LONDON AIRSPACE MANAGEMENT PROGRAMME (LAMP) PHASE 1A

CAA DECISION: PART APPLICABLE TO LAMP PHASE 1A MODULE A

CAP 1366/A

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CONTENTS

CAA DECISION: PART APPLICABLE TO LAMP PHASE 1A MODULE A

LONDON AIRSPACE MANAGEMENT PROGRAMME (LAMP) PHASE 1A

AIRSPACE CHANGE PROPOSAL – MODULE A

STANSTED STANDARD INSTRUMENT DEPARTURE (SID) SWITCH

PROPOSED BY NATIONAL AIR TRAFFIC SERVICES (NATS) AND SUPPORTED BY STANSTED

References:

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

B. Stansted SID Switch Consultation Document dated June 2014.

C. Stansted Airport Departures Consultation Feedback Report dated 14 November 2014.

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

E. LAMP Phase 1A Bridging Module Issue 1 dated February 2015.

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

INTRODUCTION

1. 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 aerodromes. 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.

2. 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.

3. 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.

4. This decision document expressly incorporates the contents of the **CAA Decision: Part applicable to each LAMP Phase 1A Modules A – E**[1] which thereby forms part of the CAA's decision in respect of the airspace change proposal in this Module. This decision document contains the information and decisions specific to the proposal outlined in LAMP Phase 1A Module A (Reference A).

5. This module proposes a switch of aircraft currently using the existing departure routing of the Stansted Standard Instrument Departure (SID) via Detling (a navigational aid close to Rochester) to Dover onto the routing of the existing Clacton SIDs, during the day. This proposal has been the subject of a consultation as detailed in Reference B which was followed by the publication of a consultation feedback report detailed in Reference C. This proposal was accompanied and supported by the documents detailed in References D – F above.[2]

6. The purpose of this document is to provide an overview of the proposal and the CAA's decision on it.

[1] http://www.caa.co.uk/CAP1366.

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

INFORMATION THAT HAS BEEN CONSIDERED

7. In making this decision, the CAA has considered the documents set out above and set out in the **CAA Decision: Part applicable to each LAMP Phase 1A Modules A – E** and we have recorded our analysis of that material in the CAA's Operational Assessment, Consultation Report and Environmental Assessment.[3]

PROPOSAL OVERVIEW

8. The proposal is to switch the Stansted Dover (DVR) SID departures over to the routing of the Stansted Clacton (CLN) SID routing to CLN VOR (the VOR is the navigational aid located at Clacton). At CLN VOR, a new Air Traffic Services Route (ATS) route (U)M84 will be established routing CLN-EVMEK-NONVA-ABTUM-KONAN (the UK boundary with Belgian airspace) with a lower limit of FL105. A diagram (from the consultation document) to show the re-routing is shown at Annex A and the new ATS Route (U)M84 is shown at Annex B (extract from the ACP). Revisions to such routings are detailed in the NATS Route Availability Document published in the AIP.

9. The re-routing is designed to achieve a better climb profile for Stansted departures than is achieved for departures which currently route via Detling to Dover. In addition, this re-routing is designed to enable the aims and objectives of the airspace change proposed in Module C of the LAMP 1A proposal.[4] This Module does not propose to change the size or shape of controlled airspace.

10. The proposed revised routeing would be in operation daily from 0600-2300 Local. It is proposed that the Dover SIDs are retained for overnight use. Notwithstanding that the airspace change proposal indicated that there would be a few flights which still route via Detling during the day using the Lydd SID which also routes via Detling, we subsequently confirmed with NATS that there will be a few flights still using the Detling SID during the day; these will be for positioning flights to Gatwick, or an occasional flight routing through to French airspace via Dover. Therefore, the expectation is that there could still be an average of up to 3 flights routing from Stansted via Detling during the day other than an occasional positioning flight (numbers of which are impossible to predict).

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

[4] Note: Subsequent to the position at the time of consultation in 2014, the DVR SID has been truncated to DET; this does not impact on the procedures and airspace structure that is the subject of this proposal; however, as there are many references to DVR in the proposal, for the purposes of this decision, reference to the DVR SID can be read to refer to the truncated SID to DET.

CHRONOLOGY AND CONSULTATION

11. The formal stages of this airspace change proposal commenced with a Framework Briefing on 12 February 2013 although at that time the specific arrangements for consultation for this Module were subsequently to be confirmed.

