LONDON BIGGIN HILL AIRPORT

Proposal to introduce an Instrument Approach Procedure to Runway 03

Report of the Sponsor Consultation

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Executive Summary

London Biggin Hill Airport (LBHA) proposes to submit to the Civil Aviation Authority (CAA) a case for the introduction of an RNAV Instrument Approach Procedure (IAP) to Runway 03 at LBHA to enable all-weather operations to be conducted safely and efficiently. IAPs are procedures which are published by the CAA in the United Kingdom Aeronautical Information Publication (UK AIP) for use by aircraft arriving at LBHA.

The introduction of the new procedure will provide a full instrument approach capability to Runway 03 which does not currently exist. The current IAPs require that when Runway 03 is in use, aircraft must make an approach to Runway 21 followed by a visual circling manoeuvre to reposition onto the final approach to land on Runway 03.

The CAA requires that the introduction of the proposed IAP should be conducted as an airspace change in accordance with the requirements specified in CAP725[1]. An essential element of the process requires that the Sponsor of the change, in this case LBHA, must carry out a comprehensive consultation with both the aviation industry and the representatives of communities on the ground that may be affected by the proposed change. Furthermore, responses are invited from members of the public and other organisations who consider they may be affected by the proposed change.

This document is the Report of the Sponsor Consultation carried out by London Biggin Hill Airport between 18 November 2015 and 26 February 2016 and has been compiled with the assistance of Cyrrus Limited.

A total of 151 aviation, environmental, Local Government and community organisations or representatives were consulted. The aviation consultees included local airspace user organisations, national representative bodies and Air Traffic Management (ATM) organisations. Environmental consultees included County, Borough, District, Town, Village and Parish Councils over whose areas of interest the proposed IAP would lay. Certain national environmental organisations were also included, together with appropriate Members of Parliament.

A total of 36 responses were received from listed consultees, although some of these were combined responses on behalf of a number of consultee organisations. In total some 44 consultee organisations were represented in the 36 responses. In addition a further 36 responses were received from individual members of the General Aviation community and other members of the public and these have been taken into account in this Report. This is considered to be an adequate response to an airspace consultation.

There was a general widespread support for the proposal from Airport users, local residents and the wider airspace-user community. However, some concerns were raised by certain interfacing air navigation service providers (ANSPs) and certain elements of the General Aviation community. Other concerns were raised by a number of community organisations, predominantly in the Coulsdon area.

The issues raised by those objecting to the proposal, including those from respondees who were not on the consultation list, have been carefully analysed to determine whether there are any material issues affecting the proposal as a whole or whether any refinement of the proposed procedure design would be practicable before submitting a formal proposal to the CAA. LBHA has taken a balanced and even-

[1] CAP725: CAA Guidance on the Application of the Airspace Change Process

handed approach to concerns raised. The issues raised and the LBHA consideration of them is detailed in the body of this Report.

LBHA will now continue its dialogue with adjacent and interfacing ANSPs to resolve the ATM technical issues identified. In addition we will take due regard of the issues raised by community and other representatives to determine whether any modifications to the proposed IAP can be made, within the safety criteria for IAP design, to mitigate such concerns. Once these activities are completed LBHA will determine whether a case for the introduction of an IAP to Runway 03 can be submitted to the CAA.

LBHA extends its thanks to all consultees and other individuals who took the time to participate in this important consultation.

Abbreviations

ALT	Altitude
Amsl	Above mean sea level
ANO	Air Navigation Order 2010
ANS	Air Navigation Services
ANSP	Air Navigation Service Provider
ATC	Air Traffic Control
ATM	Air Traffic Management
ATS	Air Traffic Services
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication (UK CAA)
CAP 725	CAA Guidance on the Application of the Airspace Change Process
CAT	Commercial Air Transport
CTA	Control Area
CTR	Control Zone
DfT	UK Department for Transport
FAS	Future Airspace Strategy
GA	General Aviation
IAP	Instrument Approach Procedure
ICAO	International Civil Aviation Organisation
IFR	Instrument Flight Rules
IMC	Instrument Meteorological Conditions
LBHA	London Biggin Hill Airport
LTMA	London Terminal Control Area
NATS	(the ANSP licenced by government to provide en route and terminal ATS)
PANS-OPS	ICAO Document 8168 Volume 2 “Design of Visual and Instrument Flight Procedures”
RMA	Radio Mandatory Area
RNAV	Area Navigation
RotAR	Rules of the Air Regulations
S&R	Sport & Recreational Aviation
SES	Single European Skies
TMA	Terminal Control Area
TMZ	Transponder Mandatory Zone
UDP	Bromley Unitary Development Plan
VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions

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1. Introduction

1.1. London Biggin Hill Airport (LBHA) proposes to submit a case to the Civil Aviation Authority (CAA) for the introduction of an RNAV Instrument Approach Procedure (IAP) to Runway 03 at LBHA to enable all-weather operations to be conducted safely and efficiently.

1.2. The introduction of an IAP will provide full instrument approach capability to Runway 03 which does not currently exist. The current IAPs for LBHA require that, when Runway 03 is in use, an aircraft must carry out an instrument approach to Runway 21 followed by a visual circling manoeuvre to reposition onto the final approach to land on Runway 03.

1.3. The CAA has specified that the introduction of proposed new IAPs should be conducted in accordance with the CAA requirements specified in CAP724[2] and CAP725. As part of the procedure development process LBHA has carried out a full Sponsor Consultation with the aviation industry and other interested parties as specified in CAP725. Moreover, LBHA has provided the opportunity for individual members of the aviation community and the general public to respond to the Consultation should they feel that they may be affected by the proposed IAP. All responses received have been taken into account.

1.4. This document is the Report of the Sponsor Consultation carried out by LBHA between **18 November 2015 and 26 February 2016[3].** The background to the Consultation and methodology used are detailed in **Appendix A**.

1.5. This Report contains statistical information on responses to the Consultation together with a detailed review of responses received from the listed consultees, submissions from other individual aviators and members of the public or other community organisations. It identifies and responds, in **Appendix B**, to key issues raised by those objecting to, or otherwise commenting on, the proposal.

1.6. It should be recognised that the consultation process requires that LBHA should take a balanced judgement on the key issues raised by consultees and, if necessary, adapt the proposed procedure design to incorporate appropriate aspects if they can be accommodated within the strict safety requirements for instrument flight procedure design and airspace management. This Report details the LBHA responses to key issues raised and the balanced conclusions reached by LBHA.

1.7. LBHA extends its thanks to all consultees and other individuals and organisations who took the time to participate in this important consultation.

[2] CAP724: The Airspace Charter

[3] Note: The original consultation period was scheduled to end on 18 February 2016. However, due to difficulties experienced by consultees in linkage to the CAA website LBHA extended the consultation period by one week.

2. Confidentiality

2.1. The CAA requires that all Consultation material, including copies of responses from consultees and others, is included in any formal submission made to the CAA.

