

# Introduction of New Upper Air Routes over Southwestern UK and off the Southern Coast of Ireland – Post Implementation Review

CAP 1793

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## Executive summary

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1. The CAA's airspace change process is a seven-stage mechanism that is set out in detail in CAP 725/CAP1616. Under this process NATS submitted proposals to the CAA to introduce new Upper Air Routes over southwestern UK and off the southern coast of Ireland. Stage 7 of this process is a Post Implementation Review (PIR) that normally begins one year after implementation of the change. The new Upper Air Routes were implemented on 18th November 2014. Consequently, the period under review is 18th November 2014 to 17th November 2015 (i.e. 12 months from the implementation date). Competing priorities for the allocation of resources resulted in a delay to us starting this particular review. The CAA commenced the PIR of the impact of its decision and the implemented change on 25th September 2018. The content and outcome of that review process by the CAA is discussed in detail in this report including its annexes.
2. On 2 January 2018 the CAA introduced a new process for making a decision whether or not to approve proposals to change airspace design. Irrespective of whether the CAA decision to approve the change was made under the previous process (set out in CAP 725), we will conduct all Post Implementation Reviews in accordance with the process requirements of CAP1616. However, when assessing the expected impacts against the actual impacts we will use the methodology adopted at the time of the original CAA decision in order to do so. We have also taken into consideration the interval since implementation and the fact that all changes are in controlled airspace above Flight Level 195 (approximately 19,500 feet dependent upon atmospheric pressure) when conducting this assessment.
3. During the review process, the CAA considered responses from the Sponsor following requests for information/data.
4. As a result the CAA has reached the following conclusions:

The CAA is satisfied that the introduction of new Upper Air Routes over southwestern UK and off the southern coast of Ireland satisfactorily achieved the objective stated in the CAA's decision document, and the change is confirmed.
5. This report, and its annexes, provide a summary of the information the CAA has reviewed and taken into account before reaching these conclusions. However, all the information the CAA has taken into account will be published on our website/portal. Lastly, please contact the publications team before you start work, so we can offer guidance and input into the best way to deliver your information, and supply you with the correct templates and style guide, so the language and presentation have maximum impact and are easy to read and understand.

# Scope and background of the PIR

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## What is a Post Implementation Review?

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6. The CAA's approach to decision-making in relation to proposals to approve changes to airspace is explained in its Guidance on the Application of the Airspace Change Process, CAP [725/1616]. This detailed Guidance provides that the seventh and last stage of the process is a review of the implementation of the decision, particularly from an operational perspective, known as a Post Implementation Review (PIR).
7. The Guidance states that the purpose of a PIR "is for the change sponsor to carry out a rigorous assessment, and the CAA to evaluate, whether the anticipated impacts and benefits in the original proposal and published decision are as expected, and where there are differences, what steps (if any) are required to be taken.
8. If the impacts are not as predicted, the CAA will require the change sponsor to investigate why and consider possible mitigations or modifications for impacts that vary from those which were anticipated to meet the terms of the original decision.
9. A PIR is therefore focused on the effects of a particular airspace change proposal. It is not a review of the decision on the airspace change proposal, and neither is it a re-run of the original decision process.

## Background to our conclusions in this PIR Decision

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10. On the 18th September 2014 the CAA approved the introduction of new Upper Air Routes over southwestern UK and off the southern coast of Ireland. In our Decision document dated 19th September 2012, we provided factual information and background to the change. The Decision document can be found at Annex C.

## Conditions attached to the CAA's decision to approve the change.

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11. No conditions were attached to the CAA Stage 5 decision.

## Relevant events since change (if any)

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12. The Sponsor reports that since implementation of these routes in 2014 there was an increase in traffic throughout all NATS sectors from 2.162 million in 2014 to 2.216 million flights in 2015, with Oceanic traffic (the main user of these routes) increasing by a similar percentage.

## Data collected for the purpose of the PIR

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### Sources of Information

#### Change Sponsor

13. In response to a number of email requests sent by the CAA to the Sponsor (NATS) between 25th September 2018 and 11th April 2019 the Sponsor provided the analysis/data required to complete this report. Information the CAA has taken into account will be published on our website/portal.
14. Given the nature of this airspace change the CAA concluded that it was not necessary to seek other sources of information in order to conduct this review.

## Objectives and anticipated impacts

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### The original proposal and its objectives

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15. The objective for the introduction of 10 new Conditional Upper Air Routes (CDRs) and one permanent Upper Air Route (UAR) was to provide a more efficient network over the northern Celtic Sea (off the south coast of Ireland) primarily for operators crossing southwest England or northwest France routeing to/from the North Atlantic.

