BETCHWORTH PARISH COUNCIL

LGWairspace.Rte4@gatwickairport.com

13 December 2019

Dear Sir or Madam

Betchworth Parish Council's ("The Council") response to The Gatwick Route 4 Redesign of RNAV Standard Instrument Departures Second Design Options Focus Group 21st November 2019.

Betchworth Parish Council is a civil elected local authority and as such is the first tier of local government. The parish of Betchworth covers an area of 991 hectares, with a population of approximately 920. It is surrounded to the north and west by The Surrey Hills, an Areas of Outstanding Natural Beauty, to the South and East by Areas of Great Landscape Value. The following is the views of the Council.

The Council strongly believe that the NPRs should remain in their current position. A view expressed in the GAL document: "Gatwick Route 4 Redesign of RNAV SIDs Design Principles - Stakeholder Review Document Ref 71248 030 Issue 1 Final Dated 7th June 2019" from page 11: Route 4 and "Route 3 departures both route to the north of the Airport, from different ends of the runway and route in opposite directions. Feedback to date, suggests current NPRs should be retained and moving this would be beyond the scope of this project".

It is essential that any redesign of the current SID is based on this principle. Either as a single flightpath along the NPR (not just within the compliance swath) or evenly distributed either side or along the NPR.

The current SID (Option 0) together with option 7 are the only options acceptable to the council. All the other options move the route north towards Route 3 and west towards The Surrey Hills AONB. Although we could support some form of dispersal the proximity of Route 3 inhibits dispersal only to the north of the NPR as it would be wrong to put a population under or close to two flightpaths which between them are used 100% of the time. All of the other options taken forward for further consideration involve moving the route 4 NPR north and closer to Route 3. This is unacceptably biased against the residents who live under or just to the south of Route 3. The Council believe that this is a bias reaction to a Judicial Review decision at which the majority of communities and stakeholders were not given an opportunity to put forward their views.

…./..

BETCHWORTH PARISH COUNCIL

Contd..

NPRs are well established and have been in place since the early 60s and are designated and overseen by the Secretary of State for Transport. This certainty has allowed people to make lifestyle/property investments decisions. Moving them would be unacceptable.

All of the options other than 0 and 7 move the route 4 NPR north of its current position and closer to Route 3 NPR. All of these options (1-6) that reduce the distance between the two NPRs are unacceptable. They would create an intolerable increase in noise for all of the residents living under Route 3, giving them no respite whatsoever.

The so called legacy position suggested as fact by one action group: "-…… the geographical position and dispersal pattern it occupied prior to 2013 (where it had kept the peace for decades……." was in fact never a single geographical position. It moved over time and due to older navigation systems was reasonably dispersed but returning to that moment in time is not now an option.

There is no identifiable consistent historic/legacy routing other than the NPR, which has had a consistent position for decades. Conventional SIDs moved position considerably and actual aircraft tracks were spread over a wide area. The GAL web site depiction of historic Route 4 aircraft tracks shows considerable change over the years from 1996.

This should be an open consultation with no pre-judging of options including the present position that was original designed by GAL. It appears that the current route, Option 0, is not really being considered by GAL as an option. Calling it Option 0 and not producing response forms for this option seems to underline this impression of pre judgement. Hopefully this is not the case.

Thank you for considering this response.

Kind regards,

Yours sincerely

, on behalf of Betchworth Parish Council

CAGNE
Communities Against Gatwick Noise and Emissions
The umbrella aviation community and environment group for Sussex and Surrey

25th November 2019

Route 4 Workshop – November 2019

Route 4 is the westerly departure route that heads west and turns 180 degrees northeast.

The Route 4 design process is going through the Civil Aviation Authorities (CAA) CAP 1616 consultation. Gatwick (GAL) continue to cherry pick those it consults, whilst allowing suggestions of intensifying noise for residents already suffering to the west as well as to fly over new areas; these areas only having CAGNE as a spokesperson due to the lack of geographical spread of those being consulted.

GAL expects stage 2 to be completed and sent to CAA by January 2020 for approval with Stage 3, public consultation, to follow.

The aim of the workshops is to narrow down route/ design principles of where Route 4 should be flown and what options should go forward to the CAA.

Noise preferential routes (NPR) were instigated in 1968 to allow residents to know where planes are flown. They span 1.5km either side of the central line, route, of the NPR. These are not being shown on the mapping and so do not allow for an informed opinion to be reached to which of the seven map designs will impact who/ new areas, but it is clear the routes that are very concentrated.

No list of those invited to the consultation/ worksops was found on the Route 4 portal as sated by Andy Sinclair during the workshop – this has been chased.

It was stated that Slinfold PC and WSCC were invited to attend the workshop.

Design and mapping

Problems with Workshop and what is proposed:

- It was impossible to tell the history of the route as NPRs are not shown on any mapping. CAGNE had raised this at previous workshop but still they are not being shown. This is felt to be disingenuous and should be rectified for the public consultation at stage 3.

- No consideration is being given, due to the legal challenge by Plane Justice, of the impact/ crossover of Route 3 (easterly departure route that heads east and does a 180 degree turn north west). This does not allow for totality of noise to be considered.

- No totality of noise is being considered, especially as some Route 4 residents in attendance suggest using Wizad and other westerly departure routes that already suffer very little respite from multiple departure routes and arrival ILS.

- No consideration is being given to the impact of CCO (Continuous Climb Operations) on those closest to the runway?

- Should route 4 be flown as dispersal? This would impact new areas with noise due to the noise cone/ shadow being outside of the NPR. No indication is given if there will be a rotation of routing per flight or each route flown in concentration.

- It is unacceptable for these workshops to be used to dictate who gets the noise ie those that shout the loudest over those that have no voice as they are not included in the workshops ie newly overflown residents or those already impacted by other routes to the west.

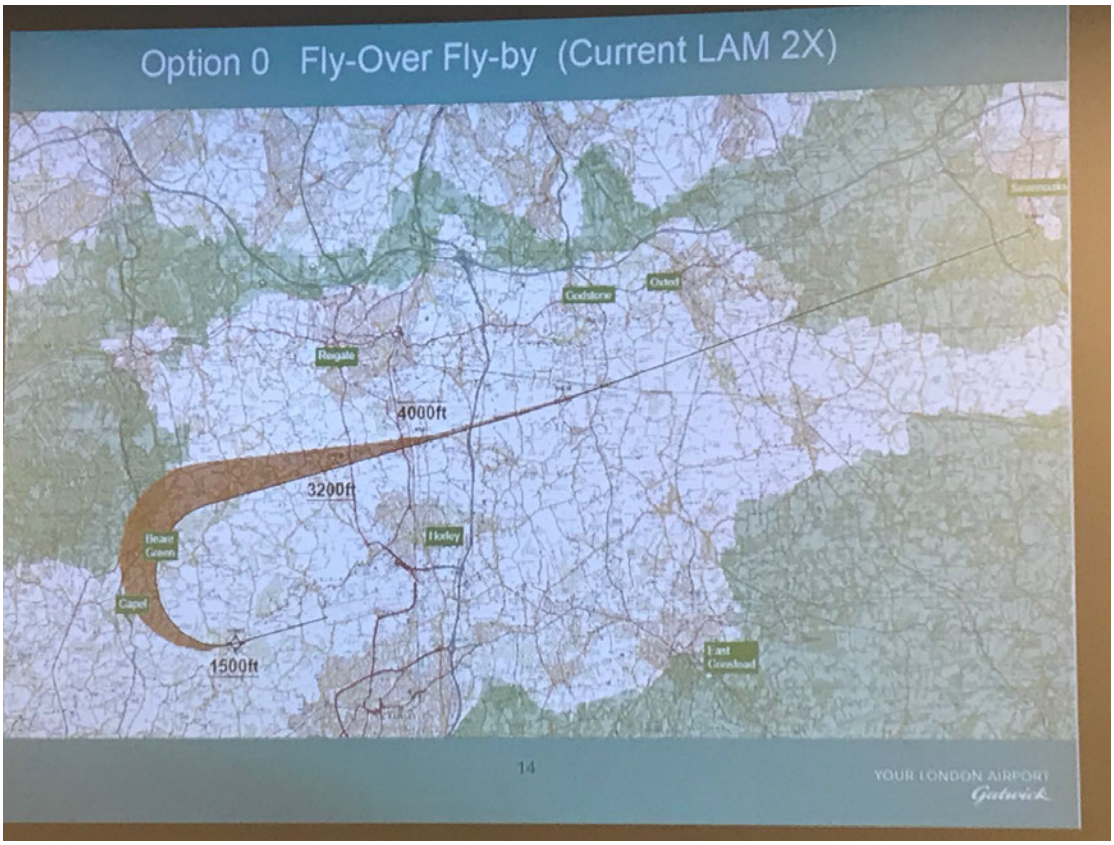
- This route is not being designed for emergency runway (2nd runway) usage and is only hoped it will fit in with FASIS – this is felt to be a red herring offered by GAL to stop talk of the 2nd runway using Route 4 continuously for 40% growth.

- Dispersal inside the NPR would not necessarily give no overflight due to the routes being too close together. We would suggest they are graded in lesser – further away route to intense overflight. It was not detailed if these routes would be predictable or rotated.

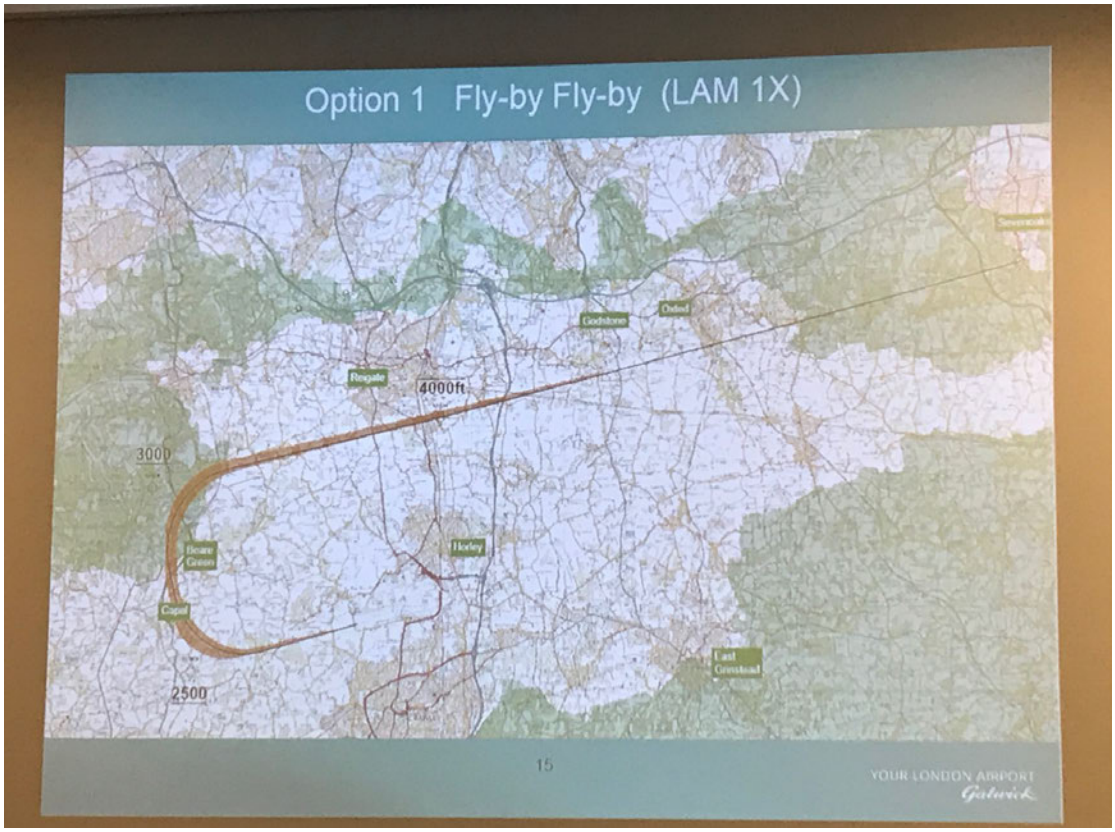
This would be the closest to dispersal.