12. NATS, supported by Stansted Airport, undertook a consultation[5] with the Stansted Airport Consultative Committee (STACC), with the NATMAC[6] aviation stakeholders and with a number of environmental stakeholders, from 16 June 2014 to 8 September 2014, a period of 12 weeks. During the same period, Stansted Airport also published the consultation on its website and publicised the consultation to the public at the request of STACC. STACC provided a combined response to the consultation in the role of aviation stakeholder, whilst individual representative organisations responded separately as environmental stakeholders. All consultation feedback has been provided and has been available for the CAA to examine. There were 407 responses from local organisations/government and members of the public. Of those, there were 316 objections, 54 in support of the proposal, with the remainder either not objecting or not providing an opinion either way. In the consultation process, a number of stakeholders complained that their feedback had been ignored.

13. We conducted an assessment of the consultation based on the criteria set out in the **CAA Decision: Part applicable to each LAMP Phase 1A Modules A – E** incorporated into this decision document. We concluded that the Consultation Report and associated material were comprehensive, well presented and met our requirements. We concluded that NATS had properly taken the results of the consultation into account. We reached this conclusion by undertaking an analysis of the sponsors' consultation feedback and conclusions in comparison with the original consultation responses from stakeholders. The sponsor had correctly identified the points raised and had responded to those issues adequately.

14. We gave careful consideration to the contents of the consultation. We had particular regard to the objectives of the change articulated in the consultation. We noted that the consultation identified the primary purpose of the change being the anticipated ability for more aircraft to achieve an improved flight climb profile on departure from Stansted and the consequential reductions in noise and CO_2 emissions.

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[5] A copy is published at http://www.caa.co.uk/Commercial-industry/Airspace/Airspace-change/Decisions/London-Airspace-Management-Programme-Phase-1A/.

[6] NATMAC is the National Air Traffic Management Advisory Committee which is comprised of a broad cross representative body of airspace users and air navigation service providers, including NATS and the MOD. The only environmental body is the Aviation Environment Federation (AEF).

15. Whereas, as set out in the airspace change proposal subsequently submitted to the CAA, an objective of this proposed change was also to enable the changes proposed under LAMP Phase 1A Module C, relating to London City Airport departures, we did note that there were links in this consultation to the Module C proposal – see paragraph 5.14 and Footnote 8 of the Consultation document.

16. We considered whether this compromised the adequacy of the consultation. We have decided that the consultation provided sufficient and clear information on the expected impacts of the proposed change that would enable someone reading the consultation to understand the impact of the changes on them. We decided that the presentation of the objectives of the change would not have affected the ability of someone to properly and effectively participate in the consultation. However, we also acknowledge that the consultation would have been improved if this matter had been more clearly highlighted and set out.

17. On that basis, we have decided that the consultation contents met our requirements set out in CAPs 724 and 725.[7] Further detail of the CAA's assessment of the consultation is set out in the CAA Module C Consultation Assessment.

STATUTORY DUTIES

18. As set out in the **CAA Decision: Part applicable to each LAMP Phase 1A Modules A – E**, the CAA's statutory duties and functions are contained in section 70 of the Transport Act 2000 (the Transport Act), the CAA (Air Navigation) Directions 2001, as varied in 2004 (the 2001 Directions), and the 2014 Guidance to the CAA on Environmental Objectives relating to the exercise of its air navigation functions (the 2014 Guidance).[8]

19. In summary, the CAA's primary duty under section 70(1) of the Transport Act requires that the CAA exercises its air navigation functions so as to maintain a high standard of safety in the provision of air traffic services. This duty takes priority over the material considerations set out in section 70(2). Where an airspace change proposal satisfies all of the material considerations identified in section 70(2) and where there is no conflict between those material considerations, the CAA will, subject to exceptional circumstances, approve the airspace change proposal. Where an airspace change proposal satisfies some of the material considerations in section 70(2) but not others, this is referred to as a conflict within the meaning of section 70(3). In the event of a conflict, the

[7] CAP 724 https://www.caa.co.uk/CAP724 and CAP 725 https://www.caa.co.uk/CAP725.

[8] Revised in 2014 by the Department for Transport https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/269527/air-navigation-guidance.pdf.

