

## Safety and Airspace Regulation Group

Page 1 of 13

Airspace Change Proposal - Operational Assessment

Version: 1.0/ 2016

|  |  |
|--|--|
| <b>Title of Airspace Change Proposal</b> | <b>Subdivision of EG D510</b>                                |
| <b>Change Sponsor</b>                    | <b>MOD</b>   |
| <b>SARG Project Leader</b>               | <b>[REDACTED]</b>  |
| <b>Case Study commencement date</b>      | <b>11 Oct 17</b>   |
| <b>Case Study report as at</b>           | <b>17 Apr 18</b>   |
| <b>File Reference</b>                    | <b>20171011 – EG D510 subdivision Operational Assessment</b> |

### Instructions

In providing a response for each question, please ensure that the 'Status' column is completed using the following options:

- **Yes**
- **No**
- **Partially**
- **N/A**

To aid the SARG Project Leader's efficient Project Management it may be useful that each question is also highlighted accordingly to illustrate what is:

resolved  **not resolved**  **not compliant**  as part of the AR Project Leader's efficient project management.

## Safety and Airspace Regulation Group

Page 2 of 13

Airspace Change Proposal - Operational Assessment

Version: 1.0/ 2016

| 1.  | Justification for change and “Option Analysis”   | Status |
|-----|--|--------|
| 1.1 | <p><b>Is the explanation of the proposed change clear and understood?</b></p> <p>The proposal is clear in its intention to introduce an imbedded segment of EG D510 (EG D510C) to enable a smaller airspace volume to be activated when specific hazardous activity is being conducted that does not require the full extent of the existing danger area.</p>  | YES    |
| 1.2 | <p><b>Are the reasons for the change stated and acceptable?</b></p> <p>The reasons stated are:</p> <p style="padding-left: 40px;">The current airspace design uses a significantly greater volume of airspace than is actually required to conduct the DNV GL demolition tasks.</p> <p style="padding-left: 40px;">Activating all of EG D510 to facilitate the demolition task presents a significant obstacle and potential delay in response times for the Great North Air Ambulance and airborne police assets operating in the Cumbria-Northumberland-Scottish Borders area.</p> <p style="padding-left: 40px;">Activating all of EG D510 to facilitate the demolition task presents a significant obstacle to local GA, including NDB traffic inbound to Carlisle Airport runway 25.</p> <p>These reasons are acceptable and are in line with CAA policies for improving airspace efficiency.</p> | YES    |
| 1.3 | <p><b>Have all appropriate alternative options been considered, including the ‘do nothing’ option?</b></p> <p>Yes, the do nothing option would not simplify the operating procedures for the range nor would it improve airspace efficiency.</p>   | YES    |
| 1.4 | <p><b>Is the justification for the selection of the proposed option sound and acceptable?</b></p> <p>The justification is made primarily on the grounds of improving the Flexible Use of Airspace; thereby providing greater access to the airspace for other users. This is acceptable and through seeking to do this, no negative impacts have been identified in other related areas.</p>   | YES    |
| 2.  | Airspace Description and Operational Arrangements  | Status |
| 2.1 | <p><b>Is the type of proposed airspace clearly stated and understood?</b></p>  | YES    |

