Ministry of Defence

ACP-2021-078

Enabling Remotely Piloted Aircraft Operations from RAF Fairford

Post-Implementation Engagement on Proposed Change to EGD218

Introduction

The aim of this document is to provide stakeholders with the information needed to fully understand the Sponsor's proposal for modifying the EGD218 complex. Feedback is requested from any stakeholder that anticipates an impact due to the proposed modification.

Background

On 16 February 2024, the EGD218 complex was approved for notification pending the satisfaction of several conditions for use. Those conditions were met, allowing for the first two activations to occur on 22 and 24 August 2024. After CAA approval of ACP-2021-078, but prior to the first activation, Birmingham Airport identified impacts caused by EGD218. Several meetings were conducted to assess the impact and discuss possible mitigations. As a result of these meetings, on 6 August 2024, the CAA imposed additional conditions on the approval of ACP-2021-078 requiring the Sponsor to conduct an early Post-Implementation Review (PIR). This PIR was to focus on impacts on Birmingham Airport operations during the first two planned activations on 22 and 24 August 2024.

Results of Post Implementation Review

The Sponsor submitted a PIR report[1] on 1 Oct 2024 analysing the impacts of the EGD218 complex with specific focus on impacts to the Birmingham Airport operations. This report included data on air traffic delays, details of additional resources allocated, engagement feedback from airport operators, and an analysis of additional track miles flown due to activation of the EGD218. Evidence collected showed that five Birmingham Airport arrivals were impacted during each of the two activations. These impacts were estimated result in between 20-145 NM of additional track mileage and between 1- 21 minutes of additional flight time per impacted flight.

PIR engagement response from Birmingham Airport noted that only EGD218C impacted their operations and detailed two solutions that would mitigate this impact. The first was to raise the floor of EGD218C from FL160 to FL180. The Sponsor's analysis determined that raising the floor of EGD218C to FL180 would not ensure departing HALE RPA could reliably remain within the danger area and in compliance with the 2 NM internal safety buffer without a modification of EGD218A and/or EGD218B. The second solution was to permit underflying EGD218C below the current floor of FL160. The Sponsor had no objections to this solution, but NATS shared concerns related to the adjacent airspace delegated to Cardiff. If the Cotswold FUA was not restricted when Cardiff had the delegated airspace, Swanwick ATCOs (S23) would need to coordinate to descend aircraft below EGD218C. If Cardiff refused due to conflicting traffic, S23 would be forced to orbit Birmingham arrivals until descent was possible. NATS shared that this would generate a much higher level of workload and risk to the operation.

[1] 1 October 2024 PIR Report

Activities Since Post Implementation Review

In the period since the PIR report, there have been no additional activations and no additional impacts.

NATS has coordinated with Cardiff on interim procedures that would permit underflying of EGD218C until a permanent solution can be agreed upon.

The Sponsor has continued engagement with NATS and developed a solution that is expected to eliminate the impacts to Birmingham Airport arrivals that was explained in the 1 October 2024 PIR report. This solution proposes to raise the ceiling of EGD218A from FL075 to FL095 to allow the floor of EGD218C to be raised to FL180.

Current EGD218 Complex Design and Rationale

The design of the EGD218 complex was selected to ensure HALE RPA could safely and efficiently transition to and from RAF Fairford to their operating altitude of FL500+ while also minimising impacts to civil traffic.

EGD218A

EGD218A extends from the surface to FL075. Early concepts for EGD218A included ceilings of FL095 and FL150. Through engagement with NATS, the Sponsor determined that these upper limit altitudes would have unacceptable impacts on civil traffic while lowering the ceiling to FL075 would mitigate these impacts. Based on this feedback, the Sponsor resubmitted a new design in Stage 3. One of the notable changes of the new and final design was the FL075 ceiling of EGD218A.

EGD218B

EGD218B was designed for HALE RPA to transit between EGD218A at or below FL070 and EGD218C at or above FL160 on arrival and departure. The lateral dimensions do not permit an orbiting climb of a HALE RPA while maintaining the required 2NM internal safety buffer.