The seven route options presented – Fly over and Fly by waypoints – fly over is when the route goes over the waypoint (location of routing) and Fly by is when the route flies past the way point

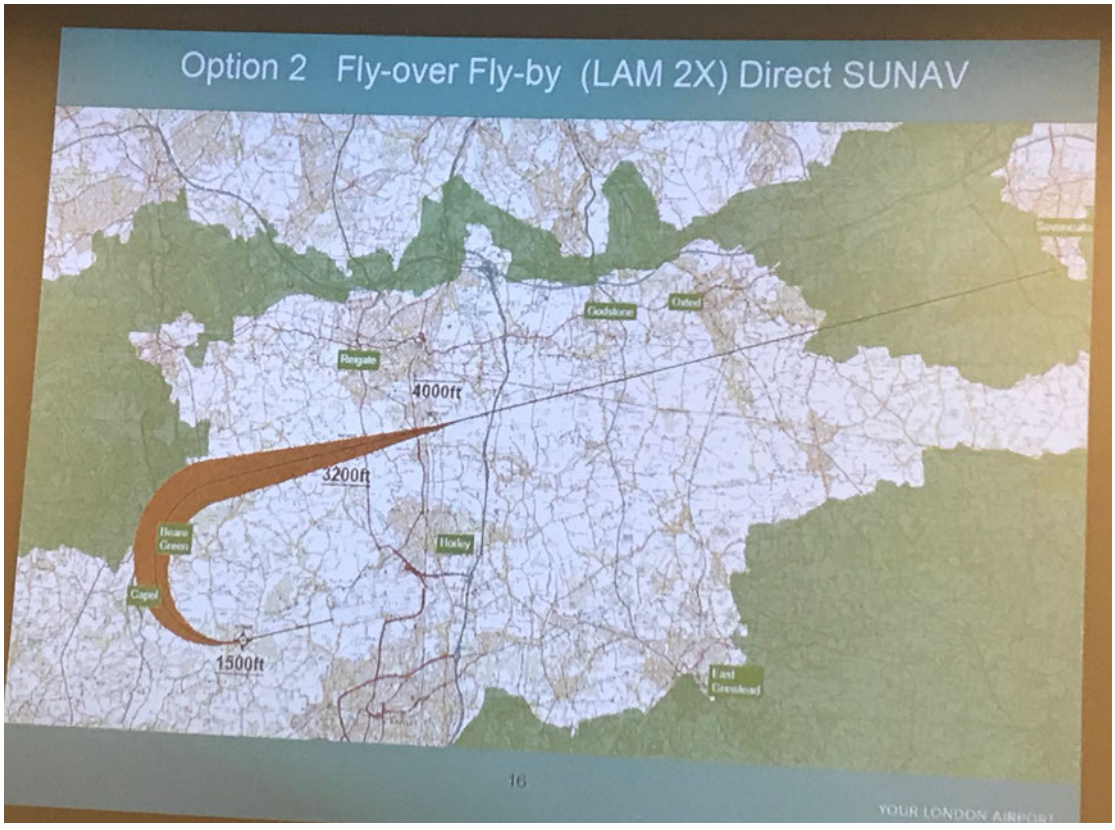
Option O - flown today outside the NPR to the north of the turn heading east.



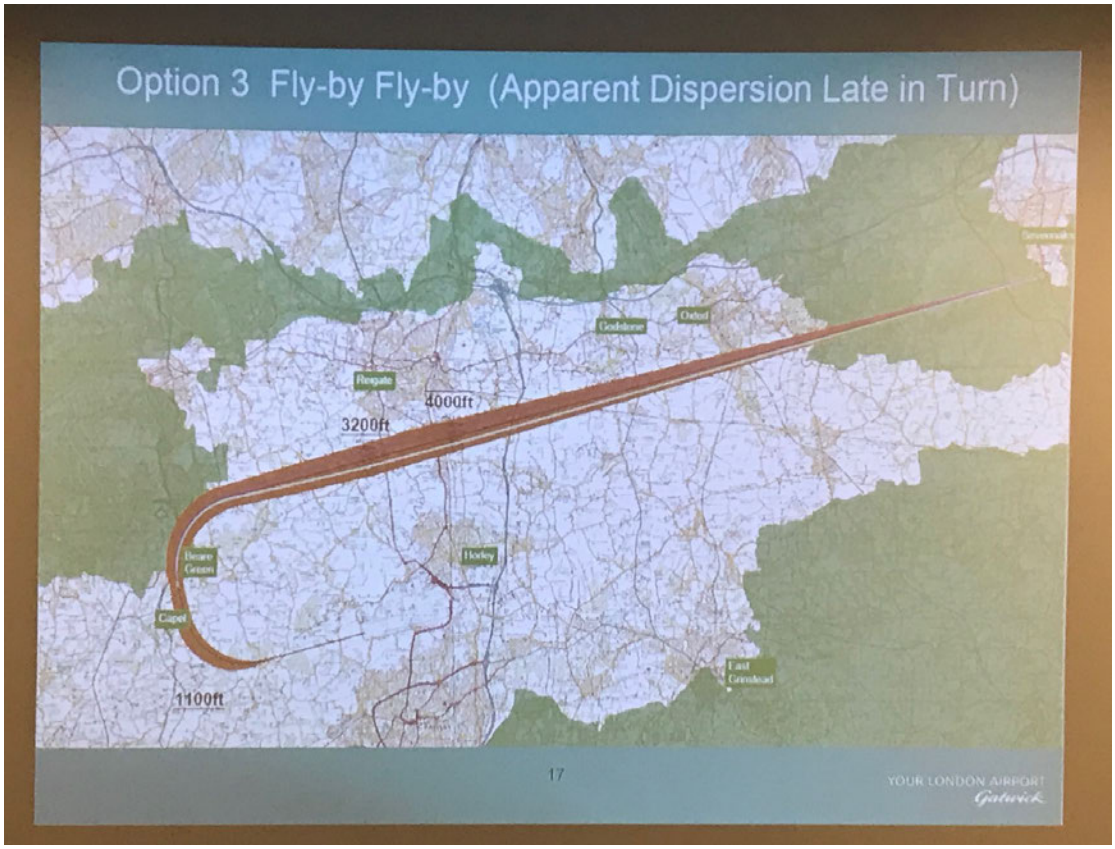
Option One - PRNAV route flown in 2012 outside of NPR to north of the turn



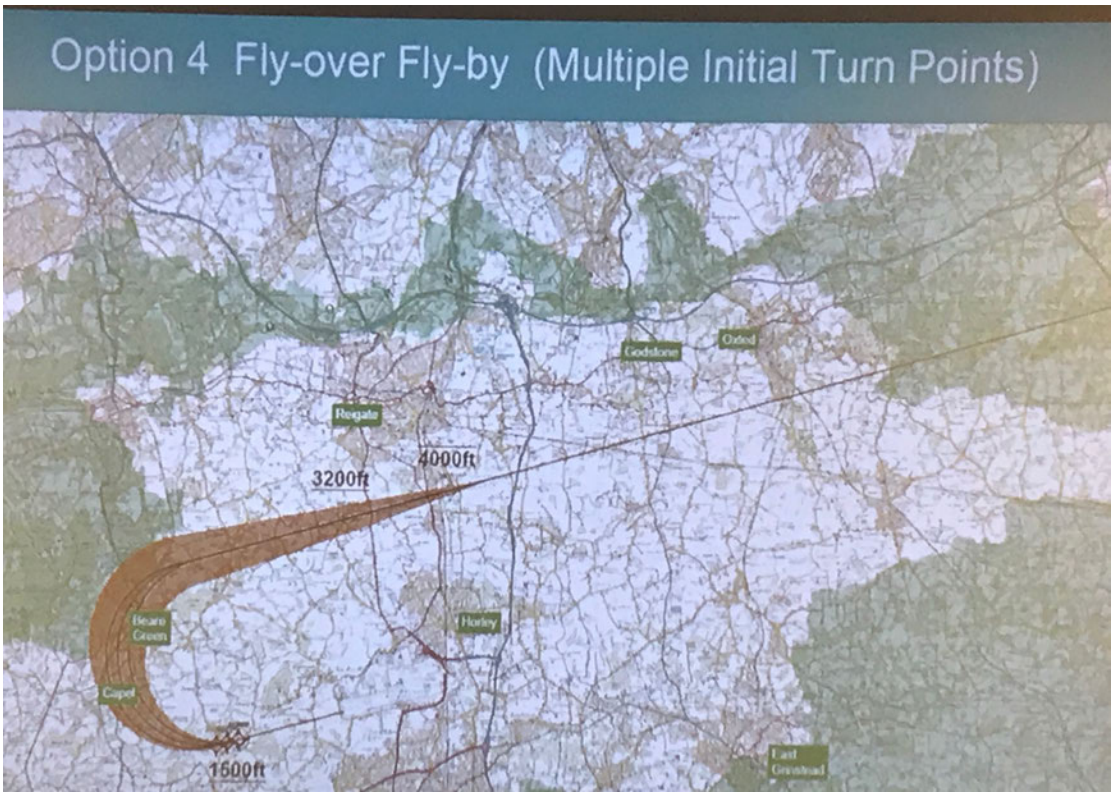
Option Two – flown heading towards Sevenoaks at same climb rate as today.

