

Feedback WS1 30 October 2019  
Councillor

I do think it is essential that you spot mark well know nodal points on the geographical maps you intend to overlay on the designs. Who is effected is down to where they overfly and without nearby points it is hard to compare the designs to the properties below.

I also think that there does need to be an explanation of how these routes could be flown in a manner that ensures minimal noise and emissions.

The latter are as important or more important than the number overflown.

Perhaps select nodes which are churches and schools like the Weald in Beare Green as we have no church. This will allow people to quickly see where the flights might be distributed in various scenarios in respect of their property.

Currently would reject the Option 7 - having everything fly on the centre line of Route 4 as that will create an unfair impact on those under it - we do need the swathe to utilised.

I will hold back my judgement on other proposed routes until I can look at the designs in more detail but suspect that even though I know the route well I will need to see the geographical overlays to be able to comment.

## Route 4 Design Options 08/11-2019

The following response results from a Betchworth Parish Council open meeting of the 4<sup>th</sup> November 2019

Betchworth Parish, situated to the north of Gatwick, suffers Noise from Route 3 with the vast majority of aircraft still at 3000ft - 4000 ft despite being 15 track miles from take off. The Parish also suffers from aircraft in the Ockham hold and Heathrow DVR departures. Currently many Route 4 departures, even with the RNAV SID aligned on the NPR centre line, fly well to the north on completion of the turn and then track over the Parish en route to the first waypoint. Whilst a percentage of aircraft at or below 4000ft fly to the north of the swathe a high percentage of aircraft climbing above 4000, and therefore outside of the NPR, accelerate to 250 KT's before completing the turn fly north of the swathe. Aircraft climbing at 5000ft or 6000ft still create a considerable noise nuisance.

Whilst some of the councillors are sympathetic to designs that provide a level of dispersal there is a general concern that the dispersal designs will bring more Route 4 aircraft over residents who already suffer from Route3, Ockham holding aircraft and Heathrow departures. For that reason our preferred design is Option 7 followed by Option 0 and in both cases with the SID aligned with the current NPR centre line.

On general principles -

1. We are very concerned that you have excluded the principle of .."seeking to avoid the same residents suffering aircraft noise from both Route 3 and Route 4 departures", on the grounds that feedback to date suggests current NPRs should be retained and moving these would be beyond the scope of this project. However you have included a design principle "Route 4 designs should not be constrained by the existing NPR to 4000ft"

2. We are concerned with the principle "New Route 4 design options should give due regard to the historic routings in use prior to the introduction of RNAV route in 2012" with regard to what "historic routings" means. Over the decades Route 4 has moved many times around the swathe due to the inherent inaccuracies of conventional SIDs and conventional navigation. Lack of diligence in updating SIDs and VORs for drift of magnetic variation has also caused large movements. We are concerned with the 2012 conventional SID interpretation being pushed by Plane Justice. We would argue strongly for the NPR or if a date is needed 1997, being the first year that actual track data is available on the GAL website. This ACP is totally separate from the 2012 ACP which was subject to the JR. Clearly you need to take account of the Air Navigation Guidance 2017 in this ACP. We do not accept that reverting to the 2017 (2012) conventional SID position is required.

3. There are two principles protecting previously unaffected populations. We argue that this gives far too much weighting towards these populations over reducing noise for currently affected areas. We think that there is a strong argument to say that all populations within the northern swathe have been affected at some point over the past decades.

#### Design Options

Unsupported options.

Option A. At the moment and until FASI south has been completed we understand that departures that turn South would still need to route towards SUNAV which requires crossing the runway approach centre line. However we believe that when feasible consideration should be given to Southerly routings towards DVR.

#### Viable Options

Option 0 This is the current RNAV SID showing theoretical flight path distribution. We have assumed that the lower edge of the grey area is the NPR centre line. In reality a high percentage of aircraft fly north in the turn. See our comments above. **2nd Preference**

Option 1 This has aircraft turning later and flying a northerly track between two 90 degree turns. This would guarantee a much more concentrated flight path but would place all aircraft well to the north of the NPR. **Unacceptable**

Option 2 This would create a wider spread of flight paths between the end of the turn and KKE09 (The drawing shows a direct to KKE09, whereas the narrative says direct SUNAV) We do not think this is a very accurate depiction of what would actually happen. As we know the vast majority of aircraft finish the turn to the north of the SID, whereas this depicts many aircraft approaching the waypoint from a southerly position. **Unacceptable**

Option 3 As with Option 1 the two 90 degree turns would place the flight paths well to the north. **Unacceptable**

