

Report of the CAA's Post Implementation Review of the London Airspace Management Programme (LAMP) Phase 1A Airspace Change Proposal – Modules A to E

CAP 1692

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Executive Summary

1. The CAA's airspace change process is a seven-stage mechanism that is set out in detail in CAP 725. Although the CAA introduced a new airspace change process (CAP 1616) on 2 January 2018 for making a decision whether or not to approve proposals to change airspace design, this Airspace Change Proposal (ACP) was fully implemented prior to the introduction of that document, and analysis on Post Implementation Review (PIR) data received by the Civil Aviation Authority (CAA) commenced prior to its introduction. This PIR has therefore been undertaken in accordance with CAP 725 and the Department for Transport's Guidance to the Civil Aviation Authority on Environmental Objectives Relating to the Exercise of its Air Navigation Functions (2014).
2. Under the CAP725 process, in February 2015, NATS submitted an ACP titled the London Airspace Management Programme (LAMP) Phase 1A proposal to the CAA, to propose changes to airspace in the south-east of England including proposals to change a number of arrival and departure procedures at a number of aerodromes. LAMP Phase 1A was a major airspace change designed to deliver modifications to airspace arrangements affecting a broad swathe of south-east England from Stansted to the Isle of Wight in order to provide, primarily, capacity and efficiency benefits.
3. The CAA decision made on 13 October 2015 to approve the changes was originally published on the CAA website in CAP1366 on 22 December 2015. Whilst the changes to flightpaths have been in operation since 4 February 2016, the final stage of the airspace change process - Stage 7 - is for a PIR to be conducted one year after implementation of an airspace change.
4. The sponsor provided PIR data to the CAA in June 2017; on 18 October 2017, the CAA commenced the PIR of the impact of its decision and the implemented change. The content and outcome of this review process by the CAA is discussed in detail in each of the respective LAMP Phase 1A Module PIR reports which are detailed in CAP 1692/A to CAP 1692/E.
5. As a result of our analysis, the CAA has concluded that the LAMP 1A PIR does show that the proposal has been implemented and operated as expected, although in four locations, there was some variance in London City traffic patterns compared with what was predicted in consultation on the departure and arrival routes. In addition, there was a considerable variance with the

overall fuel and CO₂ benefits as forecast by the sponsors which has resulted in less savings than were predicted.

6. The CAA confirms that no modification of the RNAV-1¹ arrival and departure designs are required by NATS except for some minor modifications to chart naming and data base coding changes which are detailed in Module B and C reports.
7. The CAA's airspace change process for the LAMP Phase 1A airspace change request dated 16 February 2015 has now concluded. However, we recommend that the sponsor:
 - 1) Investigate why there are some discrepancies with traffic patterns with some of the London City procedures and advise the CAA accordingly. These are detailed in Modules B and C.
 - 2) Investigate why the change proposal has not achieved the expected fuel and CO₂ benefits and advise the CAA accordingly.
8. This report, summarises the individual Module conclusions. All the information the CAA has taken into account is published on our website/interim portal.

¹ Performance-based navigation (of which RNAV-1 is a type) is satellite aviation guidance; in comparison to ground-based navigation aids (such as those used by conventional SIDs) performance based navigational technology will allow aircraft to fly much more accurate and flexible tracks. Satellite guidance will also allow the UK's complicated and busy airspace to be redesigned, increasing capacity and efficiency while maintaining or enhancing safety performance. A route structure optimised for satellite guidance with aircraft flying a pre-programmed trajectory will also reduce the need for tactical intervention by air traffic controllers to instruct pilots to change direction, bringing down the cost of air traffic control, and optimise the climb and departure profiles of aircraft (which is the most expeditious routing of aircraft so far as airlines are concerned, and which also burns the least fuel and overall causes the least noise).

Scope and Background of the PIR

What is a Post Implementation Review

9. The CAA's approach to decision-making in relation to proposals to approve changes to airspace is explained in its Guidance on the Application of the Airspace Change Process, CAP 725. This detailed Guidance provides that the seventh and last stage of the process is a review of the implementation of the decision, particularly from an operational perspective, known as a Post Implementation Review (PIR).
10. The Guidance states that the purpose of a PIR is to determine whether the anticipated impacts and benefits in the original proposal and published decision are as expected, and where there are differences, what steps (if any) are required to be taken.
11. If the impacts are not as predicted, the CAA will require the change sponsor to investigate why, and consider possible mitigations or modifications for impacts that vary from those which were anticipated to meet the terms of the original decision.
12. A PIR is therefore focused on the effects of a particular airspace change proposal. It is not a review of the decision on the airspace change proposal, and neither is it a re-run of the original decision process.

Background to our conclusions in this PIR Decision

13. On 13 October 2015, the CAA approved LAMP Phase 1A change proposals to change traffic patterns for Stansted and Luton Standard Instrument Departures (SIDs), London City arrival and departure routes, route network changes for London City, Gatwick, Farnborough, Southampton and Bournemouth; these changes involved a variety of changes which included RNAV-1 procedures for London City arrivals and departures and a number of new ATS routes providing connectivity to the route network in adjacent States' airspace. The changes for the London City network changes were proposed as Module C which is the subject of this report. In our Decision document dated 22 December 2015, we provided information and background to the change. We recommend readers of this report read that decision in conjunction with this document.

Conditions attached to the CAA's decision to approve the change

14. A number of conditions were placed on the sponsor as a result of our decision to implement the changes proposed in the LAMP Phase 1A ACP. These are detailed in each of the Module PIR reports together with the outcomes of those requirements.
15. Whilst one of the outcomes resulted in a NATMAC consultation to revise some of the lower limits of controlled airspace in the Thames Estuary area and the vicinity of the Kent coast, whilst more time was requested by some NATMAC members following NATMAC 80, no further feedback was received from NATMAC members. Therefore, the CAA has decided to re-examine this initiative once the outcome of the TAG Farnborough ACP is determined and will notify NATMAC members in due course.

Data collected for the purpose of the PIR

Sources of Information

16. Information was provided by the change sponsor as requested by the CAA; the evidence provided is published on the CAA website. Feedback from aircraft operators and airlines was also received and reviewed during the PIR process.
17. The CAA and change sponsor also received feedback from groups and residents much of which was directly related to the issues that the CAA required to be considered under the terms, scope and objective of this PIR. Groups and residents close to Stansted and London City airports raised complaints on aircraft noise and overflight, and concentration of the new RNAV-1 arrival and departure flight paths at London City.
18. All feedback is discussed in each of the PIR Module reports.