FRAMEWOLK BRIEFING -RECORD OF UPDATES REQUIRED AND RECORD OF MEETING

Sent: 06 June 2013 09:25 To: Subject: FW: LAMP overview / DRAFT record of agreements	
Let me know if you get this?	
From: Sent: 05 June 2013 08:34 To: Subject: FW: LAMP overview / DRAFT record of agreements	
Had another delivery issue/failure (?) yesterday. Please advise if received.	
From: Sent: 04 June 2013 15:58	
To: Subject: FW: LAMP overview / DRAFT record of agreements	
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Here is the missing e mail which may have failed to reach you?	9
Regards,	2 Y
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From:	
To: Cc: Cc: Cc: Cc: Cc: Cc: Cc: Cc: Cc: Cc	
Subject: RF: LAMP overview / DRAFT record of agreements	

2

Further to my chat earlier, initial comments from me are:

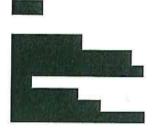
Add date of mtg and attendees: From CAA it was:

- In para 1.3 you could add that the mtg was the first of a series of meetings; further meetings will have a
 separate record issued and updates to previous meeting notes will be recorded. Can you record how you will
 manage the editorial aspects regarding this and actions, plus an issues resolution that or as you appropriate (as we discussed).
- It would have been helpful to highlight the new elements in the document which were not briefed at the FWB

 appreciate things are changing all the time see para 7 below.
- Para 2.3 STN RNAV SIDs were discussed in recent e mails concerning re-routing of conv SIDs via CLN. For clarity, this para should be updated to reflect the situation is TBD.
- Para 4.3 replace 'agreed through FAS' with: 'the CAA Policy Statement for Guidance on PBN SID Replication for Conventional SID Replacement (to be Issued mid 2013)'.
- Para 6.1 sentence incomplete.
- 7. Para 6.2 / 6.3 / 6.4 / 6.5 / was new content I would suggest you add comment to that effect.
- 8. Para 6.7 missing attachment?
- 9. Add Actions; you may have some, but I recorded the following:
 - a. queried number of SID procedures to be proposed. As later discussed between and it would be beneficial for NATS to provide DAP with the scope of changes to IFPs so workload and deadlines can be determined for IFP design and subsequent IFP regulatory assessment and charting by AIS. ACTION: NATS to provide DAP with estimates of the number of procedures (by breakdown to SID/STAR/HOLD/RNAV Transition/Point Merge etc. For a deadline, the meeting planned for 12 July would be a good starter.
 - b. to confirm with that consultation above 7000ft is not specifically required unless where changes are in areas of AONB and NPs.
 - c. On response to b above, to examine implications for consultation.
- 10. Review of consultation process ongoing and covered by separate engagement between and Presumably you will update the record when those discussions complete?

As I mentioned earlier, further comments to follow from CAA colleagues hopefully by end of next week.

Regards,



Sent: 25 April 2013 18:22

To: 🎆

From:

Subject: LAMP overview / DRAFT record of agreements

On Behalf Of

Find attached an early draft of a LAMP record of agreements for discussion tomorrow. Its definitely work in progress but this is particularly complex because of the airport interfaces and so I wanted to get you something to mull over before our meeting. Please excuse formatting and any spelling errors; as no time to polish it.

See you tomorrow.

PS Also sorry about sending from

LAMP Airspace Development Framework Briefing: Record of Agreement NATS ref: 4565/RPT/30 Issue 1

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Publication history

Issue	Month/Year	Changes in this issue
Issue 1	Feb 2013	

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1. Introduction

- 1.1 This document is a record of NATS proposal to comply with CAP 725 in respect of the consultation requirements and Airspace Change Proposal submission, for the LAMP airspace developments planned for implementation in 2015.
- 1.2 Acceptance of this note by DAP will represent an agreement 'in principle' that the process undertaken thus far, and the proposed process herein, meets the requirements of the CAP725 Third Edition.
- 1.3 Should any of the elements of this document change significantly as the plans/processes develop, NATS will provide the rationale for change to DAP and seek further agreement in principle for the revisions.

