

CAA Operational Assessment

Title of airspace change proposal	Extension of EGLL NIGIT 1H to BEDEK 1H
Change sponsor	NATS
Project no.	ACP-2019-27
SARG project leader	
<i>Case study commencement date</i>	20 th May 2019
<i>Case study report as at</i>	13 th June 2019
<p><i>Instructions</i></p> <p>In providing a response for each question, please ensure that the 'status' column is completed using the following options:</p> <ul style="list-style-type: none"> • yes • no • partially • n/a <p>To aid the SARG project leader's efficient project management it may be useful that each question is also highlighted accordingly to illustrate what is:</p> <p>resolved Green not resolved Amber not compliant Red</p>	
<p>Executive Summary</p> <p>This ACP is to correct an inadvertent issue caused by the truncation of one of the Heathrow STARs via OCK as part of the SAM/OCK DVOR ACP. The truncation of this Standard Terminal Arrival Route (STAR) at waypoint NIGIT has been raised by NATS Swanwick as having the potential to cause confusion in certain circumstances as the start of the STAR is also the beginning of a Flight Level restriction which is used to ensure deconfliction between inbound aircraft to Heathrow and Gatwick airports.</p> <p>This ACP therefore proposes extending the (newly truncated) NIGIT 1H STAR back out to BEDEK (15NM further back on the flight path) to the same geographical point where it started previously (as the OCK 2F STAR), and re-allocating the Flight Level restriction to point BEDEK (where it originally was).</p> <p>The aim of this ACP is to produce a STAR which is the direct RNAV equivalent of the one which was in place up until 23 May 2019 (OCK 2F), when the SAM/OCK DVOR ACP was implemented.</p>	

1.	Justification for change and options analysis (operational/technical)	Status
1.1	Is the explanation of the proposed change clear and understood?	Yes
	Yes. Swanwick TC Operations have raised concerns about the potential for confusion in certain circumstances caused by the truncation of this STAR at NIGIT.	
1.2	Are the reasons for the change stated and acceptable?	Yes
	Yes. There is a legitimate concern about the potential for operational confusion due to moving the physical location of the Flight Level restriction which can be simply fixed by this proposal.	
1.3	Have all appropriate alternative options been considered, including the 'do nothing' option?	Yes
	Yes. A legitimate safety concern has been raised so "do nothing" is not an option in this case.	
1.4	Is the justification for the selection of the proposed option sound and acceptable?	Yes
	Yes. The aim of the ACP is to end up with an RNAV STAR directly equivalent to the previous OCK 2F STAR.	
2.	Airspace description and operational arrangements	Status
2.1	Is the type of proposed airspace design clearly stated and understood?	Yes
	Yes. Straight line extension of the STAR by 15NM and re-allocation of the FL140 level restriction from NIGIT to BEDEK.	
2.2	Are the hours of operation of the airspace and any seasonal variations stated and acceptable?	Yes

	H24, as now.	
2.3	Is any interaction with adjacent domestic and international airspace structures stated and acceptable including an explanation of how connectivity is to be achieved? Has the agreement of adjacent States been secured in respect of High Seas airspace changes?	Yes N/A
	This ACP is explicitly related to the interaction with other inbound traffic within controlled airspace. Full connectivity will be maintained as ATS Route P2 is already coincident with the BEDEK-NIGIT segment. There is no interaction with other States.	
2.4	Is the supporting statistical evidence relevant and acceptable?	N/A
	There is currently no statistical evidence as this ACP has been raised before the implementation of the NIGIT 1H STAR due to the safety concerns raised about the potential for confusion. No statistical evidence can be gathered in the future as temporary instructions have been published through the NOTAM process to ensure that the potentially confusing level restriction is disregarded.	
2.5	Is the analysis of the impact of the traffic mix on complexity and workload of operations complete and satisfactory?	N/A
	There will be no change to the traffic mix.	
2.6	Are any draft Letters of Agreement and/or Memoranda of Understanding included and, if so, do they contain the commitments to resolve ATS procedures (ATSD) and airspace management requirements?	N/A
	None required.	

2.7	Should there be any other aviation activity (low flying, gliding, parachuting, microlight site etc) in the vicinity of the new airspace structure and no suitable operating agreements or ATC Procedures can be devised, what action has the change sponsor carried out to resolve any conflicting interests?	N/A
	No impact as there is no practical change to the route structure in terms of controlled airspace boundaries etc. This airspace is already Class A so Visual Flight Rules (VFR) operations are not permitted.	
2.8	Is the evidence that the airspace design is compliant with ICAO SARPs, airspace design & FUA regulations, and Eurocontrol guidance satisfactory?	N/A
	No relevance as far as FUA or general airspace design issues are concerned. The submission of revised Instrument Flight Procedure (IFP) by an Approved Procedure Designer (APD) and subsequent approval by a CAA IFP Regulator ensures the revised STAR is compliant with the relevant regulatory and guidance material.	
2.9	Is the proposed airspace classification stated and justification for that classification acceptable?	N/A
	No change. All affected airspace is already defined as Class A.	
2.10	Within the constraints of safety and efficiency, does the airspace classification permit access to as many classes of user as practicable?	N/A
	There are no changes to the existing access arrangements.	
2.11	Is there assurance, as far as practicable, against unauthorised incursions? (This is usually done through the classification and promulgation.)	N/A
	This ACP introduces no change to the current levels of risk associated with unauthorised incursions. The airspace is already Class A.	