## Safety and Airspace Regulation Group

Page 3 of 13

### Airspace Change Proposal - Operational Assessment

Version: 1.0/ 2016

|     |  |            |
|-----|--|------------|
|     | The proposal introduces a subdivision of an established Danger Area. The proposal does not seek to change the airspace classification.   |            |
| 2.2 | <b>Are the hours of operation of the airspace and any seasonal variations stated and acceptable?</b>   | <b>YES</b> |
|     | The additional Danger Area will be activated for periods consistent with the existing Danger Area; including the ability to activate the airspace when required by NOTAM.  |            |
| 2.3 | <b>Is any interaction with adjacent domestic and international airspace structures stated and acceptable including an explanation of how connectivity is to be achieved? Has the agreement of adjacent States been secured in respect of High Seas airspace changes?</b>   | <b>N/A</b> |
|     | The proposed new segment of the danger area does not interact with any adjacent airspace structures. However, when activated in isolation, the new area will be further away from the NDB IAP into Carlisle RWY 25.  |            |
| 2.4 | <b>Is the supporting statistical evidence relevant and acceptable?</b>   | <b>N/A</b> |
|     | N/A  |            |
| 2.5 | <b>Is the analysis of the impact of the traffic mix on complexity and workload of operations complete and satisfactory?</b>  | <b>YES</b> |
|     | The proposal decreases the volume of airspace required when demolition tasks are conducted in isolation from other range activities. In this circumstance, there would be a greater volume of Class G airspace available for other airspace users and it would therefore reduce the effects of traffic funnelling in the area.   |            |
| 2.6 | <b>Are any draft Letters of Agreement and/ or Memoranda of Understanding included and, if so, do they contain the commitments to resolve ATS procedures (ATSD) and airspace management requirements?</b>   | <b>YES</b> |
|     | A LoA between RAF Spadeadam and GL Industrial Services UK Ltd is included as part of the ACP. The airspace management process and responsibilities are clearly described within the LoA. When the proposed EG D510C DA is activated in isolation from EG D510A/B, the range Flight Ops Assistant is to ensure that a NOTAM is issued to inform aviators of the status of the airspace. |            |
| 2.7 | <b>Should there be any other aviation activity (low flying, gliding, parachuting, microlight site etc) in the vicinity of the new airspace structure and no suitable operating agreements or ATC Procedures can be devised, what action has the sponsor carried out to resolve any conflicting interests?</b>  | <b>YES</b> |
|     | The LoA specified above includes actions to be taken by the Range Staff in the event of conflicting activities within the DA. These actions will deconflict the various activities conducted within Spadeadam Range  |            |
| 2.8 | <b>Is the evidence that the Airspace Design is compliant with ICAO SARPs, Airspace Design &amp; FUA regulations, and</b>   | <b>YES</b> |

## Safety and Airspace Regulation Group

Page 4 of 13

### Airspace Change Proposal - Operational Assessment

Version: 1.0/ 2016

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|------|---|------------|
|      | <b>Eurocontrol Guidance satisfactory?</b>   | <b>YES</b> |
|      | The introduction of the new DA segment (EG D510C) enables the activation of a smaller volume of airspace to cater for specific activity conducted within the range; this will result in a greater volume of Class G airspace is made available for other users. In this respect, the proposal is compliant with CAP740 and EC IR 2150/2005.   |            |
| 2.9  | <b>Is the proposed airspace classification stated and justification for that classification acceptable?</b>   | N/A        |
|      | No change.  |            |
| 2.10 | <b>Within the constraints of safety and efficiency, does the airspace classification permit access to as many classes of user as practicable?</b>   | N/A        |
|      | No change.  |            |
| 2.11 | <b>Is there assurance, as far as practicable, against unauthorised incursions? (This is usually done through the classification and promulgation)</b>   | <b>YES</b> |
|      | The Sponsor conducted a safety assessment which is included with the proposal. The assessment indicates that the establishment of a new segment to cater for specific demolition activity would better inform airspace users of the hazardous activity being conducted, thereby reducing the likelihood of unauthorised incursions. When demolition activity is conducted outside of the normal operating hours of Spadeadam Range a DACS is not provided, however a DAAIS is available from Carlisle or Newcastle. The proposal does not include any alterations to this procedure but instead relies upon the principle that other airspace users will be better informed of the type and extent of demolition activity through the establishment of a new DA segment that is activated by NOTAM when required. |            |
| 2.12 | <b>Is there a commitment to allow access to all airspace users seeking a transit through controlled airspace as per the classification, or in the event of such a request being denied, a service around the affected area?</b>   | <b>YES</b> |
|      | The proposed area will be activated routinely for the same periods as EG D510. Outside of these times the new segment may be activated separately by NOTAM. Under these circumstances a DACS will not be available, but the volume of airspace is sufficiently small that the requirement to transit around the airspace (compared to EG D510 as is currently the case) should not have a discernible impact.   |            |
| 2.13 | <b>Are appropriate arrangements for transiting aircraft in place in accordance with stated commitments?</b>   | <b>YES</b> |
|      | As stated at 2.13, as is the case now, no DACS will be available when EG D510C is activated in isolation. However, the reduction in the size of the airspace required by DNV GL to conduct the activity is sufficiently small that the lack of a DACS should not have a discernible impact. A DAAIS will be available.  |            |

