LONDON AIRSPACE MANAGEMENT PROGRAMME (LAMP) PHASE 1A

CAA DECISION: PART APPLICABLE TO EACH LAMP PHASE 1A MODULES A – E

(see also separate decision documents applicable only to each of Modules A – E)

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(see also separate decision documents applicable only to each of Modules A – E)

Purpose of this part of the CAA Decision

1. LAMP Phase 1A is a collection of Airspace Change Proposals (ACP) comprising a collection of five proposals concerning the structure of airspace over the south-east of the UK. Each proposal has come to be known as a Module, Module A – E.

2. Each proposal has been considered separately and our decision in respect of each of them is set out in this document (and in an individual decision document (Parts applicable to Modules A – E respectively only)).

3. The contents of this Part of the CAA's decision are expressly incorporated by reference into each of the Modules' decisions.

Summary of the decisions made

4. For the reasons set out in each Module's decision document the CAA has decided as follows:

   Module A – [Stansted SID Switch ACP Issue 2.1 dated April 2015]: this proposal switches traffic from the existing SID routing via Detling towards the south onto the route of another existing SID towards Clacton in the east. We have determined that the proposed design is safe and that, notwithstanding the re-distribution of some noise below 4000ft AMSL, there are significant benefits to be gained in the overall efficient use of airspace and a net reduction in CO_2. The proposal has been approved.

   Module B – [London City Replications ACP Issue 1 dated February 2015]: this proposal replicates the existing conventional SIDs with RNAV-1 replications, and proposals to replicate the existing radar vectored arrival flight paths with RNAV-1 arrival procedures. We have determined that the proposed design will deliver significant flight safety benefits and result in improved airspace efficiency that will contribute to a net overall reduction in CO_2. The proposal has been approved.

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Module C – [London City Network ACP Issue 2 dated March 2015]: this proposal comprises a number of changes mainly affecting the re-positioning of London City arrival procedures and two departure procedures to the south, changes to Southend arrival procedures, changes to Gatwick TIMBA arrival routes from the north-east and east, and lowering of controlled airspace in the Thames Estuary and a small portion of airspace over the eastern part of Kent. We have determined that the proposed design has significant flight safety and efficiency benefits that remove current hotspots and reduce the requirement for vectoring at low altitudes overland with the current risk of overload to the Thames Sector controllers. The environmental impacts have been identified and on balance the net benefits in terms of CO_2 outweigh the potential effects of concentration. The proposal submitted on 17 February 2015 has been approved. In addition, the further modification for additional controlled airspace over the sea subjected to consultation with aviation stakeholders on 2 April 2015 (Area F) has been approved.

Module D – [Luton/Northolt SID Switch ACP Issue 2.0 dated March 2015]: this proposal switches traffic from the existing SID routing via Detling towards the south onto the route of another existing SID (the MATCH SID) towards Clacton in the east. We have determined that the proposed design is safe and, having regard to the altitude-based priorities set out by the Secretary of State in regard to environmental issues, we are satisfied that the change will generate fuel and CO_2 savings while having minimal environmental impacts. The proposal has been approved.

Module E – [South Coast ACP Issue 2 dated March 2015]: this proposal changes the arrival route for Southampton and Bournemouth from the south-east, introduces changes to flight plannable routes for traffic arriving into Farnborough from the west, south-west and south-east, changes the flight plannable departure route for Bournemouth, Southampton and Farnborough departures to Europe via Dover above FL165, introduces 2 new air traffic services routes and lowering of controlled airspace over the Isle of Wight. We have determined that, notwithstanding some increases in controlled airspace and some re-routing of traffic that results in longer miles flown for a very small number of aircraft, the proposed design will deliver significant flight safety benefits and result in improved airspace efficiency that will contribute to a net overall reduction in CO_2. The proposal has been approved with one modification to the lower limits of controlled airspace over the Isle of Wight.

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Conditions attached to CAA's approvals in respect of each of the Modules

5. A number of conditions attach to the CAA's approval of each of the proposals in LAMP Phase 1A Modules A – E. These are set out in the relevant Module's decisions and collectively at Annex B.

6. A Post Implementation Review (PIR) will commence one year after implementation of the changes approved in these Modules. It is a condition of the CAA's approval of each of these proposals that the sponsor(s) of each Module provide data required by the CAA throughout the year following implementation to carry out that PIR. The sponsor(s) will be advised of the specific data sets and analysis required, and the dates by when this information must be provided, in due course. The PIR is the seventh stage of the CAA's airspace change proposal process (set out in CAP 725, the Guidance on the Application of the Airspace Change Process[1]) and will consider whether *"the anticipated impacts and benefits, set out in the Airspace Change Proposal, have actually been delivered"*. The policy states that if those impacts and benefits have not been delivered then the review should *"ascertain why and … determine the most appropriate course of action"*.[2] (See Annex A for more detail.)

Next steps

7. The revised airspace will become effective from 4 February 2016 (AIRAC 2/2016) which was promulgated in the UK AIP via a double AIRAC cycle. AIC Y076/2015 was also distributed on 26 November 2015 which promulgated details of the changes.

