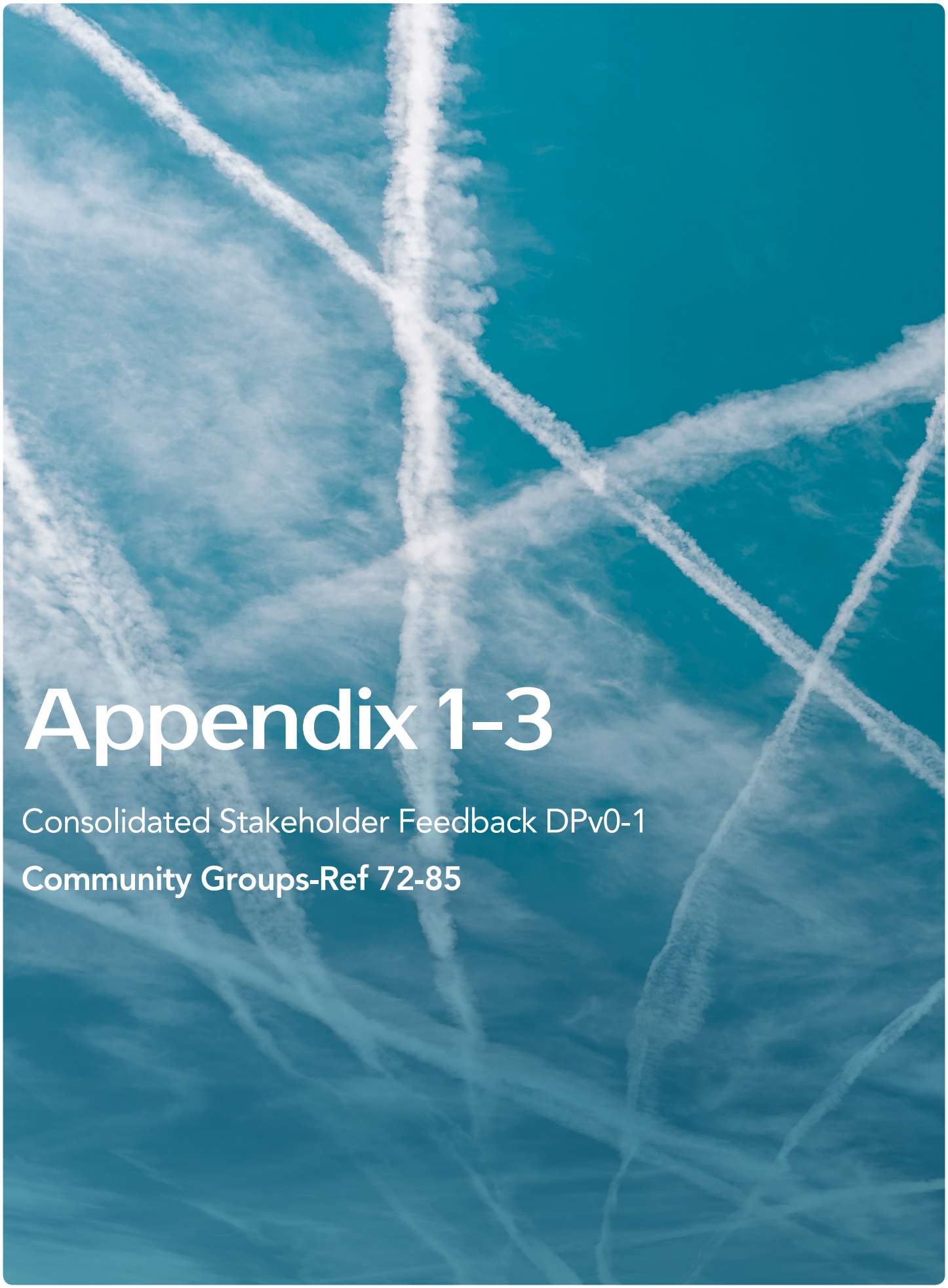
YOUR LONDON AIRPORT
Gatwick



Appendix 1-3

Consolidated Stakeholder Feedback DPv0-1

Community Groups-Ref 72-85

72 TWAANG - Summary of Questions - TWAANG Responses

Summary of Questions: TWAANG responses.

1a Do you agree that airspace design must be safe and further promote safety management systems? **YES** / ~~NO~~
Additional comments: ***None***.

1b Should 'Safer by Design' attract the highest design principle priority? **YES** / ~~NO~~
Additional comments: ***The effect on those under flight paths must always be considered and balance maintained. Flights have 'unsafe' effects for those on the ground, including health and environmental impact. With this in mind the numbers overflown become important.***

2 Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs? **YES** / ~~NO~~
Additional comments: ***These should be used to select routes and create flight profiles to minimise the numbers and impact of noise on those under flight paths. Benefits must be shared.***

3 Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial system adaptations? **YES** / ~~NO~~
Additional comments: ***Predictability and adaptations should target a steady reduction in flight delays into the night period, reduction in the use of holds, constant progress in the introduction of quieter aircraft and elimination of the need ever to overfly new populations once the modernisation process is completed.***

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: ***Gatwick should follow the example of other airports in imposing efficiency and environmental impact conditions on aircraft using the airport.***

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 trade-off must be kept in mind and balance maintained.***

6 Should Gatwick adopt a design principle that seeks to create an arrival route design compatible with time based operations? **YES** / ~~NO~~
Additional comments: ***We do not support this as a means of increasing capacity. It should be used to improve performance in reducing night flights and allow better flight profiles (CDAs).***

7 To what extent should London Gatwick consider multiple pathways on:
(a) Departures procedures: ***TWAANG does not have a view but believes that the case for multiple departure routes is clear.***
(b) Arrival procedures: ***Support is dependent on the number of people affected being kept as low as possible.***

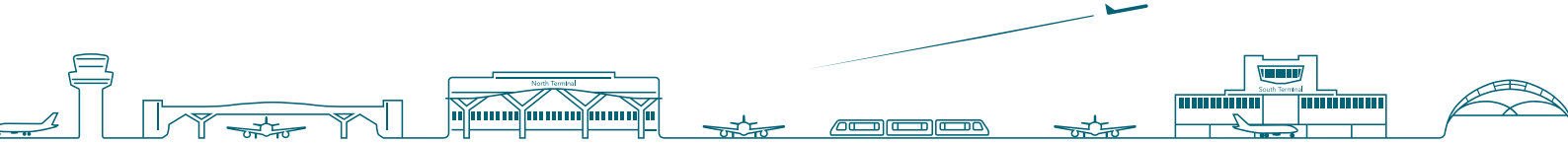
8 In what order would you prioritise these 5 overflight management options? A B C D E
Our choice for managing overflights: **B E C D A** (descending order).

9 Are there other options we should consider and how would you prioritise them relative to your response to Qu 8?
There should be defined minimum height and noise restrictions (after D).

10 Where on the spectrum of A – E would you wish Gatwick airport to prioritise these factors? A B C D E
Our choice for efficiency v environment: **D E C A B** (descending order).

11 Where on the spectrum of A – E would you wish Gatwick airport to prioritise operational resilience? A B C D E
Our choice: **C B A D E** (descending order).

12 What are your top 5 Airspace Modernisation objectives?
1 **E** - Government policies have priority.
2 **K** - International standards balance operational and environmental issues.
3 **J** - Encourage new technologies for aircraft and operational improvements.
4 **I** - Use technology to improve safety and efficiency.
5 **A** - Continuous safety improvement.



72 TWAANG - Summary of Questions - TWAANG Responses

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

We are concerned that the benefits of improvements in aircraft flight management and design are likely to be cancelled out or worse by the increasing numbers of flights, and want to see growth managed to ensure that there is continuous improvement for those living under the influence of Gatwick's operations. This requires monitoring and reporting, meaningful penalties for non-compliance and restrictions on aircraft not meeting constantly improving standards of noise and environmental performance.

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

Present radar vectoring methods for arrivals are very unsatisfactory, and combined with loose standards for CDAs and excessive latitude for pilots on arrival the present performance is not acceptable. The wide variation in performance is evidence of the lack of satisfactory standards and control, an issue that needs to be addressed with urgency.

TWAANG think that the health issues arising from disturbance, including noise, frequency and pollution, need to be taken into account especially as the trend is to realise that the effects are greater than previously thought. This reinforces the policy objective to minimise the number of people affected, which points to avoiding overflying densely populated and sensitive areas. As an example, Tunbridge Wells has around 30 schools with 15,000 children attending.

73 ESCCAN - GTW Airspace Modernisation - DPv0-1

ESCCAN RESPONSE

YOUR LONDON AIRPORT Gatwick

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:

1b Should 'Safer by Design' attract the highest design principle priority? YES ☑ / NO ☐

Additional comments:

2 Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs? YES ☑ / NO ☐

Additional comments: YES BUT USING THE LEAST ENVIRONMENTALLY DAMAGING ENHANCEMENT FOR THE COMMUNITIES WITH FULL COMPENSATION GIVEN TO THOSE UNDULY AFFECTED

3 Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial system adaptations? YES ☑ / NO ☐

Additional comments: PROVIDED FULL COGNISANCE IS TAKEN OF ALL ASPECTS & REQUIREMENTS OF THE REDESIGN INCLUDING SATISFYING THE ENVIRONMENTAL CONCERNS OF THE COMMUNITIES.

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: PILOT TRAINING IS ESSENTIAL & SIGNIFICANT PENALTIES SHOULD BE INTRODUCED FROM DAY 1 FOR PILOTS & AIRLINES THAT DO NOT COMPLY

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:

6 Should Gatwick adopt a design principle that seeks to create an arrival route design compatible with time based operations? YES ☑ / NO ☐

Additional comments: PROVISION FOR EMERGENCY/NECESSARY HOLDS MUST BE OVER THE SEA

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

(a) Departures procedures } MULTIPLE. PROVIDED NO RESTRICTIONS FOR PEOPLE NOT PREVIOUSLY OVERFLOWN & ALLOWS A CLEANSLATE FOR ALL OPTIONS. ROUTES SHOULD BE POSITIONED TAKING INTO ACCOUNT THE NOISE SHADOW SPACING REQUIREMENTS (±5nm).

(b) Arrival procedures } FULL CDA APPROACH IS USED & AIRCRAFT ARE KEPT AT MAXIMUM HEIGHT. FULL CONSIDERATION SHOULD BE GIVEN TO JOINING THE ILS AT ANY POINT. PBN ALLOWS VERY CLOSE FINAL APPROACHES.