EGD218C

EGD218C was designed to be used in conjunction with EGD218D for climb and descent between FL500+ and FL200. Lowering the upper limit of EGD218A had the follow-on effect of requiring a lower floor for EGD218C to ensure that HALE RPA remain within the Danger Area on their departure climb.

EGD218D

EGD218D was designed to be used in conjunction with EGD218C for climb and descent between FL500+ and FL200.

Additional information on why this design was selected can be found in the Stage 4B Submission[2].

[2] Stage 4B Submission, page 18-21

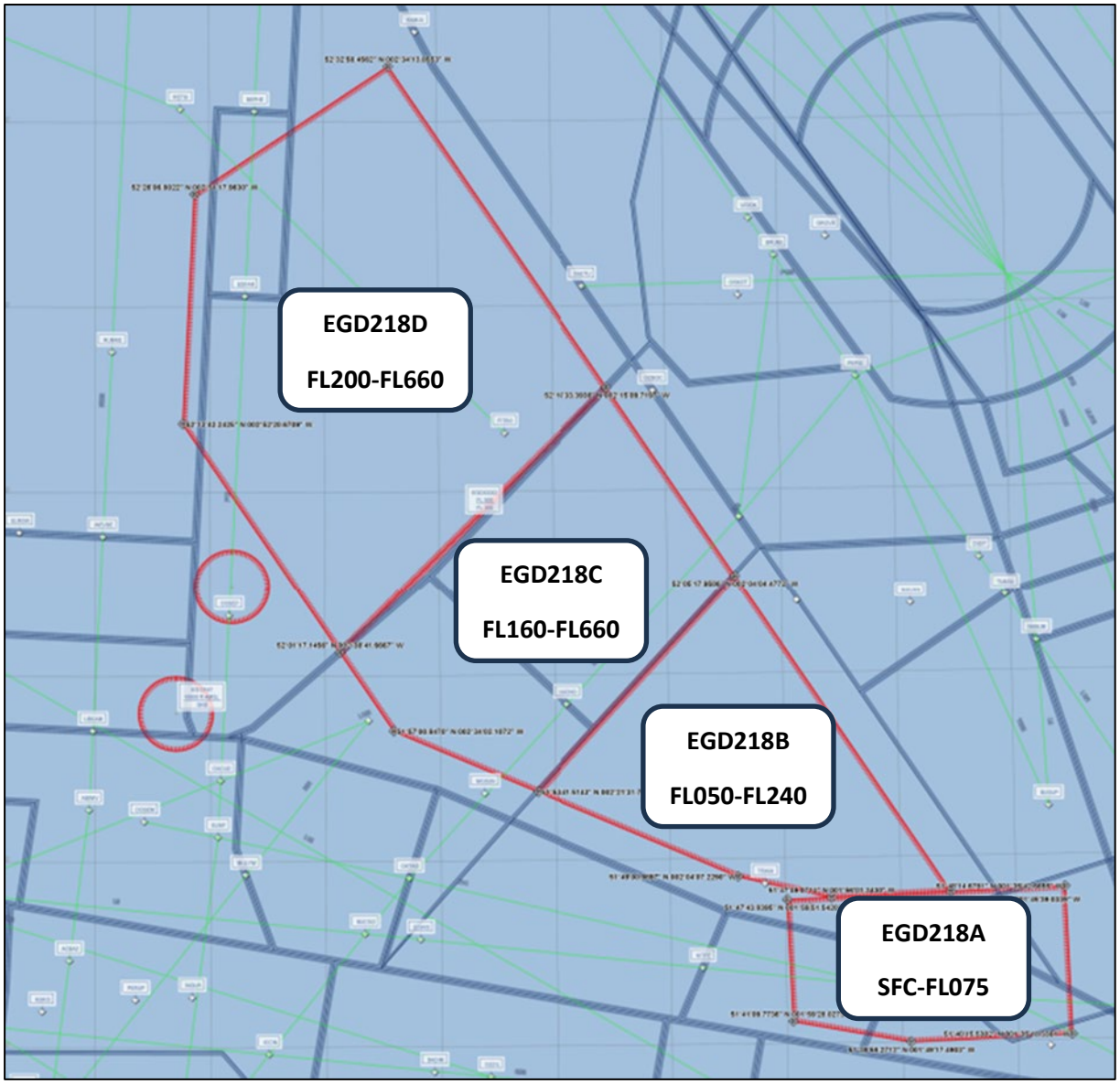

Figure 1 Current EGD218 Complex

Details of the Proposed Modification

The lateral dimensions of the EGD218 complex are to remain unchanged. The proposed modification only raises the floor of EGD218C from FL160 to FL180 and raises the ceiling of EGD218A from FL075 to FL095.

