

Appendix 1-4

Consolidated Stakeholder Feedback DPv0-1 Other Contributors – MPs, Parish Councils & General Public



MP - 20190402 - Crispin Blunt Response to Consultation Airspace Modernisation

Airspace Modernisation : Gatwick Airport Design Principle Development Consultation Response

As the MP for Reigate, a constituency affected by departure aircraft noise from Gatwick Airport, please accept this letter as my response to the Gatwick Airport Consultation on Airspace Modernisation as set out in your Design Principle Development Consultation Paper dated 18th March 2019.

I realise that we are at the early stages of this process and this first step is purely concerned with design principles. However, I would like to express my concern at the lack of time being allowed for this consultation. Gatwick has set less than 3 weeks for consultees to engage. This timescale is not adequate to allow county, borough and district council's time to consult parish and town councils. There may not be council meetings before the Gatwick deadline of 5th April, nor the opportunity to add this subject to the agenda as council elections take place in May. Furthermore, MPs such as myself are heavily involved with Brexit currently and may not have time to respond extensively.

I also feel that the consultation document is rather general and contains insufficient detail to allow stakeholders to make fully informed responses. It does not explain the ramifications of the design principles detailed or how they may impact new communities. Also, due the stakeholder selection process, I am concerned that the responses may lack geographical spread across all potentially affected communities.

Please find below my general comments:

- I support the core principals of safe and reliable routings. However, the benchmark for design principles should be to reduce the noise for all communities in a balanced way, taking into account all airspace factors such as the ambient noise, the totality of noise impact and type of flight mode.
- Enhanced navigational capabilities (RNAV) should be a key design principle in order to more accurately deliver new airspace routings and reduce ground noise.
- Deconflicting arrival and departure routes is an important design principle that should improve Gatwick routings by enabling faster climb and descent.
- Multiple departure routes (pathways) should be included in the design principles as these could would act as a means of disbursing aircraft noise and providing respite, but these should operate above 7,000ft where possible, as multiple low-level departure routes would potentially impact new areas.



V I IIV



MP - 20190402 - Crispin Blunt Response to Consultation Airspace Modernisation

It is important that new routes do not fly over currently unaffected areas at low levels as this would mean an increase in the number of residents exposed to aircraft noise, which goes against Government policy.

- In the event of new communities being overflown, the design process should take into account the cost of compensation for newly overflown communities for insulation and property value reduction.
- I agree that departures should seek to climb as quickly as possible (Continuous Climb) but not disperse, turn, or form into multiple routings until above 7,000ft wherever this can be achieved. This height is now recognised by the government when aircraft noise is not a concern, even though there can be ground noise issues from aircraft flying above this level.
- Arrivals should be kept as high and as long as possible before descending into Gatwick using Continuous Decent Operations (CDO/A). If possible, the existing arrival swathe should be used otherwise to avoid impacting new areas with concentrated flight paths.
- Noise Impact should be prioritised above Operational Resilience.
- Moves to reduce CO2 emissions through the use of new technology are welcome. However, any such reductions are likely to be offset by the forecast future increase in movements/ capacity.
- Night flights should be reduced with a view to stopping night operations.



MP - Guildford DPv0-1 Response - 20180405

has asked me to send her contribution to the CAP1616 FASIS Stage 1 for Gatwick Airport on behalf of a number of constituents who contact her about aircraft noise over Cranleigh.

has asked me to raise the following points:

- Arrivals should be kept as high as possible before descending into Gatwick;
- Departures should seek to climb as quickly as possible;
- Rural communities should not be targeted to reduce the number of people impacted by noise;
- Night flights should be reduced with a view to stop night operations.

has also asked me to raise her concerns over the length of time that was allocated to contribute to this. Three weeks is not an appropriate length of time to contribute and having a longer window of opportunity would have been a far more useful.



MP 20190326 - Tom Tugendhat to Stewart Wingate FASI South response

As you know I have been pushing for wide ranging change in airspace policy for many years. I am delighted that Gatwick Airport, in conjunction with the Civil Aviation Authority and others, have made steps to look at the redesign of departure and arrival routes through FASI south. It is much needed and well overdue.

As part of the work into establishing the design principles of the airspace, I wanted to respond to reflect some of the widely held views that residents across West Kent have and are concerned about. Much of this dates back a number of years to 2013 and 2014 when flightpaths changed suddenly, and many communities became overflown much more than they used to be. Notwithstanding any technological improvements which might make aircraft quieter, there remains a need for better routes which minimise noise impacts, certainly more so than happens at the moment.

In this consultation response I will answer the most relevant questions posed in the document as possible, but first I wanted to comment on Page 5, point 1.4, titled 'Our desired outcomes'. I am disappointed that none of the desired outcomes referenced reducing noise impacts. There is a reference to government policy on making the best use of existing runways and infrastructure, but sadly nothing on the government's policy to limit, and where possible reduce, the number of communities significantly affected by aircraft noise. As we redefine our airspace it is noise which matters to communities who are overflown, not airport capacity. Indeed, if greater capacity actually led to noise reduction then I am sure this is something many residents in West Kent would contemplate.

Turning to the questions posed in the consultation document, the first one to note is question 3 regarding long term predictability of flight paths. One of the key issues which is evident about the impact of aircraft noise is that the frequency of overflights is crucial. This is most obvious on an annual basis. In the summer, when arrivals are more numerous, noise complaints rise, especially from those areas which are heavily concentrated with arrivals or departures. The only thing different from other seasons is the number of flights, demonstrating that frequency of overflight has to be a factor in redesigning airspace. Therefore for me it is essential that routes are predictable. Residents need to be aware of when their respite will be so they can plan accordingly. Otherwise, the frequency of flight will remain something which blights communities.

However, it is questions 8 and 9 in which I want to focus my response on. FASI South must ensure that airspace change complies with the government policy on noise which I mentioned earlier. This would mean having a fair and equitable distribution of aircraft on the approach to the airport. This aim is supported by all community noise groups and local representatives. However, in West Kent much of the land falls in either a densely populated town centre, an Area of Outstanding Natural Beauty or greenbelt land. Though the latter two mean that the population is more spread out, it also reduces ambient noise meaning that the awareness of aircraft noise is greater. Therefore, I would strongly recommend for this piece of work the overriding focus be ensuring an even spread, which does not benefit one community over another. There should not be a punishment for living in either a town or a village in West Kent, and aircraft policy needs to reflect this and especially local planning policies too.

