defence	60,879	62,933
Civil Aviation Authority	18,595	18,211
Maritime and Coastguard Agency	4,105	-
Wholesaling	1,473	1,974
Other	1,824	1,310
<b>Total PWS funding</b>	<b>86,876</b>	<b>84,428</b>

- (iii) From 1 April 2008 the element of the Public Weather Service funded by the Maritime and Coastguard Agency was received separately. Previously this had been routed through the Ministry of Defence funding line.
- (iv) The share of net assets relating to each class of turnover is not identifiable.
- (v) Turnover includes £2,019,000 of income derived from EU contracts (2007/8 £1,361,000).



## 4. COST OF SALES, SELLING AND DISTRIBUTION AND ADMINISTRATIVE CHARGES

Cost of sales is defined as that expenditure which is directly related to a service or product being supplied to a specific third-party customer or market. This includes direct materials and labour, development costs and fixed and variable overheads to the extent that these relate specifically to production. Cost of sales also includes the cost of the National Meteorological Library.

Selling and distribution includes costs relating to marketing and market research, the Customer Centre, and the costs associated with maintaining the Met Office web site.

Administrative expenses includes all costs relating to the general management of the business, training, technical support, and any research and development costs not included under cost of sales. It also includes the costs of strategic investment projects.

Exceptional items are analysed between cost of sales, selling and distribution and administrative expenses as follows:

	Cost of Sales	Selling and distribution costs	Administrative expenses	2008/9 Total	2007/8 Total
	£ '000	£ '000	£ '000	£ '000	£ '000
Early retirement and severance costs	475	-	-	475	1,563
Reimbursement from MOD	(200)	-	-	(200)	(1,500)
Leaseholds provision	-	-	-	-	(988)
	<b>275</b>	<b>-</b>	<b>-</b>	<b>275</b>	<b>(925)</b>

- (i) The early retirement and severance costs represent the provision associated with the Defence Services Review together with the costs of a voluntary early retirement and severance scheme that operated during the year.
- (ii) The reimbursement from MoD represents funding received in support of the early retirement and severance costs associated with the Defence Services Review, a "spend to save initiative" agreed between the Met Office and MOD.
- (iii) The leasehold provision largely comprised the provision released in respect of one of the Bracknell leasehold properties. The lease was assigned to a third party and the Met Office relinquished its leasehold liabilities.

Cost of sales, selling and distribution and administrative charges are further analysed by expenditure type as follows:

	Note	2008/9 £ '000	2007/8 £ '000
Staff costs (excluding exceptional items)	8	83,999	78,018
Early retirement costs		370	227
Relocation - staff accommodation, travel and subsistence		25	38
Other travel and subsistence		5,327	4,777
Equipment and services		34,939	31,184
Accommodation		10,403	8,343
Operating leases - plant and machinery		1,206	1,127
Operating leases - other		1,280	1,270
Depreciation - on owned assets		21,308	21,291
- on assets held under finance leases		2,744	3,429
International services and subscriptions		12,677	12,009
Exceptional items - see above		275	(925)
Other expenses		2,634	3,194
<b>Total</b>		<b>177,187</b>	<b>163,982</b>

(i) The early retirement cost excludes the early retirement costs scheme undertaken during the year which are shown as an exceptional item above

(iii) International services and subscriptions include £2.6m (2007/8 £2.4m) to the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) (excluding amounts capitalised as satellite assets), £5.4m (2007/8 £5.1m) to the European Centre for Medium-Range Weather Forecasts (ECMWF), £1.7m (2007/8 £1.8m) to the World Meteorological Organization (WMO) and £0.7m (2007/8 £0.6m) to the Network of European Meteorological Services (EUMETNET).

Membership of these organisations enables the Met Office, on behalf of the UK, to engage in and benefit from, the European meteorological satellite programme and to receive support in its provision of medium-range weather forecasts and associated research. Membership also enables the Met Office, on behalf of the UK, to promote and benefit from co-operations between members in the exchange of observational data and forecasts, together with a widening range of environmental programmes.

