

CAA Consultation Assessment

Title of airspace change proposal	Swanwick Airspace Improvement Programme Airspace Deployment 6 (SAIP AD6)
Change sponsors	NATS En Route Ltd (NERL) and London Luton Airport Operations Limited
Project reference	ACP 2018 - 65
Account Manager	[REDACTED]
Case study commencement date	06 July 2021
Case study report as at	18 November 2021

Instructions

In providing a response for each question, please ensure that the 'status' column is completed using the following options:

- YES
- NO
- PARTIALLY
- N/A

To aid the SARG Lead it may be useful that each question is also highlighted accordingly to illustrate what is:

resolved YES not resolved PARTIALLY not compliant NO

Executive Summary

This airspace change is sponsored jointly by NATS and London Luton Airport Operations Limited (LLAOL). London Luton Airport (LLA) and Stansted Airport's arrival flows from all directions are shared from Top of Descent (TOD) to the same holding stacks at LOREL (near Royston, Hertfordshire) and ABBOT (near Sudbury, Suffolk and Great Yeldham, Essex), with the shared arrivals then separated as aircraft descend through c. 8,000 ft by air traffic controllers (ATCOs) using vectoring. The sponsor's airspace change proposal addressed arrival flows to LLA and removing their interaction with Stansted Airport's arrival flows within the existing London Terminal Manoeuvring Area (LTMA).

The sponsors consulted on moving LLA's arrival flightpaths, leaving Stansted Airport's arrival flows unchanged, to address a latent safety issue caused by the complexity of LLA arrivals and their interaction with Stansted Airport arrival flows at higher altitudes. Reducing the complexity would in turn reduce the intensity of air traffic controller workload because the arrival flows to LLA and Stansted Airport would be separated further out and higher up ensuring safe and efficient operations for the future and reducing delay to the travelling public.

Two options were consulted upon. Option 1 sought to establish a new hold or stack for LLA arrivals, with associated airspace and routes, at c. 8,000 ft and above with air traffic controllers vectoring or using shortcuts or mixing both methods to bring arrivals from 8,000 ft down to the runway. This

option would reduce complexity and minimise the change from today’s flightpaths at lower altitudes. Option 2 sought to establish a new hold or stack for LLA arrivals, with associated airspace and routes, at c. 8,000 ft and above with air traffic controllers using vectoring to descend aircraft down to the runway and introducing predetermined arrival flightpaths (Performance Based Navigation (PBN) RNAV1¹) transitions for aircraft to fly automatically without intervention from controllers. The proposed new hold applicable for both options (named ZAGZO) would be located over Grafham Water Reservoir (a Site of Special Scientific Interest (SSSI)), near to the junction of the A1 and A14 west of Huntingdon in Cambridgeshire. The sponsors’ preferred option was option 2 being more aligned with central government’s Airspace Modernisation Strategy (AMS) as it would result in an increased reduction in air traffic complexity due to the availability of predetermined flightpaths.

The sponsors did not propose changes to LLA departures or to the way in which Stansted Airport’s arrivals and departures fly. Post-submission the sponsors confirmed that the proposal will affect some Stansted Airport departures and post-consultation engagement has been conducted with the sponsors’ main aircraft operators regarding guaranteeing controlled airspace (CAS) containment for some Stansted Airport Standard Instrument Departures (SIDs) routes. The airspace change proposal is not related to LLA’s Development Consent Order (DCO) planning application to increase its annual passenger limit and flight numbers.

The sponsors conducted a consultation mostly virtually over 15 weeks and 5 days and received 2453 responses. The sponsors revised their proposal as a result of consultation feedback. At upper altitudes, the sponsors moved their proposed new hold, which is not expected to be used continuously, northwest by 2.5km, altered its orientation by 20° anti-clockwise, and amended its availability so that aircraft would hold 1,000ft higher under normal operating conditions at c. 9,000 ft. The sponsors reduced the dimensions of the originally proposed CAS required at higher altitudes, to contain new standard arrival routes (STARS) and the new hold. The sponsors shortened two of the higher altitude arrival routes keeping some aircraft higher for longer and increasing ATCOs’ ability to organise a viable arrival sequence due to the moved/reoriented hold which is likely to reduce the need to use the hold. At lower altitudes, the sponsors progressed option 1 vectoring as their final proposal, known as option 1A, rather than their preferred consultation option 2 PBN with vectoring. The sponsors have proposed re-classification of the new CAS required to class C airspace.

The sponsors’ submission recognises the impact of the coronavirus pandemic on aviation. The sponsors are of the view that the change remains necessary to ensure the airspace is fit for purpose when traffic returns to pre-pandemic levels, to allow for safe potential future growth at the airport and to resolve the air traffic complexity in the region.

PART A – Summary of Airspace Change Process to date	
A.1	Airspace change proposal public view (caa.co.uk)
A.2	Stage 1 DEFINE Gateway
A.2.1	The required documentation was presented on time and we were satisfied that the change sponsors had met the requirements of the Process up to that point. Progress to the next Step of the Process was therefore approved.

¹ Area Navigation Specification 1

A.3	Stage 2 DEVELOP & ASSESS Gateway	
A.2.1	The required documentation was presented on time and we were satisfied that the change sponsors had met the requirements of the Process up to that point. Progress to the next Step of the Process was therefore approved.	
A.3	Stage 3 CONSULT Gateway	
A.3.2	<p>The sponsors did not initially progress through the stage 3 gateway assessment meeting and a recommendation was made that they address actions relating to consultation, technical, environmental, and economic considerations. Amended documentation was presented on time for the August 2020 gateway assessment meeting and the CAA was satisfied that the sponsors had met the requirements of the process up to that point. Progress to the next Step of the Process was therefore approved.</p> <p>The sponsors submitted Step 3D Consultation Feedback Report version 1.0 on 10 June 2021 and on request then provided their categorisation of responses in excel spreadsheet format for review and placed Step 3D Technical Compliance Supplement (Categorisation List) Issue 1.0 on the CAA's airspace change portal. Inconsistencies in the way in which the categorisation had been completed together with some queries were drawn to the attention of the sponsors who undertook remedial actions and submitted version 2 of their categorisation spreadsheet on 24 June 2021 together with Step 3D Technical Compliance Supplement (Categorisation List) Issue 2. The sponsors were asked to address some tagging inconsistencies within version 2 related to campaign responses. These were addressed with an explanation provided within Step 3D Technical Compliance Supplement (Categorisation List) Issue 2.1 as to how campaign responses had been tagged. The CAA was satisfied that the sponsor had met the requirements of the process up to that point.</p>	
A.4	Stage 4 UPDATE & SUBMIT	
A.4.1	The sponsors formally submitted their proposal. During the document check process, the sponsors were asked to provide particular items of engagement evidence to support their submission. All documentation requested was submitted.	

PART B – Consultation Assessment		
B.1	AUDIENCE	
B.1.1	Did the consultation target the right audience?	Yes
	The sponsors identified an audience that spanned local authorities, airlines, private pilots, businesses, environmental and community organisations, members of the general public likely to be impacted by the proposed change and aviation stakeholders who may use the region's airspace or have some aviation technical expertise. The region of interest considered by the sponsors for this proposal covered much of Bedfordshire and Hertfordshire together with parts of eastern Buckinghamshire, Southern Cambridgeshire, northern Essex, and	

western Suffolk.

The sponsors' stakeholder list was annexed to their consultation strategy [Consultation Strategy \(2\).pdf](#) (Annex A). The sponsors stated that they consulted directly with those stakeholders listed at Annex A to their strategy and examples are:

- The London Luton Airport Consultative Committee (LLACC) and their Noise and Track Sub-Committee (NTSC) that represent communities currently overflowed by arrivals at the airport, 4 County Councils (Buckinghamshire, Central Bedfordshire, Cambridgeshire, and Hertfordshire) and 10 District, Borough and City Councils representing communities which would be newly overflowed below 7000 ft, 159 Town/Parish Councils and 3 associations of town and parish councils. Some of these councils are members of the LLACC and some are members of both the LLACC and the NTSC.
- Community organisations and campaign groups including Luton and District Association for the Control of Aircraft Noise (LADACAN), People against Aircraft Intrusive Noise (PAIN) and Stop Luton Airport Expansion. Some of these organisations are also members of the LLACC and some are members of both the LLACC and the NTSC.
- 19 Members of Parliament, for constituencies currently or potentially overflowed by LLA arrivals, were written to, and sent copies of leaflets promoting awareness of the consultation for distribution to their constituents.
- Environmental and conservation groups including the Environment Agency, Campaign to Protect Rural England (CPRE), Friends of the Earth (Luton group), Natural England and Chilterns Conservation Board Area of Outstanding Natural Beauty (AONB).
- 30 National Air Traffic Management Advisory Committee (NATMAC) members including Airspace 4 All, Aircraft Owners and Pilots Association (AOPA), British Gliding Association (BGA) and Ministry of Defence (MoD) Defence Airspace and Air Traffic Management (DAATM).
- 58 aviation stakeholders including airlines, nearby airports, local aerodromes, and air users including easyJet, London Stansted Airport, London Heathrow Airport, National Police Air Service (NPAS), East Anglian Rocketry Society (EARS), London Gliding Club at Dunstable, and The United States Airforce in Europe (USAFE) who operate two bases in Suffolk at RAF Lakenheath and RAF Mildenhall.
- Miscellaneous stakeholders including the Chamber of Commerce.

