



Airspace Change Proposal

Main Consultation Documents

Appendix B:

High resolution Operational Diagrams



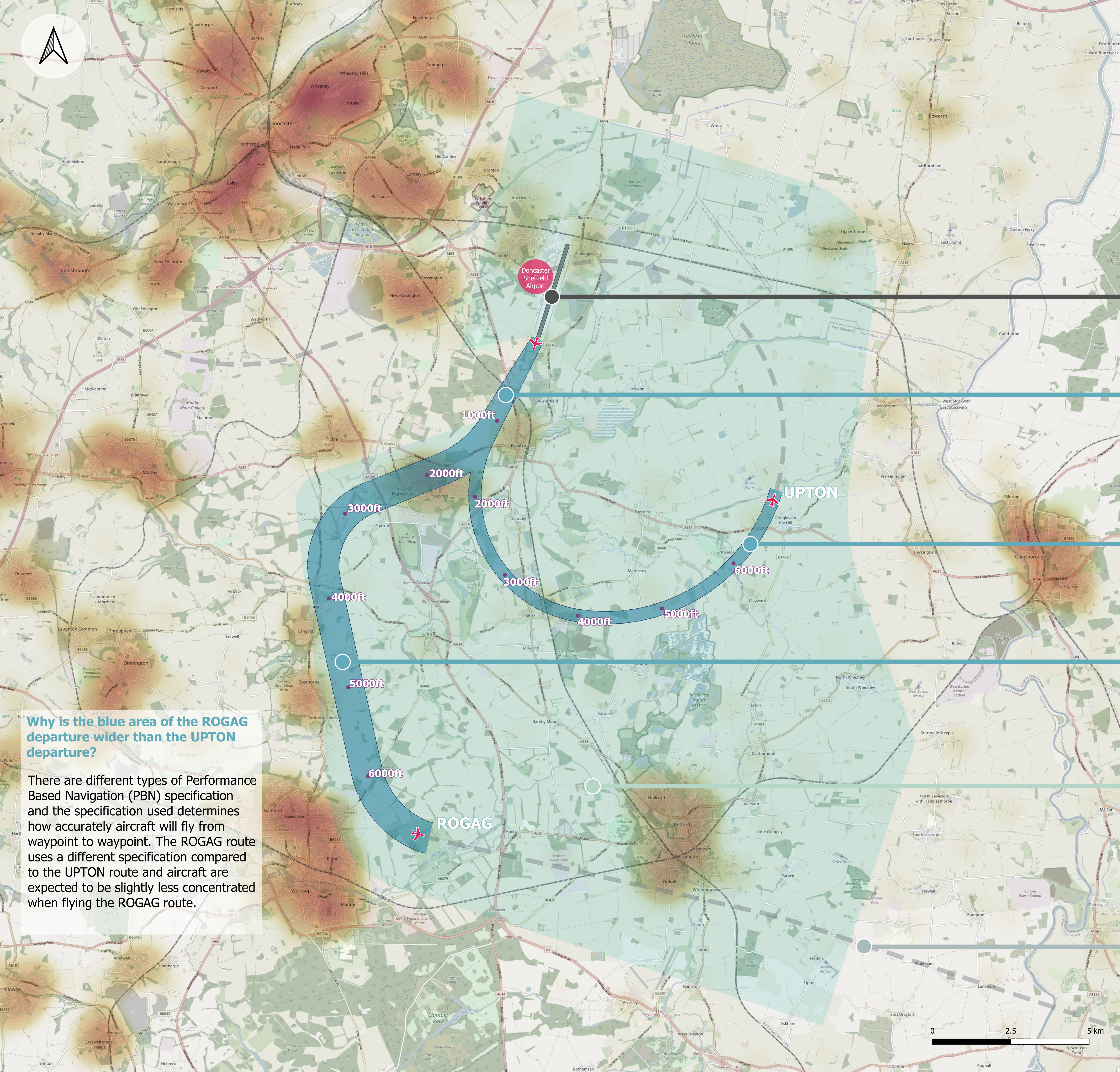
Appendix B: High-resolution Operational Diagrams

This appendix contains large-scale high-resolution versions of the operational diagrams shown in the Community and local area interest consultation document and our consultation summary document.

