

Summary of Farnborough Airport Airspace Consultation documentation – 2000 to Present

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1) Key Messages

The consultation process was not effective in eliciting feedback from stakeholders. Only approximately 0.5% of public consulted responded.

There was no support from any stakeholders for the proposed airspace change apart from Farnborough Airport.

The way the number of people overflown and the impact of noise on them has been calculated is misleading at best.

The impact of noise from General Aviation and other aviation (military, commercial non-Farnborough traffic) was not adequately considered.

Pollution and the effect of emissions on climate change were not adequately considered in the consultation (legislation on both has changed since consultation).

Safety within controlled airspace has been achieved at the expense of safety outside controlled airspace.

The PIR that starts in February 2022 needs to be properly communicated, cover the issues caused by the airspace changes and fully engage all stakeholders, particularly members of the public.

2) History

Oct. 2000 – Airport granted permission to operate “business aviation and related activities” (mainly private jets).

2003 - TAG Aviation took over the management of business flight operations at Farnborough Airport.

March 2008 – TAG granted permission on appeal to increase number of weekend flights from 2,500 to 5,000 per annum.

April 2009 - TAG published their Masterplan for the Airport.

June 2009 – TAG applied to increase the number of flights from 28,000 to 50,000 per annum. Rushmoor Borough Council (RBC) refused.

Feb. 2011 - Secretary of State overruled RBC and granted 50,000 flights a year within which 8,900 can be at weekends. There is no limit on the number of flights in a given day.

Oct. 2012 – Airspace Change Process (ACP) was first presented to the FACC.

Feb. 2014 - Public Consultation on the ACP launched.

May 2014 – Public Consultation on the ACP ended.

Nov. 2014 - CAA published results of ACP consultation.

2015 - ACP Plan produced by TAG.

July 2018 – CAA approved the ACP Plan.

June 2019- ACP challenged through Judicial Review by Lasham Gliding Association. The decision ruled in favour of the ACP.

Sept. 2019 – Farnborough Airport bought by MIRA (Macquarrie Infrastructure and Real Assets).

Feb. 2020 – ACP agreed by CAA was implemented.

March 2020 – Covid-19 travel restrictions initiated causing significant reduction in flight movements nationwide.

Feb. 2021 - Post Implementation Review (PIR) of ACP should have started. Delayed by impact of Covid-19 on aviation transport. PIR now due to start in February 2022 and is expected to last for a year.

Aug. 2021 - Farnborough Airport flight movements have returned to pre-Covid levels.

The purpose of the PIR is to determine whether the original objectives of the ACP have been met.

The dates and material for the consultation stages are on the CAA website - <https://www.caa.co.uk/Commercial-industry/Airspace/Airspace-change/Decisions/Farnborough-Airport-airspace-change-proposal/>

3) Summary of documents available:

Part A covered the introduction to the ACP - [https://publicapps.caa.co.uk/docs/33/E05-Farnborough ACP Part A Final 28 1 14 1347.pdf](https://publicapps.caa.co.uk/docs/33/E05-Farnborough_ACP_Part_A_Final_28_1_14_1347.pdf)

Parts B, C & D covered three geographically distinct regions. Part B is the area nearest Farnborough where aircraft are below 4,000ft - [https://www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Commercial_industry/Airspace/Files/Farnborough ACP Part B Final Consultation.pdf](https://www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Commercial_industry/Airspace/Files/Farnborough_ACP_Part_B_Final_Consultation.pdf)

Part C covered areas further out between 4,000ft – 7,000ft. Part D covered changes around Southampton and Bournemouth.

Part E was specifically aimed at those with an aviation interest, for example pilots, aerodrome operators and airspace users with a technical background.