Option 4 This would create a degree of dispersion in the turn and on the initial part of the easterly leg. However any turning point beyond the current position would send aircraft outside of the NPR swathe. **Does not achieve much**

Option 5 This option does not make sense. The 190Kt speed restriction which in a continuous turn would have a beneficial effect of producing accurate turns and preventing aircraft coming to the north of the NPR as they finish the turn is negated by the two 90 degree turns with a northerly leg. If a 190kt option is to make sense it needs to be a continuous turn. We need more data on the noise effect of a 190kt climb to evaluate this option. We assume that the engine power setting would be identical regardless of speed. Climb rate would be slightly lower. Ground distance to 4000ft would

be shorter. Therefore it would seem that fewer people are affected but those that are would have the noise for slightly longer. **Needs more data**

Option 6 This is a good start at dispersion achieved by the spread of turn points as in Option 4 and creating three waypoints spread laterally at KKE09. Implemented would be a key issue to ensure a roughly equal split of aircraft on routes. By having each of the different routes allocated to the various data base manufacturers or individual airlines or fleets needs careful planning to create a random dispersal. We believe better dispersal could be achieved by the creation of a further 3 laterally separated waypoint at SUNAV. With 3 turn points, 3 waypoints at KKE09 and 3 waypoints at SUNAV there is the possibility of 27 individual routes. The lateral positioning of the 3 waypoints is crucial. Any waypoints created north of the centre line would bring Route 4 into conflict with Route 3. **Would be acceptable if no waypoints north of the NPR centre line**

Option 7 This would create very concentrated flight paths and would keep more aircraft within the NPR swathe. **Preferred option based on the NPR**

Betchworth Parish Council nominated representative to the

Route 4 Design Options

Name:

Role: Councillor

Email:

Contact number:

## ROUTE 4 CHANGE OPTIONS

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07/10/2019 at 13:40:38

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**From:**  
**Sent:** 07/10/2019 at 13:40:38  
**To:** LGWairspace.Rte4@gatwickairport.com  
**Cc:**

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1. Airport nominates the following to attend the Route 4 Design Options workshop on 30 October 2019:

Name:

Role:

Email:

Contact number:

&

Name:


Role:

Email:

Contact number:

2. Airport acknowledges that Gatwick Airport Limited will process the nominated POC contact details in accordance with our Privacy Policy and only share these details with organisations engaged by Gatwick Airport Limited for the purpose of delivering the Route 4 Standard Instrument Departures Airspace Change.

Regards,

 cid:311BAA74-130D-48E4-8C93-43B1E79FF798

 cid:image002.jpg@01D51168.784B9D30

Main Passenger & Executive Terminal

## Annex A

### Gatwick Airport Route 4 Standard Instrument Departures – Workshop Response Form

Please complete before **21 October 2019** and return by email to:

[LGWairspace.Rte4@gatwickairport.com](mailto:LGWairspace.Rte4@gatwickairport.com)

1. Parish Council nominates the following to attend the Route 4 Design Options workshop on 30 October 2019:

Name:

Role: Councillor

Email:

Contact number:

2. Parish Council acknowledges that Gatwick Airport Limited will process the nominated POC contact details in accordance with our Privacy Policy and only share these details with organisations engaged by Gatwick Airport Limited for the purpose of delivering the Route 4 Standard Instrument Departures Airspace Change.

Route 4 Feedback  
4<sup>th</sup> November 2019

Gatwick Airport redesigning of Route 4 CAP 1616 process

Thank you for asking for feedback on the presentation put forward by Gatwick Airport last week. It is, however, disappointing that we have been afforded such a short period of time to consult.

We are still very concerned that you are only currently consulting with those living under Route 4 and that you are not involving a wider audience at this point of the consultation. This lack of a wider consultation could make this CAP1616 process unsafe due to the limitation of the audience Gatwick has chosen to consult.

Our concern is justified as groups/ individuals at these workshops continue to put forward suggestions for changes to this route that will fly over newly affected areas/ and increase the noise for those that already have little, if any, respite from multiple departure routes and arrivals.

To use Wizad/ Tiger, as put forward by Newdigate PC, would mean flying over Horsham town and sandwich already impacted communities such as Rusper and Warnham between four departure routes – routes 1, 7, 8 and 9 – which is unacceptable especially as they are not being consulted by Gatwick Airport through this process.

We are however happy that Gatwick is not taking forward the suggestions put forward by Plane Justice. We are concerned that apparently Paula Street of GATCOM raised this suggestion at NATMAG as to flying further west before turning/vectoring northeast.

Route 4 already has respite, as it is a single departure route with no arrival traffic.

