

GENERAL AVIATION ALLIANCE

Partnership in Aviation

Stakeholder Consultation

Airway Q41 - Proposal to reclassify to Class D up to FL80



Executive Summary

This document explains changes proposed by the GAA to airway Q41 between the northern boundary of the Solent CTA and ORTAC. It contains information from which stakeholders identified as consultees in this process can gain an understanding of the proposal and give informed feedback.

This proposal seeks to improve safety for aircraft flying VFR between the UK and the Channel Islands and France by providing access to airspace which is under-utilised. Presently, aircraft using the route between SAM and ORTAC and which are not able to fly in Class A airspace must remain below FL35 or route outside the lateral boundaries of Airway Q41. Airway Q41 is bounded by danger areas D036 to the east and D031, D026 and D023 to the west. Flight by single-engine aircraft at low levels over the sea carries unnecessary risk to the occupants and planning an international flight through or close to danger areas which may be active is not best practice and may also carry unnecessary risk.

Airway Q41 below FL80 is little used by commercial traffic and utilisation is likely to reduce further as the Aurigny Airways fleet is developed. Changing Q41 to Class D below FL80 would align it with the recently reclassified CI CTR and permit suitably equipped aircraft to fly in it VFR or IFR where the pilot holds a UKIR(R). It would also reduce potential conflict between aircraft at the boundary with the CI CTR.

The proposal is a change to the classification of the airspace only; there are no changes proposed to the dimensions of the airspace, and IFR traffic using the airspace would be unaffected.

In accordance with the guidance in CAP725, the GAA is consulting with aviation stakeholders including ANSPs, identified airspace users and representatives of General Aviation organisations.

The CAA guidance is that this proposed change does not require consultation with environmental stakeholders since it is limited to a change in the classification of the airspace which would allow aircraft which are presently constrained to fly at low level to fly higher, reducing environmental impact. Furthermore, the majority of the airspace is over the sea.

The period of consultation commences on 28 March 2015 and closes on 20 June 2015. If the proposal is approved by the CAA, the GAA will implement the airspace change at an appropriate opportunity in line with the AIRAC cycle.

Please send any comments on the airspace change proposal to:

Airway Q41 Consultation Co-ordinator at g41consultation@laa.uk.com

Or by post to:

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1 Introduction

About the GAA.

1.1 The GAA is a group of organisations representing, as far as possible, UK General Aviation (GA) and particularly Sports and Recreational Aviation (S&RA) interests. The Alliance coordinates activities for some 72,000 subscription-paying members. These members represent the owners/operators of around 60% of the UK registered aircraft fleet rising to over 70% when unregulated aircraft are included. Activities cover parachuting, hang gliding, gliding, ballooning, plus sport and recreational flying in light and microlight aircraft and in helicopters. The objective of the GA Alliance is to co-operate and engage with government departments and other relevant organisations on regulatory and directly related matters, to support and progress the activities of S&RA. Member Associations include:

- British Balloon and Airship Club
- British Parachute Association
- British Gliding Association
- Royal Aero Club of the United Kingdom
- British Hang Gliding and Paragliding Association
- Helicopter Club of Great Britain
- British Microlight Aircraft Association
- Light Aircraft Association
- European Association of Instrument Rated Pilots

The lead organisation for this proposal is the Light Aircraft Association (LAA) to whom all correspondence should be addressed.

Background to the Proposal

1.2 SAM/ORTAC is a popular route for GA aircraft to and from the south coast of England to the Channel Islands and to France. The airway Q41, which follows this route, is Class A airspace above FL35 so neither VFR flight, nor IFR flight with an IR(R)/IMC rating are possible within the airspace. As a consequence the vast majority of GA traffic must either route through a narrow (2.8NM) gap between danger area D036 and airway Q41, or fly below flight level 35. The former carries the risk of inadvertent intrusion either into an active danger area or an airway, and the latter carries unnecessary risks associated with low-level flight over the sea for a substantial distance. Alternatively aircraft flying to or from the Cherbourg Peninsula may follow the "recommended VFR Route" which is depicted on VFR charts and which penetrates D036. For some years, GA pilots have expressed concern about this airspace arrangement.

