

# Farnborough Airport FASI-S ACP

Stage 2 IOA Technical Appendix



#### FARNBOROUGH AIRPORT

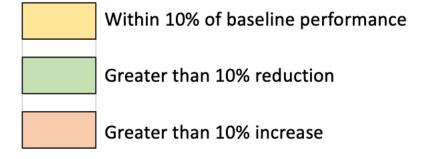
### Introduction

This technical appendix supplements analysis presented in Farnborough Airport's Stage 2B Initial Options Appraisal submission document.

Further information around the development of the airspace change options, our methodology for appraisal, and the assessments undertaken for each option, are included in our Stage 2A and Stage 2B documents published on the CAA Airspace Change Portal.

Please note that all options are subject to change and refinement as we progress through the airspace change process.

Data is shown relative to the baseline, where the baseline is 100%. Owing to the immaturity of the designs and uncertainty within the wider network designs at this stage, outcomes have been categorized according to the shading to the right



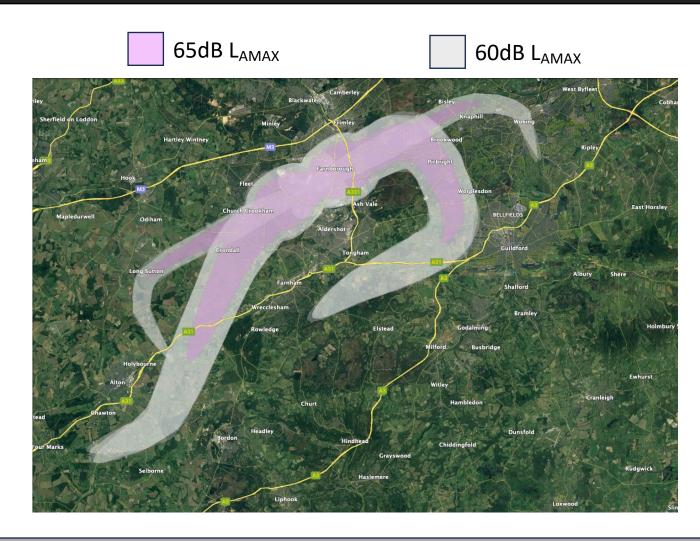


# GLEX 60dB L<sub>AMAX</sub> and 70dB L<sub>AMAX</sub>



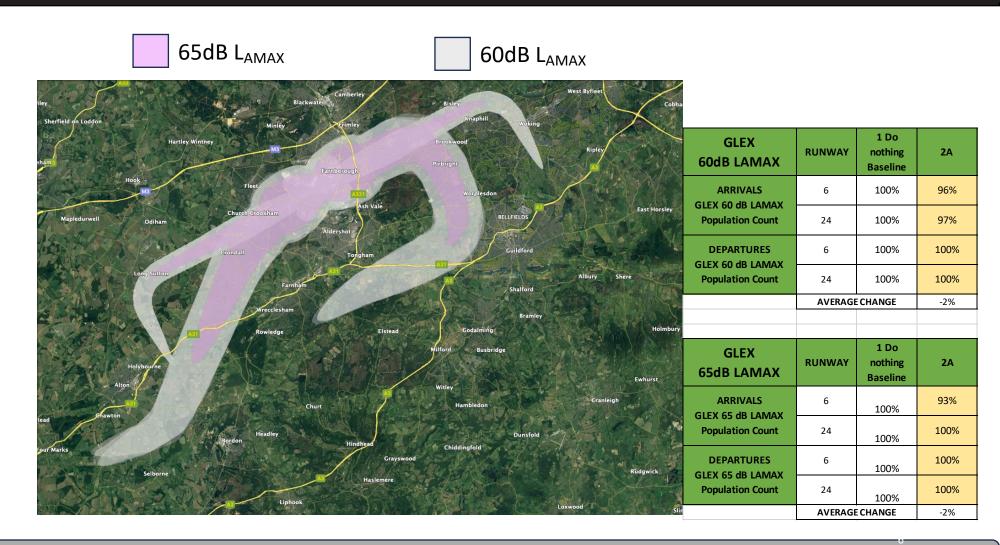
### Option 1 (Do Nothing)





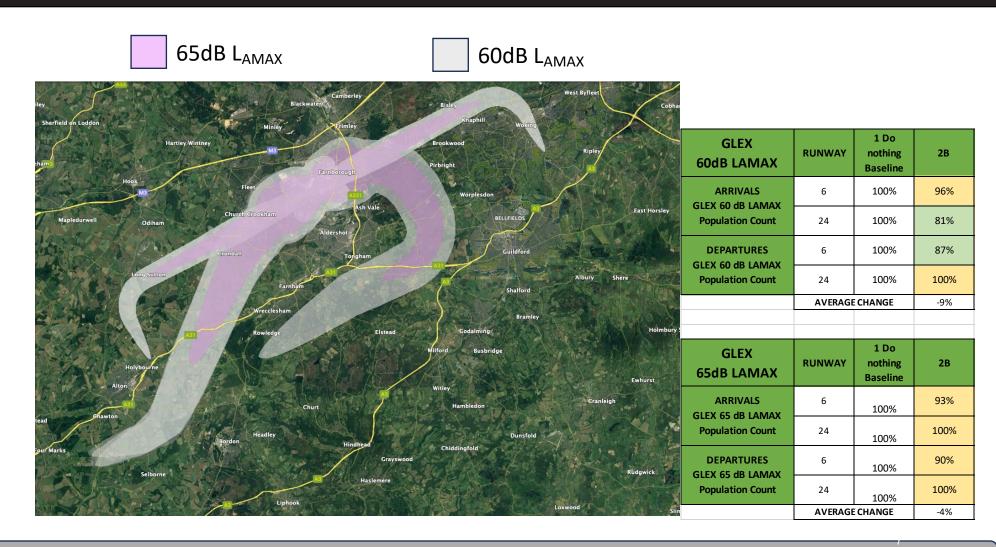
### Option 2A





### Option 2B





### Option 3A





With low level EGKB routes

GLEX 60dB LAMAX	RUNWAY	1 Do nothing Baseline	3A
ARRIVALS GLEX 60 dB LAMAX	6	100%	99%
Population Count	24	100%	97%
DEPARTURES GLEX 60 dB LAMAX	6	100%	126%
Population Count	24	100%	108%
	AVERAGE	CHANGE	8%
GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	3A
65dB LAMAX  ARRIVALS	<b>RUNWAY</b>	nothing	<b>3A</b> 94%
65dB LAMAX		nothing Baseline	
65dB LAMAX  ARRIVALS GLEX 65 dB LAMAX Population Count  DEPARTURES	6	nothing Baseline	94%
65dB LAMAX  ARRIVALS GLEX 65 dB LAMAX Population Count	6 24	nothing Baseline	94%



GLEX 60dB LAMAX	RUNWAY	1 Do nothing Baseline	3A
ARRIVALS GLEX 60 dB LAMAX	6	100%	98%
Population Count	24	100%	97%
DEPARTURES GLEX 60 dB LAMAX	6	100%	133%
Population Count	24	100%	94%
	AVERAGE	CHANGE	6%
GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	3A
65dB LAMAX  ARRIVALS	RUNWAY 6	nothing	<b>3A</b> 93%
65dB LAMAX		nothing Baseline	
65dB LAMAX  ARRIVALS GLEX 65 dB LAMAX Population Count  DEPARTURES	6	nothing Baseline	93%
65dB LAMAX  ARRIVALS GLEX 65 dB LAMAX Population Count	6 24	nothing Baseline	93%

