

NATS EN-ROUTE PLC (NERL) BUSINESS PLAN 2005/6

This document presents the NERL Plan for 2005/06 (as approved by the NATS Board) and financial projections for the 10-year period 2006/07 to 2015/16 as required under Condition 10 of NERL's Air Traffic Services Licence.

The CAA is currently in the middle of its review of NERL's regulatory price control proposals for the next five year control period (CP2 – 2006 to 2010). Accordingly, the 10-year projections show the financial outcome of NERL's operating and capital expenditure plans in service of safety and service quality targets under high case traffic growth, combined with the revenues currently implied by the CAA's initial price control proposals for CP2 (2006-11) and the revenues implied by extrapolating these proposals for CP3 (2012-2016).

These projections are therefore subject to change and development as the CAA's final price control proposals for CP2 are developed via the consultation process.



PAGE INTENTIONALLY BLANK

Executive Summary

NATS En-Route Plc (NERL) is the economic-regulated subsidiary of NATS providing (monopoly) en-route air traffic services in the UK in accordance with a Licence from Government. The Licence requires NATS to publish a 10-year NERL Business Plan every 5 years, ahead of each regulatory period. This document is in response to that obligation and incorporates – as an attachment – the NERL Service & Investment Plan (SIP) for 2005 on which customers have already been consulted.

The objective of this NERL Business Plan is to demonstrate – through an 11-year period from 2005/6 to 2015/16 (i.e. a 10 year plan from Licence renewal in April 2006) – how NATS will deliver...

- Continuing high levels of safety
- Good service performance
- Sufficient future capacity to meet the high case demand required by customers
- Prices offering value for money to customers and falling in real terms
- Significant influence in reshaping European ATM industry

The plan aims to establish a sensible balance between an efficient level of “inputs” required to achieve these “outputs” set against a manageable level of risk.

The Plan embodies a number of significant changes from the previously published May 2004 NERL Plan, to strengthen targets and provide a stronger focus on near-term delivery. Some of the key changes are:

- Tighter safety targets;
- A service performance focus that looks to minimise average delay per flight, the duration of individual delays, with a priority on addressing morning and weekend delays;
- Some adjustments to LTIP milestones – based on a better view of the issues and risks as major projects have moved forward – in order to optimise the overall programme and resources, and to de-risk key programmes, including
 - Later relocation of London Terminal Control to Swanwick in October (previously Spring) 2007
 - iFACTS deferred by one year to a winter 07/08 O-date
 - Airspace projects deployed earlier – the LAKES airspace development brought forward to winter 06/07 to sustain London AC capacity expansion while iFACTS is deferred;
 - Prestwick Centre – an option to bring forward the O-date by 1 year to winter 07/08
 - Upgrade of London TC to CASPIAN deferred by 1 year to winter 12/13
- Better ATCO manpower planning such that supply now meets the requirement by 2008, two years earlier than the 2004/5 Plan
- Implementation of an ATSA Strategy that enables a further reduction in staff numbers
- A more focused engagement in Europe in response to the quickening pace of – and expectations for – change under Single European Sky;
- A sharper commercial focus on strategy and on relationships with customers, suppliers and partners;
- A stronger focus on Leadership and Performance Management to take the Company’s capability to a new level.

Financial Summary

NERL's capital and operating expenditures are planned at levels to enable the company to deliver capacity for high case traffic and to meet its safety and service quality targets.

- The capital plan totals £780m (£157m in 05/06 and £623m in CP2) following LTIP optimisation to reduce the risk to the delivery programme;
- Planned operating costs for CP2 are £106m lower than those set out in the 2004/05 plan. This delivers a real unit operating efficiency of 2% per annum through CP2, on top of the 5.5% per annum which is planned for CP1. These improvements will be enabled by optimising the LTIP, seeking improvements in staff productivity and continuing to generate efficiencies in non-staff costs. However, the reduction in planned operating expenditures in CP2 increases the level of risk assumed by NERL.

The Plan has been produced at a time when the CAA is in the middle of its review of NERL's regulatory price controls for the next 5-year charge period (CP2 – 2006 to 2010):

- For the NERL financial plan for 05/06, revenues are based on base case traffic projections and prices which reflect existing CP1 charge controls with an adjustment to Eurocontrol prices in the last quarter to reflect the CAA's initial proposals. This shows a profit before tax of £50m compared to the 2004 Plan of £48m. This result includes a charge for goodwill impairment which will be necessary if CAA's initial proposals remain unchanged.
- The NERL financial projections for CP2 are based on our latest understanding of the CAA's initial charge proposals, assuming CAA's traffic projections and NERL's 2005 capital and operating expenditure plans. This shows a net loss before tax over CP2 of £66m compared to the 2004 Plan's profit of £152m.

NERL is seeking to secure a minimum additional revenue requirement which will provide an adequate return to shareholders in CP2 with no goodwill impairment.

Major Plan Milestones

1.	Radar replacement programme (RSS) – 2 sites per annum	To 2012
2.	Airspace Developments – Midlands Phase 1 & Scottish TMA / SW (winter 04/05); West End (winter 05/06); Midlands Phase 2 (May 05); Lakes (winter 06/07)	2005-07
3.	Complete the Joint FAB Study with IAA	2005
4.	Mode-S implemented in LTCC airspace and safety systems enhanced (STCA, stack management & level bust detection)	2005/06
5.	DaVinci – complete transition of operational services	2005/06
6.	Long-term MOD Contract secured	2005/06
7.	SESAME Contract Award with NATS in Consortium & Complete PD Phase	2005-07
8.	New 2006 ATCO & ATSA Pay and Working Practices Agreement	2006
9.	Relocate NAS Flight Data Processing system to Swanwick	2006
10.	SAATS replacement Oceanic FDPS system O-date	2006
11.	Prestwick Centre – New Building Complete	2006
12.	Establish the Corporate and Technical Centre Stage 2 – move from West Drayton & Spectrum House and vacate sites	2006-08
13.	TC & LMARS Operations relocated to Swanwick	2007
14.	TC Landing Rate Resilience & Planned Spacing Tool – 1 st Operation for Heathrow (Gatwick & Stansted in 2008)	2007
15.	DVI in use at DAT&S & NATS Simulator sites	2007/08
16.	iFACTS Operational at LACC	2008
17.	ScACC & MACC Operations transferred to CASPIAN at Prestwick	2008/09 Stretch 07/08
18.	ATC Support rationalised – Swanwick post TC transfer (2007), Prestwick (2008/9)	2007-09
19.	LACC & LMARS Operations transferred to CASPIAN with full FACTS tools	2010/11
20.	London TC Operations transferred to CASPIAN with full TC tools set	2012/13

PAGE INTENTIONALLY BLANK

Contents

1	Introduction	1
2	Business Environment	3
3	Objectives, Targets & Strategy	6
4	Safety	8
5	UK Air Traffic Services	11
6	Oceanic ATS	19
7	Single European Sky	21
8	Manpower & Business Efficiency	23
9	Financial Summary	31

Attachment: NERL Service & Investment Plan 2005

PAGE INTENTIONALLY BLANK

1 Introduction

1.1 Purpose

NATS En-Route Plc (NERL) is the economic-regulated subsidiary of NATS providing (monopoly) en-route air traffic services in the UK. The Licence requires a NERL Business Plan to be published for each regulatory period (i.e. every 5 years) with the service and investment element to be updated annually in the intervening years in a NERL Service & Investment Plan (SIP) for consultation with customers.

The purpose of the Business Plan – in the words of the Licence – is “to describe in detail the Licensee’s [NATS’] plans and expectations for each of its en-route businesses, including its capital investment and operating plans together with the measures it proposes to improve the efficiency and effectiveness of its operation in providing the services required by the Licence.”

This Plan has been produced at a time when the CAA is in the middle of its deliberations on NERL’s regulatory price controls for the next 5-year charge period (CP2 – 2006/07 to 2010/11). It therefore combines NATS’ views on NERL service delivery and development – and thus costs – in response to forecast traffic demand, with the CAA’s initial proposals for NERL prices – and thus allowable revenues – as set out in November 2004 ¹.

1.2 Related Documents

The Plan needs to be seen in the context of a series of documents NATS has published in relation to the NERL Business:

- **May 2004 NERL Business Plan** – which, although not a strict requirement of the Licence, was produced to provide information for both the regulator and customers at the outset of the CAA’s deliberations on CP2 price controls;
- **July 2004 NERL Business Plan Report** – a Licence requirement, which summarises business performance on an annual basis;
- **2005 NERL Service & Investment Plan (SIP)** – issued in draft for customer consultation in November 2004. Although the Licence only requires publication of the SIP in intervening years between full business plans, NATS has been keen to sustain discussion with customers and other stakeholders on its proposed service development and investment plans as they evolve. The 2005 SIP was issued in a “briefing format” at the request of customers and has been subject to detailed consultation during December 2004 and January 2005. The final version will be published as an attachment to this Plan.
- **NATS’ Response to the CAA’s Initial CP2 Price Proposals** – issued in February 2005 and containing detailed explanations of many aspects of the NERL business and its costs.

NATS is very conscious that its customers’ capacity for consultation on these matter has limits, and that there is a risk of information overload. Accordingly, customers were consulted at the time of issuing the draft SIP on whether the form, scope and level of detail in the May 2004 Business Plan was appropriate – and no comments have been received to the contrary. Furthermore, customers have expressed their satisfaction and preference for the “briefing format” adopted for the SIP instead of lengthy text documents.

¹ NATS Price Control Review 2006-2010 : CAA’s Initial Proposals – November 2004

1.3 Scope of Plan

On this basis, this Plan mirrors the May 2004 Business Plan in providing a relatively concise and summary description of service plans against an extended time horizon as the Licence requires.

It is an 11 year Business Plan for 2005/06 to 2015/16 (to the end of CP3) in line with obligations of the NERL Licence for a 10 year Plan from the Licence renewal date of 1 April 2006 – albeit that the CP3 (2011/12 to 2015/16) assumptions and financial numbers are necessarily less definitive.

The plan reflects consultation on the SIP, the updated SIP document (including responses to a number of issues raised during consultation) being published as an attachment to this Plan in order to avoid unnecessary and potentially confusing duplication.

It also provides information on efficiency as the Licence requires without repeating the fuller explanations set out in NATS' response to the CAA's CP2 proposals.

1.4 Context of Recent Performance

This plan is set against a 2004/05 background of:

- A 5% increase in the overall number of flights handled by NATS in 2004 (v. 2003), whilst corresponding CSU volumes have increased by 6.7%. Note that, compared to 2000 (pre 9/11), UK flights are up by 8.7%, but CSUs up by only 5.7%;
- Safety performance being maintained – against more stringent Airprox targets, with a forecast of 2 risk bearing (Cat B) Airprox attributed to NATS in 2004 (target ≤ 6);
- Significant improvements in delay performance – with the average delay per flight attributed to NATS at 25 seconds in 2004 (target ≤ 60 seconds against high case traffic), to be viewed against a performance of 44 seconds in 2003 and 2.6 minutes in 2002;
- A NATS element of the UK en route unit rate of £50.36 in 2004 – an increase from 2003 in line with the 50/50 volume sharing formula contained in the Licence to adjust for traffic shortfalls over 2003 & 2004 – but reducing by 4% for 2005 to £48.47 (6% in real terms);
- A reduction in NERL's planned operating expenditure in 2004/05 of c. £29m;
- 85% of long-term investment plan (LTIP) milestones on-time in 2004/05, notably:
 - Major airspace development: Clacton & TC East – Mar 04
 - SACTA Collaboration: assessment simulations in Spain completed – May 04
 - Site consolidation: CTC Phase 1 completed – Summer 04
 - New Prestwick Centre construction started – Summer 04
 - NAS Enhanced Gateway System migrated to SPRINT – Aug 04
 - iTEC MOU with Spain & Germany (AENA & DFS) – Oct 04
 - Cromer & Clee Hill (current phase) Radar Replacement – Autumn 04
 - Swanwick Contingency (TDU) for ScACC and TC – Autumn 04
- CAPEX expenditure for 2004/05 forecast to be £22m less than budget due to resourcing issues and slippage to some projects;
- The main LTIP programmes progressing to plan, with collaboration with other ANSPs on new centre systems (CASPIAN and Oceanic SAATS) working well.

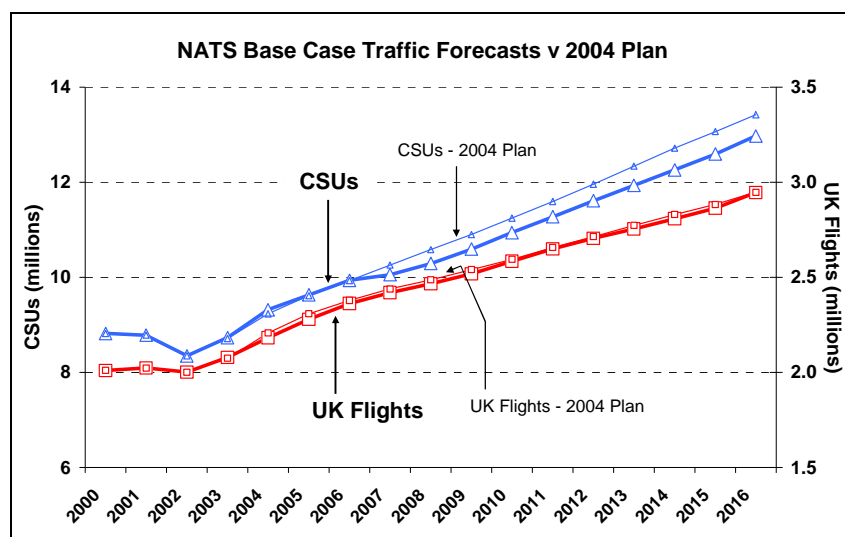
2 Business Environment

2.1 Traffic Forecasts

NATS' demand forecasts were updated – in consultation with customers – in Autumn 2004. Note that, from an ATM perspective, the rise of low cost scheduled operations and airlines' swift reaction to market changes are all making traffic demand much more dynamic and less predictable.

Average Annual Forecast Growth to end of CP3	UK Flights	Low 1.8%	Base 2.5%	High 3.5%
	CSUs	Low 1.7%	Base 2.8%	High 4.4%

The graph below shows the latest base case traffic forecasts against those presented in last year's business plan. The main difference relates to the impact of introducing the NOTA². This is expected to result in some transatlantic flights re-routing through Ireland and the UK on more southerly routes, affecting average distances flown and therefore CSUs (but not numbers of UK flights). The forecasts assume the impact of the NOTA is phased to reflect the transition of control from NATS to IAA, the ability of the airspace to accept re-routed flights and the take-up by airlines.



As part of the CP2 pricing review, the CAA has produced its own base case traffic forecast which assumes an additional 0.5% CSU growth per year compared to the NATS forecast and amounts to a 2% difference in total CSUs over the CP2 period. Whilst this difference is small in forecasting terms, NATS is working closely with the CAA to better understand the basis for these differences.

