



**UK Performance Plan for Air Navigation Services  
1 January 2012 – 31 December 2014**

**CAA Consultation  
March 2011**

**NATS  
CONSULTATION RESPONSE**

**May 2011**

**UK PERFORMANCE PLAN FOR AIR NAVIGATION SERVICES 1 JANUARY  
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**NATS CONSULTATION RESPONSE**

**INTRODUCTION**

NATS welcomes the opportunity to comment on the draft UK National Performance Plan (“NPP”), required under the EU Single European Sky Performance Scheme. The targets for capacity and cost efficiency on NATS En Route Ltd (“NERL”) set in Control Period 3 (“CP3”) form a significant part of the UK-wide targets set out in the NPP. In addition, the further performance measures, particularly in respect of safety and terminal services at airports, which will be monitored during the period of the NPP, involve both NERL and NATS Services Ltd (“NSL”).

This document is structured according to the CAA’s consultation questions:

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## CAA Question 1

**Do you think that the general approach and level of ambition in scope and targets in the draft NPP is right?**

Yes. As the CAA states, NERL's contribution to the UK targets in the NPP in respect of cost efficiency and capacity are taken from the CAA's CP3 decision. Given the magnitude of consultation with customers over the 2.5 year CP3 review, NATS supports this approach. The process by which targets were set in the CP3 review was thorough and comprehensive. As part of the target-setting process, the CAA undertook detailed scrutiny of NERL's historic and projected costs and performance, helped by independent expert studies it commissioned into NERL's comparative efficiency. There was also extensive engagement with, and consultation of, stakeholders through Customer Consultation, which was a process mandated by the CAA during 2009.

While the process started before the detail of the SES Performance Scheme was known (due to the fact that CP3 started one year earlier than the first SES Reference Period), the later stages of the CP3 review took account of the emerging SES Performance Regulation, the accompanying revised Charging Regulation as well as the detailed metrics and developing EU targets.

Four further points are worthy of note:

- First, as the CAA made clear in its formal proposals for CP3<sup>1</sup>, the targets are designed to take account of the Better Regulation principles of proportionality, transparency and well targeted regulation, *"so as to set the right level of challenge for the company over the next four years, consistent with a safe operation and with avoiding disproportionate risk to the vital service that NERL provides."* In particular the CAA made clear that the price control/cost efficiency target *"represents the maximum pressure which can be safely exerted on NERL during the period 2011-14, not least given the CAA's duty to maintain a high standard of safety in the provision of air traffic services and the importance of maintaining service quality."*

NATS believes that the result of this recent assessment still stands. The targets are stretching and NATS is now engaged in managing its business and delivering its services to achieve them – and, if possible, surpass them, in the light of the incentives that CP3 provides to do this, see below;

- Second, the delay targets on NERL in CP3, and reflected in the NPP, are significantly more challenging in CP3 than in CP2. In other words, the targets in CP3 do not represent "Business as Usual" but a step change. The capacity target of average delay per flight in CP2 (2005-2010) was 45 seconds per flight<sup>2</sup> (and in CP1 70-75 seconds /flight), whereas in CP3 the equivalent targets are 11.5-12.5 seconds/flight (setting aside the allowance for the period around the Olympic Games). These are challenging targets in the light of significant technological change

<sup>1</sup> NATS (En Route) plc price control: CAA's formal proposals for control period 3 (2011-2014): under Section 11 Transport Act 2000, issued October 2010.

<sup>2</sup> Weighted average delay per flight.

envisaged during the CP3 period (iFACTS, EFD, NCW<sup>3</sup>), as the targets makes no allowance for unexpected events and/or technical issues. Thus NERL is incentivised to manage these events without significant impact on service quality. For reference, the single technical incident experienced during the Electronic Flight Data implementation on 15 February 2011 already represents c.0.5 seconds per flight for 2011;