### Anticipated Impacts

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16. The anticipated impact was to support an airspace and route structure where the flight-plan distance is more closely aligned with actual distance flown to improve fuel planning.



## CAA assessment

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17. We have taken into consideration the interval since implementation and the fact that all changes are in controlled airspace above Flight Level 195 when conducting this assessment.

### Operational Assessment

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#### Safety

18. The Sponsor reports that no AIRPROX reports were received either 12 months before or 12 months after the date of implementation (i.e. during the period 18th November 2013 to 17th November 2015).

#### Operational Feedback

19. The Sponsor reports that no feedback was received relating to unforeseen or unintended operational impacts of the change during the review period (18th September 2014 to 17th November 2015).
20. The Sponsor reports no adverse comments were received from adjacent ANSPs and operators were happy with the increased choice of flight plannable options during the review period (18th September 2014 to 17th November 2015).

#### Air Navigation Service Provision

21. The Sponsor reports that no additional resources were recruited and trained to support the revised operation during the review period (18th September 2014 to 17th November 2015).

#### Utilisation and Track Keeping

22. The Sponsor reports that these routes were introduced to allow airlines to flight plan routes which had been offered by controllers for a number of years prior to their introduction. Track keeping has been in line with that expected of predominantly RNAV equipped aircraft.

#### Traffic

23. Given the interval since implementation the Sponsor reports that it has proved very difficult to produce data for comparative numbers of flights on these routes as a consequence of the change. The Sponsor reports that since implementation of these routes in 2014 there was an increase in traffic throughout all NATS sectors from 2.162 million in 2014 to 2.216 million flights in 2015, with Oceanic traffic (the main user of these routes) increasing by a similar percentage.

## **Infringements and Denied Access**

24. Not applicable as no new controlled airspace created to support the introduction of these new routes.

## **Letters of Agreement**

25. The Sponsor reports both the Shannon/London Area Control and Brest/ London Area Control Letters of Agreement were updated in line with this change.

## **Environmental Assessment**

26. It should be noted that the Director's Decision letter makes no reference to environmental considerations. However, the Sponsor has provided analysis of the environmental impacts of the Airspace Change for the year after implementation. This analysis can be found at Annexe B.

## **Community Stakeholder observations**

27. Not applicable as all changes occurred above Flight Level 245.

## **International Obligations**

28. The Sponsor reports that no adverse comments were received from adjacent ANSPs during the review period (18th September 2014 to 17th November 2015).

## **Ministry of Defence Operations**

29. The Sponsor reports that no adverse feedback was received from the MoD during the review period (18th September 2014 to 17th November 2015).

## **Any other impacts**

30. The Sponsor reports that no issues of significance occurred during the review period (18th September 2014 to 17th November 2015).

## Conclusion

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31. The CAA is satisfied that the introduction of new Upper Air Routes over southwestern UK and off the southern coast of Ireland satisfactorily achieved the objective stated in the CAA's decision document, and the change is confirmed.

## Note on plain language

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32. The CAA has attempted to write this report as clearly as possible. Our approach has been to include all the relevant technical material but also to provide a summary and of the conclusions the CAA has reached in reliance on it in as understandable a way as possible. Nevertheless, when summarising a technical subject there is always a risk that explaining it in more accessible terms can alter the meaning.

# Annex A

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## Post Implementation Review Feedback Form

<b>Title:</b> Introduction new upper air routes over South Western UK and off the Southern Coast of Ireland	<b>Post Implementation Review Feedback</b>
<b>ACP Ref:</b> ACP14-02	<b>Approval Date:</b> 07/07/2014
<b>Decision Letter:</b> <a href="#">Click Here</a>	<b>Implementation Date:</b> 18/09/2014

<b>1. Did the original proposal meet the intended objectives as described on the CAA's decision letter to approve the change?</b>	<b>Yes</b>
If no, please provide additional comments...	
<b>2. Did the original proposal meet any conditions described on the CAA's decision letter to approve the change?</b>	<b>Yes</b>
If no, please provide additional comments...	
<b>3. Did the Sponsor receive any observations from community stakeholders, aviation stakeholders or the Ministry of Defence from the 12 months following implementation?</b>	<b>No</b>
If yes, please provide additional comments...	