CAA will apply the material considerations in the manner it thinks is reasonable having regard to them as a whole. The CAA will give greater weight to material considerations that require it to "secure" something than to those that require it to "satisfy" or "facilitate". The CAA regards the term to "take account of" as meaning that the material considerations in question may or may not be applicable in a particular case and the weight the CAA will place on such material considerations will depend heavily on the circumstances of the individual case. The analysis of the application of the CAA's statutory duties in this airspace change proposal is set out below.

Safety

20. The CAA's primary duty is to maintain a high standard of safety in the provision of air traffic services and this takes priority over all other duties.[9] In addition to the conclusions in respect of safety set out in the **CAA Decision: Part applicable to each LAMP Phase 1A Modules A – E** the CAA has made the following conclusions with respect to safety.

21. We are content that the airspace change proposed in this proposal, that is, the revised routing of the Detling departures switched over to the routing of the Clacton SIDs can (subject to the following condition) be managed safely by NATS the new ATS Route is adjacent to Danger Area D138A, when D138A is active by NOTAM above its normal upper limit of 6000ft AMSL. As a condition of approving this change, a Regulatory Requirement will be placed on NATS to ensure that aircraft on (U)M84 will be kept clear of the Danger Area, as the aircraft pass to the east of the Shoeburyness Danger Area complex. The integration of traffic switched onto the Clacton SID and the routing via (U)M84 will and can in our view be safely managed and co-ordinated with other traffic using standard air traffic control techniques.

22. In the broader context, LAMP Phase 1A starts the process of systemising the LTMA[10]. As set out above, LAMP Phase 1A does not increase the capacity of the airspace at this time but each of the Modules collectively contribute to a modernisation of the airspace, that enable further modernisation to be contemplated in the future. Systemisation means that further growth can be managed safely. (Systemisation also helps to avoid any excessive delays caused by constraining traffic numbers to keep airspace safe which is a material

[9] Transport Act 2000, section 70(1).

[10] Systemisation refers to the process of reducing the need for human intervention in the air traffic control system, primarily by utilising improved navigation capabilities to develop a network of routes that are safely separated from one another so that aircraft are guaranteed to be kept apart without the need for air traffic control to intervene. Where the CAA refers to the term 'semi-systemised' in any of the CAA documentation, this relates to flight profiles in a sense of two dimensions without including vertical elements of an aircraft flight path.

consideration for the CAA when considering the effect of the proposed change on the interests of operators and owners of aircraft – see below).

23. LAMP Phase 1A addresses some of the current LTMA's tactical intervention and legacy design hotspots. In particular the proposal contributes to a significant reduction in complexity through the systemised de-confliction of routes. Consequently, safety in the region would be enhanced by the switching of the Stansted Detling SIDs proposed in this proposal.

24. Accordingly, the CAA is satisfied that a high standard of safety can be maintained as a result of this proposal.

The most efficient use of airspace

25. The CAA is required to secure the most efficient use of airspace consistent with the safe operation of aircraft and the expeditious flow of air traffic.[11]

26. The CAA considers that the most efficient use of airspace means the use of airspace that secures the greatest number of movements of aircraft through a specific volume of airspace over a period of time so that the best use is made of the limited resource of UK airspace. It is therefore concerned with the operation of the airspace system as a whole.

27. The CAA considers the expeditious flow of air traffic to involve each aircraft taking the shortest amount of time for its flight. It is concerned with individual flights.

28. In this respect, the CAA is content that the re-routing of Stansted SIDs to Clacton will enable a significant improvement in the efficiency of integrating traffic through the busy controlled airspace in the south east of England, in particular, through the very busy and congested area in the vicinity of and above Detling. Currently, the Stansted departures are routinely held below arriving traffic inbound to Heathrow. (Other traffic departing from Luton, Northolt and London City also follow similar routings as the Stansted traffic towards Detling, and like the Stansted SIDs, are subject to similar restrictions in climb profiles.) This will no longer be necessary if the changes proposed in Module A (and the other Modules) are approved.

29. Moreover, it is anticipated that removing the Stansted traffic from this busy flow will alleviate the traffic congestion and enable better departure profiles to be achieved by the London City departures to the south-east which is described in Module C. It is anticipated that the changes in this Module to departure routings not only enable better climb profiles for London City departures, because the London City departures will now be able to climb earlier, but also enable more

[11] Transport Act 2000, section 70(2)(a).

efficient and semi-systemised[12] arrival routes for London City. When Modules A, and the changes outlined in Module D for Luton and Northolt departures are combined with the proposals for London City network changes in Module C, the end result is anticipated to be that the whole LAMP Phase 1A design package produces an overall more efficient route network: not just for traffic departing from Stansted via Clacton (outlined in this Module), but also for Luton and Northolt departures to the south-east (proposed in Module D), and the new network arrival system for London City as proposed in Module C.

