

2 August 2011

Dear Sir/Madam,

Consultation on NATS (En Route) plc (NERL) flight efficiency performance regime

1. The purpose of this letter is to seek your views on NERL's proposals for introducing a flight efficiency metric and incentive regime into the Control Period 3 (CP3) price control from January 2012. The attachment to this letter sets out NERL's latest proposals.
2. The CAA is keen to hear stakeholders' views on NERL's proposals before we formally consult on any changes to NERL's licence later in the year. Please email your response to Barbara Perata-Smith barbara.peratasmith@caa.co.uk by **5 October 2011**¹.
3. To help inform stakeholder discussion, the CAA is hosting a stakeholder roundtable discussion on 5 September 2011. Please contact Barbara Perata-Smith at the email address above if you would like to attend this event.
4. The CAA expects to make responses to this consultation available on its website for other interested parties to read. Any confidential material should be clearly marked and included in a separate annex, which subject to further discussion with the author and the criteria the CAA has established for treating information as confidential, will not be published.
5. If you have any questions relating to this consultation please do not hesitate to contact me or Tim Griffiths (0207 453 6240 or tim.griffiths@caa.co.uk)

¹ Alternatively, they may be posted to Barbara Perata-Smith at Regulatory Policy Group, 4th Floor, CAA House, 45-49 Kingsway, London, WC2B 6TE.

Flight efficiency

6. Flight efficiency is commonly used to describe the difference between the actual flight trajectory and a measure of the optimum flight trajectory. Flight (in)efficiency is important as it impacts on flight time, fuel efficiency and consequently airline costs and CO₂ emissions.
7. In July 2010, NERL and BA, working with BAA, undertook a 'perfect' flight between Heathrow and Edinburgh, which followed an optimised flight profile. This flight demonstrated savings of more than 10% in normal CO₂ emissions and 0.35 tonnes of fuel². Taken across the network NERL estimates that a 10% reduction in CO₂ emissions could provide airlines with cost reductions of up to half a billion pounds.

Background on the CAA's position on the flight efficiency metric

8. In December 2010, CAA set out its decision on the NERL CP3 price control for the scope, structure and level of prices for the four years from 1 January 2011³. In this document the CAA acknowledged NERL's work on developing a robust flight efficiency metric. This extended the work by Eurocontrol to take into account vertical as well as horizontal flight efficiency. NERL termed the new metric the 3Di Score.
9. The CAA also noted that NERL had been proactive in setting fuel efficiency CO₂ targets for itself through the Operational Partnership Agreement⁴ and hoped during CP3 to reduce CO₂ by 4 percent. However, at that time, the CAA considered that there was insufficient time-series data to understand the causal relationships between flight efficiency, the planning and management effort put in by NERL and factors such as changing volumes and patterns of traffic. Therefore the CAA did not include a flight efficiency metric in the price control for the start of CP3. Instead, the CAA stated it would consider introducing a flight efficiency incentive as part of the service quality regime during CP3.
10. The CAA stated it would allocate up to 20 percent of the money at risk (£2.4m/4.8m bonus/penalty per annum) to the flight efficiency metric for bonuses and penalties depending on how robust it considers the flight efficiency term to be when it is introduced. If less than 20 percent of the overall money at risk was allocated to the flight efficiency metric, the CAA stated that it would reallocate the difference to the other metrics (i.e flight delay) on a pro-rata basis.
11. The CAA considered that the interests of users would be best furthered by limiting the scheme to 80 percent of the maximum penalties or bonuses that would otherwise apply for the first year. However, the CAA stated that should it decide in 2011 that a flight efficiency metric cannot safely be incentivised from 2012 it would then decide whether to reinstate the 20 percent allocated to flight efficiency to the other service quality metrics. In deciding whether it would reinstate this amount for the remainder of CP3, the CAA stated that it would consider whether NERL had

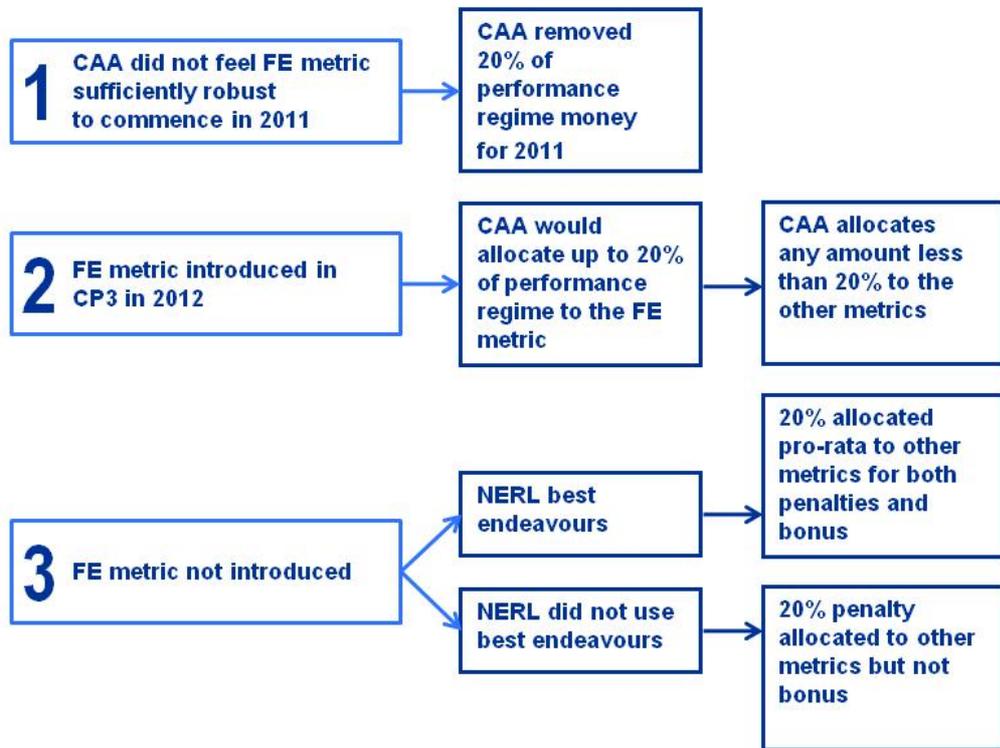
² <http://www.atc-network.com/News/37898/Flying-light-how-NATS-is-saving-thousands-of-tonnes-of-CO2-a-year>