1.3 Towards the northern end of Q41, the Solent CTR/CTA is already Class D up to 5500 ft amsl and at the FIR boundary at its southern end the Channel Island CTR is also now Class D up to FL80. Commercial Air Transport (CAT) use of Q41 below FL80 is slight, with approximately 6 flights daily by Aurigny Air Services. Other users include a number of Flying Training Organisations (FTOs) undertaking Instrument Rating (IR)

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training, and military flights which cross the airway when using the adjacent ranges. None of these aircraft need Class A airspace for their operation.

- 1.4 Thus, it seems appropriate to re-examine the use of this airspace and to consider how safety and efficiency might be improved for all airspace users.

2 Airspace Arrangements

Current Airspace Configuration

- 2.1 The current airspace arrangements are depicted in the map and cross-section shown at Annex E. Airway Q41 is Class A airspace with a base of FL35 connecting to the Class D Solent CTA-9 (3500ft to 5500ft) and overlaying Solent airspace from FL55. Following recent reclassification, the entirety of the Channel Islands CTR/CTA is now Class D up to FL80, with Class A above.

Airspace Utilisation and Control

- 2.2 Aurigny Air Services are the sole Commercial Air Transport organisation making use of the lower levels of the airway. There are some 6 flights daily by Trislander aircraft. These aircraft will be replaced by Dornier 227 aircraft by the first quarter of 2015, operating Southampton/Alderney at around FL50-70. As this aircraft is not pressurised, the option of a greater cruise level is not available although the lowest levels of Q41 may no longer be required. Other users of Q41 include a number of Flying Training Organisations (FTOs) undertaking Instrument Rating (IR) training and testing; and military flights which cross the airway when using the adjacent ranges.
- 2.3 VFR traffic between the UK and CI airports during July 2014, based on data extracted from AFPEX flight plans was 788, an average of 26 flights daily.
- 2.4 NERL is responsible for control in Class A Q41 with Solent and Jersey responsible for their Class D airspace at either end.

Safety of GA Operations between UK and Channel Islands

- 2.5 GA aircraft operating VFR, or IFR where the pilot holds a UK IR(R) cannot fly above flight level 35 for the extent of Q41, from approximately 50 deg 30 min N to 50 deg N. The current options for the great majority of GA aircraft will therefore be either to remain below flight level 35 under Q41 until within the Channel Islands CTR or to fly at a greater altitude, up to flight level 105 below airway L980, but then to navigate through the small 2.8 NM gap between Q41 and danger area D036. Both options pose additional risks, the former necessitating a long low-level transit over the sea, the latter the possibility of infringement of Q41 or D036.
- 2.6 When flying over the sea the overwhelming majority of GA pilots would choose to fly as high as possible so that in the event of an engine malfunction they have time to recover the situation, make a distress call and if necessary prepare their aircraft and passengers for ditching. Following an engine failure, typical light aircraft have a glide angle and speed in the order of 1:7 and 75kts. When flying at 3000ft below Q41 the time available between the point of failure and ditching would be 2 minutes 45 seconds. The time available before reaching 1000ft, when the emergency actions need to be complete and the aircraft configured for ditching would be some 1 minutes 50 seconds.

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During that time an emergency radio call with an accurate position are essential to survival. Doubling the altitude to 6000ft increases the available time to 4 minutes 35 seconds and doubles the glide range as well as increasing the RTF and radar coverage. Increasing altitude provides significantly increased safety for light aircraft when over the sea.

- 2.7 The "FL35 ceiling" on VFR flights at the FIR boundary presents a collision risk with opposite direction traffic constrained close to the same point and the same maximum level but with all pilots seeking to remain as high as possible in case of engine malfunction.

3 Options

Option A – Do Nothing.

- 3.1 Leaving Q41 as Class A airspace will continue to exclude the vast majority of GA aircraft flying between the UK and the Channel Islands and France forcing them to fly below FL35 over the sea or through danger areas or close to danger areas and controlled airspace. Such aircraft in UK Class G airspace or in Class D within the Southampton CTA will need either to descend to below FL35 to under Q41 until they reach the Channel Islands control zone when they may climb to flight level 80 to continue their flights. Alternatively, GA aircraft could fly to the east of Q41, at up to flight level 105, either through D036 or below airway L980, but must then transit the narrow gap between Q41 and D036 to transit into the Channel Islands control zone.
- 3.2 Neither of these route choices represents best aviation practice. The risk of prolonged low-level flight over water or the need for extreme navigational precision to avoid infringement of Q41 or D036 would remain.