### Option 3B





#### With low level EGKB routes

GLEX 60dB LAMAX	RUNWAY	1 Do nothing Baseline	3B
ARRIVALS GLEX 60 dB LAMAX	6	100%	99%
Population Count	24	100%	81%
DEPARTURES GLEX 60 dB LAMAX	6	100%	126%
Population Count	24	100%	108%
	AVERAGE	CHANGE	4%
GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	3B
65dB LAMAX  ARRIVALS	RUNWAY 6	nothing	<b>3B</b> 94%
65dB LAMAX		nothing Baseline	
65dB LAMAX  ARRIVALS GLEX 65 dB LAMAX Population Count  DEPARTURES	6	nothing Baseline	94%
65dB LAMAX  ARRIVALS GLEX 65 dB LAMAX Population Count	6 24	nothing Baseline	94%

herfield on Loddon		Minley	Frimley	Knaphill					
	Hartley Wintney	MB De	imborough	Brookwood Pirbright	Ripley	GLEX 60dB LAMAX	RUNWAY	1 Do nothing Baseline	3B
	Hook M3	Fleet	A531	Worplesdon		ARRIVALS GLEX 60 dB LAMAX	6	100%	98%
Mapledurwell	Odiham	Church Crookham	Ash Vale	BELLFIELDS	East Horsley	Population Count	24	100%	81%
	a de la companya de l	rondall	Tongham	Guildford		DEPARTURES GLEX 60 dB LAMAX	6	100%	133%
	Long Sutton	Farnham	AST	Ad	Albury Shere	Population Count	24	100%	94%
		Wrecclesham		<b>经验</b> 经约束	STATE OF THE STATE		AVERAGE	CHANGE	2%
		Rowledge	Elstead	Godalming	Holmbury				
	Holybourne Alton	STATE		Milford Busbridge	Ewhurst	GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	3B
Ghawto	All	Churt		Witley Hambledon	Cranleigh	ARRIVALS GLEX 65 dB LAMAX	6	100%	93%
		ordon Headley	Hindhead	Dunsfold		Population Count	24	100%	100%
Marks	Selborne		Grayswood	Chiddingfold	Rüdgwick	DEPARTURES GLEX 65 dB LAMAX	6	100%	96%
		Liphook	Haslemere		Loxwood	Population Count	24	100%	81%
	A STATE OF THE		是一个人人人的		Loxwood Slin		AVERAGE	CHANGE	-8%

### Option 4A





#### With low level EGKB routes

GLEX 60dB LAMAX	RUNWAY	nothing Baseline	4A
ARRIVALS GLEX 60 dB LAMAX	6	100%	100%
Population Count	24	100%	97%
DEPARTURES GLEX 60 dB LAMAX	6	100%	126%
Population Count	24	100%	108%
	AVERAGE	CHANGE	8%
GLEX 65dB LAMAX	RUNWAY	1 Do nothing	4A
		Baseline	
ARRIVALS	6	Baseline 100%	95%
ARRIVALS GLEX 65 dB LAMAX Population Count	6		95%
GLEX 65 dB LAMAX Population Count  DEPARTURES		100%	
GLEX 65 dB LAMAX Population Count	24	100%	100%

herfield on Loddon	Blackwat	Frimley	Bisley	Cobhai	Without 10	77 10 701	LONDIN	Jaces
Hartley Win			Brookwood	Ripley	GLEX 60dB LAMAX	RUNWAY	1 Do nothing Baseline	4A
Hook -	Fleet		Worplesdon		ARRIVALS GLEX 60 dB LAMAX	6	100%	99%
Mapledurwell Odiham	Church Grookham	Ash Vale	BELLFIELDS	East Horsley	Population Count	24	100%	97%
	Grondall	Tongham	Guildford		DEPARTURES GLEX 60 dB LAMAX	6	100%	133%
Long Sutton	Farnham	A31	Shalford	Albury Shere	Population Count	24	100%	93%
	Wrecclesham					AVERAGE	CHANGE	6%
	Rowledge	Elstead	Bramley Godalming	Holmbury :				
Holybourfie			Milford Busbridge	Ewhurst	GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	4A
Chawton	Chur		Witley	Cranleigh	ARRIVALS GLEX 65 dB LAMAX	6	100%	94%
	Bordon	Hindhead	Dunsfold		Population Count	24	100%	100%
Marks		Crayswood	Chiddingfold	Rudgwick	DEPARTURES GLEX 65 dB LAMAX	6	100%	96%
10 CC 17 10 CC	Liphook	Haslemere			Population Count	24	100%	81%
	The state of the second	(1996年) (1996年)	Lo	xwood Slin		AVERAGE	CHANGE	-7%

### Option 4B





#### With low level EGKB routes

GLEX 60dB LAMAX	RUNWAY	1 Do nothing Baseline	4B
ARRIVALS GLEX 60 dB LAMAX	6	100%	100%
Population Count	24	100%	82%
DEPARTURES GLEX 60 dB LAMAX	6	100%	126%
Population Count	24	100%	108%
	AVERAGE	CHANGE	4%
GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	4B
65dB LAMAX  ARRIVALS	RUNWAY 6	nothing	<b>4B</b> 95%
65dB LAMAX		nothing Baseline	
65dB LAMAX  ARRIVALS GLEX 65 dB LAMAX Population Count  DEPARTURES	6	nothing Baseline	95%
65dB LAMAX  ARRIVALS GLEX 65 dB LAMAX Population Count	6 24	nothing Baseline	95%

herfield on Loddon	Minley	Knaphill					
Hartley Wintney	M3	Brookwood Pirbright	Ripley	GLEX 60dB LAMAX	RUNWAY	1 Do nothing Baseline	4B
Hook M3	Fleet	Worplesdon		ARRIVALS GLEX 60 dB LAMAX	6	100%	99%
Mapledurwell Odiham	Church Grookham Aldershot	BELLFIELDS BELLFIELDS	East Horsley	Population Count	24	100%	81%
	Grondall Fongl	Guildford		DEPARTURES GLEX 60 dB LAMAX	6	100%	133%
Long Sutton	Farnham	AB Shalford	Albury Shere	Population Count	24	100%	94%
	Wrecclesham				AVERAGE	CHANGE	2%
		Bramley	Holmbury				
Holybourne	Rowledge	Elstead Godalming Milford Busbridge	Ewhitest	GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	4B
Chawton Chawton	Churt	Witley Hambledon	Cranleigh	ARRIVALS GLEX 65 dB LAMAX	6	100%	94%
	Headley Hindh	Dunsfold Chiddinafold		Population Count	24	100%	100%
Marks		Chiddingtold	Rūdgwick	DEPARTURES GLEX 65 dB LAMAX	6	100%	96%
	Liphook	Haslemere	Loxwood	Population Count	24	100%	81%
			Slin		AVERAGE	CHANGE	-7%

### Option 5A





#### With low level EGKB routes

GLEX 60dB LAMAX	RUNWAY	1 Do nothing Baseline	5A
ARRIVALS GLEX 60 dB LAMAX	6	100%	100%
Population Count	24	100%	97%
DEPARTURES GLEX 60 dB LAMAX	6	100%	99%
Population Count	24	100%	116%
	AVERAGE	CHANGE	3%
GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	5A
ARRIVALS	6	100%	94%
GLEX 65 dB LAMAX Population Count			
Population Count	24	100%	100%
DEPARTURES	6	100%	98%
•			

herfield on Loddon	Minley	Frimley	Knaphill Woking					
Hartley Wintney	MB PER	mborough	Brookwood Pirbright	Ripley	GLEX 60dB LAMAX	RUNWAY	1 Do nothing Baseline	5A
Hook M3	Fleet	1331	Worplesdon		ARRIVALS GLEX 60 dB LAMAX	6	100%	99%
Mapledurwell Odiham	Church Crookham	dershot	BELLFIELDS	East Horsley	Population Count	24	100%	97%
	Crondall	Tongham	Guildford	<b>全国</b>	DEPARTURES GLEX 60 dB LAMAX	6	100%	97%
Long Sutton	Farnham	Act .	Shalford	Albury Shere	Population Count	24	100%	105%
	Wrecclesham	1				AVERAGE	CHANGE	0%
	Rowledge	Elstead	Godalming	Holmbury				
Holybourne	A Sean		Milford Busbridge	Ewhurst	GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	5A
ANI Chawton	Churt		Witley	Cranleigh	ARRIVALS GLEX 65 dB LAMAX	6	100%	94%
	Headley Bordon	Hindhead	Dunsfold		Population Count	24	100%	100%
Marks Selborne		Grayswood	Chiddingfold	Rüdgwick	DEPARTURES GLEX 65 dB LAMAX	6	100%	98%
	Liphook	Haslemere			Population Count	24	100%	81%
			Lox	vood Slir		AVERAGE	CHANGE	-7%