2.2 Customer Priorities

While airline industry dynamics continue to evolve, general customer priorities for ATS remain largely unchanged – i.e. they require an ATM service that:

- First and foremost, is safe;
- Imposes little or no delays – especially long unpredictable delays – and therefore does not add variability to their schedules;

² Northern Oceanic Transition Airspace, implemented 20th January 2005. This is a block of airspace in the North Atlantic to the north and west of Ireland. Air traffic management for this piece of airspace is changing from procedural control under NATS to radar control under the Irish Aviation Authority (IAA).

- Maximises the utilisation of aircraft (and airport) assets; and,
- Has low user (total) costs in the form of both 'direct' user charges and 'indirect' delay or flight inefficiency costs and other ATM related costs including equipage.

The safety and service performance achieved by NATS in 2004 has heightened customer expectations that this level of performance can be sustained or bettered from here on.

Moreover, NATS is aware – through the Operational Partnership Agreement (OPA) and other consultations with airlines – of the importance of avoiding delays during a short-haul aircraft's first rotation of the day because of their knock-on effects and implications for aircraft & crew utilisation.

2.3 Regulatory Environment

This Plan is being produced at a time when the CAA is in the middle of its deliberations on NERL's regulatory price controls for CP2, the CAA having published its initial proposals in November 2004. The price and thus revenue stream allowed in CP2 will determine the extent to which NATS is able to resource its operations and capital plans in response to customer requirements and expectations. The CP2 Price Control Review is therefore a key feature of NATS' business environment at this time.

2.4 Single European Sky

The European Commission's SES initiative is a reaction to the recognition that there are significant inefficiencies and costs associated with Europe's fragmented ATM system, especially when compared with the USA. The main progress in 2004 has been enactment of EC legislation and the subsequent issue of "mandates" to Eurocontrol for developing "implementing rules" in 2005/6 on airspace design & use, functional airspace blocks (FABs), charging and interoperability.

This has been complemented by the launching of an SES Implementation Programme (known as SESAME) – to be funded by the EC, with Eurocontrol as "technical" sponsor – to develop the future European ATM "Master Plan" up to 2020 (and an associated work programme for the period 2007-12) for an efficient and integrated ATM system that is defined and supported by all its stakeholders.

In addition, there is now a strong focus on rationalising the ATS service delivery organisation – principally through FABs – to deliver improved services and economies of scale. Progress on FABs is to be through "bottom-up" proposals from ANSPs / States. If sufficient progress is not forthcoming within reasonable timescales, there is a clear implication that the EC would seek to impose "top-down" solutions.

Many ANSPs are now actively engaged in responding to the Single European Sky initiative and the climate for industry change it is engendering. Recent developments of particular note are:

- The German Government's announcement in December 2004 that it intends to privatise its ANSP – Deutsche Flugsicherung (DFS) – by 2006.
- The announcement that the Nordic Upper Air Centre – NUAC (4 States) to be based at the present Malmö ATCC – will now cover Swedish & Danish airspace only in its first phase, with the need for a more equitable charging regime between upper and lower airspace a significant issue still to be resolved;
- The announcement of a 2 year delay to the Central European Air Traffic System CEATS project to consolidate upper airspace ATS in 8 States – with initial operations from the joint ACC in Vienna now scheduled for 2010.

2.5 ANSP Benchmarking

Eurocontrol's Performance Review Commission (PRC) publishes data on the relative performance of ANSPs in its annual Performance Review Report (PRR7 published in April 2004) and in its ATM Cost Effectiveness Report (ACE 2002 published in May 2004). In addition, the CAA has carried out a series of external benchmarking to inform the NERL regulatory price control process, which is taken account of in this Plan. The main conclusions for NATS from this benchmarking are:

- Europe-wide ATM safety performance indicators still do not yet exist.
- Data on comparative delay performance of ACCs reflects NATS improved performance in 2003, albeit that the London ACC (AC & TC) is still the 3rd highest ACC in the en-route delay league table – and performance has further improved in 2004.
- “Unit Rate” remains the headline figure used by customers to benchmark ANSP costs and – despite NATS’ downward trend – it still has the 3rd highest unit rate (Belgocontrol and SkyGuide are higher).
- Unit rate is not, however, a true indicator of cost efficiency since it does not reflect airspace complexity and thus ATC workload which is a key feature of UK airspace. This is important as the top 3 ANSPs in terms of traffic handled (Germany, France & UK) handle 33% of Europe’s traffic, but have 40% of the ATCO workforce and 47% of the total airspace sectors in Europe. Different en-route unit rates are also likely to reflect some differences in cost allocation.
- As an example, the IAA’s low unit rate reflects the fact that they mainly provide an overflight service for North Atlantic traffic at a price between NATS’ Oceanic and En-route ATS costs.
- Compared with previous ACE analysis, NATS’ position in 2002 against more detailed benchmarks showed an improvement because of the considerable progress made in cost reduction measures, even prior to differences in traffic complexity being properly reflected. Eurocontrol has set up a working group of interested ANSPs to produce a better output metrics for future analysis.
- The CAA’s analysis of comparative ANSP performance excluded factors that the CAA felt had distorted previous comparisons (e.g. one-off exceptional costs, cost allocation rules). On this basis, the analysis concluded that “there is no obvious overall operating cost efficiency gap between NATS and the average European ANSP”.
- It concluded that – at a “gate-to-gate” level (i.e. en-route, TMA & airport ATS) – NATS had comparable unit operating costs to the average, with NATS’ higher support costs being broadly offset by lower ATCO employment costs and higher ATCO productivity. Higher support costs can be explained in part by the wider role of NATS’ ATSAs compared with other ANSPs.
- The CAA’s analysis of Corporate function costs versus UK benchmarks concluded that NATS staff numbers compared favourably with organisations with similar revenues, although salary levels appeared to be higher than the average for similar locations. In part this was attributed to the relocation of London staff to Swanwick, an effect that is expected to unwind during the course of CP2.

Whilst objective benchmarking remains problematic, NATS recognises the continuing need to improve efficiency and has set itself tough internal targets to achieve this. It has also set its own external target for prices to be as competitive as DFS (Germany) and AENA (Spain).

3 Objectives, Targets & Strategy

3.1 Company Purpose

ATM is a separation and expedition / sequencing service to aircraft operators. In addition to safety, ATC is essentially a traffic management service without which air transport services would be less predictable, fundamentally compromising their commercial viability. The role of NATS and its NERL subsidiary (and other ANSPs), therefore, is to operate and develop its infrastructure to ensure safety and supply capacity, providing the right balance between service and cost.

3.2 Objectives & Targets

SAFETY & SERVICE OBJECTIVES & TARGETS

Objectives	Targets
Safety To maintain NATS' record of no accidents attributable to ATM To reduce to zero the number of serious incidents attributed to NATS despite rising traffic levels	No Cat A or B Airprox attributable to NATS En-Route Safety Significant Events (SSEs) 1-3 per 100,000 movements ≤2.1 in 05/06 with 7% reduction by 2010/11
Service To develop the capacity to handle in excess of 3 million flights per year in UK airspace by 2012 To deliver capacity and investment plans to schedule	Average delay through to 2010/11 and beyond: ≤30 seconds subject to base case traffic ≤60 seconds subject to high case traffic

The delay targets above are based on providing sufficient capacity to handle high case growth in traffic at an average of 1 minute of delay per flight or better. This capacity will provide a better outcome if demand growth is below the high case, with a target of 30 seconds average delay assuming base case traffic. But note these figures are targets, not central "expectations".

NATS has also characterised a vision of the future by setting out a number of "Destinations" for the 2007 timeframe that provide aspirational or stretch targets for many aspects of the Business.

3.3 NATS' Strategy

The strategy to link these objectives and targets to actions and projects is summarised below.

SAFETY

- To focus on continuous safety improvement in operational ATC which has the most direct bearing on future safety performance;
- To secure a safe future – i.e. understand all the current safety issues, invest in the right technology, ensure its safety culture continues to improve;
- To continue to develop the safety organisation and management system.

SERVICE DELIVERY

- To allow customers to operate their schedules with high predictability through enviable service and minimal airspace delays, whilst steadily reducing unit costs;

- To continue to provide added customer value by running high capacity operations at busy airports and in the London TMA;
- To focus on airspace capacity development, systemisation and tools/automation as the three sources of additional capacity delivery;
- To converge NATS' operational philosophy (within the UK and beyond) to allow common operating requirements and thus systems;
- Given the UK's complex network environment, to be at the leading edge of ATM Concept development;

TECHNOLOGY AND INVESTMENT

- Consolidate UK en-route operations into 2 Centres when system replacements fall due;
- Key technology elements of all-electronic operational interfaces and ATC support / automation tools are central to customer service and productivity strategies;
- Introduce a single ATM system that is cost effective to support, allows future tools to be integrated, and provides high resilience and site contingency;
- Collaborate with other ATSPs and ATM system suppliers to reduce system costs and risks, implying a convergence of operating concepts and system requirements;
- Establish a "ring-main" infrastructure of CNS information to underpin Centres and externally connect NATS ATM systems to aircraft, airports, other ACCs, etc;
- Address longer-term tools/automation phasing beyond iFACTS - e.g. en-route CPDLC, trajectory control - and (collaborative) R&D programmes to define and de-risk it.

COLLABORATION STRATEGY

- Taking the lead on collaboration to rationalise Service Provision within neighbouring States in response to SES and in seeking further economies of scale;
- Collaborate with German and Spanish ANSPs (AENA & DFS) on future systems procurement and development, and with NavCanada on Oceanic FDPS.

3.4 A European ATM Roadmap

In addition, NATS has developed its view of a future ATM Service Strategy in consultation with customers, key areas being:

- The future Industry Operating Model – to set out more explicitly the model by which the industry should operate in future – i.e. the demand / capacity "deal" between airspace users, airports and ANSPs, a key aspect of regularising the ATM service for a more contractual era;
- A development "roadmap" – to provide a common view of future ATM development steps through to handle future demand, as well as providing the robust and stable framework upon which to base future investment and well focused R&D programmes.

NATS is now working with ANSPs (in the 4 ANSP Group – FR, GE, SP & UK), Eurocontrol and industry (in SESAME) to agree the Industry Operating Model and Roadmap as a basis for:

- ANSP service development and investment plans;
- A consistent timetable of aircraft equipage / avionics enablers and requirements;
- Focused European R&D efforts.

4 Safety

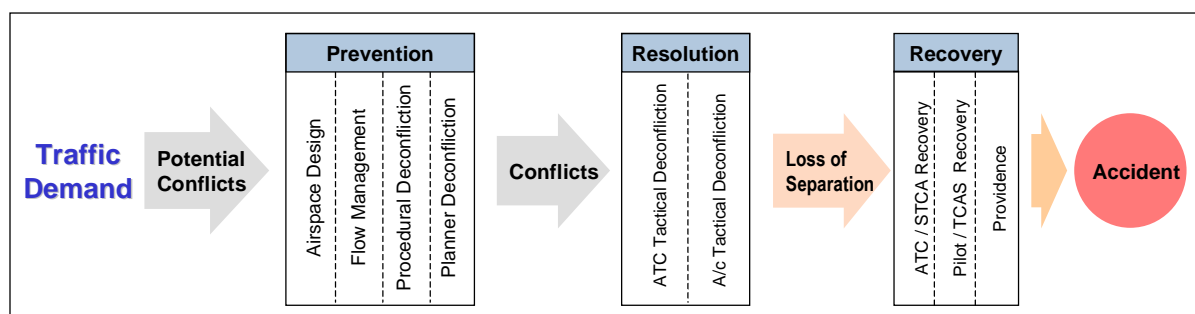
4.1 Context

Safety risk management within NATS is our highest priority. Safety is paramount in all of NATS activities, reflected in a commitment to maintain a leading role in ATM safety management.

NATS' safety plan is also set against a background of a reducing risk of collision involving commercial air transports operating in controlled airspace in the UK. The latest UK Airprox Board Report (for 2003) shows a moderate but steady decline in total risk since the mid-1990s, with risk bearing incidents (Category A & B) at their lowest for more than a decade. The UKAB attributes this downward trend in risk mostly to TCAS, but recognises the value of other safety initiatives, in particular NATS' industry-wide lead in tackling "level busts".

The diagram below is NATS' conceptual model of how risk is controlled by the various barriers of an ATM system. *Prevention of Conflicts* is supported by the design of airspace and procedures, and the management of traffic flows. *Resolution of Conflicts* depends largely on the tactical deconfliction of traffic by skilled ATCOs using a range of communication and surveillance systems and data. *Recovery from Incidents* is an important element of the current operation where most incidents are recovered by the ATCO supported by ground based safety nets, but some are recovered by the pilot supported by airborne safety nets.

ATM Barrier Model



4.2 Safety Performance & Targets

RECENT SAFETY PERFORMANCE –has been maintained against more stringent Airprox targets, with a forecast of 2 risk bearing (Cat B) Airprox attributed to NATS in 2004 (target ≤ 6) and an en-route performance better than the target rate of Safety Significant Events (SSEs) per 100,000 movements.

TARGETS

- Safety Significant Events (SSEs) 1-3 per 100,000 movements in 05/06 ≤ 2.1 in En-Route with 7% p.a. reduction through to 2010/11
- No Cat A or B Airprox attributable to NATS

4.3 Safety Plan

The strategy and key actions to achieve these targets are summarised below.

INCIDENT REPORTING & RISK ANALYSIS – the strategy is to develop a more risk-based and quantitative view of safety, well informed by comprehensive incident recording and data analysis. The main lines of action are to:

- Complete rationalising the Safety Reporting System and roll-out of the STAR safety database;
- Use the results of data analysis to prioritise actions via the Safety Issues Register.

SAFETY AWARENESS & IMPROVEMENT – continuous safety improvement in operational ATC has the most immediate and direct bearing on future safety performance. Presently, the major initiatives are:

- Leading the on-going industry-wide campaign (UK & Europe) to reduce level busts;
- A major programme to reduce the causes and effects of human error;
- Ensuring the operational workforce is fully engaged in detecting & solving safety issues via lessons learned and best practice processes.