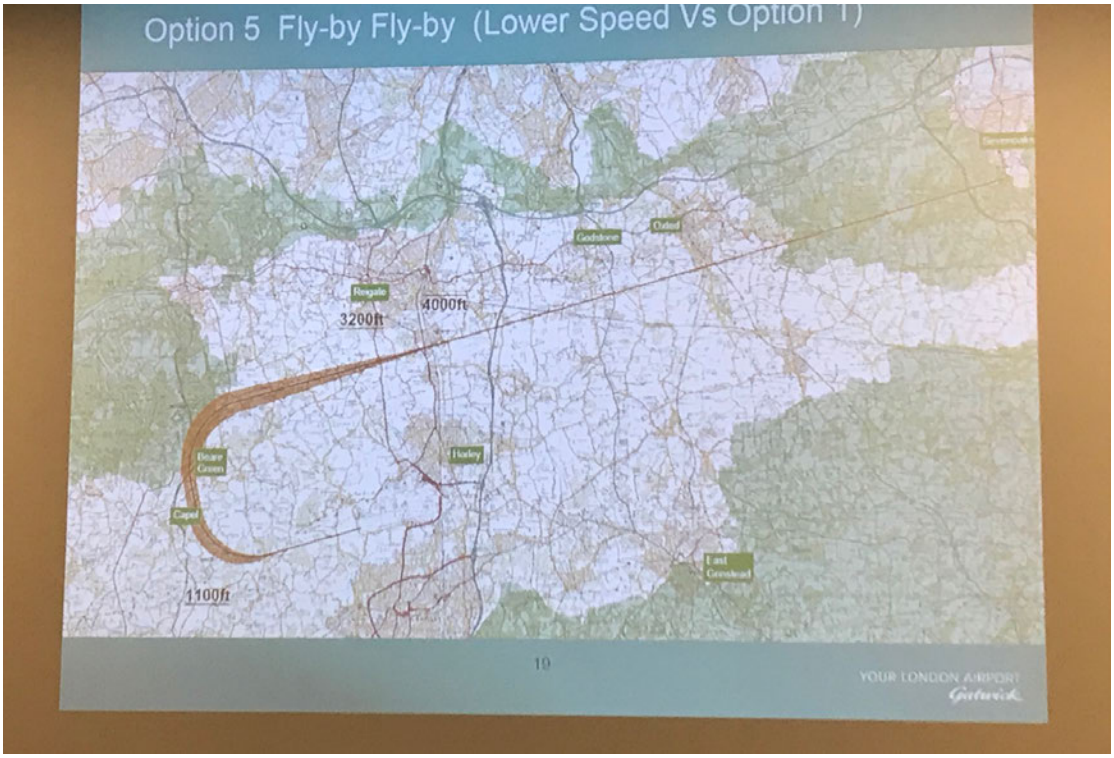


Option Three – multiple way points, some dispersal subject to airline fleet



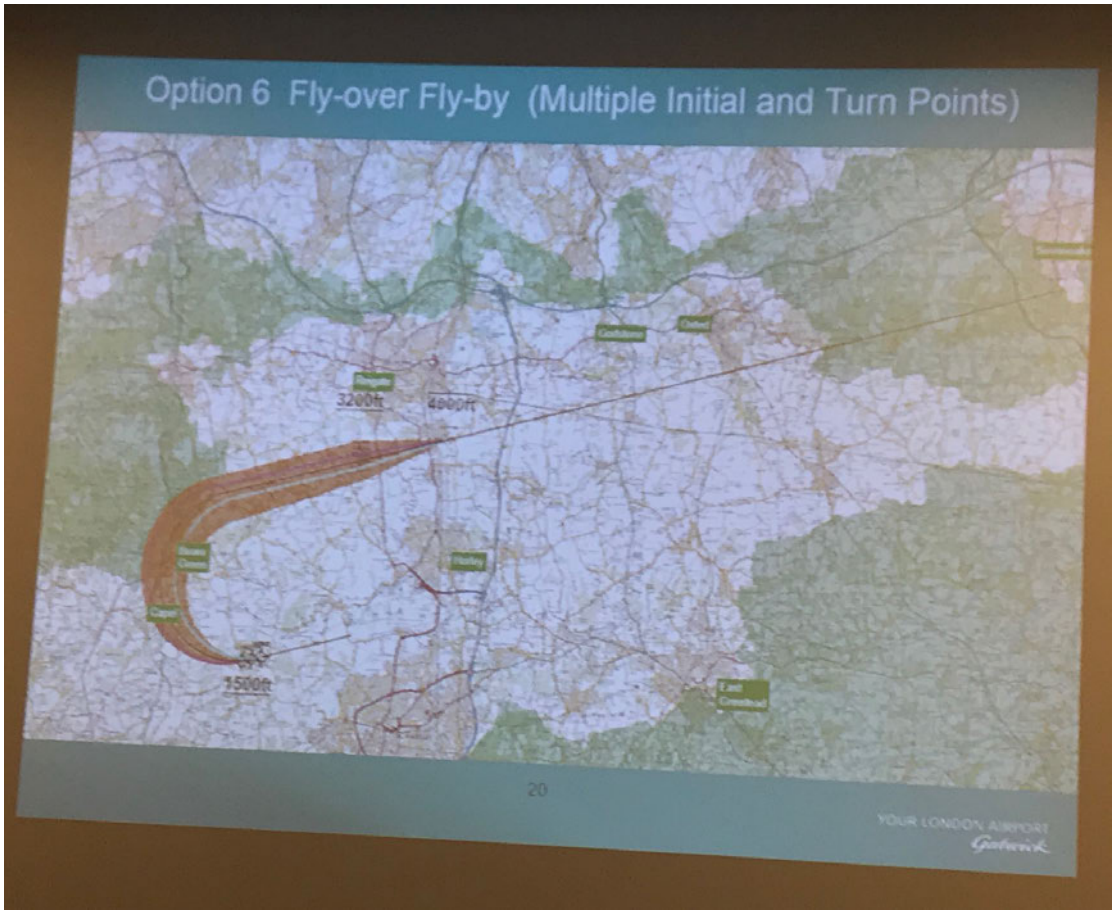
Option Four – multiple routing on the turn, similar to pre – 2012 flying with dispersal in the turn, multiple routings, multiple way points. Would impact new areas outside NPR due to noise cone



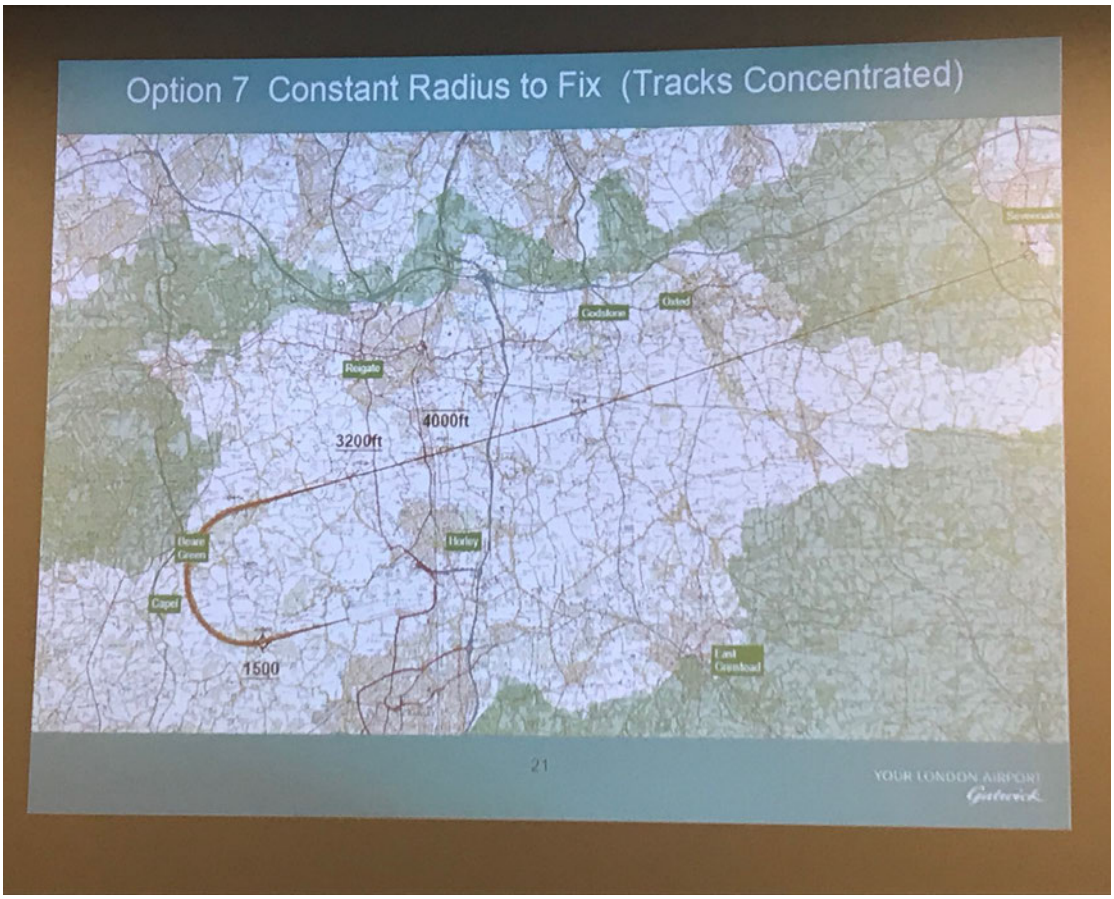


Option Five – More aircraft engine power on departure that would increase noise for those closest to the runway. A tight turn at 190 knots speed creating a lot more noise and making the turn difficult to stay inside the NPR

Option Six – Gives maximum dispersal and could be extended all the way to Sevenoaks with the normal aircraft climb rate. Would impact new areas outside NPR due to noise cone/ shadow as noise is not only experienced directly under the aircraft route.



Option Seven – narrow flight path, with a tight concentrated track – impacting fewer people but very significant increase in noise for those below



Est Feb 2014
www.cagne.org
cagnegatwick@gmail.com
www.facebook.com/gatwickcagneTwitter @cagne_gatwick Instagram CAGNE

easyJet Airline Company Limited
Hangar 89, London Luton Airport
Luton, Beds LU2 9PF, United Kingdom

Name ..... Representing EASYJET .....

OPTION 1 Fly-by, Fly-by (Current LAM 1X)

Question 1	Yes	No
In your opinion, does this route option facilitate dispersion below 7,000 ft?	✓	
If not, please state why below: Radar vectors will permit dispersion from 4000' to 7000'.		

Question 2	Yes	No
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	✓	
If not, please state why below:		

Question 3	Yes	No
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	✓	
If not, please state why below:		

Question 4	Yes	No
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		✓
If not, please state why below: It overflies Beane Green		

Question 5	(Yes)	No
Do you have any other comments this particular design, or in general? Please record below: Explore opportunities to amend the initial turning point or any other tools to route between Beane Green and Newdigate. This design also facilitates operational performance of the runway.		

easyJet Airline Company Limited
Hangar 89, London Luton Airport
Luton, Beds LU2 9PF, United Kingdom

Name ..... Representing EASYJET .....

OPTION 2 Fly-over, Fly-by (LAM 2X Direct SUNAV)

Question 1	Yes	No
In your opinion, does this route option facilitate dispersion below 7,000 ft?	✓	
If not, please state why below:		

Question 2	Yes	No
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	✓	
If not, please state why below:		

Question 3	Yes	No
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	✓	
If not, please state why below:		

Question 4	Yes	No
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	✓	
If not, please state why below:		

Question 5	(Yes)	No
Do you have any other comments this particular design, or in general? Please record below:		

This route design is not suitable for LGW's use of the runway in terms of maximising runway capacity by minimising departure intervals.

Name Representing EASYJET

OPTION 3 Fly-by, Fly-by (Apparent Dispersion Late in Turn)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?	✓	
If not, please state why below.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	✓	
If not, please state why below:		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	✓	
If not, please state why below:		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	✓	
If not, please state why below:		

Question 5	**(Yes)**	**No**
Do you have any other comments this particular design, or in general? Please record below: This route design is not suitable for LHR's use of the runway in terms of maximising runway capacity by minimising departure intervals.		

Name Representing EASYJET

OPTION 4 Fly-over, Fly-by (Multiple Initial Turn Points)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?	✓	
If not, please state why below:		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	✓	
If not, please state why below:		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	✓	
If not, please state why below:		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	✓	
If not, please state why below:		

Question 5	**Yes** (circled)	**No**
Do you have any other comments this particular design, or in general? Please record below:		

This route design is not suitable for LGW's use of the runway in terms of maximising runway capacity by minimising departure intervals.

easyJet Airline Company Limited
Hangar 89, London Luton Airport
Luton, Beds LU2 9PF, United Kingdom

Name ..... Representing EASYJET .....

OPTION 5 Fly-over, Fly-by (Lower Speed v's Option 1)

Question 1	Yes	No
In your opinion, does this route option facilitate dispersion below 7,000 ft?	✓	
If not, please state why below:		

Question 2	Yes	No
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	✓	
If not, please state why below:		

Question 3	Yes	No
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	✓	
If not, please state why below:		

Question 4	Yes	No
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	✓	
If not, please state why below:		

Question 5	(Yes)	No
Do you have any other comments this particular design, or in general? Please record below:		

This route design is not suitable for LGW's use of the main runway in terms of maximising runway capacity by minimising departure intervals. This comment applies to option 0 as well.

Name Representing EASYJET

OPTION 6 Fly-over, Fly-by (Multiple Initial Turn Points)

Question 1	Yes	No
In your opinion, does this route option facilitate dispersion below 7,000 ft?	✓	
If not, please state why below:		

Question 2	Yes	No
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	✓	
If not, please state why below:		

Question 3	Yes	No
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	✓	
If not, please state why below:		

Question 4	Yes	No
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	✓	
If not, please state why below:		

Question 5	(Yes)	No
Do you have any other comments this particular design, or in general? Please record below:		

This route design is not suitable for LGW's use of the main runway in terms of maximising runway capacity by minimising departure intervals.

Name Representing EASYJET

OPTION 7 Constant Radius to Fix (Tracks Concentrated)

Question 1	Yes	No
In your opinion, does this route option facilitate dispersion below 7,000 ft?	✓	
If not, please state why below. once aircraft are above 4000' they can be radar vectored therefore dispersion will occur upto 7000'.		

Question 2	Yes	No
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	✓	
If not, please state why below.		

Question 3	Yes	No
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	✓	
If not, please state why below:		

Question 4	Yes	No
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	✓	
If not, please state why below:		

Question 5	(Yes)	No
Do you have any other comments this particular design, or in general? Please record below: This route ~~design~~ is our preferred design. It delivers precision that utilises current aircraft navigational performance and facilitates maximum operational capability of the runway.		

HORLEY TOWN COUNCIL

Council Offices, 92 Albert Road
Horley, Surrey RH6 7HZ
Tel:
info@horleysurrey-tc.gov.uk
www.horleysurrey-tc.gov.uk

Airspace and Noise Team
7th Floor, Destinations Place
Gatwick Airport
West Sussex RH6 0NP

Via email - LGWairspace.FASIS@gatwickairport.com

10 December 2019

Dear Sirs

Airspace Change –Gatwick Airport Route 4 Standard Instrument Departures

Thank you for your letter of 24 November seeking further comment following the two design options focus groups. Cllr Mike George, our Planning Committee Chairman at Horley Town Council, participated in both workshops and we welcome the opportunity to be involved in the discussions relating to the design options.

The outcome of the workshops and accompanying documents have been considered by all 18 Town Councillors. Following careful consideration, we have no comment to make on any of the proposed options as none appear to have any additional adverse impact on the Town over that which currently affects some of our residents living in the northern parts of Horley.

We are pleased to note that there are no plans to change the current no overflight of Horley rule. Preservation of this rule is very important to residents of Horley.

We look forward to hearing the outcomes from the current round of feedback and what options will be taken forward to the next stage of the process.

Yours faithfully

Horley Town Council

Route 4 Airspace Change
Gatwick Airport Limited
7th Floor, Destinations Place
Gatwick Airport
West Sussex
RH6 0NP

If telephoning please ask for:

Email:

By email only: LGWairspace.Rte4@gatwickairport.com

10 December 2019

Dear Sir / Madam,

Gatwick Airport – Route 4 Airspace Change

I am writing on behalf of Mole Valley District Council (MVDC) in response to Gatwick Airport Limited (GAL)'s recent engagement on the airspace change for Gatwick's Departure Route 4.

