



# Doncaster Sheffield Airport: Airspace Change Proposal

**Proposal to introduce RNAV  
Standard Instrument Departure and  
Instrument Approach Procedures**

**PART C**

**Environmental Review**

30<sup>th</sup> April 2018

CPJ-5237-RPT-171-V1

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## 1. Introduction

- 1.1. This ACP is a proposal by DSA to replace the existing SIDs and PDRs with RNAV SID procedures designed to provide controlled airspace linkage for aircraft departing from DSA to enter the en-route ATS route network. It also concerns the creation of an additional CTA and the introduction of RNAV IAPs to complement the existing conventional IAPs.
- 1.2. This is **Part C** of the ACP document. It provides a separate review of the environmental considerations taken into account in the SID procedure development and design process which are detailed elsewhere in the ACP and its supporting documents comprising the Stakeholder Consultation Document and supporting technical annexes and the Report of the Stakeholder Consultation.
- 1.3. This Part of the ACP should be read in conjunction with the other parts of the ACP and supporting documents listed above. It cross-references the above documents as necessary.
- 1.4. To ensure that all environmental aspects have been adequately addressed this document is modelled on the proforma used previously by CAA SARG Section in their review of ACPs.



## 2. Environmental Review Matrix

1.	Introduction	Status
	<b>Is the proposal consistent with Government Policy and/or guidance from the Government to the CAA?</b>	Yes
	<p>The proposal is consistent with the 2014 DfT ANG under which the consultation was launched. Consideration was made to the changes being consulted upon in the impending revised (2017) DfT ANG including the provision of relief to some communities. The revised ANG was published in October 2017 by which time the consultation was already underway. The proposal has been reviewed in the light of the revised guidance and DSA considers that despite the emergence of updated policy that the proposal remains compliant.</p> <p>The proposal is consistent with the application of PBN in UK airspace.</p>	

2.	Rationale for the proposed change	Status
	<b>Does the rationale for the ACP include environmental reasons</b>	Yes
	<p>The Sponsor Consultation Document explains the environmental considerations employed and aligns to CAP725 requirements. DSA has provided additional metrics, over and above those specified as a requirement under CAP725, but emerging for CAP1616.</p>	

3.	Nature of the proposed change	Status
3.1	<b>Is it clear how the proposed change will operate and therefore what the likely environmental impacts will be?</b>	Yes
	<p>Parts B &amp; C of the Sponsor Consultation Document explain the operational application of the proposed procedures and what the likely environmental impacts will be.</p>	
3.2	<b>Have alternative options been considered and have the environmental impacts of each alternative been assessed.</b>	Yes
	<p>The three main options, 'Do Nothing', 'Replicate' and 'Re-design' were explored as explained in Part B of the Sponsor Consultation Document. Opportunities to improve the existing profiles were examined and put through</p>	

	the rigours of stakeholder engagement. Of note, several options for the ROGAG SIDs were tabled and reducing the impact to communities was made paramount.	
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	<b>Noise</b>	<b>Status</b>
<b>4.1</b>	<b>Has the noise impact been adequately assessed?</b>	<b>Yes</b>
	The spirit of the then draft changes to the Airspace Change Process was taken into consideration and the noise metrics assessed (by third-party specialist) exceeded the CAP725 requirements. Noise Assessments can be viewed at <b>Document 31</b> .	
<b>4.2</b>	<b>Has the noise impact been adequately presented in the consultation and the submitted proposal?</b>	<b>Yes</b>
	Contour maps were included in the Sponsor Consultation Document (Part A Section 3 and in the Technical Annexes) along with an explanation of what the reader was viewing. Graphical representation and written explanation of the proposed SIDs and their likely impact further out from the Airport was given for each route.	