The sponsors used a range of publicity activities and engagement channels to promote awareness of the consultation for stakeholders including:

- Members of the general public likely to be impacted by the proposals, assessed by the sponsor as being people newly overflowed by aircraft below 7,000 ft which may have noise impacts
- Individuals that use the region's airspace or have some aviation technical expertise including Individual private pilots who fly their aircraft in the vicinity of the proposed new airspace

The sponsors stated in their engagement strategy that they would be relying on the goodwill of intermediaries (for example airport

	<p>consultative committees and local authorities) to promulgate the consultation to those they represented and that they would follow up to encourage participation. Follow up activities included meeting with Huntingdonshire District Council Members, holding 5 dedicated webinar sessions for local government officers, at all levels of local government, meeting directly with some MP's and issuing follow up correspondence to MP's during the consultation.</p> <p>The sponsors attempted to contact umbrella organisations to promote awareness of the consultation to digitally excluded and seldom heard audience groups including those that support older people (for example Age UK), and ethnic minorities (non-English speakers were estimated to be 11% in Luton and 3% outside, with the sponsors having assessed that the consultation did not directly impact Luton town).</p> <p>Stage 2 engagement was conducted with stakeholders including councils representing Bedfordshire, Buckinghamshire, and Hertfordshire residents. It does not appear that Cambridgeshire councils were engaged with at that time. For example, Cambridgeshire County Council expressed their concern at not being engaged at stage 2. Cambridgeshire councils were consulted during stage 3. In response to questions from stakeholders specifically on a lack of engagement prior to stage 3 with Huntingdonshire councils and elected representatives, the sponsors stated that stage 1 and 2 engagement was based on areas that are overflowed under 7000 ft. based on government guidance, so Huntingdon was not directly involved prior to stage 3.</p> <p>Additional engagement was conducted post stage 2 CAP 1616 with the LLACC, the MoD and the general aviation (GA) community driven by air traffic control simulations which led to the revisions of the dimensions and locations of some volumes of controlled airspace. Detail on this was provided within the consultation materials.</p>
B.1.2	Please provide a summary of responses below
	<p>The sponsors received 2453 responses to their consultation from stakeholders that reflected the sponsors' identified audience addressed at B1.1 above, including responses from local authorities and town/parish councils. A total of 2426 responses were analysed by the sponsors as 27 responses were not analysed for the reasons set out below:</p> <ul style="list-style-type: none"> - 1 was an administrative test response - 2 responses were withdrawn at the request of the respondents - 3 responses were removed due to abusive content - 21 were duplicate responses <p>The sponsors received 4 responses by post and uploaded them to the citizen space portal. One of these responses was identified as a duplicate of an online entry and so 3 postal responses were analysed. One postal response was received 10 days after the consultation had closed and was deemed too late to be considered.</p> <p>The consent question, addressing whether respondents wished to have their names published alongside their response, was initially set to a discretionary rather than mandatory setting, and as a result 78 responses were received without the sponsors having clarity on</p>

whether consent had been given. One of these responses was identified as a duplicate. The sponsors decided not to publish the remaining 77 responses but has analysed the content. The sponsors amended the setting on the consent question after the first 10 days of the consultation.

Of the total number of 2426 responses analysed, 2392 respondents provided valid postcodes. The sponsors identified whether each postcode fell into one of the following groups: major consultation area at and above 8,000 ft, major consultation area below 8,000 ft or not in the overflight area. The numerical data extracted from the responses reflects these postcode groupings for questions 1 to 7 responses.

Response data for Questions 1 – 4 for respondents *at and above 8,000 ft* is set out below:

Types of responses	Number of responses and percentage of total responses for questions 1, 2, 3 and 4 for respondents with postcodes in the consultation area <i>at and above 8,000 ft</i> .			
	Question 1. To what extent do you agree that Option 1 is an acceptable solution for Runway 07 (easterly)?	Question 2. To what extent do you agree that Option 1 is an acceptable solution for Runway 25 (westerly)?	Question 3. To what extent do you agree that Option 2 is an acceptable solution for Runway 07 (easterly)?	Question 4. To what extent do you agree that Option 2 is an acceptable solution for Runway 25 (westerly)?
Strongly disagree	1004 (86%)	986 (84.7%)	1006 (86.94%)	994 (86.06%)
Disagree	50 (4%)	55 (4.72%)	45 (3.88%)	49 (4.24%)
Neither agree nor disagree	73 (6%)	82 (7.04%)	76 (6.56%)	80 (6.92%)
Agree	17 (1.45%)	15 (1.28%)	10 (0.86%)	12 (1.03%)
Strongly agree	22 (2%)	26 (2.23%)	20 (1.72%)	20 (1.73%)

Total	1166	1164	1157	1155
Response data for Questions 1 – 4 for respondents in the consultation area <i>below 8000 ft</i> is set out below:				
Types of responses	Number of responses and percentage of total responses for questions 1, 2, 3 and 4 for respondents with postcodes in the consultation area <i>below 8,000 ft</i>.			
	Question 1. To what extent do you agree that Option 1 is an acceptable solution for Runway 07 (easterly)?	Question 2. To what extent do you agree that Option 1 is an acceptable solution for Runway 25 (westerly)?	Question 3. To what extent do you agree that Option 2 is an acceptable solution for Runway 07 (easterly)?	Question 4. To what extent do you agree that Option 2 is an Acceptable solution for Runway 25 (westerly)?
Strongly disagree	567 (61.36%)	552 (60.06%)	741 (80.19%)	701 (76.19%)
Disagree	67 (7.25%)	54 (5.87%)	64 (6.92%)	51 (5.54%)
Neither agree nor disagree	52 (5.62%)	97 (10.55%)	39 (4.22%)	86 (9.34~%)
Agree	67 (7.25%)	55 (5.98%)	41 (4.43%)	46 (5%)
Strongly agree	171 (18.50%)	161 (17.51%)	39 (4.22%)	36 (3.91%)
Total	924	919	924	920

Response data for Questions 1 – 4 for respondents *not in the overflight area* is set out below:

Types of responses	Number of responses and percentage of total responses for questions 1, 2, 3 and 4 for respondents with postcodes <i>not in the overflight area</i> .			
	Question 1. To what extent do you agree that Option 1 is an acceptable solution for Runway 07 (easterly)?	Question 2. To what extent do you agree that Option 1 is an acceptable solution for Runway 25 (westerly)?	Question 3. To what extent do you agree that Option 2 is an acceptable solution for Runway 07 (easterly)?	Question 4. To what extent do you agree that Option 2 is an acceptable solution for Runway 25 (westerly)?
Strongly disagree	71 (24.91%)	66 (23.07%)	150 (52.26%)	106 (37.19%)
Disagree	34 (11.92%)	28 (9.79%)	34 (11.84%)	21 (7.36%)
Neither agree nor disagree	51 (17.89%)	81 (28.32%)	35 (12.91%)	76 (26.66%)
Agree	65 (22.80%)	51 (17.83%)	38 (13.24%)	48 (16.84%)
Strongly agree	64 (22.45%)	60 (20.97%)	30 (10.45%)	34 (11.92%)
Total	285	286	287	285

Response data for question 5 is set out below:

Question 5. Do you prefer option 1 or option 2?			
Number of responses and percentage of total stakeholder responses to question 5 for each respondent group identified by postcode			
Types of responses	Responses from those in the consultation area <i>at and above 8,000 ft.</i>	Responses from those in the consultation area <i>below 8,000 ft.</i>	Responses from those <i>not in the overflight area.</i>
Option 1 vectoring	43 (4.14%)	257 (29.7%)	107 (38.48%)
Option 2 PBN routes and vectoring	45 (4.3%)	105 (12.13%)	69 (24.82%)
No preference	585 (56.35%)	287 (33.17%)	68 (24.46%)
Don't know	365 (35.16%)	216 (24.97%)	34 (12.23%)
Total	1038	865	278

From a review of the raw data responses, stakeholders used the free text box to clearly state their views on the proposal including stating that they wanted a do-nothing option or neither option. Some stakeholders used the free text box to state that they had marked the “no preference” or “don't know” options included in the question because the question did not give the response options of a do-nothing option or neither option. The free text box was also used to suggest alternative design changes. As a result, the data set out in the table above should be read in conjunction with the issues raised by stakeholders via free text box responses as identified in B5.4 below.

At lower altitudes, the sponsors progressed option 1 vectoring as their final proposal, known as option 1A, rather than their preferred consultation option 2 PBN with vectoring which was said to be in recognition of the preference expressed by consultees for option 1. In their answers to clarification questions document (1) [Clarifications Q_A \(1\).pdf](#), the sponsors explained that as by definition they could not study the responses from those stakeholders stating that they had no preference or didn't know which option they preferred, they studied those who did provide a preference. Of those in the consultation area both at and above 8,000 ft and below 8,000 ft who provided a preference, 300 stakeholders (66.7%) indicated a preference for option 1 and 150 (33.3%) indicated a preference for option 2. The sponsors inferred that those respondents in the region "at and above 8,000 ft" understood that there would be no difference between options in their upper region, with the greatest number of responses "below 8,000 ft" where those option differences would manifest in their lower region. The sponsors' interpretation of the numerical data was combined with their analysis of negative comments provided for option 2 PBN and positive comments expressed for option 1 dispersal.

Questions 6 and 7 asked about route alternation options for option 2. Data for responses given are set out below.