After the consultation, a feedback report was produced in November 2014 - https://www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Commercial_industry/Airspace/Files/Farnborough/b.%20Farnborough%20ACP%20Feedback%20Report%20Part%20A.pdf

A proposed airspace design was produced in 2015 - https://www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Commercial_industry/Airspace/Files/Farnborough-ACP-Feedback-Report.pdf

4) Review of Part A document - Consultation Overview

The original consultation was focussed on aviation organisations and not on the general public.

4. Consultation overview

- 4.1. The objective of this consultation is to enable us to collect as much information as possible about what all the stakeholders want from the airspace.
- 4.2. To that end this consultation document explains how aircraft currently use the airspace, and what effects the proposed changes are likely to have. We also explain the constraints within which we must work.
- 4.3. The views we seek include those from:
 - Farnborough airport users that fly through the airspace
 - Southampton and Bournemouth airport users that fly through the airspace
 - Representatives of people living under all these flight-paths, for example where the new flight-paths might reduce over-flight, and where they might increase over-flight
 - Environmental or special interest groups; and
 - GA and recreational flyers such as private pilots, gliders and balloonists.
- 4.4. This consultation is, however, open to all and we would welcome views from anyone who has an interest, whether an individual or representing a group or organisation.

One of the primary objectives of the ACP was to reduce the number of people overflown though some people would be overflown a lot more. The suggestion below implies that people who will be more overflown will suffer less noise because the aircraft are higher. This is misleading as there is very little difference in height pre/post ACP as it is constrained by higher airspace controlled by Heathrow and Gatwick. It should be understood that FAL is continuing to increase flight numbers towards full capacity (32,000 movements at present up to 50,000).

10.3. Environmentally, our proposal will narrow the areas where most impact is felt, reducing the population significantly affected, in line with Government guidance. However, it also means that those below the narrower band would be over-flown more often. In some cases, our aircraft would over-fly new locations, in other cases there would be a reduction or removal of aircraft over-flight due to this proposal. In general, if locations get over-flown more often due to this proposal, the aircraft would usually be at a higher altitude. Aircraft that are higher appear smaller and quieter to someone on the ground.

The ACP forecasts longer flight paths and higher fuel burn than before e.g. northerly arrivals now do a circuit over the south of Farnborough before turning north again to land. (A 10.22/23/24). Estimated increase of 1,700t CO2 - 2019 flights forecast.

10.16 claims 345,000 fewer people would be overflown at lower altitudes (Part B near Farnborough). NOTE: NEED TO UNDERSTAND HOW "OVERFLOWN" IS CALCULATED. NOISE CARRIES SEVERAL MILES FROM THE OVERFLOWN AREA.

Four methods were considered for noise management below 7,000ft (A 10.9).

- Method A: Reduce the overall number of people overflown at low altitudes
- Method B: Vary the areas over-flown at low altitudes by having more than one route to or from the same runway heading in the same direction. This is sometimes known as a 'respite routes' system
- Method C: For departing aircraft, climb them higher, quicker
- Method D: For arriving aircraft, keep them higher, for longer

Method B was discounted. Methods C & D are hardly relevant due to Heathrow and Gatwick controlled airspace height restrictions above Farnborough ACP. Climbing faster is noisier.

The expectation was that General Aviation (GA) would use Farnborough's controlled airspace. The only consideration for GA was for Lasham Gliding Association, aircraft transiting directly over Farnborough Airport and a transit section north east of Farnborough adjacent to Heathrow airspace. (Section 9). No consideration was given for the increased noise of almost all GA (including commercial aircraft) flying below ACP and often at very low altitude due to ground height. See GA note at end.

The consultation area covered Surrey, Hampshire, East Sussex, Isle of Wight, part of east Dorset, and a small part of south Berkshire. Approximately 3m population.

5) Reviews of Part B document – Changes below 4,000ft

Objectives:

The stated objectives were:

- 3.5. Maintaining Farnborough's competitive position in the UK and international market is important both for the airport and for the local communities that benefit from having a commercially successful airport as a neighbour.