2.2. LBHA undertakes that, apart from the necessary submission of material to the CAA and essential use by our consultants for analysis purposes, LBHA will not disclose the personal details or content of responses and submissions to any third parties. Our consultants are signatories to confidentiality agreements in this respect.

3. Statistics

3.1. A total of 151 consultation letters were distributed by post or e-mail as detailed in Appendix A. The consultee groups are detailed in Figure 1 below.

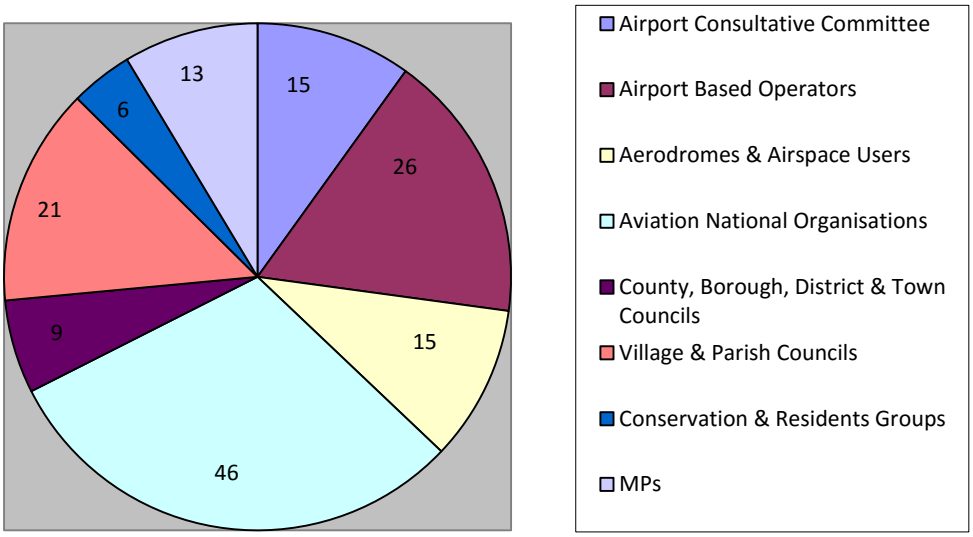

Figure 1: Distribution of Consultees

Note: Aviation "National Organisations" comprises those organisations who are members of the CAA's National Air Traffic Management Advisory Committee (NATMAC).

3.2. The Sponsor Consultation document was distributed via a dedicated link on the LBHA website. Hard copy documents were available for distribution to consultees when requested. Additionally, the local press featured the Consultation so that individual members of the public could respond if they felt that they may be affected by the introduction of the proposed procedure.

3.3. A total of 36 responses were received from consultees, although a number of these were collective responses representing a number of organisations submitting a combined response (for example, NATMAC Military consultees always submit a consolidated military response). In total, 44 (29%) consultee organisations were represented in the responses and these are set out in Table 1 and Figure 2 below.

	Listed Consultee Groups	Number consulted	Responses	%
1.	Airport-based Operators	26	9	35
2.	Airport Consultative Committee	15	2* (15)	100
3.	Aerodromes & Airspace Users	15	4	27
4.	National Aviation Organisations	46	9* (14)	30
5.	County, Borough, District & Town Councils	9	3	33
6.	Village & Parish Councils	21	6	29
7.	Conservation & Residents Federations	6	1	17
8.	Members of Parliament	13	2	15
	Totals	151	54	36

Table 1: Responses from Consultee Groups

(Note: * indicates combined responses with number of organisations represented by bracketed numbers)

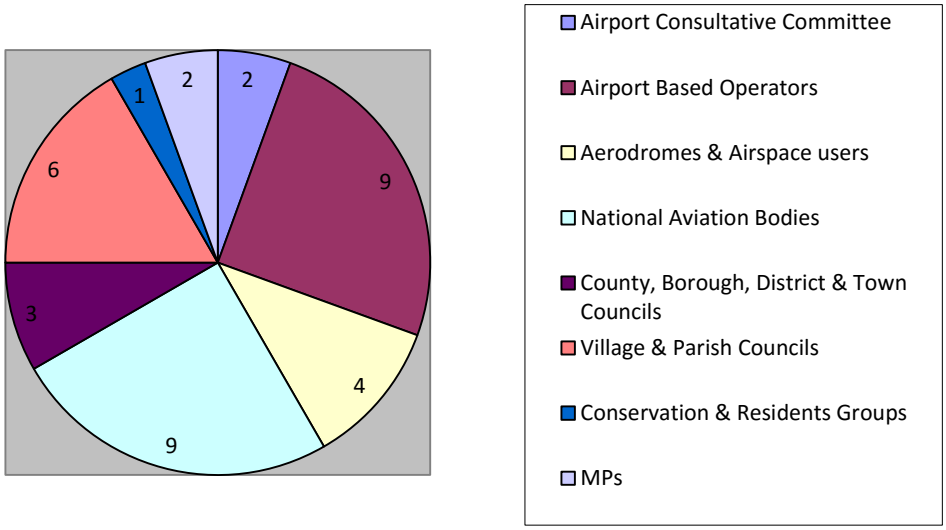

Figure 2: Distribution of Responses

3.4. A 36% return is considered an acceptable rate of response for airspace consultations of this nature. In addition to the responses from consultees shown in Table 1 a further 36 responses were received from individual pilots, members of the public or community representatives (e.g. Residents Associations).

3.5. Six enquiries were received seeking clarification about the Consultation and the proposed procedure. Additional information was provided and responses were subsequently received from most of this group. Such a low figure indicates that the format and content of the document suited the requirements of the majority of consultees and other interested parties.

3.6. During the consultation period, 3 meetings were held with interested parties to discuss aspects of the proposals. The meetings held were:

- At the request of a local MP, between LBHA and a number of community and aviation interested parties to explain the proposed IAP in detail;
- With Redhill aerodrome to discuss aspects to be addressed in the development of a Memorandum of Understanding on operational integration of the proposed IAP with Redhill operations;
- With CAA SARG, in January 2016, to ensure that the methodology used to assess the interactions of the various flight procedures operating from and to the various LTMA airports was appropriate and met regulatory requirements. It was agreed that an "Interactions Document" would need to be submitted as part of the ACP.

4. Analysis of responses

4.1. Responses were received from 36 (24%) of the consultee organisations. Some of the responses were collective (representing more than one individual or organisation) so that the responses represented 36% of the consultees. A further 36 submissions were received from individual members of the public or the aviation community or from community representative organisations (e.g. Residents Associations).

4.2. Seventeen (11%) consultee organisations supported the proposal. A further 14 supportive responses were received from individuals or other organisations. In some cases support was accompanied by suggestions regarding procedure configuration and operation.

4.3. Five (3%) consultee organisations objected to the proposal. A further 20 responses were received from individuals or community organisations objecting to the proposal.

4.4. Eleven (7%) of the consultees stated that they had no comments to make on the proposal or made neutral observations. Two additional respondents made neutral observations.