	Question 6 asked: If option 2 is progressed, how frequently would you like to alternate between routes, from the hold to the runway in use, to provide a degree of respite?		
	Number of responses and percentage of total stakeholder responses to this question for each respondent group identified by postcode		
Types of responses	Responses from those in the consultation area <i>at and above 8,000 ft.</i>	Responses from those in the consultation area <i>below 8,000 ft.</i>	Responses from those <i>not in the overflight area.</i>
Daily	128 (12%)	140 (16%)	25 (9%)
Every 2 days	32 (3%)	35 (4%)	8 (3%)
Weekly	64 (6%)	35 (4%)	14 (5%)
Other (request to specify via a free text box)	330 (31%)	315 (36%)	79 (28%)

No preference	256 (24%)	174 (20%)	98 (35%)
Don't know	266 (25%)	174 (20%)	53(19%)
Total	1076	874	277

From a review of the raw data responses, stakeholders generally used the option “other” to provide feedback that didn’t relate to question 6, for example by re-iterating their view of the proposal as a whole.

	Question 7 asked: If option 2 is progressed, at what time of day would you like to change between the two routes from the hold to the runway in use?		
	Number of responses and percentage of total stakeholder responses to this question for each respondent group identified by postcode		
Types of responses	Responses from those in the consultation area <i>at and above 8,000 ft.</i>	Responses from those in the consultation area <i>below 8,000 ft.</i>	Responses from those <i>not in the overflight area.</i>
Around midnight	60 (6%)	42 (5%)	18 (7%)
Mid-morning	99 (10%)	76 (9%)	27 (10%)
Early morning	30 (3%)	34 (4%)	11 (4%)
No preference	368 (37%)	369 (44%)	147 (55%)
Don't know	437 (44%)	319 (38%)	64 (24%)
Total	994	840	267

Question's 8 and 9 were stated as being technical questions. They were targeted at airspace users with a technical understanding of airspace classifications. Unlike the tables above, no distinction is made in the tables for questions 8 and 9 below regarding postcode.

	Question 8. Technical question (no requirement to respond). What classification of airspace would you like the high level additional controlled airspace to the north of LLA to be?
Types of responses	Number of responses and percentage of overall number of key stakeholder responses to this question
Class A	88 (9.3%)
Class C	22 (2.32%)
Class E	51 (5.39%)
No Preference	785 (82.98%)
Total	946

On reviewing the raw data of stakeholder responses for question 8, non-airspace users as well as airspace users answered question 8, using the free text box to state that they did not understand the question, that the question should not have been asked in this type of consultation or to re-iterate the comments given to other questions using the free text boxes.

		Question 9. Technical question (no requirement to respond). To what extent would your flight operations be impacted by the proposed Class D airspace, which is required to contain the RNAV1 Transition to Runway 07 north of Leighton Buzzard (PBN Option 2)?
	Types of responses	Number of responses and percentage of overall number of key stakeholder responses to this question
	Major impact	241 (50%)
	Significant impact	77 (16%)
	Moderate impact	33 (7%)
	Some impact	24 (5%)
	No impact	106 (22%)
	Total	481
	<p>On reviewing the raw data of stakeholder responses for question 9, non-airspace users as well as airspace users answered question 9, using the free text box to state that they did not understand the question, that the question should not have been asked in this type of consultation or to re-iterate the comments given to other questions using the free text boxes.</p> <p>Question 10 asked stakeholders “If you have any other comments you would like to make, please provide them here” and provided a free-text box for responses. The responses provided to this and all other free-text boxes have been reviewed.</p>	
B.2	APPROACH	
B.2.1	Did the change sponsor consult stakeholders in a suitable way?	Yes
	The sponsors conducted their consultation using the citizen space online platform via the CAA’s airspace change portal and as a result their consultation was aligned with CAP 1616 requirements. Stakeholders were given the option to respond by post. The postal address was included within the consultation document and the consultation strategy.	
B.2.2	What steps did the change sponsor take to encourage stakeholders to engage in the consultation?	

The following steps were taken to encourage stakeholders to engage in the consultation:

- The sponsors contacted 19 MPs prior to the commencement of the consultation offering pre-consultation briefings and sent follow up communications by email at launch and key points of the consultation requesting that MPs continue to share details of the proposal with their constituents. Nine MPs attended virtual round table events and five had a one-to-one briefing with the sponsors.
- Stakeholders being directly targeted, which included those with whom the sponsors already had a working relationship with via earlier engagement, were sent a consultation launch email on 19 October 2020 containing a link to the consultation on citizen space.
- A virtual exhibition <https://www.nats.aero/vr/ad6/> was accessible via the citizen space platform throughout the consultation. This 3D mock-up of an exhibition space enabled users to use a postcode-checker tool, access consultation materials, 2 design option videos (over 26,000 video views) and Frequently Asked Questions (FAQs) and register to attend online video meetings or watch recordings of them. A layered PDF map designed to explain how impacts on particular towns or villages might change under the proposal was provided. The sponsors stated that there were 11,231 unique visitors to the public exhibition and 18,800 postcodes were checked using the tool provided over the course of the consultation.
- The consultation material, feedback form and FAQ page were accessible via the CAA's airspace change portal. There were at least 14,500 views of the portal (one month's figures were unavailable). The sponsors stated that their blog had 9,261 views and LLA AD6 web pages had 6,564 views. The final number of FAQs totalled 57.
- Ten public online video meetings (webinars) were hosted. Nine of these meetings were designed as question-and-answer sessions for members of the public and were held at different times of the day, in the evening and at weekends. A total of around 40 stakeholders participated. The tenth public meeting was held for the private pilot/General Aviation (GA) community. Twenty-six stakeholders participated. Recordings of the webinars posted online were viewed 162 times.
- The sponsor held 18 further closed webinars with audiences including: Members of Parliament (see reference above), local government officers and elected representatives, the MoD), GA stakeholders, air operators/airlines and Stansted Airport.
- A social media campaign involved 45 posts placed by the sponsors on Facebook, Twitter, and LinkedIn to promote the consultation and webinar events and encourage responses. The figures given for clicks and impressions are not consistent throughout the document set but it appears that there were at least 6,000 clicks on the links and at least 296,000 impressions.
- The consultation was publicised using traditional media targeted in the areas of overflight below 7,000 ft where changes are expected by issuing 3 press releases at key points in the consultation and placing articles in newspaper and aviation trade publications for example Biggleswade Today, Cambridgeshire Live, Bucks Herald and The Hunts Post at the launch,

mid-term and towards the end of the consultation. There were 28 broadcasts via TV, radio, and the internet to for example BBC Look East, ITV East Anglia, BBC Cambridgeshire radio and Heart radio programmes. The sponsors assessed that these activities reached 10.5m people at consultation launch, 6.5m at the mid-way point and 602,000 people at the final opportunity to respond stage.

- The sponsors placed 24 print advertisements in community magazines delivered directly through peoples' doors and local newspapers which the sponsor assessed reached c.328,000 people.
- A reminder email was sent to all directly targeted stakeholders on 10 December 2020 which was 8 weeks into the consultation period. This email also updated stakeholders on some amendments made to the suite of consultation materials considering feedback received (these are addressed below).
- A final reminder email was circulated to all directly targeted stakeholders on 18 and 19 January 2021 which was just under 3 weeks prior to the consultation closing date. The email provided stakeholders with links to access all the consultation material and resources as well as the virtual exhibition platform.
- The sponsors made available 2,500 printed leaflets publicising the consultation to digitally excluded and seldom heard umbrella organisations and sent some leaflets to MPs for them to share.
- The sponsors provided printed copies of the consultation document on request and included an address for receipt of postal responses within the consultation document.

The sponsors made requests of local libraries to hold copies of the consultation materials and leaflets but due to the pandemic libraries were generally closed and so these requests were unsuccessful.

The sponsors responded to feedback and issues raised during the consultation on the nature and presentation of the consultation materials by making the following amendments/additions:

- An abridged 30-page version of the consultation document was uploaded to the virtual exhibition around five weeks after the consultation had commenced following feedback about the length of the 122-page consultation document. This document was available for stakeholders for the remaining 10 weeks of the consultation.
- An animated slide on hold location was added to the webinar presentations and an infographic with an explanation on hold location and height and how holds work in practice was added to the virtual exhibition due to the interest in choice of holding locations.
- Noise contour and data files were uploaded to the virtual exhibition on 12 January 2021 using the Google Earth format known as KMZ following feedback on the noise contour maps provided.
- The sponsors made recordings of the public webinars and uploaded them to the public exhibition for viewing
- Refinements were made to the postcode-checker tool due to feedback that the some of the outputs of the tool overstated the likely impacts at some locations. The revised tool was available to users from mid-December, i.e., at

