FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals RMA Baseline

Description

Aircraft arriving at Gatwick Airport are tactically controlled (vectored) by ATC onto final approach. There are no defined routes to follow, and aircraft are provided with instructions from Air Traffic Control who ensure the aircraft are safely spaced whilst being directed to land at Gatwick. The majority of aircraft use the Instrument Landing System (ILS) to land at Gatwick although RNP and LOC/DME approaches are also available.

For more information, please see Gatwick's Stage 2A document

Noise

The baseline 'do nothing' scenario would not change the noise environment at Gatwick. Aircraft would continue to be tactically controlled (vectored) by ATC before joining the final approach. Between 23.30 and 06.00, aircraft shall not join final approach (join the centre-line) below 3,000ft or closer than 10nm from touchdown.

As the airspace is not modernised, aircraft may be prevented from continuously descending. As traffic within the LTMA increases, this could lead to decreased CDO performance which has an impact on noise.

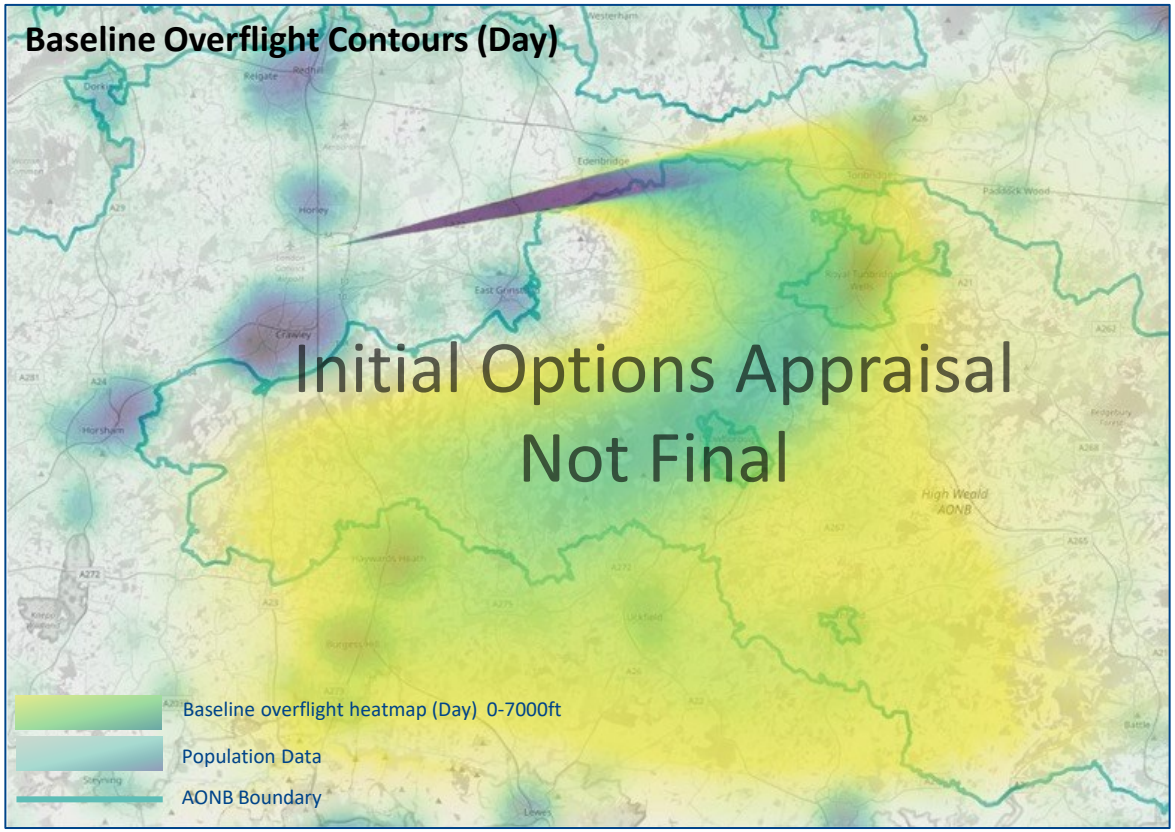
Airspace Modernisation Strategy

Doing nothing with Gatwick's arrivals will constrain options for Gatwick's SIDs and the wider LTMA network design. No change to arrivals at Gatwick will inhibit AMS benefits associated with the wider programme.

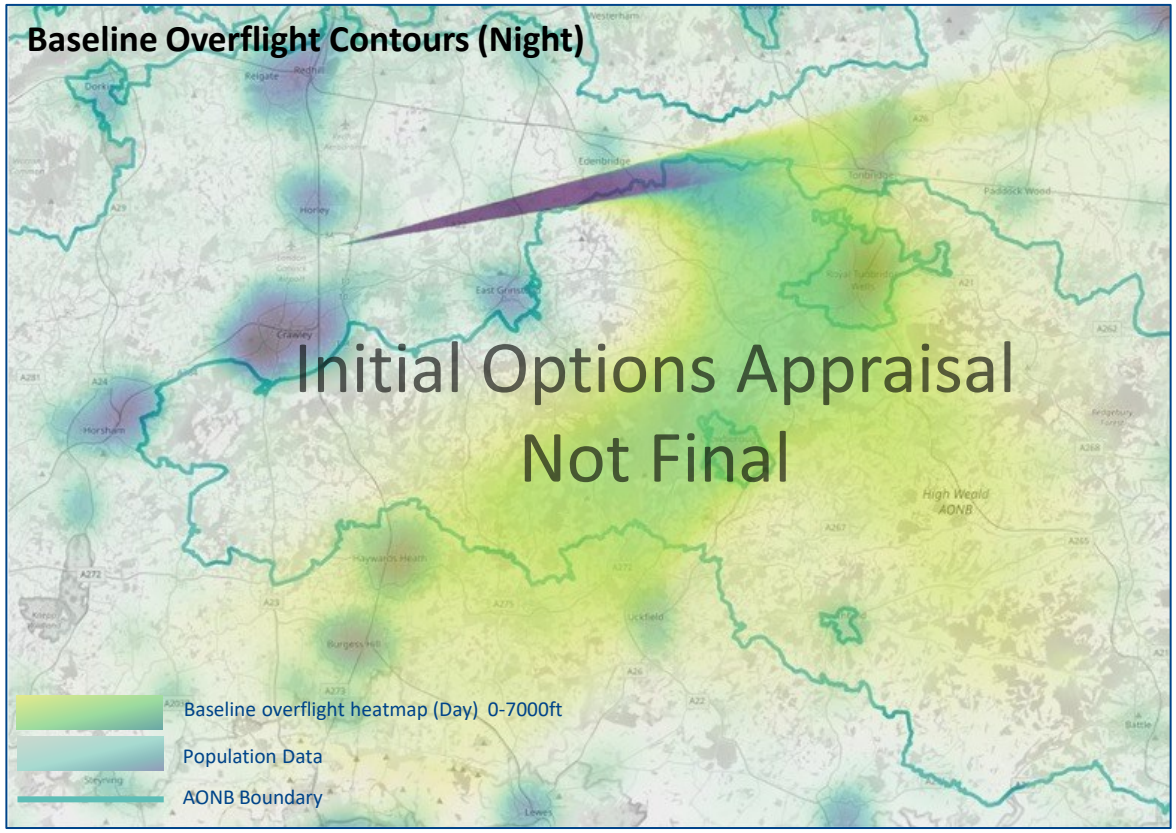
Safety

At the current traffic levels there are no safety concerns however future traffic growth could lead to increased complexity and workload for ATC and Pilots. This could lead to traffic levels within the LTMA being capped or increased ground holding, in order to maintain safety.

Overflight Illustration



Overflight Illustration



FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals RMA Baseline

Indicative Partial System Performance

Noise	*Population*	Difference to Baseline
LOAEL (Day)	7244	n/a
LOAEL (Night)	3635	n/a
N65 (20)	5955	n/a
N60 (5)	11819	n/a

Tranquillity	Area *(KM²)*	Difference to Baseline
AONB - N65 (20)	2.2	n/a

Emissions	Qualitative Conclusion
Fuel Burn & Greenhouse Gas	*No change*

Economic	Qualitative Conclusion
Commercial Airlines	*No change*
General Aviation	*No change*

General Aviation	Qualitative Conclusion
Controlled Airspace Volume	*No change*
GA Access	*No change*

Capacity / Resilience	Qualitative Conclusion
Capacity / Resilience	*No change*

Costs	Qualitative Conclusion
Commercial Airlines Training	*No change*
Commercial Airlines Other	*No change*
Airport / ANSP Infrastructure	*No change*
Airport / ANSP Operational	*No change*
Airport / ANSP Deployment	*n/a*

Option Name	Noise			Air Quality	Tranquillity (Overflight area km^2)	Biodiversity (RAMSAR, SEC, SPA, SSSI overflown between 0-1640ft		Continued?
	Overflight Daytime / Nighttime (1) (Population)	Population Newly overflown Daytime (1)	Population Newly overflown Nighttime (1)			Number of sites overflown between 0-1640ft	Area (km2) of sites overflown between 0-1640ft	
Baseline	399727 / 340417	n/a	n/a	n/a	906.9	0	0	n/a
Interdependencies, conflicts & trade-offs								
Some Gatwick arrivals share interdependencies with Heathrow and Biggin Hill however this mostly occurs above 7000ft within the network airspace. In the baseline scenarios, Gatwick's arrivals constrain Gatwick's SIDs - particularly the westerly left turn WIZAD SID which can only be used on a tactical basis.								

FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals: RMA 8-12nm

Description

Aircraft would be vectored, similar to the baseline, however they would only join the approach between 8nm and 12nm.

Noise

During the day, aircraft would be vectored to join final approach in an area broadly within the existing swathe of concentration however as the joining area has been constrained to a 4nm band, there will be greater concentration of vectored tracks in this area compared to the baseline. At nighttime, Gatwick currently has a minimum joining point of 10nm between 2330 and 0600 and therefore this option would result in overflight of new areas between 8nm and 10nm at night.

It is expected that arrivals will achieve improved CDO performance which has the potential to improve noise.

Airspace Modernisation Strategy

Supports the AMS through the most expeditious flow of traffic, accommodating demand and improving system resilience to the benefit of airspace users, where a sole reliance on PBN Arrivals is not expected to achieve this.

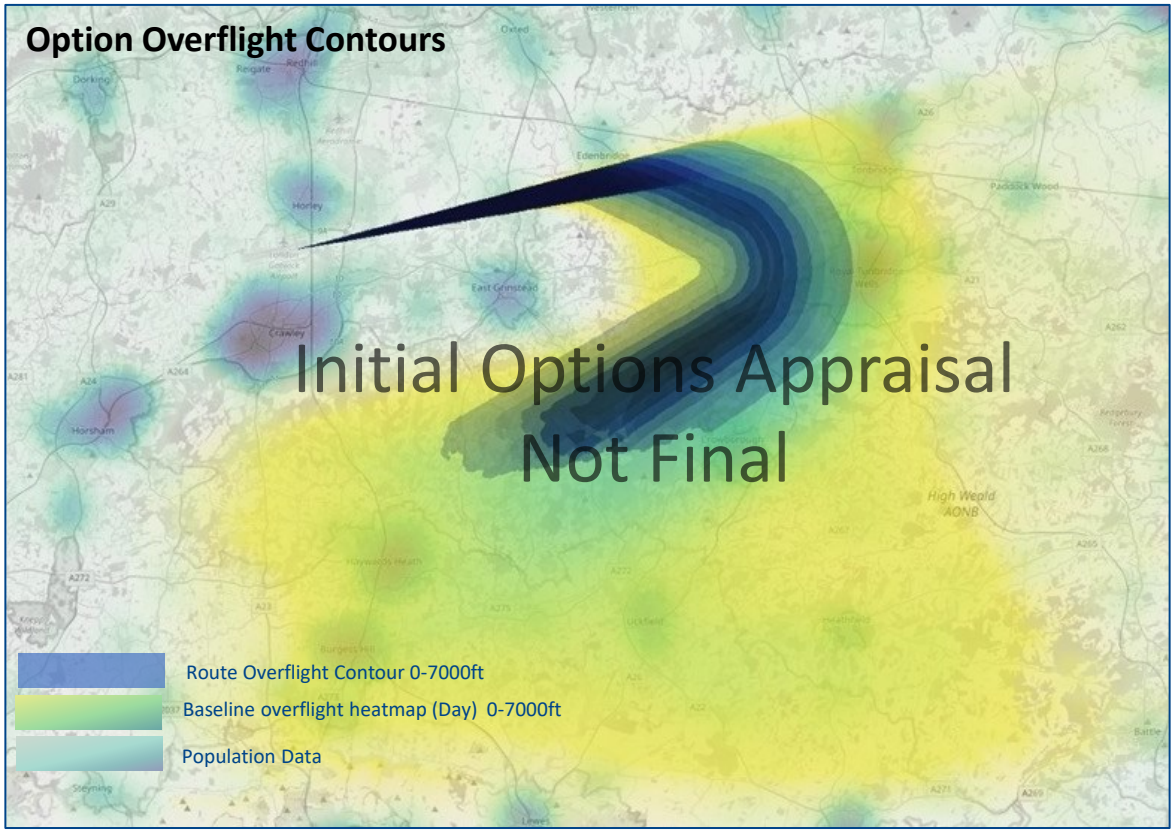
An RMA is expected to be used in conjunction with PBN arrivals as part of a wider system design which could enable simplification, integration, safety and efficiency enhancements.

Safety

No IFP design issues are anticipated with this option as it relies on vectoring onto the ILS.

Although new or revised safety assurances may be needed, an acceptable safety argument is envisaged to be achievable.

Overflight Illustration



LONDON GATWICK

FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals: RMA 8-12nm

Indicative Partial System Performance

Noise	*Population*	Difference to Baseline
LOAEL (Day)	7176	-68
LOAEL (Night)	3097	-538
N65 (20)	5446	-509
N60 (5)	14544	+2725

Tranquillity	Area *(KM²)*	Difference to Baseline
AONB - N65 (20)	1.8	-0.4 km²

Emissions	Qualitative Conclusion
Fuel Burn & Greenhouse Gas	*Expected positive compared to baseline*

Economic	Qualitative Conclusion
Commercial Airlines	*No impacts expected*
General Aviation	*No impacts expected*

General Aviation	Qualitative Conclusion
Controlled Airspace Volume	*Not expected to require additional CAS*
GA Access	*No significant impacts anticipated*

Capacity / Resilience	Qualitative Conclusion
Capacity / Resilience	*To be assessed further at Stage 3*

Costs	Qualitative Conclusion
Commercial Airlines Training	*No costs identified*
Commercial Airlines Other	*No costs identified*
Airport / ANSP Infrastructure	*No costs identified*
Airport / ANSP Operational	*Costs identified*
Airport / ANSP Deployment	*Costs identified*

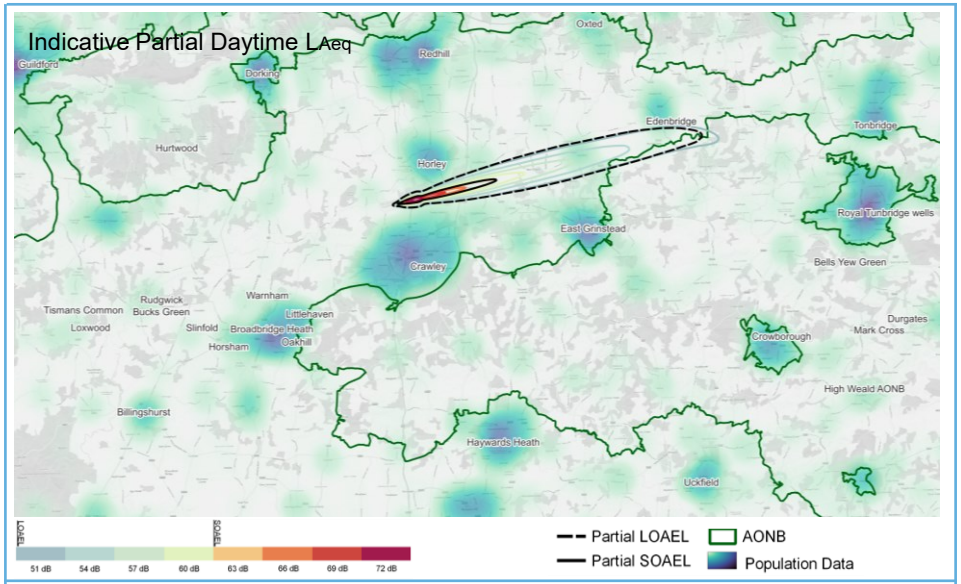
Option Name	Noise			Air Quality	Tranquillity (Overflight area km^2)	Biodiversity (RAMSAR, SEC, SPA, SSSI overflown between 0-1640ft		Continued?
	Overflight Daytime / Nighttime (1) (Population)	Population Newly overflown Daytime (1)	Population Newly overflown Nighttime (1)			Number of sites overflown between 0-1640ft	Area (km2) of sites overflown between 0-1640ft	
Westerly RMA 8-12nm	37701 / 26373	125	222	No	181.5	0	0	✓ Yes
Interdependencies, conflicts & trade-offs								
Option has potential interactions with some departure routes however interactions are minimised with those departure routes that have been evolved to reduce interactions with arrivals.								