- Third, as regards costs, the CP2 determination implied a real reduction of c.2.5% per annum in NERL's underlying operating cost per service unit, measured by comparing the actual cost base and actual traffic volumes at the end of CP1 (in 2005/06) against the allowed cost base and assumed traffic levels for the last year of CP2 (2010/11)<sup>4</sup>. The equivalent target for CP3, comparing the actual cost base and actual traffic levels at the end of CP2, against the assumptions / allowances made by the CAA for the last year of CP3 (2014/15), is a c.3.0% p.a. reduction. The CP3 target represents a significant challenge, given the extent of savings already achieved by NERL since it was part-privatised – a c.30% reduction in the underlying cost base in real terms between 2001/02 and the end of CP2; and
- Fourth, NERL is strongly incentivised to deliver performance that exceeds both the capacity/delay and cost targets. Past experience clearly shows that such incentives drive the desired behaviours. For example in CP2, NERL delivered an outcome on delay which exceeded the target. Actual delay in CP2 was between c.3.5 seconds per flight and 23 seconds per flight (versus the target of 45 seconds per flight<sup>5</sup>). Cost outturn for CP2 was also better than the CAA's underlying operating cost assumption, predominately reflecting the actions taken by NERL to adjust its cost base in response to the economic downturn and the significant reduction in traffic volumes.

It is noteworthy that this financial incentive goes much further than is required under the Performance Regulation which does not mandate financial incentives for capacity targets.

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<sup>3</sup> iFACTS – Interim Future Area Control Tools Support; EFD –Electronic Flight Data; NCW – New Common Workstation.

<sup>4</sup> Underlying operating costs for UKATS, including the costs of providing intercompany services, plus any allowances made for operating cost contingency, divided by the number of service units, and presented in real terms.

<sup>5</sup> Delay values are given in terms of weighted average delay per flight.

## CAA Question 2

**Do you think that the draft NPP demonstrates consistency with the EU performance targets?**

The tests set out in the SES Performance Regulation for the European Commission's assessment of the NPPs are that the national targets should be *'consistent with'* and *'make an adequate contribution to'* the EU targets<sup>6</sup>. In addition, the European Commission's assessment will consider the interactions and trade-offs between the different targets, rather than being focused narrowly<sup>7</sup>. As the European Commission has made clear, notably in the decision on the targets<sup>8</sup>, national targets need not necessarily be the same as the EU targets.

NERL agrees with the reasoning set out by the CAA (mainly in Chapter 2) for the following reasons:

- i) As regards delays, we agree with the CAA's explanation (paragraphs 77 and 78). However, we suggest that the CAA explains further how the target on delay that is actionable by NERL (12.5 seconds per flight in 2014) relates to the CFMU reference value. The explanation is relatively straightforward (see paragraphs 149-150), but we consider it useful to stress first, that the NERL component is below (i.e. better than) the CFMU value; and second, that it is the NERL component to which the strong financial incentives apply;

- ii) Paragraph 78d needs some examples. We suggest the following text:

*"For example, NERL has made significant enhancements to its operational delivery capability to ensure that capacity is available to service demand, both via short term tactical arrangements and longer term strategic investments, including:*

*"Improvements made to network management and traffic prediction capabilities, notably by ensuring that the Tactical Operational Management System (TOMS) is better placed to predict short term traffic flows and potential congestion, and in a sufficiently timely manner to ensure appropriate action can be undertaken;*

*"Implementing targeted airspace developments to address airspace and route structures that would otherwise become a bottleneck (and thus generate delay) as forecast traffic demand becomes manifest; and*

*"Continual enhancements to service delivery operating procedures to ensure the ability to handle forecast traffic levels safely and effectively, including agreements with staff for overtime where appropriate."*

- iii) As regards costs, as explained (Summary paragraph 23; chapter 2 paragraph 108), the UK's determined unit rate ("DUR") is significantly affected by two exceptional factors outside of UK's and NERL's control. First, the increase in pension costs (this is due to falling returns, lower discount rates, greater longevity and legal requirements to action deficits);

<sup>6</sup> See, for example, Article 13.1 of Regulation 691/2010.

<sup>7</sup> See recital 11 to the Commission's Decision on EU targets, 2011/121/EU.

<sup>8</sup> See recital 10 to the Commission's Decision on EU targets, 2011/121/EU.

and second, the unprecedented downturn in traffic which has been both longer and more severe than in other larger EU Member States. If the DUR is normalised for these factors, the UK's DUR is consistent with comparator States. Nevertheless, even the UK's unadjusted DUR declines by 5% in real terms over RP1, thus contributing to the overall EU target.