	<p>around the half-way point of the consultation, together with an explanation that some previous users of the tool may receive a different result.</p> <ul style="list-style-type: none"> - A layered PDF map designed to explain how impacts on an area might change under the proposal made accessible via the virtual exhibition's library was originally published without a scale. This was corrected in late November 2020.
B.2.3	<p>Was the change sponsor required to respond to any unexpected events and/or challenges?</p> <p style="text-align: right;">Yes</p>
	<p>The sponsors addressed the ongoing impact of Covid-19 within their consultation strategy, stating that the primary method of collating feedback from stakeholders would be online expecting that it would not be possible to hold any face-to-face meetings (as originally planned) throughout the consultation period due to social distancing requirements for public gatherings. The sponsors provided a virtual exhibition and hosted a series of webinars for stakeholders.</p> <p>Feedback was received by the sponsors on 8 January 2021 that one of the supplemental data tables in the data annex E was a duplicate of one of the other tables and so the correct table had been omitted from the full, not the abridged, consultation document. This was due to a copy/paste error and was not reflected in the formal analysis calculations which used the correct raw data files. The sponsors replaced the data table with the correct version, amended two typographical errors found while addressing this issue and highlighted the change in a newly published version 1.1 of the consultation document. The original version 1.0 was removed from all locations, those stakeholders directly consulted in line with the consultation strategy were informed by email on 19 January 2021 as part of the final reminder to respond email and stakeholders who had requested a hard copy were advised by letter. The updated consultation document went live on all websites on 15 January 2021.</p>
B.3	MATERIALS
B.3.1	<p>What materials were used by the change sponsor during the consultation?</p>
	<p>Consultation document</p> <p>A 12-page aviation technical annex (section 7) was provided within the 122-page consultation document. The sponsors clearly stated that the technical annex was written using common aviation technical language to enable aviation experts to interpret the proposed options for technical purposes. The technical annex included a description of the proposed contingency procedures.</p> <p>The sponsors stated that it was not proportionate for them to use the Independent Commission on Civil Aviation Noise (ICAN) airspace change toolkit as it was published on 30 July 2020 and the sponsors submitted their stage 3 documentation to the CAA for assessment on 06 August 2020. This approach was accepted by the CAA at the stage 3 gateway.</p> <p>A 30-page abridged version of the consultation document</p>

	<p>The sponsors responded to stakeholder feedback on the length of the full document by producing an abridged version to enable the reader to access the proposal’s basic information and associated context. Some detail and data from the full consultation document had been removed but links gave readers access to this detail in the full consultation document.</p> <p>Feedback form</p> <p>Stakeholders provided feedback that the way in which question 5 was formulated demonstrated that the changes were presented as a done deal with stakeholders not given the option to reject both options 1 and 2. The feedback form gave stakeholders the choice of indicating a preference for option 1 or option 2, indicating no preference or to say that they did not know which option they preferred. The way in which the question was formulated was not ideal. A review of the consultation responses shows that stakeholders used the free text box provided for question 5 and the free text boxes provided for the other questions, including question 10 which invited any other comments, to make it clear when they were rejecting both of the proposed options 1 and 2 or wanted a do-nothing option. Stakeholders also used the free-text boxes to suggest alternative design changes. Questions 8 and 9 were clearly specified as being technical questions so aimed at stakeholders with aviation knowledge and expertise.</p> <p>Citizen Space Platform</p> <p>The consultation was hosted on citizen space and included: an overview and introduction to the proposals with the executive summary lifted from the consultation document, two videos showing the two options, access to a suite of documentation that included the consultation document, consultation strategy and final options appraisal together with links to the feedback form and the sponsors’ virtual exhibition.</p> <p>Virtual Exhibition</p> <p>Users were able to view the consultation material interactively by accessing online resources that included: videos, online registration for webinars and webinar recordings and interactive tools including a postcode checker. animated slide on hold location, hold infographic, noise contour and data files, a layered map demonstrating impact on areas and an online library.</p> <p>A set of FAQs</p> <p>Around 30 FAQs were placed in the library section of the virtual exhibition from the outset of the consultation. Further FAQs were added as the consultation progressed resulting in an overall number of 57 FAQs.</p>	
B.3.2	Did the materials provide stakeholders with enough information to ensure that they understood the issue(s) and potential impact(s) on them?	Partially
	<p>The sponsors provided detailed documentation and interactive and presentational tools for stakeholders to utilise. They addressed the discounting of the do-nothing option and consideration of initial options at upper and lower altitude levels at stage 2. Alignment with the AMS was discussed. They made it clear that future growth plans at LLA were not within the scope of this consultation although its forecast impacts for increased air traffic were provided as part of the material. Amendments to the flows for other airports within the LTMA were not within the scope of this ACP and the sponsor stated that the final design had to complement the existing airspace design. An explanation of key technical terms and information</p>	

	<p>that included: controlled airspace, PBN, vectoring and shortcuts, flight level references and noise contours. The sponsors stated that they generally expected aircraft to bypass the new proposed hold because the proposed upper airspace system is less likely to require holding but some holding would be necessary. The sponsors presented forecasts and noise data, noise categories and aircraft types and explanations regarding dispersion and concentration together with fuel burn/CO₂ emissions considerations.</p> <p>The sponsors responded to feedback that the materials were lengthy and difficult to understand by providing an abridged version of the consultation document part-way through the consultation and adding additional resources to the virtual exhibition to provide more explanatory information on for example hold location and height and how holds work in practice. The sponsors also added to their suite of FAQs as the consultation progressed. These actions demonstrated the sponsor's willingness to ensure that stakeholders had sufficient resources and materials to allow them to understand the proposals. The sponsors could have enhanced the way in which they responded to requests during the consultation for additional and/or clearer information to enable stakeholders to assess potential impact regarding cumulative noise impact in the hold. Although the sponsors were not required to provide the information from a technical process perspective, they could have done so to aid stakeholders' understanding and ability to provide a properly informed response. One Council was disappointed that their requests mid-consultation for more detailed data to enable them to evaluate impact on particular communities were side lined in favour of a high-level response. Concern was expressed by some stakeholders that the changes made to the postcode checker tool mid-consultation provided different results for their area which in some cases contradicted the data provided in the noise contour maps which they considered made it difficult to provide an informed response.</p> <p>Two noise contour images contained within Annex F to the consultation document (F-3) were incomplete as although they showed arrivals for both options, they did not include departures. The sponsors accepted in their Clarifications Q A (2).pdf that this meant stakeholders could not easily compare the baseline do-nothing contours with options 1 and 2 but they could compare the two arrival options with each other. The sponsors have acknowledged this error stating that all associated data tables and raw data were provided correctly, and the correct raw data files were made available via the virtual exhibition.</p>				
B.4	LENGTH				
B.4.1	Please confirm the start/end dates and the duration of the consultation below				
	<p>Start: Monday 19 October 2020 End: Friday 5 February 2021 Duration: 15 weeks and 5 days</p>				
B.4.2	<table border="1" style="width: 100%;"> <tr> <td style="width: 80%;">If duration was less than 12 weeks, what was the justification?</td> <td style="width: 20%; text-align: center;">N/A</td> </tr> <tr> <td colspan="2">N/A</td> </tr> </table>	If duration was less than 12 weeks, what was the justification?	N/A	N/A	
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B.4.3	<table border="1" style="width: 100%;"> <tr> <td style="width: 80%;">Was the period of consultation proportionate?</td> <td style="width: 20%; text-align: center; background-color: #008000; color: white;">Yes</td> </tr> </table>	Was the period of consultation proportionate?	Yes		
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	The period of consultation was in excess of the accepted standard set out within CAP 1616 that consultations should last for 12 weeks. The sponsor extended the length of the consultation to take account of the Christmas/New Year major holiday season. The duration was proportionate.	
B.5	GENERAL	
B.5.1	Was the conduct of the consultation aligned with the consultation strategy?	Yes
	The conduct of the consultation was aligned with the strategy. During the consultation, in line with the strategy, the sponsor met with the CAA (Airspace Regulation) twice to discuss progress, in recognition of the fact that this consultation was being conducted during the Covid-19 pandemic.	
B.5.2	Has the change sponsor categorised the responses in accordance with CAP 1616?	Yes
	<p>The sponsors' analysis of consultation responses was based on the answers arising from the numerical data obtained from the survey questions, the themes discussed in the free text answers and the overall themes from each stakeholder's set of answers. From their analysis and categorisation of the responses, the sponsors identified 19 major themes and from each major theme derived 117 sub-themes. For example, noise at and above 8,000ft was a major theme which was divided into 12 sub-themes that included hold location and recreational disturbance. Each sub-theme identified within a response was tagged for analysis. The sponsors concluded that 10 major themes "may impact the final proposal" and the remainder "may not impact the final proposal". All themes categorised as "may impact..." were progressed to Step 4A for consideration.</p> <p>One of the major themes was design change. Stakeholders used the free text boxes to suggest alternative design changes. The sponsors identified 845 suggestions for design changes, analysed and tagged these responses as a design change and progressed them for consideration at Step 4A.</p> <p>The sponsors derived a list of 4 major actions from their categorisation of responses to consider at step 4A:</p> <ol style="list-style-type: none"> 1. Consider how the design may be adapted to minimise noise impacts at and above 8000 ft, with attention given to the hold 2. Consider how the design may be adapted to minimise noise impacts below 8000 ft, including choosing between option 1 and option 2 3. Consider how the design may be adapted to minimise any increase in the use of aviation fuel as part of the complexity-reducing, safety-enhancing primary aim of this proposal, consequently minimising increases in greenhouse gas emissions and costs for aircraft operators 4. Consider how the design may be adapted to minimise impacts on other airspace users, by reducing the requirement for controlled airspace while still enhancing safety, and by agreeing operational practices to mitigate airspace access impacts 	