73 ESCCAN - GTW Airspace Modernisation - DPv0-1

28 ESCCAN RESPONSE

YOUR LONDON AIRPORT Gatwick

3.15 Summary of Questions continued

8	In what order would you prioritise these 5 overflight management options?	A 5 B 2 C 1 D 3 E 4
9	Are there other options we should consider and how would you prioritise them relative to your response to Qu 8?	MINIMUM DISTURBANCE TO HOSPITALS & SCHOOLS & GOVERNMENT REQUIREMENTS FOR MINIMUM PEOPLE OVERFLOWN ARE MET. MANAGED RESPITE/ROUTES SHOULD BE ON A DAILY BASIS DURING THE DAY & HOURLY AT NIGHT. THERE SHOULD BE NO PRECONCEIVED FIXES.
10	Where on the spectrum of A – E would you wish Gatwick airport to prioritise these factors?	A ☐ B ☐ C ☐ D ☑ E ☐
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 E 2 A 3 D 4 K 5 I
13	What other Airspace Modernisation objectives do you believe we should consider?	BLANK PAGE APPROACH WITH NO PRECONCEIVED IDEAS. ACTUAL GROUND LEVEL BEING OVERFLOWN TO BE TAKEN INTO ACCOUNT (NOISE SHADOW & ALTITUDE) FULLY CONTROLLED CDA's AT OPTIMAL EFFICIENCY WITH PENALTIES FOR AIRLINES NOT COMPLYING, ONLY 1 ROUTE INCLUDING NOISE SHADOW AFFECT OVER PEOPLE OVERFLOWN. MINIMISE WITH A VIEW TO ENDING NIGHT FLIGHTS BETWEEN 11.30PM & 6AM. SIGNIFICANT PILOT TRAINING ESSENTIAL FOR ALL AIRLINES.
14	What other design principles do you believe we should consider and why?	AIRCRAFT SHOULD SPEND THE MINIMUM TIME OVER LAND. AIRCRAFT FROM A NORTHERLY DIRECTION SHOULD GO STRAIGHT TO THE ILS & NOT CIRCUMNAVIGATE THE SOUTH EAST. AIRCRAFT FROM THE EAST/SOUTH EAST SHOULD USE THE EXISTING M20 NOISE CORRIDOR WHEN ON WESTERLY APPROACHES. OFFSHORE HOLDS ONLY & CONSIDER STEEPER APPROACHES (GREATER THAN 3 deg) ALTERNATE ROUTES/RESPITES TO BE ON A DAILY FREQUENCY & NOT HOURLY EXCEPT AT NIGHT

74 APCAG DESIGN PRINCIPLE DEVELOPMENT RESPONSE - R

	Feedback
1a	**Do you agree that airspace design must be safe and further promote safety management systems?** Yes
1b	**Should 'safer by design' attract the highest design principle priority?** Yes
2	**Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs?** We do not have sufficient information for a full response. However, we are concerned that use of enhanced navigation technology is likely to lead to increased overflight for some and increase total noise emissions as a result of the additional capacity facilitated. Clarification on whether noise can be reduced on a per flight basis would be appreciated.
3	**Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial systems adaptations?** Again, we would like more information and research on this. We are concerned that enhanced navigation technology is likely to lead to increased overflight for some communities. If any element of concentration is likely, we would like to see arrangements through which any increase in noise for any community will be capped, mitigated and compensated including agreed operating restrictions.
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?** We are not clear how airspace design can be used to promote the adoption of enhanced aircraft capabilities. This needs to be explained more fully. In general we favour the adoption of enhanced aircraft capabilities where they result in the reduction of noise emissions, exposure and impact. We are concerned, however, that enhanced capabilities could increase capacity rather than reduce noise.

74 APCAG DESIGN PRINCIPLE DEVELOPMENT RESPONSE - R

5	**Should Gatwick adopt a design principle that seeks to deconflict arrivals and departure routes below 7,000 feet to reduce the prevalence of overflight of a community by airport traffic on different routes and/or by neighbouring airport traffic?** We would appreciate more explanation and clarification for this question. In general, we would support, subject to quantitative analysis of available route options, this objective providing the output is consistent with the objective of "fair and equitable" dispersal.
6	**Should Gatwick adopt a design principle that seeks to create an arrival route consistent with time based operations?** We support this principle subject to understanding its consequences for route options, including the number and location of available routes, and capacity.
7	**To what extent should London Gatwick consider multiple pathways on:** *(a) Departures procedures*: We assume this question refers to dispersal within existing NPRs. Our view is that there should be significant dispersal around the centre line of NPR swathes, the distribution of which should not be skewed to one side or the other. *(b) Arrival procedures*: In principle we favour utilising the maximum number of arrivals paths consistent with safety. The number of paths to be used should not be constrained by any capacity limitations that may be associated with multiple path designs. However, this view is subject to understanding the number of people impacted and the aggregate severity of impact under each design option. This will require a full quantitative analysis of route options. Our views should be regarded as provisional until such an analysis is available.
8	**In what order would you prioritise these 5 overflight management systems?** In principle we favour option C, sharing by managed dispersal. We also believe some weight should be given to option A, minimise the number of people newly affected, and that account should be taken of the total number of people affected where that might lead to different conclusions than option A. These views are subject to understanding the number of people impacted and the aggregate severity of impact under each option. This will require a full quantitative analysis of route options. Our views should be regarded as provisional until such an analysis is available. If people are newly affected, or affected to a greater extent than previously, they should in all circumstances be fully compensated including in relation to loss of property value, loss of amenity and for health impacts.
9	**Are there other options we should consider and how would you prioritise them relative to your response to question 8?** See answer to question 8 above.

74 APCAG DESIGN PRINCIPLE DEVELOPMENT RESPONSE - R

10	**Where on the spectrum of A-E would you wish Gatwick airport to prioritise these factors?** We support option E. We believe this is consistent with the government's altitude priorities below 7,000 feet.
11	**Where on the spectrum of A-E would you wish Gatwick airport to prioritise operational resilience?** We support option E. However, the airport should be required to implement procedures that minimise adverse impacts on communities during and after periods of disruption
12	**What are your top 5 Airspace Modernisation objectives and why?** 1 A 2 E 3 H 4 G 5 C We regard safety (objective A) as an overriding objective. Thereafter we believe that noise and environmental objectives (E and H) should be prioritised. Regulation should be introduced to ensure noise targets, which are quantifiable, are achieved.
13	**What other Airspace Modernisation objectives do you believe we should consider?** The airspace modernisation programme should be developed transparently on a basis that ensures a fair balance between benefits for the industry and for the people it impacts, taking account of the additional capacity it facilitates for the industry. The objectives should: • reflect the government's aircraft noise policies, including that the benefits of growth should be shared between the industry and impacted communities and that there should be balance between the interests of the industry and those of communities impacted by it • rule out any increase in the number of people significantly impacted by aircraft noise, subject to consistency with principles of fair and equitable dispersal agreed or to be agreed • give equal weight to increasing capacity and reducing environmental impacts, particularly noise
14	**What other design principles do you believe we should consider and why?** A principal noise benefit of airspace redesign should be that all arriving aircraft will, on all occasions, adopt the noise emission minimising profile in relation to height and low power low drag.

76 CAGNE Airspace Modernisation CAGNE response

Gatwick have only given until 5th April, less than 3 weeks, for stakeholders to consult and respond.
https://airspacechange.caa.co.uk/PublicProposalArea?pID=54

This is the first stage – 'Define' - of the Civil Aviation Authority six stage CAP 1616 consultation process. Gatwick inform us that they are not consulting individual parish or town councils but are relying upon district and county councils, MPs, community groups and AONB organisations. The public and parish/ town council will be consulted in stage 3 of the public consultation.

We are very concerned by the lack of time being allowed for this important stage of the CAP1616 as part of FAS-IS. Gatwick has set less than 3 weeks to engage and have cherry picked who they seek to engage leaving out locally elected councils in favour of community groups of the NMB. This would suggest that the design principles will not be fair or have a geographically spread due to the make up and dominance of some areas of airspace concern, route 4, arrivals east and west at 14nm+ that Gatwick which the NMB has been in breach of Terms of Reference 25 for the past 3 years.

The timescale is not adequate to allow county and district council's time to consult parish and town councils. There would not be a council meeting before the Gatwick deadline of 5thApril and they would not have the opportunity to add this subject to the agenda as council elections take place in May.

Many county councils are also up for election; as such they would be restricted to participating in consultations/ engagements. These bodies/ council officers are not necessarily au fait with all the issues of aircraft noise in their county or of airspace workings; as such they are not best placed to be consulted exclusively as they will be replying blind to what is a very important stage of CAP 1616. It should also be noted that many councils have a vested interest in the airport's growth through funding as do the majority of the airports consultative committee.

Gatwick has also instigated this stage 1 process at a time when councils are under going an election process, as such the timing permitted does not allow time for FAS-IS to be added to agendas or discussed by elected members or officers.

76 CAGNE Airspace Modernisation CAGNE response

Gatwick is also engaging members of Parliament. These elected members are heavily involved with Brexit currently and will undoubtedly be unable to spend time consulting their constituents to respond extensively.

Gatwick are also consulting areas of outstanding natural beauty, but we understand that these are receiving Gatwick funding and so could now be deemed as having a vested interest in the airports growth, similar to local authorities, and thus could place greater influence in protecting their areas to the detriment of other communities.

The decisions made in this stage one will shape the design principles for Gatwick's airspace for many years to come. Given the correct time and engagement Gatwick could help many communities to escape the onslaught of aircraft noise by raising all airspace in the southeast. But with the lack of time and comprehensive detail, what is asked by this Gatwick document will have serious ramification for communities, especially as Gatwick seeks to fly over new areas with concentrated departure routes.

Introduction to CAGNE

CAGNE was formed on the 17th February 2014 due to the ADNID trial departure route being instigated by Gatwick Airport for a PRNAV route (concentrated flight path) over rural areas not previously flown over.

CAGNE has grown and diversified since as an umbrella community group to embrace the many issues that Gatwick presents through their desire for growth including new flight paths, changes to flight paths, increases in noise, and a major campaigning/lobbying force opposing the second and third runway for environmental reasons.

CAGNE has an extensive network of members covering areas to the east, west, north and south, in rural and urban areas, of the airport concerned with totality of aircraft noise produced by arrivals and departures, environmental issues, airspace and surface access for Sussex and Surrey and beyond.

The CAGNE committee consists of volunteers/residents to the east and west of the airport coming from many professional backgrounds including aviation.

An Annual General Meeting open to the public takes place each year in February where the chair and committee are elected.

76 CAGNE Airspace Modernisation CAGNE response

CAGNE sends out informative newsletters to members, consult its members to formalise responses, and is active on social media – Facebook, twitter and instagram.

CAGNE also operates an independent forum (www.cagnepcforum.org.uk) to engage and consult with town and parish councils called the CAGNE Town and Parish Council Aviation Forum. This is for councils and is run by councillors.

CAGNE is not just concerned with Gatwick Airport, but all airspace and gets involved in other airports in the UK and overseas; the environmental damage aviation has on climate change and air quality worldwide.

We works closely with CPRE Sussex and Surrey and other CPRE offices as well as other bodies such as SE Climate Alliance, Airport Watch, Aviation Environment Federation, Members of Parliament, local authorities and other aviation community groups in the UK and overseas. CAGNE has a seat on Gatwick groups – Noise Management Board and attends GATCOM.

The CAGNE response:

Pg 15

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

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

1a Yes – Safety should not feature in this engagement as safety has to be paramount in all operations to safeguard all concerned from drones, old planes, terrorism, etc. Having said that, when issues arise Gatwick should ensure resilience is in line with not flying over new areas when NPR exists to be flown on.