SAFETY MANAGEMENT PROCESS – continuous safety improvement needs to be underpinned by the right organisational structures, processes and procedures, the key actions being to:

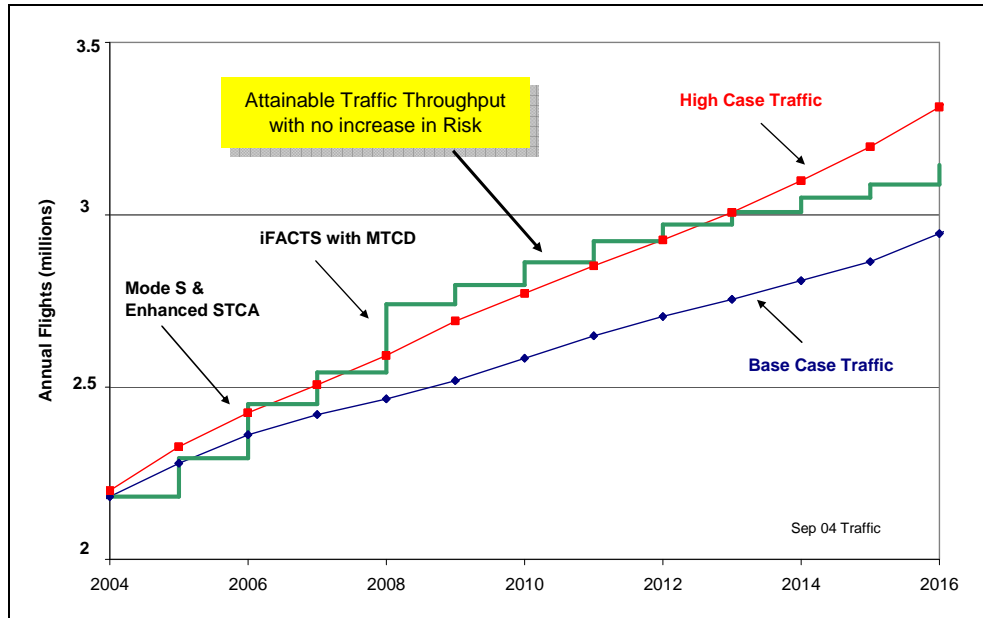
- Continue to develop the Safety Management System, ensuring effective control of safety management at the top level and an efficient and effective safety organisation.
- Maintain the Safety Regulator's confidence in NATS' safety – continuing to work jointly with them on improving ATC safety processes;
- Implement recommendations of the 2003 review of Safety Management Arrangements.

SAFETY DEVELOPMENT & INVESTMENT – is directed at ensuring a safe and robust operation, enabling more traffic to be handled without increasing risk. The main lines of action are:

- *Airspace Developments* – and traffic management processes that address airspace complexity and design out conflicts between flows of aircraft, effectively reducing potential conflicts and strengthening the prevention barrier. Where high traffic densities might increase risk, some extra capacity is retained purely as a safety margin by management of sector flow rates.
- *Automation Tools (iFACTS)* – the trajectory prediction and medium term conflict detection (TP/MTCD) capability being introduced by iFACTS will significantly strengthen the prevention barrier. While TP/MTCD primarily assists the controller in situation-monitoring, early detection of conflicts will highlight potential problems much earlier than the present safety nets.
- *Enhanced Short Term Conflict Alert* safety net tool (ESTCA) – to strengthen the recovery barrier via: 1) progressive adaptation of software parameters and development of system logic to improve the alert rates / warning times and reduce false alerts; and 2) through incorporating down-linked data from aircraft systems via Mode-S radar from 2006.
- *Controller Tools exploiting Mode-S radar* – Enhanced Mode-S from 2006 will provide a range of air-derived data to ground systems enabling it to be used in tools such as display of vertical intent (pilot selected level) to help detect potential level busts, and the Enhanced Stack Management Display to reduce risk in airborne holding situations.
- *Safety developments in Oceanic ATS* – working with Oceanic ATS counterparts to introduce satellite based CNS technologies that will enhance safety in the North Atlantic.

The safety “staircase” shows current best estimates of the expected safety performance improvements to be delivered by the above air traffic system developments, illustrating the link between system developments and investments to future safety targets.

Safety Staircase



In addition to its NERL activities, NATS will progress safety developments in Airport ATS – in particular, working with airport operators to extend STCA into airport approach functions and incorporate runway incursion monitoring into surface movement radar systems.

Major Milestones – Safety Plan	
Mode-S implemented in LTCC airspace and safety systems enhanced (STCA, stack management & level bust detection)	2005/06

5 UK Air Traffic Services

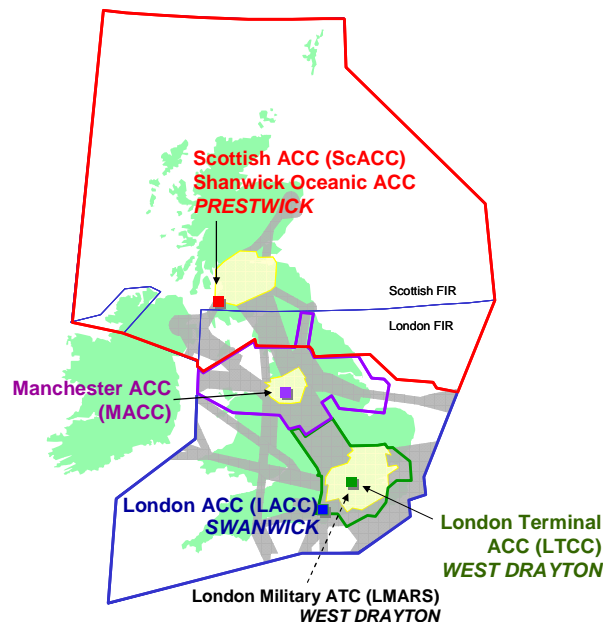
This section covers the service and investment plans for the UK Air Traffic Service (UKATS), including services to MOD and North Sea Helicopters.

5.1 Current Service

The UKATS provides air traffic services in controlled airspace within the London and Scottish Flight Information Regions (FIRs), together with navigation and various ancillary services. It is part of the joint and integrated civil/military system of ATS provision that operates in UK airspace.

UKATS handles traffic operating to and from the UK airports, together with most overflying traffic en-route between Europe and North America, plus a limited number of intra-European overflights. The service is provided to all aircraft operating on the UK upper air route and airways structure and within terminal area airspace.

The services are currently provided from four Area Control Centres (ACCs) at Swanwick (LACC), West Drayton (LTCC), Manchester (MACC) and Prestwick (ScACC). Approach control services for Heathrow, Gatwick, Stansted and Luton are collocated with LTCC, and for Manchester at MACC, in order to ensure that these airports' runways and surrounding airspace are managed as an integral part of very busy and complex terminal airspace.



5.2 Service Performance & Targets

RECENT SERVICE PERFORMANCE – in 2004, UK ATS handled more flights than ever with fewer delays. Against an increase in traffic of c. 5%, NATS attributable average delay per flight fell to 25 seconds, compared to 44 seconds in 2003. Only 2.5% of flights received a NATS attributable delay in 2004.

The number of Major Engineering Occurrences in 2004 was at a record low. The total engineering attributable delay for 2004 was 120,000 minutes, or 3.2 seconds per flight, with 75% of that total accounted for by two faults, the flight data processing outage in June and problems with a radiotelephony frequency. Conformance with service level agreements was in the region of 95%.

TARGETS – A stretch target of average delay per flight through to 2010/11 and beyond:

≤30 seconds subject to base case traffic & “normal” operating conditions

≤60 seconds subject to high case traffic

(See Section 3.2 for basis of these targets)

5.3 Service Delivery & Development Plan

Service and investment plans are detailed in the 2005 SIP (attached), the main points being summarised below.

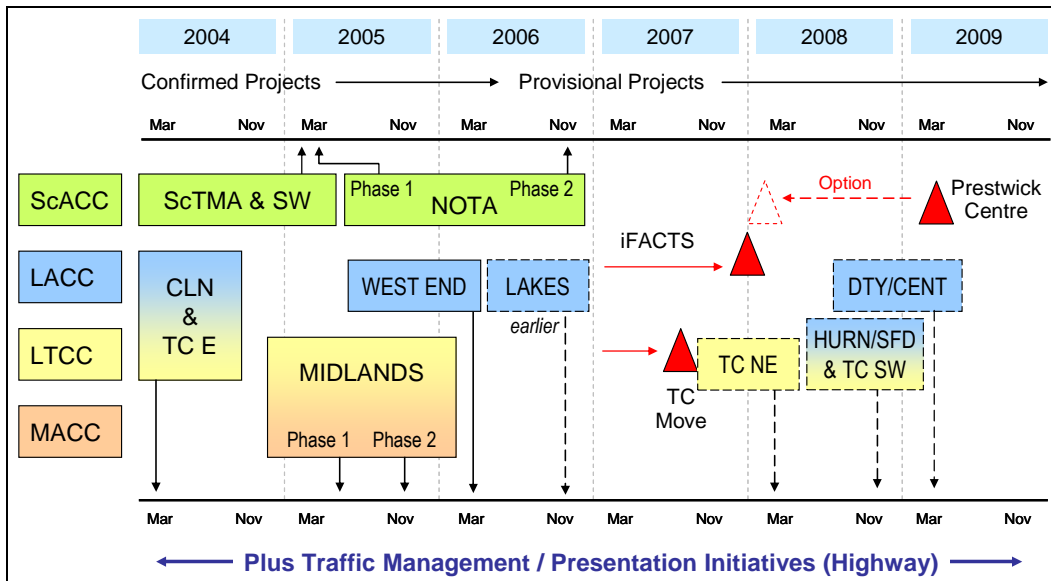
STRATEGY – The Customer Service Strategy is essentially “output driven” based on service and capacity requirements agreed with customers through an Operational Partnership Agreement (OPA), with capacity sized in-line with high case demand (recognising long lead times for capacity provision) and affordability pitched to our customers’ business environment. On this basis, the strategies are:

- To allow customers to operate their schedules with high predictability through enviable service and minimal airspace delays, whilst steadily reducing unit costs – but to position the service as a offering / selling of capacity which NATS controls, rather than a contract for numbers of flights which NATS does not;
- To continue to provide added customer value (and retain NATS’ distinctive capability) by running high capacity operations in the London TMA (and at busy airports) whilst reducing the level of queuing as opportunities arise;
- To successfully retain the MOD contract and to move towards greater integration of civil / military technical infrastructure and operating concepts in order to improve asset utilisation and achieve better value for money;
- A continuing focus on sectorisation, systemisation and tools/automation as the three sources of additional capacity delivery, with the importance of tools reflecting the “law of diminishing (capacity) returns” from sectorisations;
- To converge NATS’ operational concept (within the UK and beyond) to allow common operating requirements and thus systems, and – given the UK’s complex network environment – to share the risks of being at the leading edge of future ATM Concept development.

PLAN – The forward capacity plan (shown below) remains consistent with the 2004 Plan – but with changes to some milestones to optimise the overall programme and to de-risk delivery programmes. The main changes are:

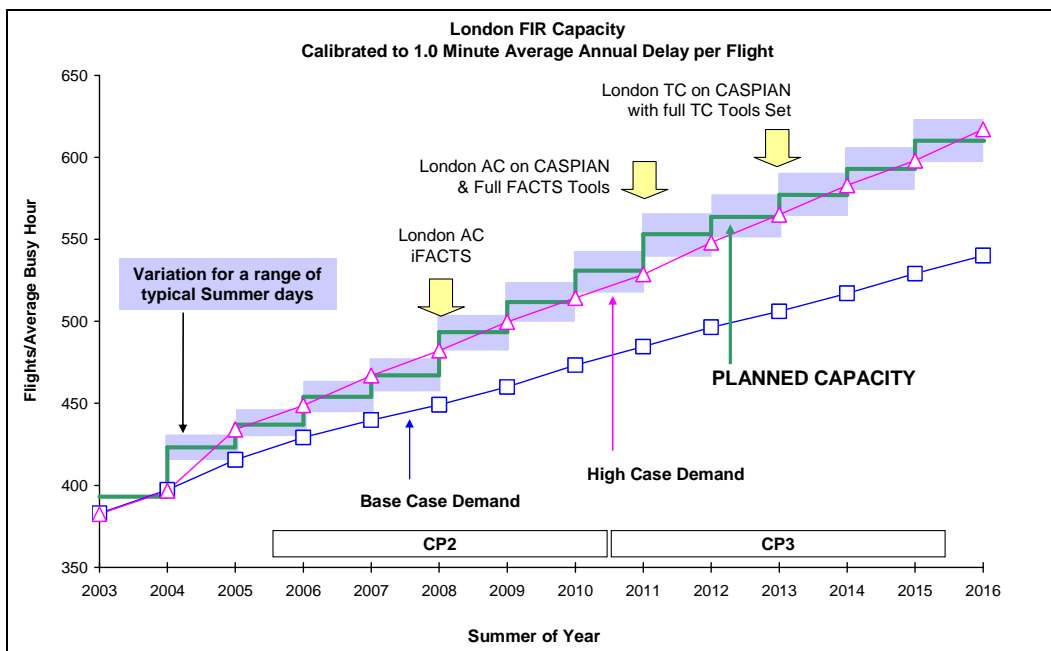
- En-route controller tools (iFACTS) to support sector productivity increases – deferred by one year to winter 07/08 (see LTIP in 5.6 below)
- Airspace development projects re-sequenced – the planned LAKES development brought forward to winter 06/07 to sustain London AC capacity expansion while iFACTS is delayed
- TC tools – a change in planned sequence and increased functional scope for implementing the Advanced Spacing Tool, with initial implementation for Heathrow Approach in 2007, including the application of ‘time-based’ separation to reduce the adverse impact of strong winds on the achieved landing rate.

Airspace Capacity Plan



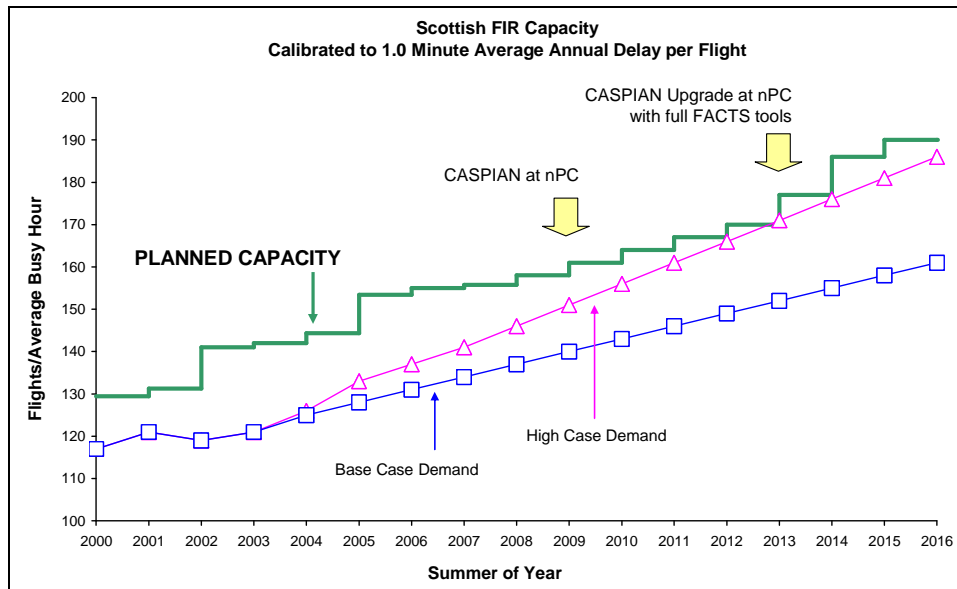
CAPACITY OUTLOOK – The “capacity staircase” chart for the London FIR (below) shows a steady rate of capacity growth in line with demand to around 2007 based on airspace sectorisation and systemisation developments. Around 2008, there is a risk of delays escalating until higher capacity growth is achieved in 2009-11 through the introduction of iFACTS automation tools, which should enable NATS to “get ahead” of demand through the rest of the CP2 period. The additional cost of high vs. base capacity is estimated at around £50m (PV), which is modest when compared with the avoided delay costs of c. £500m (PV) on high case and c. £200m (PV) on base case traffic to the end of CP2.