Option B – reclassify Q41 to Class G airspace up to FL80

- 3.3 Q41 could be returned to Class G airspace below FL80 between ORTAC and the boundary with the Solent CTA-9. The volume of commercial traffic using this route is small, limited to some 6 flights each day by Aurigny Air Services. Presently these services are operated by Trislander aircraft which need the lower levels but with re-equipment with Dornier 227 aircraft the lower levels may not be needed. It may be that as experience is gained with the new Aurigny fleet, some lower levels of Q41 could revert to Class G but this is uncertain and it may be that the increase in levels available to VFR aircraft is not sufficient to provide a significant increase in safety. Option B is impracticable at the present time but will be reviewed in due further course if it appears that the base of the airway can be raised somewhat.

Option C - reclassify Q41 to Class C up to Flight Level 80

- 3.3 Airway Q41 could be reclassified as Class C up to FL80 between ORTAC and the northern boundary of Solent CTA-5. This would align it with the Channel Islands Class D CTR to the south and permit VFR aircraft to climb to cruising level above the Solent CTA before coasting out. VFR aircraft would be able to cruise within Q41 up to FL75. Class C would provide standard separation between IFR and VFR traffic and control arrangements would be similar although NERL might seek to delegate control responsibility to an ATSU more used to controlling VFR aircraft. There would be no impact on IFR operations in the airspace. The low-level choke point at ORTAC would be

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removed and airspace safety for VFR aircraft would be improved. This option would lead to an increase in VFR traffic through the Solent CTA but as this traffic would be operating on a flight plan and following the ATS route, coordination and separation is not expected to be an issue. Similarly, VFR traffic using Q41 below FL80 would increase with a peak of some 26 flights per day in summer.

3.4 Although Option C would permit VFR access to the airspace, there will be occasions when cloud or visibility precludes VFR flight but aircraft equipped for IFR flight could operate. However, for historic reasons the privileges of a UK IR(R) do not include IFR flight in Class C airspace and few GA pilots hold an IR. The UKCAA is unwilling to propose a change to the privileges of the UK IR(R) to include Class C airspace lest it complicates negotiations with the EU Commission on acceptance of the rating. In these circumstances aircraft which could otherwise fly within the airspace would be excluded as if the "do nothing" option had been implemented. Moreover, aircraft equipped for IFR but constrained to VFR by the airspace classification would require rerouting if they encountered cloud over the Channel increasing ATC workload. These aspects of Class C airspace would prevent the full safety benefits being realised.

3.5 Option C would satisfy only part of the proposed safety improvement and would not cover all potential circumstances.

Option D - reclassify Q41 to Class D up to Flight Level 80

3.6 Airway Q41 could be reclassified as Class D up to FL 80 between ORTAC and the northern boundary of Solent CTA-5. This would provide all the advantages for VFR aircraft set out in Option C but would also permit IFR flight by suitably equipped aircraft where the pilot holds a UK IR(R) rating, increasing the range of occasions where the full safety benefits would accrue.

3.7 Within Class D airspace, standard separation is not required between IFR and VFR flights and separation is provided at the discretion of the controlling ATSU having regard for its duty of care. This arrangement is identical to that applying in the Class D CTR/CTA that adjoins each end of this section of Q41, so there would be no impact on IFR flights. The UK IR(R) is also valid for IFR flight within the Solent CTA/CTR and the CI CTR and for SVFR flight in the CI CTA so flight rules over the whole route would be consistent.

4 Airspace Proposal

Selection of the Best Option

4.1 The GAA has a duty to its members and the wider GA community to represent their safety interests and to pursue safety improvements wherever practicable. It is clear that the present airspace arrangement provides a lower degree of safety for VFR flights than alternatives and that it offers no particular safety or operational advantage to other IFR airspace users. Thus Option A, "do nothing" is not appropriate.

4.2 Option B, "reclassify to Class G" is impracticable in the short to medium term although it may be possible to revisit the lowest levels of the route once the flight frequency and profiles of Aurigny Air Services revised fleet are known.

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- 4.3 Option C, "reclassify to Class C" would achieve some but not all of the safety objectives of the proposal.
- 4.4 Option D, "reclassify to Class D" would achieve all the safety objectives of the proposal and is the selected option. The GAA proposes that airway Q41 should be reclassified to Class D airspace up to flight level 80 from ORTAC to the northern boundary of Solent CTA-5. The reasons advanced by the NATS supporting class D rather than class C for the London Heathrow CTR are also valid here and an extract if that document is enclosed at Annex C.