### Option 5B





#### With low level EGKB routes

1 Do

60dB LAMAX	RUNWAY	nothing Baseline	5B
ARRIVALS GLEX 60 dB LAMAX	6	100%	100%
Population Count	24	100%	82%
DEPARTURES GLEX 60 dB LAMAX	6	100%	94%
Population Count	24	100%	116%
	AVERAGE	CHANGE	-2%
GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	5B
65dB LAMAX  ARRIVALS	RUNWAY 6	nothing	<b>5B</b> 95%
65dB LAMAX		nothing Baseline	
ARRIVALS GLEX 65 dB LAMAX Population Count  DEPARTURES	6	nothing Baseline	95%
ARRIVALS GLEX 65 dB LAMAX Population Count	6 24	nothing Baseline	95%

nerfield on Loddon	Minley	Frimley	Knaphill Woking					
Hartley Wintney	M3	Parmborough	Brookwood Pirbright	Ripley	GLEX 60dB LAMAX	RUNWAY	1 Do nothing Baseline	5B
Hook a	Fleet	A331	Worplesdon		ARRIVALS GLEX 60 dB LAMAX	6	100%	99%
Mapledurwell Odiham	Church Grookham	Aldershot	BELLFIELDS	East Horsley	Population Count	24	100%	81%
	trondall	Tongham	Guildford		DEPARTURES GLEX 60 dB LAMAX	6	100%	91%
Long Sutton	Farnham	ACI	A3 Shalford	Albury Shere	Population Count	24	100%	105%
	Wrecclesham		是一种 法教授			AVERAGE	CHANGE	-6%
	Rowledge	Elstead	Godalming	Holmbury				
Holybourne	Second		Milford Busbridge	Ewhurst	GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	5B
(Auton	Chur		Witley Hambledon	Cranleigh	ARRIVALS GLEX 65 dB LAMAX	6	100%	94%
	Headley Sordon	Hindhead	Dunsfold		Population Count	24	100%	100%
Marks Selborne		Grayswood	Chiddingfold	Rüdgwick	DEPARTURES GLEX 65 dB LAMAX	6	100%	86%
	Liphook	Haslemere		Loxwood	Population Count	24	100%	81%
		<b>第二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十</b>	The second second	Slin		AVERAGE	CHANGE	-10%





#### With low level EGKB routes

GLEX 60dB LAMAX	RUNWAY	1 Do nothing Baseline	2A	2В	3A	3B	<b>4</b> A	4B	5A	5B
ARRIVALS GLEX 60 dB LAMAX	6	100%	96%	96%	99%	99%	100%	100%	100%	100%
Population Count	24	100%	97%	81%	97%	81%	97%	82%	97%	82%
DEPARTURES GLEX 60 dB LAMAX	6	100%	100%	87%	126%	126%	126%	126%	99%	94%
Population Count	24	100%	100%	100%	108%	108%	108%	108%	116%	116%
	AVERAGI	CHANGE	-2%	-9%	8%	4%	8%	4%	3%	-2%
GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	2A	2B	3A	3B	4A	4B	5A	5B
ARRIVALS GLEX 65 dB LAMAX	6	100%	93%	93%	94%	94%	95%	95%	94%	95%
Population Count	24	100%	100%	100%	100%	100%	100%	100%	100%	100%
DEPARTURES GLEX 65 dB LAMAX	6	100%	100%	90%	96%	96%	96%	96%	98%	89%
Population Count	24	100%	100%	100%	103%	103%	103%	103%	103%	103%
	AVERAGE	CHANGE	-2%	-4%	-2%	-2%	-2%	-2%	-1%	-3%

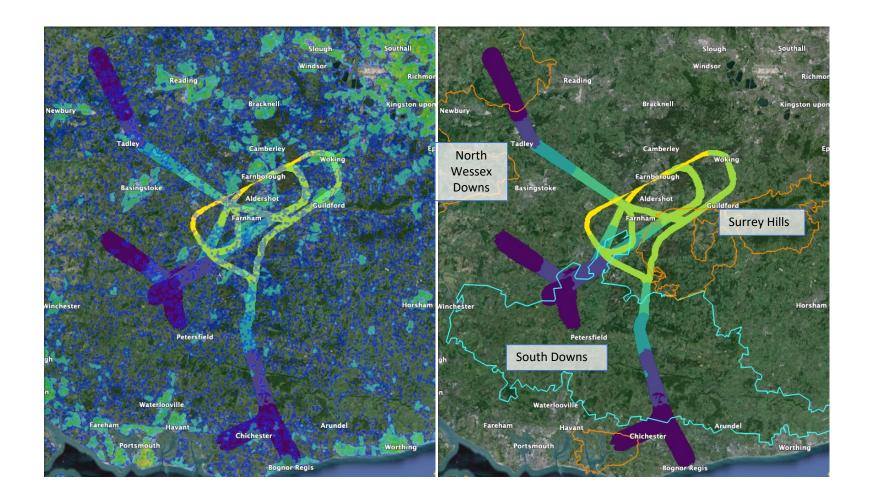
GLEX 60dB LAMAX	RUNWAY	1 Do nothing Baseline	2A	2В	3A	3B	4A	4B	5A	5B
ARRIVALS	6	100%	96%	95%	98%	98%	99%	99%	99%	99%
GLEX 60 dB LAMAX Population Count	24	100%	97%	81%	97%	81%	97%	81%	97%	81%
DEPARTURES GLEX 60 dB LAMAX	6	100%	100%	87%	133%	133%	133%	133%	97%	91%
Population Count	24	100%	100%	100%	94%	94%	93%	94%	105%	105%
	AVERAGE	CHANGE	-2%	-9%	6%	2%	6%	2%	0%	-6%
GLEX 65dB LAMAX	RUNWAY	1 Do nothing Baseline	2A	2B	ЗА	3B	4A	4B	5A	5B
ARRIVALS GLEX 65 dB LAMAX	6	100%	92%	92%	93%	93%	94%	94%	94%	94%
Population Count	24	100%	100%	100%	100%	100%	100%	100%	100%	100%
DEPARTURES GLEX 65 dB LAMAX	6	100%	100%	90%	96%	96%	96%	96%	98%	86%
Population Count	24	100%	100%	100%	81%	81%	81%	81%	81%	81%
	AVERAGE	CHANGE	-2%	-4%	-8%	-8%	-7%	-7%	-7%	-10%



# Overflight Statistics Population, AONBs and National Parks

### Option 1 (Do Nothing)

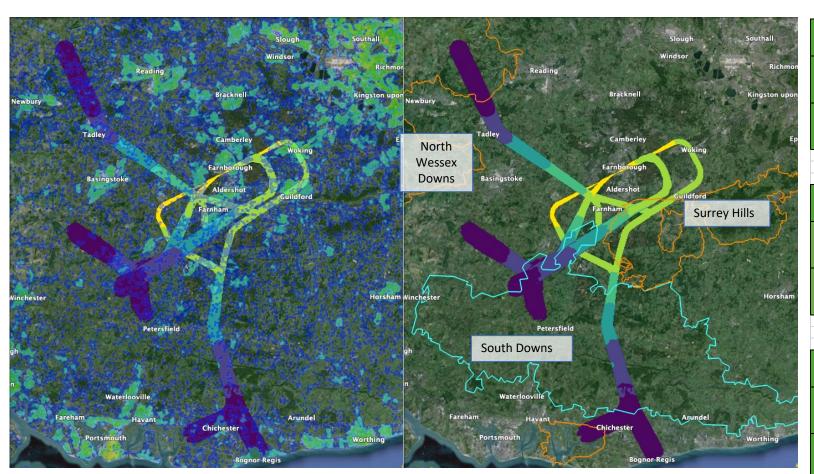




stakeholder engagement and consultation.