London FIR Capacity Staircase - “High Case” Demand vs. Capacity



ScACC & MACC are expected to be able to provide sufficient capacity to meet forecast demand to at least 2009 such that delays remain very low.

Scottish FIR Capacity Staircase - “High Case” Demand vs. Capacity



RISKS – Service delivery risks mostly relate to higher than predicted (high case) demand, slippage to LTIP (e.g. further slippage to iFACTS), and with the delivery of those ATCO WP / productivity improvements that close the gap between ATCO supply and requirement (see Section 8).

LONGER-TERM SOURCES OF CAPACITY – Capacity will come from a combination of ATM tools which increase sector productivity and additional sectors which allow ATC workload to be split amongst more controllers. However, additional sectors generate progressively less incremental capacity as “a law of diminishing returns” applies, although the addition of new runways in the South East and Heathrow operating in mixed mode will increase the complexity in the London TMA, requiring further sector changes in TC and increased systemisation in this area, including the extensive use of PRNAV. Implementation of full FACTS in Swanwick AC and NPC and equivalent TC tools at Swanwick are expected to be the main sources of additional service capacity in CP3 to handle the growth in demand. Some early implementation of a “trajectory management” control concept exploiting air-ground datalink, and possibly a degree of delegated separation to the aircraft using ASAS, are foreseen towards the end of CP3.

5.4 MOD Service

CURRENT SERVICE: ATS in UK airspace are provided through a “joint and integrated” (J&I) arrangement between NATS and MoD. In place for over 30 years, the basis of J&I operations is both parties sharing a common infrastructure and operating on a collocated basis from the major ACCs, including civil controllers providing ATS to civil and some military aircraft in controlled airspace, with military controllers providing ATS to aircraft (both civil and military) operating outside controlled airspace. Delivery of these services includes:

- Military control positions collocated within the civil operations rooms at Swanwick and Prestwick, as well as in a dedicated London Military Area Radar Services (LMARS) operations rooms at West Drayton;
- Close civil/military co-ordination in complex airspace over SE England provided by the London Joint Area Organisation (LJAO);

- A joint Airspace Management Cell (AMC) responsible for the efficient management of some sections of UK airspace and the application of Flexible Use of Airspace arrangements – enabling civil flights to plan routes through airspace that would otherwise be permanently segregated for military use.

NATS has a service contract to July 2006 to provide a technical support service – supplying systems and data – for military ATS, MOD being one of NATS' largest customers, contributing c. 7.5% of NATS Group income annually. In July 2004, NATS submitted its proposal for a new 15 year contract from July 2006, in response to the MOD's Request for Quotation – negotiations are ongoing.

PLAN: NATS operational and technology strategies are designed to encompass MOD's current and future requirements, and long-term capacity delivery is premised on the current "joint & integrated" operations with MOD. Moreover, sustained contract income is built into the Plan's financial assumptions and projections. The plan, therefore, is to:

- Secure a long-term contract extension beyond 2006 for a minimum of 15 years (extendable up to 25 years);
- Subject to successful negotiation of the follow-on contract – to:
 - Move part of Military ops onto an extended LJAO operation at Swanwick (known as project Western Sunset), O-date planned for 2005;
 - Transfer the LMARS service to Swanwick "as is" in 2007;
 - Transfer Scottish Military onto CASPIAN at the same time as the ScACC civil operation;
 - Transfer LMARS onto CASPIAN at the same time as London Area Control.

5.5 North Sea Helicopter Services

CURRENT SERVICE: NATS provides ATS for helicopters supporting the oil and gas operations in the North Sea as a specialist element of en-route services, tailored to the needs of the offshore oil industry. The North Sea Helicopter (NSH) ATS are provided by NATS Airport Services (on behalf of NERL) from Aberdeen, covering an area of 95,000 square miles. In 2004, NSH handled some 29,000 flights generating just over £5m revenue. Payment is via a round trip charge, the Northern & Southern North Sea having different charges based on volume, and if traffic forecasts are not met and traffic falls, the consequence is higher charges (and vice-versa).

NATS has continued to develop and provide an increasingly sophisticated and safe service in order to meet customer demands in a very hostile environment for helicopter operations. Whilst attempting to meet the continued requests for improvements, NATS has to take account of the oil industry's economic peaks and troughs (which drive the varying passenger and movement levels). Higher oil prices tend to lead to increased movements and therefore increased revenue for NATS and vice-versa, making service planning and income prediction difficult. Although it is the helicopter operating companies that pay for the service, it is the UK Offshore Operators Association (UKOOA) and the oil companies who drive offshore strategy influencing ATS.

PLAN: A number of the assets used in providing the NSH service are shared with UKATS (i.e. shore-based systems which provide speech, radar and support information to controllers) for which operation, maintenance and support of these facilities, as well as their sustainment and enhancement plans, is part of UKATS. Near-term plans for enhancing the offshore (i.e. platform based) installations include an extension of the communications infrastructure in the Northern North Sea from 3 to 8 stations and from 2 to 3 in the Southern North Sea, to improve coverage. This is coupled with the introduction of beyond-radar-coverage surveillance using SSR transponder multilateration technology, utilising 16 offshore ground stations – so that the current REBROS sector will effectively become a normal radar sector operation. All of this will be funded by an increased round trip charge and has been approved by UKOOA and the helicopter companies.

5.6 Long-Term Investment Plan (LTIP)

The investment plan and its rationale is explained in the NERL SIP (at the Attachment) and in NATS' Response to the CAA's Initial CP2 Price Proposals.

RECENT PERFORMANCE – In the year 2004, 62 LTIP deliverables introduced new equipment, software or airspace changes of which 90% were delivered on time and budget. In addition, 88% of a further 25 project phase changes (e.g. completion of Feasibility & Options or Project Definition) occurred as planned or within one month of plan.

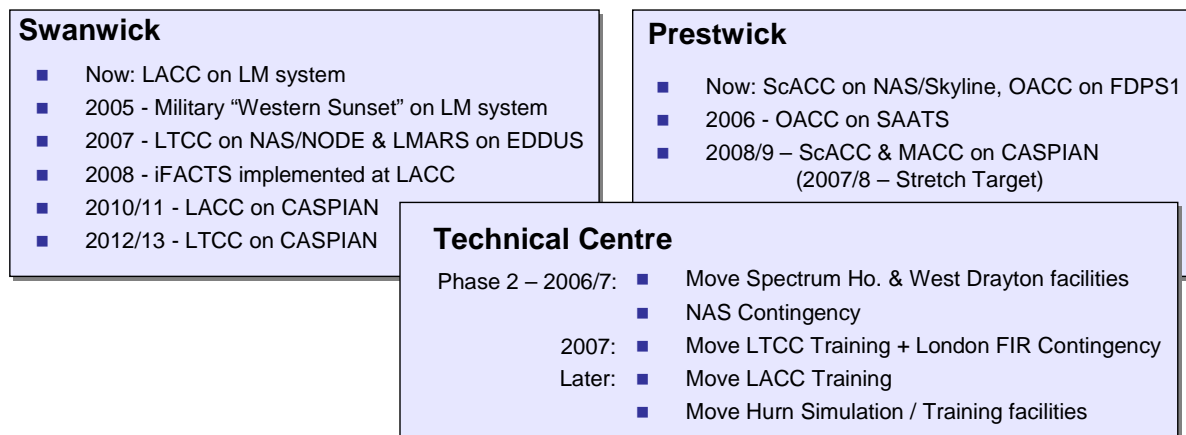
STRATEGY – The Technology & Investment Strategy is to:

- Transition to a paperless operation and introduce automation tools to improve safety, capacity and quality of service, and to reduce operating costs, with R&D into new ATM techniques.
- Enhance service continuity to ensure no break in the safe provision of a service to aircraft and provision of operational contingency facilities.
- Move to a common concept of operation incorporating methods and techniques supporting each of the required ACC operational functions, and with flexibility to provide any service from any unit.
- Consolidate operations and ensure commonality of systems across NATS to achieve economies of scale.
- Maintain the Joint and Integrated operation with the military to balance the needs of civil and military traffic, ensuring improved quality of service for both.
- Evolve to a coherent and flexible system architecture, to ensure that it is straightforward and cost effective to maintain and enhance.
- Ensure commonality and standardisation of interfaces to external systems including airports, aircraft operators and other ANSPs to improve interoperability, capacity and planning.
- Ensure commonality and standardisation with other ANSPs to improve cost-effectiveness of system procurement, support and development.

PLAN – The LTIP has remained stable and consistent with 2004/05 Plan at around £780m Capex to the end of CP2, the timing of the main Centres components shown in the chart below. The key plan assumption is that there are no cutbacks in the LTIP, the principal changes from the 2004/05 Plan being:

- **London TC Relocation** – from West Drayton to Swanwick now later in October 2007 (not Spring 2007) to reduce the risks to the project caused by its demanding timetable.
- **iFACTS** – deferred by 1 year to winter 07/08. iFACTS is proving to be a challenging project, with NATS being the first ANSP to deploy 1st generation automation tools operationally. The delay is due mainly to increases in scope reflecting fallback issues and the need for architecture resilience.
- **Prestwick Centre** – includes an option to bring forward the O-date by 1 year to winter 2007/08. With the CASPIAN Project making good progress, this option would enable early use of the SACTA system, permitting NATS to gain more experience of the SACTA system ahead of its introduction into the more demanding London AC & TC environment, thereby reducing technical & programme risks.
- **London TC Upgrade to CASPIAN** (SACTA system) deferred by 1 year to winter 2012/13 – a key risk reduction measure for the most complex & demanding TC operational environment, albeit that it delays the final move to the “common system” and consequent operating cost benefits.

Centres Development Plan



The plan includes upgrading and relocating the National Airspace System (NAS) flight data processing (FDP) system and its associated FDP component systems to enhance the reliability of FDP services through to 2012. In particular, phased relocation of NAS and FDP component systems from West Drayton to Swanwick & CTC in 2006 will create an FDP contingency capability from Winter 2006/07 (to cover a catastrophic loss of one of NATS operational sites).

CNS elements of the LTIP are essentially stable, principally the radar replacement programme (RSS), the voice communications system (VCS) and the DaVinci "ring-main" network (supporting centre system developments). The key assumptions are: 1) RSS achieves replacement of 2 sites p.a. with a year-on-year reduction in forecast roll-out costs; 2) medium risk costs savings are made on VCS and DaVinci.

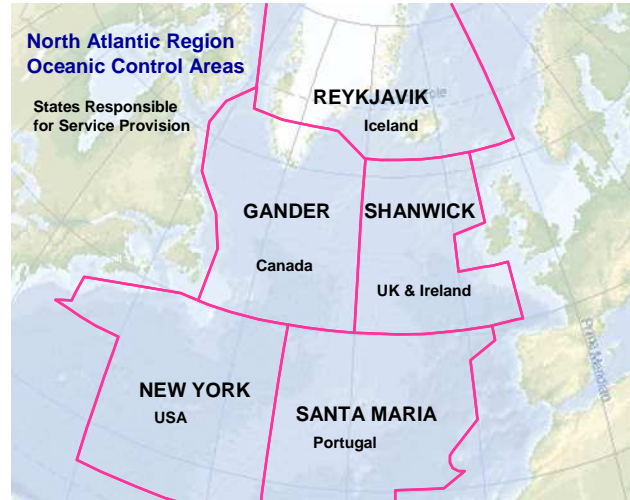
RISKS – The overall LTIP is ambitious in terms of the rate of change to NATS' infrastructure. Actions to improve LTIP delivery capability are described in Section 8.2 – Engineering.

LONGER-TERM LTIP ASSUMPTIONS – The COTS strategy is expected to drive system replacement more frequently than a previous strategy of in-house system development, the 2nd generation major system replacements being assumed as necessary 10 years after completion of the current upgrade to CASPIAN systems. Thus, other than mid-life upgrades, there is no significant investment in centre system hardware until towards the end of the next decade. Investment in system software development is sustained, however, to add the advanced functionality required to support capacity growth. A base level of Capex (c. £50m p.a.) will be required to cover sustainment and other essential system replacements. Note that the Centre Buildings are assumed to have lifespans of 30 years plus and not to need significant investment within the period.

Major Milestones – UK ATS Plan	
Radar replacement programme (RSS) – 2 sites per annum	To 2012
Airspace Developments – Midlands Phase 1 & Scottish TMA / SW (winter 04/05); West End (winter 05/06); Midlands Phase 2 (May 05); Lakes (winter 06/07)	2005-07
DaVinci – complete transition of operational services	2005/06
Long-term MOD Contract secured	2005/06
Prestwick Centre – New Building Complete	2006
Relocate NAS Flight Data Processing system to Swanwick	2006
TC & LMARS Operations relocated to Swanwick	2007
TC Landing Rate Resilience & Planned Spacing Tool – 1st Operation for Heathrow (Gatwick & Stansted in 2008)	2007
iFACTS Operational at LACC	2008
ScACC & MACC Operations transferred to CASPIAN at Prestwick	2008/09 Stretch 07/08
LACC & LMARS Operations transferred to CASPIAN with full FACTS tools	2010/11
London TC Operations transferred to CASPIAN with full TC tools set	2012/13

6 Oceanic ATS

CURRENT SERVICE – NATS is one of five main ATS providers in the ICAO North Atlantic (NAT Region – plus Bodo (Norway) – and has responsibility for control in the Shanwick Oceanic Control Area (OCA) in partnership with the Irish Aviation Authority (IAA) who provide the communications service for the area. Control in the Shanwick OCA has been jointly delegated to the UK and Irish Governments by ICAO whose North Atlantic Systems Planning Group (NATSPG) is responsible for the operational performance and development of the NAT Region.