In addition to the above, where the frequency of flights causes issues it is important to ensure proper respite at certain points throughout the day. My suggestion is that routes be designed in a way which ensures that the fair dispersal of flightpaths means that this can be factored in for every community across Kent. It would mean that the Government's policy is adopted in full and residents can plan their days in the knowledge that it will be noisier at some parts of the day than others.

I hope this is helpful, and will be considered in full as part of this piece of work. It is absolutely essential that FASI south succeeds and is a once in a generation opportunity to resolve the issue of aircraft noise which blights communities. I hope you can make sure this happens.



MP 20190404 - Jeremy Quin - Gatwick Airport Design Principle Development Consultation Response.

RE: Gatwick Airport Design Principle Development Consultation Response

This letter is my response to the Gatwick Airport Consultation on Airspace Modernisation as set out in your Design Principle Development Consultation Paper dated 18th March 2019.

While I understand this is the first stage in a long process, the issue of aircraft noise is, for my constituents, many of whom are impacted, of huge importance and I am disappointed that you have only provided three weeks for this consultation. There are many stakeholders who will have legitimate reasons as to why such a tight deadline has prevented them responding or responding in full.

First, design principals should reduce aircraft noise for all communities and any new routes should not fly over currently unaffected areas at low levels. Whilst I support safe and reliable routings, flying over currently unaffected areas at low levels would expose an increased number of residents to aircraft noise.

This could severely impact the quiet enjoyment of my constituents' homes and would be highly detrimental.

If previously unaffected areas are to be flown over then the design process should look at the cost of compensation for insulation and property value reduction for these residents. To reduce noise for all communities, design principles should look at all airspace factors such as the ambient noise, the totality of noise impact and type of flight mode.



MP 20190404 - Jeremy Quin - Gatwick Airport Design Principle Development Consultation Response.

Another key design principle should be to enhance navigational capabilities (RNAV) to allow for a more accurate delivery of new airspace routings and reduce ground noise.

Multiple departure routes should be considered as a means to help to disburse aircraft noise and provide respite to affected communities and should therefore be included in the design principles. However, where possible, multiple departure routes should take place after 7,000ft as multiple low-level departure routes could impact on previously unaffected areas.

Alongside this, deconflicting arrival and departure routes is another important design principle which would improve Gatwick routings by allowing faster climb and descent.

Arrivals should be kept as high and as long as possible before descending into Gatwick using Continuous Decent Operations (CDO/A). If possible, the existing arrival swathe should be used other wise to avoid impacting new areas with concentrated flight paths.

Departures should seek to climb as quickly as possible (Continuous Climb) but should not disperse, turn or form into multiple routings until above 7,000ft.

Naturally I welcome the use of new technology to reduce noise and CO2 emissions.

Finally, the particular concerns regarding night time noise should be recognised and consideration be given to curtailing night operations.

Yours faithfully

Jeremy Quin MP for Horsham





Please see below Slinfold Parish Council's Response to the consultation:

1a) Do you agree that airspace design must be safe and further promote safety management systems?

YES / NO

Additional comments:

This principal must not be used as an excuse to deprioritise environmental issues and noise disturbance to communities on the ground. It is possible that greater safety will be achieved but reducing noise exposure must be a clear objective at the same time.

1b) Should 'Safer by Design' attract the highest design principle priority?

YES / NO

Additional comments:

Safety and reduced noise expose go hand in hand. Reducing noise for all communities in a balanced way taking into account all airspace factors, ambient noise measures and frequency of overflight should be at least an equal priority to safety.

2) Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs?

YES / NO

Additional comments:

This is conditional on PRNAV being used to reduce exposure annoyance by minimising the exposure in a swathe with an objective and rigorous methodology to avoid populations by sufficient lateral distance / height so as not to cause annoyance.

It is difficult to make further comment without seeing the design of routes and overflight. Reducing noise for all communities in a balanced way taking into account all airspace factors, ambient noise measures and frequency of overflight should be the number one benchmark, along with safety of all design principles.

3) Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial system adaptations?

YES / NO

Additional comments:

This is conditional on PRNAV being used to reduce exposure annoyance by minimising the exposure in a swathe with an objective and rigorous methodology to avoid populations by sufficient lateral distance / height so as not to cause annoyance.

4) Should Gatwick adopt a design principle that seeks, through its airspace design, to promote the adoption of enhanced aircraft capabilities that benefit communities and the more efficient management of air traffic?

YES / NO

Additional comments:

This is conditional on PRNAV being used to reduce exposure annoyance by minimising the exposure in a swathe with an objective and rigorous methodology to avoid populations by sufficient lateral distance / height so as not to cause annoyance.

Facilitating airlines with the most capable aircraft is fine but there is a danger that older noisier aircraft will overfly areas deemed ok for the more capable aircraft. This should be avoided.

5) Should Gatwick adopt a design principle that seeks to deconflict by design all Gatwick arrival and departure routes below 7000 feet to reduce the prevalence of overflight of a community by airport traffic on different routes and/or by neighbouring airport traffic?

YES / NO

Additional comments:

It is not clear how this will reduce noise and where. Significantly more detail is required before a YES / NO answer can be given. – A way to achieve this is to use multi routes which have been drawn to avoid populations and which will be alternated in their use to achieve some form of regularised dispersion

6) Should Gatwick adopt a design principle that seeks to create an arrival route design compatible with time based operations?