It is recommended to read either the summary document or the Community and local area interest consultation document ahead of reviewing these diagrams. These documents can be found at:

<https://consultations.airspacechange.co.uk/doncaster-airport/dsa-airspace>.

The diagrams will also be available to view at our in-person consultation events (please use the website link above for event details).



Why is the blue area of the ROGAG departure wider than the UPTON departure?

There are different types of Performance Based Navigation (PBN) specification and the specification used determines how accurately aircraft will fly from waypoint to waypoint. The ROGAG route uses a different specification compared to the UPTON route and aircraft are expected to be slightly less concentrated when flying the ROGAG route.

Doncaster Sheffield Airport

Proposed Runway 20 Departures

This diagram shows indicative information about where we expect aircraft to fly in future when departing on runway 20.

For detailed noise contours, please see the main consultation document.

Runway 20 (Around 219 - 255 days per year)

The runway direction used for landing depends on wind direction. Due to prevailing winds, this means there are around 219 - 255 days per year (around 60-70% of the year) when aircraft could fly the proposed runway 20 departures.

Runway 20 PBN departures

We expect the majority of aircraft to fly the PBN routes. When aircraft fly these, they will be located within the darker blue area as they will very accurately follow the route centreline. The altitude markers show how high we expect aircraft to be when departing however this is indicative as all aircraft climb at different rates.

Runway 20 UPTON departures 14 departures on a busy Runway 20 day in 2037

In 2028, there's expected to be around 2 UPTON departures per day when the airport is operating on runway 20. By 2037, there could be around 14 UPTON departures on a busy day.