We find it difficult to comment meaningfully on any of the proposed route options at this stage as it is not possible to establish the potential benefits and consequences of any particular option without understanding the noise impact and total population potentially affected by each option. It would be beneficial for stakeholders to understand how certain variables affect each option; an important element of this would be the ability to compare and understand the difference in noise impact from the variety of the different altitudes shown at various stages of the departure operation, such as the commencement of the turn(s) northwards and westwards.

We would like GAL to present evidence for each option that would allow stakeholders to analyse the perceived benefits, such as impacts on noise emission and fuel burn of the aircraft, as otherwise it is unreasonable to favour any one option as one cannot be sure of the benefits.

Furthermore, we believe it necessary to compare each Departure Route 4 option to the current positioning of Departure Route 3 to be able to understand whether each option would unfairly impact those that are potentially overflown and therefore experience the noise impacts of both routes.

Notwithstanding the above difficulties, we would like to offer some comments on the proposed options. It is likely that the Council would be unable to support any option that does not attempt to achieve significant dispersal across a swathe, equitably and fairly distributing the noise impacts as opposed to concentrating them over a smaller area. This swathe should be constrained to areas that have historically experienced aircraft noise. Comparing all future options to the existing Noise Preferential Route is therefore important. We are concerned that many of the options shift the centreline of the route northwards, meaning that the settlements of Capel and Beare Green are directly overflown, as is the Surrey Hills Area of Outstanding Natural Beauty. This, combined with the potential conflict with Departure Route 3, would appear to be a retrograde step.

We thank GAL for making the options available in shapefile format to enable the information to be overlain with other considerations. However, the short timescale in which we have had to consider this information means we are unable to come to a definitive conclusion on the merits of each option.

We trust that the above information is useful and look forward to further engagement in due course.

Yours faithfully,

Executive Head of Service (Place & Environment)

Response to Route 4 Workshop 2 from Plane Wrong 13th December 2019

Overall Comments

It is very difficult to seriously consider the options without more information. We need to see appropriate noise contours and numbers of people overflown on each option to gain a better understanding of the impact on residents. We need accurate data provide by Boeing and Airbus to fully understand the noise impact of speed, climb rate and altitude. Although we can plot the NPRs for Routes 3 and 4 on the Option maps this should be a critical part of the debate.

The current SID (Option 0) is the only option that we can support. Apart from option 7, which is unacceptably concentrated, all other options move the route north towards Route 3 and west towards the AONB. Although we support dispersal the proximity of Route 3 inhibits dispersal to the north of the NPR. The options also all show a theoretical swathe whereas, certainly on the basis of the swathe shown for Option 0, reality would place many aircraft outside of that depiction. We are now facing a position whereby all of the options taken forward for further consideration could involve moving the NPR north and closer to Route 3. This is unacceptably biased against the residents who live under Route 3 and an unacceptable reaction to a Judicial Review decision at which the majority of communities and stakeholders were not given an opportunity to put forward their views.

NPR

All of the options other than 0 and 7 move the route north of from its current position and closer to Route 3. All of those options would require a change in the position of the NPR. Option 1 requires a change of around 2Km making the Route 3 and 4 NPR tracks virtually identical. All of these options (1-6) that reduce the distance between the two NPRs are unacceptable. They would create an intolerable increase in noise for all of the residents living under Route 3, including East Surrey Hospital, giving them no respite whatsoever.

Only Option 7 attempts to follow the NPR and that is far too concentrated to be acceptable. No options are shown south of the NPR

All of the options other than 0 and 7 also move the route further west in the turn therefore encroaching on the Surrey Hills AONB and also overflying a number of communities that are currently outside of or on the edge of NPR swathe. At this point most aircraft are climbing between 2,000ft and 4,000ft and thus creating considerable noise on the ground.

It appears that the current route, Option 0, is not really being considered by GAL as an option. Calling it Option 0 and not producing response forms for this option seems to underline this impression. Surely remaining with the status quo has to be an option in the wider consultation.

In the earlier stages of the consultation a design principle was documented *(Design Principles – Stakeholder Review, Issue Final 1, 7thJune 2019)* regarding the proximity of Routes 3 and 4. This was not carried forward to the final shortlist on the basis that moving the NPR would be beyond the scope of this project. To now produce 6 options which would require the NPR to be moved seems at the least disingenuous.

Principle 27

Designs should seek to avoid the same residents suffering aircraft noise from Route 4 and Route 3 departures

Reason

Route 4 and Route 3 departures both route to the north of the Airport, from different ends of the runway and route in opposite directions. Feedback to date, suggests current NPRs should be retained and moving this would be beyond the scope of this project

Table 2 - Design Principles Not Taken Forward.

Quite apart from the effects of locating the Route 4 NPR closer to Route 3, there are very strong arguments for leaving the Route 4 NPR in its current location.
The large concentrations of population affected by the easterly leg of the route 4 departure are Dorking, Brockham, Leigh, Betchworth, Reigate, Redhill, Salfords and Horley. Although we cannot find any record of what factors were taken into account when the NPR was designed, a reasonable assumption would be that it minimised the number of people that would be affected by aircraft noise below 4000ft. The turn is designed to a minimum practical radius ensuring aircraft stay south of Dorking. The route of the easterly leg across rural areas misses virtually all significant populations such as Brockham, Betchworth and Leigh. On reaching Salfords the route exactly bisects the gap between Redhill and Horley. The Route 3 NPR was located approx. 2Km north of the Route 4 NPR presumably to provide separation of noise contours. Route 3 passes over more populated areas but operates on a smaller percentage of days than Route 4. Thus the total population affected by noise on both routes is minimised when looking at noise vs frequency

We can only speculate on GAL's motivation in wanting to move the NPR north. It seems that this may be an easy option to reduce the number of NPR violations in the turn by moving the NPR to fit the violations rather than dealing with the problem causing the violations. We also wonder if there is a motivation of making departures from the Secondary/Emergency runway easier. If this is being done to satisfy the Plane Justice JR, then that is not taking account of all the other communities affected who were not invited to bring forward their arguments in the JR. GAL should publish to stakeholders the brief that was given to the consultants who produced these options.

All other SIDs from Gatwick follow the appropriate NPR and in fact the GENERAL INFORMATION on each SID chart states that *SIDs reflect Noise Preferential Routeings.*

In any case GAL would need to gain approval from the Secretary of State, following a full consultation with all communities and stakeholders, to move the NPR. However, we note that GAL currently publishes the NPR 1,000m north of its correct position (at DET DVOR 31D) without having sought that approval from the Secretary of State. In a recent CAA response to our EIR request the CAA acknowledged this error and stated that GAL would need to amend the charts.

Speed in the turn

A percentage of aircraft fly outside of the swathe in the final stages of the turn and continue to fly outside of the swathe whilst intercepting the centre line of the NPR at DET DVOR 31D. Up to a tail wind of approximately 20Kts aircraft that adhere to the 220Kts MAX restriction and fly a 25º bank turn will stay within the swathe. GAL do not appear to police the airlines that do not adhere to this restriction.

Previously during the 2013 ACP process the CAA instructed GAL to investigate a strong tailwind option for Route 4. GAL have never complied with this instruction. The 190Kts option (Option 5) that has been presented in this consultation includes a northerly leg which totally negates the purpose of flying slower, placing the end of turn point approximately 700m north of the NPR. We presume that these option charts have been drawn in still air, and therefore in a strong tailwind this option would end up a considerable distance north of the NPR swathe.

At the workshop the consultants said 190kts with flap would be far noisier because it would require more power. I challenged this assumption but was effectively ignored. At a point in the climb dependent on airline specific SOPs the power will be reduced from Take Off (or derate Take Off) Power to Climb (or derate Climb) Power and this will be an identical power regardless of flap setting. The flight profile would be identical up to around 2000ft and from 2000ft to 4000ft we believe that the following differences would apply for an aircraft operating at 190Kts with flap set compared to 220kts with flap 0. GAL could provide accurate detailed data if it was requested from Boeing and Airbus.

Engine noise – identical
Aerodynamic noise – minimal difference
Climb rate (ft per minute) – probably slightly lower
Climb Gradient (ft per mile) – probably similar, possibly greater.
Fuel cost and emissions – slightly higher
Maintenance costs – slightly higher.

The radius of turn would be smaller and therefore ground distance shorter. Fewer residents would therefore be overflown but each for slightly longer. A constant 25º bank turn at 190kts would remain in the NPR swathe up to approximately 45kts tailwind compared with 20kts at 220Kts

A 180º turn at 25º bank and 190kts takes approx. 67 seconds, therefore the additional time flown with flap extended is in fact minimal.

Historic Routings in use prior to the introduction of RNAV routes in 2012

The Air Navigation Guidance 2017 (para 3.3) states that *..from ground to below 4000ft the government's environmental priority is to limit, and where possible, reduce the total adverse effects on people.*

It is only where *..options for design ... are similar in number of people effected ....(that) preference should be given.... consistent with existing published airspace ....*

In the case of Route 4 the denser concentrations of population lie to the north and any move north would appear to increase the numbers of people affected. Placing Route 3 and Route

4 closer together compounds that situation, as does the noise from Heathrow aircraft to the north of Route 3.

For a number of reasons, including a lack of diligence in updating both SIDs and DET VOR station declination for changes of magnetic variation, the actual tracks of the Standard Instrument Departures (SIDs) published by the CAA for this route varied over the years. Additionally, the inherent inaccuracies of navigational systems then in use and factors such as wind component, instrumentation errors, flying accuracy and speed all had an effect on the actual tracks flown by individual aircraft. The end result was that the actual paths flown by aircraft were randomly spread across much of the NPR northern swathe. Therefore until 2013 and the introduction of PRNAV, with this random spread of aircraft paths, and much lower numbers of aircraft, there was no single "legacy" route recognised by residents in the area.

The legacy position touted by Plane Justice of "….*the geographical position and dispersal pattern it occupied prior to 2013 (where it had kept the peace for decades……..."* was in fact never a single geographical position and that dispersal just is not now an option.

There is no identifiable consistent historic routing other than the NPR, which has had a consistent position for decades. Conventional SIDs moved position considerably and actual aircraft tracks were spread over a wide area. The GAL web site depiction of historic Route 4 aircraft tracks (although it is not clear if this depicts a summer week, month or period) shows considerable change over the years from 1996.

Conclusion.

Plane Wrong, representing residents from Capel, Beare Green, Holmwood, South Holmwood, Brockham, Leigh, Betchworth, Reigate Heath, South Reigate and Redhill who are affected by Routes 3 and 4, can only support Option 0. We feel that the process to date has been flawed and consideration should be given to extending this phase of the ACP to address the shortfalls in the process to date.

Mole Valley District Councillor for Beare Green

Email: @molevalley.gov.uk

Route 4 Airspace Change
Gatwick Airport Limited
7th Floor, Destinations Place
Gatwick Airport
West Sussex
RH6 0NP

By email
only: LGWairspace.Rte4@gatwickairport.com

10 December 2019

To whom it may concern

Gatwick Airport – Route 4 Potential Airspace Change

I am writing as the Mole Valley District Councillor for Beare Green, who is also on GATCOM and NatMAG in response to Gatwick Airport Limited (GAL)'s recent workshops on the possible airspace change for Gatwick's Departure Route 4.

In respect of the second Route 4 workshop – where Ordnance Survey overlays were introduced over potential route Options 0-7, I would like to comment as follows:

Your forms given out at the workshop did not include any that would enable a response in respect of Option 0, yet retaining a version of the existing route - Option 0 - is likely to be the most preferred of all options offered.

The current agreed Route 4 goes over my house in Beare Green. Your Option 0 is not showing the flight paths which have occurred over the majority of 2019. It seems to show the route flown since September 2019 when it developed a broader bulge over Capel, Beare Green and the ANOB and lost virtually any planes flying on the inside of the curve. The route prior to that change was more diverse on both sides of the swathe. It flew over less Surrey Hills ANOB land and less properties in Capel or Beare Green. I am concerned that the current route shown as Option 0 is basically all North of the NPR. This route has in effect already been "changed" to overfly more properties and more ANOB, which is a retrograde step. If the northern dispersion was lessened it probably would be the most acceptable route to local residents – but the dispersal is usually due to weather so its unlikely that could be done on a regular basis.

The workshops failed to deliver sufficient information on the impact of different heights at the start of the Route 4 turn (being at 1100 or 1500ft). We were also not fully informed of the impacts on noise, fuel burn or emissions, nor were we told how many people in each Option are actually expected to have planes flying about their properties. At this stage these details seem to be an omission and make it almost impossible to analyse and eliminate any route put forward.