Diagrams given were not clear as to where the NPR currently exist in relation to areas overflown making it difficult to make an informed comment at this stage. We support Cllr Caroline Salmon in her points made at the workshop on this that during the public consultation residents must be able to identify landmarks.

From the presentation we would not support lower speed, as this would increase noise for communities.



More must be done to have Heathrow airspace lifted to allow Gatwick routes to lift and so reduce noise.

No evidence was given to each routes/ diagrams noise impact; this must be part of any public consultation.

Noise incurred by those closest to the runway at low levels must be given priority to those that are affected by the route at greater heights.

We support dispersal within the NPR swathe/ channel, but we do not support flying over new people or the removal of the NPR.

We are concerned that the targeting of rural areas continues to be a factor when positioning a route.

It is very disappointing that Gatwick Airport is not taking into account the totality of noise endured by communities during this evaluation process.

We must oppose the removal of the NPRs put forward by Plane Justice as part of FASIS and we re-iterate our request for an update on FASIS.

We look forward to receiving an invitation to the next workshop being held at the end of November 2019

## RE: Gatwick Airport - Route 4 Airspace Change Options Workshop 30 Oct 2019

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03/10/2019 at 13:39:49

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**From:**  
**Sent:** 03/10/2019 at 13:39:49  
**To:** DD - Airspace Rte 4 Change <LGWairspace.Rte4@gatwickairport.com>  
**Cc:**

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**CYBER AWARE - Caution, this is an external email. Unless you recognise the sender and know the content is safe, do not click links or open attachments**

Hello,

No requirement for MOD attendance at this.

Thanks,

Regards

House | Gatwick, RH6 0YR | Civilian Telephone: | Defence Airspace and Air Traffic Management | CAA Aviation  
| MOD Net: | E-Mail:

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**From:** DD - Airspace Rte 4 Change <LGWairspace.Rte4@gatwickairport.com>  
**Sent:** 02 October 2019 15:53  
**To:** DD - Airspace Rte 4 Change <LGWairspace.Rte4@gatwickairport.com>  
**Subject:** Gatwick Airport - Route 4 Airspace Change Options Workshop 30 Oct 2019

As a stakeholder in Gatwick's Route 4 Airspace Change please see an update from the Head of Airspace which includes an invitation to an **Options Workshop** to be held at Gatwick on **30 October 2019**. If your organisation wishes to participate could you please advise us of your nominee by sending us a completed Annex A before 21 October so we can finalise and confirm arrangements.

Route 4 Airspace Team

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EasyJet

Thank you for the workshop held on 30<sup>th</sup> October reviewing future design options for the development of Route 4 at LGW.

easyJet confirms its position as being supportive of Option 7, the radius to fix design principle.

## Newdigate Feedback WS1

Thank you for the opportunity to attend the workshop. Having given the option further thought the option that is tending to be fairest to the villages of Newdigate that I represent and Capel I would recommend that option 6 is trending towards a fair solution and ensures a reasonable dispersion. As I said at the workshop, I see no reason to converge the route at the end of the turn. Convergence should be possible much later when typical flights are well over 7,000 feet.

I am sure Plane Justice will not consider this option to relate to the historical flight patterns prior to RNAV.

The same comments really apply to Newdigate.

Once we see the proposal plotted onto the geographical maps, I think it will be obvious.

Again, a point I keep making is route 4 turn radius does not allow consistent good tracking as the radius is too tight. Last week on a very windy day I thought aircraft were flying Easterly but in fact they were flying Westerly but well outside the NPR curve in most instances. Nothing will change even with option 6 that is trying to spread the load over the centre of the NPR.

Any way look forward to the next workshop. Incidentally my own location is \_\_\_\_\_ and we have a noise monitor not far at \_\_\_\_\_

## **Plane Justice**

### **First Design Options Focus Group - Preliminary Comments**

These comments are offered provisionally in the current absence of mapping or design parameters for the various options<sup>1</sup>. That said we can see a logic in deferring such matters until the next stage, and bringing into focus at this point the pattern of flying.

As general observations: • We are pleased to see that the west-east design envelope does not extend further south, which would have inevitably seen even more people than currently newly overflowed; • While we acknowledge the difficulties of carrying forward Unsupported Option B in the current context, we trust as has been intimated in this process that Option B may be given fresh consideration in the context of FASI-South.

### **The Design Options as put forward 30.10.19**

From first principles, Options 0 and 7 cannot be justified as viable options going beyond this stage, since neither of those options gives any weight to the value of preserving the existing pattern of traffic in 2012; They fall outside the terms of reference of the ACP's December 2018 statement of need in failing to take into account the relevant aspects of the judicial review consent order<sup>2</sup>.