The CAA's role in airspace change decisions, the legal framework, the policy background and relevant UK international obligations

8. It is necessary to understand the CAA's role in airspace change decisions, the legal framework, the policy background and relevant UK international obligations in order to understand the decisions the CAA has taken.

9. This information is set out in Annex A.

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1 http://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=395.

2 There are therefore a wide range of possibilities for the conclusions of a PIR; they include a rejection of the proposal, the imposition of further requirements on the proposal, and the making of wider recommendations, albeit that the success of the proposal is not dependent upon them.

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The overriding aims and objectives of the LAMP Phase 1A Modules' airspace changes proposed and our decision with regard to those aims and objectives

10. In February 2015, National Air Traffic Services (NATS) submitted an Airspace Change Proposal (ACP) titled the London Airspace Management Programme (LAMP) Phase 1A proposal to the Civil Aviation Authority (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 airports. LAMP Phase 1A is 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. There are five individual elements (referred to as Modules) of the LAMP Phase 1A proposal.

11. The justifications presented by NATS for the LAMP Phase 1A proposals are that it will modernise airspace structure, improve the operational efficiency of the airspace providing capacity for the future, minimise future delay, improve the environmental performance of the airspace, reduce average CO_2 per flight and reduce the incidence of low level overflight of populated areas. It is acknowledged that of themselves, none of the Modules will increase the capacity of the airspace at this time but each of the Modules collectively contribute to a modernisation of the airspace that enables further systemisation, as and when further phases of airspace change are developed for the south-east of England and are put forward for consideration by the CAA.

12. NATS' stated aim for LAMP as a whole is to redesign the airspace network over the whole of London and the south-east. Initial plans were to consult on a complete package of network changes and 'swathes' and then follow this up with airport specific consultations prior to a phased implementation at single or groups of airports. However initial design work and programming issues meant that this plan was revised so that LAMP design and consultation was to be addressed in two main phases. The first centred around London City and Gatwick (referred to as LAMP Phase 1A) and the second around Luton, Stansted and Heathrow (referred to as Phase 2).

13. LAMP Phase 1A (the subject of these airspace change proposals) was progressed on this revised basis but almost all of changes (apart from one, high level arrival route to the TIMBA Hold) for Gatwick were subsequently removed from scope. It should be noted that it is still NATS' and the airports' intention to progress subsequent phases of LAMP to realise greater improvement in the future and meet European requirements to modernise the airspace system. However, as of the date of this decision, future plans have been suspended by NATS pending the outcome of a decision on a future runway at either Heathrow

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or Gatwick, and Department for Transport plans to revise the Air Navigation Guidance[3] to the CAA.

14. In recognition that progress towards a successful implementation of LAMP Phase 1A, taking into account the legal and policy context, would constitute progress towards the CAA's overall Future Airspace Strategy (FAS) policy objective it is a condition of NERL's Licence (Condition 10a) that "*the Licensee shall use reasonable endeavours to further implement the major air traffic management ("ATM") modernisation programmes set out in the UK FAS Deployment Plan of December 2012. These programmes are: the raising of the United Kingdom Transition Altitude ("TA"); the terminal airspace redesign under the London Airspace Modernisation Programme ("LAMP"); and the implementation of the* [Single European Sky Air Traffic Management Research (SESAR)*] Pilot Common Project.*"

15. In this part of the record of the CAA's decisions on Modules A – E of LAMP Phase 1A the CAA formally records that the aims and objectives of LAMP Phase 1A are objectives which it endorses and, subject to the terms of the regulatory and policy framework set out in Annexe A, the CAA will seek to approve changes to the UK airspace structure that meet the aims and objectives of LAMP.

Chronology and documents considered by the CAA in making its decision

16. The CAA held its Framework Briefing regarding LAMP Phase 1A with NATS on 12 February 2013.

17. In preparation for that meeting, during that meeting and in the communications that followed, NATS and the respective airports developed and refined their proposals to meet the overall aims and objectives of LAMP Phase 1A. As set out above, NATS and the respective airports decided during this time to break LAMP down into Phases – this being Phase 1A. However, for the reasons set out below, although the changes proposed relate to procedures at individual airports, an individual route or an individual block of controlled airspace, it was identified that each of the five changes should be considered together due to their interconnectivity and interdependence, whilst acknowledging the fact that CAA has five individual decisions to make.

[3] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/269527/air-navigation-guidance.pdf.

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18. Following a number of separate consultations by various sponsors in support of the LAMP Phase 1A proposals, the relevant elements have been submitted to the CAA in separate Modules. While some of these changes stand alone, some are interrelated and cannot occur unless other Modules of the airspace changes also take place. The overall fuel and CO_2 savings, which are an important factor when considering these airspace change proposals, are only delivered if all the Modules are implemented. The Module C proposal depends entirely on all other Modules. Modules A, D and E are stand-alone proposals and could be implemented without Module C.