### Option 2A

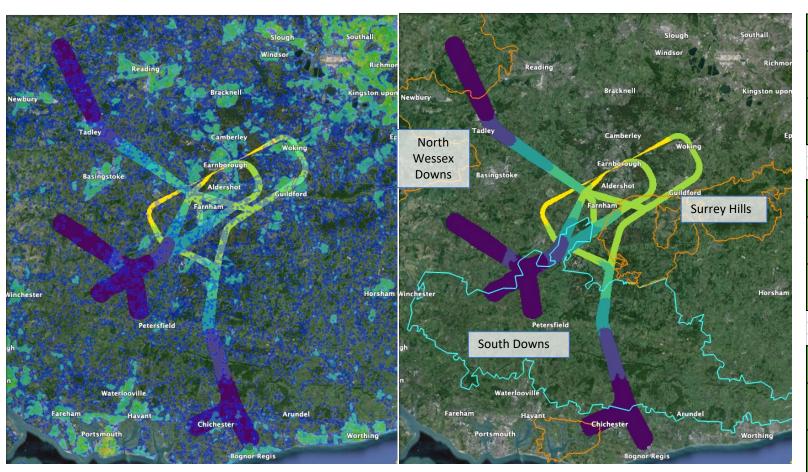




Overflight Population	RUNWAY	1 Do nothing Baseline	2A
ARRIVALS Overflight (0-7000ft)	6	100%	99%
Population Count	24	100%	101%
DEPARTURES Overflight (0-7000ft)	6	100%	100%
Population Count	24	100%	100%
	AVERAGE	CHANGE	0%
Overflight AONB	RUNWAY	1 Do nothing Baseline	2A
ARRIVALS Overflight (0-7000ft)	6	100%	98%
AONB Area (km2)	24	100%	94%
DEPARTURES Overflight (0-7000ft)	6	100%	100%
AONB Area (km2)	24	100%	100%
	AVERAGE	CHANGE	-2%
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	2A
ARRIVALS	6	100%	96%
Overflight (0-7000ft) NP Area (km2)	24	100%	149%
DEPARTURES Overflight (0-7000ft)	6	100%	111%
NP Area (km2)	24	100%	122%
	AVERAGE	CHANGE	19%

### Option 2B





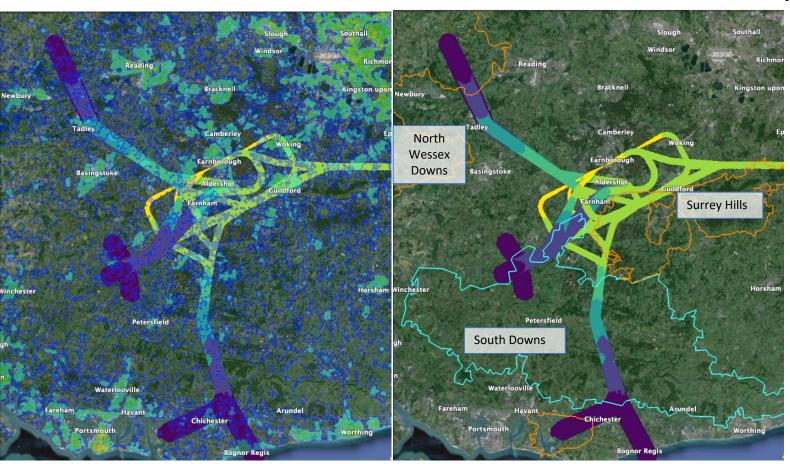
Overflight Population	RUNWAY	1 Do nothing Baseline	2B
ARRIVALS Overflight (0-7000ft)	6	100%	102%
Population Count	24	100%	96%
DEPARTURES Overflight (0-7000ft)	6	100%	92%
Population Count	24	100%	100%
	AVERAGE	CHANGE	-3%
Overflight AONB	RUNWAY	1 Do nothing Baseline	2B
ARRIVALS	6	100%	91%
Overflight (0-7000ft) AONB Area (km2)	24	100%	88%
DEPARTURES Overflight (0-7000ft)	6	100%	81%
AONB Area (km2)	24	100%	100%
	AVERAGE	CHANGE	-10%
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	2B
ARRIVALS Overflight (0-7000ft)	6	100%	98%
NP Area (km2)	24	100%	155%
DEPARTURES Overflight (0-7000ft)	6	100%	132%
NP Area (km2)	24	100%	121%
	AVERAGE	CHANGE	27%

### Option 3A



#### With low level EGKB routes

Overflight Population	RUNWAY	1 Do nothing Baseline	ЗА
ARRIVALS Overflight (0-7000ft)	6	100%	138%
Population Count	24	100%	89%
DEPARTURES Overflight (0-7000ft)	6	100%	211%
Population Count	24	100%	193%
	AVERAGE	CHANGE	58%
Overflight AONB	RUNWAY	1 Do nothing Baseline	3A
ARRIVALS	6	100%	152%
Overflight (0-7000ft) AONB Area (km2)	24	100%	78%
DEPARTURES Overflight (0-7000ft)	6	100%	6%
AONB Area (km2)	24	100%	104%
	AVERAGE	CHANGE	-15%
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	ЗА
ARRIVALS Overflight (0-7000ft)	6	100%	71%
NP Area (km2)	24	100%	119%
DEPARTURES Overflight (0-7000ft)	6	100%	91%
NP Area (km2)	24	100%	78%
	AVERAGE	CHANGE	-10%



#### Without low level EGKB routes

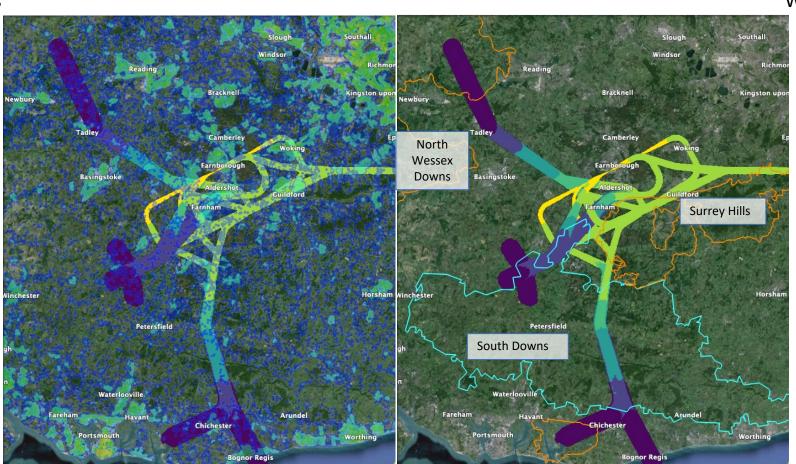
ithout low	ievei	LUKL	Tout
Overflight Population	RUNWAY	1 Do nothing Baseline	ЗА
ARRIVALS Overflight (0-7000ft)	6	100%	134%
Population Count	24	100%	101%
DEPARTURES Overflight (0-7000ft)	6	100%	262%
Population Count	24	100%	74%
	AVERAGE	CHANGE	43%
Overflight AONB	RUNWAY	1 Do nothing Baseline	3A
ARRIVALS Overflight (0-7000ft)	6	100%	149%
AONB Area (km2)	24	100%	94%
DEPARTURES Overflight (0-7000ft)	6	100%	8%
AONB Area (km2)	24	100%	104%
	AVERAGE	CHANGE	-11%
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	3A
ARRIVALS Overflight (0-7000ft)	6	100%	89%
NP Area (km2)	24	100%	149%
DEPARTURES Overflight (0-7000ft)	6	100%	122%
NP Area (km2)	24	100%	104%
	AVERAGE	CHANGE	16%

### Option 3B



#### With low level EGKB routes

with low level EGKB routes				
Overflight Population	RUNWAY	1 Do nothing Baseline	3В	
ARRIVALS Overflight (0-7000ft)	6	100%	139%	
Population Count	24	100%	84%	
DEPARTURES Overflight (0-7000ft)	6	100%	211%	
Population Count	24	100%	193%	
	AVERAGE	CHANGE	57%	
Overflight AONB	RUNWAY	1 Do nothing Baseline	3B	
ARRIVALS	6	100%	149%	
Overflight (0-7000ft) AONB Area (km2)	24	100%	72%	
DEPARTURES Overflight (0-7000ft)	6	100%	6%	
AONB Area (km2)	24	100%	104%	
	AVERAGE	CHANGE	-17%	
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	3B	
ARRIVALS Overflight (0-7000ft)	6	100%	72%	
NP Area (km2)	24	100%	124%	
DEPARTURES Overflight (0-7000ft)	6	100%	91%	
NP Area (km2)	24	100%	78%	
	AVERAGE	CHANGE	-9%	