	The sponsors derived a further action to help consider the 4 actions above:																																										
	5. Consider the specific design change suggestions and recommendations received, decide to which extent those recommendations could be acted upon (from fully to partially) and explain why.																																										
B.5.3	Has the change sponsor correctly identified all of the issues raised during the consultation and accurately captured them in the consultation response document?		Partially																																								
<p>The raw consultation data has been downloaded from the citizen space portal and reviewed. The sponsors correctly identified issues raised during the consultation and accurately captured them in their consultation response document. The sponsors do not appear to have addressed comments raised regarding considering the NUGPO SID from Stansted Airport that routes close to the proposed new hold.</p> <p>The 3 charts below set out the numbers of times the sponsors identified the major themes for each of the three categories: respondents who provided postcodes within the consultation area at and above 8,000 ft, below 8,000 ft and not in the overflight area. The sponsors showed that the tags in their ACP General theme encompassed the following type of feedback: perceived unfairness of the proposal itself and sometimes that it was a foregone conclusion, that the consultation process, or the proposal as a whole, was flawed, the questions were bad or that the process should be started again or that it was unfair. The tags in their ACP publicity theme were said to relate to excluded groups, consultees saying they hadn't heard about the consultation, inadequate publicity, and consultees saying they had not been consulted or engaged.</p>																																											
<table border="1"> <thead> <tr> <th colspan="4">Major themes for questions 1 – 5 for responses (postcodes within consultation area at and above 8000 ft)</th> </tr> <tr> <th>Sponsors' major themes</th> <th>Number of tags</th> <th>Sponsors' major themes</th> <th>Number of tags</th> </tr> </thead> <tbody> <tr> <td>Noise at and above 8000 ft</td> <td>2,602</td> <td>ACP publicity</td> <td>129</td> </tr> <tr> <td>Air quality</td> <td>1,046</td> <td>ACP guidance</td> <td>90</td> </tr> <tr> <td>ACP General</td> <td>764</td> <td>Profiting</td> <td>70</td> </tr> <tr> <td>Option 2 (negative)</td> <td>739</td> <td>Safety (negative)</td> <td>63</td> </tr> <tr> <td>Wildlife</td> <td>700</td> <td>Option 1 (positive)</td> <td>37</td> </tr> <tr> <td>Option 1 (negative)</td> <td>634</td> <td>Option 2 (positive)</td> <td>26</td> </tr> <tr> <td>Out of scope</td> <td>504</td> <td>Noise below 8000 ft</td> <td>23</td> </tr> <tr> <td>Forecasts</td> <td>317</td> <td>Aviation technical</td> <td>22</td> </tr> </tbody> </table>				Major themes for questions 1 – 5 for responses (postcodes within consultation area at and above 8000 ft)				Sponsors' major themes	Number of tags	Sponsors' major themes	Number of tags	Noise at and above 8000 ft	2,602	ACP publicity	129	Air quality	1,046	ACP guidance	90	ACP General	764	Profiting	70	Option 2 (negative)	739	Safety (negative)	63	Wildlife	700	Option 1 (positive)	37	Option 1 (negative)	634	Option 2 (positive)	26	Out of scope	504	Noise below 8000 ft	23	Forecasts	317	Aviation technical	22
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Design change	243	Operator negative impact	6
Environmental	238	Safety (positive)	3
Financial on individual	205	Financial on individual	1
ACP accessibility	169	Operator positive impact	0

Major themes for questions 1 – 5 for responses (postcodes within consultation area below 8000 ft)

Sponsors' major themes	Number of tags	Sponsors' major themes	Number of tags
Noise below 8000 ft	1,436	Option 2 (positive)	122
Option 2 (negative)	753	Environmental	86
ACP General	619	ACP publicity	80
Option 1 (positive)	433	ACP accessibility	71
Air quality	386	Aviation technical	54
Option 1 (negative)	346	Profiting	35
Design change	194	ACP guidance	30
Wildlife	192	Safety (negative)	23
Forecasts	175	Operator positive impact	13
Out of scope	152	Safety (positive)	10
Financial on individual (negative)	138	Operator negative impact	3
Noise at and above 8000 ft	135	Financial on individual (positive)	0

Major themes for questions 1 – 5 for responses (postcodes not in consultation area)

Sponsors' major themes	Number of tags	Sponsors' major themes	Number of tags
Option 2 (negative)	179	Design change	41
Option 1 (positive)	146	ACP General	30

	Aviation technical	141	Safety (negative)	23	
	Noise at and above 8000 ft	107	Operator positive impact	22	
	Noise below 8000 ft	90	Safety (positive)	21	
	Option 2 positive	89	ACP Publicity	11	
	Option 1 negative	74	Financial on individual (negative)	8	
	Environmental	66	ACP accessibility	7	
	Air quality	65	Profiting	6	
	Wildlife	55	ACP Guidance	5	
	Out of scope	42	Financial on individual (positive)	0	
	Forecasts	42	Operator negative impact	0	
B.5.4	Does the consultation response document detail the change sponsor's response to the identified issues?				Yes
	<p>The consultation responses have been reviewed. The issues raised by stakeholders include those outlined below followed by the sponsors' response:</p> <p>Noise at and above 8000 ft. including the holding location</p> <p>Stakeholders suggested moving the hold location and exit to open countryside in the west or the north, east to sit over the Fens or over the sea with a suggestion that Stansted Airport could have a new hold over the sea and retain use of the ABBOT hold with Luton having sole use of the existing LOREL hold. Other suggestions included: move the hold south with placement nearer to Luton in the county that benefits financially from the airport, to Hertfordshire where residents live in closer proximity to the airport, to less populated areas or to keep it in its current position. The sponsor was asked why there were no proposals for a different holding area, why there was no do-nothing option and why was there no consultation on the hold location. The view was expressed that no real alternatives were presented in the proposal therefore the outcome has been pre-determined. Safety considerations were raised regarding the risk of a large number of aircraft circulating above high-density population areas.</p> <p><u>Sponsors' response:</u> Proposing where the hold could be positioned was subject to consideration of technical and procedural placement constraints and this had been made clear in the consultation material. The design options presented were the only viable concepts. The do-nothing option and other hold locations had been discounted at stage 2 of the CAP 1616 process as not safe to progress leaving only</p>				

the single high-level option and holding pattern presented at consultation. The hold could not be placed to the west of the region due to a complex flow of civil air traffic departure and arrival routes mixed with traffic climbing into the en route phase of flight, or to the northeast due to daily military air traffic at all altitudes. Technical constraints required the sponsors to minimise the amount of CAS needed to contain manoeuvring aircraft and where possible use existing CAS boundaries. The further north the hold, the greater the additional amount of CAS would be required, and the further aircraft would need to fly. Airspace internal buffers applied to the eastern and northern boundaries which would be exposed to adjacent uncontrolled airspace and to the west boundary where the buffer would apply to air traffic in northbound flows. The position of the LOREL hold influenced how far south and east the proposed holding pattern could be. The sponsors designed the hold with a “typical holding pattern size” in the standard racetrack shape to internationally accepted standard criteria based on speeds and altitudes with a minimum-sized Hold Entry Tolerance Area (HETA) requested by ATCOs.

The sponsors stated that due to these constraints and considerations, design suggestions to place the hold in other areas could not be accommodated but a localised adjustment was possible. The sponsors moved the hold northwest by c. 2.5km. The sponsors stated that by acting in this way they were minimising noise impacts on the urban areas of Huntingdon, Godmanchester, St. Neots and nearby areas.

Noise at and above 8000 ft and minimising impact on the areas of Huntingdon, Godmanchester, St. Neots and the surrounding towns and villages including Brampton, Buckden, Easton, Ellington, Kimbolton, Great Paxton, Little Paxton, and Perry

While some stakeholders acknowledged the need to split LLA and Stansted Airport arrivals they asked for a solution avoiding the need to place the hold over such densely populated areas. Others wanted arrivals to be flown over the more populated areas as traffic noise would be far less noticeable. The proposals would create new noise that would disproportionately affect the rural population. Concern was expressed at the noise pollution that would result from the hold being positioned above Huntingdon, which was earmarked for significant future growth, including at Alconbury, the nature reserve of Huntingdon Country Park, St. Neots, the wildlife habitat of Paxton Picts nature reserve and rural villages including Little Paxton. It was suggested that there was enough open space to the west of St. Neots for this change not to be imposed on the town itself.

Sponsors’ response: Moving the hold northwest by c.2.5km has moved the hold slightly closer to Huntingdon but allowed the orientation of the hold to be adjusted which in turn has kept the predicted holding flightpath further away from Huntingdon. Aircraft in either the consulted upon hold or the final design hold would be extremely unlikely to directly overfly Huntingdon itself. Moving the hold increases the holding flypast distance from c.2.7km to more than c.3.3 km from Huntingdon. Moving the hold north-west and altering its orientation moves the predicted holding flightpath c.1.2km further away from St. Neots towards less populated areas. The localised adjustments of the hold and its orientation would minimise impact on the urban areas of Huntingdon, Godmanchester, St. Neots and nearby areas.

Air quality

Concern was expressed at the additional air pollution that would result and affect those with breathing problems and asthma. Stakeholders referred to Sandy as already being an air quality monitoring area with the highest levels of air pollution in the country due to the East Coast Mainline and A1 roundabouts.

Sponsors' response: No changes are being made to flightpaths below 1,000 ft therefore the change is unlikely to have an impact on local air quality.