Comparing all options against a set position of the Noise Preferred Route is important.

If the NPR “centre line” shown on Option 0 is superimposing onto all other Options it is obvious that it is essential that you show the Departure Route 3 on all Option designs, as in almost every instance the 2 routes are nearer than they were in early 2019.

Dispersal of departures across a swathe is essential as it is the only way to equitably and fairly distribute the noise impacts. Concentrating flights over a smaller area, as in Option 7 or pushing Route 4 and Route 3 nearer to each other, might be better for some but it would be far worse for others.

I am unable to help you to shorten your Options list without the missing critical information mentioned above, but I am happy to continue to work with you to better understand the content and to pass that onto the residents of my ward and any adjacent wards impacted by the proposed changes.

Yours sincerely

MVDC Cllr for Beare Green

Name Representing Newdigate Parish Council.

OPTION 1 Fly-by, Fly-by LAM 1X

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		no
If not, please state why below: Extremely concentrated. This design continues follows the first iteration of Route 4. Not acceptable to many villages.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		no
If not, please state why below: As it is concentrated cannot be considered as representative		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		No
If not, please state why below: I should have stated at the NMB AGM. There is probably no free space within any of the Gatwick departures that fairly reflects people overflown. Why in this densely populated are should towns have any priority over villages. Apply FED to departures		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		No
If not, please state why below: What are now sensitive areas. AONB of say Holmwood common have always been overflown. There is no airspace left to specifically avoid AONB. See my comments about towns versus villages		

Question 5	**Yes**	**No**
Do you have any other comments this particular design, or in general? Please record below: Yes This design as stated was the major cause of the problems. It is unfair on the communities around Beare Green.		

From: "GACC Info" <info@gacc.org.uk>
Date: 16/12/2019 at 19:55:05
To: "DD - Airspace Rte 4 Change" <LGWairspace.Rte4@gatwickairport.com>
Subject: Route 4

Airspace Change –Gatwick Airport Route 4 Standard Instrument Departures

Dear
Apologies for the delay in responding - normal difficulty of consulting with a committee !

GACC's view is that the options offered all have the potential to either impact on people not currently affected or overflown or to increase the impact over
some already affected.

The presentations failed to show any noise modelling for each of the options thus there is no real way of knowing whether people will be affected more or less (or no change) nor was there anything to show the number of people who would be overflown.

GACC cannot endorse any of the suggestions put forward in their current format as they all breach GACC's policy of not supporting changes that cause people not currently overflown to be overflown nor changes that would increase noise impacts on those currently overflown.

With Best Regards

Chairman
Gatwick Area Conservation Campaign

From: " < @heathrow.com>
Date: 14/12/2019 at 22:03:35
To: " @gatwickairport.com'"
< @gatwickairport.com>
Cc: @heathrow.com>,"
< @heathrow.com>,"
< @gatwickairport.com>," heathrow.com>
Subject: [EXTERNAL SENDER] FW: Route 4 Focus Group slides

Dear Sir/Madam,

Thank you for the update and opportunity to respond to the Options being considered for your Route 4 ACP. Heathrow has no comments for this element of the ACP.

We look forward to engaging with you in the future stages of this ACP .

Kind regards

Head of Airspace and Airspace Change Process

Future Heathrow, Heathrow Expansion.

Heathrow
Making every journey better

Heathrow Airport

The Compass Centre, Nelson Road

Hounslow, Middlesex, TW6 2GW

w: heathrow.com t: twitter.com/heathrowairport

a: heathrow.com/apps

RESPONSE TO DESIGN OPTIONS QUESTIONNAIRE

Before turning to the specific route options and the questions Gatwick have posed, we felt it necessary to make some more general comments, which have informed our thinking on these Options:-

A. Dispersion – good or bad?

Not all dispersion is good, especially in a turn. A fat swathe rounding a turn drawn on a map may appear to be spreading, and thereby lessening the noise load, for each individual resident beneath, but appearances can be deceptive - it will depend entirely upon the metrics of that turn: If an aircraft is having to 'fly dirty' with prolonged use of flaps or abrupt throttle changes in order to comply with the prescribed turn then that fat swathe may simply be spreading an unnecessarily intense level of noise over a greater number of people (which we refer to as 'bad dispersion'), and such a badly designed turn may dramatically intensify the problem in adverse weather conditions.
A narrower swathe with a well-conceived turn design would lessen the noise for residents under the swathe as well as minimise the noise spread.

The current temporary route is a quintessential example of a badly designed turn displaying these 'fly dirty' characteristics. The turn is unstable especially in poor weather conditions and dispensation had been sought to dis-apply a design requirement intended to help engender stability.

B. Vectoring

The best form of dispersion of all for people living under the swathe is the 'natural dispersion' induced by vectoring. This is a different matter of course to the tracks those vectors take and where they fly over, and a too narrow 'vectoring corridor' may see vectoring overflight which is as frequent for those living under it as it is for people living under the swathe.

Vectoring needs to be carried out under well-defined procedures which themselves pay due regard to the 2012 location/traffic pattern as embodied in the design principles and the terms of reference of the Statement of Need as well as respecting long-standing 'no-overfly' agreements as apply to Horley.

It will be imperative that NATS are fully engaged as this ACP approaches the design options shortlisting stage, and that maps are produced at that stage which model the likely pattern of vectoring for each shortlisted option where the airspace is in a 'steady state' (i.e. it is fully accepted that vectoring patterns may change on an unpredictable basis which has to be managed 'on the day' in response to events, e.g. severe weather or an airport or aircraft emergency).

C. The current Route 4 NPR

There was some discussion at the last design options workshop on 21 November about moving the current NPR. Gatwick/Osprey had made it perfectly clear at the first focus group meeting on design principles we attended on 15 May and at the first briefing session on 24 January 2019, that if options chosen dictated that the NPR (centreline) needed to be moved then Gatwick would seek the necessary approvals from the DfT. It was also stated at the first briefing session that the DfT had been given a heads up that they may be called upon to do so.

This could hardly be otherwise, because if the state of the law proves to be such that *any* placement of the route away from the current NPR centreline (even if within the current monitoring swathe) requires a change in the current NPR to be initiated, then all but one of the design options presented would require this. *If moving the NPR was not a viable option in these circumstances then this whole ACP exercise would amount to little more than an elaborate confidence trick.* This is certainly not something in our contemplation so far as Gatwick is concerned, and as we stated in our design principles response dated 28 June 2019 and can repeat at this juncture we believe that Gatwick (and their consultants Osprey) have been conducting this ACP in utmost good faith.

D. 2012

As Question 2 recites, 2012 is the date prior to the introduction of RNAV routes. It is similarly the reference date of the departure routes the original ACP was intended to replicate with the introduction of RNAV1, and also crucially the reference date specified in the judicial review Consent Order as referenced in the Statement of Need launching the present ACP. For these reasons it is always adopted as the benchmark when assessing any changes in relation to Route 4 as we made clear in our responses in the Design Principles phase of this ACP. For the same reasons it is adopted as the reference date in responding to the questions posed by Gatwick in this design options phase and in particular Question 3.

E. Environmental impacts

There is not sufficient information currently available to assess the relative carbon footprints and emissions profiles of the Options presented. We would wish to reserve judgement on this until such data is presented at the relevant stage of this process.

F. Sensitive areas

We would reiterate two points we made in our design principles review response dated 28.6.19, which are especially relevant in relation to Question 4:-

First, we would be wary of any noise sensitive areas which existed prior to May 2016, but which were only "notified" subsequent to that date, where the motivation might be to consolidate a 'no overflight position' which that area enjoyed only as a result of an unlawful change which should never have taken place.

Second, whilst we fully recognise the value of AONBs, given the proximity of the Surrey Hills AONB to the Route 4 turn, it is not feasible from an operational perspective to avoid overflying this area completely below 7000 feet in the context of this ACP – though this might become a possibility under FASI. Some areas of this AONB on the turn have always sustained a degree of overflight/ noise from Route 4, and proposed designs put forward within this ACP which to some extent overfly this AONB should not be disallowed under this design principle - except in circumstances where a design would cause greater noise above this AONB than existed prior to 2012. *We consider that only design options 4 and 6 are in significant danger of transgressing this exception, and so have responded to Question 4 accordingly.*

G. Option 0

We take it from the deliberate omission of a feedback form and accompanying explanation that the current temporary route, as reproduced in Option 0, has been formally discounted as an option in this ACP and will be replaced by whichever Option is eventually approved under this ACP[1].

This must be the right procedural course of action, given as we all now know the current temporary route was conceived in a process which was discredited and declared unlawful by the judicial review, paying no regard to the 2012 location/traffic pattern. Option 0 thereby falls outside the terms of reference of the ACP's December 2018 statement of need in failing to take into account the relevant aspects of the judicial review Consent Order.

The problems with Option 0 do not stop there however: The design of the current route incorporates a badly designed and unstable turn (see A above).

Key to Questions:	Q1: In your opinion, does this route option facilitate dispersion below 7,000 ft?	Q2: In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	Q3: In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	Q4: In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	Q5: Do you have any other comments on this particular design, or in general? Please record below:

[1] If some other interpretation is intended then the procedure is certainly unclear to us and Gatwick must please explain to stakeholders as a matter of urgency.

<table>
<tr><td>Option 1</td><td colspan="5">General remarks:
At the last design options workshop on 21 November it was revealed that this Option, described as the ‘2012 route’ is in fact the RNAV1 route that commenced in November 2013. This route was conceived with the lawfully correct as well as ethical objective of replicating so far as RNAV1 technology would allow the 2012 traffic location/pattern, but tragically the design execution misfired, causing the eastward-heading section of the route to be displaced farther to the north than the 2012 routeing. (It is agonising that with the benefit of hindsight and the greater knowledge and experience of RNAV technology now available, it is possible to correct a design that was so nearly right in the first place; Had this been possible back then, then it seems highly likely given the outcomes on other departure routes that Route 4 would have been approved in 2015, Plane Justice would never have existed – nor would this ACP.)

At the first design options workshop on 30 October, Gatwick invited participants to suggest any changes to any of the route options they would wish to see. We consider that the misfiring of the 2013 design can be corrected by increasing the angle of bank round the turn[2] whilst maintaining the same speed round the turn, thereby substantially preserving the other desirable characteristics of Option 1, including its more stable turn profile and initial altitude at the first turn whilst giving due regard to the 2012 traffic location/pattern.

With this important alteration, Option 1 still remains the pre-eminent solution:
A. Option 1 gives due weight and regard to the value of preserving the existing pattern of traffic in 2012
B. It offers the highest initial turn altitude (2500ft) with the prospect of aircraft being significantly higher over the communities of Capel & Newdigate than any other option
C. The pattern and shape of the turn and permissible turn speed looks to deliver a ‘cleaner’ and less noisy turn execution than most other options.
D. It presents a wide southerly ‘vectoring corridor’ after the route heads eastwards[3], facilitating vectoring which avoids Horley and vectoring patterns in the vicinity of e.g. Outwood which emulate those prevailing in 2012.

The replies to Questions 1 to 4 below assume the above bank angle change is duly made, and that vectoring patterns return very substantially to their 2012 status:</td></tr>
<tr><td></td><td>Q1:

☑ Yes ☐ No
If not, please state why below:</td><td>Q2:

☑ Yes ☐ No
If not, please state why below:</td><td>Q3: NB This question is answered taking 2012 as the point of comparison (see D above):
If not, please state why below:</td><td>Q4: (NB see F above):
If not, please state why below:
☑ Yes ☐ No</td><td>Q5:
☑ Yes ☐ No
See general remarks above.</td></tr>
</table>

[2] In terms of lateral location, the angle of bank should be increased whilst maintaining as near as possible to the same turn speed so that the middle line of the orange swathe of Option 1 as it travels eastwards is repositioned at a location which reflects the middle line of the orange swathe of Option 5.

[3] A characteristic Option 1 shares with Option 5.

			☑ Yes ☐ No		

Option 2	General remarks: This is the current route, except it routes direct to SUNAV after the turn. As such it will exhibit the same damning characteristics of bad dispersion round the turn as the discredited Option 0 (please refer to G above), and whilst its eastwards routeing pays some attention to the 2012 traffic location/pattern it falls well short of giving the due regard to it that (the amended) Option 1 affords; This in turn leads to the adverse consequences highlighted in Q3 below.				
	Q1: ☐ Yes ☑ No If not, please state why below: Please refer to the general remarks above.	Q2: ☐ Yes ☑ No If not, please state why below: Please refer to the general remarks above.	Q3: **NB *This question is answered taking 2012 as the point of comparison (see D above):*** If not, please state why below: ☐ Yes ☑ No The position and increased width of the swathe both in the turn and after, as compared to the 2012 traffic location/pattern, means this Option will impact previously unaffected populations as well as increase the total number of people overflown.	Q4: (**NB *see F above*)*: ☑ Yes ☐ No If not, please state why below:	Q5: ☑ Yes ☐ No See general remarks above.