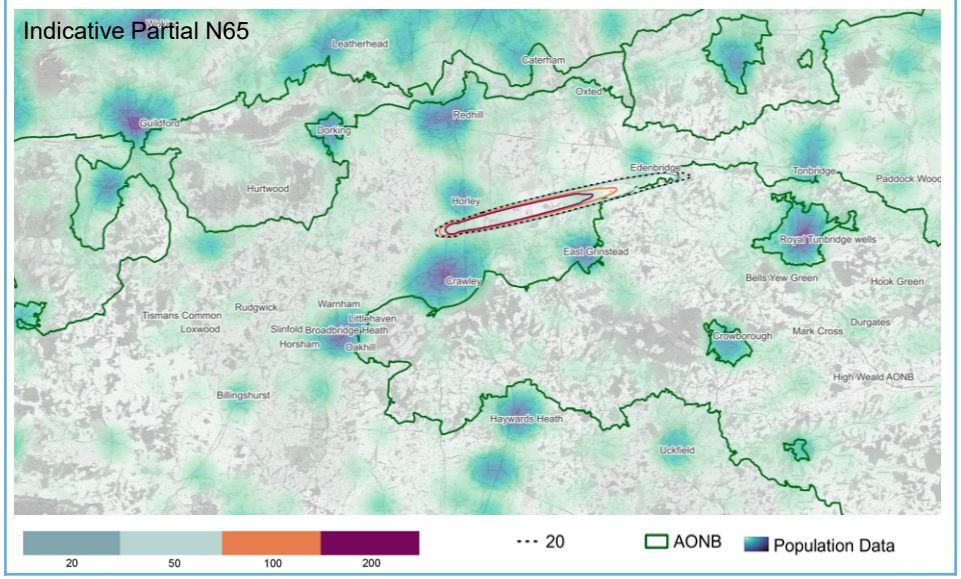
FASI-S ACP Initial Options Appraisal Dashboard

Option

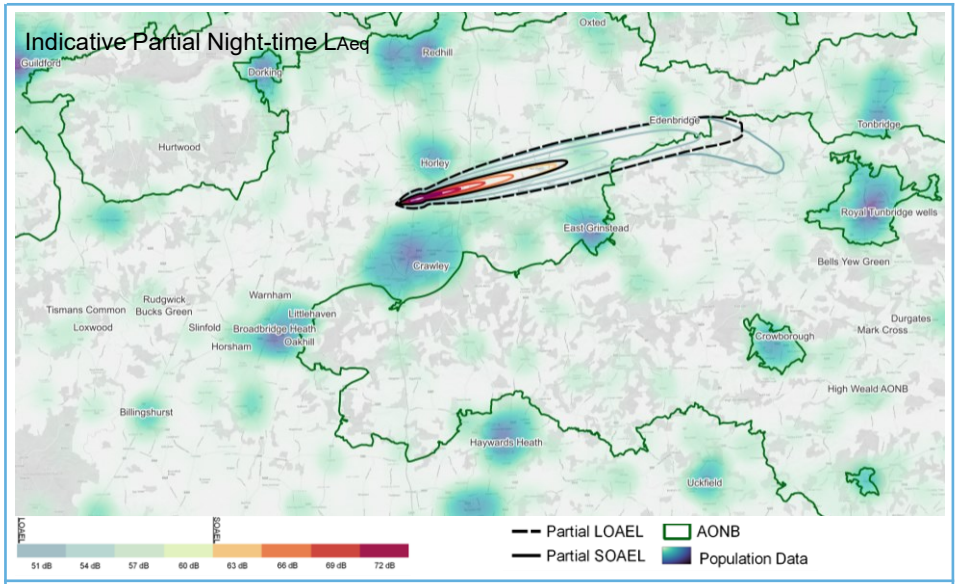
Westerly Arrivals: RMA 8-12nm

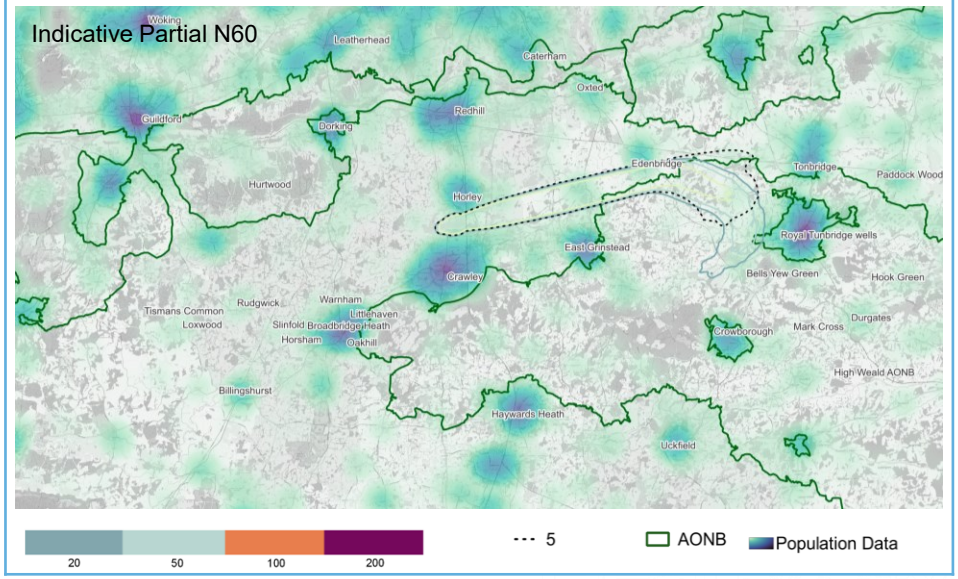
Day





Night





FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals: RMA 9-13nm

Description

Aircraft would be vectored, similar to the baseline, however they would only join the approach between 9nm and 13nm.

Noise

During the day, aircraft would be vectored to join final approach in an area broadly within the existing swathe of concentration however as the joining area has been constrained to a 4nm band, there will be greater concentration of vectored tracks in this area compared to the baseline. At nighttime, Gatwick currently has a minimum joining point of 10nm between 2330 and 0600 and therefore this option would result in overflight of new areas between 9nm and 10nm at night.

Airspace Modernisation Strategy

Supports the AMS through the most expeditious flow of traffic, accommodating demand and improving system resilience to the benefit of airspace users, where a sole reliance on PBN Arrivals is not expected to achieve this.

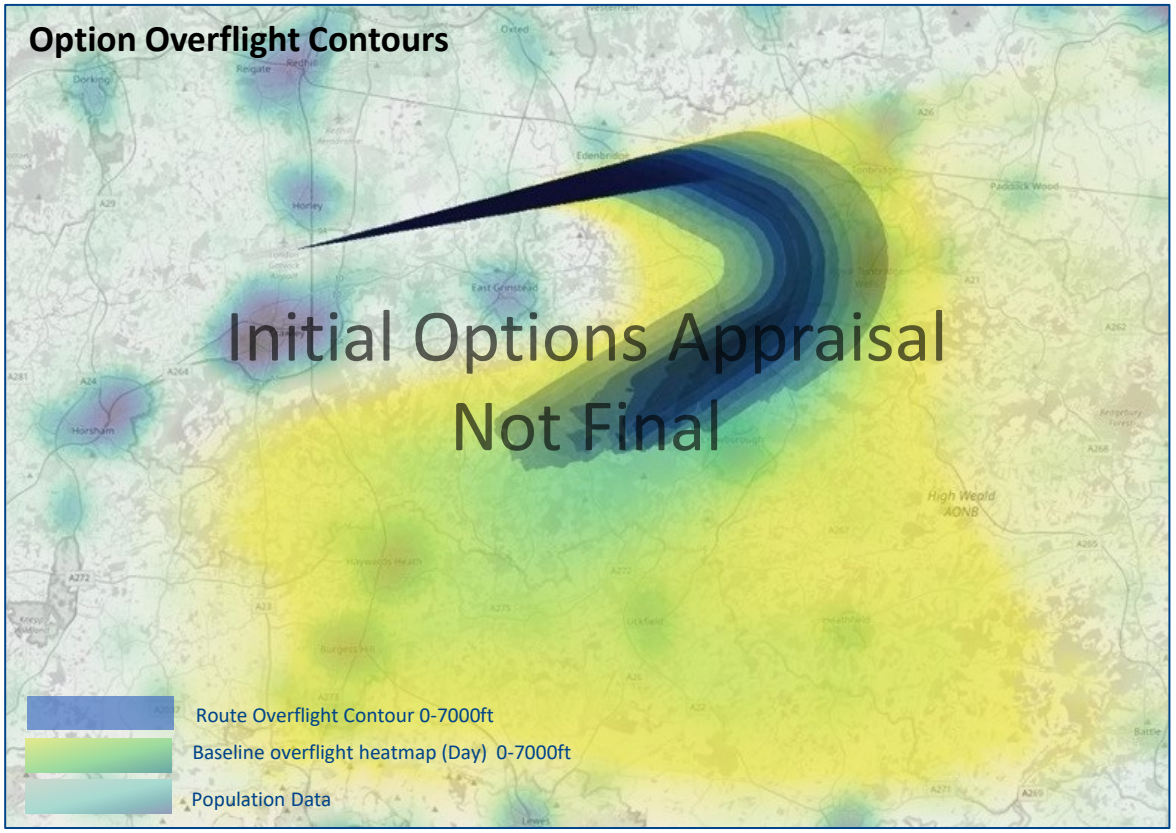
An RMA is expected to be used in conjunction with PBN arrivals as part of a wider system design which could enable simplification, integration, safety and efficiency enhancements.

Safety

No IFP design issues are anticipated with this option as it relies on vectoring onto the ILS.

Although new or revised safety assurances may be needed, an acceptable safety argument is envisaged to be achievable.

Overflight Illustration



LONDON GATWICK

FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals: RMA 9-13nm

Indicative Partial System Performance

Noise	*Population*	Difference to Baseline
LOAEL (Day)	7324	+80
LOAEL (Night)	3097	-538
N65 (20)	5820	-135
N60 (5)	19002	+7183

Tranquillity	Area *(KM²)*	Difference to Baseline
AONB - N65 (20)	2.2	0 km²

Emissions	Qualitative Conclusion
Fuel Burn & Greenhouse Gas	*Expected positive compared to baseline*

Economic	Qualitative Conclusion
Commercial Airlines	*No impacts expected*
General Aviation	*No impacts expected*

General Aviation	Qualitative Conclusion
Controlled Airspace Volume	*Not expected to require additional CAS*
GA Access	*No significant impacts anticipated*

Capacity / Resilience	Qualitative Conclusion
Capacity / Resilience	*To be assessed further at Stage 3*

Costs	Qualitative Conclusion
Commercial Airlines Training	*No costs identified*
Commercial Airlines Other	*No costs identified*
Airport / ANSP Infrastructure	*No costs identified*
Airport / ANSP Operational	*Costs identified*
Airport / ANSP Deployment	*Costs identified*

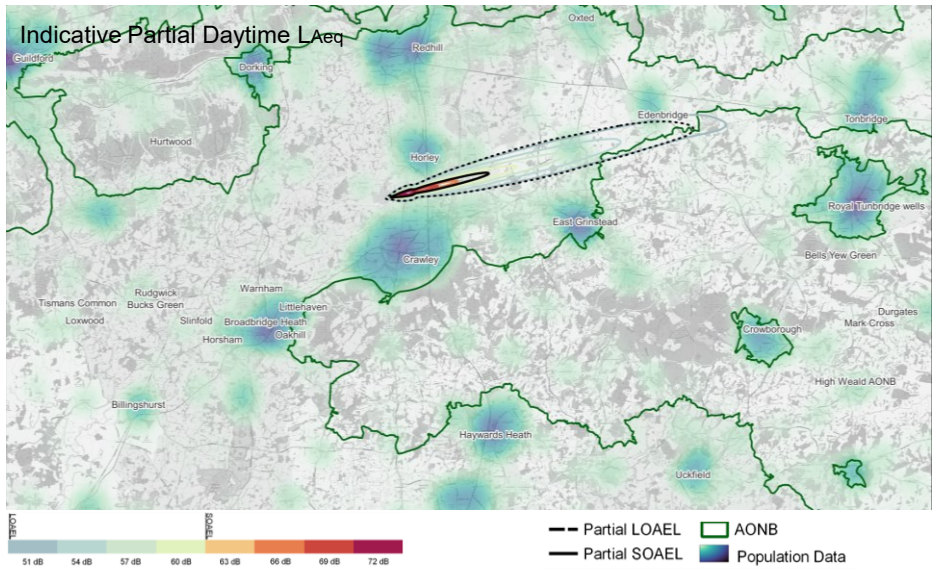
Option Name	Noise			Air Quality	Tranquillity (Overflight area km²)	Biodiversity (RAMSAR, SEC, SPA, SSSI overflown between 0-1640ft		Continued?
	Overflight Daytime / Nighttime (1) (Population)	Population Newly overflown Daytime (1)	Population Newly overflown Nighttime (1)			Number of sites overflown between 0-1640ft	Area (km2) of sites overflown between 0-1640ft	
Westerly RMA 9-13nm	83346 / 65272	125	173	No	160.3	0	0	✓ Yes
Interdependencies, conflicts & trade-offs								
Option has potential interactions with some departure routes however interactions are minimised with those departure routes that have been evolved to reduce interactions with arrivals.								

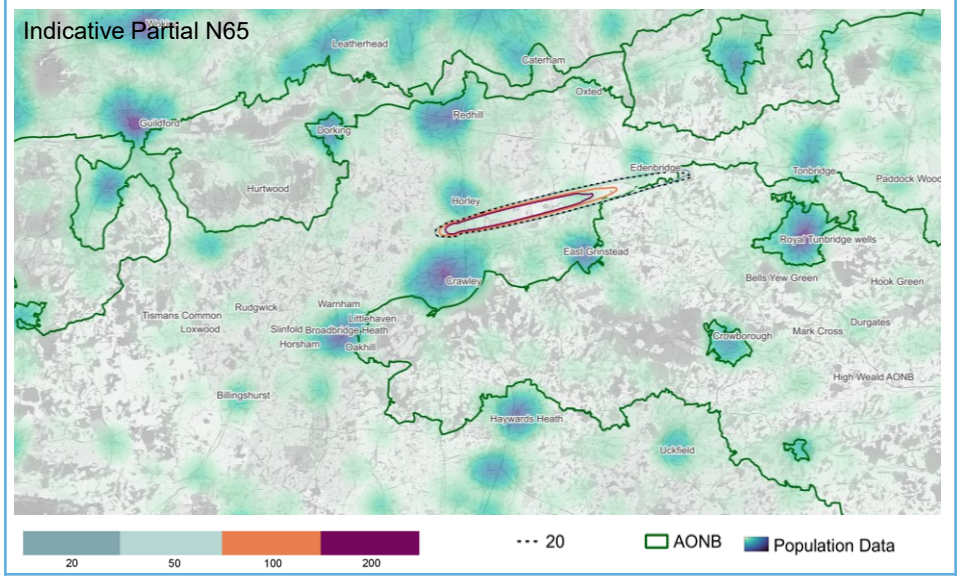
FASI-S ACP Initial Options Appraisal Dashboard

Option

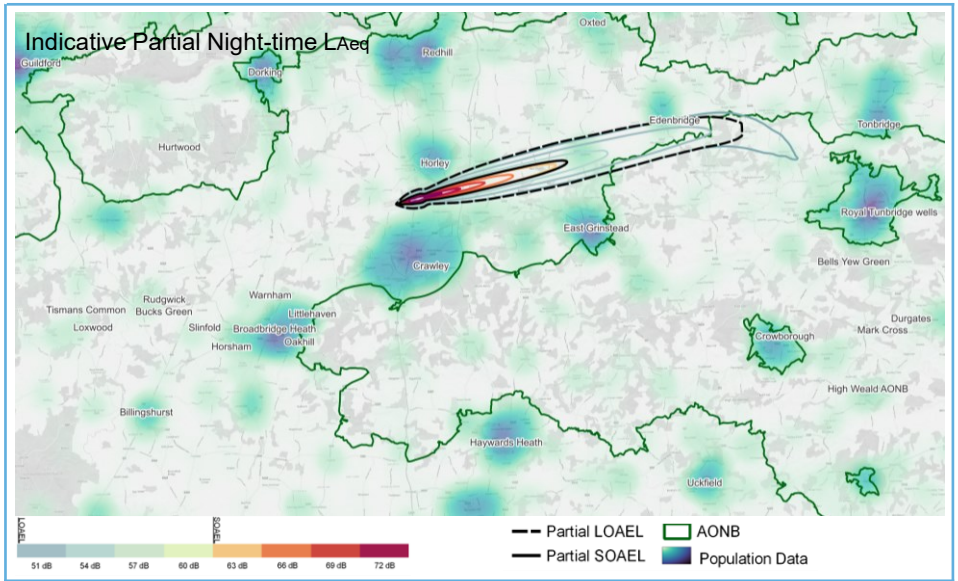
Westerly Arrivals: RMA 9-13nm

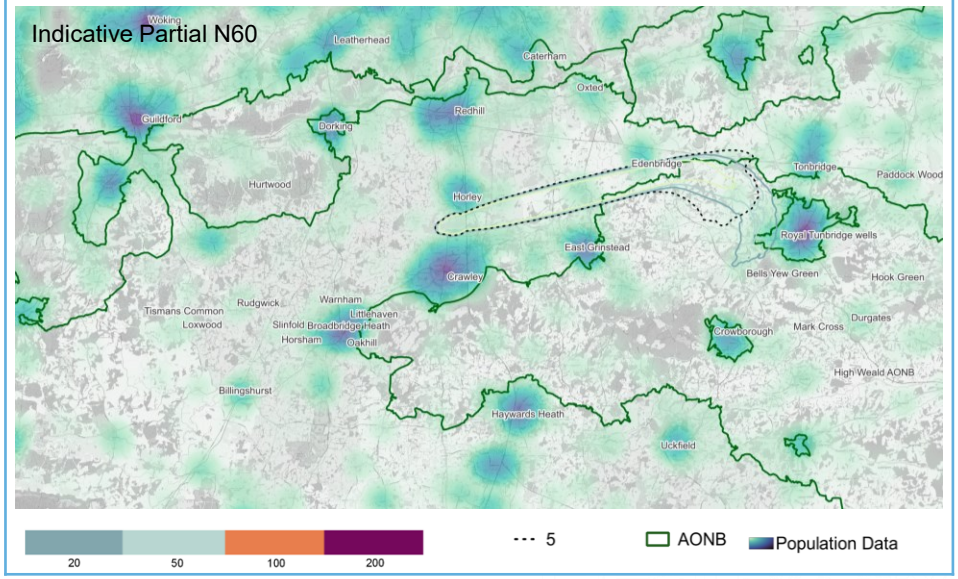
Day





Night





FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals: RMA 10-14nm

Description

Aircraft would be vectored, similar to the baseline, however they would only join the approach between 10nm and 14nm.

Noise

Aircraft would be vectored to join final approach in an area broadly within the existing swathe of concentration however as the joining area has been constrained to a 4nm band, there will be greater concentration of vectored tracks in this area compared to the baseline.

It is expected that arrivals will achieve improved CDO performance which has the potential to improve noise.

Airspace Modernisation Strategy

Supports the AMS through the most expeditious flow of traffic, accommodating demand and improving system resilience to the benefit of airspace users, where a sole reliance on PBN Arrivals is not expected to achieve this.