1b The safety of those that chose to fly and those that live under flight paths should be paramount when it comes to the flying of drone, old planes, weather conditions and terrorism.

76 CAGNE Airspace Modernisation CAGNE response

Pg 16

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

2 Yes to benefit communities in a fair and balanced way without flying over new areas on departures or outside of the existing arrival swathe

Pg 17

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

3 No – This is misleading to what is being asked. It would suggest flying over new people below 4,000ft that are unaware of this process and will not necessarily be consulted, as they are not currently overflown.

This process is all about Gatwick growth, which is not sustainable or factual. It uses concentrated flight paths to unfairly target rural and urban communities with increased aircraft movements.

Respite is unfair in the fact that it dictates who will be impacted and when they can be outside to enjoy tranquility all to allow Gatwick to grow.

Respite is a fashionable word that aviation has adopted to allow 'sustainable growth'. The reality is that more communities are to be impacted to facilitate airport growth and profit whilst communities receive no compensation and suffer a decline in house value and wellbeing as a result.

Pg 18

Q - 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?

4 No – This should be used to get planes higher quickly on departure and keep planes high longer for arrivals. This is however based purely on concentrated flight paths and so is a major concern.
Continuous Climb Operations on departures is not guaranteed, as it will be reliant upon Heathrow airspace demands in the west and north of Gatwick's airspace.

CCO should not be used as an excuse for new departure routes or routing outside of NPR (Noise Preferential routes only exist up to 3/ 4,000ft after this height planes can already vector/ turn)

76 CAGNE Airspace Modernisation CAGNE response

Pg 19

Q - 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?

5 Yes but this should not lead to new flight paths outside of NPRs. Overflight exists mostly above 4,000ft, as such if planes can fly higher quicker there will be less overflight of the same communities of departures and arrivals further out from the runway (14nm+). It is closer into the runway where communities are really impacted by multiple routing, but to solve this with new routes can only lead to newly impacted communities at very low heights, less than 4,000ft. This is totally unacceptable as there is no true full house value compensation offered. These areas are mostly rural as they sit outside of NPRs as such residents have paid a premium to live away from aircraft noise. New flight paths would remove this value.

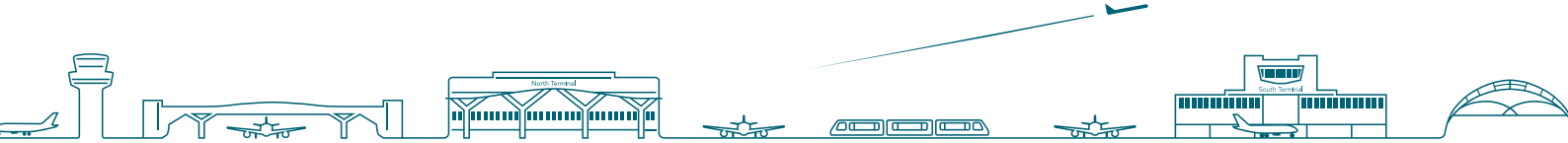
As there are fewer residents they would not have such a loud voice as urban areas making the stage 1 bias to urban residents. To feed data into WebTag would also be bias to urban dwellings, thus targeting rural areas that surround Gatwick.

Point 3.8.2 refers to 'regardless of which runway' this suggests that there is more than one runway to be used during this process. This needs to be clarified, as it would seem misleading.

Pg 20

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

6 Yes – If this allows holding stacks to be removed then this should be supported to save CO2 and reduce noise from circling planes.



76 CAGNE Airspace Modernisation CAGNE response

Pg 21

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

This is the most misleading question of the engagement, as it does not explain the ramification of multiple routes on departures as new routes over new areas.

7a Yes – a single route up to 4,000ft would keep planes inside the NPR And No – Multiple routes, as you detail, would mean flying outside of NPRs (Noise Preferential routes only exist up to 3/ 4,000ft after this height planes can already vector/ turn) at low heights over new areas with new routes. There are already issues with PBN on departure routes that cause considerable new noise outside of NPR due to the concentration of noise of aircraft flight, CAP1498, introduced by Gatwick in 2014.

7b No – Single routes on arrivals is pure concentration and no rotation of routing ie joining the ILS at 8nm then 10nm then 12nm then 14nm than 16nm is being offered in these design principles. Airlines/ Helios have stated that they would not agree to the increase in fuel costs to allow for a fair and equitable distribution of arrivals across the full swathe which suggests that it is highly unlikely that there will be a fair distribution of arrivals across the full swathe. Any other system of arrival, arks, point merge would be impacting new areas. Joining the ILS at less than 8nm would be impacting those that already suffer the severity of the noise created by Gatwick Airport.

And Yes to multiple routes across the full swathe in a fair and equitable distribution and rotation.

Pg 22

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

8 A, C – all other options target rural areas. Respite is a tool to allow Gatwick to unconditionally grow with no consideration for the environmental impact as any CO2 saved will be lost with increases in aircraft movements. Plane manufacturers are encouraged to focus on new fuel but not reducing noise of new technology planes.

76 CAGNE Airspace Modernisation CAGNE response

Pg 22

Q - 9 Are there other options we should consider and how would you prioritise themt relative to your response to Q 8?

9 Not to fly over new areas with departures; keep NPRs; cap Gatwick's growth in number of movements per departure route; spread arriving traffic in a fair and equitable way across the full current swathe giving rotation of routing; stop night flights.

Pg 23

Q - 10 Where on the spectrum of A – E would you wish Gatwick airport to prioritise these factors?

10 D, E, A, C – There can be no trade offs, communities have to come first; noise reduction must be the number one consideration.

Pg 24

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

11 B, C, D, E, A – No new overflight should take place.

Pg 25

Q - 12 What are your top 5 Airspace Modernisation objectives?

12 These all seek growth, modernisation of airspace eg concentrated flight paths and growth which does not benefit communities, especially those in rural areas that are being targeted by these design principles. Areas of Outstanding Natural Beauty and National Parks are important but the balance has to be fair with urban dwelling taking some of the aircraft noise burden.

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

Initiatives offered such as CDO and CCO are in reality only possible if airspace can lift substantially in height. We have grave concerns to the north and west of Gatwick that this will not be feasible for departure routes due to Heathrow and north west arrivals to Gatwick as well as Farnborough traffic at peak times.

Pg 25

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

13 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; resilience must not be at cost to communities tranquility.

77 PAGNE FASI(S) Design Principle Response - R

PAGNE's feedback on the questions in Gatwick's document is below:

We are concerned that Gatwick's Design Principle document fails to make clear the potential environmental consequences of airspace modernisation. There is every likelihood that Gatwick's capacity will be increased yet there is no mention of the adverse noise effects this might have. In our view the document is once again predicated on a desire for capacity increase with environmental impacts being a secondary consideration.

To provide a wholly effective process it is critical that Gatwick's design principles and, in due course, its development and option analysis must fully consider all people impacted and potentially impacted by aircraft noise, including those communities living in areas currently regarded as being outside the Lowest Observable Adverse Effect Level.

	Feedback
1a	*Do you agree that airspace design must be safe and further promote safety management systems?* Yes
1b	*Should 'safer by design' attract the highest design principle priority?* Yes However, if the Government's vision is to deliver "quicker, quieter and cleaner journeys" we feel it is imperative that, as long as current safety standards are not eroded, sustainability (noise & emissions) must also be included as a core design principle.
2	*Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs?* "Beneficial" to whom? Enhanced navigation may well lead to increased overflight for some and increase total noise emissions, exposure and impacts as airport capacity grows. From a community perspective the is NOT beneficial. However, if Gatwick is confident that enhanced navigation will reduce both per flight and total noise impacts then we feel this should be made clear in the document. In our view, Gatwick should explore all options to identify the technology which will best will deliver the optimum outcomes for industry and communities. Such technologies and enhanced navigation standards must provide the necessary predictability and flexibility of routing to ensure any capacity increase is fairly and proportionately balanced by a reduction in Gatwick's noise effects.~~"~~
3	*Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial systems adaptations?* We would support flight path predictability if that phrase means reasonable certainty as to the areas in which flights will operate and at what altitudes. However, we should also be aware that another word for predictability is "concentration" so there are a number of other critical factors which also need consideration: (1) the number of flight paths (2) the adverse health and other consequences of predictable/concentrated flight paths.

77 PAGNE FASI(S) Design Principle Response - R

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?* We are fully supportive of an airspace design principle which, via the adoption of enhanced aircraft capabilities, benefits communities by reducing noise impacts. However, we are concerned that any future enhanced aircraft capabilities will drive capacity increases rather than noise reductions.
5	*Should Gatwick adopt a design principle that seeks to deconflict arrivals and departure routes below 7,000 feet to reduce the prevalence of overflight of a community by airport traffic on different routes and/or by neighbouring airport traffic?* Representing communities who are impacted by Departure Route 1 as well as Easterly arrival traffic, PAGNE are fully supportive of this design principle which would help communities that currently receive little or no respite.
6	*Should Gatwick adopt a design principle that seeks to create an arrival route consistent with time based operations?* We assume the question refers to arrival routes rather than a single route. On that basis we support this principle subject to understanding its consequences for route options, including the number and location of available routes, and capacity. Time based operations should provide the predictability required to allow an arrival route design which maximises dispersal allowing noise to be shared as equitably as possible
7	*To what extent should London Gatwick consider multiple pathways on:* (a) Departures procedures - Gatwick should maximise the number of departure pathways (NPRs). Gatwick should also deliver greater dispersion by more equitable use of current NPRs and also by dispersing traffic around the centre line within these NPRs. (b) Arrival procedures - likewise Gatwick should also maximise the number of arrival pathways and the number of path ways should not be constrained in any way by capacity limitations associated with multiple path designs.
8	*In what order would you prioritise these 5 overflight management systems?* As a community group whose core principle is fair and equitable dispersal we would opt for option C, sharing by managed dispersal. We have provided our prioritization for the other options, but would suggest that until a full analysis is completed to determine both the number of people impacted and the extent of those impacts our feedback should be considered provisional. 1. C 2. D 3. E 4. A 5. B

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9	*Are there other options we should consider and how would you prioritise them relative to your response to question 8?* Another option would be the cessation of night flights which is a particular concern for communities
10	*Where on the spectrum of A-E would you wish Gatwick airport to prioritise these factors?* Option E.
11	*Where on the spectrum of A-E would you wish Gatwick airport to prioritise operational resilience?* We support option E. The airport should be required to implement procedures that minimise adverse impacts on communities during and after periods of disruption. In addition the regulatory regime should be restructured to make the airport responsible for managing and suffering the consequences of disruption. It can't be right that communities are the ones who suffer when disruptions occur. Such issues are more under the control of industry and it's up to the industry and Gatwick to ensure there is resilience within the various systems to ensure community impacts are minimised.
12	*What are your top 5 Airspace Modernisation objectives and why?* As we consider safety a core principle we have listed our top 5, excluding Objective A. We believe that noise and environmental objectives (E and H) should be prioritised. 1. E 2. H 3. G 4. K 5. N