Requirements of aircraft operators and owners

30. The CAA is required to satisfy the requirements of operators and owners of all classes of aircraft.[13]

31. In this respect, as no change to the size and shape of controlled airspace is proposed to support Module A (as the re-routed Stansted traffic will follow the existing Clacton SID towards Clacton, and the new ATS Route is contained within existing controlled airspace) the CAA is content that there will be no impact to Class G airspace users.

32. The re-routed SIDs can be managed safely on the Clacton SID routing and integrated with all other routes in the south-east. Whilst this adds 2NM to the Rwy 22 routing and results in a reduction of 6NM to the Rwy 04 routing compared with the Dover SID, and although Rwy 22 is used approximately 70% of the time, the Rwy 22 extra track miles are offset by the benefits realised with improved climb performance. The CAA Environmental Assessment concluded that despite the extra track miles there would be an overall reduction in CO_2 emissions resultant from a reduction in fuel burn. In particular, the CAA's Environmental Research and Consultancy Department (ERCD) Environmental Assessment Report concluded that:

Based upon the assessment presented in the ACP (the overarching Environmental Benefits Section – see Reference D), NATS estimate that the fuel savings per flight will be in the range of 120-205 kg, the variation being principally dependent on the size and type of aircraft, the runway direction used. Flights departing Runway 22 on the CLN SID having a 2 NM longer track distance that reduces some of the fuel savings associated with the more efficient climb profile although the actual track distance increase may be mitigated by tactical vectoring. In contrast, departures from Runway 04 benefit from both a reduction in track distance flown of approximately 6 NM and a more efficient departure climb profile, giving larger fuel savings.

[12] That is, systemised from a horizontal perspective only at this stage as opposed to horizontal and vertical perspective as will be achievable in the future.

[13] Transport Act 2000, section 70(2)(b).

In aggregating the savings, NATS adopted conservative values of 100-200 kg, and has taken account of the approximately 10 percent of flights on the DET SID that are given an efficient departure climb profile on a tactical basis. The aggregated annual fuel savings are estimated to be in the range of 2,000-4,000 tonnes (2012 +20% traffic) and 2,300-4,700 tonnes (2012 +40% traffic), which are consistent with the per flight savings and the number of flights on DET SID that would benefit from the change of SID. These equate to CO_2 savings of 6,400-12,700 tonnes (2012 +20%) and 7,400-14,900 tonnes (2012 +40%) respectively.

33. Full details are in the Environmental Assessment.[14]

34. The CAA has therefore concluded, and taken its decision on this Module on the basis that it is anticipated that there will be an overall CO_2 benefit for traffic departing via the re-routed SID routing via Clacton which is coincident with anticipated lower fuel costs for operators and owners of aircraft.

Interests of any other person

35. The CAA considers the words "any person (other than an operator or owner of an aircraft)" to include airport operators, air navigation service providers, members of the public on the ground, owners of cargo being transported by air, and anyone else potentially affected by an airspace proposal.

36. The CAA is required to take account of the interests of any person (other than an operator or owner of an aircraft) in relation to the use of any particular airspace or the use of airspace generally. The CAA examined a number of anticipated impacts, some of which attracted feedback during the consultation process outlined above.

37. This decision document deals with consideration of the anticipated environmental impact on the public on the ground in the paragraphs relating to the environmental impact of the proposed change below.

38. We have concluded that the changes proposed in this Module are likely to benefit air navigation service providers as it is anticipated that air traffic control workload will reduce as a consequence of this change and the changes in the other Modules that it enables.

Guidance on environmental objectives

39. In performing the CAA's statutory duties, we are obliged to take account of the 2014 Guidance provided by the Secretary of State,[15] to the CAA on

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

[15] Transport Act 2000, section 70(2)(d).

Environmental Objectives. In addition to the conclusions in respect of the environment set out in the **CAA Decision: Part applicable to each LAMP Phase 1A Modules A – E** the CAA has reached the conclusions set out below with respect to the anticipated environmental impact of this proposal.