(iv) Equipment and services expenses include an audit fee of £63,500 (2007/8 £67,500) for the audit of the financial statements, a fee of £4,000 in respect of the audit of the restated 31 March 2008 balance sheet under International Financial Reporting Standards and a fee of £12,000 (2007/8, £12,000) for the review of key performance indicators.

(v) The total cost of research was £43.5m (2007/8 £41.0m).

(vi) Relocation travel and subsistence relates to the costs of housing removal, temporary accommodation and travel between Bracknell and Exeter, for those staff who relocated to Exeter.

## 5. OTHER OPERATING INCOME / (EXPENSE)

	2008/9 £ '000	2007/8 £ '000
Foreign exchange rate differences	(20)	64

## 6. PROFIT / (LOSS) ON DISPOSAL OF FIXED ASSETS

	2008/9 £ '000	2007/8 £ '000
Net loss on disposal of fixed assets	(28)	(19)

## 7. INTEREST PAYABLE AND SIMILAR CHARGES

	2008/9 £ '000	2007/8 £ '000
On amounts wholly repayable within five years	-	18
On MOD loans repayable within five years	284	417
Discounting of Provisions	44	78
<b>Total interest payable and similar charges</b>	<b>328</b>	<b>513</b>

## 8. STAFF

### (a) Staff costs

	Note	2008/9 £ '000	2007/8 £ '000
Salaries, bonuses and allowances		66,578	61,707
Early retirement costs	4	845	1,790
Social security		5,288	5,095
Pension contributions		12,133	11,216
<b>Total staff costs</b>		<b>84,844</b>	<b>79,808</b>
Temporary / agency labour costs		5,206	4,436
		<b>90,050</b>	<b>84,244</b>

The Principal Civil Service Pension Scheme (PCSPS) is an unfunded multi-employer defined benefit scheme which prepares its own scheme statements. The Met Office is unable to identify its share of the underlying assets and liabilities. The Scheme Actuary (Hewitt Associates Limited) conducted a full actuarial valuation as at 31 March 2007. Details can be found in the resource accounts of the Cabinet Office : Civil Superannuation ([www.civilservice.gov.uk](http://www.civilservice.gov.uk)).

For 2008/9, pursuant to the Superannuation Act 1972, employer's contributions of £12.1m were payable to the PCSPS (2007/8 £11.2m) at one of four rates in the range 17.1% to 25.5% of pensionable pay, based on salary bands. The scheme's Actuary reviews employer contributions every four years following a full scheme valuation. For 2009/10, the salary bands will remain the same but the rates will be revised to within the range 16.7% to 24.3% . The contribution rates reflect benefits as they are accrued, not when the costs are actually incurred, and reflect past experience of the scheme.

Employees joining after 1 October 2002 can opt to open a partnership pension account, a stakeholder pension with an employer contribution. Employer's contributions, paid to appointed stakeholder pension providers, and also to the Principal Civil Service Pension Scheme to cover the cost of the future provision of lump sum benefits on death in service and ill health retirement of these employees, were immaterial.

### (b) Average staff numbers

	2008/9 number	2007/8 number
Senior Management	7	6
Scientific, managerial, technical	1,456	1,388
Support	351	358
Locally engaged civilians overseas	18	18
<b>Monthly average staff numbers (all UK Government Civil Servants except locally engaged civilians)</b>	<b>1,832</b>	<b>1,770</b>
Monthly average temporary / agency staff	49	59

There were 1,861 staff employed at 31 March 2009 compared with 1,797 at 31 March 2008, both figures expressed as full-time equivalents. There were also 52 temporary/agency staff, expressed as full-time equivalents, engaged by the Met Office at 31 March 2009 (31 March 2008, 54).

### (c) Directors' remuneration

Details of directors' emoluments are contained within the Remuneration Report on page 26. Details of fees paid to non-executive directors are also contained in the Remuneration Report.