YES / NO

Additional comments:

In principle yes but more detail is required and it would be conditional on PRNAV usage

7) To what extent should London Gatwick consider multiple pathways on:

(a) Departures procedures

This is very dependent on the chosen routes and distribution of population within the swath. Departures should seek to climb as quickly as possible. Multiple PRNAV lines are preferred. New PRNAV lines must avoid populations to help share the disturbance, thus reducing the number of people significantly affected, which is Government policy. See Q14 for detail

(b) Arrival procedures

Arrivals should be kept as high for as long as possible before descending into Gatwick, Continuous Decent Operations. The current arrival swathe should be used [for altitudes less than 7000ft] otherwise you would be severely impacting new areas with concentrated flight paths. Multiple routes would be preferred to spread traffic. All PRNAV lines should be designed using lateral distance / height and noise calculations so as to quantitively minimise exposure to all population in swathes

V I IIV



8) In what order would you prioritise these 5 overflight management options? Comment: It is important to realise these answers will vary for each departure and arrival route. An example of preference is indicated. 1 = C 2 = E 3 = D 4 = B 5 = A

9) Are there other options we should consider and how would you prioritise them relative to your response to Qu 8?

The answer to q8 MUST be posed for each departure route as the distribution of population relative to plane altitude will create very different circumstances for each swath. One size will not fit all and CAA guidance on this agrees that local circumstances will dictate the right mix of priority to minimise overall exposure/annoyance. See CAP 1378

It is noted that "From 4000 to 7000 feet the policy is to minimise the impact of aviation noise unless this would disproportionately increase CO2 emissions". Reducing these emissions cannot be to the detriment of overflight of populated areas.

10) Where on the spectrum of A – E would you wish Gatwick airport to prioritise these factors? 1 = E 2 = D 3 = C 4 = B 5 = A

11 Where on the spectrum of A – E would you wish Gatwick airport to prioritise operational resilience?

Resilience has to be limited by runway capacity and available landing slots. More detail has to be provided on how this would work including routes, night time disturbance and holding patterns.

12) What are your top 5 Airspace Modernisation objectives?

1. Minimise noise disturbance by developing routes overflying the lowest populated areas and consider multiple routes

- 2. Minimise the environmental impacts but not at the cost of noise pollution
- 3. Maximise fair and equitable distribution
- 4. Maximise the use of technology both on aircraft and ground based

5. Enhance safety using technology

13) What other Airspace Modernisation objectives do you believe we should consider?

Use of Speed and thrust restrictions to minimise exposure. CAP 1691 states "The aircraft shall be operated in such a way that progressively reducing noise levels at points on the ground under the flight path beyond that point are achieved."

There is scope to reduce noise impact by restricting speed and or thrust at particular stages of light according to whether near to a population

VIIIV



14) What other design principles do you believe we should consider and why?

1. People's mental health is more important than CO2 burn efficiency to 10,000ft

2. Find the route of least exposure to the whole of the population in a departure swathe

3. More than 1 route per SID will allow equitable noise sharing through a form of dispersion by using 3 routes.

4. Use of three routes could provide for operational flexibility

To achieve this use lateral distance / height and noise calculations?

1. Map population centres (e.g. >500) within 25 miles of runway

2. Create zones (bubbles) of relative peace around these centres. Zone radius will vary according to typical altitude of planes at that population centre location.

3. Attempt to find at least 3 routes through avoiding zones (within swathe of population previously flown over during pre P-RNAV)

4. Approach could be computerised with the help of GIS software, customised to filter population centres and to allow experimentation of radius of zones.

5. Relative peace has been assumed to be 58dB dBLmax for the calculation of zone/bubble radii (could be less could be more)





x2 DPv0-1 Response CPRE - 20180403

I am writing to you on behalf of CPRE Sussex, the Sussex Countryside Charity, in relation to the above consultation. We are very disappointed with the short time frames within which we can consider your proposals. We fully support the response from CAGNE to this consultation, in particular we would not like to see new flight paths outside of NPRs, particularly in rural and tranquil areas.





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

Salfords & Sidlow Parish Council is the third tier of local government and as such is the equivalent of a Town Council. Being under two of the busiest departure route swathes (Routes 3 and 4) we represent communities that will undoubtedly feel the impact of any subsequent redesign on airspace. This consultation is likely to result in our communities being presented with a 'fait accompli' unless we get an opportunity to contribute to the over-arching strategy. This is just not acceptable.

In addition, we do not believe enough detail has been presented in this document i.e. baselines have not been provided along with future potential outcomes from the scenarios presented, and insufficient time has been allowed for contributors to sufficiently research and understand the implications of any decisions arising from this part of this process.

Further, the timeline of the consultation coincides with local elections.

Salfords & Sidlow Parish Council believe it is imperative that we contribute now and submits the following response.

Salfords & Sidlow Parish Council is in East Surrey; Salfords is located between Redhill & Horley along the line of the A23 whilst Sidlow is a rural area to the south west of Salfords with the A217 running through it. We serve 1400 households and an electorate of 2658 all living within a few miles of Gatwick airport.

We have responded to the questions in the consultation.

1a. Do you agree that airspace design must be safe and further promote safety management systems?

The Parish Council agree that airspace design must be safe and further promote safety management systems but this is a self - fulfilling prophecy given the answer must be yes. It is a prerequisite of all airport and airspace operations and CAP 1616 Airspace Design, repeats safety many times. It is ridiculous to believe any airspace design that was not adjudged to be safe would be approved and is undoubtedly meant to create a yes, response. Taken at face value it could lead to any number of airspace change designs causing more nuisance to overflown communities because they are predicated on safety!

V I IIV



1b Should 'Safer by Design' attract the highest design principle priority?

No

See 1a. Not always if we are talking degrees of safety. Aircraft are not supposed to fly if they are not safe to fly! What is the potential impact on communities of ever-increasing degrees of safety?

2. <u>Should Gatwick adopt the most beneficial form of enhanced navigation standards as</u> <u>the foundation of its designs?</u>

No.

Not if the impact on the communities over flown causes more noise and disturbance. This document says in 1.4 Gatwick's Desired Outcomes are to *'increase capacity and offer improved operational agility in line with the Government's policy on making best use of existing runways and infrastructure'* The Gatwick Master Plan predicts a 37% increase in aircraft movements and 42% increase in passengers from 2018/19 to 2032/33 if they are allowed to use their two existing runways. Benefits to airport and aircraft operators and passengers should be accompanied by benefits to people on the ground by reducing noise and pollution

3. <u>Should Gatwick adopt a design principle that offers long term predictability of flight</u> <u>paths and enables beneficial system adaptations?</u>

The question is not clear on who will benefit from the system adaptions.