40. The CAA's ERCD has undertaken an assessment of the environmental impact of this change.[16]

41. When reviewing the CAA's material consideration of the impact of the proposal on operators and owners of aircraft we set out above our analysis of the anticipated reduction in CO_2 emissions resulting from this Module. Moreover, as discussed in Module C, overall, the LAMP Phase 1A package enabled by the Module A proposal, is anticipated by NATS to provide an estimated 34,900 tonnes of CO_2 savings in 2016. Fuel savings are predicated on a number of factors and have been calculated for a series of scenarios for 2016 and 2020 timelines. Taking a more conservative assessment, for the purpose of making this decision we have concluded that we anticipate that the LAMP Phase 1A changes overall, (as enabled by Module A) would deliver a reduction of approximately 17,400 tonnes of CO_2 in 2016 and 20,800 tonnes in 2020.

42. Since this proposal and the other airspace changes within LAMP Phase 1A require no changes to ground infrastructure, we anticipate that there will be no effects on land-take and biodiversity.

43. Since the proposed change does not alter operations below 1,000 feet we anticipate there will be no effect on local air quality. We do not anticipate that there will be any effects on Areas of Outstanding Natural Beauty and National Parks.

44. There are unlikely to be any adverse, tranquillity or visual intrusion impacts as a direct result of these changes.

45. We have assessed the anticipated impact on noise emissions of the changes proposed. When doing so we have had regard to the altitude-based priorities as given to the CAA by the Secretary of State in the 2014 Guidance to CAA on Environmental Objectives.

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

46. We have concluded that we do not anticipate there will be a significant impact on noise emissions (within the meaning of Paragraph 9 of the Secretary of State's 2001 Directions to the CAA). See the incorporated **CAA Decision: Part applicable to each LAMP Phase 1A Modules A – E**, Annex A for an explanation of the CAA's policy in this regard.

47. This is because the initial stages of both SIDs are the same or very close to one another. Therefore switching to the Clacton SID does not affect the number of aircraft flying the initial stages of the SIDs. The maximum noise change is not anticipated to exceed 1dB. By the time the SIDs diverge (and the noise impact of the switch is realised) the aircraft are already at a height such that the noise impact is well below 57dB $LA_{eq\ 16\ hour}$ (LA_{eq}). Therefore, although the SID switch will result in an increase in noise emission of 3dB at some locations it will not increase the noise emission above 57dB LA_{eq} at those locations.

48. We have nonetheless assessed and taken into account the anticipated effect on noise emissions of the proposed change, as one of the material considerations that we must take into account when considering our decision.

49. The altitude-based priorities in the 2014 Guidance state that below 4000ft AMSL, noise is the environmental priority; in the airspace from 4000-7000ft AMSL, the focus continues to be minimising noise in densely populated areas but the CAA may balance this with the need to minimise CO_2 emissions; minimising CO_2 emissions is the priority above 7000ft AMSL.

50. As set out above we have concluded that the switch proposed in this Module will result in a change for those communities and residents currently overflown below 4000ft AMSL. We have also concluded that we anticipate there will be no net increase in the number of people overflown below 4000ft AMSL. (See paragraph 5.1 of the CAA's ERCD Environmental Assessment.) Nonetheless we have taken the change in the distribution of the environmental impact into account as a material consideration when deciding whether or not to approve the change requested in this Module.

51. In considering the balance between noise and emissions referred to above, a qualitative approach is needed in the absence of established methods to objectively quantify and balance these factors.

52. We have noted that the core objective of the proposal is to enable continuous climb to those aircraft that are routinely held at 5000ft AMSL on the Detling SID. As such, the proposal will reduce the time aircraft are between 4000-7000ft AMSL and therefore result in a net reduction in noise exposure from aircraft in this altitude band. Due to displacement of traffic from the Detling SID to the Clacton SID, there will be a redistribution of areas that experience noise increases for aircraft between these altitudes.

53. Having carefully considered this information, we have concluded that the change will generate fuel and CO_2 savings. We have taken into account that this is achieved as a consequence of noise being displaced from one SID to another and therefore the population overflown beneath that SID. We have also noted that we do not anticipate there will be a net increase in the numbers of people exposed to noise of aircraft flying below 4000ft AMSL, although there will be a redistribution. We have taken into consideration the noise levels and the magnitude of those changes.