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13	*What other Airspace Modernisation objectives do you believe we should consider?* The airspace modernisation programme both nationally and at Gatwick should be developed transparently, cooperatively and on a basis that enshrines and ensures a fair balance between benefits for the industry and for the people it impacts, taking account of the additional capacity it facilitates for the industry. We have restated below the principles and mechanisms proposed in a joint CNG and GACC paper dated January 2018 and submitted to Gatwick's NMB, to which neither GAL nor NATS have responded. We believe these remain fully applicable and should be reflected in GAL's objectives for FASI (South). _____ "NATS and GAL, together with other London area airports as necessary, should develop a set of overarching principles and mechanisms, and revised aims for LAMP 2. Once agreed these should underpin all aspects of the programme. The ***principles*** should: • reflect the government's aircraft noise policies, including that the benefits of growth should be shared between the industry and impacted communities and that there should be balance between the interests of the industry and those of communities impacted by it • rule out any increase in the number of people significantly impacted by aircraft noise, subject to consistency with principles of fair and equitable dispersal agreed or to be agreed • give equal weight to increasing capacity and reducing environmental impacts, particularly noise. The ***mechanisms*** should: • propose metrics using which the potential noise impact of all options can be assessed and compared to the growth enabled by those options • propose legally binding arrangements through which the utilisation of additional capacity created through LAMP 2 will be constrained unless and until it is independently determined to be consistent with the principles above • commit to full transparency in the development of LAMP 2 and other FAS projects including through the funding of a communities representative or agent to the project with a remit to ensure the proper application of these and other agreed overarching principles on an open book basis • submit aircraft growth projections on which any airspace redesign is predicated to prior external independent audit The new ***aim*** of the programme should reflect the above principles and mechanisms. It should be agreed with community representatives in all impacted and potentially impacted areas. Any Statement of Need or Design Principles that do not reflect these or comparable principles and mechanisms should be rejected by the CAA."

77 PAGNE FASI(S) Design Principle Response - R

14	*What other design principles do you believe we should consider and why?* A principal noise benefit of airspace redesign should be that all arriving and departing aircraft will, on all occasions, adopt the most appropriate noise emission minimising profile e.g. continuous climb departures and low power, low drag approaches. This should be set as a specific design principle. The airspace design should ensure this goal is achieved for all categories of aircraft, taking account of current and future fleet mix.

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Our feedback on the questions in Gatwick's document is below.

We also have a number of overarching comments:

1. We recognise that airspace modernisation has the potential to deliver noise benefits on a per-flight basis. But those benefits may be substantially outweighed by noise from additional flights facilitated by the potentially significant increase in capacity that modernisation will enable. We are therefore concerned that airspace modernisation will result in a "win/lose" outcome, where Gatwick and its industry partners achieve substantial cost and capacity benefits but communities are subjected to greater total noise. That would not be an acceptable or sustainable basis on which to take forward a fundamental redesign of airspace around Gatwick. We believe a core objective should that airspace modernisation achieves a fair balance between benefits for the industry and for the people it impacts, taking account of the additional capacity it will facilitate for the industry.

2. We do not believe Gatwick's document is fully honest or transparent about the potential effects of airspace modernisation on local communities and those under flight paths. We are therefore concerned that it is not compatible with the engagement and consultation requirements of CAP 1616. Specifically we do not believe the document adequately "*consider[s] the impacts on others and the implications those impacts may have"* (para 70) or that it ensures that "*those who are consulted by sponsors should be able to base their views on a reasonable understanding of the situation, clear information about what is proposed and the potential impact of the changes on them*" (Appendix C2).

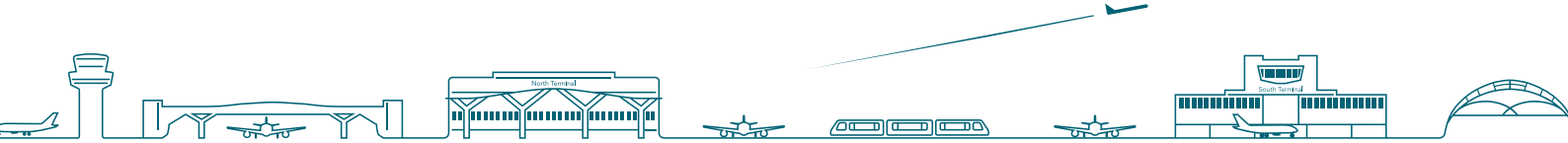
3. In particular we believe it is essential that the document sets out fully the increase in capacity that modernisation might facilitate at Gatwick and the adverse noise and other effects that could have on communities, if necessary under a range of operational scenarios. Section 3.3 of the document currently gives the impression that modernisation will have only positive impacts. It is therefore inconsistent with official views including, for example:

    a. The CAA's conclusion that *"the absolute levels of aircraft noise and emissions may increase with airspace modernisation because it enables traffic growth that would not otherwise occur"*.

    b. The government's view that "*the main beneficiary of airspace modernisation is the customer*".

4. Full compensation for people who suffer greater impacts as a result of airspace changes (and intensification of use) arising from modernisation should be an integral element of Gatwick's proposals. The airport should set out and consult on its compensation proposals as part of its consultation process.

5. In all cases we believe Gatwick's design principles and in due course its development and analysis of options must consider all people impacted and potentially impacted by aircraft noise including the many people who are clearly impacted by aircraft noise but who live in areas currently regarded as being outside the Lowest Observable Adverse Effect Level.



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	Feedback
1a	*Do you agree that airspace design must be safe and further promote safety management systems?* Yes
1b	*Should 'safer by design' attract the highest design principle priority?* Yes
2	*Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs?* We are not able to respond to this question as it is currently formulated. Gatwick's use of the term "*beneficial*" is subjective. The document should spell out the ways in which enhanced navigation might be beneficial and to whom. We do not believe use of the reduced overflight and reduced noise logos on page 16 are appropriate. Use of enhanced navigation technology is likely to lead to increased overflight for some and increase total noise emissions, exposure and impacts as a result of the additional capacity facilitated. We do not believe the phrase "*These navigation standards are now being widely adopted to assist with air traffic management in congested space management, offer noise reduction and respite to communities*" is a fully honest representation of the position. In our view the principal benefits of new navigation standards are to increase capacity. The former is likely to increase noise emissions, exposure and impacts rather than reduce them. If GAL means that noise will be reduced on a per flight basis it should say so, but also address the likely effect n total noise.
3	*Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial systems adaptations?* In principle we favour flight path predictability if that phrase means reasonable certainty as to the areas in which flights will operate at altitudes that have impacts on people. However, this concept cannot be considered on its own. Other considerations include the number of flight paths (see answer to question 7) and the adverse health and other consequences of predictable flight paths, each of which will be concentrated. Predictability might imply that the burden on those impacted will increase if Gatwick grows. This might be an optimal solution for small increases in flight numbers. But it might cause unacceptable health, financial and other consequences for larger increases in flight numbers. GAL should commission and publish authoritative research on the health and other consequences of concentrated flight paths to inform this debate. It should also propose arrangements through which any increase in noise for any community will be capped, mitigated and compensated for, including through operating restrictions. We do not believe use of the reduced overflight logo on page 17 is appropriate. Use of enhanced navigation technology is likely to lead to increased overflight for some.
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?* We are not clear how airspace design can be used to promote the adoption of enhanced aircraft capabilities. This needs to be explained more fully. In general we favour the adoption of enhanced aircraft capabilities where they would result in the reduction of noise emissions, exposure and impacts. We are concerned, however, that enhanced capabilities are more likely to increase capacity than reduce noise.

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	We do not believe use of the reduced noise logo on page 16 is appropriate. Enhanced aircraft capabilities are likely to increase total noise emissions, exposure and impacts as a result of the additional capacity facilitated. This should be made clear. In this and other questions our understanding is that the reference to "*communities*" means people adversely impacted by noise from aircraft. This should be made clear.
5	*Should Gatwick adopt a design principle that seeks to deconflict arrivals and departure routes below 7,000 feet to reduce the prevalence of overflight of a community by airport traffic on different routes and/or by neighbouring airport traffic?* We support this principle subject to quantitative analysis of available route options. If there was a route option that impacted a very small number of people it might be optimal for that route to be used to the greatest extent possible, with full compensation for those impacted. It seems unlikely that that will be the case at Gatwick but it should be tested.
6	*Should Gatwick adopt a design principle that seeks to create an arrival route consistent with time based operations?* We assume from the wider text on page 20 that the question should refer to arrival routes rather than a single route. On that basis we support this principle subject to understanding its consequences for route options, including the number and location of available routes, and capacity.
7	*To what extent should London Gatwick consider multiple pathways on:* *(a) Departures procedures*: We assume this question refers to dispersal within existing NPRs. Our view is that there should be significant dispersion around the centre line of NPR swathes, the distribution of which should not be skewed to one side or the other. *(b) Arrival procedures*: In principle we favour utilising the maximum number of arrivals paths consistent with safety, making use of the all airspace around Gatwick in which arriving aircraft have previously operated so as to disperse the burden of aircraft noise in a fair way. The number of paths to be used should not be constrained by any capacity limitations that may be associated with multiple path designs. However, this view is subject to understanding the number of people impacted and the aggregate severity of impact under each design option, and to the operation of the principles set out in our answer to question eight. This will require a full quantitative analysis of route options. Our views should be regarded as provisional until such an analysis is available.
8	*In what order would you prioritise these 5 overflight management systems?* In principle we favour option C, sharing by managed dispersal. We also believe some weight should be given to option A, minimise the number of people newly affected, and that account should be taken of the total number of people affected (option B) where that might lead to different conclusions than option A. These views are subject to understanding the number of people impacted and the aggregate severity of impact under each option. This will require a full quantitative analysis of route options. Our views should be regarded as provisional until such an analysis is available. If people are newly affected, or affected to a greater extent than previously, they should in all circumstances be fully compensated including in relation to loss of property value, loss of amenity and for health impacts.

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9	*Are there other options we should consider and how would you prioritise them relative to your response to question 8?* See answer to question 8.
10	*Where on the spectrum of A-E would you wish Gatwick airport to prioritise these factors?* We support option E. We believe this is consistent with the government's altitude priorities below 7,000 feet.
11	*Where on the spectrum of A-E would you wish Gatwick airport to prioritise operational resilience?* We support option E. However, the airport should be required to implement procedures that minimise adverse impacts on communities during and after periods of disruption. In addition the regulatory regime should be restructured to make the airport responsible for managing and suffering the consequences of disruption. For example there should in future be no derogations from night flight limits. It is not right that disruption caused by events which are more in the industry's control than local communities' should result in additional impacts for communities.
12	*What are your top 5 Airspace Modernisation objectives and why?* 1 A 2 E 3 H 4 G 5 C We regard safety (objective A) as an overriding objective. Thereafter we believe that noise and environmental objectives (E and H) should be prioritised. These should be part of a new framework in which the aviation industry's noise and environmental impacts are robustly regulated by a body with statutory powers and duties, and in which the industry is fully responsible for the costs it imposes on society at large.
13	*What other Airspace Modernisation objectives do you believe we should consider?* The airspace modernisation programme both nationally and at Gatwick should be developed transparently, cooperatively and on a basis that enshrines and ensures a fair balance between benefits for the industry and for the people it impacts, taking account of the additional capacity it facilitates for the industry. We have restated below the principles and mechanisms proposed in a joint CNG and GACC paper dated January 2018 and submitted to Gatwick's NMB, to which neither GAL nor NATS have responded. We believe these remain fully applicable and should be reflected in GAL's objectives for FASI (South). _____ **CNG and GACC January 2018 proposals regarding airspace modernisation principles and mechanisms** "NATS and GAL, together with other London area airports as necessary, should develop a set of overarching principles and mechanisms, and revised aims for LAMP 2. Once agreed these should underpin all aspects of the programme.