ທັດແມ່ງໂຄຍແມ່ງໂຄຍແມ່

In so far as it is possible without increasing the disturbance and pollution on over flown communities. But, benefits to airport and aircraft operators, and passengers, should be accompanied by benefits to people on the ground by reducing noise and pollution. For the avoidance of doubt, being able to predict that an aircraft will overfly you every 55 seconds provides no benefit!

4. <u>Should Gatwick adopt a design principle that seeks, through its airspace design, to</u> promote the adoption of enhanced aircraft capabilities that benefit communities and the more efficient management of air traffic?

If the benefits are for ALL communities.

Over flown communities do not fly more than other communities. People in rural areas, where the impact of disturbance and pollution is more keenly felt, fly less in absolute terms as there are less people in those areas. Enhanced aircraft capabilities and more efficient air traffic management mean it is easier to increase the number of movements. There must be genuine benefits to communities, not just better for some people but worse for others. Increased take-off climb could reduce noise for many by aircraft getting higher quicker, but this could be noisier for a significant minority and could increase air pollution

5. <u>Should Gatwick adopt a design principle that seeks to deconflict by design all Gatwick</u> <u>arrival and departure routes below 7000 feet to reduce the prevalence of overflight of a</u> <u>community by airport traffic on different routes and/or by neighbouring airport traffic?</u>

Yes, providing this does not impact other communities to a greater degree than those currently overflown. There should be no newly overflown people. It is repeatedly claimed that improved aircraft design is leading to quieter and less polluting aircraft so those who are already overflown must benefit from reductions in noise and pollution.

6. <u>Should Gatwick adopt a design principle that seeks to create an arrival route design</u> <u>compatible with time-based operations?</u>

Yes.

It seems to make sense provided there are no newly overflown people. See Q5

7. To what extent should London Gatwick consider multiple pathways on:

(a) Departures procedures – if this is the only option within an NPR to provide respite then yes. But there should be no newly overflown people with today's aviation numbers. Improved aircraft design is leading to quieter and less polluting aircraft so those who are already overflown must benefit from reductions in noise and pollution. With

With flight numbers escalating in the years and decades to come, more people will possibly need to share. The introduction of caps on the number of flights on any route should be considered otherwise some people will have no respite with a continuous noise.

(b) Arrival procedures - as above

8. In what order would you prioritise these 5 overflight management options?

A is most important, C D E depend on the effects of new technology, B is opposed as it means flying over countryside where the ambient noise is lowest.

9. <u>Are there other options we should consider and how would you prioritise them relative</u> to your response to Qu 8?

Do not change flight paths with the introduction of PR-NAV

CAP 1616 B29 says ". . preference should be given to that option which is most consistent with existing published airspace arrangements." Flight paths which existed prior to revised route changes should be retained.

V I IIV

10. <u>Where on the spectrum of A – E would you wish Gatwick airport to prioritise these</u> <u>factors?</u>

CDABE

11. <u>Where on the spectrum of A – E would you wish Gatwick airport to prioritise</u> <u>operational resilience?</u>

BCDAE

12. What are your top 5 Airspace Modernisation objectives?

- 1. Any increase in air traffic volumes must be accompanied by, at least, a commensurate reduction in noise and emissions for people on the ground
- 2. Less noise quieter aircraft flying higher sooner
- 3. Maintain the integrity of existing flight paths see 7a for comment about future aviation numbers
- 4. Less concentration through respite options
- 5. Substantially reduce stacking by better control of aircraft in the air

13. What other Airspace Modernisation objectives do you believe we should consider?

As NPR's are a product of the 60's, and are not in operation at all UK airports, should they not be re-evaluated in the context of wider airspace and aircraft design. This process presents a generational opportunity and to do otherwise is surely not looking at the whole picture and thus potential benefits cannot be realised.

Consideration that if aviation is going to increase exponentially then a debate must consider why the same people are impacted all of the time and to ever increasing degrees, exacerbated by the introduction of PR-NAV.

If society wants the benefit of cheap and expansive travel opportunities by air then should society be prepared to contribute by accepting some of the impact, again particularly with the imposition of PR-NAV. i.e. A road verses M road development?

VIIIV

14. What other design principles do you believe we should consider and why

If NPR's are to remain then airspace design must factor in the opportunity for vectoring in order to alleviate the impact on over flown communities, particularly in the climate of PR-NAV, which places intolerable burden on those communities, and particularly in rural surrounds. Rural areas feel the impact of aircraft noise more the urban environments.

Noise metrics in use do not reflect the actual experience of over flown communities, particularly those living under re-constructed PR-NAV flightpaths. Any new noise metrics must truly describe the noise experienced by people on the ground. It should also consider that repetitive nature of overlying on a PR-NAV concentrated based route.

The increase in day time flights from Gatwick should be balanced by a reduction in night time flights, ultimately leading to no night time flights.

Individual runway use should have a cap on the number of permitted movements to aid respite.

The airport should dictate what routes are used by airlines.

A better (community) understanding of what constitutes a noise nuisance in terms of being overflown verses what constitutes being over-flown.

Departures should be encouraged to fly high as quickly as possible without dispersal and vectoring off before 7000 feet, where possible. See 7a comments on future aviation numbers and the possibility of more people need to share together with the introduction of caps on number of flights and routes.

Arrivals should be kept high for as long as possible before descending into Gatwick using Continuous Descent Operations.

Multiple departure routes should be included in design principles as an aid for disbursing aircraft noise and providing respite but to be operating over 7000 feet so as to avoid impacting new areas, where possible.

Realistic compensation must be considered, not just offering double glazing for houses, for the areas that are most directly impacted and for any new areas that may be directly overflown.

Any expansion of new routes should only be considered if it is a necessity to ensure that there is not constant overflying in existing areas. This is not necessarily talking about impact in 2019/20

- At what point do respite options become negated through the exponential increase in aviation at Gatwick?
- To what extent does Heathrow impact on the ability of Gatwick to provide respite to those overflown from Gatwick?