Integrated operation of ATS

54. The CAA is required to facilitate the integrated operation of air traffic services provided by or on behalf of the armed forces of the Crown and other air traffic services.[17]

55. In this respect, there is no impact on other ATS providers.

Interests of national security

56. The CAA is required to take into account the impact any airspace change may have upon matters of national security.[18] There are no impacts for national security.

International obligations

57. The CAA is required to take into account any international obligations entered into by the UK and notified by the Secretary of State.[19] ICAO will be notified of the new ATS Route which is established with existing controlled airspace across the English Channel.

REGULATORY DECISION

58. The CAA has decided that the proposed airspace design is safe, which satisfies the CAA's primary statutory duty. It is also the CAA's duty to consider the anticipated impact on each of the other material considerations identified in section 70(2) of the Transport Act. In accordance with section 70(3) of the Transport Act and the CAA published policy, the CAA is required to consider whether the airspace change proposal produces any conflicts between the material considerations identified in section 70(2). We have in particular noted that the significant benefit anticipated to the efficient use of airspace and in

[17] Transport Act 2000, section 70(2)(e).

[18] Transport Act 2000, section 70(2)(f).

[19] Transport Act 2000, section 70(2)(g).

reduction of CO_2 emissions requires the redistribution of the noise impact of aircraft below 4000ft AMSL as described above.

59. We have decided that in order to achieve the anticipated benefits consequential on the airspace change proposed in this Module, the CAA will approve this change. A diagram from the consultation to show the changes is shown at Annex A.

60. Module A as a stand-alone proposal is justified in its own right, notwithstanding the noise impacts described above, for the reason of the anticipated benefits also set out above. However, the Stansted SID switch proposal in the Module is also an enabler for the LAMP Phase 1A Module C proposal, the benefits of which are set out in a separate decision letter.

61. The CAA has decided that the proposed change should also be approved to realise the wider benefits of LAMP Phase 1A. The LAMP Phase 1A package of proposals in Modules A to E is anticipated to deliver benefits in terms of safety, capacity and efficiency of airspace and in terms of CO_2 emissions. The overall LAMP Phase 1A package will deliver network-wide changes that have safety benefits through greater use of systemisation, removal of airspace hotspots and by ensuring that sequencing of London City arrivals occurs earlier in the arrival phase leaving less chance for Thames Radar controllers to become overloaded. Overall, a more efficient use of airspace will be achieved as a result of capacity benefits delivered through the de-confliction of arrival and departure routes.

62. The revised airspace will become effective from 4 February 2016 (AIRAC 2/2016) and was promulgated via a double AIRAC cycle. The Part 1 of the AIRAC data for this and other LAMP Phase 1A Modules was distributed by AIS on 26 November 2015. In addition, an Aeronautical Information Circular (AIC) Y076/2015 was also distributed on 26 November 2015 to provide a full breakdown of the changes proposed in LAMP Phase 1A.

63. In line with our standard procedures the impact of the change will be reviewed after one full year of operation, at which point, the CAA obtain feedback and data to contribute to the analysis.