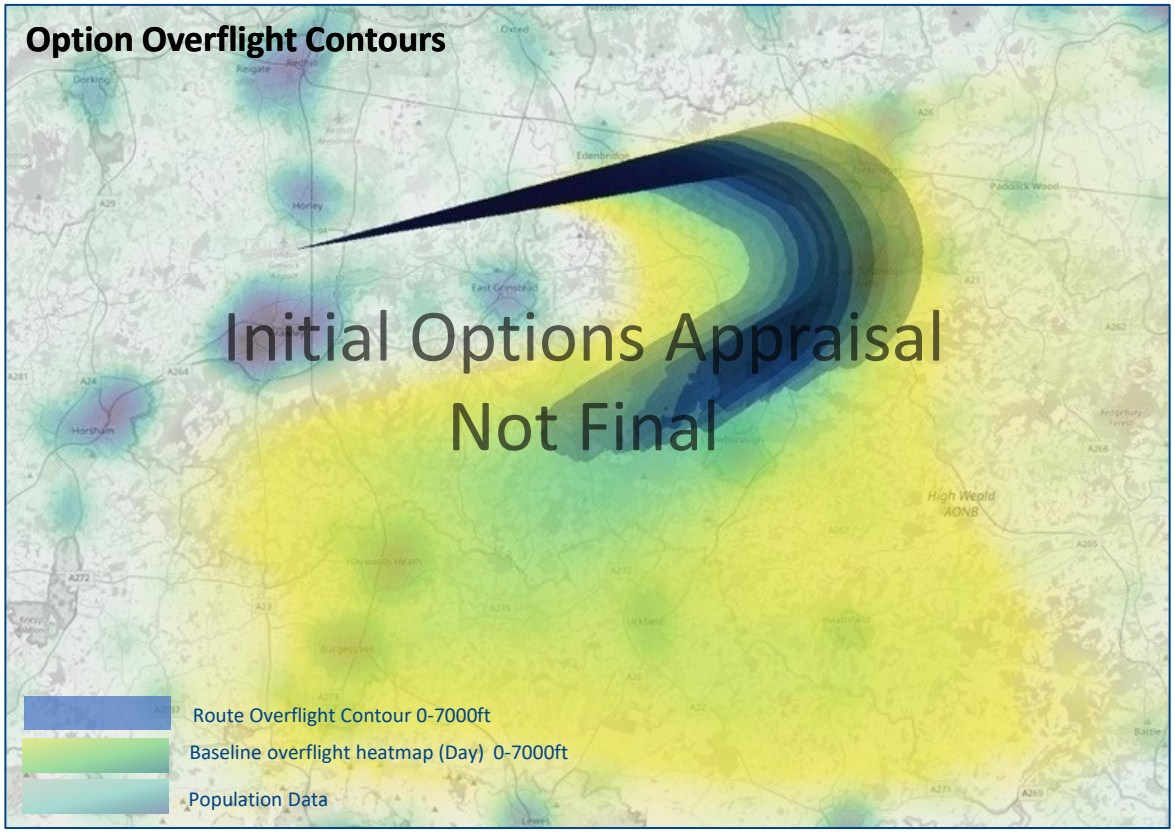
An RMA is expected to be used in conjunction with PBN arrivals as part of a wider system design which could enable simplification, integration, safety and efficiency enhancements.

Safety

No IFP design issues are anticipated with this option as it relies on vectoring onto the ILS.

Although new or revised safety assurances may be needed, an acceptable safety argument is envisaged to be achievable.

Overflight Illustration



FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals: RMA 10-14nm

Indicative Partial System Performance

Noise	*Population*	Difference to Baseline
LOAEL (Day)	7318	+74
LOAEL (Night)	3146	-489
N65 (20)	5820	-135
N60 (5)	21652	+9833

Tranquillity	Area *(KM²)*	Difference to Baseline
AONB - N65 (20)	2.4	+0.2 km²

Emissions	Qualitative Conclusion
Fuel Burn & Greenhouse Gas	*Expected positive compared to baseline*

Economic	Qualitative Conclusion
Commercial Airlines	*No impacts expected*
General Aviation	*No impacts expected*

General Aviation	Qualitative Conclusion
Controlled Airspace Volume	*Not expected to require additional CAS*
GA Access	*No significant impacts anticipated*

Capacity / Resilience	Qualitative Conclusion
Capacity / Resilience	*To be assessed further at Stage 3*

Costs	Qualitative Conclusion
Commercial Airlines Training	*No costs identified*
Commercial Airlines Other	*No costs identified*
Airport / ANSP Infrastructure	*No costs identified*
Airport / ANSP Operational	*Costs identified*
Airport / ANSP Deployment	*Costs identified*

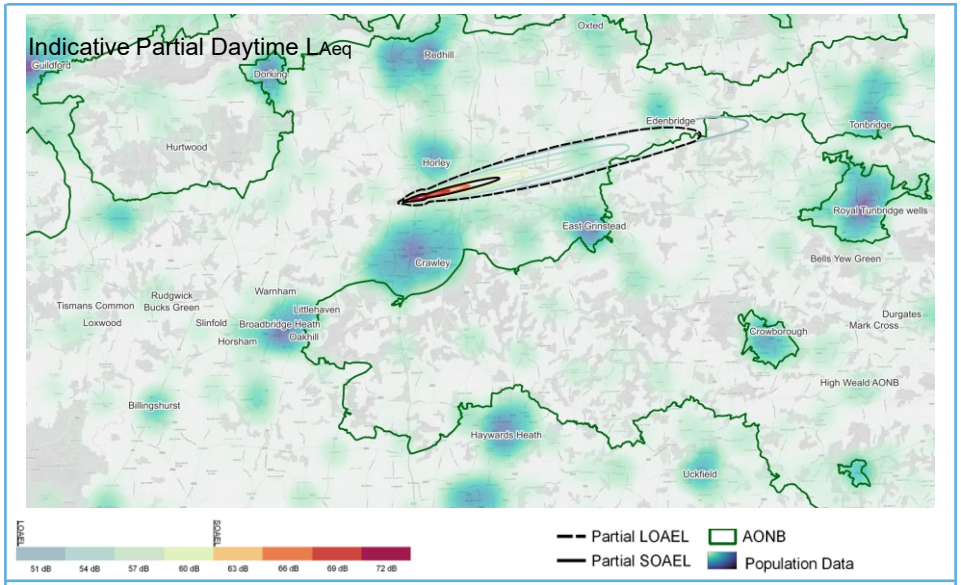
Option Name	Noise			Air Quality	Tranquillity (Overflight area km²)	Biodiversity (RAMSAR, SEC, SPA, SSSI overflown between 0-1640ft		Continued?
	Overflight Daytime / Nighttime (1) (Population)	Population Newly overflown Daytime (1)	Population Newly overflown Nighttime (1)			Number of sites overflown between 0-1640ft	Area (km2) of sites overflown between 0-1640ft	
Westerly RMA 10-14nm	102079 / 94429	125	173	No	143.9	0	0	✓ Yes
Interdependencies, conflicts & trade-offs								
Option has potential interactions with some departure routes however interactions are minimised with those departure routes that have been evolved to reduce interactions with arrivals.								

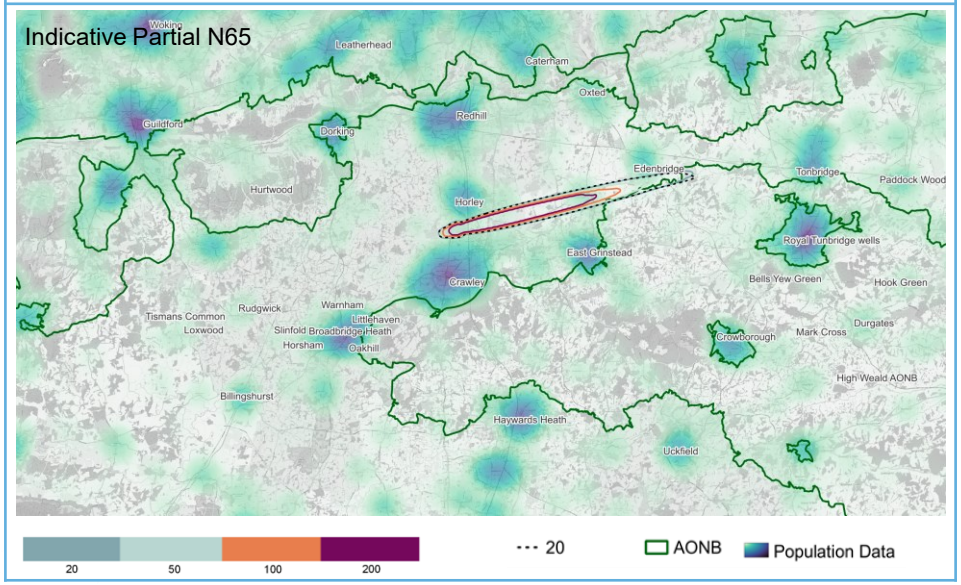
FASI-S ACP Initial Options Appraisal Dashboard

Option

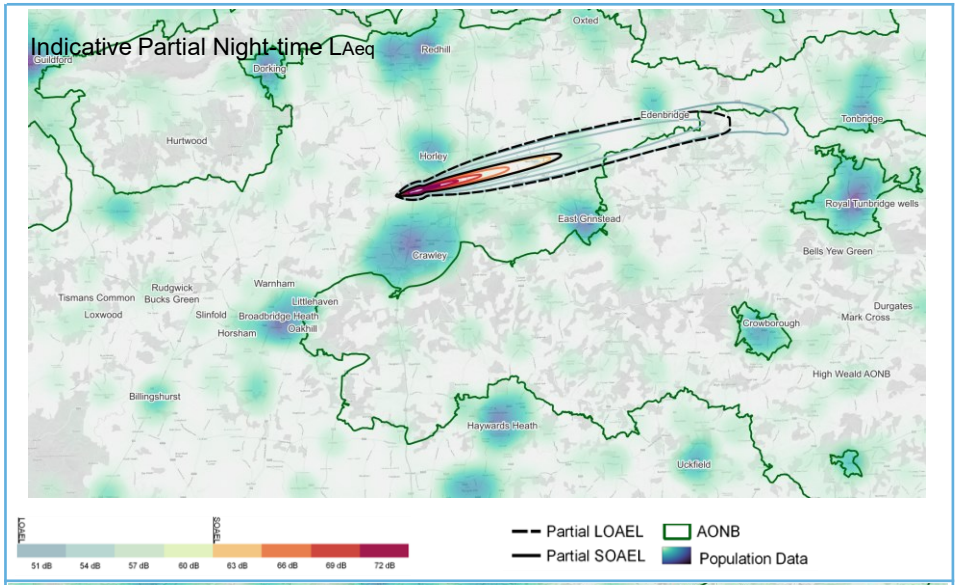
Westerly Arrivals: RMA 10-14nm

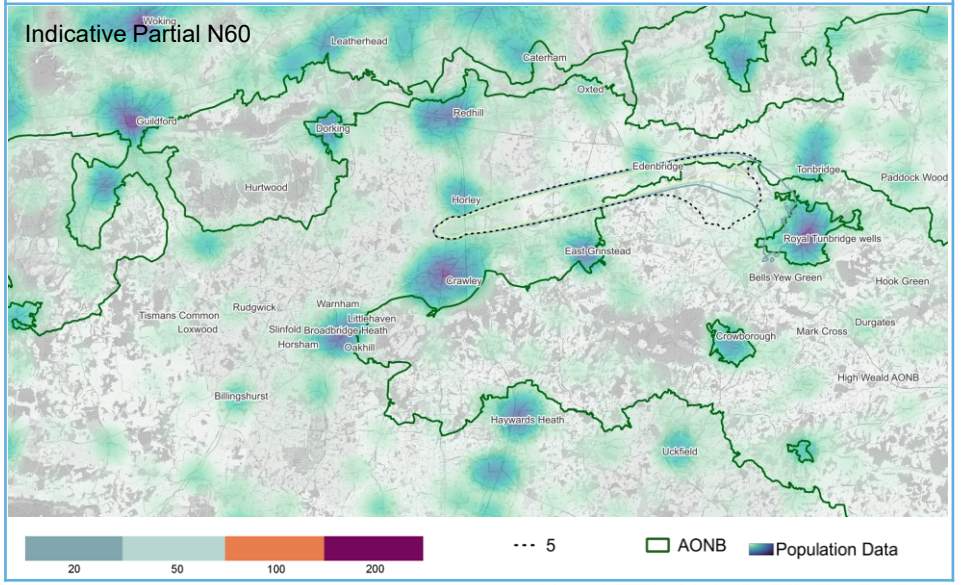
Day





Night





FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals: RMA 11-15nm

Description

Aircraft would be vectored, similar to the baseline, however they would only join the approach between 11nm and 15nm.

Noise

Aircraft would be vectored to join final approach east of the existing swathe of concentration and this would introduce new overflight on a regular basis for some areas.

It is expected that arrivals will achieve improved CDO performance which has the potential to improve noise.

Airspace Modernisation Strategy

Supports the AMS through the most expeditious flow of traffic, accommodating demand and improving system resilience to the benefit of airspace users, where a sole reliance on PBN Arrivals is not expected to achieve this. In this case of this joining band, the option may however have impacts in terms of fuel burn and CO2 emissions.

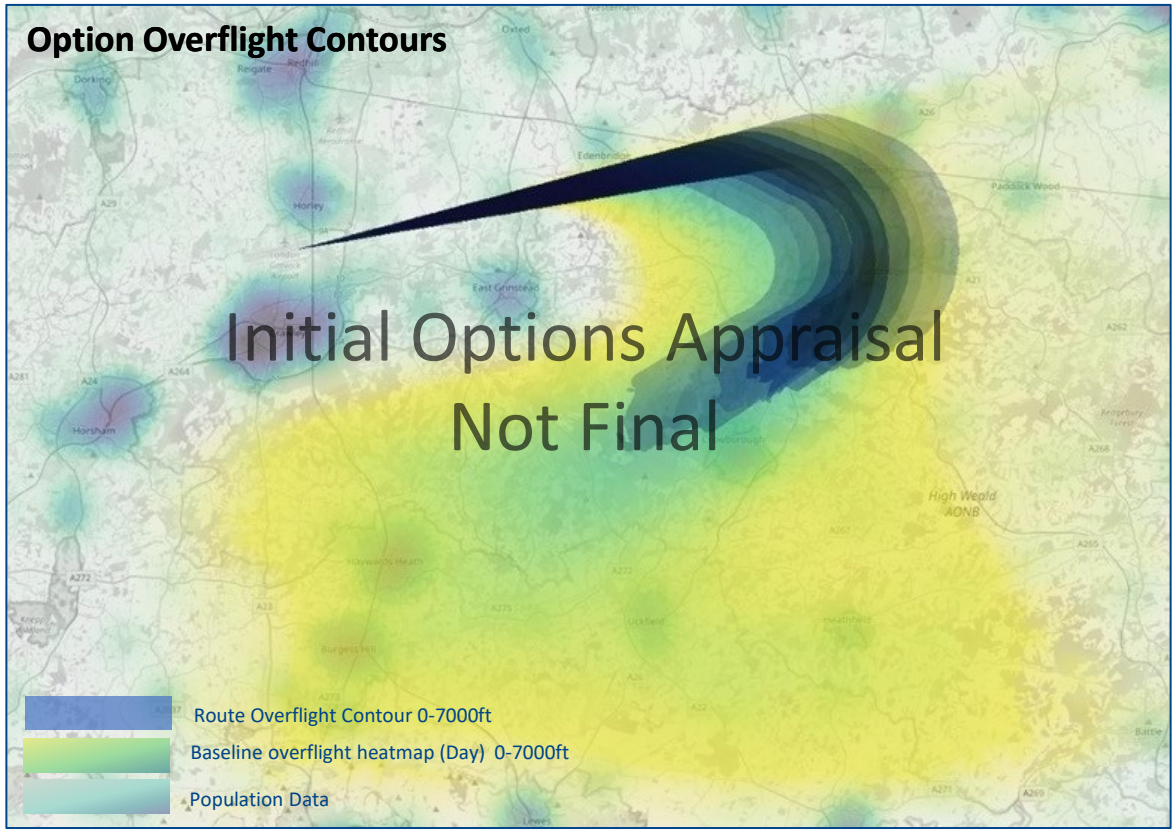
An RMA is expected to be used in conjunction with PBN arrivals as part of a wider system design which could enable simplification, integration, safety and efficiency enhancements.

Safety

No IFP design issues are anticipated with this option as it relies on vectoring onto the ILS.

Although new or revised safety assurances may be needed, an acceptable safety argument is envisaged to be achievable.

Overflight Illustration



FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals: RMA 11-15nm

Indicative Partial System Performance

Noise	*Population*	Difference to Baseline
LOAEL (Day)	7127	-117
LOAEL (Night)	3146	-489
N65 (20)	5904	-51
N60 (5)	21272	+9453

Tranquillity	Area *(KM²)*	Difference to Baseline
AONB - N65 (20)	2.4	+0.2 km²

Emissions	Qualitative Conclusion
Fuel Burn & Greenhouse Gas	*Impacts identified*

Economic	Qualitative Conclusion
Commercial Airlines	*No impacts expected*
General Aviation	*No impacts expected*

General Aviation	Qualitative Conclusion
Controlled Airspace Volume	*Not expected to require additional CAS*
GA Access	*No significant impacts anticipated*

Capacity / Resilience	Qualitative Conclusion
Capacity / Resilience	*To be assessed further at Stage 3*

Costs	Qualitative Conclusion
Commercial Airlines Training	*No costs identified*
Commercial Airlines Other	*No costs identified*
Airport / ANSP Infrastructure	*No costs identified*
Airport / ANSP Operational	*Costs identified*
Airport / ANSP Deployment	*Costs identified*

LONDON GATWICK

FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals: RMA 11-15nm

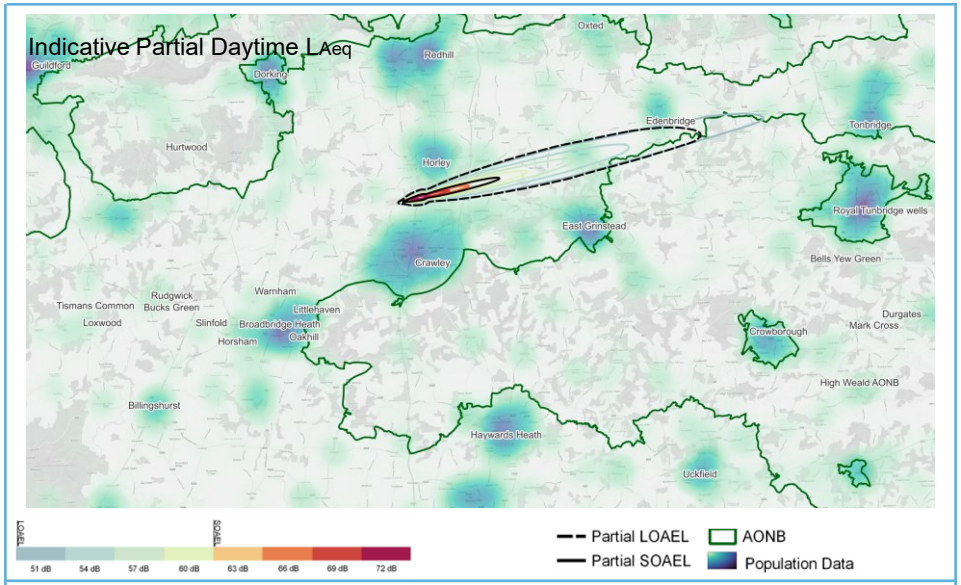
Option Name	Noise			Air Quality	Tranquillity (Overflight area km²)	Biodiversity (RAMSAR, SEC, SPA, SSSI overflown between 0-1640ft		Continued?
	Overflight Daytime / Nighttime (1) (Population)	Population Newly overflown Daytime (1)	Population Newly overflown Nighttime (1)			Number of sites overflown between 0-1640ft	Area (km2) of sites overflown between 0-1640ft	
Westerly RMA 11-15nm	117965 / 107765	125	173	No	125.1	0	0	X No
Interdependencies, conflicts & trade-offs								
Beyond c.14nm the RMA would share interdependences and require refinement in order to integrate with the network airspace above 7000ft; this would require further investigation should this option progress.								

