



Title: Airway Q41: Reclassify to Class G below Flight level 55

Subject Release of Controlled and Segregated Airspace

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## **1 Executive Summary**

1.1 Following a review of underutilised airspace, FASVIG concluded that with the withdrawal of Islander aircraft from the Channel Islands to mainland UK routes, Airway Q41 no longer needs a base as low as FL35 between THRED and ORTAC. Having consulted positively with Aurigny Airways, other Q41 users, ANSPs and interested parties, FASVIG proposes that the base is raised to FL55 between those waypoints.

## **2 Description of the change**

2.1 It is proposed that the base level of Airway Q41 is changed from FL35 to FL55 between ORTAC and THRED.

2.3. Bournemouth ATS and Plymouth Radar would provide a radar service to traffic in the newly released Class G airspace within their area of coverage as they do today. Jersey ATS would offer a FIS service north of ORTAC but also has radar coverage well to the north.

## **3 Rationale for the change**

3.1 NEDUL/ORTAC is a popular route for GA aircraft to and from the south coast of England to the Channel Islands and to France. Airway Q41, which follows this route, is Class A airspace above FL35 so neither VFR flight, nor IFR flight with a restricted instrument rating (IR(R)) or 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 FL 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.

3.2 Commercial Air Transport use of the lower levels of Q41 has been slight, with approximately 6 flights daily by Aurigny Air Services Trislander aircraft. However, the Trislander aircraft on these routes have now been replaced by Do228 aircraft which can fly higher.

3.3 The alternative preferred FASVIG solution was to change the classification of Q41 to Class G below FL75 but, in addition to further objections to that it was clear that Do228 aircraft departing Alderney would have difficulty reaching FL80 by ORTAC. Aurigny helpfully agreed that they would manage to reach FL60 so would support a base of FL55. This matched the NATS alternative proposal so FASVIG adopted the commonly agreed alternative to raise the base of Q41 to FL55 and this is now the basis of the FASVIG RCSA proposal.

3.4 Other users of this airspace include several Flying Training Organisations (FTOs) undertaking Instrument Rating (IR) training. Although some of these use Q41 below FL55 they would have the alternatives of routing above FL55, of flying outside CAS or conducting their training and testing in other airspace. It is our view that training and testing by FTOs does not, of itself, warrant the continued establishment of Class A airspace. None of the FTOs which replied directly opposed a base level of FL55.

3.5 Reclassification of the lower 2000 feet of this airway to class G would increase safety for GA aircraft transiting between the mainland and the Channel Islands by increasing glide distance and time available in the event of an engine failure, improving radar and radio coverage, and reduce the risk of infringements of the adjacent danger areas. Reduction of noise and of air pollution would occur as a consequence of aircraft operating at an increased altitude although as the section of Q41 under consideration lies entirely over the sea the direct impact on third parties would be minimal.

#### **4 History of the Change Process**

4.1 FASVIG identified a number of options to improve the utilisation and safety of airspace between ORTAC and SAM including raising the base of Q41 to FL80 (subsequently revised to FL75), changing the classification to Class C or D below FL75 and changing control arrangements at the boundary of the Solent CTA. Two rounds of consultation were conducted, the first proposed to change the classification to Class D below FL80 (FL75) but NATS (NERL) would not control aircraft in Class D airspace and averred that control could not be delegated to another unit.

4.2 There is a fundamental issue here in that whilst airspace sharing is common in European airspace, the UK has established a segregation policy which reduces the capacity of our available airspace and excludes groups of airspace users. In this case IFR aircraft wanted the protection of CAS but because of the sole application of Class A in en-route airspace, VFR aircraft (and those IFR aircraft unable to access Class A) are excluded. There is a clear need for IFR and VFR aircraft to co-exist and share the airspace but sharing is prevented by national policy. FASVIG will pursue that policy matter separately.