From the remaining options, Option 1 is pre-eminent:-

- A. It gives due weight to the value of preserving the existing pattern of traffic in 2012
- B. It offers the highest initial turn altitude (2500ft) with the prospect of aircraft being significantly higher over the communities of Capel & Newdigate than any other option
- C. From what might be deduced from the pattern of the turn, it looks to deliver a 'cleaner' and less noisy turn execution than other options.
- D. It creates the widest southerly 'vectoring corridor' after the route heads eastwards, facilitating vectoring which avoids e.g. Horley

No other option presented delivers this profusion of benefits.

8 November 2019

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<sup>1</sup> Other than the current temporary route, Option 0, which is a known quantity in these respects.

<sup>2</sup> There is therefore no need to look further beyond this to other factors which render Options 0 and 7 unworthy to go further forward, for example: the poorly designed turn in Option 0, or (with particular reference to option 7) the now largely discredited former policy of deliberately concentrating flight paths.

## R4NM Feedback

As we do not have the technical expertise and consultancy advice of other much larger groups our comments have to be based on common sense observations and what we perceive you are asking us to do.

It is difficult for us to work out exactly how the design concepts work without reference to more information. Clearly from the note at the bottom of the first slide you are not proposing any solution that comes south of the centreline of the current NPR monitoring swathe which is to be welcomed as this has been a major point of issue with Horley residents. It is not clear however whether you are proposing solutions which actually leave the swathe albeit above 4000ft where the NPR ceases to exist, in order to provide the designed dispersion and if so how broad an area is capable of being designed in, so we have had to make a best guess at this.

R4NM have always sought a return to the patterns of flying that existed prior to the introduction of PRNav and which kept the peace in the community for decades or something even better which is what Airspace Modernisation is all about. The base line logically has therefore to be 2012.

We believe the fundamental criteria for the route design, given that the safety of any route is paramount in any design and no route would be put forward unless it was safe should be as follows:

1. To get the aircraft as high as possible
2. As quietly as possible
3. As quickly as possible
4. To fly in the cleanest configuration possible
5. With no harsh acceleration at any point in the route and preferably even acceleration over the route bar initial take off.
6. A design that allows the best use of continuous climb so further benefits can be achieved under FASI south.
7. At a speed pilots are happy with
8. With no tight turns
9. With no design that causes an over turn with two changes of direction as can happen on the present, temporary, unlawful route ie no flying down to fly back up again.
10. Any dispersion should not simply look good on a map when in reality the noise impact is actually worse for those communities. Sadly having been "sold a pup" on the current unlawful Route 4 design we are extremely wary of designs which purport to design in dispersion whilst actually making the noise environment much worse for communities. It may be the case that an aircraft directly overhead on a wider turn is in fact quieter than an aircraft 500M away that is making a tighter turn. Sheer logic would dictate that the wider turn would make the aircraft higher and thus quieter than a low tight turn. It is the overall noise impact, with proper noise measurement that we have to consider not just appearing to spread them out because it looks good.

11. The no overflight of communities in both directions needs qualification by altitude. If that overflight was 8/9000ft where the noise was barely discernible this may be a better than some of the options in terms of the overall noise environment, ie better to be overflowed both ways at 8,000ft as opposed to being close to a tight turning noisy route at 4,000ft and overflowed at 8000ft the other way. We note that we are dealing with Route 4 in isolation and we do not know what is likely to happen under FASI south, where redesign may mean this situation is eliminated anyway so to some extent we are stabbing in the dark.

12. A comfortable experience for the passenger. Tight turns are uncomfortable. We have personal experience on the current Route 4 of sitting next to an unrelated middle aged male adult passenger with an ear problem crying in pain from the tight turn. First time it had happened for years which his wife put down to the tight turn.

13. The route should be resilient in all winds and weathers and particularly should avoid aircraft cutting the corner at low altitude in north westerly winds.

14. The route design must respect the decision of the judicial review which is why we are all going through this process in the first place.

Based on the above criteria and the best information we have at present we deal with each of the options.

#### Option 0

This is the route currently flown and the unlawful route which resulted in the judicial review decision, so it falls at the first hurdle. In fact, it shouldn't even be on the list.

It also fails to meet all of the above criteria (bar the no overflight of communities in both directions) so is a complete non starter. A very poor design which is noisy for all communities along the Route..... noise monitors do not lie ...and which in north westerly winds causes aircraft to cut to the inside of the NPR over new communities. No airline should have to add their own unofficial waypoints to make a route flyable. We reiterate that this route should not even be an option and we believe under Airspace Modernisation better route designs exist.