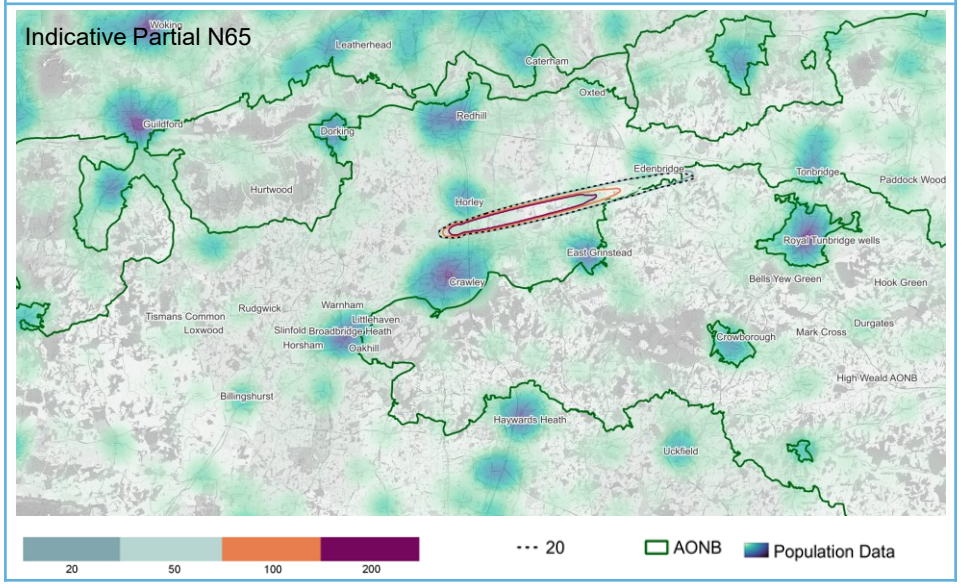
FASI-S ACP Initial Options Appraisal Dashboard

Option

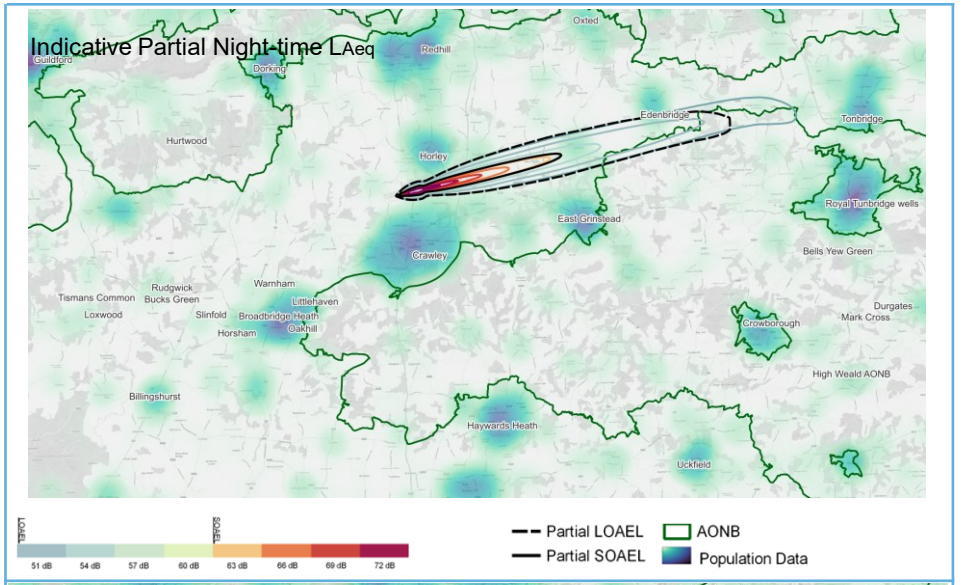
Westerly Arrivals: RMA 11-15nm

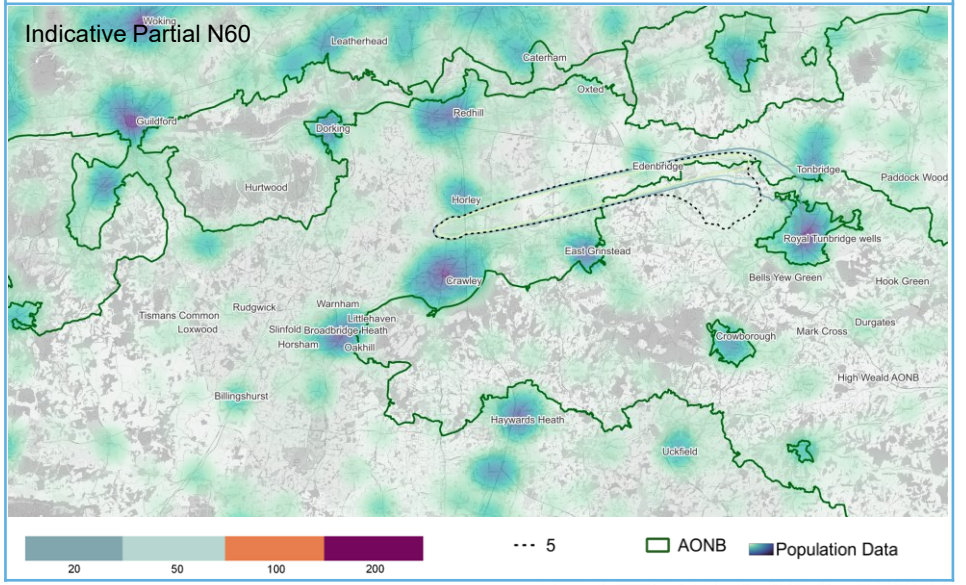
Day





Night





FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals: RMA 12-16nm

Description

Aircraft would be vectored, similar to the baseline, however they would only join the approach between 12nm and 16nm.

Noise

Aircraft would be vectored to join final approach east of the existing swathe of concentration and this would introduce new overflight on a regular basis for some areas.
It is expected that arrivals will achieve improved CDO performance which has the potential to improve noise.

Airspace Modernisation Strategy

Supports the AMS through the most expeditious flow of traffic, accommodating demand and improving system resilience to the benefit of airspace users, where a sole reliance on PBN Arrivals is not expected to achieve this. In this case of this joining band, the option may however have impacts in terms of fuel burn and CO2 emissions.

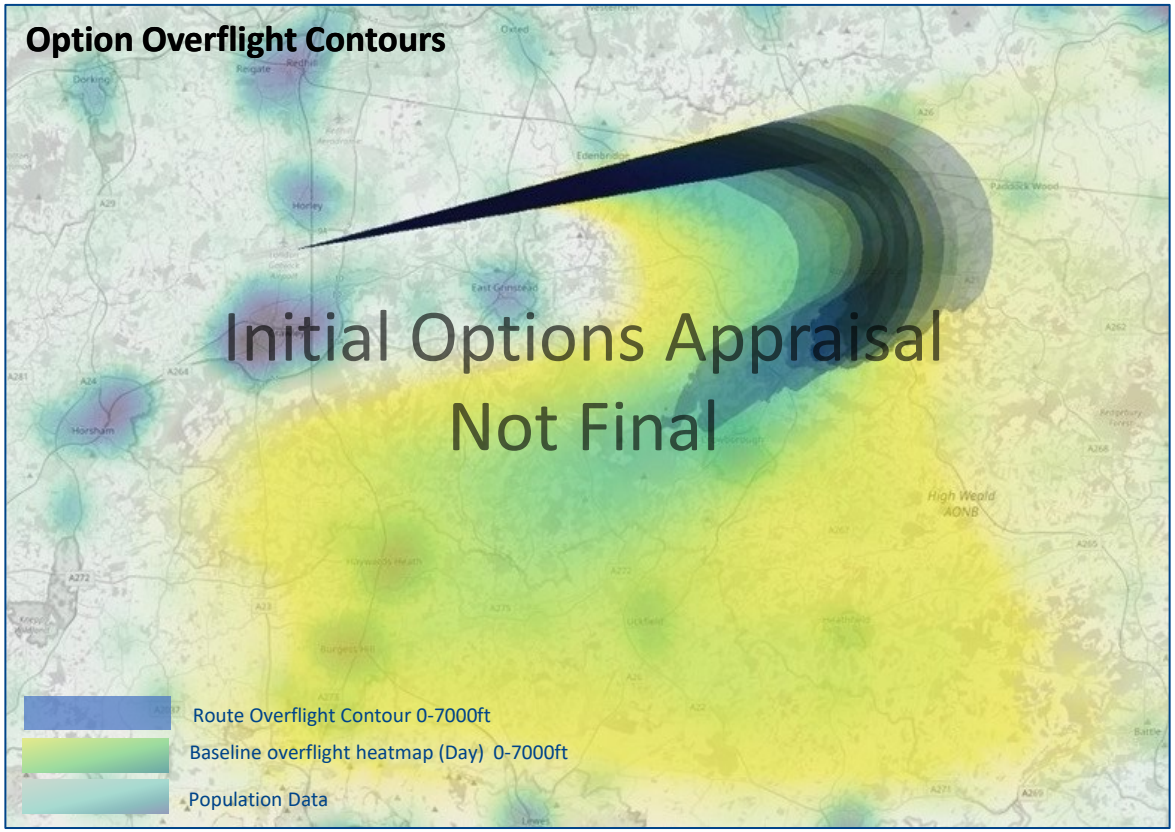
An RMA is expected to be used in conjunction with PBN arrivals as part of a wider system design which could enable simplification, integration, safety and efficiency enhancements.

Safety

No IFP design issues are anticipated with this option as it relies on vectoring onto the ILS.

Although new or revised safety assurances may be needed, an acceptable safety argument is envisaged to be achievable.

Overflight Illustration



FASI-S ACP Initial Options Appraisal Dashboard

Option

Westerly Arrivals: RMA 12-16nm

Indicative Partial System Performance

Noise	*Population*	Difference to Baseline
LOAEL (Day)	7193	-51
LOAEL (Night)	3237	-398
N65 (20)	5904	-51
N60 (5)	21302	+9483

Tranquillity	Area *(KM²)*	Difference to Baseline
AONB - N65 (20)	2.3	+0.1 km²

Emissions	Qualitative Conclusion
Fuel Burn & Greenhouse Gas	*Impacts identified*

Economic	Qualitative Conclusion
Commercial Airlines	*No impacts expected*
General Aviation	*No impacts expected*

General Aviation	Qualitative Conclusion
Controlled Airspace Volume	*Not expected to require additional CAS*
GA Access	*No significant impacts anticipated*

Capacity / Resilience	Qualitative Conclusion
Capacity / Resilience	*To be assessed further at Stage 3*

Costs	Qualitative Conclusion
Commercial Airlines Training	*No costs identified*
Commercial Airlines Other	*No costs identified*
Airport / ANSP Infrastructure	*No costs identified*
Airport / ANSP Operational	*Costs identified*
Airport / ANSP Deployment	*Costs identified*

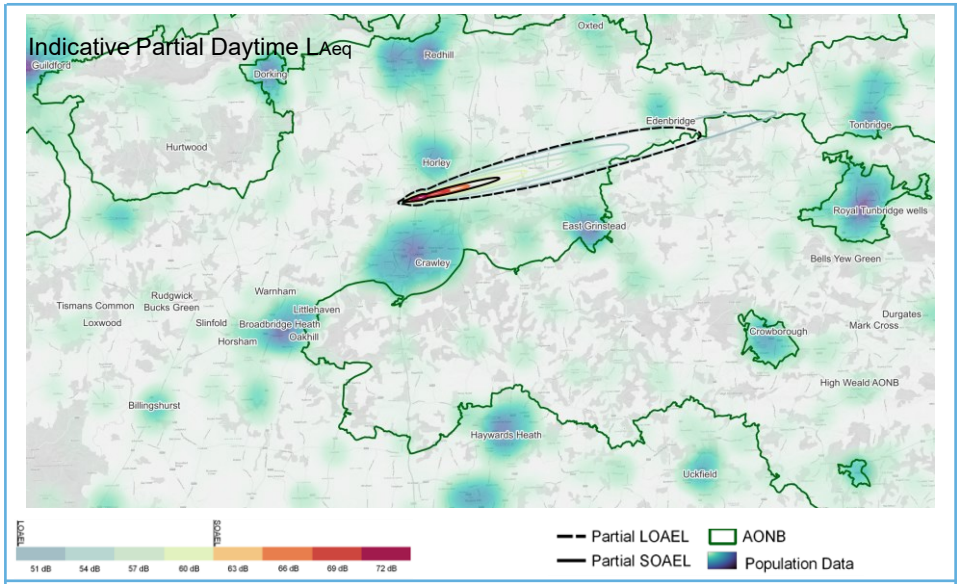
Option Name	Noise			Air Quality	Tranquillity (Overflight area km²)	Biodiversity (RAMSAR, SEC, SPA, SSSI overflown between 0-1640ft		Continued?
	Overflight Daytime / Nighttime (1) (Population)	Population Newly overflown Daytime (1)	Population Newly overflown Nighttime (1)			Number of sites overflown between 0-1640ft	Area (km2) of sites overflown between 0-1640ft	
Westerly RMA 12-16nm	127551 / 115941	362	173	No	105.9	0	0	X No
Interdependencies, conflicts & trade-offs								
Beyond c.14nm the RMA would share interdependences and require refinement in order to integrate with the network airspace above 7000ft; this would require further investigation should this option progress.								

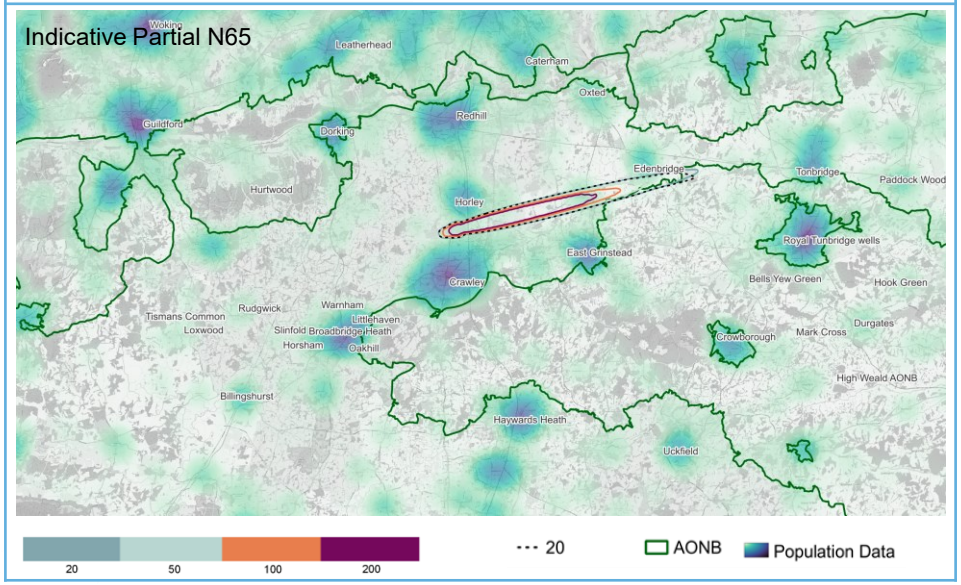
FASI-S ACP Initial Options Appraisal Dashboard

Option

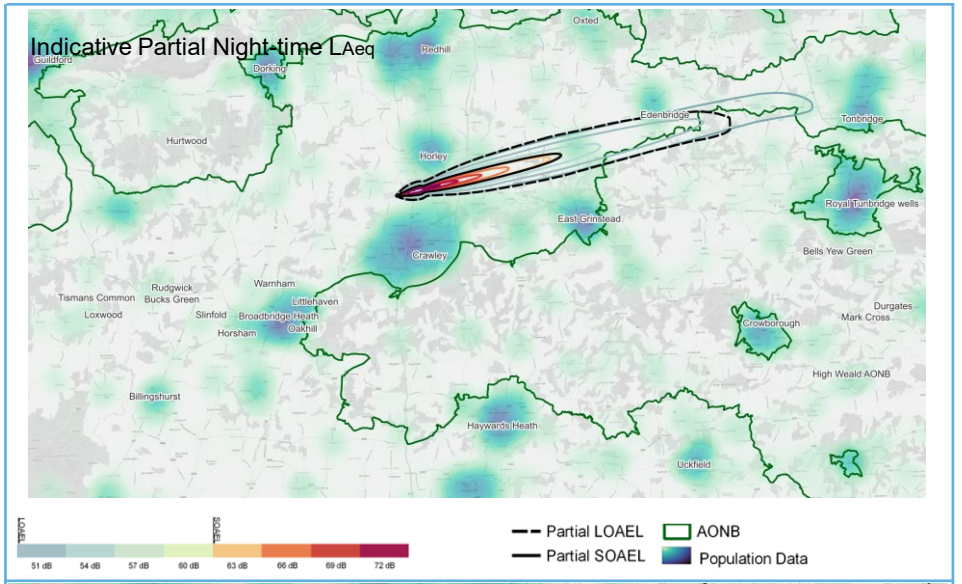
Westerly Arrivals: RMA 12-16nm

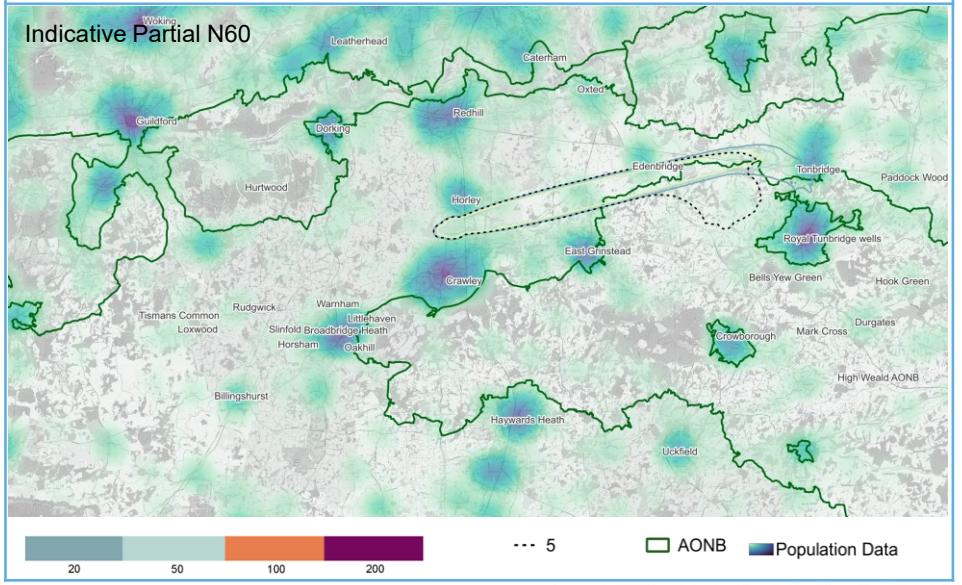
Day





Night





FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals RMA Baseline

Description

Aircraft arriving at Gatwick Airport are tactically controlled (vectored) by ATC onto final approach. There are no defined routes to follow, and aircraft are provided with instructions from Air Traffic Control who ensure the aircraft are safely spaced whilst being directed to land at Gatwick. The majority of aircraft use the Instrument Landing System (ILS) to land at Gatwick although RNP and LOC/DME approaches are also available.

