

# Ten years as a private company



# The future

NATS has come a long way since privatisation and is very well placed to address the challenges coming up in the next 10 years and beyond. We will continue to work closely with our customers to shape the future of Air Traffic Management to deliver their needs whilst maintaining our focus on safety, service, performance, efficiency and environment.

Key aims and deliverables include:

- Actively supporting all of our customers including airlines, airports and military
- 10% year on year reduction in weighted safety risk index
- 10% reduction in ATM CO<sub>2</sub> emissions per flight by 2020 from a 2006 baseline and the first ANSP to introduce a financially incentivised environmental metric
- Delay performance targets set to ensure NATS' performance is in the top quartile within Europe
- Continued cost efficiencies enabling underlying operating costs by 2015 to be around 5% lower than 2010 in real terms, despite an estimated 15% increase in traffic volumes over the same period
- Complete deployment of new ops room tools including EFD and iTEC driving operational efficiencies, enhancing safety and delivering airspace capacity and fuel/ emissions savings

- Finalising preparations for the 2012
   Olympics and delivering the Operational Freedoms enabled via the South East Airports Taskforce (SEAT)
- Redesign of the London and Northern Terminal Control Areas starting with raising the Transition Altitude in the UK
- Leading the development of a joint industry implementation plan for UK Future Airspace Strategy to enable maximum benefits to be delivered and help to influence government policy and regulation
- Continuing to implement the aims of the Single European Sky through alliances and partnerships together with deployment of SESAR and common standards established through the SES Performance Scheme.

We have developed our 'Performance Through Innovation' strategy to maintain our existing business, to identify opportunities for growth and to ensure that we have the capabilities and skills required for the future.

NATS continues to strive to be a world class company with a world class future ahead.

## It's ten years since NATS became the first air navigation service provider in Europe to be privatised. Today we are a very different company.

Changing times – and challenging times – have called for innovative solutions, clear customer focus and commitment to the values that drive our industry. Aviation has changed radically in the past ten years.

The next ten years are sure to bring even more change. The Single European Sky will be a reality – we are already a long way towards it. The UK's Future Airspace Strategy will be in place. And I believe NATS will be recognised and respected worldwide for our leadership as we develop our growth strategy to take our expertise and capability into new markets.



So before we draw a line below our first decade as a private company I would like to mark just how far we've come.

Safety has improved to a point where we have had no significant airprox for the last three years. NATS-attributable delay is down from almost 2 minutes per flight in 2002 to just 7.1 seconds (about 10 times less than the European average). Incidentally, had we performed in line with the European average, the additional delay for airline customers would have cost you around £60m. NATS was the first ATM company in the world to calculate our CO<sub>2</sub> performance and set stretching targets to improve it – our lead in environmental innovation is recognised worldwide. We have helped drive forward the concept of a Single European Sky, co-founding with Ireland the first Functional Airspace Block with our customers helping set its agenda; and we have helped draw together the leading members of Europe's ATM community to accelerate next generation technologies through SESAR to improve service levels and reduce costs.

Operational and Safety Partnership Agreements now give our customers transparency and put you at the heart of our decision making. And we have saved you money; consolidating our operation at two centres and reducing the underlying controllable cost base of our regulated business by almost 30% in real terms. Bottom line, we have invested more than £1bn in new technology and infrastructure, and turned a £106m loss into a £71m profit.



So what do the next ten years promise? Our focus will continue to be on efficiency and value, set within our constant context of safety, service and continued investment.

In particular, I am acutely aware of your cost agenda, and your strong expectation that NATS will reduce our en-route charges. The regulatory framework for CP3 sets the right climate for us to address this within the European performance scheme, which starts this year. I am determined that we will improve our place in the European league table.

Of course, UK airspace continues to be some of the most complex and challenging in Europe and we will continue to prioritise our technology work through SESAR to deliver the service improvements you expect. We are the first ATM company in the world to have an environmental metric built into our regulatory framework. We have developed the metric ourselves and it is already attracting interest from ANSPs all over the world. NATS today is known for challenging the status quo and for strong leadership in our industry; for an unremitting focus on safety; a partnership approach to delivering high quality service and to developments in Europe; robust financing arrangements and sustained investment in innovative technology; and constructive industrial relations. That won't change.

NATS continues to strive to be a world class company with a world class future ahead.



Richard Deakin CEO NATS

# Progress since privatisation The facts

NATS looks after 11% of Europe's airspace and 25% of its traffic. Last year NATS handled about 2.1 million flights or about 6,000 flights per day. NATS manages some of the busiest and most complex airspace in the world (in the London terminal area) from Europe's biggest ATC centre at Swanwick in Hampshire. NATS' other centre in Prestwick Ayrshire was newly opened in 2010 and handles traffic in Scotland, Manchester and on the North Atlantic. NATS also manages the tower control at 15 of the UK's major airports including the world's busiest single and 2-runway airports at Gatwick and Heathrow.