NERL will continue to seek out further cost efficiencies, as it is incentivised to do so. It has a strong past track record of cost reduction, notably through the steps it has taken to close and rationalise the number of operational centres, as well as reducing underlying operating expenditure, which has declined by nearly 30% in real terms between 2001/02 and 2010/11. NATS has also taken steps to limit future pension costs by capping future pensionable pay increases and closing its defined benefit scheme to new entrants from 1 April 2009. Further cost reductions will continue through CP3/RP1, primarily through a continuing reduction in headcount from c.3,970 full time equivalents ("FTE") at end of 2008/09 to c.3,250 FTEs by the end of RP1 – enabled primarily by operational support efficiencies and efficiencies in non-operational areas.

Looking further ahead, NERL is planning for further efficiencies in RP2, including reductions enabled by current and future investments. The efficiencies set out in paragraph 178 of the NPP match NERL's best estimate. As a result, as the NPP states, NERL's current expectation is the average unit rate in RP2 will be c.15% lower in real terms than the average unit rate in RP1;

- iv) The strong incentives (described above) for performance to surpass the levels set by the targets are also very relevant to consistency with the EU targets; and
- v) Lastly, NATS believes firmly it is in the interest of its customers that the company is: i) financially robust; ii) able to finance itself at competitive rates; iii) able to invest to continue to deliver high quality services; and iv) equipped with the skills and resources to adapt to changing circumstances with no significant impact on service quality. NATS further believes that such operational resilience is beneficial for customers since increased delay and/or flight inefficiency caused by constrained and inflexible NATS operations will have very significant impact on our customers' operational costs. For example, Eurocontrol estimate that ATFM delays longer than 15 minutes cost on average €83/minute (2009 prices).

## CAA Question 3

**Do you consider that the inclusion of the additional six UK specific safety PIs (S4-S9) will contribute to overall safety performance of ANS in the UK?**

Safety is NATS' top priority. NATS has a strong safety record, as evidenced by the reduction in the SSE<sup>9</sup> risk index by over 35% in the last 2 years of CP2, which we are always striving to improve. To do this we already monitor and measure performance against a number of metrics, working closely with the CAA, as the UK's safety regulator.

NATS agrees that these six metrics, which are already used in the UK, are a useful addition to the metrics that will be set at EU level (S1 – S3). Inclusion of these metrics in the NPP will give greater visibility of the metrics used in the UK and establish a track record of performance in the public domain. However, improvement at EU level requires EU-level agreement on metrics that are robust and measure factors which are under an ANSP's control. We look forward to learning more about S1 to S3 so that NATS can plan for their introduction.

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<sup>9</sup> Significant Safety Event – a measure used by NATS covering loss of separation, controlled airspace infringement, runway incursions and loss of ATC control.

## CAA Question 4

**Are there any components/aspects of the draft NPP that require more explanation?**

We suggest the following:

### 1) Traffic forecasts

As stated in paragraph 13, STATFOR forecasts shown in figure 5 on page 16 are lower than the NERL forecasts reviewed and adopted by the CAA for CP3 (and RP1). STATFOR forecasts for the UK have historically tended to be lower than NERL forecasts due to methodological differences<sup>10</sup>. Over the duration of a control period (3-5 years) in non-recessionary circumstances NERL forecasts have tended to be more accurate. This is illustrated in the table below showing the difference between actual traffic and forecast traffic for different time horizons.

**Table: Comparison of NATS and STATFOR traffic forecasts**

Average Accuracy (Forecast produced in 2002 to 2007)								
	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8
<b>STATFOR</b>	0.1%	0.7%	3.4%	7.6%	8.9%	11.2%	16.2%	24.0%
<b>NATS</b>	0.1%	1.3%	1.9%	4.5%	4.8%	4.8%	8.8%	15.5%

Note: The smaller the percentage difference, the more accurate the forecast.

### 2) Investments

Paragraphs 179-187 provide a good overview of NERL's investment plan with references to its alignment with SESAR. However, a stronger reference to the benefits and the links to ATM Master Plan Operational Improvement steps seems warranted in paragraph 187. NERL processes ensure, in the investment planning phase, that benefits are evaluated and clearly articulated and that the relevance of projects to the European context is established. Paragraph 187 could bring this out more explicitly and draw attention to the extensive detail available in this regard from the examples provided on page 56 of the NPP.