## 9. TANGIBLE FIXED ASSETS

The movements in each class of assets were:

	Satellite programme £ '000	Land and buildings £ '000	Fixtures and fittings £ '000	Plant and equipment £ '000	Information technology £ '000	ACOC £ '000	Total tangible £ '000
Cost or valuation:							
At 1 April 2008	226,359	66,923	6,423	50,182	63,824	652	414,363
Additions	5,283	2,534	688	4,279	10,064	180	23,028
Disposals	-	-	-	(764)	(2,199)	-	(2,963)
Transfers	-	-	-	832	-	(832)	-
Revaluation	6,234	-	150	1,189	-	-	7,573
<b>At 31 March 2009</b>	<b>237,876</b>	<b>69,457</b>	<b>7,261</b>	<b>55,718</b>	<b>71,689</b>	<b>-</b>	<b>442,001</b>
Depreciation:							
At 1 April 2008	163,604	1,669	2,042	16,295	49,505	-	233,115
Charged during year	12,669	1,352	618	2,121	7,292	-	24,052
Disposals	-	-	-	(749)	(2,180)	-	(2,929)
Revaluation	4,508	-	53	503	-	-	5,064
<b>At 31 March 2009</b>	<b>180,781</b>	<b>3,021</b>	<b>2,713</b>	<b>18,170</b>	<b>54,617</b>	<b>-</b>	<b>259,302</b>
Net book value:							
At 1 April 2008	62,755	65,254	4,381	33,887	14,319	652	181,248
<b>At 31 March 2009</b>	<b>57,095</b>	<b>66,436</b>	<b>4,548</b>	<b>37,548</b>	<b>17,072</b>	<b>-</b>	<b>182,699</b>
Assets held under finance leases included above:							
Cost :							
At 31 March 2009	-	-	-	-	20,616	-	20,616
Depreciation :							
Charge for year	-	-	-	-	2,744	-	2,744
Depreciation :							
At 31 March 2009	-	-	-	-	19,931	-	19,931

- (i) All land and buildings are held as freehold. The net book value of freehold land and buildings includes £11.3 million of freehold land (31 March 2008, £11.3m) which has not been depreciated. Freehold Buildings are depreciated in full over their estimated life (not exceeding 50 years).
- (ii) Fixtures and fittings include improvements to leasehold buildings and are depreciated over five to 25 years.
- (iii) Land and buildings, excluding the Exeter headquarters, were valued by GVA Grimley, International Property Advisers on 30 June 2005 in accordance with the Appraisal and Valuation Standard (5th Edition), published by the Royal Institution of Chartered Surveyors. The properties are all held for operational purposes and have been valued on the basis of Existing Use Value (minor elements of one site were valued on a Depreciated Replacement Cost basis) as defined in the Appraisal and Valuation Standard.
- The Exeter headquarters land, buildings and mechanical and electrical services (within plant and equipment) were revalued by Atisreal, Chartered Surveyors on 1 December 2006 in accordance with the Appraisal and Valuation Standards (the "Red Book"), published by the Royal Institution of Chartered Surveyors. The assets concerned were considered to be specialised and have been valued on the basis of Depreciated Replacement Cost.
- (iv) Assets held under finance leases comprise a supercomputer. The Met Office has exercised their option under the lease to extend the lease term into the secondary rental period.



## 10. STOCKS

		31 March 2009	31 March 2008
	Note	£ '000	£ '000
Meteorological equipment		712	661
Reserve equipment		224	198
Consumable stores		32	31
<b>Total stock</b>		<b>968</b>	<b>890</b>

## 11. DEBTORS

		31 March 2009	31 March 2008
	Note	£ '000	£ '000
Amounts falling due within one year:			
Trade receivables		21,151	20,396
Less: Provision for impairment of receivables		(69)	(226)
		21,082	20,170
Other debtors		555	1,474
Prepayments and accrued income		17,410	19,729
<b>Total debtors</b>		<b>39,047</b>	<b>41,373</b>

The carrying amount of debtors is a reasonable approximation to fair value

Other debtors include staff loans totalling £530,000 to 64 officers predominantly in respect of housing advances on relocation.