<table>
<tr><td rowspan="2">Option 3</td><td colspan="5">General remarks:

This Option’s lateral location gives some regard to the 2012 traffic location/pattern but fails to give the due regard that (the amended) Option 1 affords. It has a further serious flaw in having the lowest initial minimum altitude of 1100 ft, which will have an adverse impact as aircraft reach Capel & Newdigate. There is also some concern that the widened east-west swathe could cause a significant change in vectoring patterns affecting communities in Horley and Outwood.</td></tr>
<tr><td>Q1:

☐ Yes ☑ No
If not, please state why below:

See general remarks above. The concern is that this design could cause a significant change in vectoring patterns affecting communities in Horley and Outwood, thereby devaluing the most beneficial form of dispersion - dispersion by vectoring.</td><td>Q2:

☐ Yes ☑ No
If not, please state why below:

Please refer to the general remarks above.</td><td>Q3: NB This question is answered taking 2012 as the point of comparison (see D above):
If not, please state why below:

☐ Yes ☑ No

The position and increased width of the swathe after the turn, as compared to the 2012 traffic location/pattern, means this Option will impact previously unaffected populations as well as increase the total number of people overflown.</td><td>Q4: (NB see F above):

☑ Yes ☐ No
If not, please state why below:</td><td>Q5:

☑ Yes ☐ No
See general remarks above.</td></tr>
</table>

<table>
<tr><td rowspan="2">Option 4</td><td colspan="5">General remarks:

This option is rejected for similar reasons to option 2 (see above). We are also highly nervous of trying to engineer dispersion in the turn as this design appears intended to do, and fear it may generate even greater ‘bad dispersion’ round the turn (please see A above).
This option also appears to penetrate a greater area of the AONB than previously, which coupled with concerns of bad dispersion round the turn leads us to doubt it can be said to minimise the impact of noise on those areas.</td></tr>
<tr><td>Q1:

☐ Yes ☑ No
If not, please state why below:

Please refer to Q1 in Option 2 above.</td><td>Q2:

☐ Yes ☑ No
If not, please state why below:

Please refer to Q2 in Option 2 above.</td><td>Q3: NB This question is answered taking 2012 as the point of comparison (see D above):
If not, please state why below:

☐ Yes ☑ No
Please refer to Q3 in Option 2 above.</td><td>Q4: (NB see F above):

☐ Yes ☑ No
If not, please state why below:
See general remarks above.</td><td>Q5:

☑ Yes ☐ No
See general remarks above.</td></tr>
<tr><td>Option 5</td><td colspan="5">General remarks:

This Option (lower speed Vs Option 1) should be very strongly credited for its attempt to address the tragic ‘misfiring’ that occurred with Option 1 as originally introduced (see Option 1 above).
Following the revelation of the mapping at the last options workshop on 21 November, it is now clear that Option 5 as it stands is in fact the closest to the 2012 traffic location/pattern.
The only weakness evident in Option 5 is that it may have simply chosen the wrong parameter to vary to bring the route close to the 2012 traffic location/pattern (namely speed); Varying the bank angle of Option 1 rather than speed is the preferred way forward (see Option 1 above), as a way to preserve the higher initial altitude of Option 1.</td></tr>
<tr><td></td><td>Q1:</td><td>Q2:</td><td>Q3: NB This question is answered taking 2012 as</td><td>Q4: (NB see F above):</td><td>Q5:</td></tr>
</table>

	☑ Yes ☐ No If not, please state why below:	☑ Yes ☐ No If not, please state why below:	***the point of comparison (see D above):*** If not, please state why below: ☑ Yes ☐ No	☑ Yes ☐ No If not, please state why below:	☑ Yes ☐ No See general remarks above.

Option 6	General remarks: This Option fails to give due regard to the 2012 traffic location/pattern, and even appears to overfly some previously unaffected populations which no other Option has touched. We are also highly nervous of trying to engineer dispersion in the turn as this design seems intended to do, and fear it may generate 'bad dispersion' round the turn (please see A above). We also note this design achieves only a 1500 ft initial altitude which would compound the adverse noise profile of the turn for Capel and Newdigate. This option also appears to penetrate a greater area of the AONB than previously, which coupled with concerns of bad dispersion round the turn leads us to doubt it can be said to minimise the impact of noise on those areas.				
	Q1: ☐ Yes ☑ No If not, please state why below: Please refer to the general remarks above.	Q2: ☐ Yes ☑ No If not, please state why below: Please refer to the general remarks above.	Q3: **NB *This question is answered taking 2012 as the point of comparison (see D above):*** If not, please state why below: ☐ Yes ☑ No The position and significantly increased width of the swathe after the turn, both to south and north, as compared to the 2012 traffic location/pattern, means this Option will impact previously	Q4: (**NB *see F above*):** ☐ Yes ☑ No If not, please state why below: See general remarks above.	Q5: ☑ Yes ☐ No See general remarks above.

			unaffected populations as well as increase the total number of people overflown, to the greatest extent of any of the Options.		

Option 7	General remarks: We do not even understand why this Option was ever included in the shortlist by Gatwick. It shares all the damning characteristics of Option 0 and then compounds them by dint of concentration. It turns the screw tighter on certain communities who were newly affected by the unlawfully conceived current temporary route, and flies in the face of the judicial review Consent Order which is a fundamental part of the terms of reference of this ACP. It would be incendiary to those who have suffered since 2016 under the current unlawfully conceived route. It should be ruled out by Gatwick in the same way as Option 0 (see G above).				
	Q1: ☐ Yes ☑ No If not, please state why below:	Q2: ☐ Yes ☑ No If not, please state why below:	Q3: **NB *This question is answered taking 2012 as the point of comparison (see D above):*** If not, please state why below: ☐ Yes ☑ No	Q4: (**NB *see F above*)*: ☑ Yes ☐ No If not, please state why below:	Q5: ☑ Yes ☐ No See general remarks above.

From: "
Date: 20/12/2019 at 12:32:32
To: "DD - Airspace Rte 4 Change" <lgwairspace.rte4@gatwickairport.com>
Cc: " <
<
Subject: Re: Route 4 Public Engagement - 21 November 2019

Dear Sirs

Thank you for allowing us to participate in your workshops and providing us with the opportunity to comment on behalf of our village community on the outlined Routing Proposals.

'Quiet Outwood ' is an action group formed by a large number of villagers in Outwood following the change of Routing in 2016, an event that has had an enormous detrimental impact on our residents. We have worked in conjunction with the Parish Council, who have already responded separately on this issue, to ensure that the concerns of the greatest number of our residents affected by the current routing are addressed. It's therefore important that the comments in this communication are viewed in conjunction with the comments already provided by Outwood Parish Council.

Clearly, our preference would be a return to the 2012 route, failing which, a routing that maintains the spirit of the previous route whereby aircraft pass to the North of the village and 'Vectors' given to ensure a fair distribution of overflights.

Our comments below and in the attached responses rely on our understanding that:

1) Option 0 – the current temporary routing is not being considered going forward. Should this assumption be incorrect then we should put it on record that we do not support continuance of the existing Route, i.e `Option 0, and

2) The existing NPR (which is only replicated in Option 7) is able to be moved if any of the other options are considered to be of merit.

We have only returned forms in respect of Options 1 (our most preferable Option) and 7 (our least preferable Option) as these appear to be the two that would affect our community the most and recognise that our Parish Council have already supplied their comments regarding the other proposed Options which would reflect our own.

Finally, we would ask you to note that we consider it of upmost importance that maps showing anticipated vector paths would be provided for the Option(s) which go through to the next stage of the process.

Looking forward to hearing from you further.

Kind regards

Quiet Outwood

Reigate & Banstead
BOROUGH COUNCIL
Banstead I Horley I Redhill I Reigate

Corporate Policy

By email: LGWairspace.FASIS@gatwick.com

Date: 13 December 2019

Dear

Gatwick Route 4 Redesign of RNAV Standard Instrument Departures: Stage 2A – Options Development

Thank you for the opportunity to comment on the initial options and for inviting Council representatives to attend your recent workshops in relation to Route 4. Rather than explicitly answer the feedback questions for each option we have provided more general comments below. We are particularly interested in the current/future design of Route 4 as the current Route 4 departure route wraps 180° degrees shortly following take-off and therefore flies directly over the borough of Reigate & Banstead causing disturbance to residents of the parish of Salfords & Sidlow, south of Redhill and Reigate and north of Horley.

In our previous responses to engagement on the future re-design of Route 4 we have said that:

- The core principles regarding airspace design should be to not increase – and where possible reduce – noise disturbance to communities and residents, to minimise the number of newly overflown people and to minimise the total number of people overflown;
- The future Route 4 departure route should reflect the pre-2012 'legacy' position towards the northern edge of the current noise preferential route (NPR) but have stressed that it should remain within the current NPR to minimise the number of newly overflown residents;
- We support dispersal below 7,000ft but only within the existing NPR; and
- The no overflight of Horley should be retained.

We still think that these are important considerations for the future re-design of Route 4, we also consider that there should be no overflight of Route 3. Therefore taking into consideration these points and the potential options presented as part of this engagement, we consider that the future re-design of Route 4 should be as per the Option 0 centreline and swathe, but that the swathe should be more dispersed rather than concentrating towards Salfords (i.e. in line with the spread/dispersal seen in Option 3) and that this swathe should remain within the current northern 1.5km swathe from the centreline of the NPR.

We note that East Surrey Hospital is located immediately to the north of current NPR swathe. Given that this is a noise sensitive environment we think that it should be avoided from inclusion within the re-designed swathe - it is impacted by Options 1 and 3.

In relation to noise more generally, we have concerns regarding the lack of consideration of noise contours at this stage as this may lead to more inherently noisy options being chosen when options are being ruled out.

We also have concerns regarding the level of engagement, in particular:

- The reluctance to provide shapefiles of the options – whilst we appreciate that the proposed routes are confidential and divisive, local authorities are used to dealing with confidential information and given the previous - and potential - impact of Route 4 on residents in the borough we would have appreciated a more willing approach to share information.
- The short timeframe for responses (3 weeks for this engagement and 2 weeks for the previous engagement) which presents challenges for political organisations such as local authorities. Whilst we recognise the short timeframes in the CAP1616 guidance, we also note that Paragraph C3 of the CAP1616 Guidance states that “there is nothing to stop a change sponsor from going beyond both the requirements and best practice set out [in the guidance]” and that Paragraph C9 of the CAP1616 Guidance notes that in assessing whether the change sponsor has engaged effectively with stakeholders consideration will be given as to whether stakeholders require any unique/ special/ different requirements.

We also have concerns regarding the potential level of engagement in the preparation of Step 2b given that we understand that GAL intends to submit Step 2 (parts a and b) to the CAA for the develop and assess gateway on 17th January, 5 weeks from the close of this engagement including Christmas. Paragraph 143 of the CAP 1616 Guidance notes that Step 2b "is an essential piece of evidence in both understanding the impacts of the potential change and setting the level of the change". During the very short timeframe GAL are required to take into consideration stakeholders views from Step 2a; identify a list of 'final' design options; and appraise each of these options (and a 'do nothing' scenario) against the requirements set by the CAA to understand both the positive and negative impact of each proposed option (i.e. taking into consideration the number of people potentially overflown and the potential health and environmental impacts and potential safety implications). We will expect to have the opportunity to provide comments on the initial assessment.

We will also expect the environmental impact assessment at Step 2b to take into consideration the proposed growth with the use of the emergency runway given that GAL are actively pursuing this level of development and Paragraph B31 of the CAP 1616 guidance states that traffic forecasts for a period of at least 10 years from the intended year of implementation are required for all permanent airspace change proposals and Paragraph B27 states that the 'do nothing' scenario should reflect the current-day scenario taking due consideration of known or anticipated factors that might affect that baseline, for example forecast growth in air traffic or expected changes in airlines' fleet mix.

I trust that these comments will be taken into consideration and I would be very happy to discuss our comments with you further should that be helpful.

Given the limited level of engagement at this stage, I would like to make it clear that our comments are provided at an officer level in consultation with the relevant portfolio holder and are therefore made without prejudice to any future responses from Reigate & Banstead Borough Council.