In other words, the ACP's main objective was to support the growth of Farnborough Airport. It's worth noting that Rushmoor Borough Council objected to the original plans and there is little evidence of the airport's presence (compared to other uses) significantly benefiting the area since most profit is offshored and the majority of Farnborough Airport's revenue is from the sale of fuel that is untaxed and has no duty applied.

Overall benefit

- 3.17. Our assessment of impacts is based on our interpretation of the Government's priorities described in Part A, which focusses on minimising the numbers of people over-flown by aircraft flying below 4,000ft. Whilst the proposed design would have both positive and negative impacts, we believe that by reducing the net number of people overflowed at low altitudes and by avoiding disruption of GA areas as far as practicable, our design achieves the best balance. We therefore believe that the change is justified. In the questions below we ask about the principles behind our design decisions, and in Section 4 we are seeking local views in order to help determine whether our design can be improved further.

The original and forecast flight densities are shown in charts B3-B11. Numbers are average flights per day in a month (Sept 2012).

1. Figure B3: All commercial flights (up to 20,000ft) density plot with National Parks and AONBs
2. Figure B4: Farnborough departures and arrivals (up to 20,000ft) density plot
3. Figure B5: Arrows/dotted lines show Runway 06 departure flows (Radar data shows all Farnborough air traffic below 4,000ft)
4. Figure B6: Arrows/dotted lines show Runway 24 departure flows (Radar data shows all Farnborough air traffic below 4,000ft)
5. Figure B7: Arrows/dotted lines show Runway 06 arrival flows (Radar data shows all Farnborough air traffic below 4,000ft)
6. Figure B8: Arrows/dotted lines show Runway 24 arrival flows (Radar data shows all Farnborough air traffic below 4,000ft)
7. Figure B9: Proposed Farnborough departures from both runways below 4,000ft
8. Figure B10: Farnborough arrivals to Runway 06 below 4,000ft
9. Figure B11: Farnborough arrivals to Runway 24 below 4,000ft

NOTE: FOR A FAIR COMPARASON, CHART B4 SHOULD BE PROVIDED WITH ARRIVALS AND DEPARTURES UP TO 4,000ft NOT 20,000ft.

Figure B6 1.4. shows that the impact on GA was only considered in a subset of the overall area (blue dotted area Lasham) and not the wider ACP area.

6) Review of document - Airspace Consultation Feedback Report Part A (Nov 2014)

Projected benefits prior to consultation:

- Improve overall efficiency of the airspace
- Increase safety
- Reduce environmental impact

14 week's consultation between February - May 2014. Primary response via consultation website, some via airport contacts, MPs, etc.

2,699 stakeholders responded (Aviation groups, councils, MPs, environmental groups, public).

Populations in areas with responses (23% of responses from other postcodes throughout the UK)

Area	Postcode	Households	People	Public responses to Part B
Wormley area	GU8	6,960	17,656	20
Farnham	GU9	12,370	29,837	26
W, S & E of Farnham	GU10	8,835	22,584	132
Hindhead area	GU26	2,963	7,355	
Alton area	GU34	12,338	29,884	34
New Alresford area	SO24	4,700	11,417	
Odiham area	RG29	2,476	7,191	19
TOTAL		48,166	118,744	231

The above table shows that there was very little response from households under the new controlled airspace below 4,000ft (0.5%).

The main concerns raised were:

Aviation stakeholders:

1. Access to the proposed airspace
2. Justification for the proposed changes
3. Safety issues caused by funnelling or compression of non-Farnborough aircraft around or beneath the proposed airspace

Other stakeholders:

1. Environmental impact (primarily noise)
2. Justification for the proposed changes
3. Safety

Responses to Part B by question category:

Question	No of responses	Supporting
Justification	1,486	2%
GA Impact	568	1%
Safety	867	1%
Environment	1,786	1%
Economic	132	1%

The table above shows that there was very little support for Part B of the ACP (areas overflown below 4,000ft).