Impact of the Proposal

- 4.5 The proposed change in classification will have no impact on other airspace users either in terms of safety or operational procedures. Traffic within the airspace is expected to increase by up to 26 flights per day at peak periods with a concomitant decrease in VFR flights in the adjacent Class G airspace.
- 4.6 The proposed change from Class A to Class D is likely to result in NERL seeking to change or delegate the control of this airspace. In turn this may lead to changes in staffing and funding.
- 4.7 The proposed change would be implemented at a suitable date and require an amendment to the UK AIP and associated charts.
- 4.8 IFR flight for pilots with a UK IR(R) would be available throughout the route, simplifying the applicable flight rules and procedures.

5 Environmental Considerations

Overview

- 5.1 Following a review during Phase 1 of the ACP process it was agreed that no environmental consultation would be undertaken as examination of the impacts of the proposal suggest that they would all be beneficial.

Noise

- 5.2 The section of airway Q41 under consideration lies almost entirely over the sea. The proposal would see aircraft will be operating at higher altitudes than presently. The proposals will reduce noise at surface level, although the current impact is already minimal.

Climate Change

- 5.3 Aero-engines will function more efficiently at a greater altitude. Thus, allowing GA aircraft access to greater altitudes will reduce carbon dioxide emissions. A reduction in the number of aircraft using a longer route, mainly over France, will reduce fuel burn and hence also contribute to minimisation of climate impact.

Visual Impact and Tranquillity

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- 5.4 The section of airway Q41 under consideration lies almost entirely over the sea. Aircraft will be operating at greater altitude. Any impact on visibility or tranquillity is currently minimal and would be reduced further by the proposed change.

Air Quality

- 5.5 Aero-engines will function more efficiently at a greater altitude. Thus, allowing GA aircraft access to greater altitudes will reduce carbon dioxide and particulate emissions.

6 Summary

- 6.1 Safety of flight for aircraft flying VFR between the UK and the Channel Islands would be increased by reclassifying airway Q41 from Class A to Class D up to FL80 to align with the reclassified CI CTR to the south and the northern boundary of the Solent CTA-5 to the north. The safety and operation of IFR aircraft in the airspace would be unchanged. Existing control arrangements are likely to need to change.

7 How to Respond

- 7.1 The period of consultation starts on 28 March 2015 and closes on 20th June 2015 (12 weeks). If the proposal is approved by the CAA, the GAA will implement the airspace change at an appropriate opportunity in line with the AIRAC cycle.

Please send any comments on the airspace change proposal to:

Airway Q41 Consultation Co-ordinator at q41consultation@laa.uk.com

Or by post to:

Airway Q41 Consultation Co-ordinator
The Light Aircraft Association
Turweston Aerodrome
Brackley
Northants
NN13 5YD

Annex A - Classifications of Airspace

C.1 Definition of Controlled Airspace (CAS). Airspace of defined dimensions within which an Air Traffic Control (ATC) is provided to aircraft in accordance with the airspace classification.

C.2 Within CAS pilots are required to comply with ATC and other regulations forming part of the UK Air Navigation Order and Rules of the Air Regulations. CAS comprises different types of control zone and area to which are assigned one of the ICAO Airspace classifications A to E. Classes F and G are reserved for 'uncontrolled' airspace. CAS can be in several forms:

C.3 Control Zone (CTR/CTZ). A controlled airspace extending upwards from the surface of the earth to a specified upper limit.

C.4 Control Area (CTA). A controlled airspace extending upwards from a specified limit above the earth to a specified upper limit. CTAs can be further classified as:

(i) Airway A control area, or part thereof, in the form of a corridor equipped with radio navigation aids.

(ii) Terminal Control Area (TMA) A control area, normally established at the confluence of airways, in the vicinity of one or more major aerodromes.

C.5 Classifications of Airspace

Controlled Airspace

Class A Airways, except where they pass through a TMA or CTR of a lower status. Aircraft flying under visual flight rules are not allowed in this airspace. Separation is provided to all aircraft flying in this airspace.

Class B This Class is not currently allocated in the UK

Class C Except for 2 isolated segments this airspace is only used above FL 195 in the UK

Class D. Mostly CTRs and CTAs that permit IFR and VFR flight in accordance with specified conditions. The most common Class of CAS established around airports within the UK.