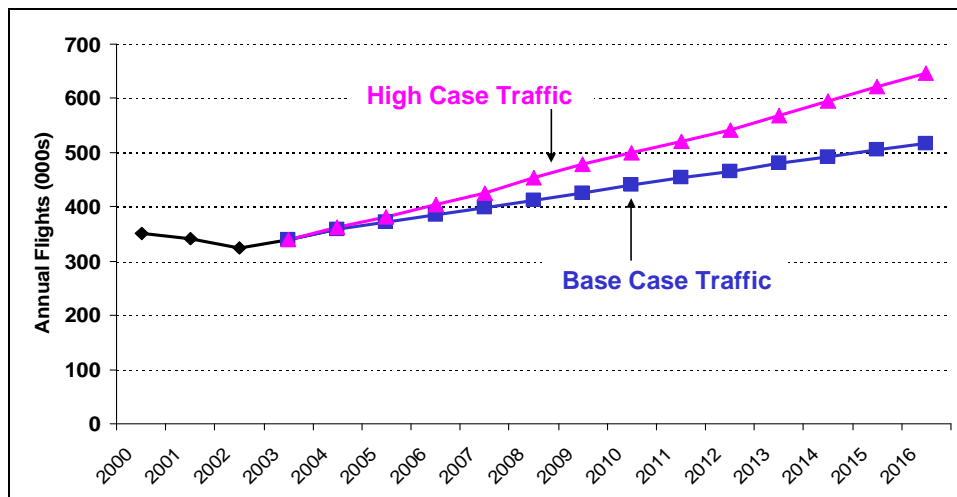


RECENT SERVICE PERFORMANCE – The policy of minimising development – prior to the implementation of SAATS in 2006 (see below) – has led to a stable platform with a current service availability of effectively 100%. On service quality, c. 95% of westbound NAT flights receive an Oceanic clearance that is either the same as requested, or differs in only one dimension (height, speed or track). Customers have encouraged North Atlantic (NAT) ANSPs to deploy systems and satellite technology to enhance safety & service quality through reduced cockpit workload, and potentially to reduce costs per flight. Current take-up of Controller Pilot Datalink Comms (CPDLC) of ADS fitted aircraft operating in the Shanwick / Gander airspace is c. 30%.

A strategy of constraining costs whilst handling growing traffic levels has led to a steady decline in the cost per flight in recent years, with the current Shanwick charge being c. £55 per flight. The Oceanic charge remains a small percentage of the overall ATC charges for a typical trans Atlantic flight, but whilst NATS' charges compare favourably with Iceland's & Portugal's, they are still higher than the other main Oceanic provider – NAVCANADA.

TRAFFIC FORECAST – Forecasts for the Shanwick area are shown in the graph below, the base case representing an average annual growth to 2016 of 3.1% and the high case a 5% annual growth.

Shanwick Oceanic Flights Forecast



SERVICE DEVELOPMENT PLAN – is based on close collaboration amongst ANSPs in the NAT region, the main actions being

- A joint airspace development with the IAA to establish the Northern Oceanic Transition Area (NOTA) in phases from January 2005 to provide a better (radar) service;
- Continued expansion of datalink (ORCA), ADS (CADS) and CPDLC services developed and implemented in collaboration with NAVCANADA. As more aircraft are equipped, such automation offers the opportunity to reduce support staff and operating costs;
- Exploration of options for providing mutual contingency.

Additionally, joint work by NATS & NAV CANADA is taking place on NAT ATC Service Development. The main proposals being put to the ICAO North Atlantic Systems Planning Group (NAT SPG) include further (longitudinal) separation reductions and flexibility improvements enabled by advanced FDP systems (SAATS & GAATS) and controller tools (HIPS), plus a greater proportion of aircraft equipped with datalink and higher navigational performance standards (RNP-4). The precise timing of developments is linked to decisions by the NAT SPG and the business case for aircraft equipage.

INVESTMENT PLAN – Centres on replacing the ageing FDPS1 system by the Shanwick Advanced Air Traffic System (SAATS), a joint development with NAVCANADA, to be implemented at the OACC Prestwick in Autumn 2006. The project is progressing well in its implementation phase and has met every milestone to date. SAATS includes a common approach with NAVCANADA to CADS, ORCA and CPDLC and utilises the Canadian GAATS system as the base platform. This approach is consistent with NATS' strategy of sharing development costs with other ANSPs wherever possible.

Implementation of ATN (high integrity) datalink communications, alongside the first generation FANS service, is largely an issue of international standards. Should ATN be adopted as the standard for datalink communications in the NAT Region, NATS will follow suit. However, an HF capability is expected to be required well into the next decade.

LONGER-TERM ASSUMPTIONS – The Oceanic operation is expected to become increasingly automated through the exploitation of datalink technology, with ATCO numbers progressively reducing and few ATSAs needed to support the Oceanic service by the end of CP3. It is assumed that ground based systems will continue to be required as airborne self-separation assurance systems – whilst quite possibly being available and capable of being exploited in a tactical sense – are not foreseen as replacing the ground ATM function in this timeframe.

Major Milestones – Oceanic ATS Plan	
SAATS replacement Oceanic FDPS system O-date	2006

7 Single European Sky

7.1 Context

The ATM industry's existing structures, relationships and incentives are not well suited to developing the uniform European ATM network needed to meet Europe's future capacity challenge. Eurocontrol's present consensus style, the piecemeal approach by Member States, and the industry's 'cost plus' regime – have all inhibited progress. Moving away from the current fragmented approach towards an integrated ATM system is a prime objective, with scope for cost efficiencies through rationalisation and economies-of-scale in the process.

7.2 Single European Sky

Accordingly, the EC is seeking regulatory oversight of ATM in order to address the present fragmentation through industry rationalisation, and to use its liberalisation 'toolkit' as applied to other industries. Some national Governments remain nervous about conceding sovereignty or power to Brussels, with differing views on ATM liberalisation and on the role of Eurocontrol.

Nevertheless, the Single European Sky (SES) legislative package was adopted by the European Parliament and the Transport Council in March 2004 and entered into force in April 2004. With this legislative framework in place, SES will be achieved through the adoption of implementing rules to be developed by Eurocontrol on the basis of mandates granted by the European Commission (EC). Mandates issued presently cover:

- Airspace design – SES legislation has established a single EUIR above FL285 and introduces common rules for airspace classification, route and sector design, flexible use, etc.
- Flexible use of airspace – the UK's existing Joint & Integrated arrangements are broadly in line with current EC proposals, with the UK developing enhanced AMC procedures for Europe
- Functional airspace blocks (FABs) – EC recognises the advantage of 'bottom-up' proposals from ANSPs / States and has entrusted European States with the establishment of FABs with a limited period in which to develop their own proposals
- Interoperability – new regulations will define future European ATM system standards and specifications in order to accelerate co-ordinated introduction of new technologies & operational concepts, but with a risk of "imposed" requirements not based on regional needs
- A common charging scheme covering all ATM services – en-route, approach and airport.

The "implementing rule" development process involves extensive consultation with stakeholders and – in the latter stages – formal commenting on draft rules via Eurocontrol's Notice of Proposed Rule-Making (ENPRM) process. All this will be rolled out through 2005-06, although the timetable for implementation and conformance by ANSPs has – for the most part – yet to be established.

Eurocontrol's role will become one of supporting the EC's regulatory activities, implying a separation of its regulatory and service provision functions, the latter possibly being opened-up to competition.

Legislation and development of implementing rules is complemented by the SES Implementation Programme (known as SESAME) – the first step being a Definition Phase through 2005-7 to develop a European ATM Master Plan up to 2020, defined and supported by all its stakeholders, and an associated work programme for the period 2007-12.

7.3 NATS' Response

STRATEGY – NATS will engage proactively with other industry players to explore and develop FABs, and – in conjunction with its collaborative partners – to ensure that its advanced concepts and technologies are central to the SESAME integrated ATM system. To provide the context for NATS' initiatives, a “game plan” for NATS' approach to SES and the potential restructuring of the European ATM Industry will be developed in 2005.

POLITICAL INFLUENCE – The plan includes opening of a “Brussels Office” in 2005 to be at the heart of SES activity and engage proactively with the “implementing rule” process and SESAME project definition. NATS will also ensure it has good representation – either through senior NATS managers or UK nominees – on some of the key Panels & Working Groups dealing with aspects of SES implementation – notably the Industry Consultation Board.

CENTRE SYSTEMS COLLABORATION – As part of the LTIP, the plan in 2005 is to enter the implementation phase of the collaborative development of an advanced FDP system and ATC tools with Spanish and German ANSPs (AENA and DFS) via the iTEC (interoperability Through European Collaboration) consortium, and collaborative procurement of the SACTA system from the Spanish ANSP (AENA) as the new centre system. These two collaborative projects represent a major step towards a common ATM system between AENA, DFS and NATS.

OCEANIC SYSTEM COLLABORATION – The plan is to continue to collaborate with NAVCANADA on North Atlantic Oceanic ATS improvements and system developments (GAATS / SAATS).

FUNCTIONAL AIRSPACE BLOCKS (FABS) – A study into the issues associated with establishing a Functional Airspace Block (FAB) in UK / Ireland airspace areas is underway, to be completed by the end of May 2005. This is expected to be the first of several of NATS' initiatives to rationalise and potentially consolidate airspace and service provision in North West Europe and the North Atlantic. The value generated by collaboration & consolidation is expected to be shared between ANSP partners and their customers – with the major value likely to be had through Centre consolidation in the longer-term.

THE 4-ANSP GROUP – Work with SCTA (France), DFS (Germany) & AENA (Spain) to influence SES and SESAME, and continue to work with DFS on a range of topics of mutual interest.

SESAME – NATS is currently part of a consortium of 10 ANSPs interested in resourcing the various tasks within the Air Traffic Alliance (ATA – a grouping of Airbus, EADS & Thales) SESAME group. The main focus is on work packages concerned with the definition of future operational concepts and systems. NATS also intends to participate in a number of regulatory and safety related tasks.

Major Milestones – NATS & Single European Sky	
Complete the Joint FAB Study with IAA	2005
SESAME Contract Award with NATS in Consortium & Complete PD Phase	2005-07

8 Manpower & Business Efficiency

This section covers:

- Operational and Engineering manpower and efficiency plans;
- Business efficiency plans, including management and support manpower;
- A roll-up of NERL manpower numbers.

Note that it is not practical for detailed manpower planning to extend over an 11-year horizon, hence the longer-term projection is shown only in the manpower roll-up.

8.1 Operational Manpower

REQUIREMENTS – The operational manpower requirement is driven by high case traffic demand – a key customer requirement confirmed during the consultation process – and the need to ensure continuing high levels of safety and to provide sufficient future capacity while meeting average delay targets. Additional operational resources are required to support training, airspace sectorisation developments and new technology / tools development (LTIP). Generally, the rise in the ATCO requirement to meet high case traffic demand is tempered by an increased level of service flexibility, improved working practices and automation / controller tools developments (iFACTS in 2008 and FACTS in 2011/12) to increase productivity. The ATSA requirement will continue to reduce over time, primarily through consolidation at 2 Centres and by introducing new technologies that automate operational & training support functions.

SUPPLY – Matching “supply” of ATCOs to meet the requirement is essentially about managing gains and losses, supplementing any shortfalls with additional shifts. The principal source of “gains” is new trainees, but NERL has only one source of Supply – DAT&S at Hurn – with a long lead time from recruitment to operational qualification (typically 3 years). Managing “losses” is essentially around the forecast rate of retirement.

8.1.1 Current Performance

The 2004 Working Practices (WP) agreements delivered a reduction in the ATCO requirement of around 75 posts and a saving of c. 80 ATSA posts. ATCO supply vs demand is currently 97.7%, a shortfall of 20 ATCOs which is offset by ATCO Additional Voluntary Attendances (AAVAs).

ATCO productivity metrics are under development to enable NATS to provide comparative data for PRC and related benchmarking, but require Operational Position Monitoring (OPM) data. Once established, appropriate targets will be set for continuous improvement in productivity and efficient utilisation of operational staff.

8.1.2 Manpower Efficiency

Significant improvements have been made in the Manpower planning processes, including a refinement of the ATCO Plan, a revised ATCO Training Plan and the introduction of an agreed ATSA Strategy which is driven and tracked by a new ATSA Manpower Planning process.

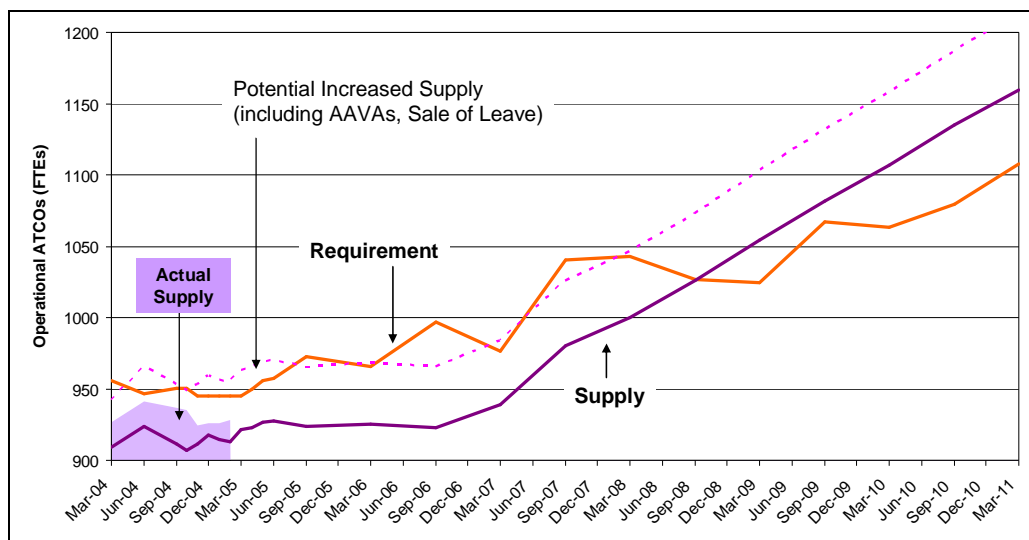
The Plan will achieve further efficiencies from operational productivity or working practice changes in the short-term. Current Working Practices (2004 Agreement) will be subject to continuous improvement. Further work is now in hand to identify and address the required changes to Working Practices for the 2006 Agreement in order to meet delay targets. In the medium term, ATC support efficiencies will come from consolidating into 2 Operational Centres and via the ATSA Strategy which will align NATS more closely to other ANSPs.

8.1.3 ATCO Manpower Plan

The chart below shows that ATCO supply now meets the requirement in 2008 which is 2 years earlier than the 2004/5 Plan. Overall, total ATCO numbers through CP2 are some 28 lower than the 2004/05 Plan. The key measures to achieve this include:

- Measuring and improving rostering efficiency and actual sector hours delivered against the agreed operational staffing agreements;
- Refining manpower requirements to more closely match future service delivery and adjusted LTIP timescales;
- Refinement of IFACTS and CASPIAN training plans to take place in winter periods;
- Continued use of AAVA and Sale of Annual Leave where necessary to increase ATCO supply;
- Implementing a revised ATC Training Strategy and the End to End Training Plan to improve success rates, increase output and maximize Training Capacity.

ATCO Manpower Plan – March 2005



LONGER-TERM ASSUMPTIONS – ATCO numbers to support airspace re-sectorisations continue to increase, particularly in terminal airspace where greater systemisation supports the addition of new runways. In Area Control, CASPIAN enables multi-sector planning and the number of sectors covered by each planning controller is envisaged as increasing gradually from 1 to 3. The combination of technological improvements (tools) and working practice changes are assumed to generate longer-term productivity improvements that keep pace with traffic growth, with tools improvements providing step changes over a number of years from introduction. Overall, whilst ATCO numbers remain flat, productivity measured by flights per ATCO improves.