### Intra-Government Balances

Balances with central government bodies	13,371	16,892
Balances with local authorities	293	212
Balances with NHS Trusts	-	173
Balances with public corporations and trading funds	364	524
<b>Subtotal: intra-government balances</b>	<b>14,028</b>	<b>17,801</b>
Balances with bodies external to government	25,019	23,572
<b>Total debtors at 31 March</b>	<b>39,047</b>	<b>41,373</b>

All intra-government balances are due within one year.

## 12. ANALYSIS OF CHANGES IN CASH AT BANK AND IN HAND

		31 March 2009	31 March 2008
	Note	£ '000	£ '000
Balance at 1 April		967	1,330
Net cash inflow / (outflow)	21	225	(363)
<b>Balance at 31 March</b>		<b>1,192</b>	<b>967</b>

The Met Office holds three Euro bank accounts, in which there were amounts totalling £239,000 at 31 March 2009 belonging to third parties (31 March 2008 £115,000).

Cash in transit at 31 March 2009 amounted to £852,000.

Cash surplus to immediate requirements at 31 March 2009 amounted to £32.3 million (31 March 2008, £32.9 million) and is held in short-term interest-bearing accounts with the UK Debt Management Office at HM Treasury.

The Met Office Board have ring fenced £5 million of the cash balances held at the UK Debt Management Office to meet the costs of any claims covered by the Met Office's decision to self insure against professional indemnity claims.

## 13. CREDITORS

		31 March 2009	31 March 2008
	Note	£ '000	£ '000
Amounts falling due within one year:			
Trade creditors		1,833	4,078
VAT		3,327	4,928
Other taxation and social security		3,353	2,216
Accruals		15,516	12,662
Dividend payable		11,177	7,077
Deferred Income		9,987	9,573
Long-term loan repayable within one year		4,974	2,663
<b>Total amounts falling due within one year</b>		<b>50,167</b>	<b>43,197</b>
Amounts falling due after more than one year:			
Long-term loan (note 14)		3,509	4,106
<b>Total amounts falling due after more than one year</b>		<b>3,509</b>	<b>4,106</b>
<b>Total creditors</b>		<b>53,676</b>	<b>47,303</b>

## Intra-Government balances

	Amounts falling due within one year		Amounts falling due after more than one year	
	31 March 2009 £ '000	31 March 2008 £ '000	31 March 2009 £ '000	31 March 2008 £ '000
Balances with central government bodies	19,962	11,992	3,509	4,106
Balances with local authorities	23	1,191	-	-
Balances with NHS Trusts	-	-	-	-
Balances with public corporations and trading funds	-	86	-	-
Subtotal: intra-government balances	19,985	13,269	3,509	4,106
Balances with bodies external to government	30,182	29,928	-	-
<b>Total creditors at 31 March</b>	<b>50,167</b>	<b>43,197</b>	<b>3,509</b>	<b>4,106</b>

## 14. LONG-TERM LOANS

Ministry of Defence loans, repayable by instalments and bearing interest at 1.06%, 4.45% and 5.65% per annum:

	31 March 2009 £ '000	31 March 2008 £ '000
Amounts repayable:		
In not more than one year	4,974	2,663
In more than 1 year but not more than 2 years	3,509	2,799
In more than 2 years but not more than 5 years	-	1,307
Amount falling due after more than one year	3,509	4,106
<b>Total</b>	<b>8,483</b>	<b>6,769</b>

## 15. DERIVATIVE FINANCIAL INSTRUMENTS

	31 March 2009		31 March 2008	
	Assets	Liabilities	Assets	Liabilities
	£ '000	£ '000	£ '000	£ '000
Forward foreign currency contracts - cash flow hedge	4,603	-	-	-