³ NATS (En Route) plc price control: CAA decision for control period 3 (2011-2014): under Section 11 of Transport Act 2000, UK Civil Aviation Authority, December 2010

⁴ Arrangements by which NATS consults with its customers on operational issues

used its best endeavours to develop a robust metric⁵. Figure 1 summarises CAA's approach as set out in the CP3 decision.

Figure 1: CAA's approach to a flight efficiency (FE) incentive regime



Source: CAA

Note: In the absence of a flight efficiency metric the current wording of the price control assumes that the 20% penalty will be allocated to other metrics from 2012

NERL's process to date

12. NERL undertook much of the work on tracking candidate metrics and evaluation of alternatives prior to the CP3 decision. Subsequent to the decision NERL has focussed on improving its understanding of the new 3Di metric, the factors that affect the metric and the measures that NERL can undertake to improve performance. This has helped NERL develop proposals for the performance regime, in particular, the balance between the stability of the metric and level of financial incentive.
13. To improve the understanding of the metric and to help prepare for next the NERL price control, NERL and CAA would intend to carry out a review of the performance of the metric starting in 2013.

⁵ Licence Condition 21 did not allow for reinstatement of the bonus after 2011: however this was not intended to prejudge whether the bonus will be subsequently allocated to the other delay metrics and the CAA will introduce a licence modification if it decides to reinstate the bonus.

Questions CAA is keen on exploring with stakeholders

14. The CAA welcomes any views stakeholders consider relevant in developing and implementing a flight efficiency metric. It would especially welcome views in the following areas.

General

Do you consider that NERL has used best endeavours to develop a flight efficiency regime?

Do you agree that there should be a flight efficiency performance regime from the start of 2012 and that it should be based on the 3Di score score?

Par value and deadband

15. NERL proposes to set the par value at 25.5 units based on the average value of the 3Di metric between 2006 and 2010. NERL proposes that the deadband, where no payments would be made should be at 21 to 30 units. This would be symmetric around the par value and accounts for changes in traffic volume and unanticipated events in each of the preceding five years. It therefore limits the risk/opportunity of paying bonuses and penalties.

Do you agree with NERL's proposals for the par value and deadband? If not, on what basis should the par value and deadband be set?

Payment rates

16. NERL proposes a financial payment rate for both bonuses and penalties at £0.2 million per unit. NERL has estimated that 1 unit of the metric is equivalent to 110,000 tonnes of CO₂ and around £20 million of fuel based on 2010 data. NERL recognises that there is significant uncertainty in this estimate.
17. NERL's proposal includes the full capped payments at £2.4 million for bonuses and £4.8 million for penalties (20% of the available money at risk and the maximum proposed by CAA) at 2006 prices. If the money at risk on flight efficiency is reduced then this money would transfer pro-rata to the other performance metrics.

Do you agree that flight efficiency incentive rate should be set at £0.2 million per unit capped at 20% of available money at risk? If not, on what basis should payment rates be set?

Adjustments to the regime

18. NERL proposes that the metric should be adjusted for changes in the proportion of overflight traffic and that the 2.5 month period of the Olympics and Paralympics should be excluded.

Do you agree with the adjustments proposed by NERL? Are there any other adjustments that should be made?

Annual Review of the metric

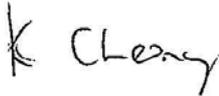
19. NERL has proposed an annual review of the metric to allow for removal of the bonus/penalty should the metric prove to be unstable during CP3. The threshold for the test would be a maximum error of the metric of approximately ± 1.5 3Di units.

Do you agree with the annual review process proposed and the threshold for the test?

Other forthcoming consultations

20. To put into effect the outcome of this consultation it will be necessary to propose, and consult on, a modification to NERL's licence. At the same time, the CAA intends to consult on some other issues which NERL has drawn to the CAA's attention, namely an amendment to a formula in the price control condition arising from an incorrect specification in the current licence and some technical corrections to appendix 3 (formulae for tracking the regulatory asset base) in the CAA's CP3 decision published in December 2010.

Yours sincerely



Ken Cheong
Head, Price Control Regulation

[attachment - NERL's proposal for a flight efficiency metric in CP3]