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	The ***principles*** should: • reflect the government's aircraft noise policies, including that the benefits of growth should be shared between the industry and impacted communities and that there should be balance between the interests of the industry and those of communities impacted by it • rule out any increase in the number of people significantly impacted by aircraft noise, subject to consistency with principles of fair and equitable dispersal agreed or to be agreed • give equal weight to increasing capacity and reducing environmental impacts, particularly noise. The ***mechanisms*** should: • propose metrics using which the potential noise impact of all options can be assessed and compared to the growth enabled by those options • propose legally binding arrangements through which the utilisation of additional capacity created through LAMP 2 will be constrained unless and until it is independently determined to be consistent with the principles above • commit to full transparency in the development of LAMP 2 and other FAS projects including through the funding of a communities representative or agent to the project with a remit to ensure the proper application of these and other agreed overarching principles on an open book basis • submit aircraft growth projections on which any airspace redesign is predicated to prior external independent audit The new ***aim*** of the programme should reflect the above principles and mechanisms. It should be agreed with community representatives in all impacted and potentially impacted areas. Any Statement of Need or Design Principles that do not reflect these or comparable principles and mechanisms should be rejected by the CAA."
14	*What other design principles do you believe we should consider and why?* A principal noise benefit of airspace redesign should be that all arriving aircraft will, on all occasions, adopt the noise emission minimising profile in relation to height and low power low drag. This should be set as a specific design principle. The airspace design should ensure this goal is achieved for all categories of aircraft Gatwick, taking account of the mixed fleet currently and prospectively in use.

79 Plane Justice - EPAD - Ethical Principles for Airspace Design 4.4.19

A. Introduction

In the management of airspace there is something of an inevitable tension between commercial aviation interests and what we would call the ethical interests of people on the ground. We are not suggesting for a moment that commercial stakeholders in aviation cannot conduct themselves ethically. We do apprehend however that it falls in particular to community noise groups (and to local councils which also exhibit a strong ethical sense in most cases), to input an ethical dimension into the balancing of these two spheres of interest.

Before we address the questions posed by Gatwick in the FASI-South consultation on design principle development, we therefore feel the need to explain our thinking on the principle of **pre-knowledge**, which informs a great deal of our reasoning on the management of airspace and airspace change.

B. The ethical framework of pre-knowledge

We mean by pre-knowledge, the fact a would-be householder can see and hear for themselves whether aircraft are flying overhead, or whether they are not, and make home life decisions accordingly. The householder can normally choose to move under that stream of aircraft, or choose not to.

Those already overflown:
If a householder chooses to move under that stream of aircraft, they literally 'buy into' that situation, and that decision has consequences, the pros and cons of which we suggest are as follows:-

(i) The householder accepts the level of aircraft noise and the frequency of aircraft (ATMs) present when they moved in (including whether they are overflown by one, or more, routes)
(ii) They should expect a realistic level of organic growth in ATMs over time, in a similar way that people would normally expect levels of road traffic to increase over time. *But at the same time it is also reasonable that they should expect all feasible steps to be taken to mitigate the noise that affects them, short of overflying new communities.*
(iii) They may well have reaped a monetary benefit in securing their home, in terms of it being valued lower because of the overflight.
(iv) Because of their pre-knowledge of the overflight, they are far less prone to what researchers call the non-acoustic effects of aircraft noise (the psychological but very real effects suffered by the 'not previously overflown' which are borne out of the anxiety and stress of loss, unfairness and sense of hopelessness felt by those who find a flight path has been introduced or moved over them).

The situation of the above householders with pre-knowledge, must be compared and contrasted with householders who find themselves overflown by an airspace change where they were not overflown before. For these people there are also consequences, but unlike households with pre-knowledge, the consequences are only negative:-

a) They find their home life, lifestyle, and the enjoyment of their home, disrupted. Sleep patterns may be disturbed by unfamiliar interruptions, and previous enjoyment of any outside space degraded.
b) In addition to the physical impact of unfamiliar aircraft noise, they are likely to suffer also from the non-acoustic effects of noise (see B(iv), page 1 above)[1]. This may be further exacerbated by the monetary effect of the overflight (see below).
c) The physical and psychological impacts of new aircraft noise may be intensified still further where they live in a non-urban area of low ambient noise.
d) They will have secured their home at 'full market value' because it was not overflown, and may well now find its value depressed by dint of the overflight, thereby suffering a monetary 'double whammy'.
e) For many people their retirement plans may be linked to the value of their home, leading to yet further stress and anxiety.

C. A policy blind spot?

We apologise to those reading this, if a lot of this seems blindingly obvious. But for the founders of Plane Justice after departure Route 4 was moved in 2016, one of the greatest shocks was the realisation that for some of the decision makers engaged in airspace change, this way of thinking seemed far from self-evident.

In particular, some decision makers seemed oblivious or indifferent to there being any particularly special significance attaching to people who are or would be newly overflown: To these decision makers as it seemed to us, there were really only 'populations', to be calculated and weighed in the balance, and if perhaps e.g. a population of 5,000 could be replaced by a population of 2,000 by shifting a route then that might be considered a good result, and the fact the 5,000 population had always been overflown while the 2,000 population had not, didn't seem to matter very much.

This seemed all the stranger, because an overarching Government policy principle of long-standing is **"to limit and, where possible, reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise"**

> We have sometimes heard it said this principle is open to widely varying interpretation, but for the founders of Plane Justice its meaning was clear from the first time of reading:-

[1] More research is needed into these non-acoustic effects of noise, but it could be that the psychological stress and anxiety they generate is at least equal if not more damaging to health than the direct acoustic effects of noise.

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"to limit": It seems entirely clear to us this is an instruction to limit the spread of aircraft noise by taking every feasible step possible to avoid the overflight of new communities

"and, where possible, reduce the number of people in the UK significantly affected….": This is a direction to take every feasible opportunity to reduce noise for communities already overflown (for example by altering vertical profiles and incentivising quieter aircraft) so that it ceases to be 'significant' whilst doing everything possible to avoid breaching the first instruction "to limit".

D. The implications of this ethical framework for airspace planning

To our way of thinking, adopting this ethical framework based on pre-knowledge then has a number of implications, as airspace planners and decision makers go about the task of planning or modernising airspace below 7,000 feet:-

1. **New overflight:** Airspace planners' and decision makers' first concern should be to do everything in their power to avoid overflying new communities, whether large or small, unless or until it becomes unavoidable after all other feasible avenues have been explored[2].
2. **Relative population sizes:** The fact an already overflown community is large or small should not weigh in the balance – an already overflown community of 10,000 has 'bought into' the overflight just as much as an already overflown community of 1,000.
3. **Overflight by more than one route:** The fact a community is already overflown by more than one route does nothing to alter the fact this community 'bought into' that situation. Airspace planners faced with a community in this position should therefore only posit the idea that one or more routes could be removed from that community or their impact lessened ***if this can be accomplished without overflying new communities*** *(large or small)*.
4. **Outlying communities:** Communities located more than 1.5 kilometres from the curtilage of the airport and which are already overflown should expect a realistic level of organic growth over time in the frequency of aircraft (i.e. ATMs), in a similar way that people would normally expect levels of terrestrial road traffic to increase over time. We consider a realistic level of organic growth in ATMs over time to be 20%, and that anything above this would amount to a step-change in ATM growth (see D7(a) below, page 4). ***But it is also paramount that such communities should expect all feasible steps to be taken to mitigate the noise that affects them, short of overflying new communities.***
5. **Communities in the airport's vicinity:** Those living 'in the vicinity' to the airport (which we regard as being within 1.5 kilometres of the curtilage of the airport) have a special degree of pre-knowledge borne of the fact the airport's operations for them are an inescapable presence. We submit this is not the same as you move further away, where someone living

[2] In any case where new overflight is utterly unavoidable, compensation must be payable for loss of amenity, health impacts and any diminution of property value (on the same basis as applies to the construction of new terrestrial highways under the Land Compensation Act). It is not a case of newly overflown households choosing compensation – what they want is for their life choice to be respected and not to be overflown. But if they are to be subjected to overflight that they didn't buy into, then compensation must follow.
We apprehend the subject of compensation is beyond the scope of this present consultation, but Government should put in place the necessary amending legislation where any new overflight were to be contemplated.

for example 5 kilometres from the airport who is not overflown could be capable of going about their daily life with little or no perception of the airport's existence or proximity.

Those living in the airport's vicinity as described, have 'bought into' the airport's operations at close quarters. It is also very likely they will have secured their home at a value which took account of this. It is our view that those living within 1.5 kilometres of the curtilage of the airport have bought into a higher expectation of organic growth of the airport's operations than those living further away. ***Again however, it is also right and reasonable that very local communities should expect all feasible steps to be taken to mitigate the noise from the airport's operations, short of overflying new communities.***

6. **The baseline growth year:** Paragraph 4 above immediately begs the question over what time period is it reasonable that these levels of organic growth in ATMs should be expected? We take the view that the time period should take 2012 as the baseline. This marks the time before the airport, NATS and the CAA embarked on a whole series of ill-starred airspace changes which chronically disturbed the equilibrium in the communities around Gatwick and led to the creation of a large number of new community noise groups. This is borne out by the fact MPs whose constituencies are in the Gatwick catchment area had no significant correspondence about Gatwick flightpaths in their 'postbags' up to 2012, with a step change thereafter.
7. There are two important consequences that we believe should flow from taking 2012 as the baseline for ATM growth:-
    a) **Overflown communities experiencing a step-change in ATMs:** On average, overflown communities more than 1.5 kilometres from the curtilage of the airport have experienced something like an 18% increase in ATMs (using published figures) between 2012 and 2018, so that we are already approaching the 20% threshold we have suggested in paragraph 4 (page 3), above which those overflown communities will be experiencing a step-change in ATM frequency.

    Where projected ATM growth over those overflown communities exceeds 20%, ways should be found to mitigate the effects of this increase in frequency of overflight. If as a last resort however, the overflight of new communities is contemplated to help mitigate this, ***only any excess of ATMs over and above the 20% should be moved over any new community, with compensation payable*** *(see footnote 1 above)*.

    b) In modernising airspace routes in and out of Gatwick below 7,000 feet, airspace planners and decision makers should take where the aircraft were actually flying in 2012 as their baseline starting point for any design.