**Safety and Airspace Regulation Group**

|      |  |     |
|------|--|-----|
| 2.14 | <p><b>Are any airspace user group's requirements not met?</b></p> <p>It is not possible to predict which, if any, airspace user group may take advantage of the increase availability of Class G airspace as a result of this proposal.</p>  | N/A |
| 2.15 | <p><b>Is any delegation of ATS justified and acceptable? (If yes, refer to Delegated ATS Procedure).</b></p> <p>N/A</p>  | N/A |
| 2.16 | <p><b>Is the airspace structure of sufficient dimensions with regard to expected aircraft navigation performance and manoeuvrability to contain horizontal and vertical flight activity (including holding patterns) and associated protected areas in both radar and non-radar environments?</b></p> <p>Yes, the establishment of EG D510C will enable the segregation of a smaller portion of the Danger Area to conduct specific hazardous demolition activity. The sponsor has designed the EG D510C to fully contain the activity whilst using the minimum airspace required.</p> | YES |
| 2.17 | <p><b>Have all safety buffer requirements (or mitigation of these) been identified and described satisfactorily (to be in accordance with the agreed parameters or show acceptable mitigation)? (Refer to buffer policy letter).</b></p> <p>When activated in isolation, EG D510C will only be used for demolition which will be wholly contained within the area. Therefore, in accordance with the Safety Buffer Policy for Airspace Design Purposes, no buffer is required.</p>   | N/A |
| 2.18 | <p><b>Do ATC procedures ensure the maintenance of prescribed separation between traffic inside a new airspace structure and traffic within existing adjacent or other new airspace structures?</b></p> <p>N/A</p>  | N/A |
| 2.19 | <p><b>Is the airspace structure designed to ensure that adequate and appropriate terrain clearance can be readily applied within and adjacent to the proposed airspace?</b></p> <p>N/A</p>   | N/A |
| 2.20 | <p><b>If the new structure lies close to another airspace structure or overlaps an associated airspace structure, have appropriate operating arrangements been agreed?</b></p> <p>Yes, EG D510C is contained within EG D510B. Airspace management processes have been defined in the LoA.</p>  | YES |
| 2.21 | <p><b>Where terminal and en-route structures adjoin, is the effective integration of departure and arrival routes achieved?</b></p>  | N/A |

**Safety and Airspace Regulation Group**

N/A

**Safety and Airspace Regulation Group**

| 3.  | Supporting Resources and CNS Infrastructure  | Status |
|-----|--|--------|
| 3.1 | <p><b>Is the evidence of supporting CNS infrastructure together with availability and contingency procedures complete and acceptable? The following are to be satisfied:</b></p>   |        |
|     | <ul style="list-style-type: none"> <li>▪ <b>Communication:</b> Is the evidence of communications infrastructure including RT coverage together with availability and contingency procedures complete and acceptable? Has this frequency been agreed with AAA Infrastructure?</li> </ul>  | YES    |
|     | <p>CNS infrastructure is already in place and assured by the MAA. There is no change proposed to the existing infrastructure. The contingency procedure if a communication failure is encountered is to cease activity.</p>  |        |
|     | <ul style="list-style-type: none"> <li>▪ <b>Navigation:</b> Is there sufficient accurate navigational guidance based on in-line VOR or NDB or by approved RNAV derived sources, to contain the aircraft within the route to the published RNP value in accordance with ICAO/ Eurocontrol Standards? Eg. Nav aids – has coverage assessment been made eg. a DEMETER report, and if so, is it satisfactory?</li> </ul> | YES    |
|     | <p>CNS infrastructure is already in place and assured by the MAA. There is no change proposed to the existing infrastructure.</p>  |        |
|     | <ul style="list-style-type: none"> <li>▪ <b>Surveillance:</b> Radar Provision – have radar diagrams been provided, and do they show that the ATS route / airspace structure can be supported?</li> </ul>   | YES    |
|     | <p>CNS infrastructure is already in place and assured by the MAA. There is no change proposed to the existing infrastructure.</p>  |        |
| 3.2 | <p><b>Where appropriate, are there any indications of the resources to be applied, or a commitment to provide them, in line with current forecast traffic growths acceptable?</b></p>  | N/A    |
|     | <p>N/A</p>   |        |

**Safety and Airspace Regulation Group**

| 4.  | Maps/Charts/Diagrams   | Status |
|-----|--|--------|
| 4.1 | <p>Is a diagram of the proposed airspace included in the proposal, clearly showing the dimensions and WGS84 co-ordinates?<br/>                     (We would expect sponsors to include clear maps and diagrams of the proposed airspace structure(s) – they do not have to accord with AC&amp;D aeronautical cartographical standards (see CAP725), rather they should be clear and unambiguous and reflect precisely the narrative descriptions of the proposals. AC&amp;D work would relate to regulatory consultation charts only).</p> <p>Yes</p> | YES    |
| 4.2 | <p>Do the charts clearly indicate the proposed airspace change?</p> <p>Yes</p>   | Yes    |
| 4.3 | <p>Has the Change Sponsor identified AIP pages affected by the Change Proposal and provided a draft amendment?</p> <p>Yes</p>  | Yes    |