4.3 The second consultation proposed raising the base to FL75 between ORTAC and NEDUL to remove the requirement for NERL to control aircraft in Class D but that resulted in several objections. However, the deciding factor was that although Aurigny Do228 aircraft departing Alderney could climb above FL55 by ORTAC, they could not reach FL80 because of the requirement slow rates of climb and descent for passenger comfort in unpressurised aircraft.

4.2 FASVIG decided to continue the CAP725 ACP process whilst it resolved the issues but to split off and submit an RCSA proposal to release the airspace below



FL55 to Class G to provide an immediate increase in safety, albeit less than had been anticipated. That would increase airspace safety for VFR and IFR GA traffic without disruption or inconvenience to commercial traffic. Once that is implemented, experience on actual vertical profiles of traffic can be assessed with a view to completing the original ACP and providing the full safety improvement.

## **5 Safety and operational impact**

5.1 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 between ORTAC and THRED. 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. When flying over the sea the overwhelming majority of GA pilots would 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 some 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. During that time the single pilot must fly the aircraft and identify and deal with the emergency whilst preparing the aircraft and passengers for ditching. An emergency radio call with an accurate position is also essential to survival. Ideally, single-engine aircraft should fly as high as possible over the sea to maximise safety.

5.2 Increasing the maximum practical cruising altitude from 3000ft to 5000ft doubles the time available for emergency preparation following engine failure. It doubles glide range increasing the options for ditching. Most importantly it also provides increased radar coverage and radio communication range which improves the probability of timely rescue after ditching.

## **6 Activity that might be experienced in the released airspace**

6.1 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. No significant increase in this activity is anticipated. Traffic which previously flew below FL55 to the side of Q41 will now be able to fly beneath it reducing congestion and reducing the risk of infringement of Q41 itself and adjacent restricted airspace.

6.2 Other users of Q41 include several Flying Training Organisations (FTOs) undertaking Instrument Rating (IR) training and testing may choose to route through the released airspace or fly within the remaining Q41 Class A airspace.

6.3 Military aircraft which currently cross the Q41 under delegated control of Plymouth Military Radar when using the adjacent ranges may cross the released airspace and MOD is content that the control arrangements would not change



## **7 Environmental statement**

7.1 During the Framework Briefing which formed part of the original Airway Q41 ACP process it was agreed that no environmental consultation would be undertaken as it was clear that all the impacts of the proposal would be beneficial.

7.2 The section of airway Q41 under consideration lies entirely over the sea. The proposal would see aircraft operating at higher altitudes than at present. Thus, there will be a reduction in noise at surface level, although the current impact is already minimal.

7.3 Aero-engines will function more efficiently at greater altitudes. Thus carbon dioxide and particulate emissions will be reduced and air quality improved.

7.4 A reduction in the number of aircraft using a longer route, mainly over France, will reduce fuel burn and hence also contribute to reducing environmental impact.

## **8 Arrangements with adjacent aerodromes**

8.1 No need for further arrangements is anticipated.

## **9 Air traffic control arrangements**

9.1 Currently NERL (Sector 21) is responsible for control within Q41 between ORTAC and THRED. Apart from the removal of the lower 2000ft of this airspace no change is anticipated.

9.2 Bournemouth ATC provides ATSOCAS and radar coverage for the areas below and adjacent to Q41 south of THRED and is willing to continue this provision following a level revision.

9.3 Jersey ATC will continue to provide a service with its class D airspace as far north as ORTAC. Subject to agreement it would provide a FIS to traffic north of ORTAC. It has radar coverage well to the north of ORTAC.

9.4 Presently aircraft flying VFR make a free call for transfer between Bournemouth or Plymouth (or London FIS) and Jersey ATC. This arrangement would continue.

## **10 Implementation timelines**

10.1 This change would be proposed for AIRAC Cycle 4/2017 (with a cut-off date of 2 Feb 2017) to match the issue of the UK ½ million south chart.

FASVIG

26 October 2016