Responses to Parts B, C, D & E by question category:

Question	Borough		County		NATS		Airports	
	No of responses	Support	No of responses	Support	No of responses	Support	No of responses	Support
Justification	10	20%	1	0%	14	7%	9	33%
GA Impact	3	0%	2	0%	10	10%	4	0%
Safety	5	40%	1	0%	25	8%	5	0%
Environment	25	8%	1	0%	10	0%	5	20%
Economic	2	0%	1	0%	3	0%	1	0%

47 MPs invited to respond. 3 responses. Data not statistically significant.

The table above shows that there was very little support for all parts of the ACP at any height, even from NATS and airport operators.

Overall, the consultation demonstrated that there was very little engagement from all stakeholders and it can hardly be seen as an effective consultation. From the stakeholders who did respond, there was very little support for the proposed changes.

Summary of GA: Apart from the impact on Lasham, aircraft transiting directly over Farnborough Airport and a transit section north east of Farnborough adjacent to Heathrow airspace (Section A9), there was little consideration of the impact of GA on the area.

Responses to Part E (Figure 67: Analysis of Question E15 Part 1) suggest the majority of powered GA would request permission to fly through the ACP. This has not happened. The majority (approx. 95%) fly under it or around it. With ground heights up to 700ft, this means that many aircraft are flying between 1,000ft and 1,700ft from the ground.

NOTE: AS WELL AS GA, COMMERCIAL AIRCRAFT ARE USING AIRSPACE BELOW 2,500ft.

7) Review of document Part B – The Proposed Airspace Design (2015)

The ACP design focussed on:

A) Environment – the report suggests that under the ACP, 35% (199,000) less people would be overflown below 4,000ft though some would be overflown significantly more. It does not place a value on the fact that many people that were not previously overflown are now overflown. Nor does it recognise the relative noise difference of previously quiet rural areas with low background noise now being overflown (35dB increased to 70dB) compared to larger numbers of people in urban areas being overflown (55dB increased to 70dB). The report also suggests that the ACP will result in aircraft climbing quicker and reducing noise. However, aircraft climbing faster make more noise and the ability to climb faster is no different in the past compared to the ACP.

Nor does the report properly consider the noise impact of GA that was previously flying up to 3,500ft and is now flying at about 1,700ft. This is half the height and therefore four times noisier than in the past. Data presented in Figure 19 (B43) is not representative of what is happening with GA. For example, a light aircraft on a training flight may fly from Fair Oaks and circle 15 times for 30 minutes over the same area of South Farnham – is that recorded a one flight or 15? In any case, aircraft

should be flying as high as possible to minimise noise disturbance on the ground, particularly over National Parks/AONB where the Air Navigation Guidance 2017 states aircraft should aim to stay above 7,000ft where possible. Many GA light aircraft are old (typically 30 – 40 years old) and were built when there was no concern regarding noise. Many are as noisy or noisier than modern jets so their impact needs to be properly measured.

Part A Consultation suggested there would be an increase in CO2 emissions due to the need to fly further to reduce the number of people being overflown. The Feedback Report (Sect 6.6) suggests there will be no change to emissions. NOTE: THIS SHOULD BE VALIDATED AS A LOT OF AIRCRAFT ARE CIRCLING OVER FARNHAM.

The reports used a video library of jet noises at different heights (Sect 6.12) but these were large commercial jets (737/A320) and not indicative of many aircraft in this area. Noise should be measured at various representative locations where aircraft are below 4,000ft (All aircraft - Farnborough, GA, commercial & military) to assess the overall noise burden on the public rather than just a sub-set.

The impact on air quality was largely excluded from consideration as aircraft are generally above 1,000ft and government guidelines suggest the impact of aircraft pollution is negligible. However, the height is irrelevant and the World Health Organisation has recently halved the safe levels of many atmospheric pollutants. The landmark ruling relating to the death of Ella Kissi-Debrah means that air quality should be properly considered. Many of the pollution monitoring stations around the airport are recording pollution at double and sometimes four times the WHO safe levels.