Civil Aviation Authority

22 December 2015

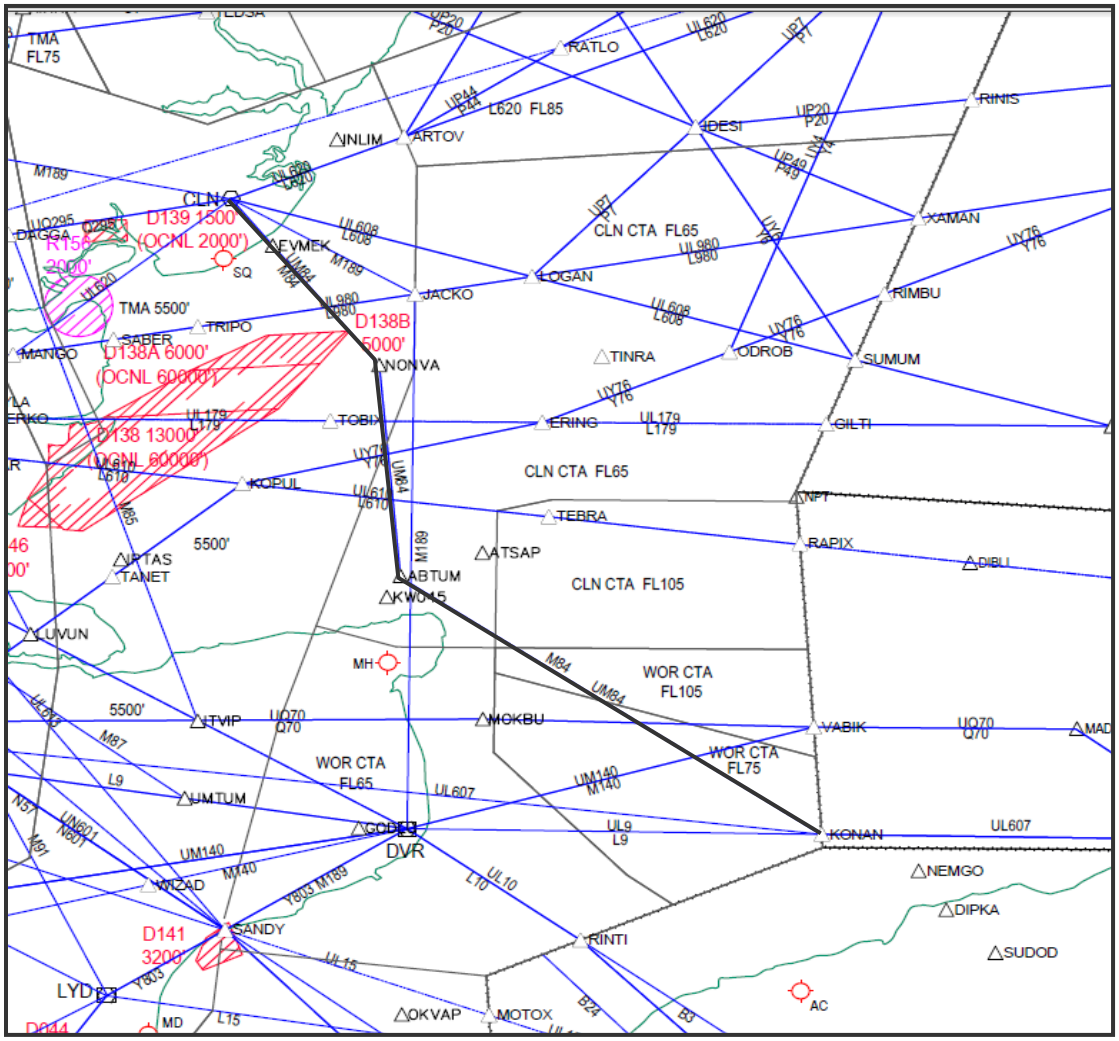
ANNEX A

Consultation Diagram – Existing and Proposed Stansted SID Routing

ANNEX B

The New ATS Route (U)M84

A new link route (U)M84 is required to join CLN to KONAN for UL607 as shown below.



Note for Aviation Stakeholders:

Diagram copied from NATS ACP.

This airway is shown for illustrative purposes against the backdrop of CAS which will be revised for LAMP Phase 1A implementation. The airspace structure shown does not show Southend CAS introduced after the proposal was presented. All new / revised airspace is promulgated in the AIP amendments effective on 4 February 2016.

ANNEX C

Conditions of the CAA's decision to approve the Module A proposal

In addition to the Conditions that attach to the CAA's decision to approve the proposals in each of the Modules A-E in the LAMP Phase 1A ACPs, set out in **CAA Decision: Part applicable to each LAMP Phase 1A Modules A – E**, it is a condition of the CAA's approval of the proposal in Module A that

- When D138A is activated by NOTAM above the normal upper limit of 6000 ft, NATS is to radar monitor all aircraft using (U)M84 to ensure that aircraft are kept clear of D138A.

GLOSSARY

	2001 Directions	Civil Aviation Authority (Air Navigation) Directions 2001
	2002 Guidance	The Secretary of State's Guidance to the CAA on Environmental Objectives Relating to the Exercise of its Air Navigation Functions published in 2002
	2014 Guidance	The Secretary of State's Guidance to the CAA on Environmental Objectives Relating to the Exercise of its Air Navigation Functions published in 2014
A	A330	Airbus 330 Aircraft
	A380	Airbus 380 Aircraft
	a/c	Aircraft
	AAL	Above Aerodrome Level
	ACP	Airspace Change Process
	AIC	Aeronautical Information Circular
	AIP	Aeronautical Information Publication
	Alt	Altitude Above Mean Sea Level
	AMSL	Above Mean Sea Level
	ANO	Air Navigation Order
	ANSP	Air Navigation Service Provider
	AONB	Area of Outstanding Beauty
	APD	Approved Procedure Designer
	APF	Aviation Policy Framework
	ARINC 424	Airlines Electronic Engineering Committee - Navigation System Data Base
	ATC	Air Traffic Control
	ATM	Air Traffic Management
	ATS	Air Traffic Service
B	B747-400	Boeing 747-400 Aircraft
	B777	Boeing 777 Aircraft

