

# **Bristol Airport - Application for Visual Reference Point (VRP) Changes**

## **1. Statement of Operational Requirement**

Bristol Airport is seeking to rationalise the VRPs in the local area following a VFR review conducted in October 2018. This review was initiated following a UK Airprox Board report that found the extant VFR airspace design and procedures to be only partially effective. A number of Bristol's VRPs outside CAS do not comply with the guidance for VRPs detailed in AIC: Y 006/2013:

- The use of towns or villages as VRPs should be avoided where possible as their size and shape will alter with time.
- The use of disused aerodromes as VRPs may in some cases be appropriate, however sponsors of such VRPs must remain aware at all times of land use changes that will, over time, eradicate evidence of a disused aerodrome's former purpose (e.g. the construction of housing or industrial estates, removal of paved surfaces, etc).

The CAA has advised that one VRP does not comply with the recommended naming convention.

An operational requirement has been identified to establish a new VRP within the Class D CTR to facilitate a one-way flow system for VFR flights and geographical separation between Special VFR and IFR flights.

## **2. VRPs to be Disestablished**

The VRPs that Bristol proposes to disestablish are:

- Devizes
- Frome
- Weston-Super-Mare

### **a. Devizes and Frome**

VRP Devizes is located over a town centre 10nm from the closest point of approach to Bristol controlled airspace (CAS) and therefore plays little or no role in facilitating access to Bristol Airport or transit of Bristol CAS by VFR traffic.

VRP Frome is located over a town centre 5nm from the closest point of approach to Bristol CAS. Four other VRPs exist to the southeast and east of Bristol Airport (Wells TV Mast, Radstock, Bath Race Course and Chippenham) and these are deemed sufficient to both facilitate access to Bristol CAS and assist pilots to plan routes around or beneath Controlled Airspace when traffic conditions require.

Removal of these VRPS would also reduce VFR chart clutter whilst retaining those navigational points that serve to protect Bristol CAS from airspace infringements.

### **b. Weston Aerodrome**

VRP Weston Aerodrome is located under Bristol CTA-2. For a number of years the land has been allocated for house building and the growth of the estates has now reached such an extent that the VRP is barely distinguishable from the surrounding

conurbation i.e. evidence of the disused aerodrome's former purpose has all but been eradicated.

Three other VRPs exist to the southwest and northwest of Bristol Airport (Sedgemoor Services, Clevedon and M5 Avon Bridge) and these are deemed sufficient to both facilitate access to Bristol CAS and assist pilots to plan routes beneath CAS when traffic conditions require. Additionally the M5 motorway is a prominent navigational line feature that is regularly used by pilots navigating beneath Bristol CTAs 2, 5 and 7.

### **3. VRP to be Renamed**

Bristol proposes to rename Chew Valley VRP as Chew Valley Lake VRP.

### **4. Application to Establish Blagdon Lake VRP**

Bristol proposes to establish a new VRP within CAS at Blagdon Lake.

#### **a. Operational Requirement**

The purpose of the VRP is twofold:

- To support a proposed one-way flow system of VFR traffic routing in and out of Bristol Airport;
- To support a proposed geographical separation between IFR arrivals and departures and Special VFR traffic holding to the south of the airport.

#### **b. Operational Impact**

Blagdon Lake VRP is located within a Class D Control Zone (CTR) and therefore would not be available for use by aircraft navigating around or in the vicinity of Bristol CAS. Procedures will be introduced that will limit the use of the proposed VRP to the following circumstances:

- As an intermediate VRP for VFR aircraft entering Bristol CAS via Chew Valley Lake when Runway 27 is in use;
- As an intermediate VRP for Special VFR aircraft entering or leaving Bristol CAS to the south of Bristol Airport.

Establishing Blagdon Lake as a VRP would have the benefit of mirroring what routinely happens for aircraft operating to the north of Bristol Airport where East Nailsea VRP is utilised for a similar function.

The operational impact will be limited to light aircraft operating under VFR or Special VFR within Bristol CAS and in conjunction with proposed new procedures it will improve the safe and orderly flow traffic.

#### **c. Environmental Impact**

Blagdon is a small village located in the Mendip Hills which according to the 2001 census had a population of 1,116: the man made lake is located approximately 0.6nm north of the centre of the village.

Bristol Airport does not have a high concentration of VFR traffic due to the growth of the commercial operation. In July 2018 the total number of Aero Club movements was 924<sup>1</sup> and that equating to Western Power Distribution and Profred (based air transport operators) helicopters was 241<sup>1</sup>: a total of 1165 which equates to an average of 38 per day. The figures for June 2018 were 756<sup>1</sup> and 230<sup>1</sup> respectively, equating to an average of 33 per day. Historically Bristol Airport uses Runway 27 for approximately 70% of its total operating time. (1 – Source CAA Airport Data)

Statistics for Special VFR flights are not recorded, but NATS controllers believe these to occur on fewer than 3 days per calendar month and then in only single digit numbers per day.

Blagdon Lake has been used informally as a navigational feature for many years by both ATC and local VFR flights. Residents will be familiar with the light fixed wing and helicopter operation at Bristol as flights holding left-hand downwind or on a wide left base for Runway 27 are currently in the vicinity of Blagdon Lake, as are flights joining downwind right-hand for Runway 09 from Chew Valley Lake.

The location has the advantage of being sited in a rural area with low population density whilst the presence of existing flights will lead to a relatively small increase in VFR traffic in the area. These factors combined dictate that little additional environmental impact will be caused by the creation of a new VRP at Blagdon Lake.

#### **d. Location**

Blagdon Lake is a well known, easily identifiable, feature located inside the Control Zone 3nm south of Bristol Airport. The lake is situated north of the Mendip Hills and the small village from which it takes its name. The proposed reference point is the centre of the causeway/dam that is orientated north/south on the western extremity of the lake. Identification is reinforced by the former pumping station (now a visitors' centre) immediately to the west of the dam.

WGS84 Coordinates: **512014N 0024247W**

VOR/DME - **BCN 142°/31 nm**

#### **e. Aerial Photographs**

##### **i. General Location (Facing North)**



ii. Facing North



iii. Facing East



iv. Facing South



**v. Facing West**



**5. Proposed Date**

In order to facilitate a trial of local VFR procedures during the quieter winter months Bristol proposes to introduce these VRP changes via NOTAM without delay, with them being incorporated into publications on the first appropriate AIRAC date and aeronautical charts on the next planned revision date.

**6. Conclusion**

The three VRPs proposed to be disestablished are judged to be no-longer required to facilitate access to or navigation around Bristol CAS and do not comply with the published CAA guidance for choosing VRPs. The renaming of Chew Valley as Chew Valley Lake will comply with CAA guidance for the naming of VRPs. Blagdon Lake VRP is essential to support proposed procedures that will improve the safe and orderly flow of VFR and Special VFR operations within the Bristol CTR which will benefit both Air Traffic Control and the pilots of light fixed wing aircraft and helicopters whilst causing limited environmental impact.