For more information, please see Gatwick's Stage 2A document

Noise

The baseline 'do nothing' scenario would not change the noise environment at Gatwick. Aircraft would continue to be tactically controlled (vectored) by ATC before joining the final approach. Between 23.30 and 06.00, aircraft shall not join final approach (join the centre-line) below 3,000ft or closer than 10nm from touchdown.

As the airspace is not modernised, aircraft may be prevented from continuously descending. As traffic within the LTMA increases, this could lead to decreased CDO performance which has an impact on noise.

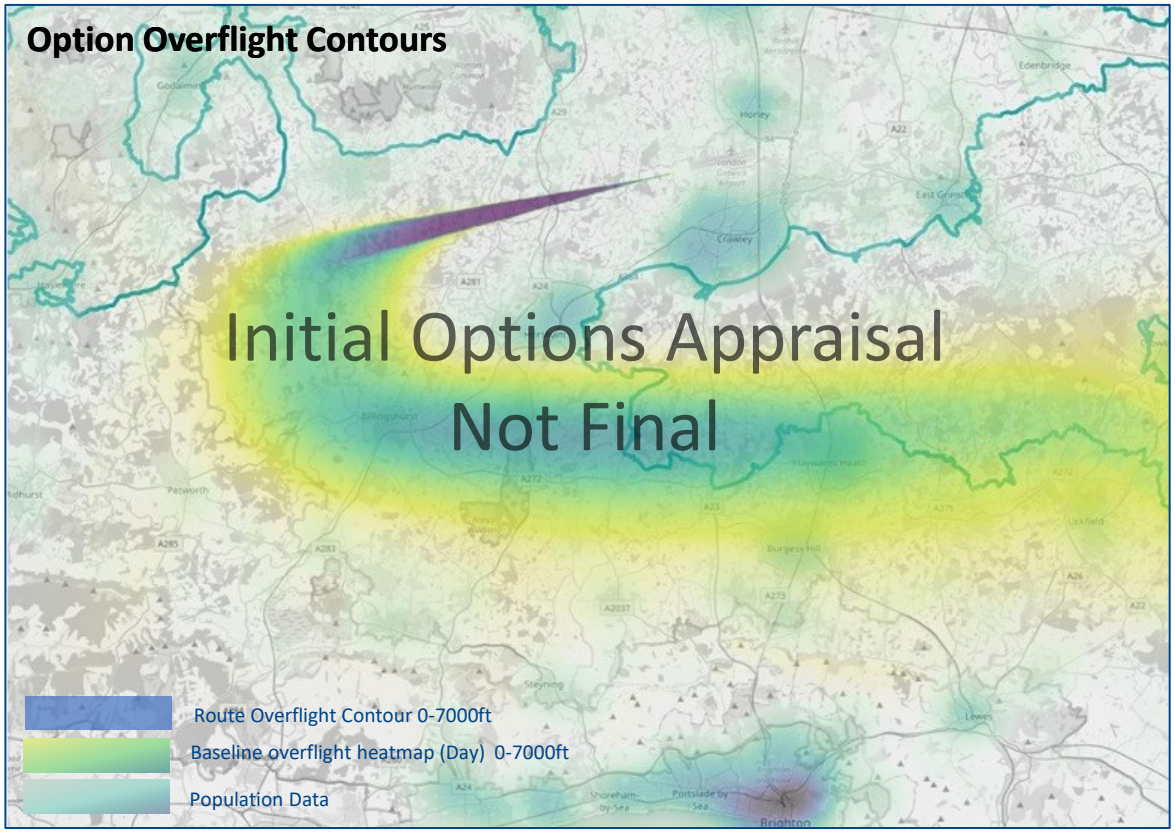
Airspace Modernisation Strategy

Doing nothing with Gatwick's arrivals will constrain options for Gatwick's SIDs and the wider LTMA network design. No change to arrivals at Gatwick will inhibit AMS benefits associated with the wider programme.

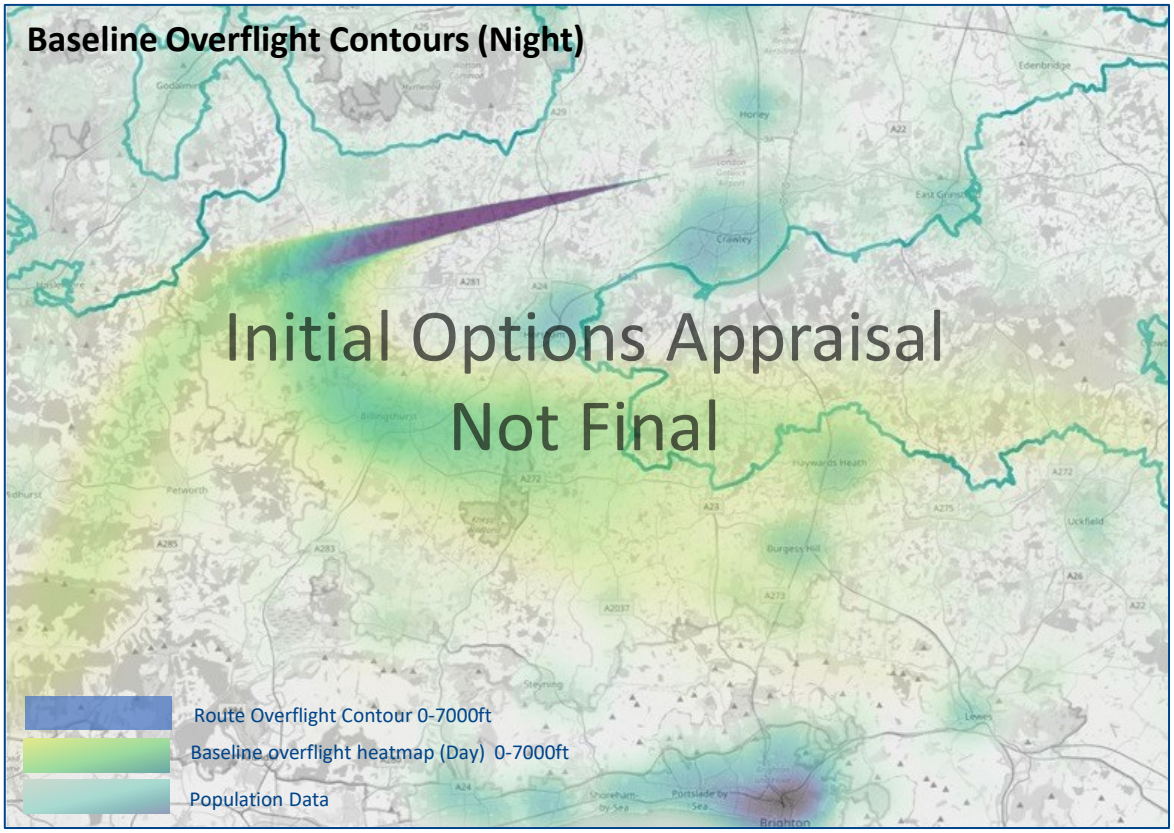
Safety

At the current traffic levels there are no safety concerns however future traffic growth could lead to increased complexity and workload for ATC and Pilots. This could lead to traffic levels within the LTMA being capped or increased ground holding, in order to maintain safety.

Overflight Illustration



Overflight Illustration



LONDON GATWICK

FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals RMA Baseline

Indicative Partial System Performance

Noise	*Population*	Difference to Baseline
LOAEL (Day)	390	n/a
LOAEL (Night)	173	n/a
N65 (20)	799	n/a
N60 (5)	2798	n/a

Tranquillity	Area *(KM²)*	Difference to Baseline
AONB - N65 (20)	0	n/a

Emissions	Qualitative Conclusion
Fuel Burn & Greenhouse Gas	*No change*

Economic	Qualitative Conclusion
Commercial Airlines	*No change*
General Aviation	*No change*

General Aviation	Qualitative Conclusion
Controlled Airspace Volume	*No change*
GA Access	*No change*

Capacity / Resilience	Qualitative Conclusion
Capacity / Resilience	*No change*

Costs	Qualitative Conclusion
Commercial Airlines Training	*No change*
Commercial Airlines Other	*No change*
Airport / ANSP Infrastructure	*No change*
Airport / ANSP Operational	*No change*
Airport / ANSP Deployment	*n/a*

Option Name	Noise			Air Quality	Tranquillity (Overflight area km^2)	Biodiversity (RAMSAR, SEC, SPA, SSSI overflown between 0-1640ft		Continued?
	Overflight Daytime / Nighttime (1) (Population)	Population Newly overflown Daytime (1)	Population Newly overflown Nighttime (1)			Number of sites overflown between 0-1640ft	Area (km2) of sites overflown between 0-1640ft	
Baseline	226349 / 113504	n/a	n/a	n/a	389.8	0.1	0.1	n/a
Interdependencies, conflicts & trade-offs								
Some Gatwick arrivals share interdependencies with Heathrow and Farnborough however this mostly occurs above 7000ft within the network airspace.								

FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals: RMA 8-12nm

Description

Aircraft would be vectored, similar to the baseline, however they would only join the approach between 8nm and 12nm.

Noise

During the day, aircraft would be vectored to join final approach in an area broadly within the existing swathe of concentration however as the joining area has been constrained to a 4nm band, there will be greater concentration of vectored tracks in this area compared to the baseline. At nighttime, Gatwick currently has a minimum joining point of 10nm between 2330 and 0600 and therefore this option would result in overflight of new areas between 8nm and 10nm at night.

It is expected that arrivals will achieve improved CDO performance which has the potential to improve noise.

Airspace Modernisation Strategy

Supports the AMS through the most expeditious flow of traffic, accommodating demand and improving system resilience to the benefit of airspace users, where a sole reliance on PBN Arrivals is not expected to achieve this.

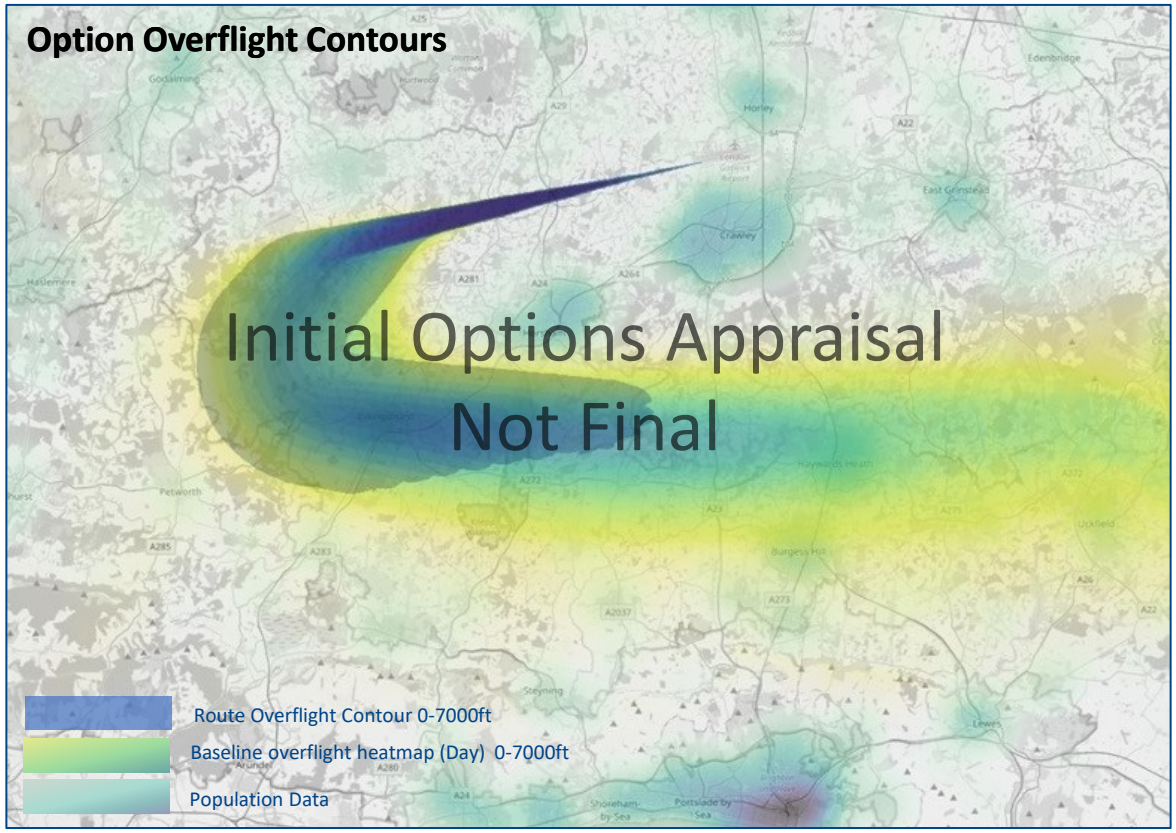
An RMA is expected to be used in conjunction with PBN arrivals as part of a wider system design which could enable simplification, integration, safety and efficiency enhancements.

Safety

No IFP design issues are anticipated with this option as it relies on vectoring onto the ILS.

Although new or revised safety assurances may be needed, an acceptable safety argument is envisaged to be achievable.

Overflight Illustration



FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals: RMA 8-12nm

Indicative Partial System Performance

Noise	*Population*	Difference to Baseline
LOAEL (Day)	382	-8
LOAEL (Night)	162	-11
N65 (20)	730	-69
N60 (5)	4502	+1704

Tranquillity	Area *(KM²)*	Difference to Baseline
AONB - N65 (20)	0	0 km²

Emissions	Qualitative Conclusion
Fuel Burn & Greenhouse Gas	*Expected positive compared to baseline*

Economic	Qualitative Conclusion
Commercial Airlines	*No impacts expected*
General Aviation	*No impacts expected*

General Aviation	Qualitative Conclusion
Controlled Airspace Volume	*Not expected to require additional CAS*
GA Access	*No significant impacts anticipated*

Capacity / Resilience	Qualitative Conclusion
Capacity / Resilience	*To be assessed further at Stage 3*

Costs	Qualitative Conclusion
Commercial Airlines Training	*No costs identified*
Commercial Airlines Other	*No costs identified*
Airport / ANSP Infrastructure	*No costs identified*
Airport / ANSP Operational	*Costs identified*
Airport / ANSP Deployment	*Costs identified*

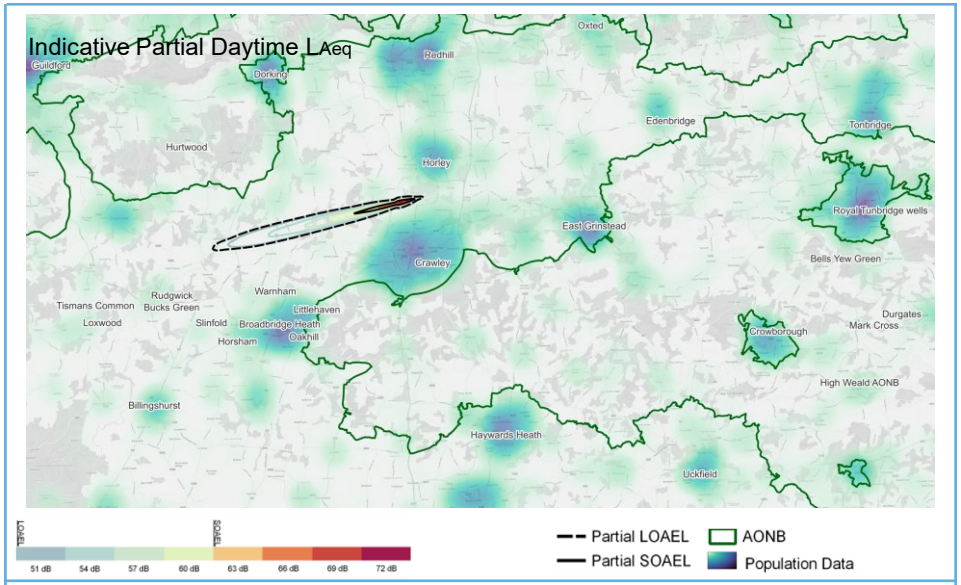
Option Name	Noise			Air Quality	Tranquillity (Overflight area km^2)	Biodiversity (RAMSAR, SEC, SPA, SSSI overflown between 0-1640ft		Continued?
	Overflight Daytime / Nighttime (1) (Population)	Population Newly overflown Daytime (1)	Population Newly overflown Nighttime (1)			Number of sites overflown between 0-1640ft	Area (km2) of sites overflown between 0-1640ft	
Easterly RMA 8-12nm	34284 / 28400	36	36	No	1.9	1	0.1	✓ Yes
Interdependencies, conflicts & trade-offs								
Option has potential interactions with some departure routes however interactions are minimised with those departure routes that have been evolved to reduce interactions with arrivals.								

