

Economic Regulation of NATS (En Route) plc: working paper on the review of the costs and benefits of space-based ADS-B in the North Atlantic

CAP2351

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Chapter 1

Introduction and Executive Summary

Introduction

1. In response to work undertaken by the International Civil Aviation Organisation (“ICAO”) to enhance safety standards in the North Atlantic Area (the “NAT”), in late 2019, NATS (En Route) plc (“NERL”) introduced space based automatic dependent surveillance (“SB ADS-B”) to provide more accurate and timely aircraft position information for flights crossing the North Atlantic. As part of the Final Decision on the RP3 price control for NERL, the CAA introduced a requirement into NERL’s licence for it to commission a review of SB ADS-B costs and benefits from an independent third party appointed by NERL. At present, the obligation is for NERL to commission this review by June 2022, unless the CAA agrees otherwise.
2. The purpose of this working paper is to provide an update on progress on our work on the review of the costs and benefits of SB ADS-B. It summarises the progress to date and identifies some early conclusions from the information gathered so far. It then proposes next steps in relation to NERL’s licence obligation to conduct the review.

Background

3. In its business plan for the current (“RP3”) price control, NERL proposed an allowance in its Oceanic charges for the recovery of the costs associated with providing SB ADS-B.¹ During the RP3 review, the CAA considered NERL’s financial impact assessment of the introduction of SB ADS-B, conducting its own simplified cost-benefit analysis based on a high-level view of the costs to users and a prudent view of the benefits that might be achieved.² This conservative view indicated that there would be advantages to introducing SB ADS-B. The CAA also noted the net benefits identified in ICAO’s SB ADS-B business case.
4. Given the scale of the service and its considerable impact on Oceanic charges in percentage terms the CAA proposed an independent review of the benefits of this service after two years, which could influence the regulatory allowance for this new Oceanic service in the final years of the price control.

¹ “Oceanic charges” are the charges imposed by NERL in relation to the air traffic management services it provides for North Atlantic flights

² See CAP1830, UK CAA RP3 Decision Document (www.caa.co.uk/CAP1830) at paragraph 11.8ff.

5. In its review of the RP3 price control, the Competition and Markets Authority (“CMA”):
 - agreed with most of the CAA’s approach to the Oceanic services, including its decision to fund the costs of SB ADS-B through NERL’s charges;
 - considered that the CAA should be clearer and more transparent about the methodology, conduct and consequences of the independent review that it would require NERL to conduct; and
 - encouraged us to consult on these matters before the end of 2020 and consider the impact of covid-19 on timing of the review.
6. NERL’s licence requires it to commission this independent review by no later than June 2022 unless the CAA agrees otherwise. However, the circumstances of the covid-19 pandemic mean that traffic in the NAT has been severely reduced since 2020 so that it no longer appears appropriate for NERL to commission the review this year. So, rather than the conduct of the review itself, our work now is focussed on determining the appropriate circumstances for conducting an effective the review, the matters that the review should consider, and who should conduct the review.
7. In December 2020, as part of our consultation on approach to new price controls, we set out the intention to consult stakeholders informally on certain key aspects of the review.³ We also sought views from stakeholders who attended an earlier workshop we had held on this subject⁴, receiving input from NERL, British Airways (“BA”) , IATA and Virgin Atlantic Airways (“VAA”).
8. This working paper sets out the context and progress to date, including a summary our early thinking and considers:
 - what circumstances and air traffic volumes would be necessary before a meaningful review can take place;
 - what metrics should be used to assess the cost and benefits of SB ADS-B; and
 - who should conduct the review.
9. In this light, this paper draws some early conclusions, asks for stakeholders’ views and sets out our next steps.

³ See CAP1994, Economic regulation of NATS En Route plc: Consultation on the approach to the next price control review: (www.caa.co.uk/cap1994).

⁴ The CAA held a workshop in January 2020 on potential metrics that would inform the review.

Summary of early conclusions

Conduct of the review

10. While airline stakeholders have suggested that the CAA should commission the review, this would not be consistent with that endorsed by the CMA or NERL's licence and we are not persuaded that this change is appropriate. However, we consider that the CAA should remain very close to the design of the review in order to help set expectations for the review and to monitor progress. This working paper forms part of this approach.
11. As for the third party that should conduct the review, it appears that a party with similar skills to the RP3 Independent Reviewer⁵ may be an appropriate.

Timing of the review

12. Given the ongoing uncertainty over the strength and speed of the recovery of flight numbers from the impact of the covid-19 pandemic, it is currently too early to conduct the review. We consider that annual traffic in the NAT may need to return to at least 80/90% of 2019 levels (and be sustained for a reasonable period) to provide meaningful data to support the review.
13. Clearly, this makes it difficult to be definite about when the review should take place, but the earliest the review can now reasonably begin would be during the NR23 price control period. As a result, we confirm that we do not require NERL to commission an independent review by June 2022, but will monitor the recovery of traffic as well as taking into account stakeholders' views before we settle a suitable time for the review.

Issues the review should look at

14. Significant work remains to design appropriate metrics. There may be some similarities between candidate metrics proposed by NERL and airlines, but these are not yet fully developed. There also remain important questions over how to weight metrics between such issues as (i) safety, (ii) costs and (iii) service quality as well as, between quantitative and qualitative measures. This also brings with it a challenge over the complexity of the review and whether it will be proportionate to the level of costs in question.
15. To ensure the review design and conduct can be managed in a timely and effective manner when the circumstances are appropriate, we consider there may be merit in appointing a third party at a relatively early stage to assist with the design and development of the review and associated metrics. We welcome

⁵ The Independent Reviewer is an independent party appointed by the CAA to review NERL's performance in relation to its engagement with stakeholders on its proposed capex for the preparation of its "Service and Investment Plans" for the purposes of Condition 10 of its licence.

stakeholders' views on this and whether a party with a similar skillset to the RP3 Independent Reviewer might fulfil this role.

Structure of this document

16. The structure of this working paper is as follows:
- chapter 2 sets out more on the context for this review, progress to date and our early internal thinking;
 - chapter 3 addresses the circumstances required for the review can take place, what metrics should be used; and who should conduct the review; and
 - Appendix A seeks to synthesise the candidate metrics suggested by stakeholders for further development and provides some initial views on them.

Views Invited and Next Steps

17. We welcome views on all the issues in this working paper and especially on:
- the geographic scope of the assessment, including whether the assessment should include metrics that reflect the success of the use of SB ADS-B in maintaining benefits enabled in another control area for aircraft entering the Shanwick area;
 - the appropriate period (or periods, including seasonal issues) for which data would need to be gathered in order to conduct the review; and
 - the potential performance metrics discussed in Appendix A.
18. In the light of stakeholders' feedback to this working paper, we will consider holding one or more workshops in order to develop these metrics further. We welcome stakeholders' views on this approach and their appetite for attending such workshops. We anticipate that these workshops would commence later in 2022.
19. Please e-mail responses to economicregulation@caa.co.uk by no later than 1st July 2022. We cannot commit to take into account representations received after this date.
20. We expect to publish the responses we receive on our website as soon as practicable after the period for representations expire. Any material that is regarded as confidential should be clearly marked as such and included in a separate annex.
21. Please note that we have powers and duties with respect to information under Schedule 9 of the Transport Act and the Freedom of Information Act 2000. If you would like to discuss any aspect of this document, please contact James Wynn-Evans (james.wynn-evans@caa.co.uk).