2. Project Phasing Vs. ACP Phasing

- 2.1 The adaptive ACP process work identified 3 phases for large/complex airspace changes;
- ACP Phase 1: set FAS context,
- ACP Phase 2: develop ACP for Network proposal (no implementation). This is ACP Part A
- ACP phase 3: develop detailed design/ACP for implementation (ACP Part B).
- 2.2 Phasing has also been used by the LAMP project team to develop the implementation plan. In this context phasing represents packages of deliverables described below.
- 2.3 LAMP Phase 1a intends to introduce PRNAV routes down to 4000ft for;
- Gatwick arrivals and departures to the south of the airport,
- London City arrivals and departures to the east of the airport, and
- Stansted departure routes heading east
- 2.4 The approximate areas covered by these changes are shown on Figure 2.
- 2.5 LAMP Phase 1b & c focus on resectorisation with some potential airspace changes around west of LTMA and Brize triangle as yet undefined.
- 2.6 LAMP phase 2 is the completion of the LAMP project covering routes down to 4000ft from the big 5 airports (LHR, LGW, STN, LTN & LCY) not covered in Phase 1a. This is dependent on TA. Phase 2 may be further split into 2A (LHR and LGW focus) and 2B (STN and LTN focus); this detail is yet to be determined.

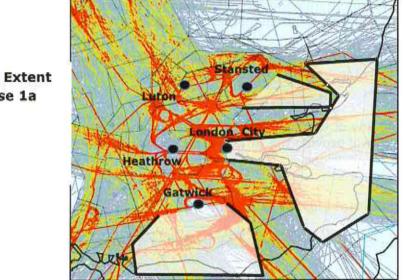


Figure 1: Approximate Extent of consultation for Phase 1a

Use of term Phasing:

- 2.7 The above project phases have been widely referenced in stakeholder meetings and therefore in common parlance "Phasing" will be understood in term of the phases of implementation.
- 2.8 Discussions around ACP phasing are likely to be more for specialist audiences and are not relevant until Phase 2 (see below), therefore for NATS/CAA references to phasing of adaptive ACP may be best replaced with the Term ACP Part A and ACP Part B (relating to ACP Phases 2 and 3 respectively in the adaptive process documentation).

3. LAMP Phase 1A

- 3.1 The current LAMP focus is on Phase 1A. This project is aiming for an ACP and approval process that would enable implementation in Spring/Summer 2015. However note that implementation slots have not yet been identified and therefore whilst the project is planning a schedule that meets these timescales, implementation may yet be delayed (for example to avoid summer schedule).
- 3.2 LAMP Phase 1A is not seeking to utilise the adaptive ACP process. A single ACP delivery is planned for summer/autumn 2014.
- 3.3 LAMP Phase 1A is, however seeking to consult early on corridors, rather than a final design, so that consultation feedback can be accommodated within the design prior to validation.

3.4 With the potential exception of the Stansted area, the airspace established as part of Phase 1a would not require changing for Phase 2 and NATS would not expect Phase 2 to involve further consultation on any routes below 7,000ft in the same areas. Phase 2 may include some changes to higher level routes through these areas; however, being higher level the consultation would be expected to be relatively uncontentious. The proposed changes in the Stansted area are an exception because they are closer to the core LAMP area which is affected by the transition altitude and may therefore need redesign/reconsultation for Phase 2.

4. Airport Accountability

- 4.1 In order to feed traffic into the LAMP, the airports will need to update their existing routes to be compliant with a modern Performance Based Navigation (PBN) standards. As a minimum, this requires replication of the existing route structures with a PBN replacement.
- 4.2 Airports may also seek to utilise the greater flexibility in design afforded by PBN to progress a more fundamental redesign of routes rather than just pursue replication. The objectives for such local changes could be to address local airport capacity, and/or low level noise issues. Airports would be responsible for their own local development and consultations.
- 4.3 Airport led SID developments will follow the process description/diagram for SID change agreed through FAS. Whilst NATS is not responsible for such changes instigated at a local level, we will ensure that the design of the route system beyond the NPR ceiling will be able to accommodate them where they do not have a significant knock on effect on:
- the efficiency/capacity of the network or
- on flows of neighbouring airports.
- 4.4 Furthermore we are seeking opportunities to collaborate with airports in the development and consultation processes.