B) Access to airspace – the report highlights the importance of Farnborough control tower giving GA access to the controlled airspace to reduce funnelling and compression resulting in more noise for people on the ground. For whatever reason, GA isn't using the controlled airspace (probably because it's easier to fly below/around it than to get permission to fly through it). This needs to be investigated and understood. The noisiest of all aircraft (apart from Chinooks) are commercial helicopters at 1,700ft and 200mph that fly under controlled airspace 6 – 10 times a day. They really should not be using unrestricted airspace.

C) Safety – The report suggests that the controlled airspace reduces the workload on pilots and air traffic management. I'm sure this is true for aircraft using Farnborough Airport but the changes significantly reduce the safety of aircraft outside controlled airspace. Take a section of controlled airspace such as CTA4 above south Farnham. The controlled airspace base is 2,500ft. GA aircraft will give a 200ft margin of error to ensure they don't stray into controlled airspace. That reduces the available height to 2,300ft. Aircraft in this area must fly at least 1,000ft above the ground. Since the ground level in this area is between 100ft and 500ft, aircraft must fly at a minimum of 1,500ft (many don't). The height available to aircraft is therefore between 1,500ft and 2,300ft. That is a very small range of height for all GA to be operating in, especially when commercial helicopters flying at 200mph and microlights at 40mph are using the same space.

The report also suggests that the CAA has reduced the amount of airspace needed as a result of the consultation by 20% (land area). However, the initial area in the consultation (part A & B) was excessive given the fact that each flight will fly over exactly the same track to within a few metres. I suspect the initial proposal included this sacrificial area knowing it could be relinquished without impact.

8) Further clarification needed:

NEED A MAP OF FARNBOROUGH FLIGHTS BELOW 4,000ft SHOWING NP/AONB (SIMILAR TO CHART B3). ALSO NEED ONE SHOWING GA BELOW 4,000ft (SIMILAR TO CHART B4).

NOISE IMPACT OF GA NEEDS TO BE MEASURED DUE TO FUNELLING AND COMPRESSION. CONSIDERATION IN THE ACP WAS ONLY GIVEN TO ACCESS RATHER THAN NOISE.

NOISE OF ALL AIRCRAFT SHOULD BE MEASURED TO ASSESS TOTAL NOISE BURDEN ON THE PUBLIC.

WHAT WERE CHINOOK (AND OTHER MILITARY AIRCRAFT) FLIGHTS IN BASE DATA VS NOW? SEEM TO BE A LOT MORE NOW AT ANTISOCIAL TIMES. USUALLY FLYING AT 1,500 – 2,000ft.

WHAT WERE COMMERCIAL AIRCRAFT (HEATHROW/GATWICK) FLIGHTS IN BASE DATA VS NOW? SEEM TO BE A LOT MORE COMMERCIAL AIRCRAFT AT LOWER HEIGHT.

HOW IS “OVERFLOWN” CALCULATED? DIRECTLY OVERHEAD OR WITHIN 2 MILES? NEED A SIMPLE EXPLANATION OF “NOISE ENVELOPES”.

DATA IN APPENDIX B PROPOSED AIRSPACE DESIGN IS INCORRECT. AVERAGE FORECAST MOVEMENTS (WEEKDAY AND WEEKEND) ARE MUCH LOWER THAN REALITY, ESPECIALLY WEEKENDS. THEREFORE, EFFECT OF CURRENT FLIGHTS IS MUCH GREATER.

9) Abbreviations

ACP – Airspace Change Proposal

CAA – Civil Aviation Authority

FACC – Farnborough Aerodrome Consultative Committee

FAL – Farnborough Airport Limited

GA - General Aviation

MIRA – Macquarie Infrastructure and Real Assets

PIR – Post Implementation Review

RBC – Rushmoor Borough Council

Colin Shearn
December 2021