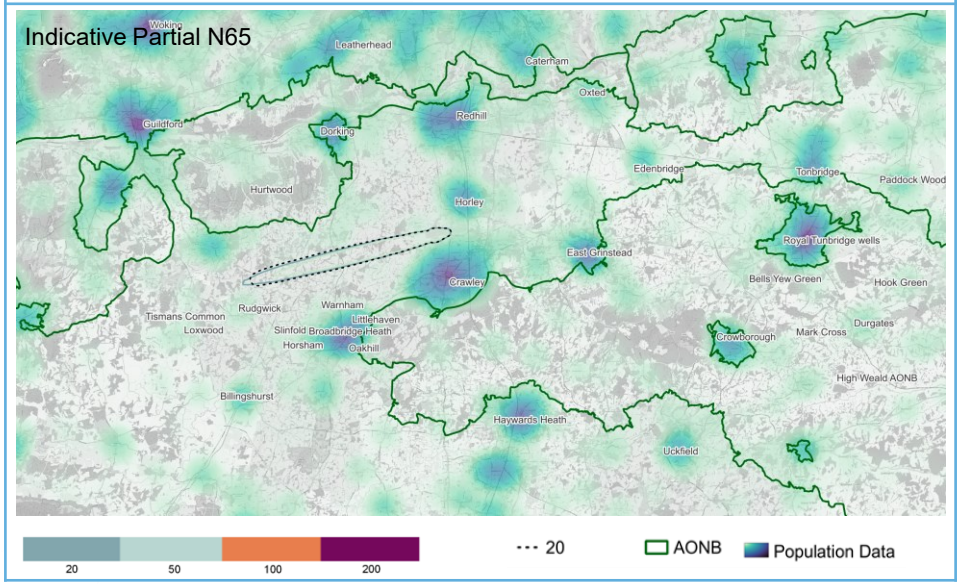
FASI-S ACP Initial Options Appraisal Dashboard

Option

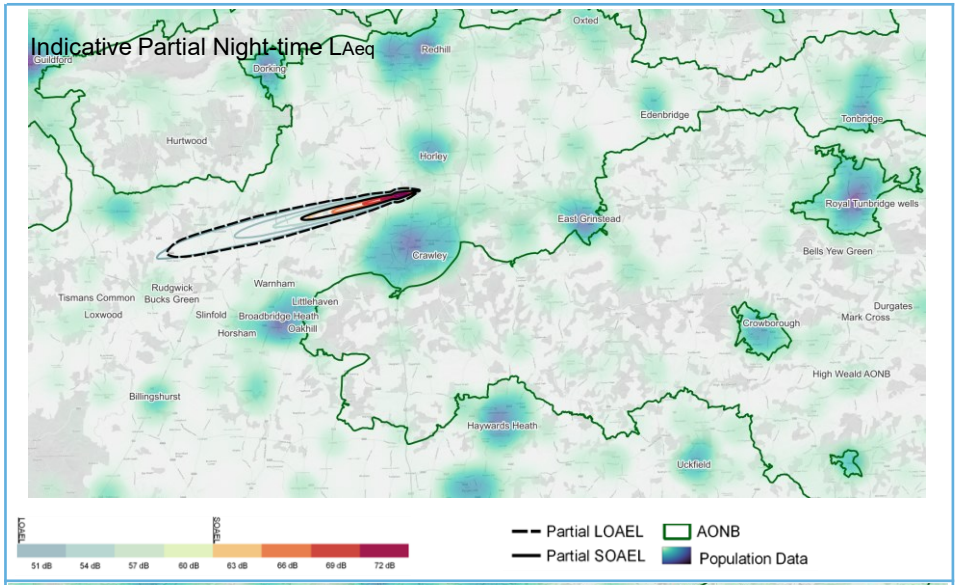
Easterly Arrivals: RMA 8-12nm

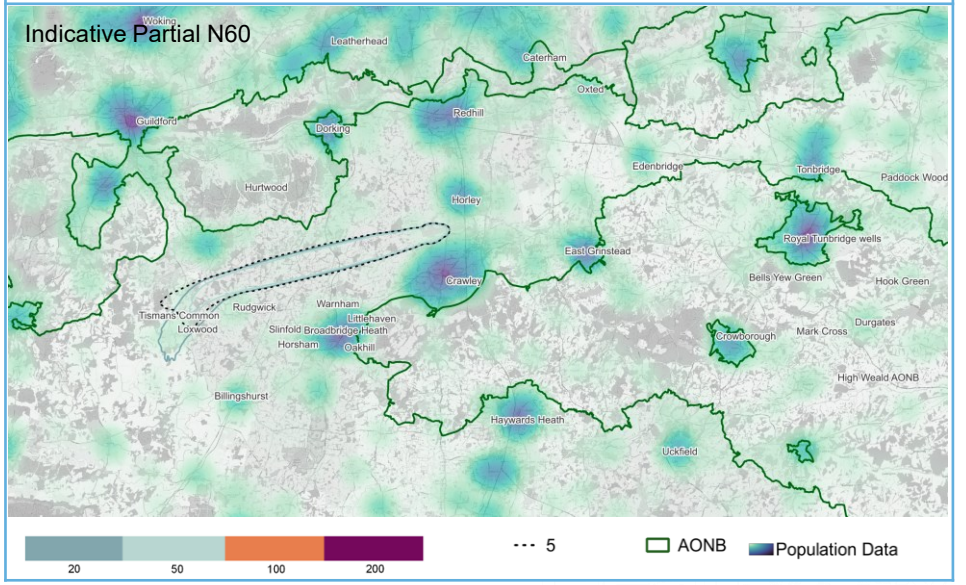
Day





Night





FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals: RMA 9-13nm

Description

Aircraft would be vectored, similar to the baseline, however they would only join the approach between 9nm and 13nm.

Noise

During the day, aircraft would be vectored to join final approach in an area broadly within the existing swathe of concentration however as the joining area has been constrained to a 4nm band, there will be greater concentration of vectored tracks in this area compared to the baseline. At nighttime, Gatwick currently has a minimum joining point of 10nm between 2330 and 0600 and therefore this option would result in overflight of new areas between 9nm and 10nm at night.

Airspace Modernisation Strategy

Supports the AMS through the most expeditious flow of traffic, accommodating demand and improving system resilience to the benefit of airspace users, where a sole reliance on PBN Arrivals is not expected to achieve this.

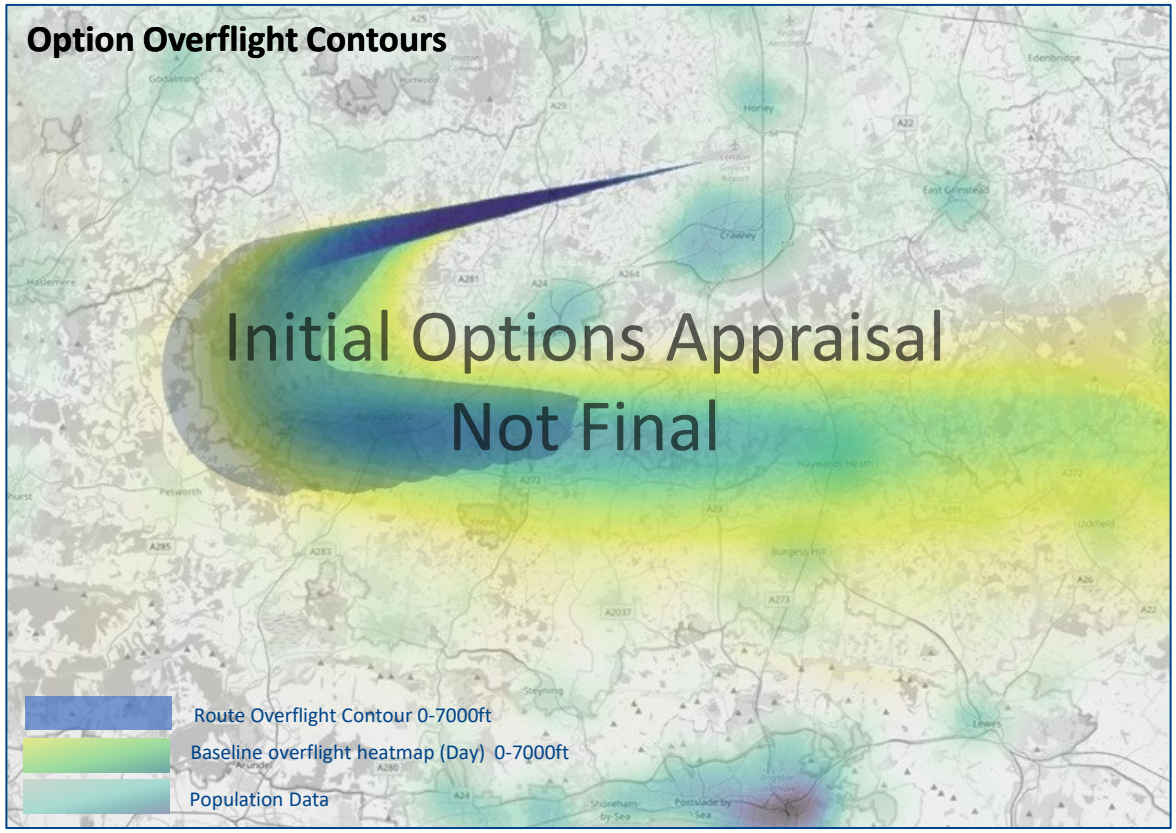
An RMA is expected to be used in conjunction with PBN arrivals as part of a wider system design which could enable simplification, integration, safety and efficiency enhancements.

Safety

No IFP design issues are anticipated with this option as it relies on vectoring onto the ILS.

Although new or revised safety assurances may be needed, an acceptable safety argument is envisaged to be achievable.

Overflight Illustration



FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals: RMA 9-13nm

Indicative Partial System Performance

Noise	*Population*	Difference to Baseline
LOAEL (Day)	382	-8
LOAEL (Night)	162	-11
N65 (20)	730	-69
N60 (5)	3731	+933

Tranquillity	Area *(KM²)*	Difference to Baseline
AONB - N65 (20)	0	0 km²

Emissions	Qualitative Conclusion
Fuel Burn & Greenhouse Gas	*Expected positive compared to baseline*

Economic	Qualitative Conclusion
Commercial Airlines	*No impacts expected*
General Aviation	*No impacts expected*

General Aviation	Qualitative Conclusion
Controlled Airspace Volume	*Not expected to require additional CAS*
GA Access	*No significant impacts anticipated*

Capacity / Resilience	Qualitative Conclusion
Capacity / Resilience	*To be assessed further at Stage 3*

Costs	Qualitative Conclusion
Commercial Airlines Training	*No costs identified*
Commercial Airlines Other	*No costs identified*
Airport / ANSP Infrastructure	*No costs identified*
Airport / ANSP Operational	*Costs identified*
Airport / ANSP Deployment	*Costs identified*

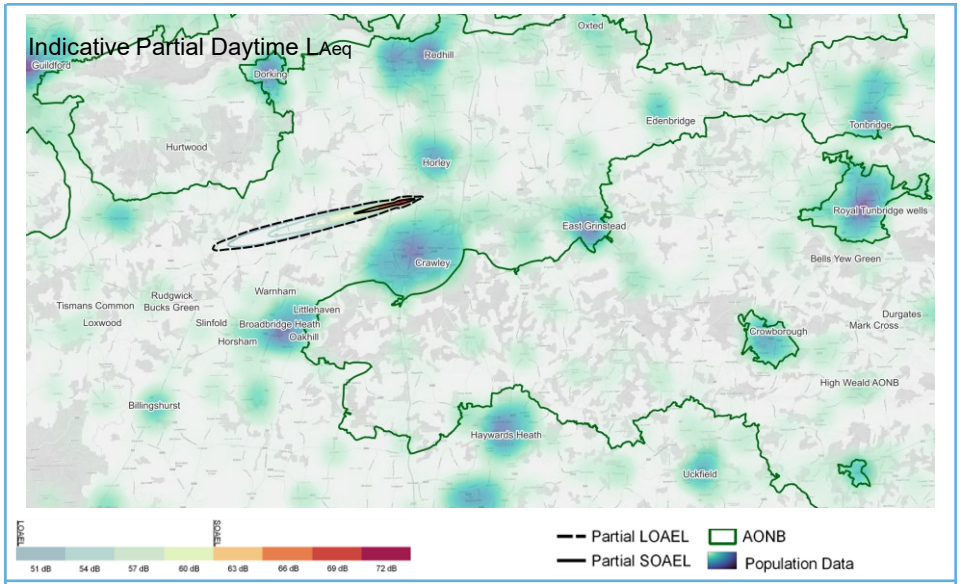
Option Name	Noise			Air Quality	Tranquillity (Overflight area km^2)	Biodiversity (RAMSAR, SEC, SPA, SSSI overflown between 0-1640ft		Continued?
	Overflight Daytime / Nighttime (1) (Population)	Population Newly overflown Daytime (1)	Population Newly overflown Nighttime (1)			Number of sites overflown between 0-1640ft	Area (km2) of sites overflown between 0-1640ft	
Easterly RMA 9-13nm	29608 / 19737	47	142	No	0	1	0.1	✓ Yes
Interdependencies, conflicts & trade-offs								
Option has potential interactions with some departure routes however interactions are minimised with those departure routes that have been evolved to reduce interactions with arrivals.								

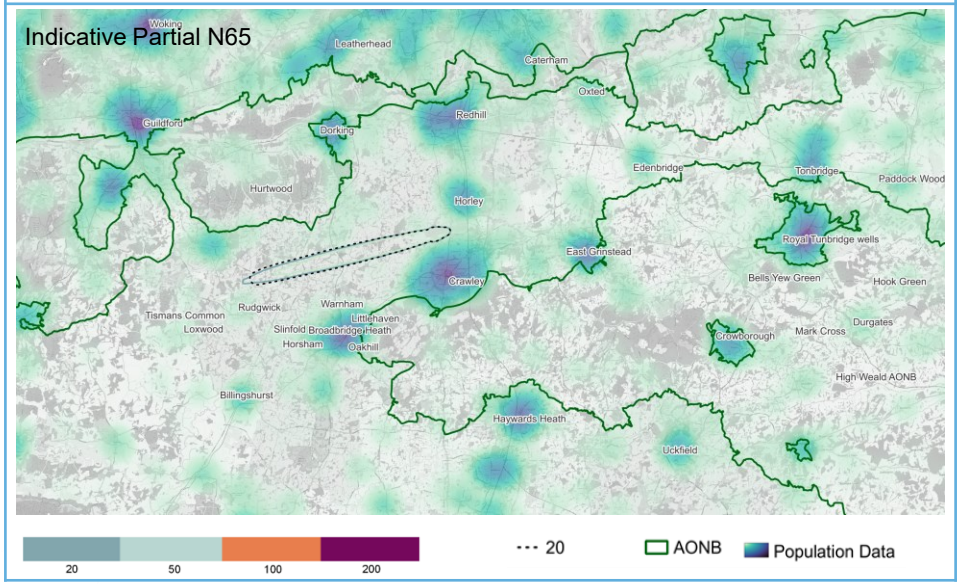
FASI-S ACP Initial Options Appraisal Dashboard

Option

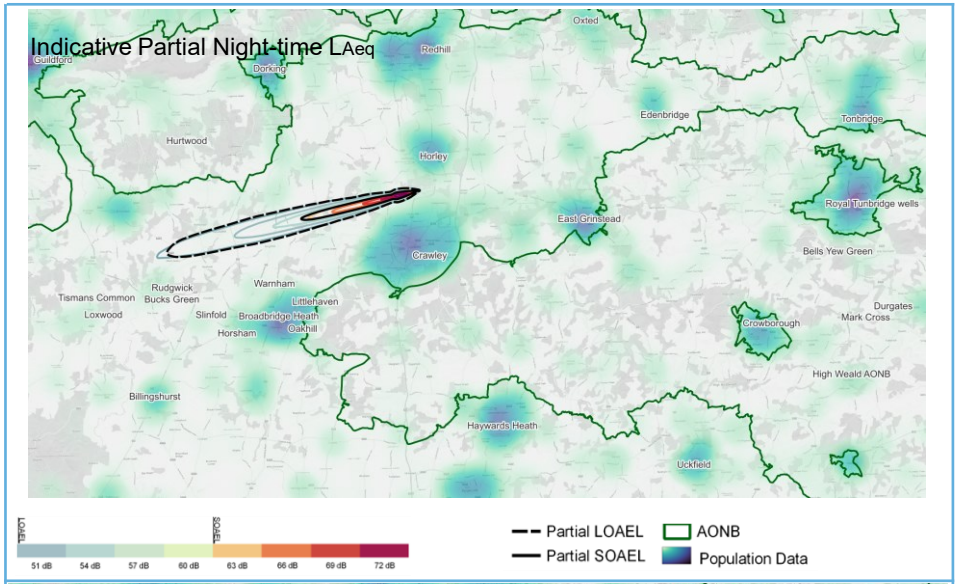
Easterly Arrivals: RMA 9-13nm

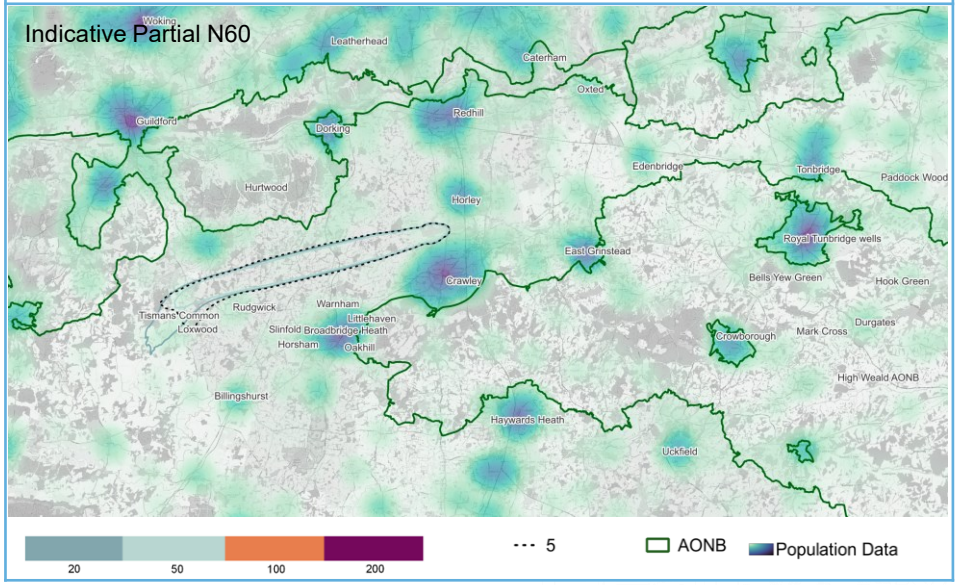
Day





Night





FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals: RMA 10-14nm

Description

Aircraft would be vectored, similar to the baseline, however they would only join the approach between 10nm and 14nm.