5. Airport collaboration

- 5.1 LAMP is working on the default following parameters for demarcation:
 - LAMP is responsible for design and consultation of efficient network from 7000ft
 - Airports are responsible for design and consultation for efficient local solutions below 4000ft
 - Between 4000 and 7000ft a joint approach is required to ensure balanced approach between network and local solutions
- 5.2 These are LAMP default assumptions; exceptions for specifics airport circumstances will be negotiated on case by case basis.
- 5.3 The principle of determining design "gates" at the boundary between airport and network areas of responsibility is being used to minimise design dependencies (see attached slides below for illustration). Note that these are gates are akin to construction lines; they exist only in the design process and have no operational implication. SIDs and transitions developed (relatively) independently above and below gates will be tied up during the detailed design phase after the consultation exercises on each.



- 5.4 Wherever possible airport intentions for low level changes are being developed to be independent of LAMP (ie low level changes could knit into either existing or future network). This is not possible in all cases.
- 5.5 Whilst a degree of independence is possible in the early stages it will be necessary for LAMP and airport to have a more collaborative approach during the detailed design stage as procedure design, flyability and safety assurance must be undertaken on a complete route rather than considering segments above and below gates separately.
- 5.6 We have not yet fully explored whether it will be necessary to submit joint ACPs or whether ACPs can be cross referenced in some way. This is discussed more under LCAL/LAMP collaboration below.
- 5.7 Furthermore, whist independence is important for managing intercompany risks (ie what if LAMP or an airport unilaterally pulls out of the process), it is recognised that collaboration around design and consultation is beneficial for all parties to reduce complexity and costs, and increase transparency and effectiveness of consultation processes.

6. GAL/LAMP Collaboration

For Phase 1A, GAL (Gatwick Airport Limited) are investigating changes to the 26 BOGNA SID to improve departure split with 26 SAM SID. This is focussed on alignment below 4000ft and would feed into a network Gate at 4000ft.

- 6.1 The changes being considered could feed into either the LAMP Phase 1A design of the existing SID.
- 6.2 Gatwick are also investigating the possibility of dual transitions from the merge point at 7000ft down to the final approach joining point at around 3-4000ft. These dual routes are being considered for respite purposes. This would tied to the implementation of the point merge (part of LAMP Phase 1A) as the use of transitions relies on an effect traffic sequence being delivered through the point merge system, so that tactical intervention is not required.

- 6.3 GAL are also investigating the possibility of a more fundamental redesign of low level SIDs form runway 26 to improve the efficiency of all departure splits, taking account loading on different routes.
- 6.4 This is likely to change the areas in which traffic heading in particular directions is feed into the network at 4000ft ie new gates would need to be agreed for some or all routes. LAMP can accommodate this, but only in Phase 2 when considering the redesign of departure and arrival flows for neighbouring airports and in particular at Heathrow.
- 6.5 GAL are proposing to consult on all 26 departure options (Phase 1a and Phase 2) and dual arrival transitions in a single upfront consultation in parallel with LAMP phase 1A consultation. They are seeking to follow the consultation of corridors approach rather than designing the airspace first and consulting on specific options.
- 6.6 This will match the LAMP Phase 1A approach being undertaken for design above the "gates". The two strands would be brought together under one ACP for submission. This approach needs endorsement by the CAA.