4.5. One hundred and fifteen (76%) of the consultees did not respond individually to the proposal, although some (see 4.1) were represented by collective responses. It is concluded from the low response rate that many stakeholders were ambivalent about the change proposal as its impact on their area of interest was minimal and did not warrant comment.

4.6. Overall, this is considered to be an acceptable response rate to a technical consultation of this nature and forms an acceptable basis for moving the proposal forward to the next stage of the airspace change process.

4.7. In the main, aviation consultees supported the principle of the proposed IAP, although there were reservations about the interaction between the IAP and traffic operating under VFR in the corridor of Class G airspace located between the Biggin ATZ and the Gatwick CTR/CTA and Redhill aerodrome activity.

4.8. In the main, the non-aviation consultees, and others who responded, objected to the proposal principally on the basis of: overflight of built-up areas; overflight of population centres not previously affected; insufficient environmental analysis and lack of detailed consideration of alternatives within the consultation document.

5. Key themes arising from the responses

5.1. In analysing the responses from consultees and others LBHA has identified key themes in those responses received from those consultees who objected to the proposed procedure. For each key theme we have taken a balanced approach in consideration of, and response to, each issue.

5.2. The key themes and LBHA response are detailed in **Appendix B**.

5.3. It must borne in mind that we do not have a "clean sheet of paper" when developing the configuration and flight path of a new IAP to runway 03. Safety is paramount at all times and in this context the CAA regulatory requirements for IAP design using internationally-recognised ICAO PANS-OPS criteria, together with the extant airspace arrangements and other Instrument Flight Procedures (IFPs), limit the alternative configurations available.

5.4. The safety constraints, in turn, limit the flexibility to adjust proposed flight paths so that they avoid overflight of all communities or, indeed, remain over the areas where aircraft making a visual circling manoeuvre to runway 03 currently operate.

5.5. Thus, within the overriding safety requirements for procedure design, it should be understood that the ultimate design of an IAP is a fine balance between competing operational and environmental requirements.

6. Post-consultation review and supplementary consultation

6.1. A number of issues, both of an operational and an environmental nature, were raised by the responses to the Consultation. These issues will need to be addressed and resolved by LBHA, in consultation with other parties, before the proposal can be progressed to a formal ACP to be submitted to the CAA.

6.2. In particular, LBHA is developing an "Interactions Document" within which we will identify each of the operational interactions between the proposed IAP and other IFPs in the LTMA in order to work with NATS to re-affirm that appropriate separation exists or to develop suitable mitigations and operating practices which would be acceptable to both parties and to the CAA.

6.3. In the event that the Operational Interactions work detailed above leads to any significant alteration to the proposed IAP then we will liaise with CAA to determine whether a further consultation is required before submission of a formal ACP.

6.4. Furthermore, should the Operational Interactions work indicate that a minor change to other IFPs in the LTMA might be of benefit to the introduction of the IAP to runway 03 then we will work with the CAA, and with the appropriate aerodrome operators and ANSPs, to determine whether separate ACPs would be required to facilitate such changes.

6.5. As outlined in Appendix B, we will consult with the CAA to establish whether any formal CO_2 assessment is required and, if so, how the Regulator would expect such assessment to be conducted.

6.6. In the event that a further consultation is required by the CAA then this will be publicised on the LBHA website as well as directly to the consultee organisations specified by the CAA.

7. Conclusions

7.1. LBHA remains convinced that the introduction of an IAP to runway 03 is feasible and would represent a substantial benefit to sustainable all-weather operations at LBHA. In particular, it would offer improved aircraft operating efficiencies, as well as accruing safety benefits through improved stability in the approach, and environmental benefits by enabling more efficient approach profiles to be flown.

7.2. Notwithstanding, a number of important operational and environmental matters have been identified in this consultation which must be addressed and, where appropriate, resolved before the proposal can be submitted to the CAA for regulatory approval and implementation.

8. What happens next?

8.1. As detailed in Section 6, LBHA will develop an "Interactions Document" within which we will identify each of the operational interactions between the proposed IAP and other IFPs in the LTMA in order to re-affirm that appropriate separation exists between procedures or develop suitable mitigations and operating practices to resolve potential conflict. In short, LBHA will work with NATS and other ANSPs to resolve the operational issues and develop an operating methodology which is acceptable to all parties and which is in accord with CAA regulations.

8.2. LBHA will liaise with the CAA to establish whether any further environmental evaluation is necessary to support the formal application for the ACP.

8.3. In the event that the work outlined above leads to reconfiguration of the proposed IAP to runway 03, then LBHA will liaise with the CAA to determine whether any further consultation is required before the formal submission of an ACP is made. Where further consultation is required, then this will be publicised on the LBHA website as well as directly to the consultee organisations specified by the CAA.

8.4. Should the CAA indicate that no further consultation is required, then LBHA will publicise this on the LBHA website and proceed to develop a formal ACP for submission to the CAA.

A. Consultation methodology

A.1. Introduction

A.1.1. The CAA sets out its regulatory requirements and processes for applications to change the status of airspace or the associated airspace arrangements in CAP724 "The Airspace Charter" and CAP725 "CAA Guidance on the Application of the Airspace Change Process". A proposal to introduce a new IAP where none previously existed is considered by the CAA to be a change to the airspace arrangements.

A.1.2. An essential element of the airspace development process is for the Sponsor of the change, in this case LBHA, to carry out an extensive consultation with the airspace users who may be directly affected by the change and, moreover, with organisations representing people on the ground who may be affected by the potential environmental impact of the proposed change.

A.1.3. This airspace development proposal and Sponsor Consultation has been conducted in accordance with the CAA requirements.

A.1.4. LBHA carried out this Sponsor Consultation between **18 November 2015 and 26 February 2016** in accordance with the principles set out in the Cabinet Office Code of Practice on Consultation.

A.2. Consultation methodology

A.2.1. A comprehensive Sponsor Consultation Document was prepared by LBHA with the assistance of Cyrrus Limited, a specialist airspace management consultancy company with extensive experience of airspace and flight procedure design and managing changes to airspace arrangements through a consultation process to meet the CAA requirements.

A.2.2. The Sponsor Consultation Document was posted at a discrete link on the LBHA website. Notifying letters were sent to consultees by e-mail wherever practicable, or by post where e-mail was not practicable, detailing the Consultation and how to access the Consultation documentation. Paper copies of the Sponsor Consultation Document were made available to consultees on request.

A.2.3. The Cabinet Office Code of Conduct on Consultation and the CAA requirements specify a minimum period of 12 weeks for consultation. In order to allow for the Christmas and New Year holiday periods LBHA extended the consultation period to 13 weeks. Subsequently it was brought to LBHA's attention that the links in the Consultation document, to reference documentation, no longer worked. It was found that the CAA had re-hosted its website and so all links had to be manually reinserted. In order to compensate for the period that the links were not available LBHA further extended the consultation period by another week, thus making a total of 14 weeks for the Consultation.