Runway 20 ROGAG departures 14 departures on a busy Runway 20 day in 2037

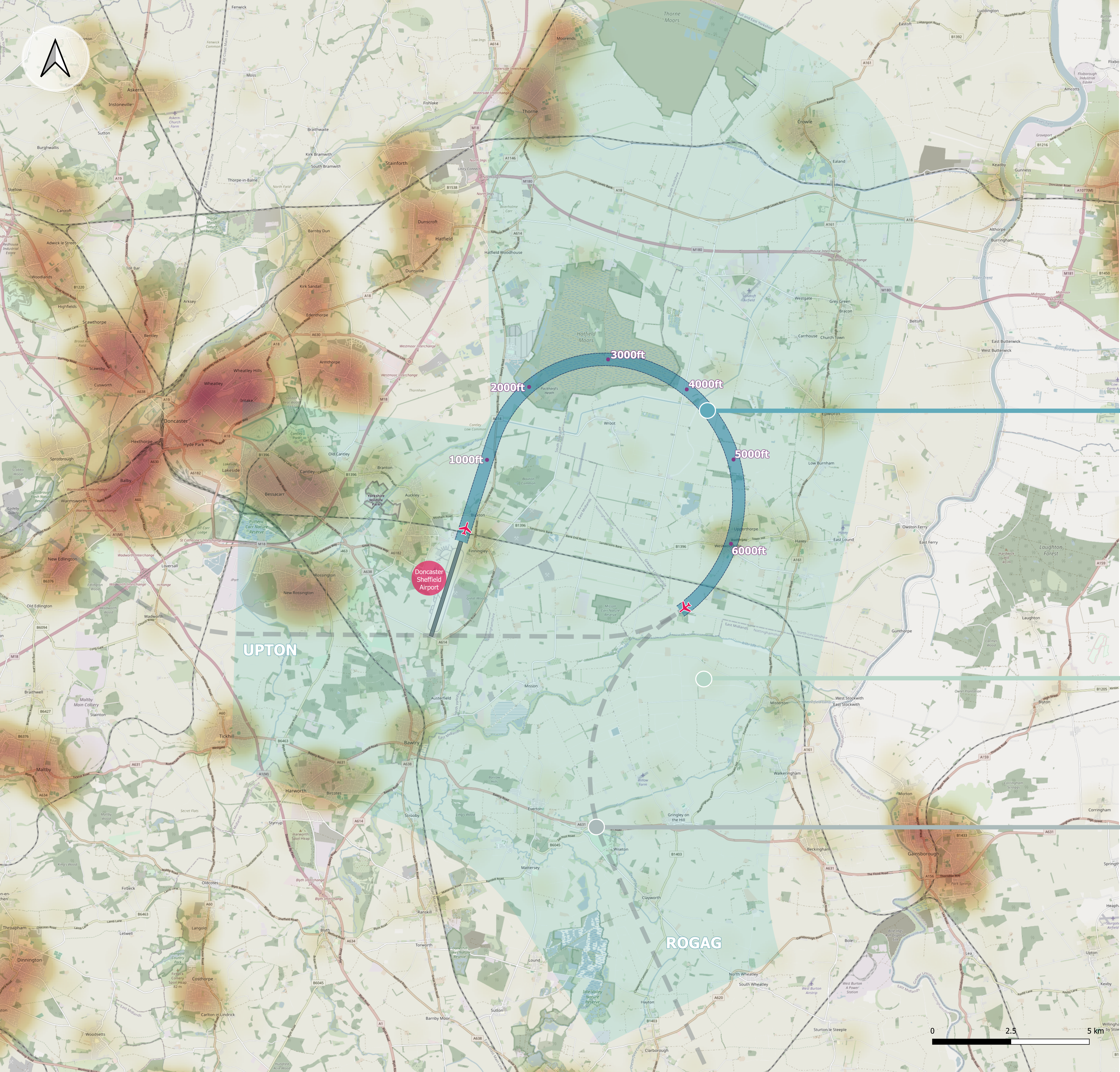
In 2028, there's expected to be around 2 ROGAG departures per day when the airport is operating on runway 20. By 2037, there could be around 14 ROGAG departures on a busy day.

Runway 20 vectored departures below 7,000ft

Aircraft will be vectored if they are not yet equipped to fly the PBN departure routes, or if ATC need to vector for safety reasons. It's very difficult to predict future vectoring patterns, however we expect aircraft to be vectored a few times each day within the light green shaded area.

Departure route above 7,000ft

©OpenStreetMap
Population heatmap data provided by CACI (shown overlaid on the map background from red (high population density) to green (lower populaion density))
Numbers have been rounded



Doncaster Sheffield Airport

Proposed Runway 02 Departures

This diagram shows indicative information about where we expect aircraft to fly in future when departing on runway 02.

For detailed noise contours, please see the main consultation document.

Runway 02 (Around 110 - 146 days per year)

The runway direction used for landing depends on wind direction. Due to prevailing winds, this means there are around 110 - 146 days per year (around 30-40% of the year) when aircraft could fly the proposed runway 02 departures.

Runway 02 departures 28 departures on a busy Runway 02 day in 2037

In 2028, there's overall expected to be around 4 departures per day when the airport is operating on runway 20. By 2037, there could be around 28 departures on a busy day.

We expect the majority of aircraft to fly the PBN routes. When aircraft fly these, they will be located within the darker blue area as they will very accurately follow the route centreline. The altitude markers show how high we expect aircraft to be when departing however this is indicative as all aircraft climb at different rates.

Runway 02 vectored departures below 7,000ft

Aircraft will be vectored if they are not yet equipped to fly the PBN departure routes, or if ATC need to vector for safety reasons. It's very difficult to predict future vectoring paterns, however we expect aircraft to be vectored a few times each day within the light green shaded area.