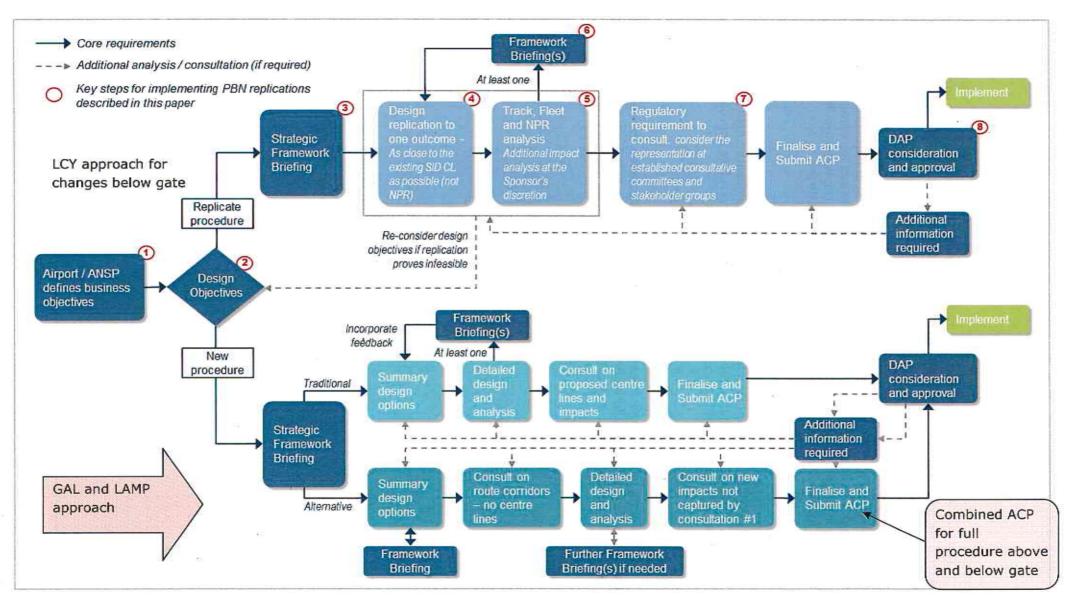


Figure 2: FAS schematic for meeting CAP&25 requirements for SID change

6.7 GAL recognise that there will be a need to reconsult once final designs are established, as noise footprints and contour analysis cannot be performed without definitive route centrelines but only in areas specifically effected by the SEL contours at 57 DBA (16 hours) and footprints at 90dBA (note that 80dBA footprints and consultations is not considered necessary because all the affected areas would have been consulted o, referencing potential Lmax noise levels, as part of the upfront consultation. This approach is in line with the agreements in the correspondence attached below.



7. LCAL/LAMP Collaboration

- 7.1 LCAL (London \City Airport Limited) support the LAMP phase 1 changes as it is an enabler for their capacity enhancement plan. LCAL have submitted plans for a staged development of stands and taxiways which will increase their ground capacity. The organised arrival stream provided by point merge is an important enabler for them to realise the runway capacity increases necessary to justify the investment in the new infrastructure.
- 7.2 LCAL are likely to progress basic replication of SIDs and transitions at low level (ie below the design gates) with LAMP seeking redesign above that. LCAL development would therefore be seeking to use the guidance for replication design/analysis/consultation agreed through FAS (currently being drafted as policy) for the low level portion whilst LAMP would be considering a redesign for changes above that as illustrated in Figure 3.
- 7.3 The two strands would be brought together under one ACP for submission. This approach needs endorsement by the CAA.

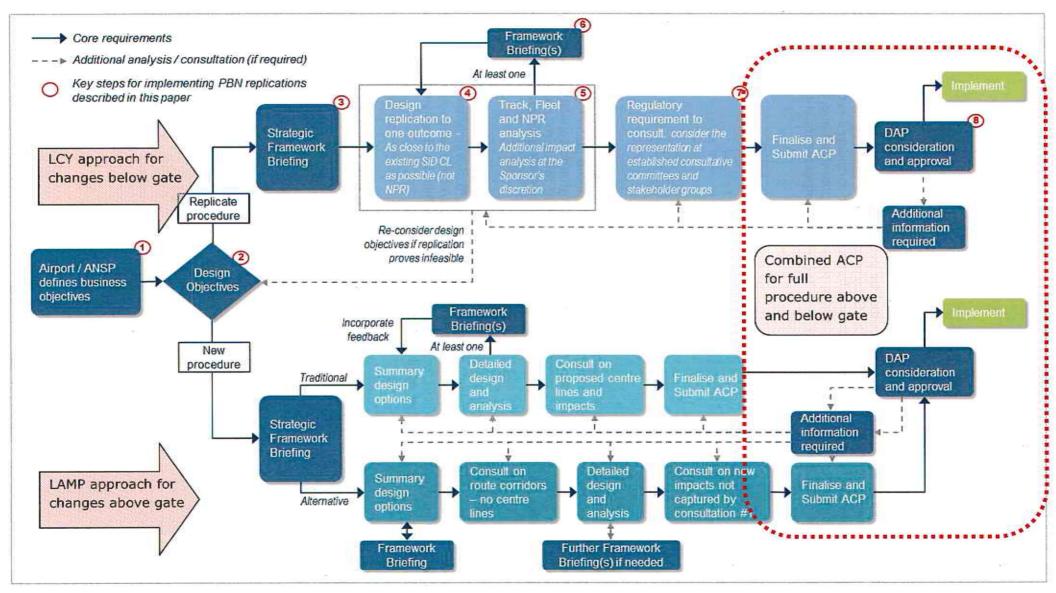


Figure 3: FAS schematic for meeting CAP&25 requirements for SID change

8. SAL/LAMP Collaboration

8.1 SAL (Stansted Airport Limited). Engagement with the airport over low level changes required for LAMP Phase 1A has commenced but no proposed way forward yet.