2.12	Is there a commitment to allow access to all airspace users seeking a transit through controlled airspace as per the classification, or in the event of such a request being denied, a service around the affected area?	N/A
	This ACP involves no new controlled airspace.	
2.13	Are appropriate arrangements for transiting aircraft in place in accordance with stated commitments?	N/A
	This ACP involves no new controlled airspace.	
2.14	Are any airspace user group's requirements not met?	No
	This ACP is explicitly designed to have no material impact on any airspace user group. It re-standardises a process which was standardised up until 23 May 2019 and which is currently being performed tactically.	
2.15	Is any delegation of ATS justified and acceptable? (If yes, refer to Delegated ATS Procedure).	N/A
	There is no delegation of ATS.	
2.16	Is the airspace design of sufficient dimensions with regard to expected aircraft navigation performance and manoeuvrability to contain horizontal and vertical flight activity (including holding patterns) and associated protected areas in both radar and non-radar environments?	N/A
	There are no changes to existing Controlled Airspace or other airspace boundaries.	

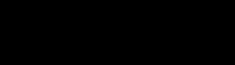
2.17	Have all safety buffer requirements (or mitigation of these) been identified and described satisfactorily (to be in accordance with the agreed parameters or show acceptable mitigation)? (Refer to buffer policy letter.)	N/A
	There are no changes to the airspace structure requiring re-consideration of the safety buffer requirements.	
2.18	Do ATC procedures ensure the maintenance of prescribed separation between traffic inside a new airspace structure and traffic within existing adjacent or other new airspace structures?	Yes
	This ACP is explicitly intended to support the maintenance of prescribed separation between traffic flying this procedure and other inbound traffic.	
2.19	Is the airspace structure designed to ensure that adequate and appropriate terrain clearance can be readily applied within and adjacent to the proposed airspace?	Yes
	This ACP relates to a STAR segment at FL140 (approximately 14,000ft above mean sea level). As the highest point in the UK (Ben Nevis) is below 7,000ft amsl, there is over 7,000ft of terrain clearance available.	
2.20	If the new structure lies close to another airspace structure or overlaps an associated airspace structure, have appropriate operating arrangements been agreed?	Yes
	All relevant airspace is controlled by Swanwick Terminal Control who strongly support and have been directly involved in the development of the proposal.	
2.21	Where terminal and en-route structures adjoin, is the effective integration of departure and arrival routes achieved?	Yes
	This ACP is explicitly about ensuring the effective and safe integration of arrivals to London Heathrow via OCKHAM with other traffic in the area.	

3. Supporting resources and communications, navigation and surveillance		Status (CNS) infrastructure
3.1	Is the evidence of supporting CNS infrastructure together with availability and contingency procedures complete and acceptable? The following are to be satisfied:	
	<ul style="list-style-type: none"> Communication: Is the evidence of communications infrastructure including RT coverage together with availability and contingency procedures complete and acceptable? Has this frequency been agreed with AAA Infrastructure? 	N/A
	There are no new communications infrastructure requirements. Standard radio-fail contingency procedures remain appropriate.	
	<ul style="list-style-type: none"> Navigation: Is there sufficient accurate navigational guidance based on in-line VOR or NDB or by approved RNAV-derived sources, to contain the aircraft within the route to the published RNP value in accordance with ICAO/ Eurocontrol standards? For example, for nav aids, has coverage assessment been made, such as a DEMETER report, and if so, is it satisfactory? 	Yes
	DEMETER coverage diagram included as part of the NATS Design document. DME/DME coverage is satisfactory.	
	<ul style="list-style-type: none"> Surveillance: Radar provision – have radar diagrams been provided, and do they show that the ATS route/airspace structure can be supported? 	N/A
	There are no changes to tracks over the ground. Existing radar coverage will suffice.	
3.2	Where appropriate, are there any indications of the resources to be applied, or a commitment to provide them, in line with current forecast traffic growth acceptable?	N/A
	Not applicable. This proposal is not directly linked to any anticipated growth in traffic or change in traffic mix.	
	There are no resource implications.	