The proposal is not required or justified, and/or should be delayed and recommenced

Views were expressed that there was no need to change the existing arrangements and insufficient rationale had been provided in light of the steep reduction in flights due to Covid-19 and aviation industry predictions of severely reduced flight numbers for several years. It was unreasonable to expect a full return to pre-pandemic flight levels. Business conducted online far more than before, Brexit increases in leisure travel costs and a post-Covid-19 focus on sustainable travel/life choices would result in a reduced need for flights compared with the pre-pandemic scenario. With some airlines on the brink of collapse, the proposal should be delayed until the situation has stabilised. The proposals are unwarranted in terms of noise impact, pollution, safety, and a desire to cut aviation emissions due to climate change. The proposals are not fully aligned to the AMS and will require further changes in the near term. The sponsors were asked why linear holds were not being considered and why a new hold was being proposed when there were plans to phase out holds as part of the AMS. LLA should not be allowed to expand.

Sponsors' response: This proposal was launched to address a specific need – to solve, in the short term and fully aware of Covid-19 impacts, the latent safety issue of entwined arrivals flows serving two of the five busiest airports in the UK. Doing nothing would increase the potential for a reduction in safety as a result of increased controller workload intensity and arrival delays. The airspace must be fit for purpose for when traffic recovers to pre-pandemic levels and safe potential future growth at either LLA or Stansted Airport must be allowed for. Changes to the region cannot wait for the bigger, further-reaching changes to the wider area under the AMS. Alternative upper design options including linear holds were considered at stage 2 as not safe to progress and so were discarded at that stage. The proposal is not connected to London Luton Airport Limited's (LLAL) DCO and the airspace change is required with or without the DCO.

Hold orientation and exit

Alter the hold rotation so that the southern exit path from the stack follows the broad line south down the A1 until aircraft have to travel west towards Luton. Rotate the direction at which aircraft leave the stack to transit over the countryside between Great Gransden and Gaminglay.

Sponsors' response: It was good airspace design practice to design out any potential traffic convergence and the potential for any CAS incursion. A left-hand hold orientation would result in traffic in the hold turning towards traffic in the existing major flows and it would be exposed head on. This would be detrimental to the complexity of the ATCO's task and would be contrary to the primary aim of this proposal to reduce designed-in complexity. A hold that was oriented east to west would result in aircraft in the hold turning towards, and closing in on, the traffic in the existing major air flows. This again would be detrimental to the complexity of the ATCO's task and rapidly erode any internal and external CAS buffers should the traffic flows behave imperfectly. A right-hand hold rotation was better as it designed in a less complex traffic convergence in the unlikely event that either the holding traffic flow or the existing major flows behaved imperfectly. This hold exit was also considered to be more flexible. The aircraft is generally aligned with the direction of travel of the next segment of flight, with small adjustments much simpler and more predictable to manage than large turns.

For these reasons the sponsors needed to orient the hold approximately northwest to southeast with a right-hand rotation and was unable to consider a significant reorientation of the holding pattern or its direction of rotation, but a localised re-orientation was possible. The sponsors altered the orientation of the hold by c.20 degrees anticlockwise. The sponsors stated that the adjustment of the hold position (addressed above) and the hold orientation has minimised the impact on the towns of Huntingdon and St. Neots and allowed for the potential widening of the spread.

Make the hold higher

Jet noise at c. 8,000 ft would be a significant nuisance with an unobstructed clear line of sight from ground to aircraft. The hold height should be higher than 8,000 ft to reduce noise and air pollution for those living underneath over a wide area. Some stakeholders said no detail had been provided on how many aircraft were likely to be held each hour at any time. Some asked for the hold to be a minimum of 12,000 ft at the time of exit.

Sponsors' response: Design suggestions to raise the minimum altitude higher than c.9000 ft would not allow for a viable descent profile to land safely. The sponsors could not guarantee a minimum of c. 9,000 ft in the region as ATCOs need maximum flexibility for contingency purposes requiring the hold to be immediately available at c. 8,000 ft 24 hours per day, should there be an unplanned runway closure or other similar event.

A region to the north of the holding pattern was identified where aircraft could be 1,000 ft higher, i.e., at c. 9,000 ft and still fly a viable descent profile to land safely, provided that ATCOs retained the flexibility to use the lowest altitude of c. 8000 ft when necessary for contingency purposes. This change in design would keep aircraft 1,000 ft higher to the north, minimising impact on less populated areas to the north of the region. The sponsor also expected aircraft to be slightly higher to the south of the hold, descending from c. 9,000 ft to c. 8,000 ft.

The hold is not expected to be used continuously. It would only be used when the region was busy enough for it to be required. Otherwise, aircraft would be vectored to bypass the hold entirely to the south and would descend from c. 9,000 ft to c. 8,000 ft approximately in line with the A428 between Cambridge and St. Neots.

Keep routes higher

Flights need to be at a greater height over the populated areas. The flight route to reach the hold passes over the fairly densely populated Cambridge to Huntingdon corridor. The sponsors were asked to move the route south or north of Cambridge.

Sponsors' response: The descent profile of arrivals from the east can be adapted, keeping them higher for longer with higher aircraft generally burning less fuel and people living underneath observing less noise. Aircraft arriving from the northwest, south and west are altitude-constrained by other air traffic flows and so could not be kept higher than consulted upon.

The sponsors adjusted the route by moving it slightly south and refined the planned descent profile to be as late as safely possible with CAS bases modified to keep aircraft higher for longer. The CAS base change from 13,000 ft to 11,000 ft has been moved c. 8km to the west so that LLA arrivals from the east would be at least 13,000 ft high in the vicinity of Newmarket and would start descending to 11,000

ft after passing the railway station. The CAS Base change from 11,000 ft to c. 8,000 ft has been moved c. 1.9km to the west so that arrivals would be at least 11,000 ft high until passing Waterbeach and arrivals would be 1.8km away from the A14 north of Cambridge. The sponsors stated ATCOs may have to position arrivals further south depending on arrival sequence. These adaptations would reduce the fuel/CO₂ disbenefit and together with a shortening of routes (discussed below) would increase controllers' ability to organise a viable arrival sequence due to the moved and re-oriented hold and would be likely to reduce the frequency of use of the hold. This change was expected to reduce impact on other airspace users, in particular USAFE. The arrival route could not be positioned any further south due to other air traffic flow constraints.

Consider the impact of global warming and the effect of aviation on the environment. Shorten the routes to reduce fuel consumption and flying time to minimise increase in greenhouse gas emissions.

Both options would increase track miles for arrivals with a resulting increase in fuel burn and CO₂ emissions over the base scenario. In order to meet UK emissions targets, more should be done to minimise the fuel consumption of aircraft. The consequences of air travel on the planet and environment should be considered and flight numbers should be reduced to combat climate change not increased. LLA's plans go directly against the government's carbon zero ambitions and there is no evidence that the proposal has considered the Paris Climate Agreement.

Sponsors' response: The airspace change proposal was not attempting to resolve environmental issues but was focussed on addressing the safety issue while minimising noise impacts, increases in fuel use and consequential greenhouse gas emissions such as CO₂. The routes from the west in the upper arrival route structure to the hold could not be shortened as they have to fit with major existing air traffic flows. One route length from the east (B-C) and one from the south (D-F) could be shortened to reduce the track mileage disbenefit for the greatest and second greatest proportion of LLA arrivals. This design modification, taken together with the raising of the CAS base, the raising of the standard hold flight level and the increased vectoring space in the region combined to reduce the fuel/CO₂ dis-benefit caused by the overall track length increases required to separate out LLA arrivals.

Noise below 8000 ft including consideration of consultation option 1 or option 2

Some stakeholders stated that there were many less densely populated areas where noise would cause less disturbance. Aircraft noise would compound the problem of road and rail transport related noise in the area. Noise and pollution would result without having any of the economic benefits of living near to the airport. Others stated that options that fly over large towns and cities should be considered, and flights re-directed down for example the A1 corridor as the increased noise would be less noticeable. If all routes exit the hold in the same area residents in the early stages of the flight path would receive no respite at any stage. Route alternation would not bring enough predictable respite to those in the vicinity of the PBN routes. The proposed routing over a narrow swathe would expose populations to significant new noise that would disproportionately affect the rural population. Some stakeholders said that with neither option being acceptable, option 2 was less acceptable due to the concentrated air traffic and noise impact that would result in areas that are currently tranquil. Option 1 dispersal over a wider area would cause marginally less aggravation to those beneath the flight path. PBN would not provide significant safety improvements that warrant the disruption to residents and the public. The consultation materials should have

followed the ICCAN toolkit.

Sponsors' response: A modified Option 1 vectoring is being progressed at lower altitudes, known as Option 1A, rather than the sponsors' preferred consultation option 2 PBN with vectoring. Arrivals would follow similar paths to those currently followed and the likelihood of flightpath concentration would be reduced with its associated noise impacts in recognition of consultation feedback. As aircraft are vectored towards the runway, c. 70% would be vectored in the new region from 8,000 ft to 5,000 ft with the greatest concentration as consulted upon. However, the adjustment of the position of the hold and its orientation has allowed for a potential widening of the spread across the region. Below 5,000 ft it is unlikely there would be a noticeable change to the current situation. Tactical shortcuts would be given to c. 30% of arrivals in similar areas and at similar altitudes to those issued as per the current and pre-pandemic operation. It is not technically possible to create flight procedures that accurately follow a road. The ICCAN toolkit was published when the consultation materials were at an advanced stage and so it was not proportionate to use the toolkit.

The sponsors' position regarding use of the ICCAN toolkit was accepted by the CAA at the Stage 3 gateway assessment meeting.