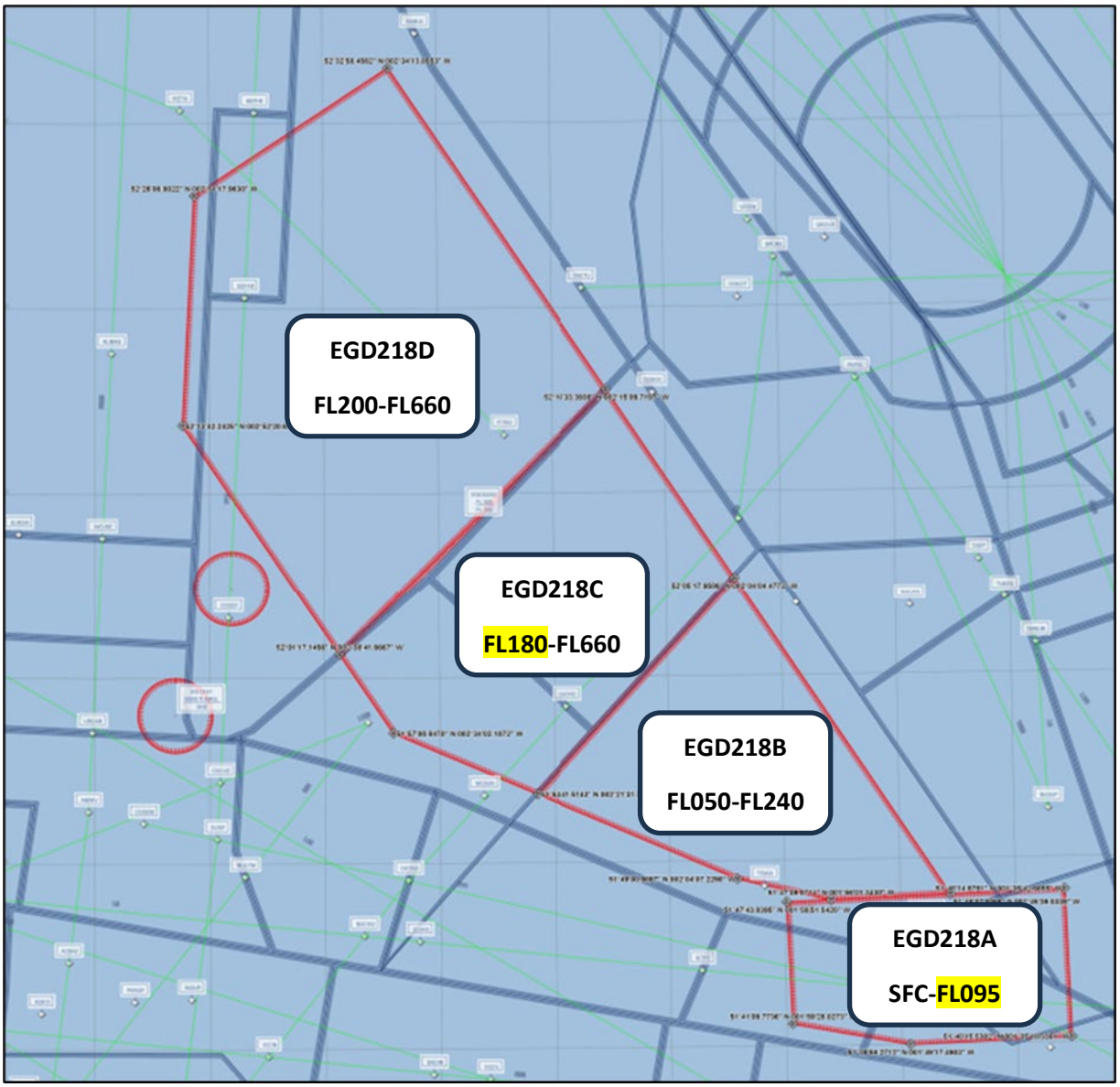

Figure 2 Proposed Change to EGD 218 Complex

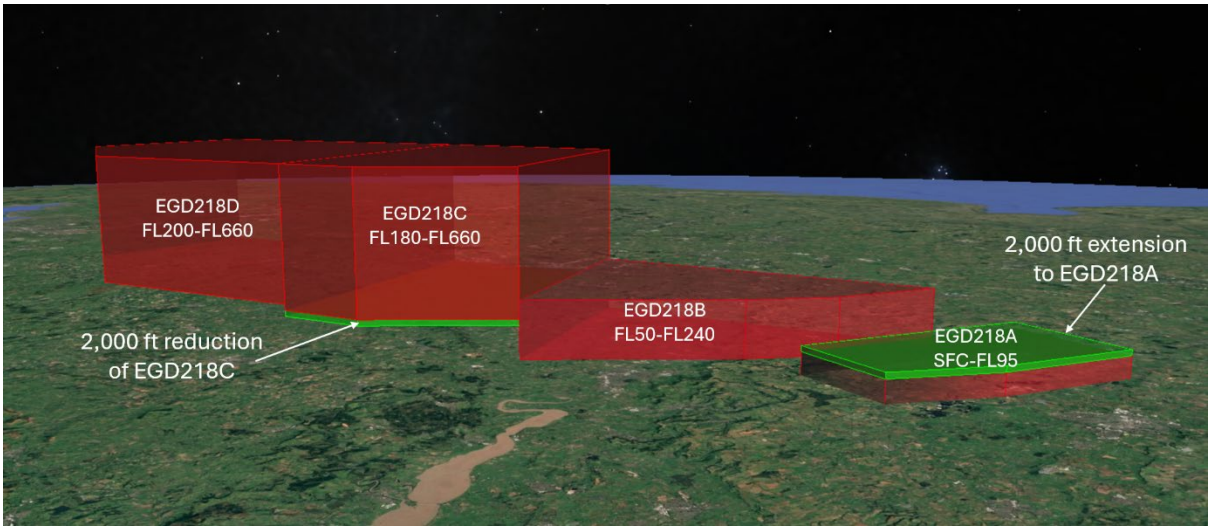

Figure 3 Proposed Change to EGD 218 Complex

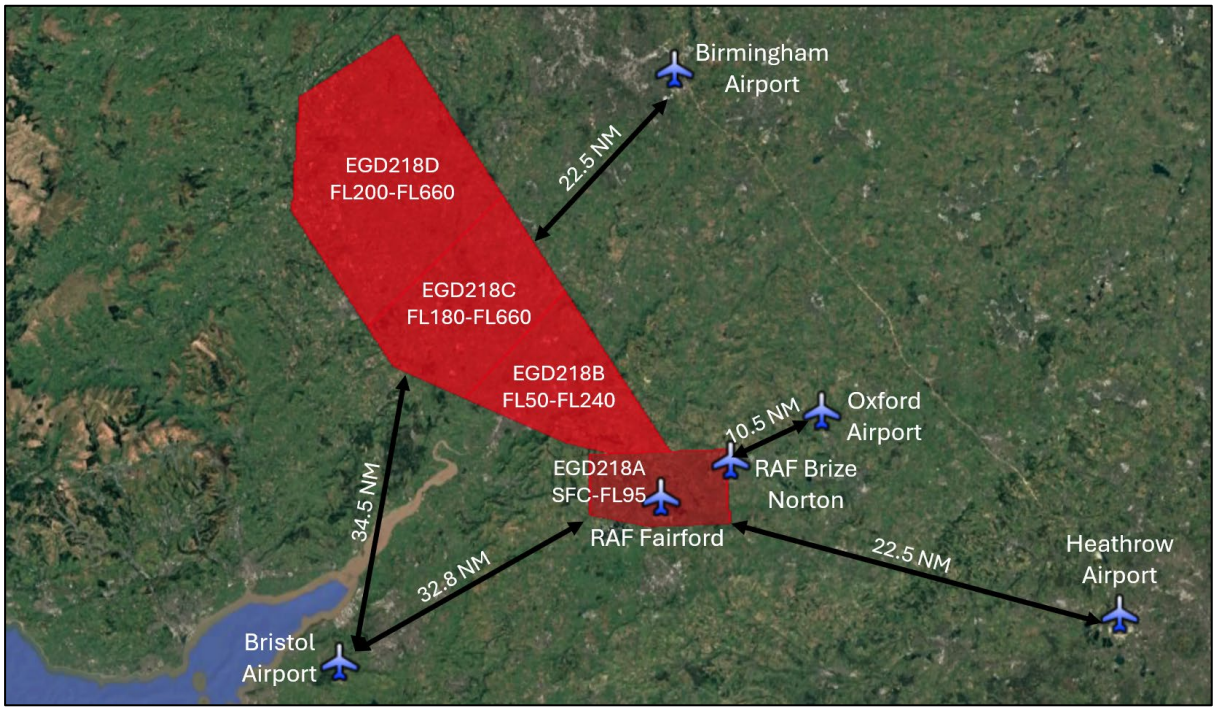

Figure 4 Proposed Change to EGD 218 Complex and Proximity to Adjacent Airports

How the Proposed Modification will Mitigate Impacts to Birmingham Airport

Raising the floor of EGD218C to FL180 will mitigate the impacts to Birmingham Airport by allowing Birmingham Airport arrivals to underfly EGD218C without transiting through airspace delegated to Cardiff. This is Birmingham Airport's preferred solution, as detailed in their 26 September 2024 letter to the Sponsor[3].

[3] 1 October PIR Report, pages 7-8

Potential for Unintended Impacts of the Proposed Modification