8. **Concentration of routes:** The introduction of PBN technology at the airport after 2012 caused routes to be concentrated over a narrower lateral path than had been the case previously when flying RNAV coded overlays of conventional routes. This was the cause of a

great deal of the outcry that occurred in communities around Gatwick in the ensuing years. Though the concentration of routes is still less unjust than moving a route over new people (because a concentrated route is overflying people who were overflown before, albeit with greater frequency), it is nonetheless an ethically invidious approach to take, when measures are available to at least partially offset the concentration effect.

We believe two such measures should be incorporated, *in every instance*, into the FASI South project:-

a. RNAV1 technology should be used in all cases rather than RNP, because the latter tends to concentrate flight paths more than RNAV1.
b. Some emulation of the dispersion experienced when flying RNAV1 coded overlays should be designed-in. This can be accomplished by taking each RNAV1 route design and developing two or three marginally different route designs around its nominal track, which could be designated to be flown by different aircraft types or airlines through agreement between stakeholders[3].

9. **NPRs:** Lastly but very importantly, airspace planners and policymakers seeking to deal with the principle of pre-knowledge may look in the direction of NPRs in relation to departures. **However we contend that NPRs provide no credible answer to the ethical dilemmas posed by airspace management.**
   NPRs provide a false sense of public pre-knowledge for airspace planners and policy makers, creating the danger of a misplaced sense of entitlement to overfly new communities which fall within an NPR monitoring swathe but who are not currently overflown. They further create an ethical divide in the treatment of communities affected by arrivals, and those affected by departures, which is itself ethically undesirable.
   The vast majority of the general public remain unaware of NPRs, far less what they are meant to signify. It would appear from our experience that most conveyancers and estate agents also remain unaware, unless perhaps they practice in very close proximity indeed to an airport or are aviation specialists (and bearing in mind that when people are moving to the locality of an airport they are more likely to use a conveyancer in the area they are moving from). Even that rare member of the public who may be aware they live in an NPR but isn't overflown – perhaps seeing planes flying half a kilometre or more to the side of them - may very well assume 'this is what it means' to live within an NPR corridor.

   We think NPRs pay lip service to ethical principle and are an anachronism used by only a handful of countries. ***We see FASI as providing a unique opportunity to dispense with NPRs and maintain the focus where it ethically should be – on where the aircraft are actually flying.***

[3] To be clear, we are here not talking about what are often described as 'multiple routes or multiple pathways'. What we envisage would be for example Route 1A, 1B & 1C where the lateral distance between the nominal tracks of each sub-route design would be something like 0.3 kilometres.

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E. How FASI-South could conceivably prove a game changer

We can envisage 2 potential features of the FASI/LAMP2 project encompassing all relevant airports, which could dramatically reduce the geographical area within which the principles enunciated above would need to be applied:-

- **Vertical profile**

  If departures could rapidly climb to between 7,000 & 10,000 feet after take-off, then the above principles would only need apply to the area immediately around the airport that was flown over until this altitude is reached.

  Similarly with arrivals, the area around the airport where the above principles would need to be applied might be smaller, if aircraft could remain in the 7,000 -10,000 ft altitude zone for longer until they were closer to the airport.

- **Lateral profile**

  If departures could take off and immediately or almost immediately set a course toward their destination, then a form of natural dispersion might thereby be introduced which might eliminate or partially eliminate the need to apply the above principles.

  Similarly if arrivals as a result of airspace modernisation could approach from a multiplicity of directions governed by their point of departure and join the final runway approach much later, then again this might eliminate or partially eliminate the need for the above principles to be applied.

However it would be necessary to examine detailed modelling and quantitative analysis to determine whether - and to what extent - the above design features (Vertical profile / Lateral profile) could justify moderation of the principles in Section D above.

79 Plane Justice feedback 4.4.19 to FASI-South Design Principle Development consultation - R

Our responses to the questions below must be read in conjunction with our submission paper 'Ethical Principles for Airspace Design' ('EPAD')

	Feedback
1a	*Do you agree that airspace design must be safe and further promote safety management systems?* Yes
1b	*Should 'Safer by Design' attract the highest design principle priority?* Yes, provided 'Safer by Design' is used in good faith by all industry parties for safety matters, and not as cover for the introduction of matters which are more about industry interests or convenience than safety.
2	*Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs?* If "*the most beneficial form*" means mining the potential capabilities we listed in **section E, EPAD (page 5)** then we would support this (subject to being privy to detailed modelling of these options so we can assess their impact on communities). Otherwise, we are unclear what enhanced navigation standards are being referred to and it begs another question – beneficial to whom? In particular if removing *"variation*" and reducing "*the variability of flight paths over the ground*" means designing out any notion of more dispersed tracks as were in existence pre-2013 with RNAV overlays of conventional routes, then we would answer 'no' to this question (and please see **section D8, EPAD (page 4)**
3	*Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial system adaptations?* If "*long term predictability*" means the design of the network of flight paths produced under the FASI programme should be capable of standing the test of time for at least a generation without the need for further significant change, then we can cautiously answer 'yes'. Again, "*beneficial systems*" begs the question, beneficial to whom?
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?* We remain unclear in what respects airspace design is envisaged to promote the adoption of enhanced aircraft capabilities. This needs more explanation please. In principle we would support any additional aircraft capabilities which reduce noise and other environmental emissions per aircraft (e.g. the ability to fly with a cleaner wing for more of the time), and the industry should continually be looking for ways to incentivize such reductions. If airspace design can play a role in incentivizing this then please provide further details.
5	*Should Gatwick adopt a design principle that seeks to deconflict arrival and departure routes*

79 Plane Justice feedback 4.4.19 to FASI-South Design Principle Development consultation - R

	below 7,000 feet to reduce the prevalence of overflight of a community by airport traffic on different routes and/or by neighbouring airport traffic? For the reasons given in **sections B & D3, EPAD (pages 1 & 3)** we reject this design principle, unless it was being undertaken in order to return the pattern of Gatwick overflight to that existing in 2012 (**section D6 &7(b), IPAD, page 4**). In any event, any new overflight which resulted from 'deconfliction' must be fully compensated including diminution of property value (please see **footnote 2, EPAD, page 3**).
6	*Should Gatwick adopt a design principle that seeks to create an arrival route design compatible with time based operations?* If time based operations can reduce or eliminate holding stacks and delay techniques then we are in favour of this design principle *for that purpose* PROVIDED it does not lead to the overflight of new communities below 7,000 feet (taking 2012 as the baseline in determining which communities were and were not overflown (**section D6 &7(b), IPAD, page 3**), unless any new overflight is fully compensated including diminution of property value. Please see **footnote 2, EPAD, page 3**
7	*To what extent should Gatwick consider multiple pathways on (a) departures and (b) arrival procedures?:* We strongly reject multiple pathways where one or more of the pathways would overfly new communities below 7,000 feet (taking 2012 as the baseline in determining which communities were and were not overflown, ref **section D6 & 7(b), IPAD, page 4**). In any event, any new overflight which resulted from multiple pathways must be fully compensated including diminution of property value (please see **footnote 2, EPAD, page 3**). In relation to departures we do not support the retention of NPRs within FASI – please refer to **section D9, EPAD (page 5).**
8	*In what order would you prioritise these 5 overflight management options?* Within the confines of the question, we would prioritise option A – minimize the number of people newly affected, and then C, provided that C was seeking to emulate as closely as feasible the dispersion patterns inherent when RNAV coded overlays were being flown in 2012. Please see **section D8, EPAD (page 4)**. We do not support option B for the reasons put forward in **sections C & D2, EPAD (pages 2 & 3).** We do not support D & E and would not give them any priority. We see such options as a recipe for prolonged discord between communities, and for undue influence being wielded by those who 'umpire' the allocation of the respite. *The only important exception we would make to this is E ("Not after 11.30pm or before 6.30am"), where we would wish to see a moratorium on further expansion of night flights beyond 2018 levels with a phased reduction thereafter.* If people are newly overflown they should be fully compensated including diminution of property value (**footnote 2, EPAD, page 3)**

79 Plane Justice feedback 4.4.19 to FASI-South Design Principle Development consultation - R

9	*Are there other options we should consider and how would you prioritise them relative to your response to question 8?* Where the aircraft were actually flying in 2012 should be taken as the baseline starting point for the FASI design project. – see **section 6&7, EPAD (page 4).** Please see **section E, EPAD – 'Vertical profile' (page 6)**, which if accomplished might mean options A and C (question 8) would need be applied only in a geographical area closer to the airport.
10	*Where on the spectrum of A-E would you wish Gatwick airport to prioritise these factors?* We believe option D is the appropriate one, both from the regulatory as well as the ethical perspective, for airspace up to 7,000 feet.
11	*Where on the spectrum of A-E would you wish Gatwick airport to prioritise operational resilience?* We believe option B is the appropriate one
12	*What are your top 5 Airspace Modernisation objectives and why?* Within the confines of the question we would answer as follows (but in case of conflict with replies to other questions or EPAD, those other replies prevail): 1 A 2 E 3 G 4 H 5 B After safety which is a given, noise and environmental objectives should be accorded priority as the quid pro quo for satisfying projected growth in demand.
13	*What other Airspace Modernisation objectives do you believe we should consider?* A. To reflect the Government's aircraft noise policies, including:- • *to limit and, where possible, reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise* (as to which see **section C, EPAD (page 2**) • that the benefits of growth should be shared between the industry and impacted communities B. To develop a new noise measurement metric, which would be capable of measuring maximum aircraft noise levels against ATM frequency below 7,000 feet over any given point on the ground, however near or far from the airport. This would provide a more credible measure of aircraft noise for FASI planning purposes than the hitherto reliance on metrics which employ averaging. C. To submit aircraft growth projections on which any airspace redesign is predicated to prior external independent audit.
14	*What other design principles do you believe we should consider and why?* Please refer to **sections D & E, EPAD (pages 3 to 6)**, and in particular D7(b), D8, D9 & E (vertical profile)

80 Plane Wrong Feedback on Gatwick Airspace Design Principles REVISED

We have tabulated our response to your questions below. In addition we have a number of overall comments.

1. **Continuous Climb Departures.** The use of modern navigational, communication and surveillance technology provides a step change in airspace capacity and the opportunity for a radical redesign of airspace use. An opportunity that would be a "win win" for industry and the environment would be to facilitate continuous climb on all departures.
   The original departure and arrival routes for Gatwick were designed against a background of conventional procedural navigation, communications and surveillance. As a consequence a significant number of departures were routed into the congested airspace between Heathrow and Gatwick, avoiding Gatwick arrival routes but being climb restricted at 3000/4000 feet by conflicting Heathrow routes. Other departure routes suffer similar climb restrictions. As a consequence many communities around Gatwick suffer unnecessary noise from these low level aircraft which have the climb capability to be well above 7,000feet as they pass overhead. Current enhanced technology could facilitate continuous climb for these departures. In fact in the same way that Continuous Descent Approaches are the norm for arrivals, so Continuous Climb Departures should be the norm for all Gatwick departures.