	<b>Climate Change and Emissions</b>	<b>Status</b>
<b>5.1</b>	<b>Has the impact on CO<sub>2</sub> emissions been adequately assessed?</b>	<b>Yes</b>
	Emissions Assessments were assessed by ERCD and these can be found at <b>Document 32</b> .	
<b>5.2</b>	<b>Has the impact on CO<sub>2</sub> emissions been adequately presented in the consultation and the submitted proposal?</b>	<b>Partly</b>
	The emissions results showed a slight increase (a negative result) but were not presented in the Sponsor Consultation Document as the altitude-based priorities of the 2017 DfT ANG had been applied meaning that noise was the overriding environmental priority for the SID design. The continuous climb anticipated on these proposed departures should reduce the impact of the slight increase in track mileage.	

6.	Local Air Quality	Status
6.1	<b>Has the impact on Local Air Quality been adequately assessed?</b>	Yes
	Yes. DSA is not in an AQMA. The DSA assessment reflects government guidance (pages 21 and 22 of the 2017 DfT Guidance to the CAA).	
6.2	<b>Has the impact on Local Air Quality been adequately presented in the consultation and the submitted proposal?</b>	Yes
	The statement in 6.1 above is reflected in paragraph 4.4.1 of the Sponsor Consultation Document and in paragraph 11.8 of Part B of the ACP.	

7.	Tranquillity	Status
7.1	<b>Has the impact on tranquillity been adequately considered?</b>	Yes
	The SSSI at Hatfield Moors was considered as a factor in the conception of the ROGAG 1B but the avoidance of local communities was given greater weighting than the overflight of a lowland peat bog.	
7.2	<b>Has the impact on tranquillity been adequately presented in the consultation and the submitted proposal?</b>	Yes
	The effects of the proposal on tranquillity were reflected in paragraph 4.5 of the Sponsor Consultation Document and referenced in paragraph 11.7 of Part B of this ACP. Preference was given to avoiding overflight of communities on the ground rather than to avoidance of the SSSI. The communities near the proposed routes were depicted in the SC Document graphics together with an explanation.	

8.	Visual Intrusion	Status
8.1	<b>Has the impact on visual intrusion been adequately considered?</b>	Yes
	The SSSI at Hatfield Moors was considered as a factor in the conception of the ROGAG 1B but the avoidance of local communities was given greater weighting.	

<b>8.2</b>	<b>Has the impact on visual intrusion been adequately presented in the consultation and the submitted proposal?</b>	<b>Yes</b>
	Visual Intrusion and Tranquillity were addressed in paragraph 4.5 of the Sponsor Consultation Document and paragraph 11.7 of Part B of this ACP. The communities near the proposed routes were depicted in the Sponsor Consultation Document graphics together with an explanation.	

<b>9.</b>	<b>Biodiversity</b>	<b>Status</b>
<b>9.1</b>	<b>Has the impact on biodiversity been adequately considered?</b>	<b>Yes</b>
	DSA reasonably assessed that the introduction of RNAV SIDs and IAPs would have little or no impact on biodiversity. Natural England and the Environment Agency both responded with no comment. There was no objection raised to overflight of the lowland peat bog at Hatfield Moors SSSI.	
<b>9.2</b>	<b>Has the impact on biodiversity been adequately presented in the consultation and the submitted proposal?</b>	<b>Partly</b>
	Biodiversity was not specifically raised in the SC Document owing to the assessment noted above but consideration of the nearby SSSI was referenced in paragraph 4.5 of the Sponsor Consultation Document and at paragraph 11.7 of Part B of this ACP.	