#### Without low level EGKB routes

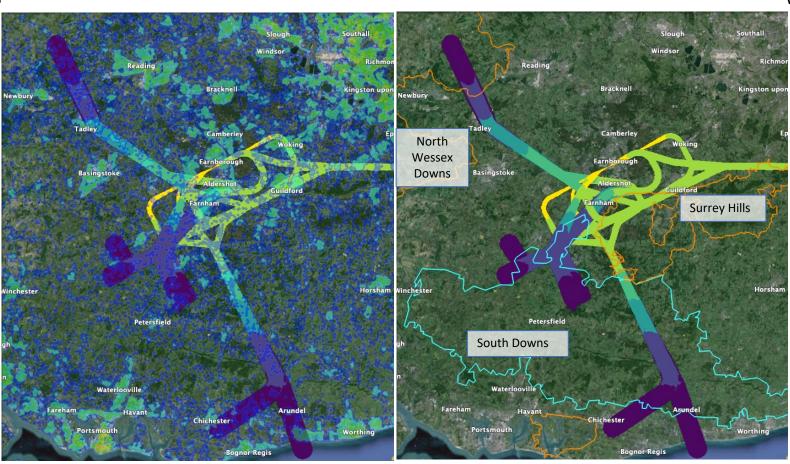
itilout low	ICVCI	LOND	Toute
Overflight Population	RUNWAY	1 Do nothing Baseline	3В
ARRIVALS Overflight (0-7000ft)	6	100%	135%
Population Count	24	100%	95%
DEPARTURES Overflight (0-7000ft) Population Count	6	100%	262%
	24	100%	74%
	AVERAGI	CHANGE	41%
Overflight AONB	RUNWAY	1 Do nothing Baseline	3В
ARRIVALS Overflight (0-7000ft)	6	100%	146%
AONB Area (km2)	24	100%	88%
DEPARTURES Overflight (0-7000ft)	6	100%	8%
AONB Area (km2)	24	100%	104%
	AVERAGI	CHANGE	-14%
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	3В
ARRIVALS Overflight (0-7000ft)	6	100%	90%
NP Area (km2)	24	100%	149%
DEPARTURES Overflight (0-7000ft)	6	100%	122%
NP Area (km2)	24	100%	104%
	AVERAGI	E CHANGE	16%

### Option 4A



#### With low level EGKB routes

Overflight Population	RUNWAY	1 Do nothing Baseline	4A
ARRIVALS Overflight (0-7000ft)	6	100%	130%
Population Count	24	100%	84%
DEPARTURES Overflight (0-7000ft)	6	100%	217%
Population Count	24	100%	217%
	AVERAGE CHANGE		62%
Overflight AONB	RUNWAY	1 Do nothing Baseline	4A
ARRIVALS Overflight (0-7000ft)	6	100%	135%
AONB Area (km2)	24	100%	70%
DEPARTURES Overflight (0-7000ft)	6	100%	6%
AONB Area (km2)	24	100%	105%
	AVERAGE	CHANGE	-21%
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	<b>4</b> A
ARRIVALS Overflight (0-7000ft)	6	100%	88%
NP Area (km2)	24	100%	145%
DEPARTURES Overflight (0-7000ft)	6	100%	84%
NP Area (km2)	24	100%	70%
	AVERAGE	CHANGE	-3%



#### Without low level EGKB routes

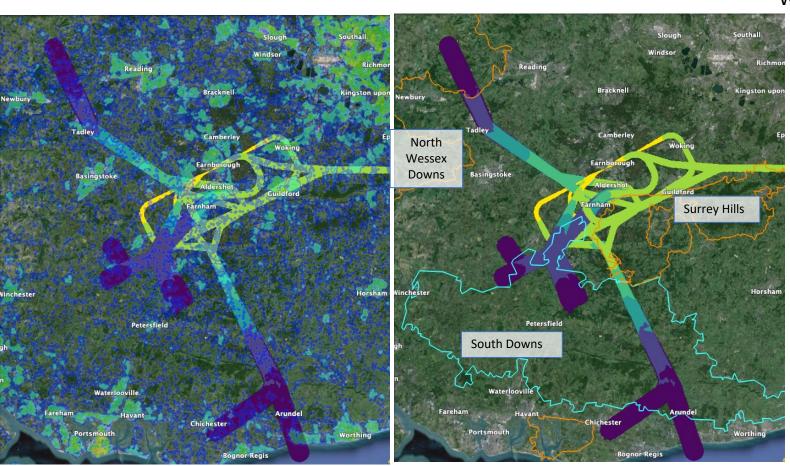
itilout low	icvci	LOND	Toute
Overflight Population	RUNWAY	1 Do nothing Baseline	<b>4</b> A
ARRIVALS Overflight (0-7000ft)	6	100%	123%
Population Count	24	100%	94%
DEPARTURES Overflight (0-7000ft)	6	100%	270%
Population Count	24	100%	106%
	AVERAGE	CHANGE	48%
Overflight AONB	RUNWAY	1 Do nothing Baseline	4A
ARRIVALS Overflight (0-7000ft)	6	100%	128%
AONB Area (km2)	24	100%	85%
DEPARTURES Overflight (0-7000ft)	6	100%	8%
AONB Area (km2)	24	100%	105%
	AVERAGE	CHANGE	-19%
		4.5.	
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	4A
ARRIVALS	6	100%	110%
Overflight (0-7000ft) NP Area (km2)	24	100%	181%
DEPARTURES Overflight (0-7000ft)	6	100%	112%
NP Area (km2)	24	100%	93%
	AVERAGE	CHANGE	24%

### Option 4B



#### With low level EGKB routes

V 1 C 1 1 1 O V V 1	CVCIL	. OND I	oute.
Overflight Population	RUNWAY	1 Do nothing Baseline	4B
ARRIVALS Overflight (0-7000ft)	6	100%	131%
Population Count	24	100%	81%
DEPARTURES Overflight (0-7000ft) Population Count	6	100%	217%
	24	100%	217%
	AVERAGE	CHANGE	61%
Overflight AONB	RUNWAY	1 Do nothing Baseline	4B
ARRIVALS Overflight (0-7000ft)	6	100%	135%
AONB Area (km2)	24	100%	72%
DEPARTURES Overflight (0-7000ft)	6	100%	6%
AONB Area (km2)	24	100%	105%
	AVERAGE	CHANGE	-21%
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	4B
ARRIVALS Overflight (0-7000ft)	6	100%	88%
NP Area (km2)	24	100%	151%
DEPARTURES Overflight (0-7000ft)	6	100%	84%
NP Area (km2)	24	100%	70%
	AVERAGE	CHANGE	-2%



#### Without low level EGKB routes

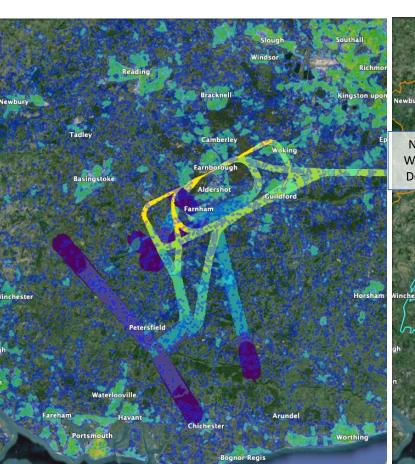
tillout low			Toute
Overflight Population	RUNWAY	1 Do nothing Baseline	4B
ARRIVALS Overflight (0-7000ft)	6	100%	124%
Population Count	24	100%	90%
DEPARTURES Overflight (0-7000ft) Population Count	6	100%	270%
	24	100%	106%
	AVERAGE	CHANGE	48%
Overflight AONB	RUNWAY	1 Do nothing Baseline	4B
ARRIVALS Overflight (0-7000ft)	6	100%	127%
AONB Area (km2)	24	100%	87%
DEPARTURES Overflight (0-7000ft)	6	100%	8%
AONB Area (km2)	24	100%	105%
	AVERAGE	CHANGE	-18%
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	4B
ARRIVALS Overflight (0-7000ft)	6	100%	111%
NP Area (km2)	24	100%	189%
DEPARTURES Overflight (0-7000ft)	6	100%	112%
NP Area (km2)	24	100%	93%
	AVERAGE	CHANGE	26%