Name of individual	██████████
Position	ATM Planner NATS Swanwick
Date	25/09/2018



06 September 2018

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## Post Implementation Review Feedback Form

**For CAA use only.**

Has the Sponsor indicated that the original proposal met the objectives as described in the CAA's decision to approve the change?	<b>Yes</b>
Has the Sponsor indicated that the original proposal met any conditions as described in the CAA's decision to approve the change?	<b>Yes</b>
Has the Sponsor highlighted any observations from community stakeholders, aviation stakeholders or the Ministry of Defence?	<b>No</b>

<b>Sign Off</b>	
Does the CAA recommend that a post implementation review is conducted?	<b>Yes</b>
<p>Signed: </p> <p>Name: </p> <p>Manager Airspace Regulation/Principal Airspace Regulator (delete as applicable)</p>	
Date: <b>31/07/2019</b>	

## Annex B

### Environmental Data

Direct Route	No. of flights in 2015	Fuel Burn Savings per Year (Tonnes)	CO <sub>2</sub> Savings per Year (Tonnes)	Cost Savings per Year (£)	Route distance reduction (NM)
NAKID – ARKIL (Bi-Directional)	0		--	--	--
NAKID – LEDGO (Bi-Directional)	6936	122	388	£79,395	1.5
NAKID – LULOX (Bi-Directional)	76	1	2	£424	2.5
DAWLY – ARKIL (Bi-Directional)	0	--	--	--	--
DAWLY – LEDGO (Bi-Directional)	3	--	--	--	--
DAWLY – LESLU (Bi-Directional)	97	5	15	£3,140	17.3
DAWLY – LULOX (Bi-Directional)	0	--	--	--	--
DAWLY – MOPAT (Bi-Directional)	213	12	39	£7,909	5.0
LESLU – DOLUR (Bi-Directional)	254	11	34	£7,024	4.0
BANBA – DOLUR (Southbound)	4147	38	121	£24,753	1.7
TALIG – EVRIN (Northbound)	529	5	17	£3,569	2.1

Note 1: Route distance reduction is flight plannable structure prior to change to that after change,

# Annex C

## Safety and Airspace Regulation Group



All NATMAC Representatives

7<sup>th</sup> July 2014

*Dear Representatives,*

### CAA DECISION LETTER

#### PROPOSED INTRODUCTION NEW UPPER AIR ROUTES OVER SOUTHWESTERN UK AND OFF THE SOUTHERN COAST OF IRELAND

NATS propose to introduce eight new conditional routes (CDRs), two extensions to CDRs and one new upper air route, all above FL245. The route changes are proposed to provide a more efficient network over the northern Celtic Sea (off the south coast of Ireland) primarily for operators crossing southwest England or northwest France routing to/from the North Atlantic. These routes cross the UK Managed Danger Area EGD064 complex to the west of Cornwall. Route designators and timings are detailed in the chart at Enclosure 1.

Currently when the South West Managed Danger Areas EGD064A/B/C (SWMDAs) are active in combination or individually, the flight-plans (FPL) of aircraft trying to follow Great Circle routes are deviated around the SWMDAs.

When inactive (in any permutation of the three sub-areas), ATC provide tactical shortcuts across them. Most FPL combinations still have to route around them due to the relative lack of choice of route, so the fuel carried for that FPL is often greater than that required to fly the tactical route. NATS therefore proposes to introduce these ten new CDRs across the SWMDAs in order to improve route efficiency and flexibility when the SWMDAs are inactive. NATS also proposes to introduce a permanent Upper Air Route (UAR) in the same vicinity, but avoiding the SWMDAs.

The MoD has been consulted and has accepted proposed change based on certain operational criteria that ensures the efficient operation of the SWMDAs is not compromised. The flexible use of airspace (FUA) concept will help ensure that the most efficient use of airspace is made accommodating both airspace user groups' requirements. The NATS Operational Partnership Agreement (OPA) - which represents a broad cross section of commercial aircraft operators - supports airspace and route changes where the flight-plan distance is more closely aligned with actual distance flown to improve fuel planning.

It is clear that there is some benefit to be realised from introducing these new routes as the revised airspace will serve to provide a more flexible and efficient route structure. There is no safety concern arising from the proposed changes as the

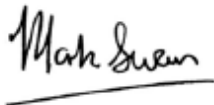


extant Airspace Management Cell UK coordination of CDRs through the SWMDAs will be maintained.

Although the routes are wholly contained within controlled airspace and managed by Swanwick centre operations, Brest ACC (France) and Shannon ACC (Ireland) have been advised of the changes through an ICAO High Seas approval letter.

As liaison has been closely maintained with the MoD to satisfy military requirements and my staff has ensured that this airspace change meets with the requisite Regulatory Requirements and does not compromise the operation of other airspace users, I have decided to approve this Airspace Change Proposal. The changes will be implemented at AIRAC 10/2014 on 18 September 2014.

If you have any queries, the SARG Project Leader is Mac Mackay, who can be contacted on 020 7453 6552, [mac.mackay@caa.co.uk](mailto:mac.mackay@caa.co.uk)



Mark Swan  
Director

Enclosure:

1. SWMDA Upper ATS Route structure.