We trust our comments will be considered and included within the consultation and look forward to being involved through all stages of this process.

V I I V

x4 DPv0-1 Response Cranleigh Parish - 20180405

Cranleigh is a large village of 12,000 people located to the west of Gatwick, just north of the easterly arrival route.

These comments are offered solely from the point of view of a community currently affected by Gatwick noise and at risk of increased impact if the use of airspace below 7,000ft is modified.

We have commented on questions which are relevant to Cranleigh residents.

Qu 3 Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial system adaptations?

Yes, local people are making decisions on the basis of predictable routes. Changes to flight patterns could cause problems to many people.

Qu 4 Should Gatwick adopt a design principle that seeks, through its airspace design, to promote the adoption of enhanced aircraft capabilities that benefit communities and the more efficient management of air traffic?

Yes, but consideration of the potential noise effects on residents must be in the first priorities of how potential changes to airspace design are appraised.

Qu 5 Should Gatwick adopt a design principle that seeks to deconflict by design all Gatwick arrival and departure routes below 7000 feet to reduce the prevalence of overflight of a community by airport traffic on different routes and/or by neighbouring airport traffic?

Yes. However, it is total noise impact that is the concern of local residents, not the associated airport.

Qu 7 To what extent should Gatwick consider multiple pathways on: (a) departures and (b) arrival procedures?

Current noise Impact on Cranleigh is more from arrivals than departures. Movement of the arrival pathways from their current positions has the largest probability of increased impact on the greatest number of people. The parameters that are optimised by this techniques (and others) need to be carefully defined to avoid the wrong results.



YOUR LONDON AIRPORT

x4 DPv0-1 Response Cranleigh Parish - 20180405

Qu 8 In what order would you prioritise these 5 overflight management options? Either singularly or groups

Highest priority first, with comments

B (Minimise total number of people affected) Đ Current airspace

management schemes have evolved to meet this requirement, as far as is

possible with current technologies. Unless there are very clear

advantages of other schemes, this remains the top objective.

A (Minimise the number of people newly affected) Đ Placing this second is consistent with B being considered first. Residents have made choices based on current airspace design, changes could have large impacts.

E (Restrict time of route availability to reduce impact) Đ Impact at night is very important for residents C (Sharing by managed dispersal) Đ This is not relevant to rural areas, where there are villages and small towns, rather than large metropolitan areas

D (Provide managed respite) - Again not relevant to rural areas, where there are villages and small towns, rather than large metropolitan areas

Qu 10 Where on the spectrum of A – E would you wish Gatwick airport to prioritise these factors [Operational Efficiency v Environmental Impact)?

E (Maximise Local Environmental Benefits) – the role of local councils is to support residents concerns, not to balance operational factors

Qu 12 What are your top 5 Airspace Modernisation objectives?

From the point of view of residents, we consider the local priorities to be as follows, highest priority first.

1. A – Safety is always first

2. E – This would be a main concern for Parish Council to legislate for the reduction and mitigation of noise effects on our community.

3. D – Making the most efficient use of existing runway capacity would be an important priority, to avoid unnecessary development of new capacity

4. B – Growing demand for air travel is apparent, the schemes must manage and mitigate negative effects on local residents.

5. J – this must allow new technology to benefit local residents, rather than just airlines and airports

x5 Warnham Design Principles consultation_Apr19_WarnhamPC

The above document has been brought to the Parish Council's attention by the CAGNE Parish and Town Council Forum as the Parish Council is not considered a 'Key Stakeholder' by Gatwick Airport Ltd and was therefore not consulted directly. This engagement has not been widely publicised and the timeframe within which to comment is very short, particularly with the upcoming district and parish elections. The Parish Council questions the validity of this engagement when the number of respondents is likely to be limited.

The Parish Council has read the document and has the following comments:

Many of the questions are very technical and accompanying information about the impacts of the proposed changes is vague. Without knowing the local impact on our parishioners, it is difficult to provide meaningful answers.

Question 1a – Do you agree that airspace design must be safe and further promote safety management systems? Yes. Question 1b - Should 'Safer by Design' attract the highest design principle priority? Yes.

Question 2 – Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs? Yes, adopting practices that are beneficial for communities in reducing noise rather than just for aviation growth.

Question 3 – Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial system adaptations? No.

Question 4 – Should Gatwick adopt a design principle that seeks, through its airspace design, to promote the adoption of enhanced aircraft capabilities that benefit communities and the more efficient management of air traffic? Yes, if they truly reduce noise. Continuous Decent Approach (CDA) does not reduce noise as flaps and wheels are dropped early over Warnham parish which increases noise. Noise is also increased by aircraft joining the Instrument Landing System (ILS) later (i.e. closer to the runway) and slowing down using their flaps.



x5 Warnham Design Principles consultation_Apr19_WarnhamPC

Question 5 - Should Gatwick adopt a design principle that seeks to deconflict by design all Gatwick arrival and departure routes below 7000 feet to reduce the prevalence of overflight of a community by airport traffic on different routes and/or by neighbouring airport traffic?

Our parish has multiple routes below 4,000ft with departure routes 1,7, and 8, as well as all arriving easterly traffic on the ILS, and therefore we could not endorse 'deconflicting by design' as this would mean flying over new areas of the parish at very low heights, below 4,000ft, replicating ADNID. Noise is a major issue up to 7,000ft, as recognised by the government in 'Beyond the Horizon', and therefore we would only suggest 'deconflict by design' after this height.

Our parish also suffers Gatwick arrivals from the north heading south to turn for the final approach and holding stacks. This restricts Gatwick westerly departing traffic over our parish. We would ask that the height of these arriving flights be lifted to allow CCO (Continuous Climb Operation) of departing traffic to the west.

Heathrow also flies over our parish and we would ask again that this traffic be lifted in height to enable departing traffic from Gatwick to climb rapidly.

Question 6 – Should Gatwick adopt a design principle that seeks to create an arrival route design compatible with time based operations? There is not enough detail in the document to provide an informed decision.

Question 7 - To what extent should Gatwick consider multiple pathways on: (a) departures and (b) arrival procedures?