A.2.4. Within the consultation period consultees were invited to consider the proposal and submit a response to LBHA, either through a discrete link on the LBHA website or in writing. In addition, consultees were given the opportunity to seek clarification of the terminology used or any other aspects of the Consultation or the proposed IAP design.

A.2.5. In order to promote maximum response and to make the Consultation available to members of the public beyond the representative organisations in the consultation list, LBHA placed notices regarding the Consultation in six local/regional newspapers.

A.2.6. In addition to the consultation material published and made widely available, several meetings were held as set out in paragraph 3.6.

A.3. Developing the consultee list

A.3.1. Development of the "Consultee List" is very much dictated by the CAA requirements specified in CAP725 and LBHA sought appropriate advice from the CAA in developing the list.

A.3.2. The CAA requires that the consultation must be addressed, inter alia, to those UK National Aviation Organisations represented on the CAA's National Air Traffic Management Advisory Committee (NATMAC). The list of NATMAC organisations and their representatives was provided by CAA SARG. It should be noted that a number of NATMAC organisations field more than one representative. Thus, a total of 46 consultees represented 28 civil consultee organisations and 5 military departments represented the military airspace interests.

A.3.3. In addition, local airport users and airspace user groups together with off-airport airspace user organisations and local aerodromes that may be affected by the airspace change were included in the Consultation.

A.3.4. With respect to Community and Environmental consultees, the CAA requires that the Consultation encompasses statutory bodies and appointed Councils, down to Parish Council level, throughout the area that would be overlaid by the proposed airspace design.

A.3.5. Thus, at the start of the consultation LBHA sent out consultation invitations to 151 consultee organisations. The consultee list therefore comprised:

- 26 Airport users, including Flying Clubs and other based companies;
- 15 Members of the Airport Consultative Committee;
- 15 Off-Airport airspace users, including airports, aerodromes, flying schools and clubs, and commercial airspace users;
- 46 Civil and military NATMAC consultees representing 33 organisations;
- 9 County, Borough, District and Town Councils;
- 21 Village and Parish Councils;
- 6 Conservation and Residents' Federations;
- 13 Members of Parliament.

A.3.6. In addition, six local/regional newspapers carried notices highlighting the Consultation.

A.3.7. Access to the Sponsor Consultation document was not limited in any way. Members of the general public (including individual aviators) as well as the listed consultees had access to the documentation through the LBHA website, and through the supply of paper copies (where requested).

A.3.8. Submissions received from individuals or organisations which were not included in the formal list of consultees have been included in the analysis and taken into account by LBHA.

B. Issues and themes of concern arising from the Consultation

	Issue	LBHA Comment
1.	Links to CAA website did not work.	Some 11 weeks into the consultation it was brought to our attention that the links in the Consultation document to the reference CAA documents no longer worked. It transpired that the CAA had introduced a new website. This meant that we had to manually re-install all of our links. Following discussions with the CAA, LBHA extended the consultation period to 26 February to allow consultees more time to consider the reference documents.
2.	Deficiencies in the Consultee List. Affected Residents Associations not consulted Consultation came to light only by chance Should have been advertised in the Local Press LB Croydon officers should have disseminated information	The Consultee List was compiled in accordance with the CAA guidance and advice as detailed in **Appendix A** of this Report. The CAA guidance is that Consultation should be conducted down to Parish Council level, which was done in this case, and relies on the listed Consultees to disseminate information to appropriate focal points within their spheres of operation. With respect to notification to the wider general public, the Consultation was notified to the Local Press and via the Airport's main website. Notwithstanding that the Guidance given in CAP725 does not require a public consultation, on the advice of the CAA, the Sponsor Consultation Document was made freely available on the LBHA website to all who might have considered they would have an interest in the proposal.
3.	Concern about the list of safety and noise related exclusions from the Consultation. All are considered matters of valid concern to residents when aggregated with the new safety and noise impact of the proposed procedure.	This Consultation is about the single issue of the proposed introduction of a new IAP, as specified by the CAA in CAP725. It is not about any other issue or combination of issues. Adequate alternative means exist for residents to raise their concerns on other aspects of the Airport's operation or the wider aspects of aviation policies and practices either with the Airport management itself or with the CAA.

	Issue	LBHA Comment
4.	<u>Forecast Movements</u>: Significant fluctuations on the number of landings per annum on runway 03. What forecasts for runway 03 landings over the next 5 and 10 years. One respondent considers an additional 6750 aircraft would use the procedure per year. Lack of forecast movements data given. Decline in traffic indicates no justification for a new procedure. LBHA growth aspirations not indicated in the consultation document.	The proposed IAP to runway 03 is not being introduced as a means to generate traffic growth over and above that which has already been approved for LBHA. The determination of whether runway 21 or runway 03 is used for arriving and departing aircraft depends on the prevailing wind conditions at the time. In general terms, the prevailing wind in the UK is from the southwest which means that runway 21 will be in use for most of the time. Empirical and climatological evidence shows that the prevailing wind generally favours the use of runway 21 for approximately 70% of the time and runways 03, 11, or 29 for approximately 30% of the time. Table 1 in the consultation document showed that between 2009 and 2014 less than 16% of all IFR arriving flights per year required to land on runway 03 (the number of IFR landings on 03 varying between 336 (5.7%) and 869 (15.25%) for those years). This proportion is not expected to increase substantially as a consequence of the new IAP to runway 03, although there may be a small proportional increase due to the lower landing minima available with the IAP, meaning that fewer aircraft would need to divert to other airports when the weather conditions fall below the Visual Circling minima for Runway 21. In terms of specific numbers, whilst the overall number of IFR arriving business flights at LBHA is expected to gradually increase as a proportion of total movements, it is estimated that the number of IFR flights requiring to land on runway 03 will remain at circa 20% of the total arrivals. Given the highly competitive nature of the business and executive aircraft market it is difficult to predict the future IFR aircraft movements at Biggin Hill in the short to medium term. As a business we try to attract additional clients through the marketing of our quality product and services and, at least, sustain the relationships we have developed in recent years. As a result, we consider that only modest growth in this market is achievable in the current decade.