9. Consultation Plan

Early consultation for 2015 deliverables

- 9.1 NATS is proposing to run an early consultation for LAMP Phase 1A before final centrelines are determined.
- 9.2 The purpose of the consultation is to attain or confirm views and opinions about the potential impact of a particular Airspace Change Proposal. Consultees have a crucial role in providing relevant and timely feedback to the Change Sponsor in the form of their views and opinions on the impact of a particular Airspace Change Proposal. This feedback can be used to identify whether there is any information that should be considered and before developing detailed route alignments.
- 9.3 In order to ensure that feedback is timely such that it can influence the final proposal it is vital the consultation occurs before the final alignments have been determined. As such the consultation will present corridors that cover the range of possible alignments for the changing routes that will meet all the design requirements.
- 9.4 Timely consultation necessarily means that it is not the mechanism by which stakeholders are informed of the final route proposals alignments, as these cannot be determined until the consultation feedback has been fully analysed.
- 9.5 NATS does not intend to reconsult on impacts covered in the early consultation. The early consultation will make this clear by presenting an implementation plan stating that that the feedback received through the early consultation will be used directly to inform the final options presented in the ACP without further consultation. Reconsultation on any element of the design will only occur if the development of the detailed designs leads to a new impact not an area not captured by the initial consultation. For example this may be a geographical area outside the corridor consulted on, or a new measurable impact such as a change to Leq or SEL (note however that the NATS designs are focussed on airspace above 4000ft therefore impacts to Leq and SEL are not expected.

Consultation: Questions

- 9.6 The consultation will include specific questions designed with the following points in mind:
 - a) NATS' consultation is about acquiring information that is relevant for the design of routes.
 - b) Questions will be asked to draw out information from consultees.

- c) Consultees will be provided with information to enable them to make representations in relation to the consultation questions.
- 9.7 The consultation questions will request feedback on:
 - a) The justification for change;
 - The Concept of operations ie point merge and reasons for discarding alternatives; and
 - c) Local Information that should be considered in the detailed design phase
- 9.8 It is important to ensure that stakeholders are aware of the scope of the consultation, so that the feedback provided has the maximum possibility of affecting the final design. This necessarily involves highlighting issues that will be beyond the scope of the consultation, such as:
 - a) Government policy (e.g. tranquillity versus population, targets to reducing CO₂).
 - b) CAA Policy (e.g. use of P-RNAV, design guidance)
 - c) Traffic growth (e.g. whether continued growth is good or the effect of the recent downturn).
 - d) Airport expansion/Air Transport White Paper.
 - e) Runway alternation.
 - f) Analysis methodologies (we are not consulting on the appropriateness of analysis techniques or models, e.g. ANCON noise modelling system).¹
- 9.9 The consultation material will consist of a hierarchy of materials as follows

Top tier - Summary information aimed at providing information on:

· Am I affected, and if so, am I interested?

To include press release, media launch, website with postcode search, executive summaries on web and with documentation. This information must be publicised sufficiently to ensure stakeholders are aware of its existence and of the existence of the detailed documentation below.

Middle tier - Main consultation document set aimed at providing information on:

- How might it affect me, my community, my business?
- Do I have any relevant information to feed back?

To include consultation questions, justification, swathe maps, area by area descriptions, environmental analysis results, aviation maps, FAQs.

Third tier – Technical documents aimed at providing information on how we came to our conclusions:

¹ CAP725 states that a submitted ACP must not contain "any aspects" that have not been consulted upon. " Any aspects" in this sense is to be interpreted as meaning there should be no aspects of the proposed designs in the ACP that have not been consulted upon, i.e. all changing routes, holds and CAS in the ACP must have been consulted upon.

To include environmental analysis reports, tables of options considered, technical FAQs. These will be in technical language presented for specialists rather than the layman.