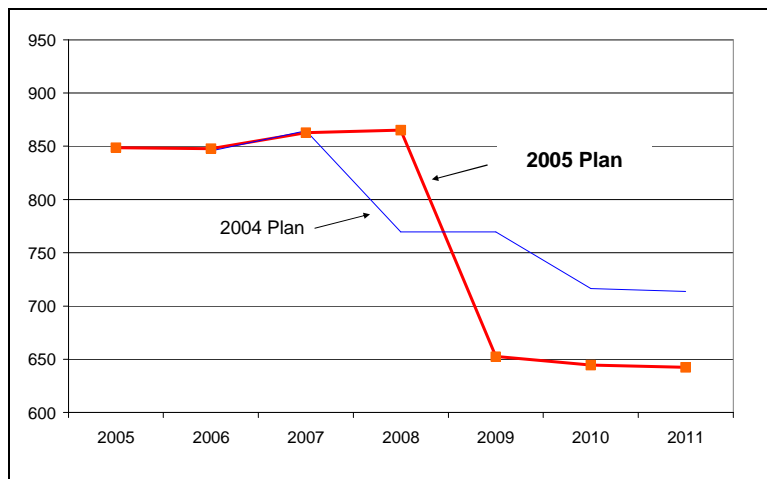
8.1.4 ATC Support Manpower Plan

A review of ATSA numbers and the development of an ATSA Strategy have allowed a further reduction in staff numbers compared to last year's plan. The chart below shows a reduction of c. 200 posts over the next 6 years, resulting in c. 70 posts fewer in 2010/11 compared to last year's plan.

Key factors driving reductions in ATSA numbers are:

- Increased flexibility in the 2004 ATSA Working Practices agreement;
- Better ATSA manpower planning – including use of Variable Contract ATSA (VCA) staff – to meet ATSA requirements during CP2 while managing reductions in a cost effective way;
- Exploiting technology to the fullest extent to reduce operational support tasks – in particular iFACTS, the CASPIAN centre system and voice recognition technology (DVI) in simulators;
- Rationalisation of ATC support³ under the 2 Centre Strategy.

ATSA Manpower Plan – March 2005



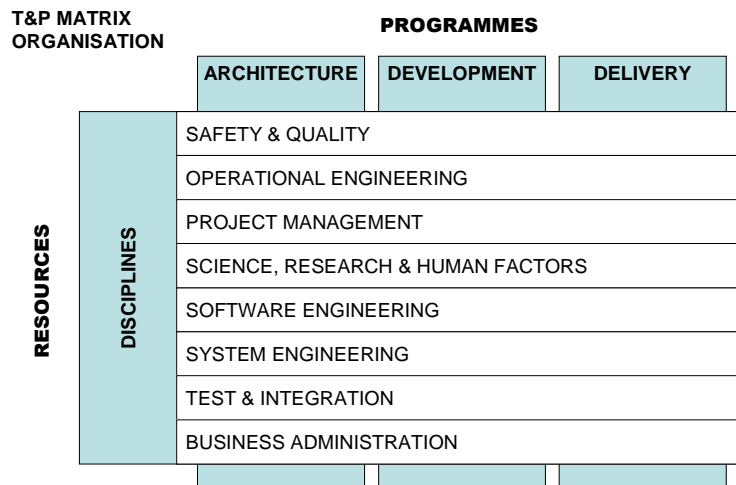
LONGER-TERM ASSUMPTIONS – Technology is assumed to automate the majority of the current ATSA task, the existing ATSA role largely disappearing by c. 2015 and replaced by a pool of flexible support staff at each centre (Swanwick, Prestwick and CTC) to cover both operational (e.g. flow management) and non operational activities (e.g. rostering). Following the introduction of DVI technology, few ATSAs are required for simulations.

³ Ops Support staff = all ATCO / ATSA / ATCE / ATC T&S Other grades not involved in Operations or Operational Training – i.e. in roles such as rostering, planning, developments, projects, etc.

8.2 Engineering

The NATS Technology & Programmes (T&P) division is responsible for all engineering across NATS. The dual objective for the division is to develop the system of tomorrow, through the LTIP, whilst maintaining a 24/7 engineering service through the existing systems.

T&P became a Matrix Organisation in April 2004, the 3 main programmes – Architecture, Development and Delivery – supported by a fourth Disciplines programme providing the resources to support these 3 programmes from 8 resource pools that bring together common skills.



8.2.1 Engineering Manpower Strategy & Plan

The engineering plan and strategy continues to build on the programme/discipline matrix organisation.

ENGINEERING PEOPLE AND PERFORMANCE IMPROVEMENT

NATS remains committed to a programme of continuous measured improvement activities that uses the Capability Maturity Model Integration as its basis. Improving Project Management capability (people and processes) is the priority in 2005/06.

Note that Airport Engineering will join T&P in 2005 as an “Airports Programme” to allow greater standardisation across the company. Head of Airport Engineering Support will report into CTPO as well as DAS. All other line reporting and financial arrangements will remain in order for Airports to function as a P & L under the Commercial Director.

The majority of engineering staff will be located at the Corporate and Technical Centre by the end of 2007 to improve productivity and reduce costs through collocation.

24/7 ENGINEERING SERVICE DELIVERY

NATS is committed to improving Service Level Agreement response times, linked to the radar replacement programme, producing savings from 2005/06. Collaborative working and an improved documentation management tool will be deployed, providing the capability to automate processes and, hence, promote efficiency. Savings will be obtained on long-term maintenance contracts and private wire circuit costs. A key challenge is to maintain an engineering service delivery work force to keep TC & LMARS operations running at West Drayton to 2007 – prior to the transfer of these operations to Swanwick.

LONG TERM INVESTMENT PLAN MANAGEMENT

NATS is committed to delivering the Long Term Investment Plan and, as stated above, will continue to carry out the necessary organisational and process improvements required to achieve this aim.

ENGINEERING MANPOWER NUMBERS

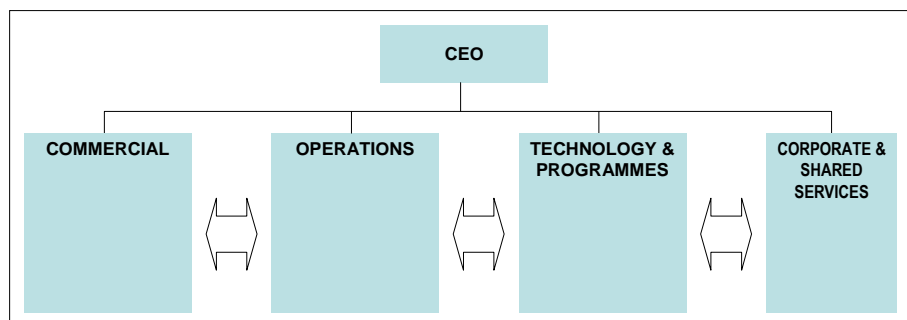
Planned Engineer & Scientist manpower numbers are shown in Section 8.6 – Manpower Roll-Up.

T&P plans to reduce headcount by c. 270 over the next 6 years. This will require excellent leadership and ‘working together’ with Trade Unions whilst continuing to deliver the LTIP and maintain the level of engineering service. More aggressive headcount reductions carry the risk of a shortfall of skilled engineers to deliver the LTIP on time, maintain the level of engineering service delivery, and hence affect future capacity growth. Conversely, the requirement to maintain the LTIP delivery dates will affect the rate of reduction of engineering numbers.

LONGER-TERM ASSUMPTIONS – Completion of the common centre system (CASPIAN) further reduces engineering support manpower. Other system replacements are increasingly procured with a system support contract as suppliers become increasingly able to provide cost effective system support on the basis that systems will have greater commonality across European ANSPs. New systems are increasingly expected to be highly reliable / low maintenance, with distributed systems capable of being remotely re-configurable and remote software upgradeable such that it is not necessary to visit each site/location to change software or configuration.

8.3 Commercial

An important change since the 2004/5 Plan has been the creation of a Commercial Division – to ensure that both the regulated and non-regulated businesses become more commercially focused – to sit alongside the existing Operations and Technology & Programmes (T&P) Divisions. Whilst operational and engineering accountabilities are unchanged, P&L accountability for the 4 Profit Centres – En-route, Airports, MOD, Products & Services – now rests with the Commercial Director. New or re-organised functions within the Commercial Division include Market Development & Strategy, Supply Chain Management and Commercial Services.



A review of procurement by PriceWaterHouseCoopers (PwC) in 2004 resulted in a restructuring into a supply chain management function together with an action plan to strengthen procurement processes and general value chain management across NATS. NATS is on track to complete implementation of the PwC recommendations by the end of 2006. According to PwC, the initiative should “deliver a tangible and measurable impact on NATS ability to effectively and efficiently manage Capex”.

8.4 Corporate & Shared Services

8.4.1 Efficiency

Shared Services for supporting functions (HR, Finance and FM – plus Supply Chain Management above) was implemented in 2002 delivering cost savings and efficiency benefits of a common approach. The new contract for support of NATS business IT infrastructure and roll-out of new business information systems (NIBS) is delivering further service improvements and savings.

The plan is to achieve further short-term economies in overhead and support costs, and reductions in management and support manpower, through roll-out of further refinements to the Shared Services approach, and roll-out of e-working and collaborative working based on NIBS and Project KITE.

A new Head of Business Process role is charged with improving the Company's processes and, in particular, introducing a data room to track and measure all NATS' commitments.

8.4.2 Business Information Systems

Investment in new systems includes:

- Delivery of Phase 2 of the NIBS programme (covering business, project and asset management) through to 2006, removing the cost of supporting legacy systems as they are replaced;
- Projects to upgrade the business IT infrastructure to ensure NATS migrates to a modern, supportable infrastructure at an affordable cost.
- Deployment of Project KITE which aims to deliver collaborative working and improved documentation management, providing the capability to automate processes and, hence, promote efficiency in NATS business processes and reduce support costs.

8.4.3 Management & Support Manpower

PLAN – A 3% per annum reduction in Management & Support manpower from the 2003/04 baseline from progressive productivity improvements through to the end of CP2 is incorporated in the Plan. This is in addition to the 20% “1st tranche” reduction achieved through 2002/03. This is to be achieved primarily through economies of scale as further consolidation at CTC and Swanwick takes place as the West Drayton and Spectrum House sites close.

LONGER-TERM ASSUMPTIONS – The proportion of MSG and PCG staff numbers to total staff numbers remains constant at around 11% and 5% respectively, reflecting the level of resources needed to manage the company effectively, but supported by increasingly more efficient business systems. On this basis, management & support numbers reduce as total staff numbers decrease.

8.5 Accommodation

STRATEGY – The Accommodation Strategy has two elements. The first and main element is the completion of NATS Corporate & Technical Centre (CTC) with its associated collocation of non-operational functions and rationalisation of NATS' properties. The second element is a further review and update of the Accommodation Strategy encompassing all other major NATS properties.

PLAN – The current plan includes:

- CTC Stage Two (additional accommodation at CTC) – two further permanent buildings are under construction with a target completion date of Spring 2006
- Closure of Spectrum House site – the staff will relocate to CTC in 2006 when Stage 2 accommodation is available, additionally the radar located on the site becomes redundant

under the RSS programme in late 2007. Steps will be taken for the sale of the property within that overall timeframe.

- Closure of West Drayton site – the site becomes non-operational on completion of the TC/LMARS transfer in 2007, closure actions occur in 2007/08
- Hurn Site – The current review of ATCO training requirements together with the update of the Accommodation Strategy will identify the strategy for Hurn.

Major Milestones – Manpower & Business Efficiency	
New 2006 ATCO & ATSA Pay and Working Practices Agreement	2006
Establish the Corporate and Technical Centre Stage 2	2006-08
DVI in use at DAT&S & NATS Simulator sites	2007/08
ATC Support rationalised – Swanwick post LTCC transfer (2007), Prestwick (2008/9)	2007-09

Note: LTIP milestones are covered under UK ATS

8.6 Manpower Roll-Up

The table below provides the roll-up of NERL Manpower by Staff Group. It contains a detailed manpower plan out to 2010/11 linked to the definitive plans and rationale explained above. Beyond that, the projected numbers at the end of CP3 are based on the longer-term assumptions explained throughout the plan.

The manpower plan should be seen in the context of reductions in recent years from a total headcount (not FTEs) of c. 4,350 in March 2001 and c. 4,100 in March 2002. Note that March 2005 headcount is lower than originally planned as NATS had restricted recruitment, especially of engineers in the post 9/11 environment. Actions are underway to recruit these resources during 2005/06.

NERL Manpower Plan

FTEs as at 31st March	2005	2006	2007	2008	2009	2010	2011	Change v. '05	2016	CP3 Change
ATCO	1399	1400	1430	1485	1489	1508	1539	140 10%	1581	43 3%
ATSA	840	860	906	889	686	652	647	-193 -23%	183	-464 -72%
Engineer	1094	1081	1048	976	908	862	823	-271 -25%	717	-106 -13%
MSG	512	501	507	461	448	432	425	-87 -17%	344	-81 -19%
PCG	195	222	217	209	196	194	194	-1 -1%	153	-41 -21%
Totals	4040	4064	4109	4019	3728	3649	3628		2978	
Increase / Decrease		1%	1%	-2%	-7%	-2%	-1%		-22%	in CP3

Note: Manpower numbers are based on NERL Trading Centres – i.e. are the “traded staff costs” inclusive of manpower “allocated” to NERL from NATS and NSL under the Management Services Agreement (MSA) and Inter-companies Services Agreement (ICSA), and vice versa. As a result, staff numbers (and movements in numbers) are not directly comparable with those set out in the May 2004 Plan.

To recap, the main changes through the period to the end of CP2 are:

- **ATCOs** – increase by c. 140 (10%) to ensure staffing is correctly sized to traffic demand, tempered by an increase in productivity through the introduction of iFACTS tools;
- **ATSAs** – reduce by c. 190 (23%) by the end of CP2, partly through efficiency measures (i.e. improving working practices, rostering and manpower planning) but primarily by introducing new technologies that automate current support functions;
- **ATCEs (including Scientists)** – despite the very challenging LTIP, engineering and scientist numbers are planned to reduce by c. 270 (25%)

- **Management & Support Group (MSGs)** – reduce by c.90 (17%)
- **Personal Contract Group (PCGs)** – remain roughly constant, reflecting the continued move of operational, engineering and support managers onto personal incentivised contracts.

The plan spans a major period of change for NERL's workforce during which everyone will need to contribute to delivering exemplary safety and service within a long-term cost envelope requiring year-on-year productivity improvement.

Strategic investment in new systems also implies significant changes in where people work and live - especially for those currently based at West Drayton, Gatwick and Manchester. This means both many staff relocating and also significant reductions in staff numbers – all of which will be handled through working together with the Trade Unions.

New pensions tax legislation effective from April 2006 will be discussed both with Trade Unions and Pension Trustees and an implementation strategy agreed.

All of this will put particular emphasis on people leadership throughout the Company which will be addressed through the work on the NATS Leadership model (a 'Destination').

LONGER-TERM ASSUMPTIONS – The indicative numbers at the end of CP3 mainly reflect ATCOs numbers remaining flat as productivity improves, ATSA numbers reducing substantially as technology automates much of the current ATSA task, Engineers continuing to reduce progressively with a common centre system and highly reliable systems, and other staff reducing roughly in proportion to total staff numbers.