The following table details the forward purchase currency contracts outstanding at the year end:

	Foreign Currency Euro/CHF '000	Contract Value £ '000	Fair Value £ '000	Asset / (Liability) £ '000
Delivery 2009/10				
Euro	20,220	16,181	18,793	2,612
Swiss Francs (CHF)	4,000	2,061	2,449	388
		18,242	21,242	3,000
Delivery 2010/11				
Euro	13,674	11,081	12,684	1,603
Swiss Francs (CHF)	-	-	-	-
		11,081	12,684	1,603
<b>Total</b>		<b>29,323</b>	<b>33,926</b>	<b>4,603</b>

All cash flow hedges are in respect of forecast transactions. In line with FRS26, gains or losses on the cash flow hedges are held in equity; gains or losses relating to the ineffective portion of the hedge will be recognised in the Profit and Loss Account when the forecast transaction occurs.

## 16. PROVISIONS FOR LIABILITIES AND CHARGES

	Early retirement	Dilapidations	Leaseholds	Defence Services Review	Total
	£ '000	£ '000	£ '000	£ '000	£ '000
Balance at 1 April 2008	1,933	412	449	1,500	4,294
Provided in the year	305	-	-	475	780
Unwinding of discount	33	6	5	-	44
Change in discount rate	(7)	-	-	-	(7)
Utilised in year	(975)	-	(224)	(1,126)	(2,325)
Reclassification	849	-	-	(849)	-
<b>Balance at 31 March 2009</b>	<b>2,138</b>	<b>418</b>	<b>230</b>	<b>-</b>	<b>2,786</b>

(i) The Early Retirement Provision represents the outstanding liability for pension costs as at 31 March 2009 associated with 120 staff who had been offered early retirement during 2008/9 and previous years. The provision comprises the full cost of meeting each individual's pension payments to normal retirement age. The gross amount provided for, before discounting, is £2,228,000 (2007/8 £1,991,000). After discounting at 3.2% a net amount of £2,138,000 (2007/8 £1,933,000) is provided.

(ii) The Dilapidations Provision relates to contractual future costs of making good leasehold properties when they are vacated. Discounting has been applied where payments are due in more than one year. The gross amount provided for, before discounting, is £454,000 (2007/8 £454,000). After discounting at 2.2% a net amount of £418,000 (2007/8 £412,000) is provided.

(iii) The Leaseholds Provision is principally in respect of future cost of leasehold properties which became surplus to requirements on relocation to Exeter. The gross amount provided, before discounting, is £232,000 (2007/8 £456,000). After discounting at 2.2% a net amount of £230,000 (2007/8 £449,000) is provided.

(iv) The Defence Services Review Provision represents early retirement and severance costs associated with the decision to restructure the Met Office's delivery of operational defence meteorological services. During 2008/9 the provision has been reclassified to the Early Retirement Provision.

The commitments provided for fall due in the following periods:

	Early retirement	Dilapidations	Leaseholds	Defence Services Review	Total
		£ '000	£ '000	£ '000	£ '000
Amounts payable within:					
Under one year	946	157	116	-	1,219
One to five years	1,095	75	114	-	1,284
Over five years	97	186	-	-	283
<b>Total</b>	<b>2,138</b>	<b>418</b>	<b>230</b>	<b>-</b>	<b>2,786</b>

## 17. REVALUATION RESERVE

	31 March 2009		31 March 2008	
	£ '000	£ '000	£ '000	£ '000
Revaluation Reserve at 1 April		28,926		27,652
Revaluation of satellite assets	1,726		2,779	
Revaluation of land, buildings, plant and equipment, fixtures and fittings	783		1,362	
Transfer to General Reserve	(1,813)		(2,867)	
		696		1,274
<b>Revaluation Reserve at 31 March</b>		<b>29,622</b>		<b>28,926</b>