9.10 All consultation materials will be in the English language only.

Maps & procedure descriptions

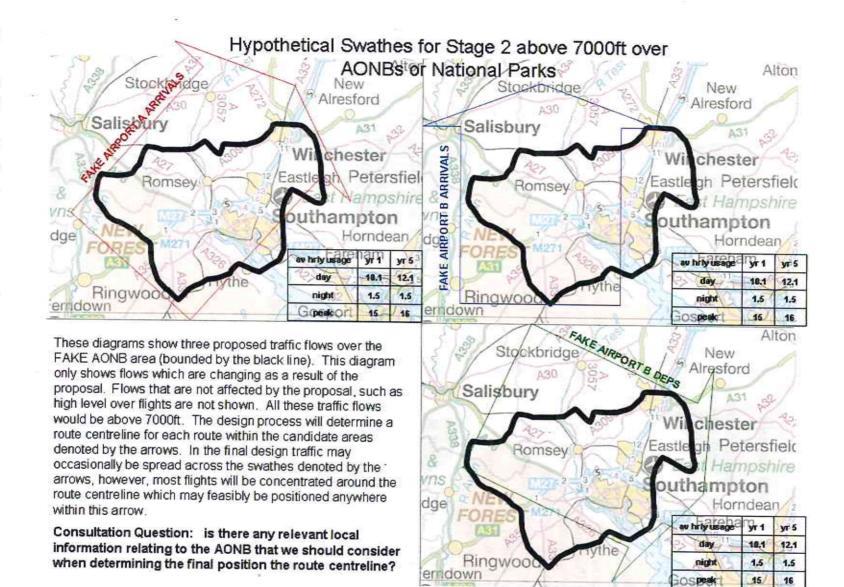
9.11 The maps for local consultees will be the corridor maps as shown in Figure 1-2 overleaf. These show the widest potential spread and worst case height for the potential route alignments that would fit the proposed concept².

² The 'widest potential spread' and 'worst case height' is used here in the context of standard operations. Track plots will occasionally show flights following unpredictable paths due to unusual circumstances such as avoiding action or weather avoidance. The potential for aircraft to follow unusual tracks is inherently unpredictable. Furthermore, the possibility of aircraft following such unpredictable tracks exists today and would remain unchanged as the result of the proposal, and so is not a 'change' that we are consulting on.

Figure 1: H	Average Hly Usage (Fith) Yr 1 Yr 5 Night 0.3 0.5 Day 4.6 7.1 Busiest 10.2 15.1 Iry Peas	Stanmore	Compton Final app	roach	Lower Be	sildon	1
Hypothetical		ke airport	Hampste Norrey Ms	ad	Upper Basildon	Pangbourne Ma	Toke
stage 2 swa	igerford wtown	1	lermitage	Bucklebury	Bradfield Key	Calco	
swathes 0-7	and the second	onnington Newbury	Cold Ash			4000ft-5000ft 5000ft-6000ft 6000ft-7000ft	τ
0-7000ft	The swathe shows the candidate area for positioning of a route centreline. In the final design traffic may occasionally be	Groenham	Thatcham	Woolha		7000ft-8000ft	az
	spread across this swathe, however, most flights will be concentrated around the route centreline which may feasibly be positioned anywhere within this swathe.	Newtown 84640	Alle	Brimpton	Aldermas elevation when a overheal indicate	ons should be taken into a possessing the potential heig ad aircraft for a given local ive Lmax levels for aircraft is available at data TD	ccount tht of tion. at given
	Consultation Question: is there any relevant local information that we should consider when determining the final position the route centreline?		Headley	Ashford Hill		ember Heath	Stratfield Say

Figure

2: Hypothetical stage 2 swathes for AONB/National Parks



9.12 Generic L_{max} (noise) figures for various aircraft types at various heights will also be provided.

Local Environmental Consultation Area

9.13 Based on extant DfT guidance the environmental consultation areas will be defined as areas directly beneath any airspace where the proposal may change traffic patterns below 7000ft agl plus any other area designated as AONB or national park beneath changes below FL195. Should the DfT guidance change before the consultation to remove the requirement to consult above 7000ft then we will adapt the plan accordingly.

Distribution of consultation materials

- 9.14 The consultation material will only be available online, however NATS will engage in a media launch that ensures that the availability of the documentation is widely publicised. Letters notifying stakeholders of the availability of consultation material will be sent to the following representative groups within consultation area:
 - a) All affected County, District, Borough Councils and unitary authorities (estimated to be around 2-300)
 - b) GLC and 'London Councils'
 - c) All affected MPs.
 - d) All affected AONBs
 - e) Consultative Committees for all affected airports
 - f) National bodies (Countryside Agency, English Heritage, NSCA, NT etc).
- 9.15 Aviation stakeholders (airlines, airports, GA etc...) with an interest in the region will be sent a notification letter pointing them to web & libraries for consultation documents.