### 3) Flight efficiency metric

We suggest that paragraph 73 is expanded to give a fuller picture of what NATS is doing to reduce its environmental impact, especially as regards emissions, of its operators. Suggested draft:

*"In addition to NATS being a key party to the FAS and FAB initiatives above, it is being proactive in seeking to reduce emissions per flight. In 2008 NATS became the first ANSP to set a target for reducing ATM carbon emissions. The target is to reduce CO<sub>2</sub> emissions due to ATM by 10 per cent per flight by March 2020 against*

<sup>10</sup> For example, the STATFOR modelling does not re-allocate passenger demand that cannot be accommodated at capacity constrained airports. This is a significant phenomenon at London airports. It also does not dynamically adjust route networks and aircraft sizes in response to passenger demand growth. These features have the effect of lowering flight and SU forecasts in the medium-term.

*a 2006 baseline. To meet this target NATS is working with airlines to develop better routings and trajectories and to better use and design airspace, apply new technology and ATM tools to deliver optimum flight profiles to yield greater efficiency. NATS estimates that these initiatives enabled a reduction of 50,000 tonnes of CO<sub>2</sub> in 2010 (equivalent to c.£8m of fuel cost saving, based on fuel prices and exchange rates at January 2011, pre-Libya crisis)."*

*"Also in 2010, NATS, together with BA and BAA, tested the concept of a 'Perfect Flight'. This trial followed an optimized flight profile between Edinburgh and London Heathrow and proved potential savings of more than 10% compared to usual emissions, amounting to some 0.35 tonnes of fuel from gate to gate. NATS is working on making such reductions a day to day occurrence in the network, though achieving this requires actions by all parties, not NATS alone."*

#### **4) Airports PIs**

NATS has a number of concerns regarding the capacity PIs C5 to C7 to be used during RP1 for monitoring terminal/airport capacity performance. First, we note that these have yet to be fully defined. Through our involvement in the PRC's ATMAP group we understand that it is unlikely that any definitions will be finalised by June. Second, based on the draft definitions proposed and discussed so far by the ATMAP group, we are concerned that the KPIs for RP1 will not form appropriate measures of ANS performance at airports because they do not adequately account for factors that are outside the control of ANSPs. Rather, they represent measures of overall airport system performance – which results from actions of a wide range of entities, e.g. airport operator, ground handlers, airline operators, ANSPs, etc. The complexity of the interactions between these entities need to be explicitly recognised and, if the KPIs are to be used for target setting in RP2, appropriately quantified and accounted for.

## CAA Question 5

**Are there any specific key performance areas/indicators you would like to see captured by the NPP in RP2?**

We note that Annex 1 to the SES Performance Regulation already lists a number of additional targets for RP2 for both en route and terminal ANS. NATS is not opposed to additional targets in RP2, in principle. However, it is important for the success and credibility of the Performance Scheme, that targets are set on the basis of robust metrics. Setting financially incentivised targets requires metrics which are much more robust than those used for general monitoring. In particular it is important that targets do not incentivise behaviours that unduly interact and, more generally, do not have unintended consequences. Underpinning any targets must be metrics which capture the right behaviours and are attributable to the entity being targeted. Note our answer to Q4 above in respect of the terminal/airport capacity KPIs currently under development. In general, clear simple targets are likely to be more effective than a myriad of less clear ones.

In setting future targets, NATS encourages the CAA to consult our customers carefully, to ensure that NERL's focus remains centred on maximising the benefit to customers from future improved performance. During the CP3 Customer Consultation, NERL and customers considered the trade offs implicit within NERL's operation (for example, which operational outcomes to prioritise through additional investment). NATS believes that the CAA should ask similar questions during the CP4 review.

NATS also welcomes the CAA's intention to ensure that the next control period for UK economic regulation (CP4) will be fully aligned with the SES RP2. NATS would support a timetable for CP4 that is fully aligned with the timetable for RP2 preparation, as outlined by the Performance Review Body. NATS believes this would be the most efficient in terms of resources of both NERL and other stakeholders. It would also help to ensure alignment on the substance including new and/or revised European level KPIs and targets.

## CAA Question 6

**Do you have any other comments on the draft NPP?**

We have no further comments.