## 18. HEDGING RESERVE

	31 March 2009	31 March 2008
	£ '000	£ '000
Hedging Reserve at 1 April	-	-
Net movement on foreign currency cash flow hedge	4,603	-
<b>Hedging Reserve at 31 March</b>	<b>4,603</b>	<b>-</b>

## 19. GENERAL RESERVE

	31 March 2009	31 March 2008
	£ '000	£ '000
General Reserve at 1 April	117,995	112,181
Transfer from Revaluation Reserve	1,813	2,867
Credit / (charge) due to change in discount rate applied to early retirement provision	7	11
Retained profit / (loss)	(8,504)	2,936
<b>General Reserve at 31 March</b>	<b>111,311</b>	<b>117,995</b>

## 20. RELATED PARTIES

The Ministry of Defence (MoD) is regarded as a related party. During the year, the Met Office had material transactions with this Department and with other entities for which MoD is regarded as the parent department. In addition, the Met Office had material transactions with a number of other public bodies, Government departments and their agencies, principally the Civil Aviation Authority, the Department for Transport, Local Government and the Regions, the Home Office and the Department for Environment, Food and Rural Affairs. None of the Met Office Board members, key managerial staff or other related parties undertook any material transactions with the Met Office during the year.



## 21. NOTES TO THE CASH FLOW STATEMENT

### a) Reconciliation of operating profit to net cash inflow from operating activities

	Notes	2008/9 £ '000	2007/8 £ '000
Operating profit		7,574	12,662
Depreciation charges	4, 9	24,052	24,720
Provisions for liabilities and charges		(348)	44
(Increase) / Decrease in stocks		(78)	69
(Increase) / Decrease in debtors		3,158	(6,814)
Increase / (Decrease) in creditors		(1,445)	(565)
<b>Net cash inflow from operating activities</b>		<b>32,913</b>	<b>30,116</b>

### b) Gross cash flows

	31 March 2009		31 March 2008	
	£ '000	£ '000	£ '000	£ '000
Payments for exceptional items				
Early retirement	(972)		(1,682)	
Leaseholds	(224)		(265)	
		(1,196)		(1,947)
Returns on investments and servicing of finance				
Interest received	1,482		1,905	
Interest paid	(298)		(457)	
		1,184		1,448
Capital expenditure				
Payments to acquire satellite assets	(6,143)		(4,333)	
Payments to acquire plant and machinery, land and buildings	(15,727)		(9,558)	
Receipts from sales of tangible fixed assets	6		-	
		(21,864)		(13,891)
Management of liquid resources				
Net receipts from / (payments to) Debt Management Office deposit account		551		(2,889)
Financing				
Loan advance received	4,379		-	
Loan repayments	(2,665)		(2,533)	
		1,714		(2,533)

## c) Analysis of changes in net funds

	At 1 April 2008 £ '000	Cash flows £ '000	Other changes £ '000	At 31 March 2009 £ '000
Cash at bank and in hand	967	225	-	1,192
Cash on deposit	32,907	(551)	-	32,356
Sub-total	33,874	(326)	-	33,548
Debt due within one year	(2,663)	497	(2,808)	(4,974)
Debt due after one year	(4,106)	(2,211)	2,808	(3,509)
<b>Total</b>	<b>27,105</b>	<b>(2,040)</b>	<b>-</b>	<b>25,065</b>

## d) Reconciliation of net cash flow to movement in net debt

	Notes	2008/9 £ '000	2007/8 £ '000
Increase / (Decrease) in cash	21	225	(363)
Increase / (Decrease) in cash on deposit	21	(551)	2,889
Other movements	21	(1,714)	2,533
Increase / (Decrease) in net funds		(2,040)	5,059
Net funds at 1 April	21	27,105	22,046
<b>Net funds at 31 March</b>		<b>25,065</b>	<b>27,105</b>

## 22. OPERATING LEASES

	2008/9 £ '000	2007/8 £ '000	2008/9 £ '000	2007/8 £ '000
Annual commitments are as follows:	Land and Buildings		Other	
Leases expiring within:				
Under one year	24	25	114	22
One to five years	586	527	110	-
Over five years	455	664	1,315	1,227
<b>Total</b>	<b>1,065</b>	<b>1,216</b>	<b>1,539</b>	<b>1,249</b>