C	CAA	Civil Aviation Authority
	CF leg	Course To Fix leg
D	dB	Decibel units
	dBA	Decibel units measured on an A-weighted scale
	DfT	Department for Transport
	DEM	Digital Elevation Model
	DER	Departure End of Runway
	DET	Detling D/VOR
	DME	Distance Measuring Equipment
	DVOF	Digital Vertical Obstruction File
	DVOR	DME/VOR Navigational Aid D DVR – Dover D/VOR (plus a number D21) = 21 nautical miles from the VOR
	DVR	Dover D/VOR
	D (plus 2 or 3 digit no.)	DME range from a navigational aid (eg DVR D21 = 21 nms from the specified beacon, in this case the Dover D/VOR)
E	EGGW	ICAO Location Indicator for London Luton Airport
	EGHH	ICAO Location Indicator for Bournemouth Airport
	EGHI	ICAO Location Indicator for Southampton Airport
	EGKK	ICAO Location Indicator for London Gatwick Airport
	EGLC	ICAO Location Indicator for London City Airport
	EGLF	ICAO Location Indicator for Farnborough Airport
	EGLL	ICAO Location Indicator for London Heathrow Airport
	EGMC	ICAO Location Indicator for Southend Airport
	EGSS	ICAO Location Indicator for London Stansted Airport
	EGWU	ICAO Location Indicator for Northolt Airport
F	FAS	Future Airspace Strategy
	FB WP	Fly-by waypoint
	FDR	Flight Data Recorder
	FIR	Flight Information Regions

	FL	Flight Level
	FMC	Flight Management Computer
	FMGC	Flight Management Guidance Computer
	FMS	Flight Management System
	FO WP	Fly-over waypoint
	FTE	Flight Technical Error
G	GNSS	Global Navigation Satellite System
	GPS	US DoD Global Positioning System
H	HDGs	Headings
	hPa	Hectopascal – 1 hectopascal is equivalent to 1 millibar
I	ICAO	International Civil Aviation Organisation
	IFP	Instrument Flight Procedure
	ILS	Instrument Landing System
	IRS	Inertial Reference System
J	JAA	Joint Aviation Authorities
K	KIAS	Indicated Air-speed in Knots
	Kts	Knots
L	Leq	Equivalent continuous sound level
	LAMP	London Airspace Management Programme
	LHR	London Heathrow
M	M	Magnetic
	Mag Var	Magnetic Variation
	MID	Midhurst D/VOR
	MSD	Minimum Stabilisation Distance
	MSL	Minimum Segment Length
N	NADP	Noise Abatement Departure Procedures
	NATS	The group of companies that includes NERL and NATS Services Limited
	NERL	NATS (En Route) plc

	ND	Navigation Display
	NOTAM	Notice to Airmen
	NPR	Noise Preferential Route
	NMS or nms	Nautical Miles
	NSE	Navigation System Error
P	PANS OPS	Procedures for Air Navigation Services Operations
	PBN	Performance-based Navigation
	PDE	Path Definition Error
	PF	Pilot Flying
	PIR	Post Implementation Review
	PIRG	PIR Group
	PM	Pilot Monitoring
	PNF	Pilot Not Flying
	PRNAV	Precision Area Navigation
	PT	Path Terminator
R	R plus 3 digit number	Radial (No:) from a VOR (eg. R260 = 260 degree radial from a specified point)
	RF Turns	Radius to Fix Turns
	RNAV-1	Area Navigation
	RNP	Required Navigation Performance
	RNP APCH	PBN approach procedure
S	SAM	Southampton D/VOR
	SEL	Sound Exposure Level
	SFD	Seaford D/VOR
	SID	Standard Instrument Departure
	STAR	Standard Terminal Arrival Route
	SW	South West
T	TF leg	Track to Fix leg
	TSE	Total System Error

V	VI leg	Vector to Intercept leg
	VOR	Very High Frequency Omnidirectional Radio Range
W	WP	Waypoint