9 Financials

9.1 Introduction

This section analyses the financial objectives and strategy of NERL for the next 11 years. Currently, the CAA is in the middle of its review of NERL's regulatory price controls for the next 5-year charge control period (CP2 – 2006 to 2010). Accordingly, the section which follows contains the Board approved plan for 2005/06 and the projected financial outcome which would arise under the CAA's initial price control proposals. As explained below, the CAA's initial proposals do not remunerate NERL's capital and operating expenditure plans in service of delivering capacity under high case traffic and service quality targets. NERL is therefore seeking a moderation of the CAA's initial proposals to remunerate these costs and generate adequate returns to shareholders with no goodwill impairment.

Specifically, the section which follows:

- explains the financial objectives and outcomes for the business;
- provides an analysis of performance by service line – i.e. UK en route and Oceanic en route;
- provides an analysis of the profit and loss account, capital investment, balance sheet and cashflows.

Consistent with the NATS Group, the results and financial position of NERL have been prepared under UK generally accepted accounting principles (UK GAAP) which apply for 2005/06, and therefore incorporate the impact on cost of accounting standard FRS17: Retirement Benefits. As a subsidiary in a group scheme, NERL proposes to account for pensions on a defined contribution basis as permitted by the standard.

It should also be noted that NERL's distributable reserves could be impacted by the implementation of international accounting standards. Financial covenants, however, are calculated on the basis of UK GAAP applying at March 2003.

All numbers are presented in outturn levels except where otherwise stated.

9.2 Financial Objectives

NERL'S KEY FINANCIAL OBJECTIVES are to:

- Meet the CP1 commitment to the cost savings target made as part of the Composite Solution in March 2003;
- Secure sufficient revenues in order to meet the company's obligations under the Licence;
- Ensure the delivery of these customer requirements in an efficient and economic way;
- Maintain the financial robustness of the company to guard against adverse events (e.g. economic, political, security);
- Provide an adequate level of financial return to its shareholders.

NERL'S STRATEGY to meet each of these objectives is to:

- Maintain the progress achieved towards delivering the CP1 cost savings target of at least £170m (relative to The Airline Group's plan), committed to as part of the Composite Solution. To the end of March 2005, the company will have achieved savings of circa £192m towards its external target of £170m and its internal target of £200m.

- Plan for a level of capital and operating expenditure which enables the company to deliver capacity at high case traffic levels and to meet its service quality targets with no penalties for delay. This is to be achieved through the delivery of the Long Term Investment Plan on time and to budget and by operating efficiently and economically.
- To secure sufficient allowed revenues to remunerate the company's capital and operating expenditure plans. At the time of drafting the plan, the allowed revenues indicated by the CAA in its initial proposal on NERL's charges for 2006 to 2010 (published 30 November 2004) do not fully remunerate the company's planned capital and operating expenditures. As a consequence, if NERL's charges were to be finalised on the basis described, the financial outcome would be a net loss after tax in CP2 with no distributions by NERL from the results of this period.

With no opportunity to reduce costs any further without significantly increasing the risk of impairing customer service and future capacity, the company's objective is to seek a moderation of the CAA's initial proposals on charges to achieve the minimum additional revenue requirement to generate adequate returns to shareholders with no goodwill impairment. The position will be closely monitored in 2005 as CAA's proposals develop after which the plan will be adjusted accordingly.

Additionally, the company is seeking to secure further revenues through a renewal of its contract with the MoD which is assumed to form part of the single till with UK ATS.

- Ensure that committed funding is available at a competitive price to meet its anticipated needs for the period covered by the Long Term Investment Plan. This will be achieved by maintaining a portfolio of debt diversified by source and maturity and ensuring that it has access to long-term funding to finance its long-term assets. When the CAA's formal proposals become known the company will review its existing capital structure and seek to optimise it to reflect the regulatory outcome. This process will include a review of the size and structure of the company's bank facilities which currently total £246.2m and mature in March 2008.
- Reduce gearing. The company's target is to reduce Net Debt:RAB from around 75% to around 60% by the end of CP2. In addition, the aim is to ensure sufficient liquidity (both cash and borrowing facilities) to withstand the impact on revenue of potential revenue shocks (e.g. arising from a 9/11-type incident).
- Generate returns for shareholders both in respect of equity and debt instruments that meet their requirements (e.g. seek to achieve shareholder returns set out at the time of the Composite Solution).

9.3 NERL Company Analysis

9.3.1 Profit & Loss Account

Currently, the CAA is in the middle of its review of NERL's regulatory price controls for the next 5-year charge period (CP2 – 2006 to 2010). Accordingly, the results below reflect the Board approved plan for 2005/06 and the projected financial outcome which would arise under the CAA's initial price control proposals. The CAA's initial proposals do not remunerate NERL's capital and operating expenditure plans in service of delivering capacity under high case traffic and service quality targets. NERL is therefore seeking a moderation of the CAA's initial proposals to remunerate these costs and generate adequate returns to shareholders with no goodwill impairment.

The table below summarises NERL's projected financial performance for the next 11 years.

NERL Profit & Loss	2004/05 £m	2005/06 £m	2006/07 £m	2007/08 £m	2008/09 £m	2009/10 £m	2010/11 £m	CP2 Total £m	2011/12 £m	2012/13 £m	2013/14 £m	2014/15 £m	2015/16 £m
Turnover	540	553	541	549	559	572	603	2824	681	702	723	745	757
Turnover growth		2.4%	-2.2%	1.5%	1.7%	2.3%	5.5%		13.0%	3.0%	3.0%	3.1%	1.6%
Operating Costs	(337)	(384)	(410)	(420)	(419)	(438)	(430)	(2,118)	(432)	(464)	(459)	(461)	(469)
EBITDA	203	169	131	129	139	133	173	706	250	238	264	285	288
EBITDA Margin (%)	37.6%	30.6%	24.3%	23.4%	24.9%	23.3%	28.7%	25.0%	36.6%	33.9%	36.6%	38.2%	38.0%
Depreciation	(81)	(59)	(71)	(81)	(96)	(97)	(96)	(441)	(97)	(110)	(122)	(124)	(124)
Goodwill amortisation	(13)	(17)	(13)	(13)	(13)	(13)	(13)	(64)	(13)	(13)	(13)	(13)	(13)
	(94)	(76)	(84)	(94)	(109)	(110)	(109)	(505)	(110)	(123)	(134)	(136)	(136)
EBIT	109	93	47	35	31	24	64	200	140	114	130	148	152
EBIT Margin (%)	20.1%	16.9%	8.8%	6.3%	5.5%	4.2%	10.6%	7.1%	20.5%	16.3%	18.0%	19.9%	20.0%
Interest & Financing Fees	(46)	(43)	(48)	(53)	(54)	(55)	(55)	(266)	(53)	(49)	(45)	(41)	(37)
Profit Before Tax	63	50	(1)	(19)	(24)	(31)	9	(66)	87	65	85	107	114
Tax	(23)	(20)	(4)	4	3	5	(7)	3	(30)	(24)	(30)	(36)	(38)
Profit after tax	40	30	(5)	(15)	(21)	(26)	2	(64)	57	42	56	71	76

Source: 050330_NATS v1320.xls

NERL's financial performance assumes a level of capital and operating expenditure required to deliver high case capacity and service quality targets. Revenues reflect the allowed revenues indicated by CAA in its initial charge control proposals for CP2 (as understood and modelled by NATS) and assume a continuation of this charge control structure for CP3.

Key points to note are:

CP1:

- Revenues are based on existing charge control conditions (see 9.3.3 below).
- Operating costs – the operating cost plan assumes that the company will achieve its internal savings target of £200m, which exceeds the commitment made at the time of the Composite Solution by £30m. Operating costs including depreciation and amortisation of £431m in 2004/05 are planned to increase to £460m in 2005/06 and reflect increases in pay and pension costs and the mobilisation of engineering resources in service of the LTIP.
- Profit before tax – after interest charges the company plans to generate a profit before taxation of £50million in 2005/06.

CP2:

- Revenues reflect the CAA's initial price proposals published in November 2004 (see 9.3.3 below).
- Operating costs – planned operating costs before depreciation and amortisation charges have reduced by £106m to £2,118m across CP2 from the level reported in NERL's 2004 Business Plan (of £2,224m). Operating costs include the costs of rationalising the number of ATC centres from four to two (plus contingency) and the closure of Spectrum House within the plan period. The underlying operating cost base through CP2 now shows real unit operating efficiencies of circa 2% per annum on average, calculated using CAA's methodology which reflects economies of scale. This is in addition to reductions of 5.5% per annum planned for in CP1 and which are being achieved through improvements to staff productivity and non-staff cost efficiencies.
- Profits before tax – unless the CAA's initial proposals are moderated and assuming that the company commits to its capital and operating cost expenditure in service of capacity to meet high case traffic and service quality targets, the outcome across CP2 will be a net loss before tax of £66m after interest charges.
- Minimum additional revenue requirement – for the reasons noted above the company will be seeking moderation by the CAA to the level of allowed revenues indicated in its initial proposals.

CP3:

- Revenues - these are indicative and based on extrapolated charge control conditions proposed by the CAA for CP2 and applying NERL's capital expenditure and cost plan. NERL's allowed revenues under these assumptions increase in CP3 as allowance is made for capital expenditure incurred in CP2 but not allowed for in the CP2 charge control proposals (see 9.3.3 below).
- Operating costs – manpower plans and non-staff costs have generally been extrapolated from CP2. Operating costs increase as NERL enters a new phase of its investment cycle.
- Profit before tax – profit improvement reflects the higher assumed revenue allowance in CP3 and ongoing cost efficiencies.

9.3.2 Service Line Analysis

Projected 11-year financial performance of Service Lines is summarised below:

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	Total CP2	2011/12	2012/13	2013/14	2014/15	2015/16
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Total Eurocontrol, London Approach, MoD and North Sea Helis:													
Revenues	520	532	519	527	536	548	579	2,709	658	680	702	725	738
Costs	(320)	(366)	(390)	(401)	(400)	(419)	(411)	(2,021)	(413)	(446)	(440)	(443)	(452)
EBITDA	200	166	129	126	136	129	168	687	245	234	261	282	286
Oceanic:													
Revenues	20	21	22	22	23	23	24	115	23	22	21	20	19
Costs	(17)	(18)	(20)	(19)	(20)	(19)	(19)	(97)	(19)	(19)	(18)	(18)	(17)
EBITDA	3	3	2	3	3	5	5	18	4	4	3	3	2
Total NERL													
Revenues	540	553	541	549	559	572	603	2,824	681	702	723	745	757
Costs	(337)	(384)	(410)	(420)	(419)	(438)	(430)	(2,118)	(432)	(464)	(459)	(461)	(469)
EBITDA	203	169	131	129	139	133	173	706	250	238	264	285	288

Source: 050330_NATS v1320.xls

9.3.3 Revenues

Revenues grow by £63m between 2004/05 and 2010/11 generated by traffic growth in the En-route and Oceanic businesses, offset by reductions in charges assumed to apply from 2006 onwards, and increases in line with inflation for other services. The principal components of turnover are analysed in more detail below.

En-Route. En-route income accounts for about 85% of total NERL income. The en-route business is subject to economic regulation by the CAA. The charging mechanism and the price control operate on a calendar year basis. The current en route price control expires at the end of 2005 and a new price control will be set for 2006 to 2010. The CAA is currently in the process of determining this new price control. The figures in this Business Plan are based on the CAA's initial proposals set out in its November 2004 Consultation Paper. CP3 charges are based on the cost base for the period and allowance for capital expenditure not remunerated in CP2 under the CAA's initial proposals.

	2004/05 £m	2005/06 £m	2006/07 £m	2007/08 £m	2008/09 £m	2009/10 £m	2010/11 £m	2011/12 £m	2012/13 £m	2013/14 £m	2014/15 £m	2015/16 £m
UK unit rate income (£m)	454.0	468.9	459.9	466.4	473.8	484.1	513.0	590.5	611.1	631.7	653.4	665.0
Increase due to CSUs (£m)		18.8	12.9	9.4	13.4	17.5	18.6	21.2	21.1	20.6	20.9	21.4
Increase/(Decrease) due to rate (£m)		-4.0	-21.9	-2.9	-6.0	-7.2	10.3	56.3	-0.5	0.0	0.9	-9.8
Financial year CSUs (000's)	9395	9787	10071	10279	10578	10975	11389	11813	12235	12647	13064	13498
% increase in CSUs	6%	4%	3%	2%	3%	4%	4%	4%	4%	3%	3%	3%
Unit rate - financial year - £ *	48.33	47.90	45.66	45.38	44.79	44.11	45.04	49.99	49.95	49.95	50.02	49.27
Memo items:												
Calendar years	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Calendar years CSUs (000's)	9320	9678	10015	10198	10504	10876	11293	11717	12142	12553	12969	13389
Unit rate charged - Calendar year - £ *	50.36	48.47	45.70	45.49	44.96	44.27	43.55	50.00	49.95	49.94	49.99	50.11
Change in Real Prices			-8.1%	-2.8%	-3.7%	-4.0%	-4.0%	11.9%	-2.6%	-2.6%	-2.4%	-2.3%
* rates after CP1 are indicative												
Source: 050330_NATS v1320.xls												

Note: UK Unit Rate Income excludes London Approach. The rate charged to customers for the London Approach service is derived on an RPI -1% basis applied to the expected landed tonnage for London airports.

North Sea Helicopters. Income is based on a flat rate charge per round trip, adjusted for differences between actual and forecast traffic volumes and a charge for an 8% real return (pre-tax) on capital employed. Revenues are forecast to increase slightly over the plan period reflecting additional capital investment required. The forecast annual number of flights remains broadly constant over the plan period.

MOD Service. Revenues for the year ending 31 March 2005 are forecast at £45million. Revenues for 2005/06 are planned in line with the existing contract. The existing contract expires in July 2006 and is currently subject to re-negotiation. Revenues for 2006/07 onwards are based on a proposal put forward by NERL for the extension of the service for 15 years, which reduces the current contract price with an annual escalation at RPI.

Oceanic. As with the en-route business above, the Oceanic business is subject to economic regulation by the CAA. The charging mechanism and the price control operate on a financial year basis. The current Oceanic price control expires at the end of 2005/06 and a new price control will apply for 2006/07 to 2010/11. As the CAA is currently in the process of determining this new price control the Business Plan revenues are based on the CAA's initial proposals. CP3 charges are based on the cost base for the period and allowance for capital expenditure not remunerated in CP2 under the CAA's initial proposals.