## 23. CAPITAL COMMITMENTS

	2008/9 £ '000	2007/8 £ '000
Contracted for, but not provided for:		
Supercomputer	23,839	-
Other	4,880	4,283
Contribution for Satellite Programme	6,913	3,671
<b>Total</b>	<b>35,632</b>	<b>7,954</b>

The commitment for the Satellite Programme represents the unpaid portion of the UK approved contribution to EUMETSAT programmes for the current calendar year. Future payments are subject to annual approval by the EUMETSAT Council.

## 24. LOSSES AND SPECIAL PAYMENTS

During the year there were no significant losses or special payments.

## 25. FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT

FRS 29 Financial Instruments – Disclosures, requires the Met Office to provide disclosures in respect of the role of financial instruments on performance during the period, the nature and extent of the risks to which the Met Office is exposed and how these risks are managed. For each type of risk arising from financial instruments, the Met Office is also required to provide summary quantitative data about its exposure to the risk at the reporting date.

The Met Office's treasury operations are governed by the Met Office Trading Fund Order 1996, under the Government Trading Funds Act 1973 (a) as supplemented by the Met Office's Framework Document. The Met Office's financial instruments comprise cash deposits, debtors, creditors, loans and foreign currency forward exchange contracts. The main purpose of these financial instruments is to finance the Met Office's operations. The Met Office has limited powers to borrow or invest surplus funds. The main risks arising from the Met Office's financial instruments are foreign currency, liquidity and interest rate risks. The Met Office's policies for managing these risks are set to achieve compliance with the regulatory framework including the rules contained within Managing Public Money.

### Credit risk

The Met Office is subject to some credit risk. The carrying amount of debtors, which is net of impairment losses (bad debt provision), represents the Met Office's maximum exposure to credit risk. Trade and other debtors consist of a large number of diverse government and non-government customers spread over a diverse geographical area. Debtors are impaired where there is sufficient knowledge to indicate that recovery is improbable including the probability that customers will enter bankruptcy or financial reorganisation, that the customer is facing financial difficulties or that economic conditions are likely to lead to non-payment. The following provides details of debtors beyond the due date and impairments made:

Debtors beyond the due date	0-3 Months £ '000	3-6 Months £ '000	Over 6 months £ '000
Debtors beyond the due date - not impaired	1,592	34	245
Debtors beyond the due date - impaired	37	7	25
<b>Total debtors beyond the due date</b>	<b>1,629</b>	<b>41</b>	<b>270</b>

## Liquidity risk

The Met Office has maintained short-term liquidity throughout the year by management of its cash deposits. To finance the disposal of the leasehold properties in Bracknell in 2005/6, the Met Office borrowed £6.0 million from our sponsor department, the Ministry of Defence. In 2006/7 loan funding was received from the Ministry of Defence to finance the centralisation of the Met Office's civil forecast production network and commercial strategy. All the aforementioned loans are repayable over five years. During 2008/9 the Met Office borrowed £4.4 million from the Ministry of Defence to partly finance the replacement supercomputer. This loan is repayable within two years.

## Foreign currency risk

The Met Office makes significant foreign currency payments for subscriptions and contributions to international meteorological organisations including payments for satellite programmes. These costs are funded by the Public Weather Service. In order to manage foreign exchange risk the Met Office policy is to buy forward foreign currency for payments to international bodies as soon as amounts can be reliably estimated. The forward currency contracts are in hedging relationships under FRS26 and the Met Office has elected to adopt FRS26 hedge accounting rules.

As at 31 March 2009 the Met Office held three forward contracts to buy a total of €20.2 million, equating to £16.2 million at the contracted exchange rates, with value dates in 2009/10. The Met Office held two forward contracts to buy €13.7 million, equating to £11.1 million at the contracted exchange rates, with a value dates in 2010/11.