Consultation briefings

- 9.16 Individual briefings will be offered to:
 - a) All affected County Councils and unitary authorities.
 - b) All affected MPs.
 - c) All affected Airport Consultative Committees.
 - d) Airports/Airlines/NATMAC/Military
- 9.17 Collective briefings will be offered to District & Borough Council representatives beneath hotspot areas, i.e. potentially noticeable changes such as holds, transitions and SIDs *flown* below 7000ft.
- 9.18 Briefings will **not** be offered to:
 - a) Districts & Boroughs beneath STARs, SIDs only flown in radio fail situations, or routes changing to follow existing swathes.
 - Other special interest groups (e.g. national bodies or pressure groups focusing on single issues).
 - c) Members of the public.

Consultation Responses

- 9.19 The feedback channels for consultees will be as follows:
 - a) Web based questionnaire with some free text entry but no email address.
 - b) Freepost address to be provided for postal response.
 - c) There will be no manned telephone line.

Response management

9.20 All responses will be logged in a database and categorised according to 'themes'. Answers to consultation questions will be analysed and new information contained within will be logged.

NATS acknowledgement & replies

- 9.21 NATS will use the following guidelines for acknowledgement and replies to questions raised by consultees during the consultation:
 - a) Online responses to the consultation will be automatically acknowledged.
 - b) Postal respondents will not be acknowledged.
 - c) Where we consider that additional information is necessary for respondents to provide their representations, whether identified through a response from a consultee or comes to our attention through other channels, we will publish the additional information in the FAQs section of the consultation website, so that the information is available to everyone. Potentially affected stakeholders will be notified if additional information is published including, if applicable, any consultee that identified the need for additional information in their response.
 - d) We will not enter into correspondence with individual respondents relating to this consultation.

Late Reponses

- 9.22 Late responses will be logged and stored but not analysed. In individual cases NATS may consider there to be sufficient justification to accept and respond to late feedback, however this will be at NATS discretion.
 - a) Responses considered 'late' will be:
 - Any response where the respondent had dated the letter after end of consultation, or
 - Any postal response received more than 7 days after the end of the consultation.
 - b) The web response facility will be closed at the end of the consultation.

Reporting feedback

- 9.23 The feedback report will be published on the web approximately 2 months after end of consultation (subject to volume of responses). It will contain the following:
 - a) A summary of responses.
 - b) Analysis of responses.

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	 c) Timeline for ACP submission and plann implementation "not before" a given d d) The role of the regulator in assessing to 	ate)	vindow (likely to be an
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			NATS Commercial In Confidence

From:

Sent: 16 May 2012 15:26

To:

Cc:

Subject:

Use of 80 dBA SEL Footprints in LAMP



I finally have a reply - sorry it has taken quite so long.

Firstly, I can confirm that we are content with the minutes you have provided for the meeting on 14 March 2012 (Draft 2).

Secondly, it is worth highlighting that the confirmation below is based upon the following information that you have provided in support of your case:

- The meeting minutes for 14 March 2012 (Draft 2) plus other previous related correspondence.
 - The example of the "corridor" diagram received on 27 April 2012
- The responses to CAA questions, received on 11 May 2012.

I am happy to confirm that for the purposes of the LAMP Airspace Change, the CAA will accept your proposed "corridor" diagrams as an alternative to 80dBA SEL footprints.

Other points to note:

- Any assessment and/or consultation material that uses the "corridor" diagrams should be clear about the profile being used e.g. is it the lowest profile or an average profile. If using the lowest profile, then that should be made clear in any accompanying text.
- From our discussions, it is understood that the "corridor" diagrams will be used as part of the assessment included in the Phase I (the "network-level") ACP. 90dBA SEL footprints are still to be used in Phase II ACPs when required under CAP725.
- The diagrams must incorporate a buffer into the corridor, per email of 11 May 2012, so that the corridor reflects all options being considered plus a reasonable margin such that most (if not all) flights would be within the portrayed corridor.
- Corridor diagrams must include the tables that were shown in the example, i.e. frequency of flights and Lmax table for typical and noisiest.
- Obviously if there are any changes in either Government policy, Government guidance of CAP725 that mean we need to reconsider this substitution, then we may have to revisit this decision.

If you have any questions about any of the above, please let me know.

Regards,