	Issue	LBHA Comment
5	<u>Impact on residents close to Rwy 03 threshold.</u> 35% more landings on runway 03; Misleading statement on noise reductions; How have noise contours been determined; No mention of additional runway 21 departures; Helicopter noise very annoying; what arrival and departure routes will be used; P180 is very noisy, does it comply with LBHA noise limits?	Table 1 of the Sponsor Consultation Document showed that in the years 2009 to 2014 less than 16% of IFR arrivals per year required to land on runway 03 (*and for 3 of those years the proportion was less than 10%*). The availability of an IAP to runway 03 may slightly increase the proportion of IFR arrivals landing on runway 03, principally because the lower landing minima available with the IAP will reduce the number of aircraft that currently have to divert to other aerodromes when the weather conditions fall below the minima for Visual Circling from runway 21. Current and forecast Noise Contours for the Airport are produced by specialist noise consultants in accordance with recognised methodologies which are accepted by the CAA. As a result of comment raised by some consultees, we commissioned additional work with a specialist noise consultant to develop a noise model that covers a wider area than that presented in the Sponsor Consultation Document. The noise assessment was done in accordance with the CAA guidance given in CAP 725 which specifies what must and should be undertaken. This assessment is detailed in the notes from Bickerdike Allen Partners (reference no: A9912-N02-DC dated 6 January 2016) which have been placed on the Airport website. In the introduction of the Sponsor Consultation Document it was explained what the Consultation was about. It also explained what was not included in the scope of the Consultation. Notwithstanding, several consultees raised comment about other matters, so please note that this Consultation is not about departing aircraft from runway 21, nor any forecast growth of business aviation at LBHA. It is not about helicopter traffic (for which the operating procedures do not change and it should be noted that rotary-wing aircraft do not generally utilise IAPs), nor is it about the noise profile of individual aircraft types using the Airport. Concerns over these issues should be addressed to the Airport separately through the established channels.

	Issue	LBHA Comment
6.	Visual approach is better than Instrument Approach because aircraft need to stay within sight of the airfield. IAP requires them to fly further away and over more people.	The availability of an IAP to runway 03 will provide lower weather minima than is available for aircraft carrying out an approach to runway 21 followed by visual circling onto runway 03. This will ensure greater continuity of operation for all-weather operations at the Airport and a greater assurance of a successful landing being achieved when runway 03 is in use in poor weather conditions. It will result in fewer aircraft having to divert to other airports when the weather conditions fall below the minima for the Visual Circling manoeuvre. It is widely recognised that Visual Manoeuvring at low level in poor weather conditions, following an approach to another runway, is not appropriate for modern-day high-performance business-jet aircraft types which are now using LBHA. Endeavouring to keep the runway in sight during a period of high cockpit workload whilst configuring the aircraft for landing and, at the same time keeping a look-out for other aircraft in the vicinity that might not be known to Air Traffic Control, can lead to an unstable approach. Conversely, carrying out a properly designed IAP which can be flown automatically by the aircraft navigation systems (most of the flight path of which is retained within controlled airspace) results in a substantially lower cockpit workload and a stable approach. Moreover, it affords greater opportunity to look for other aircraft during the shorter period that the aircraft is outside controlled airspace. The overall result is a substantial enhancement to the safety and regularity of all-weather operation.

	Issue	LBHA Comment
7.	More aircraft will directly overfly the Coulsdon area - not currently overflown. Increased noise exposure to high population density; Spurious arguments regarding high ambient noise levels; Lack of consideration of other routes; Benefits to other communities outweighed by disbenefits to Coulsdon residents. No justification documented for chosen route over other routes.	It is acknowledged that the proposed procedure would overlie parts of the built-up areas of Coulsdon and Purley which are not currently overflown by aircraft inbound to LBHA. However, this is counterbalanced by the fact that: the built-up areas in proximity to the A23 trunk road experience a relatively high ambient noise level during the periods that the IAP is likely to be flown; the incidence of aircraft requiring to make approaches to runway 03 is low; and the additional noise generated by the modern aircraft types using the procedure would be imperceptible to people on the ground. Authoritative studies indicate that the sound level experienced at the kerbside of a busy road is in the region of 80dBA and the sound level of a diesel truck 10m away is in the region of 90dBA. Conversely the sound level experienced on the ground from an aircraft carrying out the proposed IAP would be in the region of 56dBA, which is equivalent to less than the sound of conversational speech at 1m distance. The SEL charts in the consultation document show that no new populations are exposed to sound levels of 80dBA from aircraft flying on the proposed procedure. A more recent noise assessment was done in accordance with the CAA guidance given in CAP 725 which specifies what must and should be undertaken. This assessment is detailed in the note from Bickerdike Allen Partners (reference number A9912-N02-DC dated 6 January 2016) and has been placed on the Airport website The strict safety requirements for procedure design coupled with the other airspace activity in the area severely constrain the alternative options that are available for the design of the proposed IAP. The proposed procedure represents, in our view, the only feasible option that can be fitted in to the available airspace. (See also Item 18 below)

	Issue	LBHA Comment
8.	Inadequate noise assessments: Misleading presumption that aircraft on initial segments of the Initial Approach are indistinguishable from higher LTMA traffic or lower GA traffic. Both should be considered as factors in the overall noise nuisance. A number of statements in consultation document challenged by a number of significant consultees.	Aircraft in the LTMA which are inbound to Heathrow are at or above 7000ft amsl when in proximity to LBHA. CAA noise data indicates that for the noisiest aircraft group (typically 500 seat 4-engined jet) at 7000ft the noise experienced on the ground is approximately 60dBA. This is equivalent to the noise level of conversational speech. Comparable noise data for a 50-seat regional jet (which is comparable to the larger corporate aircraft using LBHA) at 3000ft is approximately 56dBA - i.e. quieter than conversational speech*. Other studies have shown that light piston-engined General Aviation aircraft are consistently noisier than corporate jet aircraft at low altitudes. LBHA has no control over aircraft within the LTMA arriving at or departing from other airports. Nor does it have jurisdiction over itinerant General Aviation flights transiting in uncontrolled airspace in proximity to LBHA. [*The dBA values cited in this response are the "instantaneous noise levels from aircraft overflights". They should not be confused with the Leq noise contour values (averaged across 16-hour periods) which reflect UK DfT policy and are used in the responses to the issues listed in Paragraph 9.]

	Issue	LBHA Comment
9.	<u>Inadequate noise assessments</u>. Leq contours are only close-in to the airfield. Nothing shown for further-out impacts. Noise statements not supported by factual evidence. Trial flights need to be carried out against which the public can judge the noise impact. No evidence to support the assertion that aircraft at 3000ft are unlikely to be heard on the ground or indistinguishable from other aircraft noise. No quantitative evidence of noise pollution on the southern parts of London Borough of Croydon. No quantitative assessment of noise impact on villages not currently overflown. Community annoyance exists at noise levels around 50dBA, which means residents up to 1km either side of the proposed route would be affected. No environmental data on other routes considered.	The Current and forecast Leq Noise Contours are developed by specialist noise consultants in accordance with standard methodologies as required by the CAA. The Noise Contour Chart in the Sponsor Consultation document (Figure 11) depicts the 2014 and forecast 2020 57dB LAeq 16hr contour. DfT Policy is that 57dB LAeq16hr represents the onset of significant community annoyance. Although LBHA does not operate night-time movements we have, nonetheless, included in the Consultation document (Figures 12 and 13) SEL* charts depicting the 80dBA footprints for single noise events along 3** nominal specimen tracks for the Visual Circling manoeuvre (following an approach to runway 21) and for the proposed IAP. These show that communities overflown by any individual aircraft making a Visual Circling manoeuvre are likely to be subject to a noise level in excess of 80dBA from that aircraft, whereas exposure to this noise level for aircraft carrying out the IAP is limited to the final 1.5 miles or so of the final approach path. [* SEL charts are useful in portraying the impact of aircraft movements at night on sleep disturbance. Research has shown that for outdoor aircraft noise events below 90dBA SEL the average person's sleep is unlikely to be disturbed. The 80dBA SEL noise level depicted in the consultation document is below that of the 90dBA SEL used to represent sleep disturbance.] [** The flight path for the Visual Circling manoeuvre is variable and is determined by the pilot when endeavouring to keep the runway in sight at low level whilst manoeuvring the aircraft to the final approach path to runway 03.] A more recent noise assessment was done in accordance with the CAA guidance given in CAP 725 which specifies what must and should be undertaken. This assessment is detailed in the note from Bickerdike Allen Partners (reference number A9912-N02-DC dated 6 January 2016) and has been placed on the Airport website.