2. **NPRs** All existing NPRs should be retained. In addition a design principle for NPRs should be that 100% of aircraft remain within the NPR and that individual aircraft are spread within the NPR. The Navigational Data Base and Flight Management System manufacturers should be consulted on how best to achieve these aims.

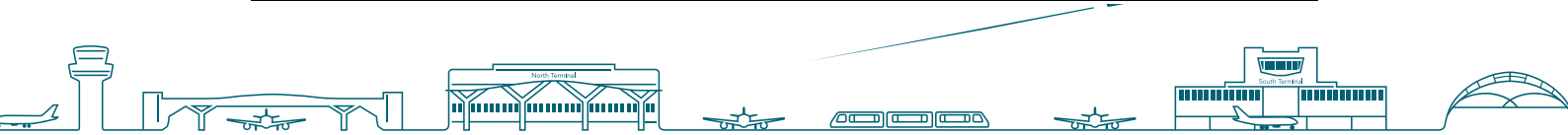
3. **Noise distribution**
   A key principle should be to avoid any one community suffering noise from more than one airport or route. Any one community, except those on the runway extended centre line, should not suffer noise from both Easterly and Westerly operations. Also, Heathrow departures and arrivals should not overfly communities already affected by Gatwick routes.

80 Plane Wrong Feedback on Gatwick Airspace Design Principles REVISED

	Feedback
1a	*Do you agree that airspace design must be safe and further promote safety management systems?* Yes. Plane Wrong fully supports the proposed Gatwick core principle on safety culture.
1b	*Should 'safer by design' attract the highest design principle priority?* Yes. However, although safety is clearly the highest priority in any airspace design and we fully agree that nothing should compromise this, we need assurances that safety will not be used as an excuse to camouflage what are in reality either economic or "no change" arguments.
2	*Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs?* We agree, provided "beneficial" as used in this question refers to para 3.5.1 of the presentation by being able to *"..offer noise reduction and respite to communities and provide opportunities for airlines to save fuel and reduce their CO2 emissions."* It should not be used to justify concentration. (3.5.1 These enhanced navigation standards are now being widely adopted to assist with air traffic management in congested airspace, offer noise reduction and respite to communities and provide opportunities for airlines to save fuel and reduce their CO2 emissions.) We fully agree with the objectives of reduced overflight of people and reduced noise depicted in the logos on page 16. However we are concerned that the increased capacity yielded by the technology generated redesign of airspace has the potential to actually increase both total overflights and noise. We are supportive of the benefits of enhanced navigation standards provided that the increased capacity is matched with noise and overflight improvements to achieve an overall reduction in both. We assume that GAL does not mean that noise and overflight will be reduced on a per flight basis. If that is not the case this should be made explicit.
3	*Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial systems adaptations?* We are in general supportive of flight path predictability in that it provides certainty as to the areas in which aircraft noise will impact on communities. However if predictability means that as Gatwick capacity grows the same communities suffer additional noise we cannot support this principle.. Either flights need to become less

80 Plane Wrong Feedback on Gatwick Airspace Design Principles REVISED

	noisy or the frequency needs to be limited. Increases in noise on any one community that is already affected is not acceptable. GAL should commission and publish authoritative research on the health and other consequences of concentrated flight paths to inform this debate.
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?* Airlines that invest in capabilities and procedures that minimize their impact on local communities should be encourages and those that do not should be penalized and in extreme cases banned from operation at noise sensitive airports such as Gatwick.
5	*Should Gatwick adopt a design principle that seeks to deconflict arrivals and departure routes below 7,000 feet to reduce the prevalence of overflight of a community by airport traffic on different routes and/or by neighbouring airport traffic?* We believe that no one community, except for the unavoidable situation of communities on the runway center line, should suffer noise from aircraft below 7,000 ft. from more than one route from Gatwick, both easterly and westerly operations from Gatwick or from both Gatwick and Heathrow routes.
6	*Should Gatwick adopt a design principle that seeks to create an arrival route consistent with time based operations?* Yes. The elimination of holding procedures in the terminal area would have clear benefits with respect to both noise and emissions. This is long overdue. The "Required Time of Arrival" functionality has been widely available in aircraft Flight Management Systems for very many years and so far has not been exploited to any extent by Air Traffic Control systems. This should used to remove stacks and enable continuous climb on departure routes.
7	*To what extent should London Gatwick consider multiple pathways on:* *(a) Departures procedures*: We believe that there should be significant dispersion around the centre line of NPR, the distribution of which should not be skewed to one side or the other. Multiple pathways should only be considered if they can be contained within the relevant NPR. Manufacturers of Navigation Data Bases and Flight Management Systems should be consulted on the optimal means of achieving this dispersion. *(b) Arrival procedures*: We believe that arrival routes and radar vectoring should seek to disperse that noise impact as far as possible.
8	*In what order would you prioritise these 5 overflight management systems?*



80 Plane Wrong Feedback on Gatwick Airspace Design Principles REVISED

	We do not express an opinion on this as it appears to be an attempt to summarise all the previous questions. Our answers on these questions should be sufficient.
9	*Are there other options we should consider and how would you prioritise them relative to your response to question 8?* See answer to question 8.
10	*Where on the spectrum of A-E would you wish Gatwick airport to prioritise these factors?* We believe that option E is totally appropriate where there is a conflict between operational and environmental issues. The time spent below 7,000feet is a minimal proportion of the total flight in time and cost and environmental issues should be paramount in that period of the flight.
11	*Where on the spectrum of A-E would you wish Gatwick airport to prioritise operational resilience?* We support option E. However, the airport should be required to implement procedures that minimise adverse impacts on communities during and after periods of disruption. In addition the regulatory regime should be restructured to make the airport responsible for managing and suffering the consequences of disruption. For example there should in future be no derogations from night flight limits: it is not right that disruption caused by events which are more in the industry's control than local communities' should result in additional impacts for communities.
12	*What are your top 5 Airspace Modernisation objectives and why?* 1 A 2 E (but only if it is reworded to give equal priority to noise reduction alongside growth – it currently reads as if growth is a higher) 3 H 4 N 5 G

80 Plane Wrong Feedback on Gatwick Airspace Design Principles REVISED

13	*What other Airspace Modernisation objectives do you believe we should consider?* The airspace modernisation programme both nationally and at Gatwick should be developed transparently, cooperatively and on a basis that enshrines and ensures a fair balance between benefits for the industry and for the people it impacts, taking account of the additional capacity it facilitates for the industry. We have restated below the principles and mechanisms proposed in a joint CNG and GACC paper dated January 2018 and submitted to Gatwick's NMB, to which neither GAL nor NATS have responded. We believe these remain fully applicable and should be reflected in GAL's objectives for FASI (South). _____ "NATS and GAL, together with other London area airports as necessary, should develop a set of overarching principles and mechanisms, and revised aims for LAMP 2. Once agreed these should underpin all aspects of the programme. The ***principles*** should: • reflect the government's aircraft noise policies, including that the benefits of growth should be shared between the industry and impacted communities and that there should be balance between the interests of the industry and those of communities impacted by it • rule out any increase in the number of people significantly impacted by aircraft noise, subject to consistency with principles of fair and equitable dispersal agreed or to be agreed • give equal weight to increasing capacity and reducing environmental impacts, particularly noise. The ***mechanisms*** should: • propose metrics using which the potential noise impact of all options can be assessed and compared to the growth enabled by those options • propose legally binding arrangements through which the utilisation of additional capacity created through LAMP 2 will be constrained unless and until it is independently determined to be consistent with the principles above • commit to full transparency in the development of LAMP 2 and other FAS projects including through the funding of a communities representative or agent to the project with a remit to ensure the proper application of these and other agreed overarching principles on an open book basis • submit aircraft growth projections on which any airspace redesign is predicated to prior external independent audit

80 Plane Wrong Feedback on Gatwick Airspace Design Principles REVISED

	The new ***aim*** of the programme should reflect the above principles and mechanisms. It should be agreed with community representatives in all impacted and potentially impacted areas. Any Statement of Need or Design Principles that do not reflect these or comparable principles and mechanisms should be rejected by the CAA."
14	*What other design principles do you believe we should consider and why?* Plane Wrong believes that the enhanced technology now available should allow all departing aircraft to make a continuous climb to at least 7,000feet. This would greatly reduce noise and emission impact and in addition provide greater fuel efficiency for the airlines.

82 HWAONB Response Airspace Modernisation Programme (002) - 2090326

Airspace Modernisation - Gatwick Airport: An Introduction to Design Principle Development

The High Weald Area of Outstanding Natural Beauty lies immediately to the south and east of Gatwick Airport and is likely to be impacted by any changes to airspace design. This could include:

- The impact on the relative tranquillity of the AONB;
- The impact on air quality and how this effects climatic conditions in the AONB;
- The impact on wildlife and habitats of the AONB, including the European designated sites at Ashdown Forest.

Section 85 of the Countryside and Rights of Way Act 2000 requires all public bodies to have regard to 'the purpose of conserving and enhancing the natural beauty of AONBs' in making decisions that affect the designated area.

The Design Principles set out in the consultation document are focused on operational imperatives and, to some extent, impact on people. There is no recognition in this document of the impact that airspace design can have on the Area of Outstanding Natural Beauty or indeed other rural areas.

It is recommended that a further design principle is required along the lines of the following:

A design principle that seeks to conserve and enhance the natural beauty of the High Weald AONB through its airspace design by reducing the impact of aircraft flightpaths on the tranquillity, habitats and wildlife of the AONB and reducing harmful emissions and noise of aircraft.

The above comments are advisory and are the professional views of the AONB Unit's Planning Advisor on the potential impacts on the High Weald landscape. They are not necessarily the views of the High Weald AONB Joint Advisory Committee.

82 HWAONB Response Airspace Modernisation Programme (002) - 2090326

Background Information about the High Weald AONB

The High Weald was designated in 1983 as an Area of Outstanding Natural Beauty. It is an exceptionally beautiful medieval landscape covering 564 square miles across the counties of East and West Sussex, Kent and Surrey.

The High Weald AONB Joint Advisory Committee is a partnership established in 1991 of 15 local authorities, Defra, Natural England and organisations representing farming, woodland, access and community interests. The JAC is responsible for publishing and monitoring the statutory AONB Management Plan. The JAC is supported by a small, dedicated staff team, the High Weald AONB Unit, which provides advice on how to conserve and enhance the AONB. The advice provided by the AONB Unit assists public bodies and statutory undertakers to meet their duty as set out in Section 85 of the Countryside and Rights of Way Act 2000 to have regard to the purpose of conserving and enhancing the natural beauty of AONBs in making decisions that affect it.

Unlike National Park authorities, the High Weald AONB Unit is not a statutory body but an advisory one. It is not a local planning authority and the responsibility for determining planning applications remains with the 15 local authorities. The AONB Unit is not a statutory consultee on planning matters and it remains each local planning authority's decision whether or not they seek its advice on a particular planning application.