Minimise impact on the areas of Biggleswade, Gamlingay, Potton, Sandy, Stevenage and over 40 other towns and villages referenced by stakeholders in the counties of Bedfordshire, Buckinghamshire, Cambridgeshire, and Hertfordshire

Communities including Biggleswade, Gamlingay, Potton and Sandy would be severely impacted regardless of which option was chosen with no meaningful alternative option provided. This was unfair and less populated areas should be considered. The historic market town of Potton would be ruined. Potton's surrounding area of important nature reserve and ancient woodland should be protected from noise and air pollution. If slightly re-routed, the flight paths could avoid Potton and overfly much more rural areas. Placing the path over the populated town of Biggleswade would affect quiet enjoyment of homes and make it unbearable to live in the town. New houses built in the region would become more difficult to sell and the proposal did not appear to have considered the site of a new town with c.10,000 new homes near Wyboston. Funnelling all aircraft down one narrow band across Stevenage would give no respite from noise. The no-fly zone over Leighton Buzzard should be revisited and the routes revised so as not to be constrained by this zone.

Sponsors' response: The sponsor could not guarantee avoiding overflight of areas of Gamlingay, Potton and Biggleswade as they were between the holding region and the runway, but the modifications made to the holding region and the progression of option 1 meant that flightpaths would be more likely to be dispersed. Requests to change flightpaths over Stevenage could not be acted upon because of the fixed geographical relationship between the town and LLA's final approach. Flightpaths over Leighton Buzzard would not change with option 1 being progressed and the sponsors had not challenged the pre-existing CAA condition to minimise overflight of the town. The sponsors were not aware of any confirmed large scale housing developments that would have changed any of their conclusions, given its constraints and parameters (see [Clarifications QA additional \(1\).pdf](#)) (see also CAA environmental assessment, paras 6.1 and 7.1).

Impact on tranquillity and visual intrusion together with impact on wildlife and their habitat, nature and conservation areas including the Chilterns AONB, Grafham Water SSSI, Paxton Picts Nature Reserve, Hinchingsbrooke Country Park and Rushmere Country Park.

Stakeholders stated that the proposed hold area is an area of tranquillity. Stakeholders expressed their concern at potential impact on the Chilterns AONB and Grafham Water SSSI stating that it was completely unacceptable to impact and pollute the area with aircraft

circling overhead in a hold. The area, with its wildlife, wetlands and migrating birds, should not be considered for this change. The value of the Ouse Valley would be immeasurably reduced by intrusive and constant aircraft noise. There was a real opportunity to enhance the Chilterns AONB by reducing or avoiding the overflight of it. Concern was expressed regarding the RSPB Nature Reserve at Potton/Little Paxton and the Godmanchester Nature Reserve as they were directly underneath the flight path. While removal of Luton air traffic from over the Dedham Vale AONB was welcomed, the reduced air traffic flow resulting in the area should not be used as a basis for sending other traffic across the Vale by way of shortcuts.

Sponsors' response: There is minimal change below 5,000 ft with the same overall vectoring concept. Flightpaths and altitudes of aircraft using the Option 1 concept of vectoring would be comparable to the current (pre-pandemic) scenario. The current final approach for easterly arrivals to runway 07 always overflies parts of the Chilterns AONB in a narrow swathe. The changes would not impact on the Chilterns AONB. The sponsors referenced that the CAP 1616 process states that airspace change proposals are unlikely to have an impact on biodiversity because they do not involve ground-based infrastructure changes and stated that this proposal is separate to the LLAL's DCO application which if progressed would require infrastructure changes and associated environmental reports.

General comments about the conduct of the ACP consultation and related materials including suggestions that the consultation was flawed and a fait accompli.

Some stakeholders stated that the material was complex, lengthy, and difficult to understand. The view was expressed that the proposed options offer no substantive choice and therefore did not constitute a meaningful consultation. The consultation should not have been conducted during the Covid-19 lockdown when people were distracted by the pandemic and had limited opportunities to share information. Reference was made regarding how the sponsors dealt with questions on noise impact in the hold in their webinars. Some stakeholders considered it was not good enough for the sponsor to say that they were conforming to government guidelines regarding minimisation of noise at and above 7,000 ft no longer being a priority, said it was unclear how often the hold would be used and under what circumstances and were dissatisfied with the sponsors' response via the webinars that they could not measure cumulative noise in the hold. Some stakeholders raised concerns regarding the noise contour maps provided and regarding the alteration of the postcode checker tool part way through the consultation.

Sponsors' response: Changing a significant amount of airspace such as this is complex, and publishing full unabridged information is necessary to be accurate, thorough, and transparent. The no change scenario and alternative upper design options were discarded at stage 2 as not safe to progress. Themes including ACP accessibility and ACP publicity contained insights into how the ACP and consultation are perceived which can inform future airspace change engagements. The hold is not expected to be used continuously. It would only be used when the region was busy enough for it to be required or in an emergency scenario.

The sponsors responded to the feedback on length and complexity of the consultation materials by producing an abridged version of the consultation document and adding additional resources to the virtual exhibition to provide more explanatory information on for example hold location and how holds work in practice. The sponsors also added to their suite of frequently asked questions as the consultation progressed. This demonstrates an effort made by the sponsors to simplify a complex subject to the extent that this is possible. In their

consultation strategy the sponsors addressed the ongoing impact of Covid-19 on the conduct of the consultation which would be mostly online as it was not possible to hold face to face events as originally planned. Although measurement of cumulative noise in the hold was not a requirement of the process (see CAA environmental assessment) it may have benefited stakeholders for the information to have been shared. Noise contour and data files using the google earth format KMZ were uploaded to the virtual exhibition on 12 January 2021 following feedback on the contour maps provided.

Impact on quality of life

Stakeholders stated that they had not chosen to live under substantial and increasing air traffic and did not want this to be foisted upon them. Additional air traffic would have a significant detrimental impact on residents' standard of living, lifespan, health, mental well-being, enjoyment of their homes, gardens and leisure time, ability to experience nature and the peace and quiet that living in the area currently provides. Stress, severely disrupted sleep issues and increases in respiratory conditions would result. Children would be disturbed during the school day. Some stakeholders had previously moved away from locations with air traffic noise in search of the peace and quiet provided by the area and said it was unfair to be forced to move again.

Sponsors' response: There is no change below 5,000 ft as part of the proposal and therefore no change in the 51 LAeq LOAEL, the level above which adverse effects on health and quality of life can be detected².

Minimising impact of proposals on other air users, including the MoD and the general aviation community

Concerns were expressed for the safety implications for flying and gliding clubs with the area used regularly for aerobatic practice and for GA training. Either option would result in a significant and dangerous bottleneck between the Luton and Stansted zones. For glider pilots, particularly inexperienced pilots, flying from London Gliding Club at Dunstable, the creation of class D airspace north of Leighton Buzzard would represent a significant limitation on the ability to safely return to the airfield and it would increase the risk of landing out in a field. Height gains flights and the preparation phase for cross-country flights would be severely restricted and available soaring airspace reduced. The proposals would curtail options on where vintage gliders could fly. The airspace above Grafham Water for the hold needs a fixed lower limit so that FL changes due to atmospheric pressure changes do not impact on this very busy gliding area.

Sponsors' response: At low altitude, Option 2 is not being progressed in part due to the feedback received from the gliding community but also because option 1 is deemed to be a viable solution. As a result, the 4,500 – 5,500 ft Class D CAS diamond shaped volume required under option 2 northwest of Leighton Buzzard is not required. At high altitude 7,500ft and above, CAS volumes have been reduced by more than 10% by the adaptations made to the final airspace design and draft Letters of Agreement have been agreed with those airspace users set out below.

Letters of Agreement (LoA)

² The Lowest Observed Adverse Effect Level (LOAEL) that is regarded as the point at which adverse effects begin to be seen on a community basis. For the purposes of assessing and comparing the noise impacts of airspace changes, the government has set a LOAEL of 51dB LAeq16hr for daytime noise and 45dB LAeq8hr for night-time noise.

MoD USAFE operates two bases in Suffolk, RAF Lakenheath, and RAF Mildenhall as a combined air traffic unit. USAFE operations would be negatively impacted by these proposals. A draft LoA has been agreed to mitigate impact on USAFE arrivals and departures. Modifications have been made to CAS volumes to minimise impact on USAFE operations outside CAS.

Swanwick Military (Swanwick Mil) manage the Daventry (DTY) corridor which would need to be modified to fit with the sponsor's holding region. A draft LoA has been agreed to ensure Swanwick Mil have continued access for operational air traffic.

Cranfield Airport's ATC and National Flying Laboratory Centre (NFLC) would be impacted by a new CAS volume. A draft LoA has been agreed regarding an airspace sharing arrangement to mitigate the impacts of these proposals on their operations.

Cambridge Airport - A LoA is already in place and work is ongoing regarding the requisite updates.

East Anglian Rocketry Society (EARS) would be impacted when launching rockets above FL75 from their site in Cambridgeshire. A draft LoA has been agreed to allow temporary access for when their launches are likely to enter the proposed CAS.

RAF Wittering use the area for elementary flying training for student pilots and would be impacted by a new CAS volume. They considered allowing access via a LoA would create an unacceptable workload for student pilots so instead will avoid the new volumes of CAS. The sponsors have agreed that should RAF Wittering's view change then discussions could re-commence regarding agreeing a LoA.