The Parish Council is very concerned that the proposed multiple pathways for departures will lead to new routes such as those experienced during the ADNID trial in 2014.

The table on Page 21 of the document provides some of the benefits and drawbacks of multiple pathways on both arrivals and departure routes. Essentially single pathways limit the number of people affected and minimise newly affected people and multiple pathways increase the number of people affected but provide possible respite through pathway switching.

The Parish Council's Gatwick Policy Statement seeks to ensure that residents of the parish do not suffer from excessive levels of noise resulting from the movement of aircraft and more concentrated flight paths over the parish and will oppose any proposed changes (for example to frequency or routing of flights, particularly outside of the NPR's) which would be likely to have an unfair and inequitable impact upon parishioners.

If the proposed multiple pathways for arrivals and departures will truly provide respite and reduce noise impacts, this would be the favourable option. However, the document does not provide details on the noise impact from multiple pathways in a scenario where there are also increased aircraft movements, i.e. the growth that Gatwick has planned. The Parish Council questions whether multiple pathways along the arrival and departure routes will spread the noise impact at all, if the number of aircraft movements are to increase.

Question 8 – In what order would you prioritise these 5 overflight management options? Either singularly or groups - B, A, C

V I IIV



x5 Warnham Design Principles consultation_Apr19_WarnhamPC

Question 9 – Are there other options we should consider and how would you prioritise them relative to your response to Qu 8? No comment

Question 10 – Where on the spectrum of A-E would you wish Gatwick Airport to prioritise these factors? Difficult to answer on behalf of parishioners.

Question 11 – Where on the spectrum of A-E would you wish Gatwick Airport to prioritise operational resilience? - No comment

Question 12 – What are your top 5 airspace modernisation objectives?

E - Category E suggests community benefits from the process, but the reality is that the modernisation of airspace will inevitably increase aircraft movements day and night. This continues to have serious, negative impacts on community wellbeing.

Question 13 - What other airspace modernisation objectives do you believe we should consider?

A cap on growth of movements; restriction of movements per departure route; a fair and equitable distribution of arrivals using the full swathe in a rotation of routing.

On behalf of Warnham Parish Council.





x6 DPv0-1 Response Charlwood Parish - 20180408

Charlwood Parish Council are extremely concerned that the proposed consultation process does not include parish councils.

The co-incidence and processes of District and County Councils meetings are such that parishes will not be properly consulted within the time scales proposed and thus equally residents who may be significantly affected will be excluded.

Indeed our response to this specific Design Principal Document has been hindered by precisely the expectation that a democratically elected body can reasonably discuss and responsibly respond in the time scales offered.

Charlwood Parish Council have studied Mole Valley District Council's response to the consultation and completely support and endorse the statements made and have agreed that Mole Valley's document represents the opinions in this case of Charlwood Parish Council.



z1 Southdown GC - Airspace Modernisation - Gatwick Airport - An Introduction to Design Principle Development 20190404

Airspace Modernisation - Gatwick Airport An Introduction to Design Principle Development Southdown Gliding Club Response to Summary of Questions

1a

Do you agree that airspace design must be safe and further promote safety management systems? **Y E S** Additional comments:

Safety must be paramount, both for the users of Gatwick's airspace, but also for those Aviation Stakeholders operating outside of Gatwick. Any airspace development which had the consequence of creating GA corridors or pinch points in adjacent Class G airspace or increased the risk of inadvertent infringement, we would find unacceptable. Therefore, coordination must take place between Gatwick, Farnborough and Southampton to ensure activities, such as the Southdown Gliding Club operating in Class G, are not faced with these safety concerns or additional constraints.

1b

Should 'Safer by Design' attract the highest design principle priority? **Y E S** Additional comments:

Those design principles must consider airspace users operating adjacent to Gatwick but outside of controlled airspace.

2

Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs? **Y E S** Additional comments:

If Gatwick is to optimise the use of airspace and reduce complexity, then yes.

3

Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial system adaptations? **Y E S**

Additional comments:

If Gatwick is seeking to systemise its airspace and arrival and departure operations, then it would seem logical to adopt this principle. The Southdown Gliding Club recognises that airspace modernisation is a once in a lifetime opportunity, so the structure has to be built to accommodate evolution of both ATM and aircraft capabilities, <u>without</u> the need for more airspace.

4

Should Gatwick adopt a design principle that seeks, through its airspace design, to promote the adoption of enhanced aircraft capabilities that benefit communities and the more efficient management of air traffic? **Y E S** Additional comments:

Yes, but not at the expense of unrestricted use of airspace. There has to be a balance of what are sometimes seen as competing and conflicting principles. The Southdown Gliding Club is a business as well, and we can only continue to exist if we can maintain safe access to uncontrolled airspace for recreational purposes.



z1 Southdown GC - Airspace Modernisation - Gatwick Airport - An Introduction to Design Principle Development 20190404

5

Should Gatwick adopt a design principle that seeks to deconflict by design all Gatwick arrival and departure routes below 7000 feet to reduce the prevalence of overflight of a community by airport traffic on different routes and/or by neighbouring airport traffic? **YES**

Additional comments:

In the interests of minimising use of lower airspace, all arrivals should be Continuous Descents (CDO) and all departures, Continuous Climb (CCO). Gatwick's design principles must avoid use of step climbs and level segments in descents and keeps any airborne holding at higher levels than today, which by implication, means further away from the airport. Addressing airspace complexity is therefore a major design issue.

6

Should Gatwick adopt a design principle that seeks to create an arrival route design compatible with time-based operations? **Y E S**

Additional comments:

In any initial phased change, the priority should be to address the vertical profile and controlled airspace footprint. We do not believe that time-based capabilities are sufficiently mature (ground or airborne) at this present time and any fourthdimension management, largely as a scheduling or delay management technique, is probably not going to be available until late 2020's, early 2030's.

7

To what extent should London Gatwick consider multiple pathways on:

(a) Departures procedures: This is largely an environmental concern for local communities in the vicinity of the airport, but from a route perspective, any multiple pathways should not create additional complexity either inside or as a consequence, outside of controlled airspace.

(b) Arrival procedures: See above.