	Issue	LBHA Comment
10.	Inadequate balanced argument: No balanced comparison of advantages of the procedure against disadvantages to newly affected populations.	The current visual manoeuvring approach to runway 03 does not provide any respite for those persons living in the runway 21 approach as all the current IAPs cross this area during part of the approach. Furthermore, conurbations located to the west and south-west of the Airport are overflown at low-level whenever an aircraft carries out visual manoeuvring to runway 03 where the noise levels are perceptible even though transient. The planned new IAP will provide some respite for those persons living under the runway 21 approach when runway 03 is in use. Furthermore, given that the new procedure will be flown at a higher altitude in the initial and intermediate segments (when compared to the current runway 03 visual manoeuvring profile), any aircraft noise exposure in these parts of the flight profile will be less than currently experienced at the comparable locations under the current route. A more recent noise assessment was done in accordance with the CAA guidance given in CAP 725 which specifies what must and should be undertaken. This assessment is detailed in the note from Bickerdike Allen Partners (reference number A9912-N02-DC dated 6 January 2016) and has been placed on the Airport website.

	Issue	LBHA Comment
11.	Air Pollution CO2): No quantitative assessment of air pollution on the southern parts of the London Borough of Croydon. No assessment of CO_2 emissions of existing or forecast traffic on approach.	The proposed IAP to runway 03 is not being introduced as a means to generate traffic growth over and above that which has already been approved for LBHA. Thus no additional CO_2 emissions would accrue as a direct consequence of the introduction of the IAP over and above those accruing from the already approved forecast growth of the Airport. On a positive note, it is likely that there will be greater assurance of a successful landing in poorer weather conditions which would mitigate the additional CO_2 emissions that would arise from an aircraft needing to divert to an alternative airport following an unsuccessful attempt to land on runway 03 by visual circling. As stated in the Consultation document, current Government guidance is that due to the effects of mixing and dispersion, emissions from aircraft above 1000ft are unlikely to have any significant effect on air quality; thus the London Borough of Croydon should not be adversely affected as the aircraft on the procedure would be above this altitude. It is recognised that certain parts of the Tandridge district will be overflown at the lower altitude when the aircraft turns onto final approach. A quantitative assessment of the CO_2 emissions will be undertaken and reported on the LBHA website when complete.
12.	Terrain: No assessment of the terrain factors in the assessment of the impacts. References are only to Altitudes (above mean sea level). Comparative heights above communities needs to be included.	It is normal practice to reference IAPs to altitudes above mean sea level (amsl). LBHA is approximately 600ft amsl and the terrain to the south (towards the M25) rises to 876ft amsl. To the west, where the downwind leg segment of the IAP is located the terrain is generally below 500ft amsl. The procedure does not overfly the built-up areas of Purley or Coulsdon below 2500ft above ground level. We have used a steeper than normal descent path (3.5˚ instead of 3˚) on the final approach in order to keep the aircraft as high as possible for as long as possible. A level flight segment at 2000ft from the Initial Approach Waypoint to the Intermediate Fix Waypoint is dictated by the ICAO PANS-OPS procedure design criteria in order to ensure a stable approach.

	Issue	LBHA Comment
13.	<u>London/Gatwick/Biggin Corridor:</u> Extremely narrow gap between CTRs and Biggin ATZ; tightest "choke point" and busiest in UK; Choke point has good visual navigation feature (M25) for "right side" collision avoidance. Virtually no flights crossing this feature. IAP compromises this. Vertical profile of IAP places IFR arriving traffic into direct crossing conflict with VFR transiting traffic at the point at which it is most likely to be breaking out of cloud and in the narrowest part of the choke point; High probability of TCAS RAs against GA transits with no means of avoidance other than climb back into TMA; Risk of incursion into CAS by VFR transits when avoiding IAP traffic; Many transiting flights non-communicating and non-transponder; Some itinerant traffic in contact with Farnborough LARS, what co-ordination arrangements?; Conflict with IFR transiting flights below CAS; Impact on Blackbushe and Fairoaks IFR traffic	There is already conflict between IFR arriving flights carrying out a Visual Circling Manoeuvre (which may not be contained within the ATZ) and itinerant aircraft flying between the Biggin ATZ, Redhill ATZ and the Gatwick CTR/CTA. Maintaining visual contact with the runway in poor weather conditions at a time of high cockpit workload whilst at the same time endeavouring to keep a lookout for itinerant small aircraft is, in itself, potentially hazardous and carries the risk of an unstable approach. The proposed IAP keeps the aircraft inside controlled airspace for longer, thereby reducing exposure to potential confliction of flight paths for both parties, and creates a stable approach which can be effectively managed by the aircraft on-board navigation systems, thereby affording a greater opportunity for enhanced lookout from the aircraft conducting the IAP for the reduced period when it is outside controlled airspace. Furthermore, the depiction of the existence of the IAP on 1:250000 and 1:500000 aeronautical charts will heighten the awareness of itinerant GA aircraft that they may encounter IFR aircraft making an instrument approach to Biggin Hill. IAPs are published for numerous aerodromes in Class G airspace where the incidence of itinerant non–participating airspace activity is high and this is accepted by the CAA. For aircraft in receipt of a service from Farnborough LARS, the Biggin aircraft would be identifiable by the Biggin Hill Conspicuity Squawk and appropriate co-ordination or traffic information instituted. As no records are kept of itinerant GA flights below the LTMA which do not communicate with Biggin ATC, the number of such flights is unquantifiable. Therefore no quantifiable risk analysis can be carried out, other than to the extent that retaining IFR flights within controlled airspace for the maximum possible time reduces the exposure to risk for both parties. The UK does not adopt the ICAO Standard detailed in Annex 11 para 2.10.5.1 and the CAA considers it acceptable that IAPs exist in uncontrolled airspace.