4.	Maps/charts/diagrams	Status
4.1	<p>Is a diagram of the proposed airspace included in the proposal, clearly showing the dimensions and WGS84 co-ordinates?</p> <p>(We would expect sponsors to include clear maps and diagrams of the proposed airspace structure(s) – they do not have to accord with aeronautical cartographical standards (see airspace change guidance), rather they should be clear and unambiguous and reflect precisely the narrative descriptions of the proposals.)</p>	Yes
	No changes to airspace dimensions. WGS-84 coordinates are provided for all relevant (and existing) waypoints relevant to the STAR.	
4.2	Do the charts clearly indicate the proposed airspace change?	Yes
	Yes	
4.3	Has the change sponsor identified AIP pages affected by the change proposal and provided a draft amendment?	Yes
	Yes	
4.4	Has the change sponsor completed the WGS84 spreadsheet and submitted to the CAA for approval?	N/A
	N/A	
5.	Operational impact	Status

5.1	Is the change sponsor's analysis of the impact of the change on all airspace users, airfields and traffic levels, and evidence of mitigation of the effects of the change on any of these, complete and satisfactory? Consideration should be given to:	Yes
	a) Impact on IFR General Aviation traffic, on Operational air traffic or on VFR General Aviation traffic flow in or through the area.	No Impact
	This change only affects aircraft flying as IFR Commercial Air Traffic on the ATS route / Heathrow segment BEDEK-NIGIT.	
	b) Impact on VFR Routes.	No Impact
	This change is wholly within existing Class A controlled airspace.	
	c) Consequential effects on procedures and capacity, i.e. on SIDs, STARs, holds. Details of existing or planned routes and holds.	Yes
	This change reinstates the situation which was in place up to 23 May 2019 (i.e. the desired situation). The new BEDEK 1H STAR will provide an RNAV equivalent of the long-standing OCK 2F STAR, which was replaced by the erroneously truncated NIGIT 1H STAR.	
	d) Impact on airfields and other specific activities within or adjacent to the proposed airspace.	No Impact
	Administrative change only as far as the airports are concerned (references to NIGIT 1H will be replaced in certain documents by references to BEDEK 1H).	
	e) Any flight planning restrictions and/ or route requirements.	No Impact

	The same aircraft will fly the same route as now, just with the BEDEK waypoint listed as the start of the STAR with a requirement for traffic to be level at FL140, rather than this being at waypoint NIGIT.	
5.2	Does the change sponsor consultation material reflect the likely operational impact of the change?	N/A
	Not applicable as there was no requirement for a formal consultation for this ACP. The CAA accepts that the level of engagement undertaken with impacted stakeholders as described within the ACP submission meets the necessary obligations.	
Case study conclusions – to be completed by SARG project leader		Yes/No
Has the change sponsor met the SARG airspace change proposal requirements and airspace regulatory requirements above?		Yes
This is a relatively simple ACP, to reinstate a STAR segment which was inadvertently removed by a previous ACP. It therefore results in no practical changes from the situation before 23 May 2019, or the situation which should be in place now. There are no impacts to traffic flows or people on the ground.		
RECOMMENDATIONS/CONDITIONS/PIR DATA REQUIREMENTS		
Are there any Recommendations which the change sponsor should try to address either before or after implementation (if approved)? If yes, please list them below.		No
GUIDANCE NOTE: Recommendations are something that the change sponsor <u>should try</u> to address either before or after implementation, if indeed the airspace change proposal is approved. They may relate to an area in which the change sponsor is reliant upon a third party to actually come to an agreement and consequently they do not carry the same ‘weight’ as a Condition.		
Are there any Condition(s) which the change sponsor <u>must fulfil</u> either before or after implementation (if approved)? If yes, please list them below.		No
GUIDANCE NOTE: Conditions are something that the change sponsor <u>must fulfil</u> either before or after implementation, if indeed the airspace change proposal is approved. If their proposal is approved, change sponsors <u>must observe</u> any condition(s) contained within the regulatory decision; failure to do so <u>will usually</u> result in the approval being revoked. Conditions should specify the consequence of failing to meet that condition, whether that be revoking the ACP or some alternative.		

Are there any specific requirements in terms of the data to be collected by the change sponsor for the Post Implementation Review (if approved)? If yes, please list them below.			Yes
<p><u>GUIDANCE NOTE:</u> PIR data requirements concerns any specific data which the change sponsor <u>must</u> collate post-implementation, if indeed the airspace change proposal is approved. Please use this section to list any such requirements so that they can be captured in the regulatory decision accordingly.</p> <p>Appropriate recorded data to demonstrate that this ACP has had no material impact on aircraft tracks.</p>			
General summary			
<p>This is a relatively simple ACP, to reinstate a STAR segment which was inadvertently removed by a previous ACP. It therefore results in no practical changes from the situation before 23 May 2019, or the situation which should be in place now. There should be no impacts to traffic flows or people on the ground.</p>			
Comments and observations			
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Operational assessment sign-off/ approvals	Name	Signature	Date
Operational assessment completed by:	AR Case Officer		14/06/19

Operational assessment approved by:	Principal Airspace Regulator		14/06/19
Manager Airspace Regulation comments:			
Head AAA comment/ approvals	Name	Signature	Date
Operational assessment conclusions approved by:	Head AAA	Not Required	
Head AAA Comments:			
Group Director Safety and Airspace Regulation Group (GD SARG) decision/approval	Name	Signature	Date
GD SARG decision:	GD SARG	Not Required	
GD SARG comments:			