19. It should be noted that whilst the LAMP Phase 1A package included proposals to change arrival and departure routes at Gatwick, these plans have been suspended and have not been progressed within LAMP Phase 1A. Albeit, as set out in Module C, to enable the LAMP Phase 1A London City network changes, it is proposed to realign Standard Arrival Routes (STARs) inbound to the Gatwick TIMBA Hold from the north-east and east where aircraft are in the descent to 7000ft AMSL (routinely FL80 depending on pressure settings). In addition the proposals in Module E for changes along the South Coast were not originally part of the LAMP Phase 1A set of proposals; these proposals have been extracted from an airspace change proposal development referred to as the Farnborough ACP and proposed by NATS to the CAA at the same time as the LAMP Phase 1A Modules A – D.

20. In one proposal (Module E – the South Coast change) the airspace change proposal has been modified after it was submitted to the CAA for consideration. That is, in response to feedback provided by the CAA in respect of the airspace change requested, the sponsor has modified their proposal to address that feedback. The CAA has taken its decision based on the terms of the latest iteration of the airspace change proposal (which will be published on the CAA's website[4]).

21. The final version of the Airspace Change Proposals (each of which is supported as appropriate with copies of the consultation material, the consultation feedback, and the consultation feedback report) is as follows:

    A. Module A - Stansted SID Switch ACP Issue 2.1 dated April 2015.

    B. Module B - London City Replications ACP Issue 1 dated February 2015.

    C. Module C - London City Network ACP Issue 2 dated March 2015.

    D. Module D - Luton/Northolt SID Switch ACP Issue 2.0 dated March 2015.

    E. Module E - South Coast ACP Issue 2 dated March 2015.

[4] http://www.caa.co.uk/Commercial-industry/Airspace/Airspace-change/Decisions/London-Airspace-Management-Programme-Phase-1A.

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The CAA has also been provided with, and taken into account,

F. Bridging Module Issue 1 dated February 2015.

G. LAMP Phase 1a: ACP Environmental Benefits Report v 1.2 dated March 2015.

H. Route Design Assurance Report Issue 2 dated March 2015 (as amended).

I. Project Safety Assurance Report Issue 1 dated February 2015 (as amended).

J. Instrument Flight Procedure designs.[5]

CAA analysis of the material provided in support of the Airspace Change Proposals

22. As a record of our analysis of this material, for each Module, the CAA has produced:

- An **Operational Assessment** which is designed to brief the decision maker whether the proposal is fit for purpose. This assessment contains:

  Section 1. This includes the CAA's assessment of the airspace change proposal justification and options considered.

  Section 2. This includes the CAA's assessment of the proposed airspace design and operational arrangements. An assessment of the design proposal is produced to illustrate whether it meets CAA regulatory requirements regarding international and national airspace and procedure design requirements and whether any mitigations were required to overcome design issues.

  Section 3. This includes the CAA's assessment of whether adequate resource exists to deliver the change and whether adequate communications, navigation and surveillance infrastructure exists to enable the change to take place.

  Section 4. This includes the CAA's assessment of whether maps and diagrams explain clearly the nature of the proposal.

[5] For final versions of designs submitted, see published designs in the UK AIP (AIS website at: http://www.nats-uk.ead-it.com/public/index.php.html.

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Section 5. This includes the CAA's assessment of the operational impacts to all airspace users, airfields and on traffic levels and whether potentially impacts have been mitigated appropriately.

The CAA's conclusions are arrived at after a CAA Case Study. An Operational Assessment is only completed if CAA airspace regulators recommend that the CAA approve the proposal. In that case the Operational Assessment will also include any recommendations for implementation such as conditions that should attach to approval if given.

- An **Environmental Assessment** which reviews the Environmental Assessment provided by the sponsor(s) requesting the change (which is one of the documents provided to the CAA along with the airspace change proposal). Our review will assess whether the sponsor has provided the data and information that had been agreed, at the Framework Briefing or in subsequent correspondence, must be provided as part of the request for the change proposed. These requirements are based on the provisions and policy in CAP 725 (see Annex A). These requirements have been designed to facilitate the assessments that the CAA must make when considering the environmental impact of the change (see above and in Annex A). We review the assessments made by the sponsor in the material provided to determine if they have been undertaken properly and the conclusions are reasonable. We will check a sample of their results and we may in some cases undertake our own analysis. We then prepare a report that summarises the environmental impacts and outlines what the anticipated impacts would be if the airspace change proposal was to be implemented, for consideration along with all the other material by the CAA decision maker.
- A **Consultation Assessment** which is designed to brief the CAA decision maker whether the proposal has been adequately consulted upon in accordance with the CAA's regulatory requirements, the Government's guidance principles for consultation and the Secretary of State for Transport's Air Navigation Guidance. The assessment will confirm whether the change sponsor has correctly identified the issues arising from the consultation and has responded to those issues appropriately. The assessment will rely, in part, on a comparison of the sponsor's consultation feedback report against the actual responses provided by consultees.

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