Departure route above 7,000ft

In 2028, on a busy day around 2 departures are expected to route towards ROGAG and 2 departures towards UPTON. By 2037, there could be 14 UPTON and 14 ROGAG departures on a busy day.

©OpenStreetMap
Population heatmap data provided by CACI (shown overlaid on the map background from red (high population density) to green (lower population density))
Numbers have been rounded.

Doncaster Sheffield Airport

Proposed Runway 20 Arrivals

This diagram shows indicative information about where we expect aircraft to fly in future when arriving on runway 20.

For detailed noise contours, please see the main consultation document.

Runway 20 vectored arrivals below 7,000ft

Sometimes aircraft may be vectored before joining final approach route, or if ATC need to vector for safety reasons. It's very difficult to predict future vectoring patterns, however we expect aircraft to be vectored a few times each day within the light green shaded area.

Runway 20 arrivals to the east of DSA 10 arrivals on a busy Runway 20 day in 2037

In 2028, there's expected to be around 1 arrival per day to the east of DSA when the airport is operating on runway 20. By 2037, there could be around 10 arrivals on a busy day.

From around 4,500ft, we expect the majority of arrivals to fly the PBN routes. This means aircraft will very accurately follow the route centreline and will be located within the darker blue areas. The altitude markers show how high we expect aircraft to be when arriving however this is indicative as descent rates can vary

Runway 20 (Around 219 - 255 days per year)

The runway direction used for landing depends on wind direction. Due to prevailing winds, this means there are around 219 - 255 days per year (around 60-70% of the year) when aircraft could fly the proposed runway 20 arrivals.

©OpenStreetMap
Population heatmap data provided by CACI (shown overlaid on the map background from red (high population density) to green (lower populaion density))
Numbers have been rounded

The two PBN arrival routes cannot completely avoid overflight of Crowle and Moorends as DSA are required to keep the volume of controlled airspace to a minimum.

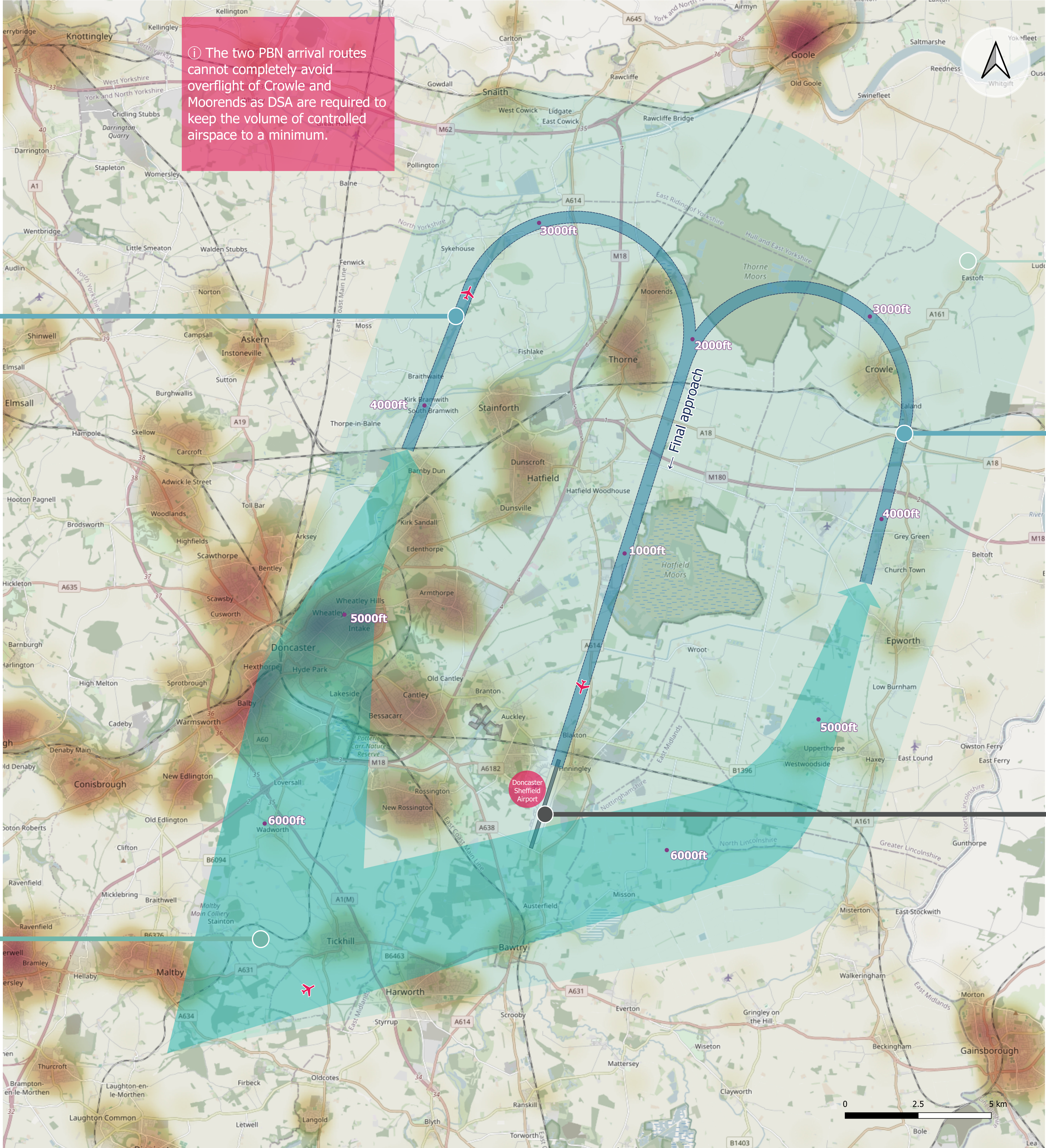
Runway 20 arrivals to the west of DSA 18 arrivals on a busy Runway 20 day in 2037