Impact of proposals on commercial air transport/industry

Some industry representatives wished that option 2 be progressed as track miles and controller workload would be reduced. There would be minimum impact on noise pollution, less fuel burn and safety would be enhanced. Some preferred option 2 as it fulfilled the objective of traffic separation but made greater use of PBN principles and was aligned with the AMS. Option 2 would optimise flight path fuel efficiency, cause minimal noise footprints, and reduce cockpit and controller workloads leading to an increase in safety. One operator asked that departures from Stansted Airport be considered, prior to the changes being introduced as the current westerly NUGPO Standard Instrument Departures (SIDs) route close to the proposed new hold. This may result in aircraft being held down and not permitted to climb until clear of the new hold. Ideally any airspace change in the area would also facilitate a continuous climb by traffic departing from Stansted Airport.

Sponsors' response: At low altitude option 2 is not being progressed in part due to the feedback received from the gliding community but also because option 1 is deemed to be a viable solution.

Airspace classification

Class D would have too significant an impact for glider pilots. If the additional CAS is required for the busy hold then it should be class A as it needs to be the safest and most exclusive for the busy periods in terms of flight safety alone. Another view was that Class A should be avoided as it excludes all Visual Flights Rules (VFR) traffic. Class E would be less restrictive as VFR need to use the airspace too. Class C airspace would provide the necessary protection for commercial flights whilst providing safety and access for general aviation.

Sponsors' response: All new areas of CAS are proposed as Class C as it permits VFR flight while also providing for radar separation

	<p>between VFR and Instrument Flight Rules (IFR) flights. The sponsors propose that some volumes of lower altitude CAS identified as no longer required by commercial aircraft can be re-classified as uncontrolled class G airspace which will be of benefit to general aviation airspace users. The CAS regions required at higher altitudes to contain the routes and hold were made smaller than originally consulted on. A proposed volume of CAS northwest of Leighton Buzzard was removed from the final design.</p>	
B.5.5	<p>Is the change sponsor's response to the issues raised appropriate/adequate?</p>	Partially
	<p>Revisions were made to the final airspace design considering areas of concern raised by stakeholders as addressed at B5.4 above. The sponsors have articulated their rationale within their submission. The sponsors have agreed draft LoAs with those airspace users addressed at B5.4 above to minimise and mitigate the impact of their proposals on those airspace users' operations.</p> <p>The sponsors do not appear to have acknowledged specifically comments regarding the NUGPO SID route.</p> <p>The sponsors' response to concerns raised regarding use of the hold, cumulative noise impact in the hold and the sponsors' reliance on government guidelines regarding noise level priorities could have benefited from a more conciliatory approach being taken to address these concerns recognising that stakeholders were requesting the information.</p> <p>The sponsors articulated their rationale for not conducting a re-consultation having revised their final proposal: the intended use of the airspace is as consulted upon, stakeholders already consulted on would not have substantially negative impacts due to the revisions made and the hold position adjustment and re-orientation are contained within the area of consultation set out in the consultation document. A holding region was consulted on where the aircraft would be at c. 8,000 ft.</p> <p>The alterations made to the final design post-consultation are not considered to be fundamental and therefore the CAA agrees with the sponsors' assessment that there is no need for re-consultation. Noise impact resulting from these alterations has been addressed within the environmental assessment.</p> <p>Post-submission engagement</p> <p>The CAA were informed by the sponsors on 28 September 2021 that the containment of 6, possibly 8, SID's from Stansted that pass through the CAS to the South-East of Stansted will not be contained in accordance with CAA policy if the proposed re-classification proceeds. Environmental assessment has concluded that increase in thrust for 2.9% of underperforming aircraft is unlikely to lead to additional adverse environmental impact. The sponsors have conducted post-submission engagement with their two main operators, Ryanair and Jet2 and provided evidence in support. These two operators accounted for 68% of traffic in 2019 and 72% of traffic in 2021. This engagement activity was proportionate.</p> <p>The CAA was informed 13 October 2021 that following a cockpit simulation of the easterly STARS, the aircraft's flight management system was unable to fly the procedures into the hold and therefore the STARS from the east would need a slight re-design. The CAA has concluded that there would be no additional adverse environmental impacts as a result of amending the STAR design.</p>	

B.5.6	Is the formal airspace change proposal aligned with the conclusions of the consultation response document?	Yes
	Yes, the change sponsors are progressing the revisions made to the upper airspace design and progressing a modified Option 1 at lower altitudes, known as Option 1A, as a viable solution even though it is less aligned with the AMS.	
A.5.7	Was a Public Evidence Session required for this proposal? If yes, was any new consultation evidence presented which could alter the conclusions of the consultation response document and/or formal airspace change proposal submission?	Yes
	A Public Evidence Session was held by the CAA on 22 September 2021. Eight stakeholders spoke at the session and 4 written statements were received. No new consultation evidence was presented.	
B.6	RECOMMENDATIONS/CONDITIONS/PIR DATA REQUIREMENTS	
B.6.1	Are there any Recommendations which the change sponsor should try to address either before or after implementation (if approved)? If yes, please list them below.	N/A
	N/A	
B.6.2	Are there any Condition(s) which the change sponsor must fulfil either before or after implementation (if approved)? If yes, please list them below.	Yes
	<p><u>Letters of Agreement</u></p> <ul style="list-style-type: none"> - MoD USAFE Lakenheath including Mildenhall as a combined ATC operation - Swanwick Military (Swanwick Mil) - Cranfield Airport's ATC and National Flying Laboratory Centre (NFLC) - Cambridge Marshall Airport EGSC - East Anglian Rocketry Society (EARS) 	
B.6.3	Are there any specific requirements in terms of the data to be collected by the change sponsor for the Post Implementation Review (if approved)? If yes, please list them below.	Yes

	<p><u>STAKEHOLDER OBSERVATIONS</u></p> <p>The sponsors are required to collate related stakeholder observations (enquiry/complaint data) and present it to the CAA. Observations regarding noise are to be presented regarding impact up to 7,000 ft only. Any location/area from where more than 10 individuals have made enquiries/complaints must be plotted on separate maps displaying a representative sample of:</p> <ul style="list-style-type: none"> • aircraft track data plots; and • traffic density plots <p>The plots should include a typical days-worth of movements from the last month of each standard calendar quarter (March, June, September, December) from each of the years directly preceding and following implementation of the airspace change proposal.</p>
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PART C – Consultation Assessment Conclusion(s)		
C.1	Does the consultation meet the CAA’s regulatory requirements, the Government’s guidance principles for consultation and the Secretary of State’s Air Navigation Guidance?	Yes
	<p>The fundamental principles of effective consultation are targeting the right audience, communicating in a way that suits them, and giving them the tools to make informative, valuable contributions to the proposal’s development. I am satisfied that these principles have been applied by the change sponsors before, during and after the consultation. I am also satisfied that the change sponsors have conducted this consultation in accordance with the requirements of CAP 1616, that they have demonstrated the Government’s consultation principles and that the consultation has:</p> <ul style="list-style-type: none"> • Taken place when the proposal was at a formative stage – evidenced by the consultation document which stated that the consultation would allow the sponsors to gather information to understand views about the impact of the proposals and to use the feedback provided to inform the final proposal. This Gunning principle is evidenced by the revisions made by the sponsors to their final airspace design on account of stakeholder feedback. • Presented the consultation material clearly and outlined the potential impacts that needed to be considered - the tag themes tables included at B.5.3 above demonstrates the numbers of times that stakeholders raised concerns regarding the ACP in general, its materials and accessibility. The sponsors could have enhanced the way in which they responded to requests during the consultation for additional and/or clearer information. 	

	<ul style="list-style-type: none"> • Provided a sufficient timeframe to allow considered responses – evidenced by a consultation duration of 15 weeks and 5 days which is in excess of the accepted standard of 12 weeks set out within CAP 1616 reflecting that the Christmas/New Year holiday season fell during the consultation. Some stakeholders raised why the consultation was conducted during a pandemic, that more time should have been allowed and queried the viability of running a consultation during a pandemic however the duration is considered to be adequate. • Taken into account the product of the consultation – evidenced by the sponsors’ revisions to their final airspace design. At upper altitudes, the sponsors moved their proposed new hold, which is not expected to be used continuously, altered its orientation, and amended its availability so that aircraft would hold 1,000ft higher under normal operating conditions at c. 9,000 ft. The sponsors reduced the dimensions of the originally proposed CAS required at higher altitudes, to contain new standard arrival routes (STARS) and the new hold and shortened two of the higher altitude arrival routes keeping some aircraft higher for longer and increasing ATCOs’ ability to organize a viable arrival sequence due to the moved/reoriented hold. At lower altitudes, the sponsors progressed option 1 vectoring as their final proposal, known as option 1A, in recognition of the preference expressed by consultees for option 1 and dispersal rather than their preferred consultation option 2 PBN with vectoring. <p>During the consultation the sponsors could have enhanced the way in which they responded to requests for additional and/or clearer information from stakeholders. The consultation responses demonstrated that there was a strength of feeling around the general way in which the proposal was presented and the accessibility and publicity of the consultation itself. However, the sponsors generated a good response rate and made revisions in light of feedback received. On balance the sponsors have demonstrated that meaningful consultation has been achieved.</p>
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PART D – Consultation Assessment sign-off			
	Name	Signature	Date
Consultation assessment completed by Airspace Regulator (Engagement and Consultation)	██████████	██████████	18.11.21