	2004/05 £m	2005/06 £m	2006/07 £m	2007/08 £m	2008/09 £m	2009/10 £m	2010/11 £m	2011/12 £m	2012/13 £m	2013/14 £m	2014/15 £m	2015/16 £m
Oceanic unit rate income (£m)	20.2	21.2	21.9	22.4	22.9	23.5	24.0	23.5	22.3	21.5	20.5	19.5
Increase due to Traffic (£m)		0.7	0.9	0.8	0.9	0.8	0.9	0.9	0.6	0.8	0.6	0.5
Increase/(Decrease) due to rate (£m)		0.2	-0.1	-0.4	-0.3	-0.3	-0.3	-1.4	-1.7	-1.7	-1.6	-1.5
Traffic (000s)	363	375	391	406	422	437	454	471	484	503	518	532
% increase in Traffic	6%	3%	4%	4%	4%	4%	4%	4%	3%	4%	3%	3%
Unit rate charged - financial year - £ *	55.77	56.44	56.12	55.22	54.39	53.63	52.88	49.80	46.12	42.70	39.54	36.62
Forecast Z Factor **		3.8%	4.0%	4.0%	4.0%	4.0%	8.4%	10.0%	10.0%	10.0%	10.0%	3.0%
* rates after CP1 are indicative												
** the Change in Real Prices can be approximated by placing a "*" sign in front of the Forecast Z Factor												
Source: 050330_NATS v1320.xls												

Note: Oceanic Domestic Unit Rate Income excludes income from height monitoring activities.

9.3.4 Operating Costs

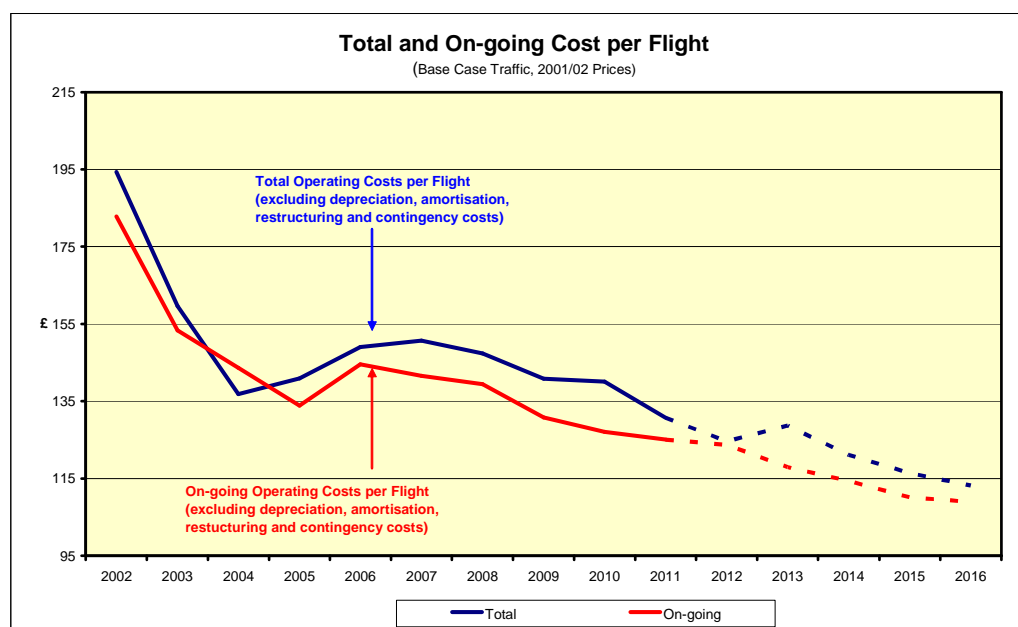
DIRECT OPERATING COSTS

During CP1, operating cost savings were necessary to conserve cash in order to mitigate the significant revenue losses from 9/11, from the subsequent Iraq War and from SARS. The company set itself an internal target for cost savings through CP1 of £200million, which exceeded the commitment made at the time of the Composite Solution by £30m. This plan continues to ensure that this internal target is achieved.

For the CP2 period, planned operating costs before depreciation and amortisation charges have reduced by £106m to £2,118m from the level reported in NERL's 2004 Business Plan (of £2,224m). These cost reductions are principally a result of planned staff and non-staff cost efficiencies, productivity improvements, lower staff numbers and reduced levels of operating cost contingency. Reductions have to some extent been offset by planned increases in re-structuring costs and real increases in energy prices.

OPERATING COSTS PERFORMANCE

NERL's ability to improve productivity can be measured in terms of operating cost per flight. The figure below (shown in 2001/02 prices) illustrates actual and projected cost per flight in the period since PPP through to the end of CP3. Cost per flight is shown both including and excluding the significant one-off restructuring costs which are being incurred in the planning period. Overall, the underlying operating cost per flight is projected to reduce from £183 to £125 by the end of CP2 and further to £109 at the end of CP3. Cost per flight increases from £134 in 2004/05 to £145 at the end of 2005/06 as operating costs increase to ensure delivery of the capital programme following the significant cost reductions after 9/11 which were achieved by deferring capital projects, such as the new Prestwick Centre, and hence related engineering operating costs.



Other measures of cost efficiency improvement can be derived by stripping out the effects of volume growth and calculating how quickly the cost that NERL incurs for a given level of traffic fall over time. Using methodology consistent with that published by the CAA in its initial proposals, the improvement in NERL's real unit operating expenditure is projected at 5.5% p.a. for CP1 and 2% p.a. for CP2.

SERVICE LINE OPERATING COSTS

Total operating costs by service line are summarised in the table below:

	2004/05 £m	2005/06 £m	2006/07 £m	2007/08 £m	2008/09 £m	2009/10 £m	2010/11 £m	Total CP2 £m	2011/12 £m	2012/13 £m	2013/14 £m	2014/15 £m	2015/16 £m
Total Eurocontrol, London Approach, MoD and North Sea Helis:													
Staff costs	220	247	269	290	287	278	293	1,418	302	304	307	307	314
Non-staff costs	100	119	121	111	112	142	118	604	111	142	133	135	138
Direct Operating Costs	320	366	390	401	400	419	411	2,021	413	446	440	443	452
Depreciation	80	58	69	79	94	95	94	431	94	107	119	122	122
Amortisation	13	17	13	13	13	13	13	64	13	13	13	13	13
Total Operating Costs	413	441	473	493	506	527	518	2,516	520	566	572	577	587
Oceanic:													
Staff costs	13	13	15	14	15	14	14	72	14	14	13	13	12
Non-staff costs	5	5	5	5	5	5	5	25	5	5	5	5	5
Direct Operating Costs	17	18	20	19	20	19	19	97	19	19	18	18	17
Depreciation	1	1	1	2	2	2	2	10	3	3	3	2	1
Amortisation	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Operating Costs	19	19	21	21	22	21	21	107	22	22	21	20	18
Total NERL													
Direct Operating Costs	337	384	410	420	419	438	430	2,118	432	464	459	461	469
Depreciation	81	59	71	81	96	97	96	441	97	110	122	124	124
Amortisation	13	17	13	13	13	13	13	64	13	13	13	13	13
Total Operating Costs	432	460	494	515	528	548	539	2,623	542	588	593	597	605

Source: 050330_NATS v1320.xls

9.3.5 Others

Depreciation and Amortisation. Depreciation charges have been updated since last year's plan to reflect the re-profiling of the LTIP and to reflect assets lives in line with revised operational dates. Depreciation charges reduce in 2005/06 as certain Swanwick-related assets become fully depreciated. Depreciation charges rise steadily across CP2 and CP3 as assets created under the investment programme become operational. The goodwill intangible asset is amortised on a straight-line basis over the 30-year term of NERL's licence. An impairment charge will be necessary if CAA's initial proposals remain unchanged.

Interest. The cost of debt service reflects the financing structure established under the Composite Solution and the subsequent bond re-financing. Interest payable over the plan period reflects drawings made in CP2 under loan facilities to finance the investment programme.

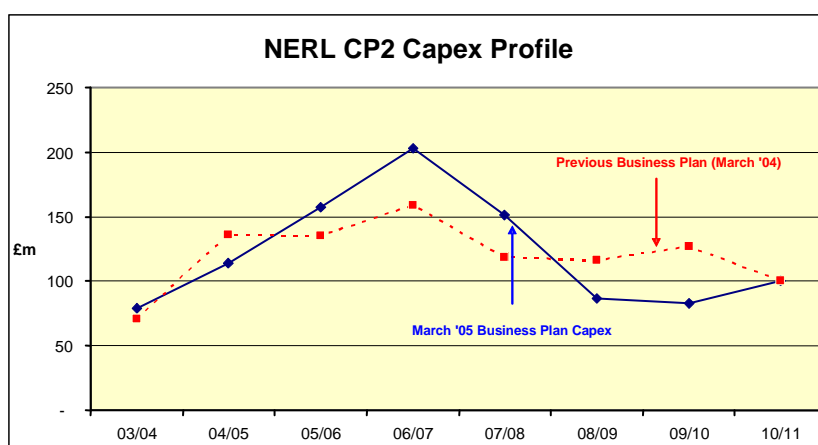
Tax. The tax charge is calculated at a NATS Group level and assumes advantage is taken of group relief provisions. The plan assumes a tax rate of 30% over the period and that deferred tax arises on all timing differences on a full provision basis.

9.3.6 Capital Investment

For further detail, reference should also be made to the capital investment plan proposals set out in NERL's Service and Investment Plan (SIP).

Capital expenditure for 2005/06 is planned to increase by £43m from 2004/05, reflecting expenditure on the future centres programme.

Overall, CP2 capital expenditure remains consistent with the 2004 Plan at £623m, being based on demanding delivery dates in order to satisfy customer requirements for capacity to match high case demand. Some adjustments to key project milestones have been made in order to optimise the overall programme and resources, and to de-risk key programmes.



A summary of expenditure by key programme is as follows:

Outturn Prices £m	CP1		CP2					Total CP2
	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	
Future Centres Programme	28	59	92	80	50	46	58	326
NAS Upgrade	6	4	3	-	-	-	-	3
Swanwick System Development	5	1	1	0	0	-	-	1
iFACTS at Swanwick	4	5	10	9	-	-	-	18
Radar Replacement Programme	20	16	26	14	11	10	5	67
Oceanic SAATS	6	4	0	-	-	-	-	0
PDS for Swanwick	7	5	7	8	3	1	1	20
VCS Programms	-	4	10	17	6	6	6	45
Da Vinci	4	5	6	-	-	-	-	6
Ground Nav aids Programme	-	-	0	0	1	2	1	5
NATS Corporate (e.g Accomm. Strategy & IT)	18	20	14	0	1	1	0	16
Other Capex	16	32	35	23	15	16	29	117
Total NERL Capex in this year's plan	114	157	203	151	86	83	100	623

Capital expenditure of £452m has been assumed in the plan for CP3. The LTIP involves the almost complete renewal of NATS' air traffic management (ATM) systems infrastructure in the period through to around 2013 and beyond this capital expenditure is projected to include the on-going development of the jointly developed SACTA en-route system to meet the increasing needs of our customers. Also included in CP3 is the completion of the upgrade to NERL's radar and communications infrastructure, the upgrade of Terminal Control for new centre systems and tools, sustainment of the NAS system through to its end of life in 2012/13 and investment in corporate business systems.

9.3.7 Balance Sheet

The table below shows the projected 11-year balance sheets for NERL:

NERL Balance Sheet	2004/05 £m	2005/06 £m	2006/07 £m	2007/08 £m	2008/09 £m	2009/10 £m	2010/11 £m	2011/12 £m	2012/13 £m	2013/14 £m	2014/15 £m	2015/16 £m
Fixed assets												
Tangible assets	504	603	735	803	794	779	783	795	768	731	693	658
Intangible assets	338	321	308	295	283	270	257	244	231	218	205	193
	842	924	1,043	1,098	1,076	1,049	1,040	1,039	999	949	899	851
Current assets (excl. cash)	74	79	78	79	80	82	87	98	101	104	107	109
Total Assets	916	1,003	1,121	1,177	1,156	1,131	1,127	1,137	1,100	1,053	1,006	960
Current liabilities	(82)	(81)	(59)	(55)	(70)	(59)	(68)	(86)	(106)	(122)	(138)	(150)
Net current assets / (liabilities)	(8)	(1)	19	24	10	23	18	12	(5)	(18)	(31)	(40)
Total Assets less current liabilities	834	922	1,062	1,122	1,086	1,072	1,058	1,051	994	931	868	810
Long term liabilities	(104)	(125)	(143)	(151)	(157)	(166)	(177)	(195)	(193)	(186)	(178)	(169)
Net assets	730	797	919	971	929	907	881	856	801	745	690	641
Net debt	573	611	737	804	806	820	809	746	672	589	500	418
Capital & Reserves	156	186	182	167	123	87	71	110	129	156	191	223
Net funding	730	797	919	971	929	907	881	856	801	745	690	641

Source: 050330_NATS v1320.xls

Net debt rises from £573m in 2004/05 to a peak of £820m in 2009/10 before declining to £418m in 2015/16.

9.3.8 Cashflow and Financing

Short and Long Term Liquidity. The table below summarises NERL's projected cashflows over the 11-year period of the plan.

NERL Cashflows	2004/05 £m	2005/06 £m	2006/07 £m	2007/08 £m	2008/09 £m	2009/10 £m	2010/11 £m	2011/12 £m	2012/13 £m	2013/14 £m	2014/15 £m	2015/16 £m
Net cashflows from operating activities	231	189	142	130	143	142	174	242	237	260	281	287
Taxation	(9)	(30)	(14)	3	3	5	0	0	(11)	(25)	(36)	(44)
Capital expenditure (net of disposals)	(100)	(154)	(206)	(147)	(94)	(83)	(98)	(108)	(86)	(84)	(86)	(88)
Cashflow before debt service and financing	122	6	(78)	(14)	52	65	76	134	141	150	159	155
Net interest and fees payable (incl. capitalised interest)	(38)	(37)	(43)	(48)	(48)	(48)	(48)	(46)	(43)	(37)	(33)	(29)
Funding Reserve Movements	1	(1)	(3)	(1)	0	(0)	1	(13)	2	2	0	1
Net facility drawdowns/repayments	(50)	0	113	64	(24)	8	(16)	(52)	(81)	(91)	(54)	(31)
Cash flow before returns to shareholders	35	(32)	(10)	1	(19)	24	13	24	20	24	72	96

Source: 050330_NATS v1320.xls

Cash flow before debt service and financing is positive throughout the period with the exception of 2006/07 and 2007/08 where capital expenditure peaks. However, including financing there is a net cash outflow in 2005/06, 2006/07 and 2008/09.

Risk Management

The “base case” plan is a set of intentions / assumptions on key actions, which in some instances have an inherent and significant degree of uncertainty and risk, which it is important that stakeholders recognise.

Risk management is a central part of NATS’ strategic management and has been used to develop this business plan. It is considered essential in minimising the threat that an event or action will adversely affect the Company’s ability to execute its strategies effectively and achieve its objectives. Successful risk management, therefore, allows NATS to be better able to deliver service to its customers and to meet the needs and expectations of its shareholders, in a fast changing and dynamic environment.

Various initiatives are in hand to ensure the NATS’ business risk management process is appropriately linked both top-down and bottom-up. In particular, “top level risks” are monitored and reviewed regularly by the Board and the Group Executive throughout the life of the Business Plan.