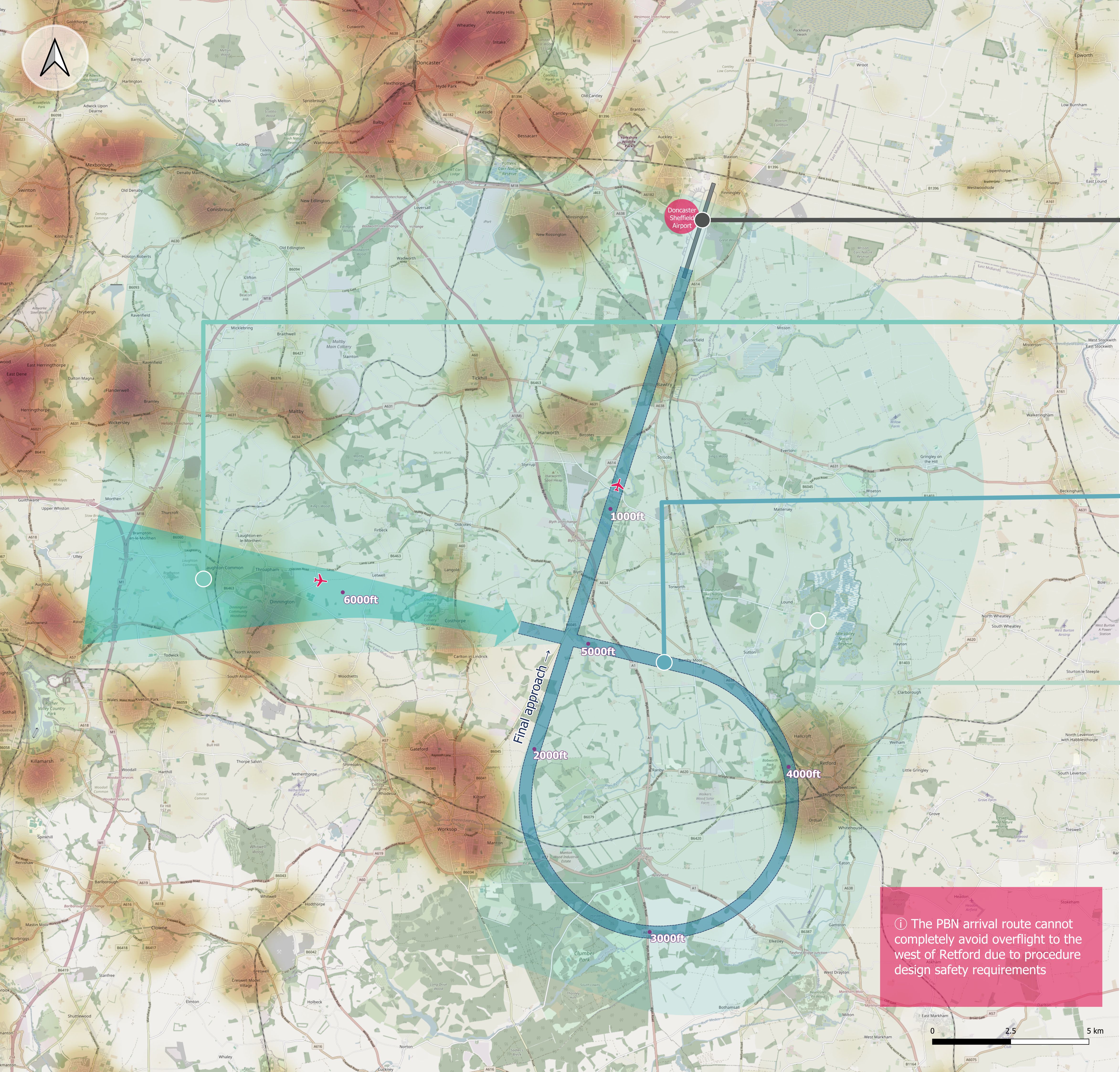
In 2028, there's expected to be around 2 arrivals per day to the west of DSA when the airport is operating on runway 20. By 2037, there could be around 18 arrivals on a busy day.