<b>10.</b>	<b>Continuous Descent Approaches</b>	<b>Status</b>
<b>10.1</b>	<b>Has the implementation of, or greater use of CDAs been considered?</b>	<b>N/A</b>
	Although CDA are not built into the notified STARs and IAPs for DSA, nonetheless CDA is routinely achieved in practice through normal radar vectoring techniques and the provision of distance to touchdown information by ATC, which enables aircrews to plan their descent effectively and efficiently. There is seldom an operational need for arriving aircraft to “level off” at intermediate altitudes for ATC or traffic reasons. The proposed RNAV IAPs will	

	supplement the extant radar vectoring to ILS techniques for use when the ILS is out of service and will better facilitate direct routing to final approach (and associated self-assessed CDA) in comparison to routing via the FNY NDB.	
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<b>11.</b>	<b>Impacts on national Parks and/or AONBs</b>	<b>Status</b>
<b>11.1</b>	<b>Does the proposal have any impact on any National Parks or AONBs?</b>	<b>N/A</b>
	There are no AONBs or NPs affected by the proposals.	

<b>12.</b>	<b>Traffic Forecasts</b>	<b>Status</b>
	<b>Have traffic forecasts been provided, are they reasonable, and have these been used to reflect the future impact of the proposal?</b>	<b>Yes</b>
	Traffic forecasts were provided to the third-party environmental assessors out to 5 years (CAP725 requirement) and can be found in <b>Document 31</b> and <b>Document 32</b> (Environmental Assessment Reports)	

<b>13.</b>	<b>Consultation</b>	<b>Status</b>
<b>13.1</b>	<b>If undertaken, has evidence of non-aviation stakeholder involvement been provided</b>	<b>Yes</b>
	The ACC and the Noise and Environmental Sub-Committee were engaged with several times and meeting minutes were taken. A list of non-aviation stakeholders was given in Appendix A of the Sponsor Consultation Document. Minutes of Focus Group Meetings are submitted with this ACP.	
<b>13.2</b>	<b>Has account been taken of the results of the environmental factors raised by consultees or has evidence been provided to indicate why this has not been possible.</b>	<b>Yes</b>
	The Report of the Sponsor Consultation submitted with this ACP details environmentally-based responses (together with aviation-based responses) to the consultation by stakeholders having an environmental interest in the	



	proposal. It also gives DSAs considered response to issues raised. The environmental factors raised were considered and, on balance, were not found to be sufficient to justify amendment of the proposals.	
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<b>14.</b>	<b>Compliance with CAP725</b>	<b>Status</b>
<b>14.1</b>	<b>Have all environmental assessment requirements specified in CAP725 been met where applicable?</b>	<b>Yes</b>
	See <b>Documents 31 and 32</b> , all CAP725 requirements were met and additional metrics (Overflight metrics) have been included.	

<b>15.</b>	<b>Other aspects</b>	<b>Status</b>
<b>15.1</b>	<b>Are there any other aspects of the ACP that have not already been addressed in this report that may have a bearing on the environmental impact?</b>	<b>No</b>
	None identified.	

<b>16.</b>	<b>Recommendations</b>	<b>Status</b>
<b>16.1</b>	<b>Are there any recommendations for the Post-Implementation Review?</b>	<b>Yes</b>
	DSA proposes to monitor the track-keeping performance of aircraft using the procedures to ensure track-keeping for the initial departure segments and applicable arrival segments, meets expectations. In addition, DSA intend to monitor the achieved climb profiles for airspace containment of aircraft on the ROGAG and UPTON departures.	

<b>17.</b>	<b>Government Approval</b>	<b>Status</b>
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<b>17.1</b>	<b>Is the approval of the Secretary of State for Transport required in respect of the environmental impact of the ACP?</b>	<b>No</b>

<b>19.</b>	<b>Conclusions</b>	<b>Status</b>
<b>19.1</b>	<b>Can an overall environmental benefit be demonstrated (or justified/supported)?</b>	<b>Yes</b>
	The ACP, together with the details given in the Sponsor Consultation Document, demonstrate compliance with CAP725 and the Environmental Guidance given in the DfT Guidance. Priority has been given to better avoidance of communities below 4000ft in comparison to the current departure procedures. Whilst this has resulted in a marginally longer track mileage in some instances, and a consequential slight (unquantifiable) dis-benefit on emissions and fuel burn, on balance the environmental objectives have been met.	



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