#### Service performance

#### Safety

- Serious safety incidents (risk-bearing category A and B airprox) attributable to NATS are now extremely rare, with zero incidents in four of the past 10 years
- A 56% reduction in safety risk since this method of assessment was introduced in 2007 to measure occurrences of "safety significant events" achieved through initiatives directed at key risk areas
- An acknowledged world leader in ATM safety management systems
- A proactive approach to working across the aviation industry to continuously improve ATM safety – including a successful focus on level busts (deviation from cleared level) and developing a low cost GPS for general aviation to help combat airspace infringements.

#### "

We have a very strong relationship through our safety department with NATS' safety department and the Safety Partnership Agreement. NATS is the only ATC authority through our network that we have that kind of relationship with.

#### Captain Rob Legg,

Flight Standards Captain, easyJet

#### Service delivery

- Delays are at a low with just 7.1 seconds of average delay per flight attributable to NATS En-Route plc
- In 2010 exceeded targets agreed with customers under the Operational Partnership Agreement to reduce early morning and staffing delays
- Dropping down Eurocontrol's league table of the most ATC delay generating ANSPs from 2nd in 2003 to 12th at the end of 2011.

Main areas of focus have included:

- Improved network management to achieve a better balance of network demand / capacity configuration to minimise delay
- Annually agreed "Hotspot" projects with customers to address priority service delivery issues
- Post operational analysis applied to improve planning of sector/airspace configuration & staffing.

#### "

NATS has delivered impressively in an unprecedented and challenging year (2010) for the aviation industry. It has exceeded on service targets and sustained a consistent focus on innovative environmental and efficiency workstreams whilst maintaining constant dialogue with operators.

**Stu Meade,** Programme Support Manager, Thomson



#### Environment

 Since 2009 enabled fuel savings of over 45,000 tonnes (c. 140,000 tonnes of CO<sub>2</sub>) worth over £30m (at current oil prices and exchange rates).

Achieved through improving the efficiency of our airspace and route network by:

- A system of night time fuel saving routes for flights between Europe and North America & changes to UK airspace and procedures to provide more fuel efficient routes
- Airspace efficiency groups set up at our ATC centres, leading environment workshops with our customers (under the umbrella of the Sustainable Aviation coalition)
- An airspace efficiency database with over 250 potential near-term fuel burn and CO<sub>2</sub> improvements suggested by customers and NATS people, with over 100 already delivered into operation.

#### Service resilience

An on-going long-term investment programme (LTIP) to upgrade systems infrastructure, improve service resilience and safeguard our facilities by providing contingency – specifically:

 Highly reliable and fault tolerant systems combined with robust contingency processes for rapid restoration of normal operations

- Major performance upgrades to our most critical system – the NAS central flight data processing system
- Introduction of a major incident communications process (ATICCC) during any service disruption (recognised as best practice during the 2010/11 volcanic ash crisis)
- Creation of new contingency facilities to ensure operational continuity in the event of a major loss of ATC services at Swanwick or Prestwick centres together with the world's first remote contingency virtual control tower at Heathrow.

#### **Operating efficiency**

Compared with 2001, handling a c. 10% increase in annual traffic volumes with 25% fewer staff, and with a reduction in non-controller headcount of nearly 30%:

- Consolidation from 4 to 2 main ATC Centres with consequent savings in engineering posts and facilities management costs
- Restructuring and process improvements for programmes, engineering and back-office functions
- Higher utilisation and productivity of front-line operational staff through changes to working practices
- Efficiencies in end-to-end controller training with higher training output at lower unit cost
- Application of cost optimisation across all areas of the business.
- Driving further cost efficiencies through commencement of a programme of reducing our operational requirement for controllers.

#### Value

- Consolidation of our Manchester and Prestwick operations in the new Prestwick Centre is saving almost £4.5m annually in costs, equivalent to around 5%
- Consolidation of our London Terminal Control Centre from West Drayton to NATS Swanwick is saving around £11m annually
- Since privatisation we have reduced the underlying controllable cost of our en-route services by some 30% in real terms and in 2010 completed a major cost saving programme which delivered a £45m (c. 15%) reduction on our previously planned underlying cost base, equivalent to £180m over the next 4 years
- Delay performance at 7.1 seconds per flight in 2011 is about 10 times less than the European 2011 average; although traffic levels have fallen, they are at the same level as 2004 when NATS delays per flight were 41 seconds, this equates to delay savings of circa £33m per annum versus 2004 performance
- In 2011/12 we enabled savings of 25,200 tonnes of fuel worth over £16.5m (at current oil prices and exchange rates) from delivering more efficient route profiles, and other joint initiatives with airlines, equivalent to 80,000 tonnes of CO<sub>2</sub>.