	Issue	LBHA Comment
	<u>London/Gatwick/Biggin Corridor (cont)</u> No traffic study and risk analysis supporting the proposal; Reluctance by LBHA to enter into discussions to consider risks and risks analysis or consideration of safer options; ACP for this proposal unlikely to be acceptable to CAA as safety is not maintained or improved. Representations will be made to safety regulator.	
14.	<u>IAP minima</u>: Only LNAV and LPV minima given. APV would enhance pilot spatial awareness.	The proposed RNAV IAP will include minima for both LNAV (which is a non-precision approach (NPA)) and LPV (Localiser Performance with Vertical Guidance), which is an Approach with Vertical Guidance (APV). See Figure 6 of the consultation document.

	Issue	LBHA Comment
15.	Access to IAP by non-TMA arrivals: The IAP profile is within controlled airspace (LTMA). Can non-TMA IFR arrivals fly the procedure at 2400ft (below TMA)? Can non-CAS arrivals join the procedure at the routing waypoints? A direct arrival via DORKI to IAWP would assist in avoidance of the Gatwick CTR/CTA.	The proposed IAP is intended for use primarily by IFR flights inbound to LBHA from the Airways/LTMA route structure and provides linkage to the TMA arrival routes (STARs). Furthermore, the vertical profile of the IAP is designed to retain aircraft within controlled airspace at the highest practicable altitude so as to reduce exposure to itinerant IFR/VFR traffic below the TMA and to minimise noise disturbance to communities on the ground. LBHA experiences very few arriving IFR flights from Class G airspace below the LTMA. However, for such flights the existing arrival procedures and IAPS will remain in place. IFR Flight at levels other than those notified for the procedure is not permitted. Rule 24 (1) of the Rules of the Air Regulations 2015. Other IAPs remain available for flights which are not inbound to LBHA from the LTMA route structure. Whilst it may be possible to establish RNAV Direct Approach Procedures for IFR flights below controlled airspace to the Intermediate Waypoints, it is not intended to establish procedures until sufficient practical experience of integrating the proposed IAP within the existing airspace arrangements has been secured.
16.	Gatwick departures vs Biggin Arrivals: Integration of 03 Approaches with Gatwick departures of major concern; Increased controller workload at Gatwick and Swanwick; Changes to SIDs required; will require consultation to change them; Required climb gradients may not be achievable by all departures; Possible impact on Gatwick capacity.	A number of ATM issues, which have been the subject of extensive consultation and evaluation with NATS, have been identified which will need further resolution. The interactions have been catalogued and evaluated to establish the procedures that need to be developed to assure appropriate ATM separation standards are maintained. Further discussions and appropriate evaluation will be carried out with the ANSPs responsible for the Gatwick traffic and further CAA advice sought as appropriate. These discussions will determine whether any changes are necessary to the proposed IAP. We will then liaise with CAA to determine whether further consultation is required. The results of this technical discussion will form part of the formal submission to the CAA.

	Issue	LBHA Comment
17.	Replication of Visual Circling tracks: No evidence presented as to why the IAP cannot follow the original blue line to the M25 over less populated areas.	It is presumed that this refers to the 3 blue lines in Figures 11 to 14 in the consultation document. The lines depicted are not "procedure design" tracks but are arbitrary specimen tracks which were developed to enable the noise (SEL) analysis to be carried out. The visual circling manoeuvre has no fixed, or predetermined, flight path but would be determined visually by the pilot endeavouring to keep the runway in sight In poor weather conditions whilst manoeuvring and reconfiguring the aircraft for landing. The visual circling manoeuvre could potentially be carried out across the whole expanse of the area depicted by the blue lines or, indeed, beyond that area. The criteria for IAP design specified in ICAO Document 8168 (PANS-OPS) are very stringent in order to ensure that an aircraft carrying out the procedure is protected from obstacles and the manoeuvring required is compatible with the performance capabilities of any aircraft using it, and also that, for RNAV procedures, it is within the functionality of the aircraft navigation systems used to provide navigational guidance. The procedure design criteria for RNAV IAPs specify minimum segment lengths which must be provided between consecutive turns. The minimum segment lengths between turns are dependent on the aircraft speed and the size of the turn to be made. In addition, constraints are placed on the minimum lengths of the final approach and intermediate segments of the procedure. In combination, therefore, it is not possible to create an IAP which is closer to the Airport or has a shorter final approach path than the procedure as proposed. The proposed procedure has been designed to be the shortest procedure possible that could be fitted into the available airspace. Furthermore, a steeper than optimum final approach descent path has been used to ensure that aircraft remain as high as possible for as long as possible.

	Issue	LBHA Comment
18.	<u>Other Options</u>: No details of other options that have been considered and why they have been rejected. Why is the proposed procedure over densely populated areas rather than over open areas to the east? No justification as to why only a single route was chosen. Some significant newly affected population centres omitted from Figure 7 of the consultation document and impact on them is not considered. No detailed assessment of the environmental impacts of **all** other options considered.	As explained above, it is not possible to construct an IAP over the areas to the west of the aerodrome but to the east of Warlingham/Caterham due to the constraints of the international safety criteria for IAP design. The design of an IAP is an iterative process and must take into account not only the procedure design criteria but also the other airspace activities that might affect the procedure design. In this case we did consider, at the earliest stages, an IAP to the east of LBHA. See paragraph 4.2.2 of the consultation document. However, it was concluded that such an alignment would have had a potentially greater adverse effect on Gatwick arrivals to runway 26 and departures from runway 08 which would potentially lead the aircraft Traffic Collision Avoidance and Alerting Systems (TCAS) identifying the LBHA arriving flight as a "threat" and generating nuisance warning or avoidance alerts. This would not be acceptable to the overall ATM safety management arrangements and was therefore rejected. We also considered an option whereby an aircraft inbound to LBHA runway 03 would be considered as, and handled by NATS as, a Gatwick arrival. However, this would have impacted on Gatwick runway capacity, which was not acceptable to the airport operator, and would have required a different flight planned arrival route through the LTMA for runway 03 from that applicable to runway 21, which was equally unacceptable to safe and regularised LTMA operations. Thus, the only feasible option from a procedure design point of view and against which aircraft separation, TCAS and other ATM safety issues could be resolved was a procedure to the west of LBHA. Having established that this was the only viable option, it was a case of matching the procedure design criteria for aircraft speeds, minimum final approach path length, descent path options, and minimum segment lengths to provide the best fit against the available airspace and other airspace activities.