Noise

Aircraft would be vectored to join final approach slightly west of the existing swathe of concentration. For some areas, this would introduce new overflight on a regular basis which is not seen in the baseline and, owing to the 4nm joining band, the areas which are overflown in the baseline would see an increase in frequency of flights.

It is expected that arrivals will achieve improved CDO performance.

Airspace Modernisation Strategy

Supports the AMS through the most expeditious flow of traffic, accommodating demand and improving system resilience to the benefit of airspace users, where a sole reliance on PBN Arrivals is not expected to achieve this. In this case of this joining band, the option may however have impacts in terms of fuel burn and CO2 emissions.

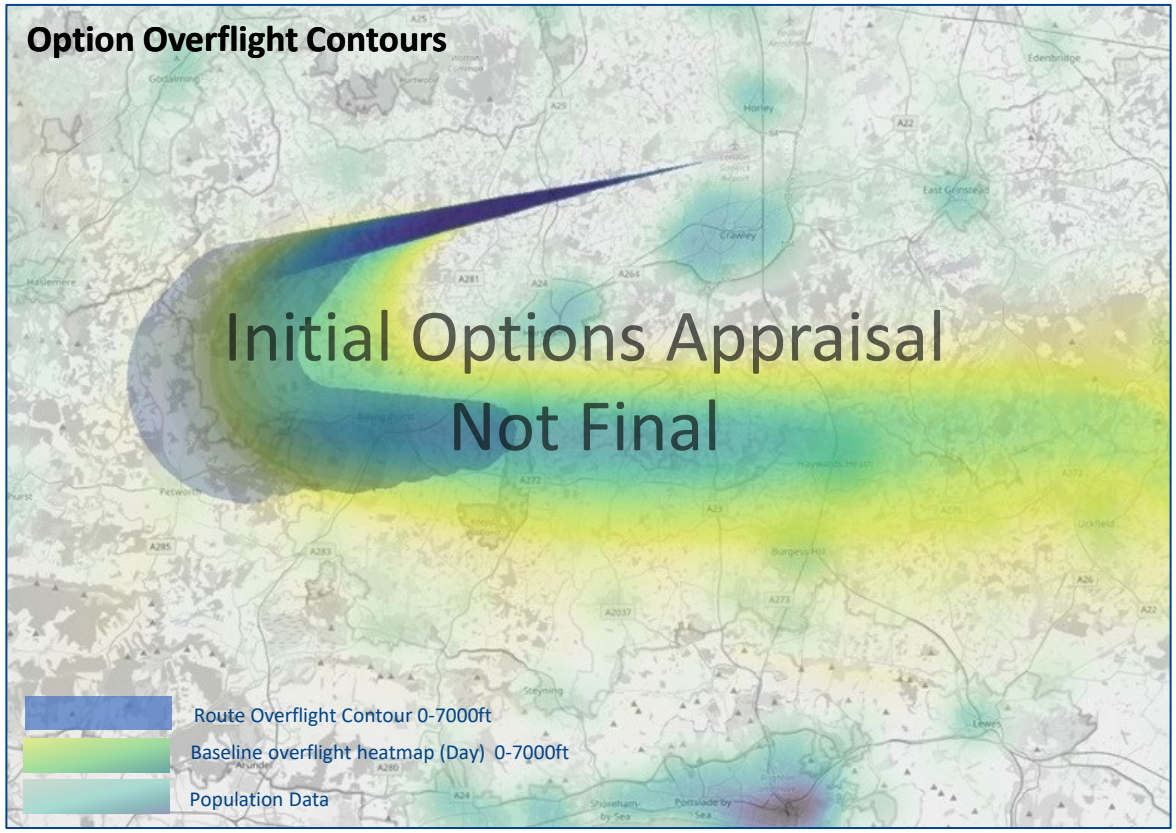
An RMA is expected to be used in conjunction with PBN arrivals as part of a wider system design which could enable simplification, integration, safety and efficiency enhancements.

Safety

No IFP design issues are anticipated with this option as it relies on vectoring onto the ILS.

Although new or revised safety assurances may be needed, an acceptable safety argument is envisaged to be achievable.

Overflight Illustration



LONDON GATWICK

FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals: RMA 10-14nm

Indicative Partial System Performance

Noise	*Population*	Difference to Baseline
LOAEL (Day)	382	-8
LOAEL (Night)	162	-11
N65 (20)	730	-69
N60 (5)	3020	+222

Tranquillity	Area *(KM²)*	Difference to Baseline
AONB - N65 (20)	0	0 km²

Emissions	Qualitative Conclusion
Fuel Burn & Greenhouse Gas	*Impacts identified*

Economic	Qualitative Conclusion
Commercial Airlines	*No impacts expected*
General Aviation	*No impacts expected*

General Aviation	Qualitative Conclusion
Controlled Airspace Volume	*Not expected to require additional CAS*
GA Access	*No significant impacts anticipated*

Capacity / Resilience	Qualitative Conclusion
Capacity / Resilience	*To be assessed further at Stage 3*

Costs	Qualitative Conclusion
Commercial Airlines Training	*No costs identified*
Commercial Airlines Other	*No costs identified*
Airport / ANSP Infrastructure	*No costs identified*
Airport / ANSP Operational	*Costs identified*
Airport / ANSP Deployment	*Costs identified*

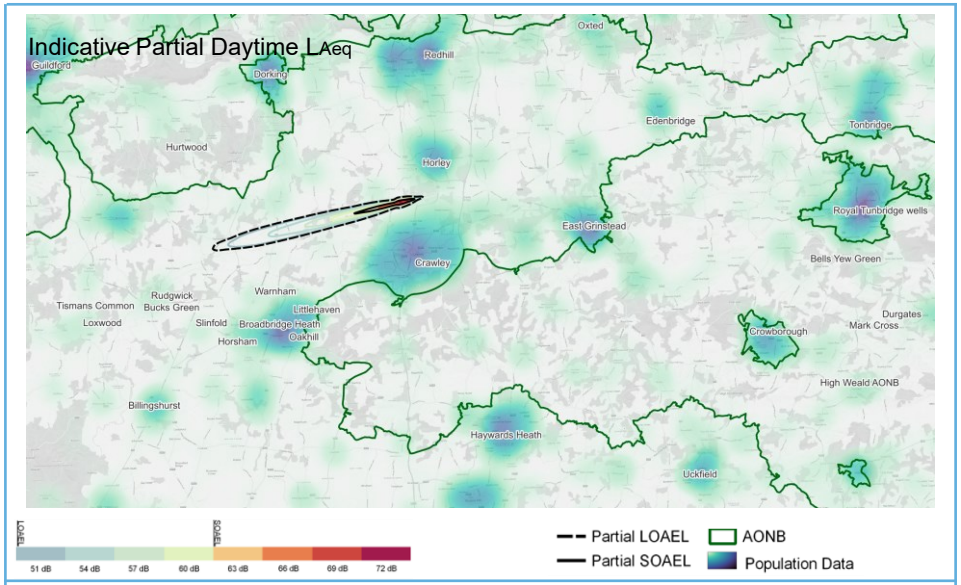
Option Name	Noise			Air Quality	Tranquillity (Overflight area km²)	Biodiversity (RAMSAR, SEC, SPA, SSSI overflown between 0-1640ft		Continued?
	Overflight Daytime / Nighttime (1) (Population)	Population Newly overflown Daytime (1)	Population Newly overflown Nighttime (1)			Number of sites overflown between 0-1640ft	Area (km2) of sites overflown between 0-1640ft	
Westerly RMA 10-14nm	21870 / 15116	1540	265	No	0	1	0.1	✓ Yes
Interdependencies, conflicts & trade-offs								
Option has potential interactions with some departure routes however interactions are minimised with those departure routes that have been evolved to reduce interactions with arrivals.								

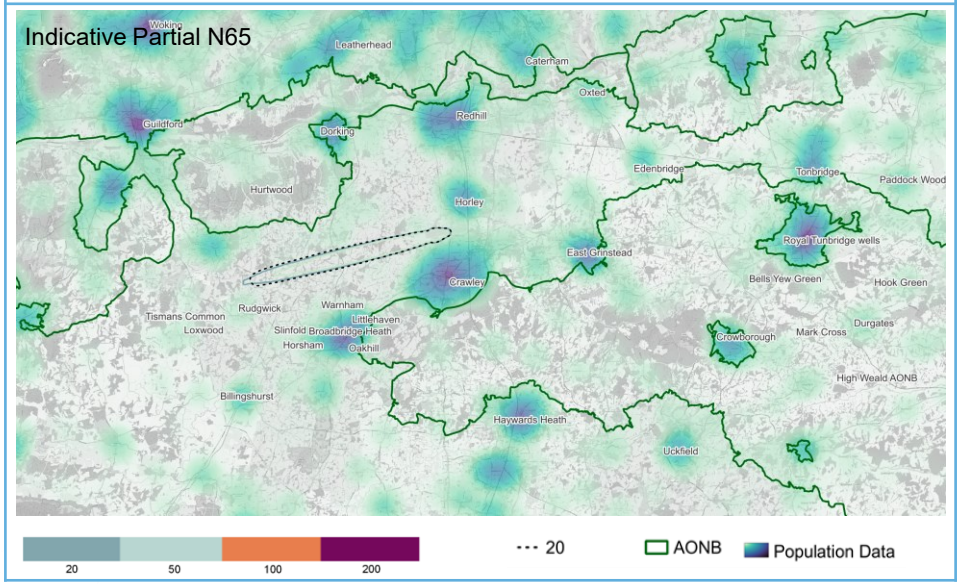
FASI-S ACP Initial Options Appraisal Dashboard

Option

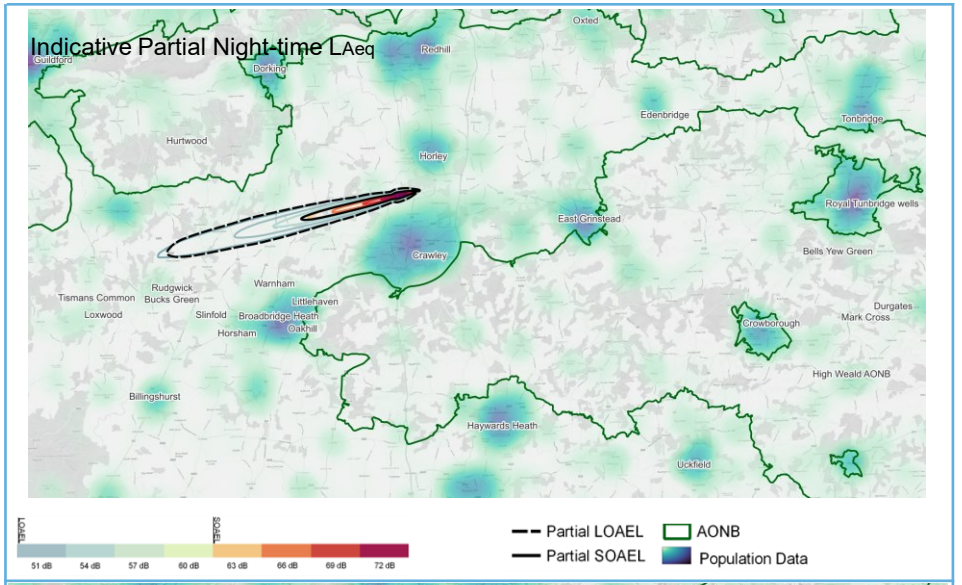
Easterly Arrivals: RMA 10-14nm

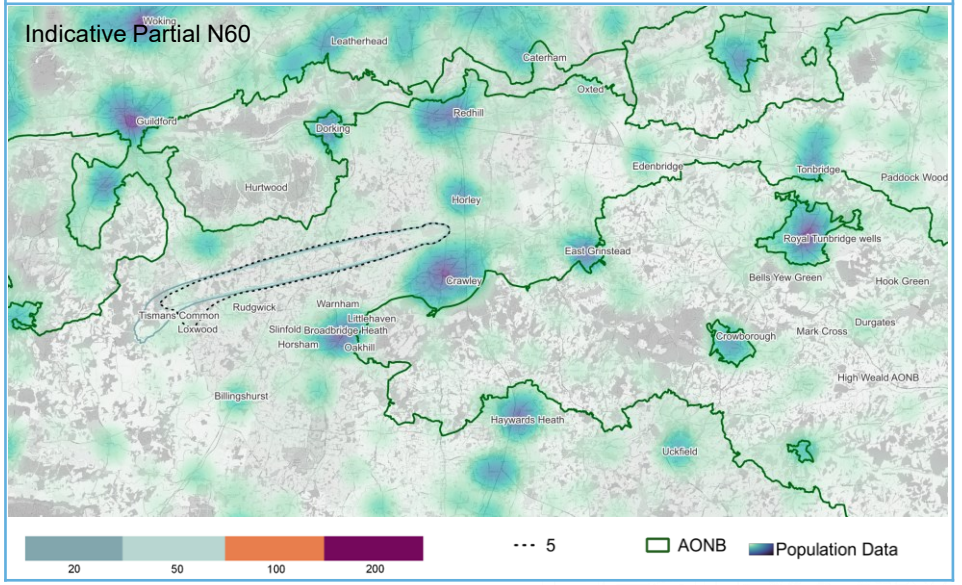
Day





Night





FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals: RMA 11-15nm

Description

Aircraft would be vectored, similar to the baseline, however they would only join the approach between 11nm and 15nm.

Noise

Aircraft would be vectored to join final approach west of the existing swathe of concentration and this would introduce new overflight on a regular basis for areas not overflown in the baseline.

It is expected that arrivals will achieve improved CDO performance.

Airspace Modernisation Strategy

Supports the AMS through the most expeditious flow of traffic, accommodating demand and improving system resilience to the benefit of airspace users, where a sole reliance on PBN Arrivals is not expected to achieve this. In this case of this joining band, the option may however have impacts in terms of fuel burn and CO2 emissions.

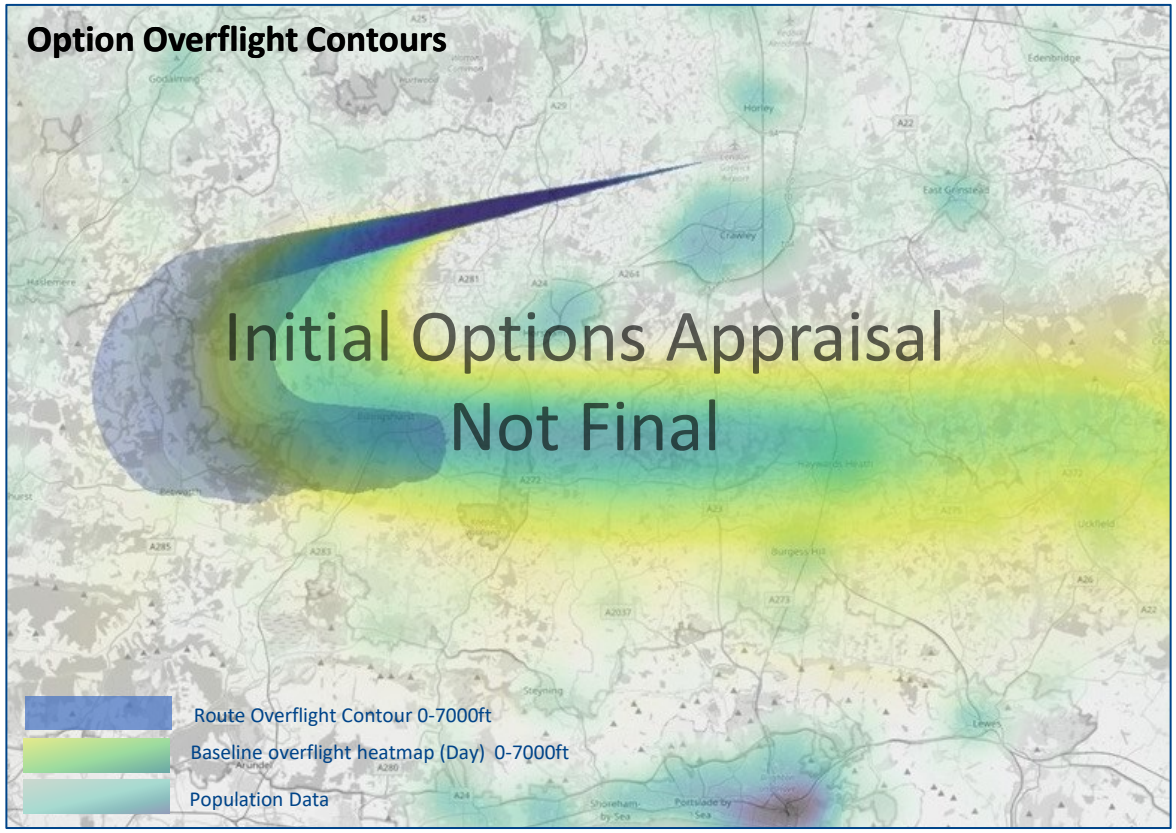
An RMA is expected to be used in conjunction with PBN arrivals as part of a wider system design which could enable simplification, integration, safety and efficiency enhancements.

Safety

No IFP design issues are anticipated with this option as it relies on vectoring onto the ILS.

Although new or revised safety assurances may be needed, an acceptable safety argument is envisaged to be achievable.