Yours sincerely,

Via email only - LGWairspace.FASIS@gatwickairport.com

Gatwick Airport

10 December 2019

Dear Sirs

Re: Route 4 Design Options

I am writing to you on behalf of Salfords and Sidlow Parish Council.

The redesign of Route 4 was required to replicate, as close as possible, the 2012 nominal track of the conventional SID. The redesign introduced an extra, third, turn which took the north-easterly straight leg too far south onto the NPR centre line.

Salfords & Sidlow Parish Council is mainly concerned with the straight northeast track which crosses the whole of our Parish and, therefore, the Borough of Reigate & Banstead. We believe the accepted route should not have an adverse environmental impact on newly overflown people on the turns and on the straight section.

None of the routes 0 to 7 has achieved replication of the 2012 route entirely.

Option 1 is supported, it is the nearest to achieve replication of the 2012 route and is the only Option of aircraft achieving the altitude of 2500ft amsl at the start of the turn. This option goes just outside the northern edge of the NPR swathe but the pink route of Option 6 shows this can be corrected. This would then move the tracks further away from the noise sensitive areas of Leigh, Reigate and Redhill.

Option 2 is rejected, it is quite low (1500ft amsl) at the start of the turn. This option is close to the current route. The track too close to the NPR centre line on the turn; it should be further out, is too much like the current route so does not reflect the requirement to replicate the 2012 route.

Option 3 At 1100ft amsl this is much too low into the turn. The turn is too tight. The benefit from the 'Apparent Dispersion Late in Turn' from multiple points in the straight north-easterly straight leg is misleading as most aircraft will be above 4000ft amsl and may well be vectored by then.

Option 4 is rejected. None of the three turn points is close enough to the 2012 route. At 1500ft amsl at the start of the turns these are all quite low.

Option 5 is rejected. At 1100ft amsl this is much too low in early part of the turn.

Option 6 has one good feature, the furthest out turn point which gives the outer pink line is close to the 2012 route. The other two earlier turn points are rejected. At 1500ft amsl this is quite low at the start of the turns.

Option 7 is rejected. At 1500ft amsl this route is quite low in the turn. It is too tight on the turn, too far south on the straight north-easterly leg and too concentrated compared to the 2012 route.

Yours faithfully

Clerk to Salfords and Sidlow Parish Council

Cc: MP Reigate & Banstead
Head of Corporate Policy, Reigate and Banstead Borough Council

Waverley Borough Council
Council Offices, The Burys,
Godalming, Surrey
GU7 1HR
www.waverley.gov.uk

Route 4 Airspace Team
Gatwick Airport
Sent via email

Planning Policy Manager
E-mail:
Direct line:
Calls may be recorded for training or monitoring
Date: 20/12/2019

Dear Sir/Madam

Waverley Borough Council's Response to Route 4 Airspace Change at Gatwick Airport

Thank you for consulting Waverley Borough Council on the different options for changes to the Route 4 Airspace from Gatwick Airport.

We note that the consultation documentation is accompanied by a questionnaire for each option. We have reviewed the consultation information and questionnaires. As a Council our interest is the impact of the proposals on Waverley residents and its environment and as it appears that none of the current proposed Route 4 options would result in aircraft flying over Waverley Borough we do not have any comments to make at this time.

As I am sure you are already aware, on 18 September 2019 Waverley Borough Council formally declared a climate emergency with a commitment to carbon neutrality by 2030 and as a Council we want to ensure that the options for Route 4 take into account any environmental impacts and would welcome the opportunity to comment on future consultations.

Yours faithfully

Route 4 Airspace Change
Gatwick Airport Limited
7th Floor, Destinations Place
Gatwick Airport
West Sussex
RH6 0NP

By email only: LGWairspace.Rte4@gatwickairport.com

10 December 2019

Dear Sir / Madam,

Gatwick Airport – Route 4 Airspace Change

I am writing on behalf of Mole Valley District Council (MVDC) in response to Gatwick Airport Limited (GAL)'s recent engagement on the airspace change for Gatwick's Departure Route 4.

We find it difficult to comment meaningfully on any of the proposed route options at this stage as it is not possible to establish the potential benefits and consequences of any particular option without understanding the noise impact and total population potentially affected by each option. It would be beneficial for stakeholders to understand how certain variables affect each option; an important element of this would be the ability to compare and understand the difference in noise impact from the variety of the different altitudes shown at various stages of the departure operation, such as the commencement of the turn(s) northwards and westwards.

We would like GAL to present evidence for each option that would allow stakeholders to analyse the perceived benefits, such as impacts on noise emission and fuel burn of the aircraft, as otherwise it is unreasonable to favour any one option as one cannot be sure of the benefits.

Furthermore, we believe it necessary to compare each Departure Route 4 option to the current positioning of Departure Route 3 to be able to understand whether each option would unfairly impact those that are potentially overflown and therefore experience the noise impacts of both routes.

Notwithstanding the above difficulties, we would like to offer some comments on the proposed options. It is likely that the Council would be unable to support any option that does not attempt to achieve significant dispersal across a swathe, equitably and fairly distributing the noise impacts as opposed to concentrating them over a smaller area. This swathe should be constrained to areas that have historically experienced aircraft noise. Comparing all future options to the existing Noise Preferential Route is therefore important. We are concerned that many of the options shift the centreline of the route northwards, meaning that the settlements of Capel and Beare Green are directly overflown, as is the Surrey Hills Area of Outstanding Natural Beauty. This, combined with the potential conflict with Departure Route 3, would appear to be a retrograde step.

We thank GAL for making the options available in shapefile format to enable the information to be overlain with other considerations. However, the short timescale in which we have had to consider this information means we are unable to come to a definitive conclusion on the merits of each option.

We trust that the above information is useful and look forward to further engagement in due course.

Yours faithfully,

Executive Head of Service (Place & Environment)

Name Representing Plane Wrong

OPTION 0

Question 1	Yes	No
In your opinion, does this route option facilitate dispersion below 7,000 ft?	YES	
It provides dispersion in the turn.		

Question 2	Yes	No
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	YES	
If not, please state why below: This route follows the NPR which has been an existing airspace arrangement for decades		

Question 3	Yes	No
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	YES	
If not, please state why below:		

Question 4	Yes	No
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	YES	
If not, please state why below: al		

Question 5	Yes	No
Do you have any other comments this particular design, or in general? Please record below: This is the only option which would be acceptable to residents who currently suffer from Route 3 noise. ACCEPTABLE		

Nam Representing Plane Wrong

.....

.....

Name ..... Representing .....

OPTION 1 Fly-by, Fly-by LAM1X

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		NO
Absolutely not. It places Routes 3 and 4 together creating a totally unacceptable concentration. We do not understand why this option was ever put forward.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		NO
If not, please state why below: There has never been a concentrated historic routing in this place except for the initial failed introduction of RNAV on Route 4		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		NO
If not, please state why below: It flies over many new residents in the turn.		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		NO
If not, please state why below: It flies over the AONB and over East Surrey Hospital		

Question 5	**Yes**	**No**
Do you have any other comments this particular design, or in general? Please record below: This option is flawed in so many respects we do not understand why it has been presented. NOT ACCEPTABLE		

Name ..... Representing .....

Name ..... Representing R4NM .....

OPTION 1 Fly-by, Fly-by (Current LAM 1X)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?	**UNSURE**	
If not, please state why below: Less dispersion but much higher altitude so less noise. Dispersion will depend on how carriers fly the design. Maximum scope for dispersion via vectoring from the northerly routing on the eastbound leg.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	**ALMOST**	
If not, please state why below: It marginally further north than other options but some aircraft always flew out of the NPR above 4000ft pre PRNav and with continuous climb aircraft should be much higher.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	✓	
If not, please state why below: We think the initial turn height at 2,500ft is most welcome and the design offers the most scope for continuous climb and weather resilience.		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	✓	
If not, please state why below: Aircraft should be higher over the AONB and improvements under FASI(s) airspace modernisation will improve things further. This routing avoids the new Westvale Park residential development which was approved pre 2012.		

Question 5	**Comments**
Do you have any other comments this particular design, or in general? Please record below: The design needs tightening up. The procedure designer said this may be possible if the angle of bank could be increased slightly on the two turns. Best dispersion after the turn via vectoring route as it is from the most northerly part of the swathe. Heathrow vectors are significantly supressing altitudes of all routes. Noise is priority below 7,000ft.	

Name ..... Representing R4NM .....

OPTION 2 Fly-over, Fly-by (LAM 2X Direct SUNAV)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		✓
If not, please state why below: The dispersion achieved looks good on paper but is not representative of legacy patterns and the noise impact will be as bad as option 0. As with option 0 aircraft are likely to cut off the inner corner over new populations.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		✓
If not, please state why below: This option is still very near to the centreline. Residents on the inside of the turn never previously had overflight and those residents are likely to suffer the **worst** noise. It's a poor rehash of option 0 with the same problems and does not respect the legacy.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		✓
If not, please state why below: As with option 0 communities on the inside of the turn will suffer the worst noise when previously they weren't overflown, particularly in strong north westerly winds with aircraft cutting the corner. Significant aircraft engine noise as with option 0. Aircraft flying up to the waypoint over new communities. The current noise monitors do not lie.		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		✓
If not, please state why below: Areas of low ambient noise are affected greatly by aircraft noise as opposed to areas with main roads, motorways railway lines etc, where the noise is less noticeable. As with option 0 it will be noisy and you will hear it throughout the whole area, particularly as initial turn altitude is lower than Option 1.		

Question 5	**Comments**
Do you have any other comments this particular design, or in general? Please record below: This is a modification of Option 0 and it is likely to suffer the same problems with aircraft cutting the inside corner in north westerly winds. Are airlines going to have to add their own waypoints to this design as well as option 0, in order for it to be flyable in all conditions. The 2012 legacy route was further north. This is not a replication.	

Name ..... Representing .....

OPTION 2 Fly-over, Fly-by (LAM 2X Direct SUNAV)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		NO
If not, please state why below: It takes Route 4 closer to Route 3 and therefore adds concentration		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		NO
If not, please state why below: There has never been a concentrated historic routing. The only consistent Historic route has been the NPR.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		NO
If not, please state why below: It moves the route further West and will have an effect on new populations.		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		NO
If not, please state why below: It takes the route over the AONB and closer to East Surrey Hospital		

Question 5	**Yes**	**No**
Do you have any other comments this particular design, or in general? Please record below: NOT ACCEPTABLE		

Name ..... Representing .....

Name Representing Newdigate Parish Council

OPTION 3 Fly-by, Fly-by (Apparent Dispersion Late in Turn)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		no
If not, please state why below: Dispersion only occurs after the turn. Concentration will be unacceptable to Capel and Beare Green		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		No
If not, please state why below: Historical routings and flying practices did not create severe concentration on the curve.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		No
If not, please state why below: All the areas in the curve have been overflown in the past. Again, with the general high population densities of the area avoiding towns is not fair on the villages.		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		no
If not, please state why below: As the curve is concentrated over AONB of Holmwood common then how can it minimise? Any routings taking into account, say Schools, will be impossible to avoid all the schools. Not I discount schools as for many hours of the day children are inside. Schools are on holiday during the current summer peak.		

Question 5	**Yes**	**No**
Do you have any other comments this particular design, or in general? Please record below: yes This design constitutes a new NPR as I expected.		

Name ..... Representing Newdigate Parish Council .....

Name ..... Representing R4NM .....

OPTION 3 Fly-by, Fly-by (Apparent Dispersion Late in Turn)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		✓
If not, please state why below: Some partial dispersion but far better dispersion would be achieved by vectoring from the northern pink line across the swathe as in 2012.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		✓
If not, please state why below: Although the concept of spreading the flight path after the turn with three separate new waypoints may appear to spread the impact of the noise, as they are fairly close together the difference would be imperceptible. i.e. it would fly one side of your house or the other. The black and blue lines will mean vectoring patterns will not respect the 2012 legacy and potentially force aircraft closer to Salfords, Outwood and Horley.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		✓
If not, please state why below: On the easterly leg, populations who had partial vectoring will have a concentrated route overhead. Vectoring from a more southerly route affects Salfords, Outwood and Horley adversely. Previously aircraft were not vectored until past Leigh otherwise they ended up going through the Horley gateway.		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		✓
If not, please state why below: More danger of vectoring over Horley from the more southerly routes.		

Question 5	**Comments**
Do you have any other comments this particular design, or in general? Please record below: Vectoring from the most northerly pink line would provide for better dispersion in accordance with the 2012 legacy.	

Name ..... Representing .....