**Safety and Airspace Regulation Group**

| 5.  | Operational Impact  | Status   |
|-----|---|--|
| 5.1 | <p><b>Is the Change Sponsor's analysis of the impact of the change on all airspace users, airfields and traffic levels, and evidence of mitigation of the effects of the change on any of these, complete and satisfactory?</b><br/> <b>Consideration should be given to:</b></p> <p><b>a) Impact on IFR GAT, on OAT or on VFR general aviation traffic flow in or through the area.</b></p> <p>Yes, this proposal increases availability of Class G airspace for other users, including reducing the proximity of NDB/DME IAPs to Carlisle Airport.</p> <p><b>b) Impact on VFR Routes.</b></p> <p>No specific VFR routes are affected, but greater access to Class G airspace is achieved.</p> <p><b>c) Consequential effects on procedures and capacity, ie on SIDS, STARS, holds. Details of existing or planned routes and holds.</b></p> <p>The edge of the new danger area segment is approximately 5nm further away from the Carlisle NDB/DME IAP to runway 25 than is the case today when the activity is being conducted outside of the operating hours of EG D510.</p> <p><b>d) Impact on Airfields and other specific activities within or adjacent to the proposed airspace.</b></p> <p>See (c) above.</p> <p><b>e) Any flight planning restrictions and/ or route requirements.</b></p> <p>N/A</p> | <p align="center"><b>YES</b></p> <p align="center"><b>N/A</b></p> <p align="center"><b>Nil</b></p> <p align="center"><b>Nil</b></p> <p align="center"><b>N/A</b></p> |
| 5.2 | <p><b>Does the Change Sponsor Consultation letter reflect the likely operational impact of the change?</b></p> <p>It is not possible to predict who will utilise the Class G airspace made available as a result of this proposal and therefore no formal consultation is required.</p>   | <p align="center"><b>N/A</b></p>   |

**Safety and Airspace Regulation Group**

| 6.  | Economic Impact  | Status     |
|-----|--|------------|
| 6.1 | <b>Is a provisional economic impact assessment to all categories of operations and users likely to be affected by the change included and acceptable? (This may include any forecast capacity gains and the cost of any resultant additional track mileage).</b>   | <b>YES</b> |
|     | It is not possible to forecast the economic impact of this proposal, but it is likely that VFR traffic may be able to reduce track mileage flown when the new danger area segment is activated in isolation from EG D510. Therefore, there may be a small economic benefit as a result of this proposal. |            |

**Safety and Airspace Regulation Group**

**Case Study Conclusions – To be completed by SARG Project Leader**

**Yes/No**

**Has the Change Sponsor met the SARG Airspace Change Proposal requirements and Airspace Regulatory requirements above?**

**Yes**

The Sponsor has provided an adequate proposal that fully articulates the proposed change.

This proposal will increase access to Class G airspace in the vicinity of EG D510 when the new segment (EG D510C) is activated in isolation to conduct specific demolition activities. The proposal aligns the management of the danger area airspace design to the principles of Flexible Use of Airspace.

**Outstanding Issues**

| Serial | Issue | Action Required |
|--------|-------|-----------------|
| 1      | Nil   |                 |
| 2      |       |                 |

**Additional Compliance Requirements (to be satisfied by Change Sponsor)**

| Serial | Requirement |
|--------|-------------|
| 1      |             |
| 2      |             |

**Safety and Airspace Regulation Group**

| <b>Recommendations</b>   | <b>Yes/No</b> |
|--|---------------|
| Is the approval of the SoS for Transport required in respect of the Environmental Impact of the airspace change? | <b>NO</b>     |
| No   |               |
| Is the approval of the MoD required in respect of National Security issues surrounding the airspace change?      | <b>NO</b>     |
| No   |               |

**General Summary**

The Sponsor is seeking to establish a new segment of EG D510 to facilitate specific demolition activity and minimise the impact to other airspace users. The proposal is consistent with Airspace Management policy (CAP 740) and the Flexible Use of Airspace Regulation (EC IR 2150/2005).

**Comments & Observations**

Nil

**Safety and Airspace Regulation Group**

| Operational Assessment Sign-off/ Approvals | Name                          | Signature  | Date       |
|--|-------------------------------|------------|------------|
| Operational Assessment completed by:       | [Redacted]<br>AR Case Officer | [Redacted] | 4 May 2018 |
| Operational Assessment approved:           | [Redacted]<br>Mgr AR          | [Redacted] | 4 May 2018 |
| Mgr AR Comments: Nil                       |                               |            |            |