Overflight Illustration



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FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals: RMA 11-15nm

Indicative Partial System Performance

Noise	*Population*	Difference to Baseline
LOAEL (Day)	382	-8
LOAEL (Night)	162	-11
N65 (20)	730	-69
N60 (5)	2880	+82

Tranquillity	Area *(KM²)*	Difference to Baseline
AONB - N65 (20)	0	0 km²

Emissions	Qualitative Conclusion
Fuel Burn & Greenhouse Gas	*Impacts identified*

Economic	Qualitative Conclusion
Commercial Airlines	*No impacts expected*
General Aviation	*No impacts expected*

General Aviation	Qualitative Conclusion
Controlled Airspace Volume	*Not expected to require additional CAS*
GA Access	*No significant impacts anticipated*

Capacity / Resilience	Qualitative Conclusion
Capacity / Resilience	*To be assessed further at Stage 3*

Costs	Qualitative Conclusion
Commercial Airlines Training	*No costs identified*
Commercial Airlines Other	*No costs identified*
Airport / ANSP Infrastructure	*No costs identified*
Airport / ANSP Operational	*Costs identified*
Airport / ANSP Deployment	*Costs identified*

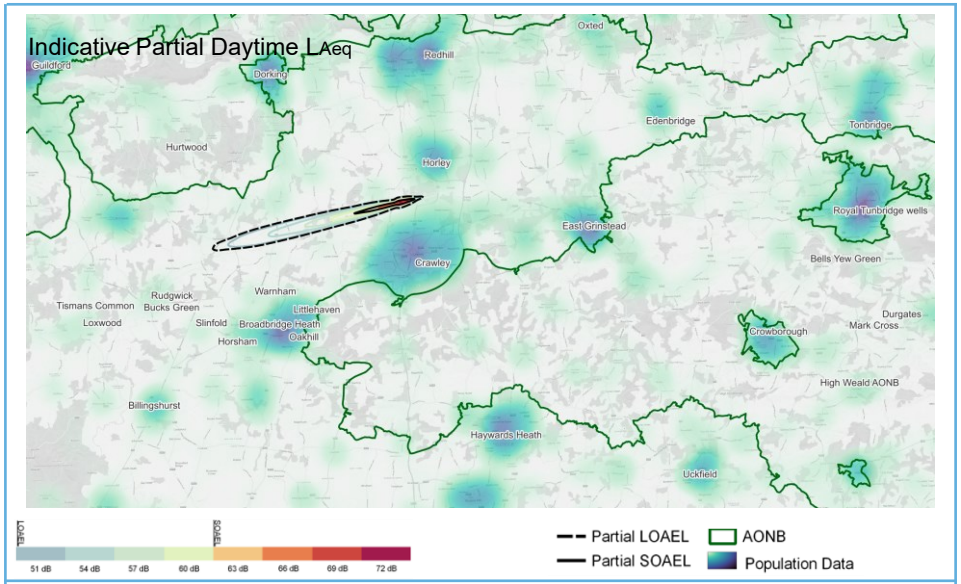
Option Name	Noise			Air Quality	Tranquillity (Overflight area km^2)	Biodiversity (RAMSAR, SEC, SPA, SSSI overflown between 0-1640ft		Continued?
	Overflight Daytime / Nighttime (1) (Population)	Population Newly overflown Daytime (1)	Population Newly overflown Nighttime (1)			Number of sites overflown between 0-1640ft	Area (km2) of sites overflown between 0-1640ft	
Easterly RMA 11-15nm	18189 / 6987	3029	784	No	0.8	1	0.1	X No
Interdependencies, conflicts & trade-offs								
Feedback from NERL has indicated that this option has significant interactions with the flows of Farnborough and Heathrow traffic within the wider airspace.								

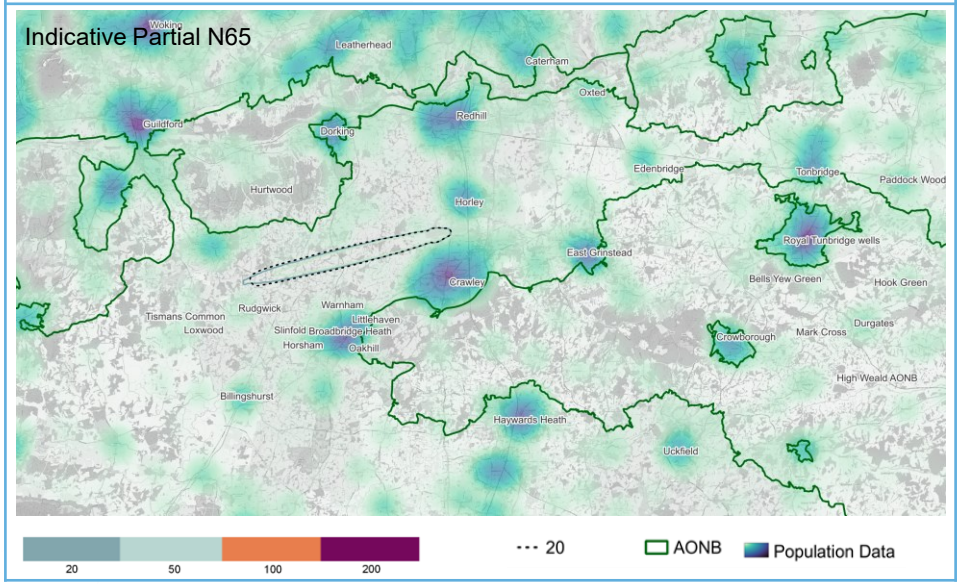
FASI-S ACP Initial Options Appraisal Dashboard

Option

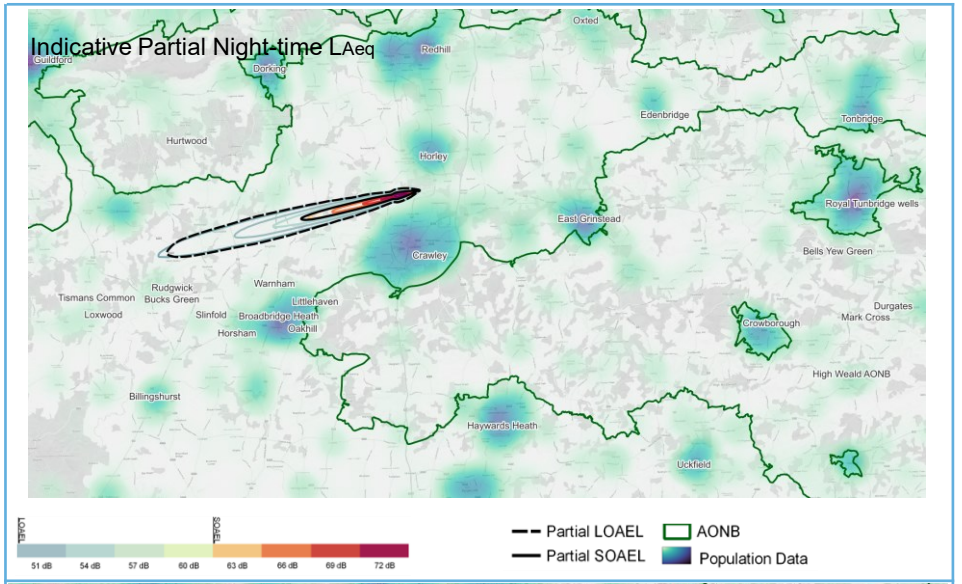
Easterly Arrivals: RMA 11-15nm

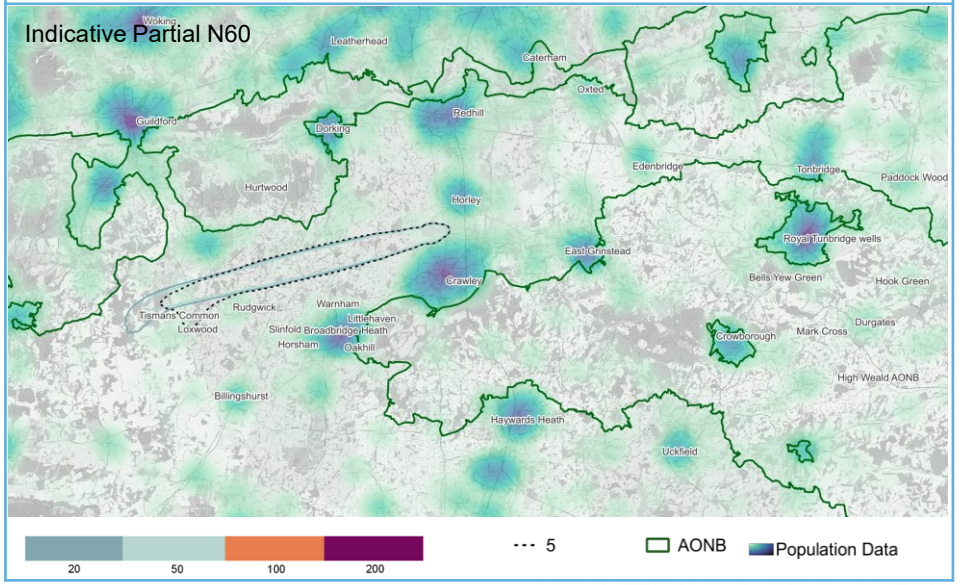
Day





Night





FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals: RMA 12-16nm

Description

Aircraft would be vectored, similar to the baseline, however they would only join the approach between 12nm and 16nm.

Noise

Aircraft would be vectored to join final approach west of the existing swathe of concentration and this would introduce new overflight on a regular basis for areas not overflown in the baseline.

It is expected that arrivals will achieve improved CDO performance.

Airspace Modernisation Strategy

Supports the AMS through the most expeditious flow of traffic, accommodating demand and improving system resilience to the benefit of airspace users, where a sole reliance on PBN Arrivals is not expected to achieve this. In this case of this joining band, the option may however have impacts in terms of fuel burn and CO2 emissions.

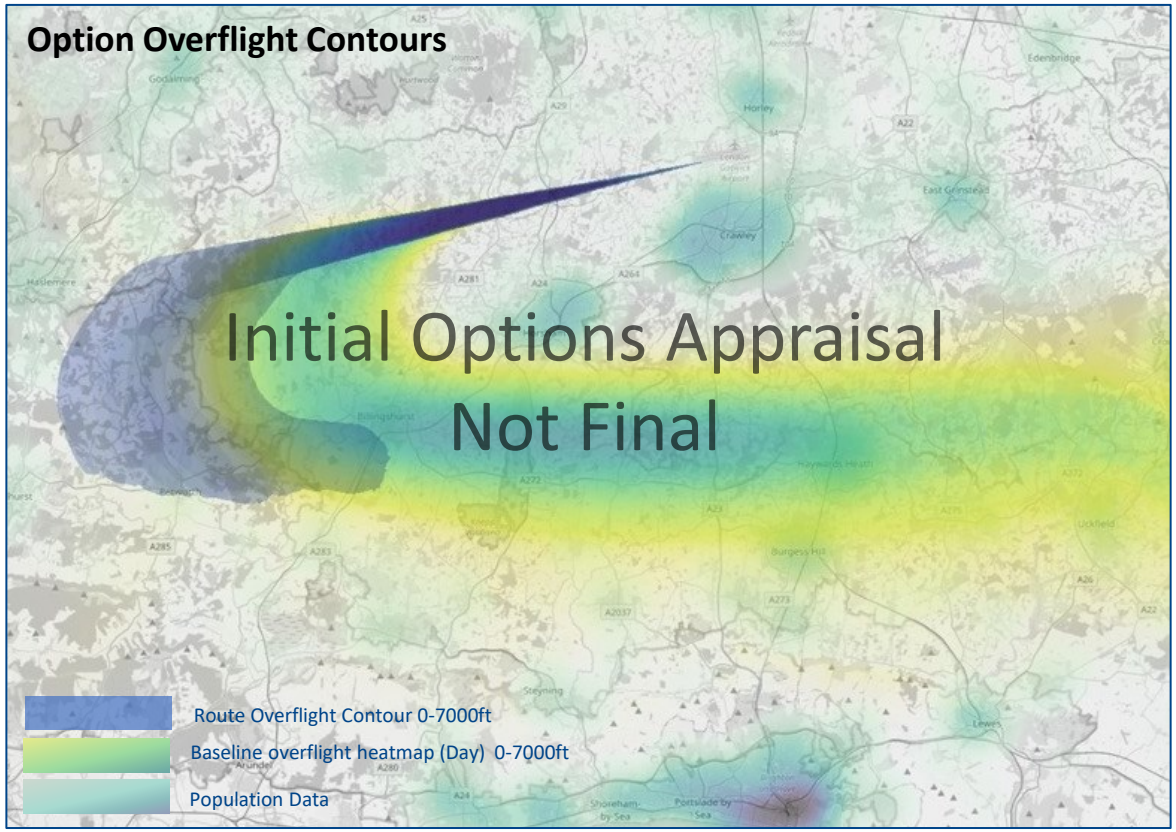
An RMA is expected to be used in conjunction with PBN arrivals as part of a wider system design which could enable simplification, integration, safety and efficiency enhancements.

Safety

No IFP design issues are anticipated with this option as it relies on vectoring onto the ILS.

Although new or revised safety assurances may be needed, an acceptable safety argument is envisaged to be achievable.

Overflight Illustration



FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals: RMA 12-16nm

Indicative Partial System Performance

Noise	*Population*	Difference to Baseline
LOAEL (Day)	382	-8
LOAEL (Night)	162	-11
N65 (20)	730	-69
N60 (5)	2838	+40

Tranquillity	Area *(KM²)*	Difference to Baseline
AONB - N65 (20)	0	0 km²

Emissions	Qualitative Conclusion
Fuel Burn & Greenhouse Gas	*Impacts identified*

Economic	Qualitative Conclusion
Commercial Airlines	*No impacts expected*
General Aviation	*No impacts expected*

General Aviation	Qualitative Conclusion
Controlled Airspace Volume	*Not expected to require additional CAS*
GA Access	*No significant impacts anticipated*

Capacity / Resilience	Qualitative Conclusion
Capacity / Resilience	*To be assessed further at Stage 3*

Costs	Qualitative Conclusion
Commercial Airlines Training	*No costs identified*
Commercial Airlines Other	*No costs identified*
Airport / ANSP Infrastructure	*No costs identified*
Airport / ANSP Operational	*Costs identified*
Airport / ANSP Deployment	*Costs identified*

LONDON GATWICK

FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals: RMA 12-16nm

Option Name	Noise			Air Quality	Tranquillity (Overflight area km^2)	Biodiversity (RAMSAR, SEC, SPA, SSSI overflown between 0-1640ft		Continued?
	Overflight Daytime / Nighttime (1) (Population)	Population Newly overflown Daytime (1)	Population Newly overflown Nighttime (1)			Number of sites overflown between 0-1640ft	Area (km2) of sites overflown between 0-1640ft	
Easterly RMA 12-16nm	9431 / 5657	3984	1595	No	3.7	1	0.1	X No
Interdependencies, conflicts & trade-offs								
Feedback from NERL has indicated that this option has significant interactions with the flows of Farnborough and Heathrow traffic within the wider airspace.								

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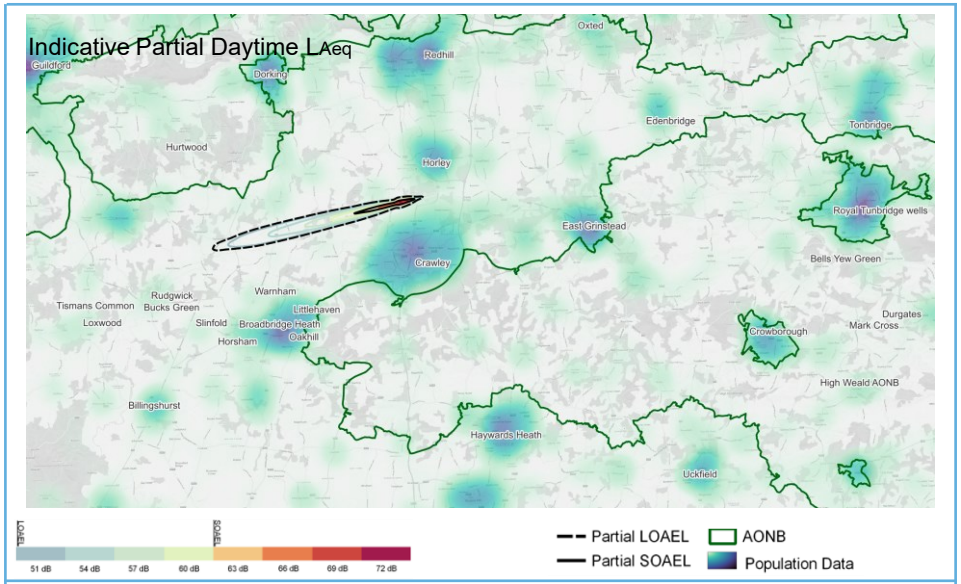
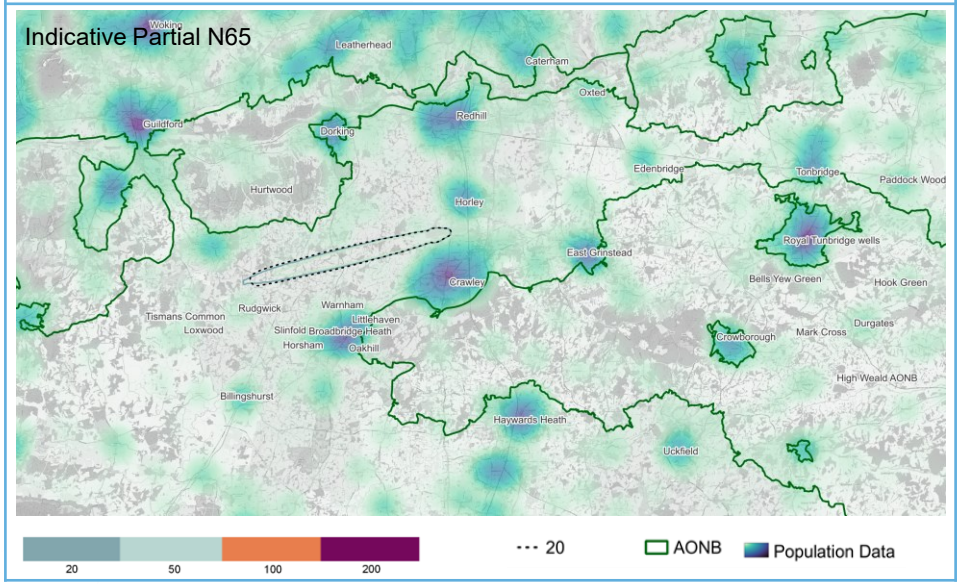
FASI-S ACP Initial Options Appraisal Dashboard

Option

Easterly Arrivals: RMA 12-16nm

Day





Night