## "

Many congratulations to everyone on completing such a complex project so well and without any operational disruption. The Prestwick Centre transition was a landmark for everyone at NATS to be truly proud of and to celebrate. Well done.

Virginatiantic

#### Andy Lord,

Director Operations, British Airways

#### Major deliverables

#### ATC centre consolidation

Full operation of the new Prestwick Centre in January 2010 completed NATS' strategy to manage UK airspace from two Centres providing economies of scale and platforms for new technology:

- London Area Control West Drayton to Swanwick (2002)
- London Terminal Control and Military Area Radar Services – West Drayton to Swanwick (2007/8)
- West Drayton closed (2008)
- Four ATC Operations into the new Prestwick Centre (2009/10) – Scottish, Manchester, Scottish Military and Oceanic ATC ahead of schedule, on budget and with a totally seamless transition
- Manchester Area Control Centre closed (2010)
- Eastern Sunrise (consolidation of London Military services onto Swanwick Centre systems) implemented for MoD in Aug 2010.

All operational transitions were safely completed with minimal disruption to civil or military aircraft operations.

Swanwick and Prestwick are amongst the largest, most efficient and most advanced ATC Centres in Europe.

#### UK Airspace and Functional Airspace Blocks (FAB)

Airspace design and the associated ATC sectors and procedures have been continuously improved in line with traffic demand to ensure sufficient system capacity and safety:

- 21 major UK airspace development projects delivered since 2001
- UK-Ireland cross-border Functional Airspace Block (FAB) created in 2008
- The first FAB to be established, and has airlines at the heart of the FAB, chairing the service provision working group and sitting on the FAB management board
- UK-Ireland FAB aim to optimise integration of North Atlantic and domestic European traffic
- FAB delivers joint projects which drive operational efficiency improvements and enhance safety – against a 3-year rolling plan
- Delivered 20 distinct projects to date

   estimated to deliver c. 150,000 tonnes
   of CO<sub>2</sub> savings over 5 years, three times
   more than targeted.

Now embarked on the London Airspace Management Programme (LAMP), a unique opportunity to renew the airspace design and procedures in south-east England to be compliant with SESAR concepts and to accommodate forecast growth in traffic demand and enhance safety and flight efficiency.

#### Airport air traffic services

NATS provides commercial ATC services at 15 UK airports plus Gibraltar under competitive contract to the airport operator:

- Including the world's busiest single and two-runway airports at Gatwick and Heathrow
- New UK ATC services contracts since privatisation include Bristol, London Luton and Southampton
- First overseas ATC service contract at Gibraltar airport
- Additional ATC maintenance contracts secured e.g. Belfast City, Oxford airport.

Major developments completed in conjunction with airports include:

- Electronic flight progress strip systems (2007-2011) to improve operational efficiency and flight data sharing at airports
- A world-first Virtual Control Facility at Heathrow which enables a Tower ATC service to be provided from a remote location
- Initial deployment of our innovative Airport Collaborative Decision-Making (A-CDM) system to help improve overall airport efficiency
- Managing the transition associated with moving the £50m control tower at Heathrow to its new location near Terminal 3 with minimal disruption
- Major engineering projects to fit-out other new control towers at Farnborough, Edinburgh, Newcastle, Jersey and Isle of Man

- Trials of flight departure notification system to feed European network management to streamline service – part of the SESAR initiative
- A partnership approach to optimising busy airport operations including Heathrow and Gatwick
- A new Multilateration surveillance system introduced for North Sea operations.

#### **Operational manpower and training**

We have made great progress in ensuring we have the right staffing to operate our services safely, efficiently and with high resilience – we have delivered:

- Streamlined recruitment and selection with new online capability
- New end-to-end controller training processes including measures to increase the successful validation of trainees at operational units
- Changes to working practices and productivity, including more flexible rosters to deploy operational staff
- Tighter manpower planning against projected traffic demand
- Delivered a landmark "New Training Centre" at our Corporate and Technical Centre (CTC) near Southampton.