8

In what order would you prioritise these 5 overflight management options? A B C D E

The Southdown Gliding Club has no view on managing overflight.

9

Are there other options we should consider and how would you prioritise them relative to your response to Qu 8?

The Southdown Gliding Club has no view on managing overflight.

10

Where on the spectrum of A – E would you wish Gatwick airport to prioritise these factors? A B C D E?

The Southdown Gliding Club supports maximising operational efficiency (A), but only if it can support reduced complexity and use of airspace.

V I IIV

z1 Southdown GC - Airspace Modernisation - Gatwick Airport - An Introduction to Design Principle Development 20190404

11 Where on the spectrum of A – E would you wish Gatwick airport to prioritise operational resilience? A B C D E?

The Southdown Gliding Club supports a fully resilient operation, but not at the expense of complexity and provision of use of airspace for remote events. So, probably a C.

12

What are your top 5 Airspace Modernisation objectives?

- 1. Minimising impact on airspace users outside of controlled airspace, both in terms of volume and structure of airspace and proximity to other airspace developments thereby creating corridors and pinch points for General Aviation and / or increasing the likelihood of inadvertent airspace infringement.
- 2. Improved profile and continuous climbing and descending aircraft.
- 3. Holding of aircraft minimised.
- 4. What provisions for holding and delay absorption is necessary, conducted at higher Flight Levels than today.
- 5. Coordination with adjacent airports to ensure that these airspace modernisation objectives are a common set.

The above are all well aligned with the CAA airspace modernisation principles and have been stated for some time.

13

What other Airspace Modernisation objectives do you believe we should consider?

For the Southdown Gliding Club, our objective No. 1 above is key.

14

What other design principles do you believe we should consider and why

Gatwick's Desired Outcomes make no mention of impact on Aviation Stakeholders outside of controlled airspace. Notwithstanding the outcomes for those users of Gatwick and the impact on the local communities, we would submit that as a consequence of Gatwick's airspace modernisation there <u>could</u> be an indirect consequence on Aviation Stakeholders operating outside of controlled airspace. Similarly, changes in controlled airspace design might have similar implications on uncontrolled airspace with similar consequences. We would like to see a commitment from Gatwick to seek (through your design principles) to allow recreational aviation, such as gliding to continue unaffected. We would also like to see Gatwick sign-up to the vision for Class G, as negotiated by General Aviation groups, NATS and CAA. Specifically, our concerns are consequential impact of Gatwick's modernisation plans in terms of both the volume and structure of controlled airspace and the location with respect to adjacent airspace developments e.g., Southampton, and the potential creation of either Class G corridors or pinch points. Any airspace design should also have principles which minimise the risk of inadvertent airspace infringement.



z2 DPv0-1 Response Public - Reigate - 20180405

I am a member of the public and would just like to make comments on your Questionnaire as under:

3.15 Summary of Questions

5. Should Gatwick adopt a design principle that seeks to deconflict by design for Gatwick arrival & departure routes below 7K feet to reduce the prevalence of overflight of a community by Airport traffic of different routes and/or by neighbouring Airport traffic. Answer: YES

Comments:

Living in the Reigate/Redhill area (RH2 and RH1) we experience loud noise from low flying aircraft using Route 3 from Gatwick. Route 4 was moved slightly southwards in 2016 (creating somewhat less noise for us) but is being looked at again and may be moved northwards as it was during 2014/2016 when our communities suffered excessive levels of noise bearing in mind that we are also overflown (from north of our areas) by departing flights from Heathrow, which can be as low as 5K feet. As Gatwick and Heathrow both intend increasing flights year-on-year and Heathrow are now proposing to send some of their arrival flights over our communities as well (again as low as 5K feet), this would make life intolerable for those living here. Isn't it time for Gatwick to use their flight paths south of the Airport for their main departure routes and not subject the residents of RH2 and RH1 (plus nearby communities) to the double whammy of low flying aircraft from two major Airports?





z3 DPv0-1 Response Public - Unknown - 20180405

Please find my answers to your questions which i would like to be considered

1a) Do you agree that airspace design must be safe and further promote safety management systems?

YES

Additional comments:

But only if such systems equally provide a means to reduce noise. ie equal priority to noise reduction and safety

1b) Should 'Safer by Design' attract the highest design principle priority?

NO

Additional comments:

safety and reduced noise expose go hand in hand le should be equal

2) Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs?

YES

Additional comments:

conditional on it being used to reduce exposure annoyance by minimising the exposure in a swathe with an objective and rigorous methodology avoiding populations by sufficient distance/height so as not to cause annoyance. NATS have a methodogy to do this called bubble analysis.

3) Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial system adaptations?

YES

Additional comments:

conditional on it being used to reduce exposure annoyance by minimising the exposure in a swathe with an objective and rigorous methodology avoiding populations by sufficient distance/height so as not to cause annoyance. NATS have a methodogy to do this called bubble analysis.

4) Should Gatwick adopt a design principle that seeks, through its airspace design, to promote the adoption of enhanced aircraft capabilities that benefit communities and the more efficient management of air traffic?

YES

Additional comments:

conditional on it being used to reduce exposure annoyance by minimising the exposure in a swathe with an objective and rigorous methodology avoiding populations by sufficient distance/height so as not to cause annoyance. NATS have a methodogy to do this called bubble analysis.



z3 DPv0-1 Response Public - Unknown - 20180405

5) Should Gatwick adopt a design principle that seeks to deconflict by design all Gatwick arrival and departure routes below 7000 feet to reduce the prevalence of overflight of a community by airport traffic on different routes and/or by neighbouring airport traffic?

YES / NO

Additional comments:

the way to do it is to use multi routes which have been drawn to avoid populations and which will be alternated in their use to achieve some form of regularized dispersion

6) Should Gatwick adopt a design principle that seeks to create an arrival route design compatible with time based operations?