The scope of the advice in this letter is set by the statutory High Weald AONB Management Plan, which has been adopted by all partner authorities, as 'their policy for the management of the area and for the carrying out of their functions in relation to it'.

83 Gatwick Airspace Modernisation Consultation 2019 - Surry Hilsl AONB - 21090404

Consultation response of the Surrey Hills AONB Planning Adviser on behalf of the Surrey Hills AONB Board.

Although the Surrey Hills AONB Board does not appear to have been consulted, I would nevertheless like to make this submission following being alerted only recently to this consultation. I am authorised by the Board to respond to all planning consultations.

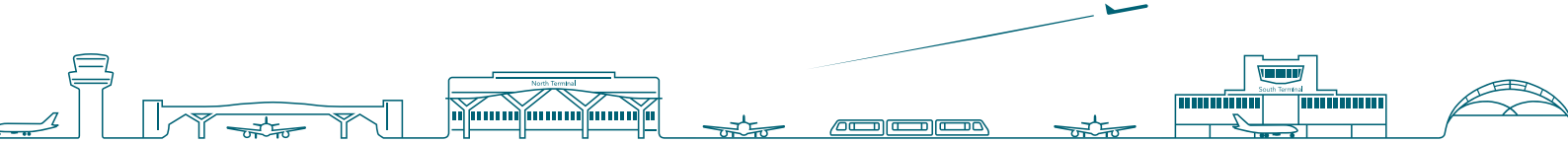
The document seems not to have had due regard to the need conserve and enhance the natural beauty of AONBs. This does not accord with Section 85 of the Countryside and Rights of Way Act 2000 requiring all public bodies to take this into account in making decisions that affect the designated area.

Currently, following take off from Gatwick aircraft are supposed to turn just to the south of Leith Hill in the Surrey Hills AONB being the highest point in the South East. When they stray from the recognised route and pass close to or over Leith Hill, being at an elevation of about 1,000 feet, the impact on the relative tranquillity on this much visited beauty spot is more marked for the public than at lower ground levels. Other parts of the Surrey Hills are also high.

For the public to be able to enjoy the relative tranquillity and beauty of the Surrey Hills AONB is becoming increasingly important with the stresses of life, for their health and well being. For that to be spoilt by the intrusion of noisy aircraft should not be underestimated. It is appreciated that the avoidance of populated areas is a priority but so also should such tranquil and beautiful areas.

Presumably account will also be taken of the effects of harmful emissions from low flying aircraft on the wildlife and flora and fauna on nationally protected landscapes at an elevation of just under 1,000ft.

It is therefore urged that a design principle be adopted that especially low level aircraft flight paths should avoid the nationally protected Surrey Hills AONB parts of which rise to almost 1,000ft because such noise intrusion into the relative tranquillity and beauty, so increasingly valued by the public, undermines their health and wellbeing and with additional harmful emissions may impact upon its habitats and wildlife.



85 GACC response to engagement on Design Princples - R

Airspace Modernisation – Gatwick Airport: An Introduction to Design Principle Development

Gatwick Area Conservation Campaign (GACC) wishes to make the following responses to GAL's document Airspace Modernisation – Gatwick Airport. An Introduction to Design Principle Development.

GACC welcomes the redesign of airspace, and welcomes the engagement of local stakeholders.

One overall requirement must be that any airspace change does not introduce overflight of communities not previously overflown nor reduce the environmental benefits on communities close to the airport.

We also challenge the process of "engagement";

We are concerned that the invitation to engage has not been extended to parish councils; if engagement is limited to district and county level, local concerns and local knowledge are necessarily missing from the response.

Many of the questions put in the document cannot be answered meaningfully at this stage; it appears that stakeholders are being asked to commit prematurely to a statement of preferences without seeing details.

The time allowed is too short for informed response.

We will comment further on such concerns in the answers given below.

	3.15 Summary of Questions
1a	**Do you agree that airspace design must be safe and further promote safety management systems? YES**
	Additional comments:
	If new operating procedures or technologies allow a trade-off between improved safety and operational effectiveness, the priority must always be safety. We do not believe that this is an appropriate question for Gatwick to ask stakeholders other than regulators.
1b	**Should 'Safer by Design' attract the highest design principle priority? YES**
	Additional comments:
	Since the answer to question 1a is obvious, it is also obvious that safety objectives should be integrated into the design and considered at every stage, and that safety engineering should be a deliberate process which is fully integrated with the design process. We do not believe that this is an appropriate question for Gatwick to ask stakeholders.
2	**Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs?** **Impossible to answer without answering to the question "beneficial to whom?"**
	Additional comments:
	If new navigation standards permit the flexible design of flight paths that minimise disturbance to those on the ground, avoid the overflight of people not currently

85 GACC response to engagement on Design Princples - R

	overflown, provide respite and distribute flights fairly, we welcome them.However, our experiences of Performance-Based Navigation was negative because it introduced concentration of flights which made disturbance worse in some areas. However, our experiences of Performance-Based Navigation was negative because it introduced concentration of flights which made disturbance worse in some areas.
3	**Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial system adaptations? YES**
	Additional comments:
	Again, the question "beneficial to whom" is not answered, so our answer is conditional. Our experience of "adaptations" so far has not been encouraging. Note that adaptations to benefit people under flight paths might require varying flight paths continuously to simulate the variability of the past, contrary to the design assumptions of planners. Predictability must not lead to concentration.
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:
	To the extent that enhanced aircraft capabilities can be used to fly routes that minimise disturbance while allowing distribution within areas currently overflown, we are in favour. We are not in favour of using enhanced capabilities to add to airfield capacity.
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:
	We support deconfliction provided that a high priority is given to reducing unnecessary overflights below 7000ft.
6	**Should Gatwick adopt a design principle that seeks to create an arrival route design compatible with time based operations? YES**
	Additional comments: None
7a	**To what extent should London Gatwick consider multiple pathways on:** **(a) Departures procedures**
	We believe that multiple paths are preferable provided that they do not impact people are not currently affected. We also support distribution within the existing

85 GACC response to engagement on Design Princples - R

	swathes to provide respite.
7b	**To what extent should London Gatwick consider multiple pathways on:** **(b) Arrival procedures**
	Additional comments:
	We believe that multiple paths are preferable provided that they do not impact people are not currently affected. We also support distribution within the existing swathes to provide respite.
8	**In what order would you prioritise these 5 overflight management options? Either singularly or groups**
	We do not wish to prioritise these options at this stage.
9	**Are there other options we should consider and how would you prioritise them relative to your response to Qu 8?**
	No further options at this stage
10	**Where on the spectrum of A – E would you wish Gatwick airport to prioritise these factors?**
	We do not wish to comment at this stage. The options are not mutually exclusive.
11	**Where on the spectrum of A – E would you wish Gatwick airport to prioritise operational resilience?**
	We cannot give an opinion at this stage. We would need to see proposals for each option before we can make an educated response. In general, we would not wish operational resilience to lead to increased noise or overflight of areas not currently overflown.
12	**What are your top 5 Airspace Modernisation objectives?**
	We believe that reduction of noise disturbance should be a high priority
13	**What other Airspace Modernisation objectives do you believe we should consider?**
	We want to see avoidance of disturbance to Areas of Outstanding Natural Beauty and other areas which are of a tranquil rural nature. This would be in line with the CAA's Airspace Design Guidance (CAP 1616)

85 GACC response to engagement on Design Princples - R

	3.15 Summary of Questions
1a	**Do you agree that airspace design must be safe and further promote safety management systems? YES**
	Additional comments:
	If new operating procedures or technologies allow a trade-off between improved safety and operational effectiveness, the priority must always be safety. We do not believe that this is an appropriate question for Gatwick to ask stakeholders other than regulators.
1b	**Should 'Safer by Design' attract the highest design principle priority? YES**
	Additional comments:
	Since the answer to question 1a is obvious, it is also obvious that safety objectives should be integrated into the design and considered at every stage, and that safety engineering should be a deliberate process which is fully integrated with the design process. We do not believe that this is an appropriate question for Gatwick to ask stakeholders.
2	**Should Gatwick adopt the most beneficial form of enhanced navigation standards as the foundation of its designs?** **Impossible to answer without answering to the question "beneficial to whom?"**
	Additional comments:
	If new navigation standards permit the flexible design of flight paths that minimise disturbance to those on the ground, avoid the overflight of people not currently overflown, provide respite and distribute flights fairly, we welcome them.However, our experiences of Performance-Based Navigation was negative because it introduced concentration of flights which made disturbance worse in some areas. However, our experiences of Performance-Based Navigation was negative because it introduced concentration of flights which made disturbance worse in some areas.
3	**Should Gatwick adopt a design principle that offers long term predictability of flight paths and enables beneficial system adaptations? YES**
	Additional comments:
	Again, the question "beneficial to whom" is not answered, so our answer is conditional. Our experience of "adaptations" so far has not been encouraging. Note that adaptations to benefit people under flight paths might require varying flight paths continuously to simulate the variability of the past, contrary to the design assumptions of planners. Predictability must not lead to concentration.

85 GACC response to engagement on Design Princples - R

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:
	To the extent that enhanced aircraft capabilities can be used to fly routes that minimise disturbance while allowing distribution within areas currently overflown, we are in favour. We are not in favour of using enhanced capabilities to add to airfield capacity.
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:
	We support deconfliction provided that a high priority is given to reducing unnecessary overflights below 7000ft.
6	**Should Gatwick adopt a design principle that seeks to create an arrival route design compatible with time based operations? YES**
	Additional comments: None
7a	**To what extent should London Gatwick consider multiple pathways on:** **(a) Departures procedures**
	We believe that multiple paths are preferable provided that they do not impact people are not currently affected. We also support distribution within the existing swathes to provide respite.
7b	**To what extent should London Gatwick consider multiple pathways on:** **(b) Arrival procedures**
	Additional comments:
	We believe that multiple paths are preferable provided that they do not impact people are not currently affected. We also support distribution within the existing swathes to provide respite.
8	**In what order would you prioritise these 5 overflight management options? Either singularly or groups**
	We do not wish to prioritise these options at this stage.
9	**Are there other options we should consider and how would you prioritise them relative to your response to Qu 8?**
	No further options at this stage
10	**Where on the spectrum of A – E would you wish Gatwick airport to prioritise these factors?**
	We do not wish to comment at this stage. The options are not mutually exclusive.

85 GACC response to engagement on Design Princples - R

11	**Where on the spectrum of A – E would you wish Gatwick airport to prioritise operational resilience?**
	We cannot give an opinion at this stage. We would need to see proposals for each option before we can make an educated response. In general, we would not wish operational resilience to lead to increased noise or overflight of areas not currently overflown.
12	**What are your top 5 Airspace Modernisation objectives?**
	We believe that reduction of noise disturbance should be a high priority
13	**What other Airspace Modernisation objectives do you believe we should consider?**
	We want to see avoidance of disturbance to Areas of Outstanding Natural Beauty and other areas which are of a tranquil rural nature. This would be in line with the CAA's Airspace Design Guidance (CAP 1616)