	Issue	LBHA Comment
19.	Monitoring: No indication of what post-implementation monitoring will be carried out to assess the impact on communities. No indication of what post-implementation impacts could trigger consideration of alternative routes.	The CAA requires that a Post-Implementation Review (PIR) is carried out 12 months after the implementation of any airspace change conducted under the CAP725 process. The PIR will, inter alia, assess whether the IAP, as approved, has achieved the objectives stated in the ACP. If it has not, then the CAA may withdraw the procedure or require LBHA to make any necessary adjustments (which might entail a further ACP) to achieve compliance.
20.	Track variability: The track of the proposed procedure is nominal and subject to variations and tolerances. It is therefore no more than an aspiration that might not materialise.	All instrument navigation procedures are subject to tolerances which are specified in the various airworthiness requirements for the aircraft equipment and are taken into account in the procedure design criteria to ensure that aircraft have, at all times, adequate separation from obstacles. In practice the actual navigation performance of aircraft on a day-to-day basis is more accurate than the "worst case" tolerance allowed for in the airworthiness requirements. The proposed IAP is an RNAV GNSS procedure requiring the use of satellite navigation technology which is, in itself, a highly accurate navigation aid. The majority of aircraft using the IAP will be using both lateral and vertical navigation (LNAV/VNAV) guidance to carry out an LPV approach, which is an approach with the lateral accuracy, and repeatability, of an ILS localiser.
21.	Track accuracy: The inherent accuracy of RNAV technology results in persistent annoyance for those living below the flight path. This is unacceptable. Proposal does not utilise the accurate navigation capability to direct the flight path away from populated areas.	The move towards Performance-Based Navigation (PBN) and associated RNAV IAP implementation is UK CAA Policy in accordance with EU and ICAO initiatives and is an essential feature of the UK Future Airspace Strategy (FAS). Indeed, it is only the availability of this Policy and the highly accurate and repeatable navigation afforded by PBN technology which enables an IAP to runway 03 to be considered. However, in common with all IFPs, whether conventional or RNAV, the procedures must be designed in accordance with the safety criteria for procedure design (PANS-OPS), which sometimes precludes the alignment of tracks away from built-up areas.

	Issue	LBHA Comment
22.	Radio Mandatory Airspace: Abandonment of the Radio Mandatory Airspace (RMA) proposal compromises safety.	The possible introduction of a complementary RMZ around LBHA to contain the proposed IAP was considered at the Focus Group stage of the procedure development. However, Industry feedback from the Focus Group indicated that an RMZ in the confined airspace available would not be acceptable to the Industry as it is known that several non-radio equipped aircraft operate regularly in the area. As such, it was unlikely that the CAA would accept such a case. Therefore the decision was taken that the IAP proposal would be progressed independently of any other proposal to change the status of the airspace. (Notwithstanding this, good airmanship should facilitate itinerant radio-equipped VFR flights transiting close to the LBHA ATZ making an RTF call to Biggin Approach to ascertain whether an IAP is taking place without the imposition of RMA.) Consequently the proposed IAP has been designed so that the IFR arriving flight to runway 03 from the Airways system can be retained within the overlying controlled airspace for as long as is practicable, thereby minimising exposure to itinerant non-radio aircraft below controlled airspace and outside the LBHA ATZ. The CAA considers it acceptable that IAPs exist outside controlled airspace and that "see and avoid" is an acceptable means of collision avoidance. The indication of the IAP "arrow" on VFR aeronautical charts will alert itinerant VFR pilots to the existence of the IAP and that an IFR flight might be encountered. Similarly, a properly constructed and stable IAP will enable the pilots of the IFR flight to ensure a more comprehensive lookout for other flights. Furthermore, when the proposed IAP is being used to facilitate a landing in poor weather conditions it is unlikely that non-radio VFR traffic would be operating.
23.	Routes for aircraft from the southwest: The proposed IAP continues to use the ALKIN hold, which is very fuel-efficient for aircraft from the north/east but not so for aircraft from the south/west.	The arrival routes for aircraft inbound to LBHA through the LTMA from the Airways System are specified by NATS London Terminal Control and are not within the gift of LBHA to determine. The retention of the ALKIN holding fix as the starting point of the proposed IAP (following routing via the NATS-derived OSVEV Transition Arrival Routes) is compatible with the overlying LTMA ATM arrangements.

	Issue	LBHA Comment
24.	Tactical deviations from the procedure: The consultation document makes no reference to the possible impact of tactical "short cuts" in the LTMA to access the IFP.	The situation for an IAP is different to the situation cited by the respondent regarding a previous airspace change elsewhere. That was about tactical direct or shortened routings used by controllers within the LTMA away from a Standard Arrival Route (STAR) at higher levels within the LTMA. For IAPs neither the pilot not the controller has the authority to deviate from or "shorten" that which is published.
25.	Waypoint design: Different navigation performance of aircraft navigation systems in interpreting "flyover" and "flyby" waypoints and different resultant tracks.	All waypoints in the proposed IAP are specified as flyby waypoints and the required navigation database coding will be published as part of the procedure publication requirements. Coding any part of the procedure with a flyover waypoint is therefore not an option for navigation database providers. The procedure is also speed limited (also specified within the coding tables) to reduce the segment lengths. Figure 14 of the consultation document was developed by our Noise Consultants to represent assessments along the flight path and does not depict the waypoint positions (perhaps this should have been made clear in the text). As an example of the "turn anticipation" for a flyby waypoint, at a maximum speed of 180kt for a 65˚ track change at 25˚ bank angle in still air the turn anticipation is 0.6NM. The on-board Flight Management System (FMS) assesses the prevailing wind conditions and ground speed and initiates the turn and adjusts the bank angle to follow the required flight path.
26.	Waypoint query: In the consultation document the text states that waypoint ARR01 is over the M25 Junction 4 whereas the diagrams show it to be to the southwest of Junction 4.	This is an error in the text. Waypoint ARR01 is actually approximately ½NM southwest of Junction 4 as depicted in the procedure diagram at Figure 7. The track from ALKIN towards ARR01 overflies Junction 4. At a nominal maximum speed of 210kt the initiation of the turn for the flyby waypoint would start in the vicinity of Junction 4.

	Issue	LBHA Comment
27.	Compensation: What financial compensation will be made to residents who have not previously been overflown by any defined flight paths? (Various communities identified.)	A more recent noise assessment was done in accordance with the CAA guidance given in CAP 725 which specifies what must and should be undertaken. This assessment is detailed in the note from Bickerdike Allen Partners (reference number A9912-N02-DC dated 6 January 2016) and has been placed on the Airport website. LBHA believes that no case for compensation exists within the provisions of the Civil Aviation Act 1982.
28.	Future Development Areas: The procedure development and consultation has taken no account of potential future development areas which are under separate planning consultation. Such developments could be adversely affected by the LBHA proposal.	Development in Bromley has been guided for a number of years by the Bromley Unitary Development Plan (UDP). This contains a 57dB Laeq.16h noise contour for LBHA. In its Noise Action Plan, LBHA has committed that in future its noise contour will not exceed 50% of the total area of the currently adopted UDP noise contour. Any impact on future development from LBHA will therefore be less than considered in the UDP. However, the planning process for future development areas must take due regard of the approved future development plans of LBHA, which may, in turn, require alteration of flight paths to take account of emerging CAA Policies with respect to navigation technology or the consequential effects of airport developments elsewhere.
29.	NATS: A comprehensive response was received from NATS identifying a number of operational and institutional issues which have not yet been fully resolved.	Further discussions will continue with NATS to resolve outstanding technical ATM issues before submission of an ACP to CAA.