Raising the floor of EGD218C should not have additional impacts as that volume of airspace is being reduced. Raising the ceiling of EGD218A from FL075 to FL095 does have the potential for unintended impacts as the volume is increasing vertically. The purpose of this engagement is to gather input from any stakeholders that expect this change to impact their operations.

Airspace Utilisation

The Sponsor expects that this change will not have an additional impact due to the frequency, duration, and time of activation. The EGD218 complex is to be activated up to 2-3 times per week for up to 3 hours per activation. The hours of activation will be between 1 hour after sunset and 1 hour prior to sunrise. The Sponsor additionally has agreed to restrict activation to no earlier than 20:00 UTC and no later than 05:30 UTC for normal operations. Any activations outside of this window are expected to be very rare and will be coordinated as soon as possible.

How to Provide Feedback

The Sponsor is seeking feedback on the proposal to reduce the size of EGD218C by raising the floor by 2,000 feet and increasing the size of EGD218A by raising the ceiling by 2,000 feet. Feedback should be sent to the Sponsor for this airspace change at: USAFEA3.A3AA.USAFE_AIRSPACE@us.af.mil

Further details regarding this ACP are available on the CAA's airspace change portal. This can be found by searching ACP-2021-078 or at this link.

Please advise if you require further engagement and, if so, your preferred point of contact. Please also advise if you require these materials in any other format and the Sponsor will attempt to make these available in your preferred method.

Reponses regarding the proposed change to EGD218 must be received by 6 June 2025.