Class E. Allocated to parts of the Belfast and Scottish TMAs. Operations may be conducted under IFR, SVFR, or VFR. Aircraft operating under IFR and SVFR are separated from each other, and are subject to ATC clearance. As far as is practical, traffic information is given to all flights in respect of VFR flights. Note that clearance is not required for VFR flights within Class E airspace, but pilots are strongly advised to contact the appropriate ATSU.

Uncontrolled Airspace

Class F. This is for advisory routes along which a civil air traffic advisory service is available to participating aircraft.

Class G Free Airspace. Aircraft are able to fly without any flight plan or air traffic clearance in accordance with specified flight rules. This is the most common class of airspace outside CAS and advisory airspace in the UK.

Annex B

Organisations/individuals consulted on proposed airspace change:

NATS (En Route) PLC

Southampton International Airport Ltd

NATS (Services Ltd)

NSL General Manager (Southampton)

MOD DAATM-Airspace SO1

Director of Civil Aviation, Jersey

Head of ATC, Jersey

Aurigny Air Services Ltd, Flight Director Operations

AOPA, CEO

GASCo, CEO

Solent School of Flying, Chief Instructor,

CTC Aviation Training (UK) Limited, Head of Training

Solent Flight Ltd, Chief Instructor

Bournemouth Commercial Flight Training, Chief Instructor

Professional Air Training Ltd, Head of Training

Jersey Aero Club, Chief Instructor

Guernsey Aero Club, Chief Instructor

Annex C

Extract from Heathrow CTR Consultation Concerning Class C Airspace

7.1.12 Overall Impact: Why NATS Considers Class C to be unsuitable for the London CTR

Due to the requirement for ATC separation between IFR and VFR traffic in Class C airspace (in a similar fashion to the separation between IFR and SVFR in Class A), Class C airspace represents the least change to Controllers. TC Heathrow would see no change to their role as TC SVFR would continue to provide separation from IFR traffic as per current operations.

However, ensuring separation between IFR and VFR traffic in Class C airspace has several drawbacks, seen through many years of experience of Class A airspace in the London CTR, where the same traffic (albeit SVFR due to airspace classification) had to be separated from IFR.

Many Police and Medical helicopter priority flights have to operate in the vicinity of Heathrow, exacerbated by the fact that Heathrow is situated in a densely populated area of West London. Ensuring ATC separation between IFR traffic and these flights which, due to their unpredictable nature, arrive on frequency with little or no warning, causes rapid increases in ATC workload for Radar and Tower Controllers alike. This can lead to tunnel vision towards the priority traffic and a reduction in safety margins elsewhere in the sectors.

As is often the case, when the Tower Controller cannot provide visual separation between IFR traffic and the VFR traffic, departures have to be suspended or arrivals delayed from approaching, or worse broken of the approach. This disproportionate effect on Heathrow IFR operations can be very frustrating for Controllers because, in the vast majority of instances, the VFR traffic would not actually be considered in conflict were the airspace to be Class D.

Non-priority helicopter traffic also generates a disproportionate effect on Heathrow operations. Helicopters that require to land and depart from the numerous private sites in the vicinity of Heathrow also cause delay. These flights have to be accommodated because access to the airspace cannot be denied; only delayed. Sites that cannot be accessed with visual or standard separation cause 4-5 minutes delay per rotation. Again, the vast majority of these helicopter operations could be accommodated with minimal effect on Heathrow were the London CTR to be Class D airspace.

Helicopters are required to hold for extended periods at low altitude in several places around the London CTR, whilst separation from IFR traffic is arranged by ATC.

For VFR traffic, Class C airspace generates a conflict between the Low Flying Rules and the requirement for ATC separation. Under VFR clearances, pilots not following published routes over London must fly 1000ft above obstacles. Yet, in order to provide vertical separation from London City Airport and Heathrow Airport traffic, ATC require the VFR traffic to be not above altitude 1000ft (i.e. above sea level). These conflicting requirements are very restrictive to Helicopter operations in Central London, particularly London Heliport, where historically most aircraft have flown direct routings by virtue of being twin engine aircraft.

For these reasons NATS operational and safety experts have deemed that Class C airspace, when considering all airspace users, is likely to be less safe than Class D airspace and will deliver no benefits over today's Class A operation, whereas Class D may deliver a small capacity, delay and environmental benefit.

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Annex D – Airway Q41