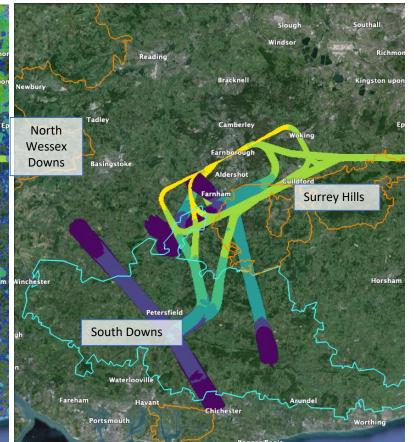
### Option 5A



#### With low level EGKB routes

, , , , , , , , , , , , , , , , , , ,	CVCIL	. OND I	oute.
Overflight Population	RUNWAY	1 Do nothing Baseline	5A
ARRIVALS Overflight (0-7000ft)	6	100%	97%
Population Count	24	100%	58%
DEPARTURES Overflight (0-7000ft)	6	100%	104%
Population Count	24	100%	231%
	AVERAGE CHANGE		23%
Overflight AONB	RUNWAY	1 Do nothing Baseline	5A
ARRIVALS Overflight (0-7000ft)	6	100%	53%
AONB Area (km2)	24	100%	46%
DEPARTURES Overflight (0-7000ft)	6	100%	126%
AONB Area (km2)	24	100%	105%
	AVERAGE	CHANGE	-17%
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	5A
ARRIVALS Overflight (0-7000ft)	6	100%	116%
NP Area (km2)	24	100%	174%
DEPARTURES Overflight (0-7000ft)	6	100%	40%
NP Area (km2)	24	100%	30%
	AVERAGE	CHANGE	-10%





#### Without low level EGKB routes

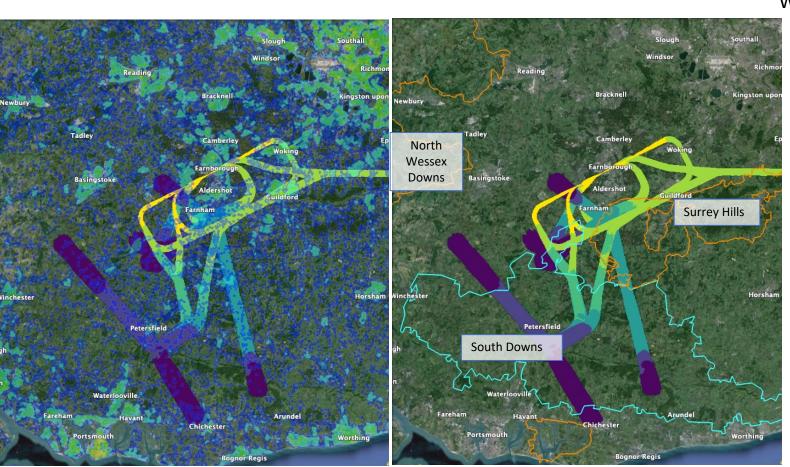
Overflight Population	RUNWAY	1 Do nothing Baseline	5A
ARRIVALS Overflight (0-7000ft)	6	100%	69%
Population Count	24	100%	65%
DEPARTURES Overflight (0-7000ft)	6	100%	120%
Population Count	24	100%	125%
	AVERAGE	CHANGE	-5%
		4.0-	
Overflight AONB	RUNWAY	1 Do nothing Baseline	5A
ARRIVALS Overflight (0-7000ft)	6	100%	0%
AONB Area (km2)	24	100%	63%
DEPARTURES Overflight (0-7000ft)	6	100%	169%
AONB Area (km2)	24	100%	105%
	AVERAGE	CHANGE	-16%
		1 Do	
Overflight Nat Park	RUNWAY	nothing Baseline	5A
ARRIVALS Overflight (0-7000ft)	6	100%	169%
NP Area (km2)	24	100%	261%
DEPARTURES Overflight (0-7000ft)	6	100%	53%
NP Area (km2)	24	100%	40%
	AVERAGE	CHANGE	31%

### Option 5B



#### With low level EGKB routes

, v i ci i i o vv i	CVCIL	. OND	oute.
Overflight Population	RUNWAY	1 Do nothing Baseline	5B
ARRIVALS Overflight (0-7000ft)	6	100%	97%
Population Count	24	100%	60%
DEPARTURES Overflight (0-7000ft)	6	100%	91%
Population Count	24	100%	231%
	AVERAGE	CHANGE	20%
Overflight AONB	RUNWAY	1 Do nothing Baseline	5B
ARRIVALS Overflight (0-7000ft)	6	100%	53%
AONB Area (km2)	24	100%	47%
DEPARTURES Overflight (0-7000ft)	6	100%	113%
AONB Area (km2)	24	100%	105%
	AVERAGE	CHANGE	-20%
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	5B
ARRIVALS Overflight (0-7000ft)	6	100%	117%
NP Area (km2)	24	100%	178%
DEPARTURES Overflight (0-7000ft)	6	100%	51%
NP Area (km2)	24	100%	30%
	AVERAGE	CHANGE	-6%



#### Without low level EGKB routes

tilout low	icvci	LOND	Toute
Overflight Population	RUNWAY	1 Do nothing Baseline	5B
ARRIVALS Overflight (0-7000ft)	6	100%	68%
Population Count	24	100%	68%
DEPARTURES Overflight (0-7000ft)	6	100%	103%
Population Count	24	100%	125%
	AVERAGE	CHANGE	-9%
Overflight AONB	RUNWAY	1 Do nothing Baseline	5B
ARRIVALS	6	100%	0%
Overflight (0-7000ft) AONB Area (km2)	24	100%	65%
DEPARTURES Overflight (0-7000ft)	6	100%	151%
AONB Area (km2)	24	100%	105%
	AVERAGE	CHANGE	-20%
Overflight Nat Park	RUNWAY	1 Do nothing Baseline	5B
ARRIVALS Overflight (0-7000ft)	6	100%	170%
NP Area (km2)	24	100%	266%
DEPARTURES Overflight (0-7000ft)	6	100%	68%
NP Area (km2)	24	100%	40%
	AVERAGE	CHANGE	36%

#### With low level EGKB routes

#### Without low level EGKB routes

#### **Overflight Population**

Overflight Population	RUNWAY	1 Do nothing Baseline	2A	2B	ЗА	3В	4A	4B	5A	5B
ARRIVALS Overflight (0-7000ft)	6	100%	99%	102%	138%	139%	130%	131%	97%	97%
Population Count	24	100%	101%	96%	89%	84%	84%	81%	58%	60%
DEPARTURES Overflight (0-7000ft)	6	100%	100%	92%	211%	211%	217%	217%	104%	91%
Population Count	24	100%	100%	100%	193%	193%	217%	217%	231%	231%
	AVERAGE	CHANGE	0%	-3%	58%	57%	62%	61%	23%	20%

Overflight Population	RUNWAY	1 Do nothing Baseline	2A	2B	ЗА	3B	4A	4B	5A	5B
ARRIVALS Overflight (0-7000ft)	6	100%	99%	102%	134%	135%	123%	124%	69%	68%
Population Count	24	100%	101%	96%	101%	95%	94%	90%	65%	68%
DEPARTURES Overflight (0-7000ft)	6	100%	100%	92%	262%	262%	270%	270%	120%	103%
Population Count	24	100%	100%	100%	74%	74%	106%	106%	125%	125%
	AVERAGE	CHANGE	0%	-3%	43%	41%	48%	48%	-5%	-9%