#### Option 1

This looks the most promising design. It is the closest replication of the legacy position and ticks all of the above design criteria although we can't comment on whether the pilots will be happy with the speed. This is our preferred option.

It has the highest initial turn altitude which is to be welcomed and this initial altitude should be included in all designs. The stabilisation phase should help with flyability and ensuring aircraft fly where they should. The significantly higher initial turn height is much better for communities affected earlier in the route and should mean increased altitude throughout the route and greater propensity to utilise continuous climb under FASI south. There should be no need for sudden noisy acceleration either.



## Option 2

We would discount this route too because if option 0 doesn't work, this will not either. Aircraft in certain conditions will still be cutting the corner and flying up to the waypoint over new communities, possibly with the two noisy changes of direction so it still does not respect the legacy which is the point of the ACP.

## Option 3

Why on earth would any community support an initial turn altitude of 1100ft when there is an alternative initial turn altitude of 2500ft. We are not sure whether late dispersion would be needed, as a proper design should, with continuous climb allow sufficient altitude for this section not to be necessary. Vectoring historically provided the late dispersion in any event. The apparent southerly shift of the track does not respect the legacy but as these are conceptual drawings it is very difficult to tell exactly what you are proposing, what height the aircraft would be and the size of the lateral area you are intending spreading them over.

## Option 4

Again a low initial turn point with many aircraft making tighter turns than in option 1 so more noise for communities underneath. It's back to the point that sometimes it's more noisy to be 500m away from a tight low turn, than directly underneath a higher wider turn. This is a "looks good on paper concept" but the reality we suspect will be noisy.

## Option 5

Here the initial turn height is yet again 1100ft. Why on earth anyone would choose this option or Option 3 with an initial turn 1400ft lower than option 1, we have no idea. This is supposed to be Airspace Modernisation after all. We are sure this option would be disliked by communities, pilots and, airlines in equal measure. Pilots want to fly faster and get up and away as soon as possible and ATCOs want them to do the same. Communities want aircraft higher with less noise. There would be a knock on effect on runway throughput if aircraft are flying more slowly, surely.

## Option 6

Again we fear this looks good on paper but the reality is that the tighter turning aircraft will be lower and louder than those flying a wider turn. This will cause more noise to communities on the inside of the turn who were not previously overflown and so it disrespects the legacy. If however it is intended that this option not be constrained by the existing NPR compliance swathe but that it is a genuine attempt to spread aircraft over a wide area from the A25 down then it would be worthy of consideration.

We suspect however there would be long term discord over which airline or aircraft type flies to which waypoint... who after all is going to want the A380 Emirates or a huge Virgin clanking crate flying to Orlando when they can have a little Easy Jet shuttle popping to Edinburgh.

There may also be limitations due to the complexity of what can be stored in the FMS and potential for confusion without very clear instructions. Option 1 doesn't have these complications. For sheer simplicity we much prefer option 1.

## Option 7

Having listened to the airlines representative at the presentation this is a complete non starter both with the airlines ...it necessitates flying dirty ...and the vast majority of community groups because of

the noise impact. A route completely contrary to all guidance on noise, emissions and fuel burn and should be consigned to the waste paper basket... swiftly ....along with option 0.

To conclude, as far as we are able with our limited technical knowledge and without the detail of maps, altitudes and likely noise impacts, we have attempted to look objectively at the conceptual options that have been proposed.

For us there is only one stand out option that meets all the criteria but particularly the judicial review court order which is why after all we are going through this process and that has to be option

1. We believe this offers the best opportunity for a long term resolution of this matter.

If there is a route option that allows a first turn at 2500ft then this should be sacrosanct in all route designs going forward.

Due to the experience we have suffered under the current imposed Route 4 we are very wary of dispersion that looks good on paper but where the noise reality is in fact horrendous.

Further to the workshop on 30 October, which Cllr  
the following comment.

attended, we would like to make

Salfords & Sidlow Parish Council believe the redesigned Route 4 should be within the NPR.

From the information and options provided at the workshop on 30 October, Salfords & Sidlow Parish Council believe the redesigned Route 4 should be Option 1. It is the only one which:-

- can and does meet the CAA's original instruction to replicate as closely as possible the 2012 route being flown and
- recognises the Judicial Review judgement that the 2016 implemented route failed to give due weight to the 2012 traffic pattern.

We look forward to being involved at the next meeting on 21 November where Cllr Blackmore will be attending.

Thanks,

**to Salfords and Sidlow Parish Council**

**Tel:**



Salfords Village Hall, 5 Honeycrook Lane, Salfords. Redhill, Surrey, RH1 5DG

[www.salfordsandsidlowpc.org.uk](http://www.salfordsandsidlowpc.org.uk)

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