#### New technology

We have developed and introduced complex systems and new technology into operational service at Centres over the past decade including:

- Shanwick Oceanic Advanced Air Traffic System, Prestwick (2006)
- London Terminal Control and Military Area Radar Services, Swanwick (2007/8)
- Arrival management tools in London Terminal Control (2009)
- Initial paperless operations (electronic flight data – EFD) at Prestwick (2011).
   Delivery now scheduled for 2012, later than originally planned
- iFACTS in operational service in Swanwick Area Control (2011) – the most significant technological change that NATS has implemented since the opening of Swanwick Centre. Although later than originally planned, iFACTS benefits include enhancements to safety, capacity, environment and operating efficiency
- Ongoing programme to replace, refurbish or upgrade all en-route radars (through to 2013)
- Ongoing joint development with Spanish and German ANSPs (AENA and DFS) of the iTEC advanced European flight data processing (FDP) system.

All this has been made possible by an uplift in project management capability over the same period that has been recognised by a prestigious "Project of the Year 2010" industry award for the way NATS delivered the Prestwick Centre from feasibility through to operational service.

#### **Europe**

NATS has emerged as a key influencer in Europe. In particular, we are a major participant in the Single European Sky ATM Research (SESAR) collaborative programme:

- A member of the SESAR Joint Undertaking in its development phase, leading project work on terminal airspace concepts reflecting its strategic importance to the UK operation
- Instrumental in drawing together the 6 biggest ATC providers in Europe (A6 group) to converge activities in the main areas that will accelerate deployment of SESAR
- Implementing five low cost projects that are trialling SESAR concepts (known as the "SESAR enabling projects").

We are also driving further development outside the FAB structure:

 Key role in the creation of an alliance of 9 Northern European Air Traffic partners to improve operational efficiencies.



#### **Customer focus**

We have established a mature relationship with our customers over the period since privatisation including:

- A comprehensive communications framework including strategic and operational consultation with Airlines, Airports, MoD, Business Aviation and General Aviation
- An annual set of priorities and hotspot projects agreed collaboratively by the Operational Partnership Agreement (OPA)
- Creation of a cross industry group focused on delivering the CAA Future Airspace Strategy
- Engagement on environmental policy with airlines and industry through the Sustainable Aviation Framework
- Safety goals set by the Safety Partnership Agreement to focus work by the whole aviation community to jointly implement safety improvements
- A customer awareness programme to improve NATS' staff understanding of our customers and their operations, and to influence their thinking and behaviour
- Secondments of NATS staff to airlines to give us (amongst other things) direct feedback on our performance and customer issues.

### "

The OPA has allowed the airlines to work with NATS to look at particular areas of the business and focus on issues and work together. It's an excellent example of partnership between airlines and ANSP.

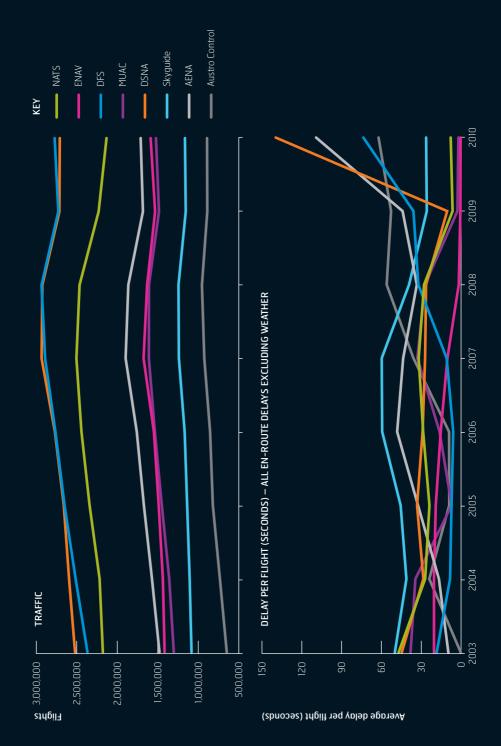
#### Mark Deacon,

Navigational Services Administrator, Monarch Airlines

# Key Data NATS' performance since privatisation

Financial year ended 31 March	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Traffic volumes (flights)	2,000,708	2,029,997	2,099,980	2,200,665	2,330,589	2,405,573	2,480,004	2,371,624	2,172,025	2,116,150
NATS attributable delay per flight (seconds)	109.4	130.1	40.7	20.9	22.2	22.6	26.8	19.3	4.3	4.3
Safety (airprox)										
where NATS is providing a service	70	86	68	٦1	56	55	57	52	41	34
NATS attributable	32	42	24	27	17	17	18	17	ى	Q
Risk bearing (A/B)	80	-	-	2	0	-	2	0	0	0
Profit/(loss)	£(79.9)m	£(29.1)m	£1.8m	£68.9m	£80.3m	£94.4m	£66.7m	£135.5m	£78.3m	£106.1m
NERL gearing	112%	86%	82%	71%	63%	55%	29%	60%	55%	57%

# **Comparison versus other ANSPs**



#### www.customer.nats.co.uk



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