#### Overflight AONB

Overflight AONB	RUNWAY	1 Do nothing Baseline	2A	2В	3A	3В	4A	4B	5A	5B
ARRIVALS	6	100%	98%	91%	152%	149%	135%	135%	53%	53%
Overflight (0-7000ft) AONB Area (km2)	24	100%	94%	88%	78%	72%	70%	72%	46%	47%
DEPARTURES	6	100%	100%	81%	6%	6%	6%	6%	126%	113%
Overflight (0-7000ft) AONB Area (km2)	24	100%	100%	100%	104%	104%	105%	105%	105%	105%
	AVERAGI	CHANGE	-2%	-10%	-15%	-17%	-21%	-21%	-17%	-20%

Overflight AONB	RUNWAY	1 Do nothing Baseline	2A	2В	3A	3B	4A	4B	5A	5B
ARRIVALS Overflight (0-7000ft)	6	100%	98%	91%	149%	146%	128%	127%	0%	0%
AONB Area (km2)	24	100%	94%	88%	94%	88%	85%	87%	63%	65%
DEPARTURES	6	100%	100%	81%	8%	8%	8%	8%	169%	151%
Overflight (0-7000ft) AONB Area (km2)	24	100%	100%	100%	104%	104%	105%	105%	105%	105%
	AVERAGE	CHANGE	-2%	-10%	-11%	-14%	-19%	-18%	-16%	-20%

#### Overflight National Park

Overflight Nat Park	RUNWAY	1 Do nothing Baseline	2A	2В	ЗА	3B	4A	4B	5A	5B
ARRIVALS Overflight (0-7000ft)	6	100%	96%	98%	71%	72%	88%	88%	116%	117%
NP Area (km2)	24	100%	149%	155%	119%	124%	145%	151%	174%	178%
DEPARTURES	6	100%	111%	132%	91%	91%	84%	84%	40%	51%
Overflight (0-7000ft) NP Area (km2)	24	100%	122%	121%	78%	78%	70%	70%	30%	30%
	AVERAGE	CHANGE	19%	27%	-10%	-9%	-3%	-2%	-10%	-6%

Overflight Nat Park	RUNWAY	1 Do nothing Baseline	2A	2В	3A	3B	4A	4B	5A	5B
ARRIVALS	6	100%	96%	98%	89%	90%	110%	111%	169%	170%
Overflight (0-7000ft) NP Area (km2)	24	100%	149%	155%	149%	149%	181%	189%	261%	266%
DEPARTURES	6	100%	111%	132%	122%	122%	112%	112%	53%	68%
Overflight (0-7000ft) NP Area (km2)	24	100%	122%	121%	104%	104%	93%	93%	40%	40%
	AVERAGE	CHANGE	19%	27%	16%	16%	24%	26%	31%	36%



# Overflight Statistics 0-7000ft

Other Noise Sensitive Receptors (NSRs)



### Education, Healthcare and Places of Worship

#### With low level EGKB routes

Overflight NSRs Arrivals	RUNWAY	1 Do nothing Baseline	2A	2В	3A	3B	4A	4B	5A	5B
Heathcare Count (0-7000ft)	6	100%	97%	98%	146%	146%	140%	140%	103%	100%
(0-700011)	24	100%	105%	108%	91%	91%	83%	92%	48%	64%
Education Count (0-7000ft)	6	100%	94%	93%	143%	143%	139%	139%	126%	121%
, ,	24	100%	94%	100%	80%	82%	76%	84%	54%	63%
Places of Worship Count	6	100%	102%	100%	132%	131%	137%	137%	102%	100%
(0-7000ft)	24	100%	108%	115%	94%	96%	93%	104%	63%	80%
	AVERAGI	E CHANGE	0%	2%	14%	15%	11%	16%	-17%	-12%
Overflight NSRs Departures	RUNWAY	1 Do nothing Baseline	2A	2В	3A	3B	4A	4B	5A	5B
Heathcare Count (0-7000ft)	6	100%	100%	119%	233%	233%	244%	244%	153%	161%
(0-700011)	24	100%	100%	100%	206%	206%	253%	253%	275%	275%
Education Count (0-7000ft)	6	100%	100%	84%	189%	189%	193%	193%	120%	107%
(0-700011)	24	100%	100%	100%	402%	402%	433%	433%	430%	430%
Places of Worship Count	6	100%	100%	95%	152%	152%	150%	150%	92%	87%
(0-7000ft)	24	100%	100%	100%	129%	129%	141%	141%	143%	143%
	AVERAGI	CHANGE	0%	0%	119%	119%	136%	136%	102%	100%

Overflight NSRs Arrivals	RUNWAY	1 Do nothing Baseline	2A	2В	3A	3В	4A	4B	5A	5B
Heathcare Count (0-7000ft)	6	100%	97%	98%	136%	136%	129%	129%	65%	60%
(0-700011)	24	100%	105%	108%	105%	105%	95%	103%	55%	70%
Education Count (0-7000ft)	6	100%	94%	93%	118%	117%	113%	113%	74%	66%
, ,	24	100%	94%	100%	94%	97%	89%	97%	70%	79%
Places of Worship Count	6	100%	102%	100%	118%	117%	125%	125%	63%	61%
(0-7000ft)	24	100%	108%	115%	108%	111%	106%	117%	74%	94%
	AVERAGI	E CHANGE	0%	2%	13%	14%	10%	14%	-33%	-28%
Overflight NSRs Departures	RUNWAY	1 Do nothing Baseline	2A	2В	3A	3В	4A	4B	5A	5B
Heathcare Count (0-7000ft)	6	100%	100%	119%	290%	290%	304%	304%	183%	194%
(0-700011)	24	100%	100%	100%	93%	93%	156%	156%	185%	185%
Education Count (0-7000ft)	6	100%	100%	84%	233%	233%	238%	238%	141%	122%
(0-700011)	24	100%	100%	100%	95%	95%	136%	136%	132%	132%
Places of Worship Count	6	100%	100%	95%	191%	191%	188%	188%	111%	104%
(0-7000ft)	24	100%	100%	100%	84%	84%	100%	100%	102%	102%
	AVFRAGI	E CHANGE	0%	0%	64%	64%	87%	87%	42%	40%



### Biodiversity

Sites of Special Scientific Interest, Special Areas of Conservation RAMSAR and Special Protection Areas

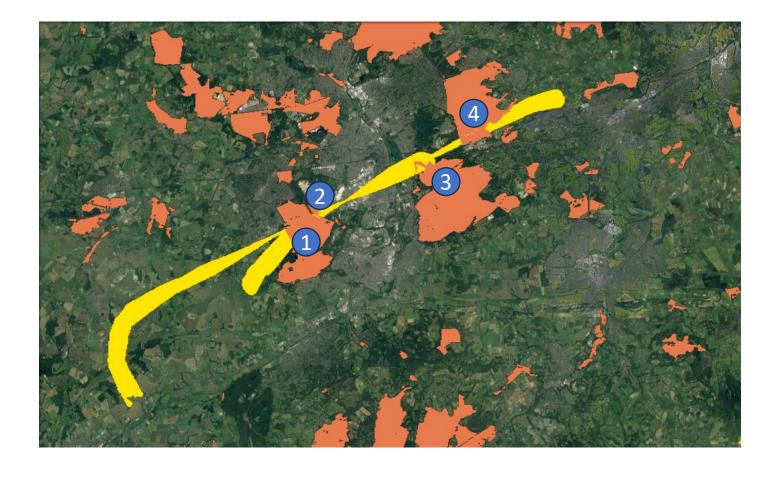
### FARNBOROUGH AIRPORT

### Option 1 (Do Nothing)

1.
Thames Basin Heaths SPA
Bourley and Long Valley SSSI

Thames Basin Heaths SPA Eelmoor Marsh SSSI Basingstoke Canal SSSI

Thames Basin Heaths SPA
Ash to Brookwood Heaths SSSI
Basingstoke Canal SSSI
Thursley, Ash, Pirbright &
Chobham SAC



### Option 2A



1.
Thames Basin Heaths SPA
Bourley and Long Valley SSSI

2. Thames Basin Heaths SPA Eelmoor Marsh SSSI Basingstoke Canal SSSI

Thames Basin Heaths SPA
Ash to Brookwood Heaths SSSI
Basingstoke Canal SSSI
Thursley, Ash, Pirbright &
Chobham SAC