OPTION 3 Fly-by, Fly-by (Apparent Dispersion Late in Turn)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		NO
If not, please state why below: Although it seeks to create some dispersal to Route 4 it brings all routes north towards Route 3 creating concentration.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		NO
If not, please state why below: There has never been a concentrated historic routing. The only consistent historic route has been the NPR.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		NO
If not, please state why below: It flies further west overflying new population. It concentrates more aircraft towards Route 3.		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		NO
If not, please state why below: It takes the route over the AONB and closer to East Surrey Hospital		

Question 5	**Yes**	**No**
Do you have any other comments this particular design, or in general? Please record below: NOT ACCEPTABLE		

Name ..... Representing .....

Name Representing Newdigate Parish Council

OPTION 4 Fly-over, Fly-by (Multiple Initial Turn Points)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?	Yes	
If not, please state why below: Why produce a concentration after the curve. Good for Capel and Beare Green but bad for Leigh and beyond.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	Yes	
If not, please state why below: Only partially though as the concentration after the curve did not occur. Poor attempt at replication.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		no
If not, please state why below: Historically the swathe flown affected everyone but as the tracks were spread out occasional overflying was accepted by the villages of Beare Green and Newdigate		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		No
If not, please state why below: AONB are impossible to avoid and likewise the schools.		

Question 5	**Yes**	**No**
Do you have any other comments this particular design, or in general? Please record below: Yes This design is definitely a new NPR but technically many airlines could replicate dispersion provided the dispersion was continued after the turn.		

Name ..... Representing R4NM .....

OPTION 4 Fly-over, Fly-by (Multiple Initial Turn Points)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		✓
If not, please state why below: This may be another looks good on paper design but the noise is likely to be terrible. The eastbound leg is too far south.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		✓
If not, please state why below: The eastbound leg is too far south and does not reflect the historic routing. The inner turns will be noisier as they are tighter and also do not respect the legacy and will overfly new populations.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		✓
If not, please state why below: This looks as though it would be a very noisy option, particularly on the inner turns for people who previously did not suffer aircraft noise, e.g. Newdigate. Are all routes equal in noise, we suspect not.		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		✓
If not, please state why below: Although this looks like it is trying to create more dispersion it could create more noise impact particularly on the tightest turn. Again vectoring from a more southerly eastbound leg has implications for Salfords, Outwood and Horley.		

Question 5	**Comments**
Do you have any other comments this particular design, or in general? Please record below: Without a proper assessment of the noise impacts and performance of aircraft it is impossible to say. We suspect the routes will suffer the same problem as option 0 and 2. Are the routes to be used concurrently or rotated? Are the routes to be flown by different aircraft types or airlines?	

Name Representing Plane Wrong

OPTION 4 Fly-over, Fly-by (Multiple Initial Turn Points)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		
If not, please state why below: There is already dispersion in the turn in Option 0 and there is no need to further disperse aircraft over the AONB and newly flown population outside of the NPR swathe		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		NO
If not, please state why below: There has never been a single concentrated historic routing. The only consistent historic route has been the NPR.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		
If not, please state why below: It takes aircraft much further west overflying new populations with some outside of the NPR swathe. It takes the route further north towards route 3		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		NO
If not, please state why below: It takes the route over the AONB outside of the NPR swathe and closer to East Surrey Hospital		

Question 5	**Yes**	**No**
Do you have any other comments this particular design, or in general? Please record below: NOT ACCEPTABLE		

Nam ..... Representing Plane Wrong .....

Name Representing Newdigate Parish Council

OPTION 5 Fly-over, Fly-by (Lower Speed v's Option 1)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		No
If not, please state why below: Paths are still concentrated. Frequency of flights is of greater annoyance than actual sound levels		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		no
If not, please state why below: Concentrations did not occur.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		No
If not, please state why below: This design has just relocated the concentration from Capel to Beare Green		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		No
If not, please state why below: Flies over Holmwood Common AONB and most schools. As stated previously unavoidable		

Question 5	**Yes**	**No**
Do you have any other comments this particular design, or in general? Please record below: Yes Any design without multiple Tracks will cause concentration. Having read good design practice for PRNaV routes two 90 degree turns with a short straight is optimum for good PBN track keeping but gives unacceptable concentration to those being overflown.		

Name ... Representing R4NM .....

OPTION 5 Fly-over, Fly-by (Lower Speed v's Option 1)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?	**Unsure**	
If not, please state why below: It depends how it is designed and how aircraft fly it but as you will hear the noise of all the other options anyway this one potentially could be one of the quieter options if the initial turn height can be raised to 2500ft as with Option 1.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	✓	
If not, please state why below: Would prefer a higher initial turn altitude. The straight section over Capel should be less noisy, than continuous turning routes.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	✓	
If not, please state why below:		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	✓	
If not, please state why below: It only overflies the part of the AONB historically overflown by the legacy route. Clearly avoids Horley.		

Question 5	**Comments**
Do you have any other comments this particular design, or in general? Please record below: Would prefer turn altitude of option 1 to help minimise noise together with the intended speed of Option 1. A far more robust design than options 0,2 and 4 and more likely to be weather resilient. Option 5 reflects the historic position. Vectoring from the eastbound leg of the route disperses aircraft across the whole of the swathe without overflying Horley.	

Name ..... Representing .....

OPTION 5 Fly-over, Fly-by (Lower Speed v's Option 1)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		NO
If not, please state why below: In addition to the route being concentrated it takes it 700 m closer to Route 3 creating further concentration		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		NO
If not, please state why below: There has never been a concentrated historic routing. The only consistent Historic route has been the NPR.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		NO
If not, please state why below: It takes aircraft much further west overflying new populations. It takes the route further north towards route 3		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		NO
If not, please state why below: It takes the route over the AONB and closer to East Surrey Hospital		

Question 5	**Yes**	
Do you have any other comments this particular design, or in general? Please record below: See our detailed comments re 190Kts in the attached letter. UNACCEPTABLE		

Name ..... Representing .....

Name ..... Representing R4NM .....

OPTION 6 Fly-over, Fly-by (Multiple Initial Turn Points)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?	✓	
If not, please state why below:		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		✓
If not, please state why below: The pale blue line does not respect the legacy on the eastbound leg and should be removed.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		✓
If not, please state why below: Better dispersion achieved by vectoring from the single pink line on the eastbound leg.		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	✓	
If not, please state why below: Only overflies parts of AONB that have always been overflown. Potential for continuous climb under FASI(s) will improve altitudes further. Vectoring from the pink line would be more beneficial for Salfords, Outwood and Horley. Pale blue line overflies new communities on eastbound leg and should be removed.		

Question 5	**Comments**
Do you have any other comments this particular design, or in general? Please record below: Inside turn again likely to be more noisy. Only acceptable if all have same noise impact. Removing the pale blue line and vectoring from pink line will avoid Horley and give a more random spread on eastbound section.	

Name Representing Newdigate Parish Council.

OPTION 6 Fly-over, Fly-by (Multiple Initial Turn Points)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?	Yes	
If not, please state why below: In the opinion of many of the residents of Newdigate this scheme is the preferred choice. I have explained to the Parish Council that until FASI-S is implemented and the upper airspace improvements on height cannot be dramatically improved unit Gatwick aircraft are unnecessarily held down by Heathrow departing traffic and the Ockham stack reduced or removed this is the best option.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	Yes	
If not, please state why below:		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	yes	
If not, please state why below:		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	Yes	
If not, please state why below: Maximum dispersion is the only way forward for all the residents whether in villages or towns.		

Question 5	**Yes**	**No**
Do you have any other comments this particular design, or in general? Please record below: Yes Consider dispersion continuing further to the east. Any concentration at 4000 feet is still not acceptable.		

Name ..... Representing .....

OPTION 6 Fly-over, Fly-by (Multiple Initial Turn Points)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		NO
If not, please state why below: There is already an acceptable level of dispersion in the turn and this option taking many aircraft outside of the NPR swathe, over new populations and over the AONB is unacceptable. Whilst facilitating some dispersal on the eastern leg of Route 4 it brings aircraft much closer to route 3 creating concentration.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		NO
If not, please state why below: There has never been a concentrated historic routing. The only consistent Historic route has been the NPR.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		NO
If not, please state why below: See question 1		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		NO
If not, please state why below: It flies over the AONB and East Surrey Hospital		

Question 5	**Yes**	**No**
Do you have any other comments this particular design, or in general? Please record below: NOT ACCEPTABLE		

Name ..... Representing .....

Name Representing Newdigate Parish Council

OPTION 7 Constant Radius to Fix (Tracks Concentrated)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		No
If not, please state why below: Designed as concentrated. As it follows existing routing of route 4 ballooning later in the curve will again. The existing NPR turn radius is not suitable for current aircraft flying methods.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		No
If not, please state why below: Concentrated.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		No
If not, please state why below: Concentrated. Concentration is unacceptable to most residents		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		
If not, please state why below: This route may avoid the AONB of Holmwood but any population under the flightpath would suffer severe discomfort.		

Question 5	**Yes**	**No**
Do you have any other comments this particular design, or in general? Please record below: Yes Probably the worst option of all the designs. Radius too tight and noise levels will increase for most aircraft. I repeat again that frequency is more unacceptable noise levels. The scheme ignores the CAA request instruction after the JR.		

Name ..... Representing R4NM .....

OPTION 7 Constant Radius to Fix (Tracks Concentrated)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		✓
If not, please state why below: A single solid noisy line. Dreadful.		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		✓
If not, please state why below: This route has not been flown since the 1960's and then only by twin propeller aircraft hand flying tighter angles of bank than are permitted today.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		✓
If not, please state why below: Aircraft will have to fly dirty to fly this route. That contravenes all government policy on noise, fuel burn and emissions and completely disrespects the 2012 legacy and Court Order.		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		✓
If not, please state why below: Aircraft flying this route will be heard in Brighton ! A far greater risk of Horley overflight.		

Question 5	**Comments**
Do you have any other comments this particular design, or in general? Please record below: This is supposed to be Airspace modernisation. Going back to a line on a map from the 1960's which is noisy and polluting, with no option of continuous climb is **NOT** modernisation. Aircraft have never flown this route as tracking maps from 1990's show. The Acorn waypoint was moved by a Government body be it DfT, NATS CAA or British Airports Authority. Innocent people should not be made to suffer as a result of government incompetence.	

Name ..... Representing .....

OPTION 7 Constant Radius to Fix (Tracks Concentrated)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		NO
If not, please state why below: Obvious		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		
If not, please state why below: There has never been a concentrated historic routing.		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	YES	
If not, please state why below:		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	YES	
If not, please state why below:		

Question 5	**Yes**	**No**
Do you have any other comments this particular design, or in general? Please record below: This route is far too concentrated to be acceptable. UNACCEPTABLE		

Name ..... Representing .....

Representing: Quiet Outwood

OPTION 7 Constant Radius to Fix (Tracks Concentrated)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?		√
If not, please state why below: See general comments 5 below		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?		√
If not, please state why below: See general comments 5 below		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?		√
If not, please state why below: See general comments 5 below		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?		√
If not, please state why below: See general comments 5 below		

Question 5	**Yes**	
Do you have any other comments this particular design, or in general? Please record below: This Option is strongly rejected on the basis that it is too similar to the route currently being flown. We know how the current vectoring shape overflies our village of `Outwood and we do not see that this route would provide any respite from the current situation. In addition, the minimum amount of dispersion allows a too concentrated overflight of our community.		

Name Representing: Quiet Outwood

OPTION 1 Fly-by, Fly-by (LAM 1X)

Question 1	**Yes**	**No**
In your opinion, does this route option facilitate dispersion below 7,000 ft?	√	
If not, please state why below:		

Question 2	**Yes**	**No**
In your opinion, has this route option been designed to give due regard to the historic routings in use prior to the introduction of RNAV routes in 2012?	√	
If not, please state why below: This Option is strongly supported as it is the only one to closely return to the historic 2012 routing. We would suggest that the West/East part of the route is brought slightly further South to the 2012 position by increasing the angle of bank by a few degrees at which the aircraft fly round the turns without imposing a lower maximum speed on the aircraft in the turn. This would hopefully alleviate the overflight of newly affected communities such as Capel and Newdigate		

Question 3	**Yes**	**No**
In your opinion, does this design seek to minimise the adverse impact of noise on previously unaffected population and seek to reduce the total number of people overflown?	√	
If not, please state why below:		

Question 4	**Yes**	**No**
In your opinion, does this design seek to minimise the impact of noise on particularly sensitive areas?	√	
If not, please state why below:		

Question 5	**Yes**	
Do you have any other comments this particular design, or in general? Please record below: Given the importance of vectoring to the Outwood community we assume that vectoring patterns under Option 1 would be similar to what existed in 2012		

Name

Representing: Quiet Outwood