The Met Office also held one forward contract to buy forward 4.0 million Swiss Francs, equating to £2.1 million at the contract rate with a value date in 2009/10. Additional information can be found in note 15 to the accounts.

£5.3 million of expenditure is undertaken in foreign currencies which are not funded through the forward purchase contracts.

## Interest rate risk

The Met Office finances its operations through retained profits. Amounts retained in the business but surplus to immediate requirements are deposited in short-term interest-bearing accounts with the UK Debt Management Office at HM Treasury. The Met Office may also be funded by additional monies from the Ministry of Defence to fund specific strategic requirements.

Cash on deposit at 31 March 2009 consists of 14 short term deposits totalling £32.3 million (31 March 2008 - £32.9) with the UK Debt Management Office at HM Treasury for a weighted average period of 30.08 days (31 March 2008 - 32.85 days) at a weighted average interest rate of 0.37% (31 March 2008 - 5.11%) . At 31 March 2009 £56,000 (31 March 2008 - £7,000) was also held on deposit in the working capital fund at EUMETSAT. The fair values of cash and cash equivalents approximate to book value due to their short maturities.

## Sensitivity analysis

Given the Met Office's significant exchange rate exposure for Euro and Swiss Francs are managed through utilising forward currency contracts any residual exposure does not have a significant impact on the Met Office's results. Therefore a sensitivity analysis is not considered necessary. The Met Office's foreign exchange exposure is kept under review.

## 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.

## Categories of financial instruments

### Financial Assets at 31 March 2009

	Loans and receivables £ '000	Derivatives used for hedging £ '000	Total £ '000
Trade and other receivables - current	25,540	-	25,540
Derivative financial assets	-	4,603	4,603
Cash on deposit	32,356	-	32,356
Cash at bank and in hand	1,192	-	1,192
<b>Total</b>	<b>59,088</b>	<b>4,603</b>	<b>63,691</b>

### Financial Liabilities at 31 March 2009

	Other financial liabilities £ '000	Total £ '000
Trade and other payables	28,526	28,526
Ministry of Defence loans	8,483	8,483
	<b>37,009</b>	<b>37,009</b>

The Met does not hold any held-to-maturity investments or available-for-sales financial assets.

## Embedded derivatives

In accordance with FRS 26, 'Financial instruments: Recognition and measurement', the Met Office has reviewed all material contracts for embedded derivatives that are required to be separately accounted for if they do not meet certain requirements set out in the standard. No instances were found that required 'embedded derivatives' to be recognised at their fair value, separately from the non-derivative host contract. For the contracts reviewed, the economic characteristics and risks were closely related to those of the host contract.

## 25. AUTHORISATION OF ACCOUNTS

The accounts were authorised for issue (defined as the date of the Certificate and Report of the Comptroller and Auditor General) on 5 June 2009.

## FIVE-YEAR FINANCIAL SUMMARY (Unaudited)

	2008/9 £'000	2007/8 £'000	2006/7 £'000	2005/6 £'000	2004/5 £'000
<b>Profit and loss account</b>					
Turnover	184,781	176,580	170,956	170,361	165,580
Gross profit / (loss)	31,469	33,792	28,886	36,620	38,647
Operating profit / (loss)	7,574	12,662	7,860	13,419	9,524
Dividend	17,177	11,077	6,667	6,272	5,998
Retained profit / (loss)	(8,504)	2,936	2,159	3,223	6,278
<b>Capital expenditure</b>					
Tangible fixed assets additions	23,028	14,699	15,225	15,518	22,107
<b>Balance sheet</b>					
Fixed assets	182,699	181,248	187,147	187,354	192,990
Net current assets	26,396	32,940	24,458	8,909	8,929
Non-current liabilities	6,295	8,400	12,905	13,970	26,166
<b>Number of employees</b>					
Average for year	1,832	1,770	1,708	1,763	1,799



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