Runway 20 arrivals

In 2028, it is expected overall there would be around 3 arrivals per day when the airport is operating on runway 20. By 2037, there could be around 28 arrivals on a busy day.

Until around 4,500ft, the majority of aircraft will be vectored by ATC towards a waypoint where they will then join the PBN arrival route.





Doncaster Sheffield Airport

Proposed Runway 02 Arrivals

This diagram shows indicative information about where we expect aircraft to fly in future when arriving on runway 02.

For detailed noise contours, please see the main consultation document.

Runway 02 (Around 110 - 146 days per year)

The runway direction used for landing depends on wind direction. Due to prevailing winds, this means there are around 110 - 146 days per year (around 30-40% of the year) when aircraft could fly the proposed runway 02 arrivals.

Runway 02 arrivals 28 arrivals on a busy Runway 02 day in 2037

In 2028, it is expected there would be around 3 arrivals per day when the airport is operating on runway 02. By 2037, there could be around 28 arrivals on a busy day.

Until around 5,500ft, the majority of aircraft will be vectored by ATC towards a waypoint where they will then join the PBN arrival route.

Runway 02 PBN arrival route

When aircraft fly the PBN route, they will be located within the darker blue area as they will very accurately follow the route centreline. We expect the majority of arrivals to fly the PBN route.

The altitude markers show how high we expect aircraft to be when arriving however this is indicative as descent rates can vary.

Runway 02 vectored arrivals below 7,000ft

Sometimes aircraft may be vectored before joining final approach if they are not yet equipped to fly the PBN arrival route, or if ATC need to vector for safety reasons. It's very difficult to predict future vectoring patterns, however we expect aircraft to be vectored a few times each day within the light green shaded area.

The PBN arrival route cannot completely avoid overflight to the west of Retford due to procedure design safety requirements