YES

Additional comments:

In principle yes but more detail is required the way to do it is to use multi routes which have been drawn to avoid populations and which will be alternated in their use to achieve some form of regularized dispersion

7) To what extent should London Gatwick consider multiple pathways on:

(a) Departures procedures

This is very dependant on the chosen routes and distribution of population with swath. Departures should seek to climb as quickly as possible. Multiple prnav lines are preferred. New PRNAV lines must avoid populations to help share the disturbance, thus reducing the number of people significantly affected, which is Government policy. NATS have a methodogy to do this called bubble analysis. see q14

(b) Arrival procedures

Multiple routes are preferred to spread traffic. All prnav lines must be designed using bubble analysis Đ see q 14 for details so as to quantatively minimise exposure to all population in swathes

8) In what order would you prioritise these 5 overflight management options? 1 = C 2 = E 3 = D 4 = B 5 = A

9) Are there other options we should consider and how would you prioritise them relative to your response to Qu 8?

The question to q8 MUST be posed for each departure route as the distribution of population relative to plane altitude will create very different circumstances for each swath. One size will not fit all and CAA guidance on this agrees that local circumstances will dictate the right mix of priority to minimise overall exposure/annoyance. See CAP 1378





z3 DPv0-1 Response Public - Unknown - 20180405

10) Where on the spectrum of A \oplus E would you wish Gatwick airport to prioritise these factors? 1 = E 2 = D 3 = C 4 = B 5 = A

11) Where on the spectrum of A-E would you wish Gatwick airport to prioritise operational resilience? Resilience has to be limited by runway capacity and available landing slots. More detail has to be provided on how this would work including routes, night time disturbance and holding patterns.

12) What are your top 5 Airspace Modernisation objectives?

1. Minimise noise disturbance by developing routes overflying the lowest populated areas and consider multiple routes

2. Minimise the environmental impacts but not at the cost of noise pollution

3. Maximise fair and equitable distribution

4. Maximise the use of technology both on aircraft and ground based 5 ??

13) What other Airspace Modernisation objectives do you believe we should consider? Use of Speed and thrust restrictions to minimise exposure. CAP 1691 states 'The aircraft shall be operated in such a way that progressively reducing noise levels at points on the ground under the flight path beyond that point are achieved.'

There is scope to reduce noise impact by restricting speed and or thrust at particular stages of light according to whether near to a population

14) What other design principles do you believe we should consider and why?

1. People's mental health is more important than CO2 burn efficiency to 10,000ft

2. Find the route of least exposure to the whole of the population in a departure swathe

3. More than 1 route per SID will allow equitable noise sharing through a form of dispersion by using 3 routes.

4. Use of three routes could provide for operational flexibility

To achieve this use 'bubble analysis' (or similar) to objectively prove least noise exposure to a swath: 1. Map population centres (eq >500) within 25 miles of runway

2. Create zones (bubbles) of relative peace around these centres. Zone radius will vary according to typical altitude of planes at that population centre location.

3. Attempt to find at least 3 routes through avoiding zones (within swathe of population previously flown over during pre P-RNAV)

4. Approach could be computerised with the help of GIS software, customised to filter population centres and to allow experimentation of radius of zones.

5. Relative peace has been assumed to be 58dB dBLmax for the calculation of zone/bubble radii (could be less could be more)



z4 Public - unknown

____1

3.15 Summary of Questions			
1a	Do you agree that airspace design must be safe and further promote safety management systems? YES / NO Additional comments: Yes		
1b	Should 'Safer by Design' attract the highest design principle priority? YES 🗆 / NO 🗆 Additional comments:No. Safety is relative; what is safe yesterday may not be safe tomorrow. Today's standard is excellent and the curve is getting shallower		
2	Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs? YES / NO Additional comments: No. Gatwick should employ any standard that is both safe and meets the needs of the people they overfly. There are many ways to crack an egg.		
3	Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial system adaptations? YES 🗆 / NO 🗆 Additional comments:Yes, as a means of providing variation of flightpaths		
4	Should Gatwick adopt a design principle that seeks, through its airspace design, to promote the adoption of enhanced aircraft capabilities that benefit communities and the more efficient management of air traffic? YES // NO		
5	Should Gatwick adopt a design principle that seeks to deconflict by design all Gatwick arrival and departure routes below 7000 feet to reduce the prevalence of overflight of a community by airport traffic on different routes and/or by neighbouring airport traffic? YES / NO Additional comments: Gatwick has tinkered with arrival and departure patterns I remember from 1970. In those days, low technology arriving aeroplanes were able to turn onto finals closer to Gatwick than they do now. Flights were noisier but impacted fewer people.		
6	Should Gatwick adopt a design principle that seeks to create an arrival route design compatible with time based operations? YES 🗆 / NO 🗹 Additional comments: Decidedly NO. This is a fallacy that fails in the analysis of diminishing return. I work in satellite operations field where we monitor in realtime 30,000 variables; timing (mission planning) is far more complex but timeliness is scaled based on priority.		
7	To what extent should London Gatwick consider multiple pathways on: (a) Departures proceduresYes, in every case. Modern aeroplanes have 4-dimensional capabilities which are not fully utilised at present.		
	(b) Arrival procedures Yes. These are the most disturbing for rural areas. The focus has been to send flights over less populated areas, using the obsolete LAeq methodology.		



Ŧ



z4 Public - unknown

3.15 Summary of Questions continued				
8	In what order would you prioritise these 5 overflight management options?	A 🗆 B 🗆 C 🗹 D 🗆 E 🗹		
9	Are there other options we should consider and how would you prioritise them relative to your response to Qu 8? C then E, and the others should not be employed.			
10	Where on the spectrum of A – E would you wish Gatwick airport to prioritise these factors?	A Z B C C D C E D		
11	Where on the spectrum of A – E would you wish Gatwick airport to prioritise operational resilience?	A 🗆 B 🗆 C 🗹 D 🗆 E 🗆		
12	What are your top 5 Airspace Modernisation objectives? 1 Reduce and spread affect of noise on the population. 2 Fly over built up areas - these are avoided at present 3			
13	What other Airspace Modernisation objectives do you believe we should consider? Dump LEC noise protocol and understand that areas of town centres already have high ambient noise - the noise differential of an overflight is far less of an inconvenience than a similar overflight over quiet countryside.			
14	What other design principles do you believe we should consider and why? Use 4-D thinking in future. It isn't rocket science (and I am one, so I should know!)			