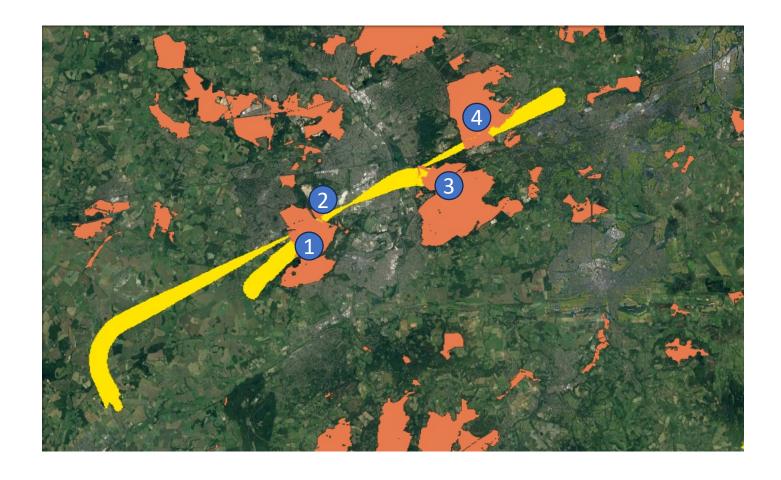
### Option 2B



1.
Thames Basin Heaths SPA
Bourley and Long Valley SSSI

2. Thames Basin Heaths SPA Eelmoor Marsh SSSI Basingstoke Canal SSSI

3.
Thames Basin Heaths SPA
Ash to Brookwood Heaths SSSI
Basingstoke Canal SSSI
Thursley, Ash, Pirbright &
Chobham SAC



### Option 3A



1. Thames Basin Heaths SPA Bourley and Long Valley SSSI

2. Thames Basin Heaths SPA Eelmoor Marsh SSSI Basingstoke Canal SSSI

Thames Basin Heaths SPA
Ash to Brookwood Heaths SSSI
Basingstoke Canal SSSI
Thursley, Ash, Pirbright &
Chobham SAC







1. Thames Basin Heaths SPA Bourley and Long Valley SSSI

2. Thames Basin Heaths SPA Eelmoor Marsh SSSI Basingstoke Canal SSSI

3.
Thames Basin Heaths SPA
Ash to Brookwood Heaths SSSI
Basingstoke Canal SSSI
Thursley, Ash, Pirbright &
Chobham SAC



### Option 4A



1.
Thames Basin Heaths SPA
Bourley and Long Valley SSSI

2. Thames Basin Heaths SPA Eelmoor Marsh SSSI Basingstoke Canal SSSI

Thames Basin Heaths SPA
Ash to Brookwood Heaths SSSI
Basingstoke Canal SSSI
Thursley, Ash, Pirbright &
Chobham SAC



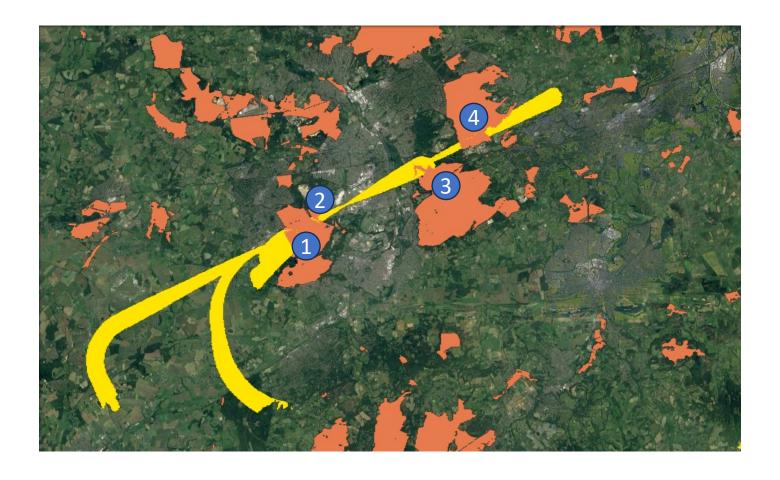
### Option 4B



1.
Thames Basin Heaths SPA
Bourley and Long Valley SSSI

2. Thames Basin Heaths SPA Eelmoor Marsh SSSI Basingstoke Canal SSSI

3.
Thames Basin Heaths SPA
Ash to Brookwood Heaths SSSI
Basingstoke Canal SSSI
Thursley, Ash, Pirbright &
Chobham SAC



### Option 5A



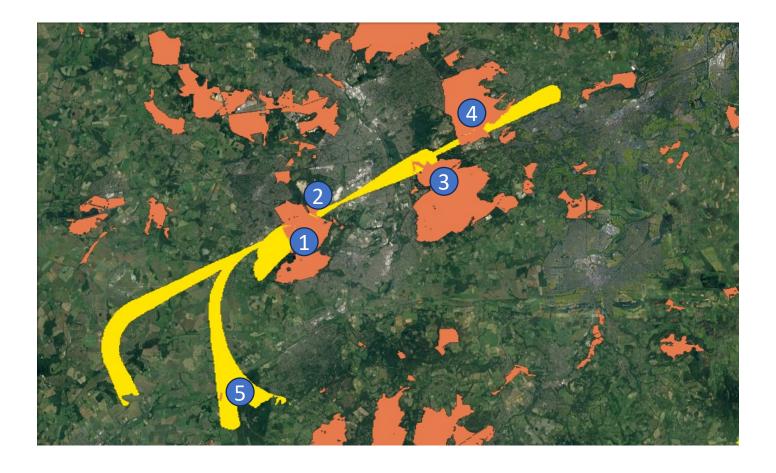
1.
Thames Basin Heaths SPA
Bourley and Long Valley SSSI

2. Thames Basin Heaths SPA Eelmoor Marsh SSSI Basingstoke Canal SSSI

Thames Basin Heaths SPA
Ash to Brookwood Heaths SSSI
Basingstoke Canal SSSI
Thursley, Ash, Pirbright &
Chobham SAC

Thames Basin Heaths SPA
Colony Bog and Bagshot Heath
SSSI
Thursley, Ash, Pirbright &
Chobham SAC

Bentley Station Meadow SSSI



### Option 5B



1.
Thames Basin Heaths SPA
Bourley and Long Valley SSSI

2. Thames Basin Heaths SPA Eelmoor Marsh SSSI Basingstoke Canal SSSI

3.
Thames Basin Heaths SPA
Ash to Brookwood Heaths SSSI
Basingstoke Canal SSSI
Thursley, Ash, Pirbright &
Chobham SAC

Thames Basin Heaths SPA
Colony Bog and Bagshot Heath
SSSI
Thursley, Ash, Pirbright &
Chobham SAC

Bentley Station Meadow SSSI

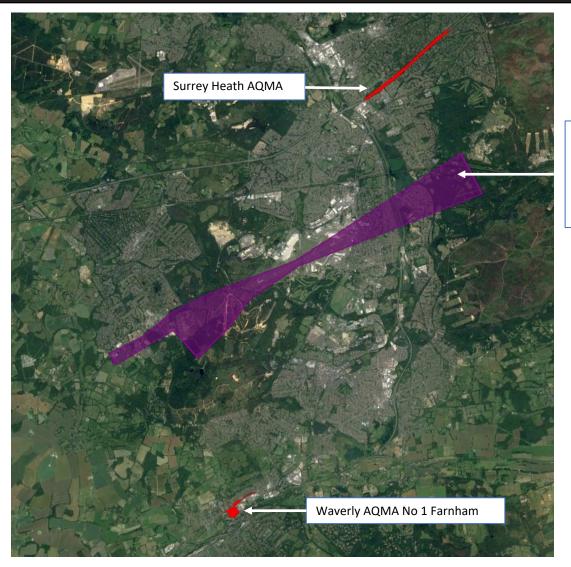




## Air Quality

### Air Quality – All Options





Area overflown by Farnborough's arrivals and departures <1000ft

No change below 1000ft in any option



### Track Mileage Comparisons



### Track Mileage Comparisons

Option	Estimated annual mileage (nm) difference
1A Do Nothing	0.0
2A	+2174
2B	+7530
3A	-161143
3B	-146684
4A	-214094
4B	-206910
5A	-73949
5B	-69945



# Ahead of the Curve