



Exeter International Airport Airspace Change Proposal

Framework Briefing Document

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Executive Summary

Proposal

Exeter International Airport (EIA) has identified a requirement to change their existing airspace to assist Air Traffic Control (ATC) in providing enhanced levels of information to aircraft operating in and out of EIA. EIA has instructed Osprey Consulting Services Ltd (Osprey) to manage an Airspace Change Proposal (ACP). The Airport considered various options, but in order to achieve an enhanced level of safety, whilst causing minimal disruption to all aviation stakeholders, EIA have elected to propose the establishment of Class D Controlled Airspace (CAS) around the existing EIA Aerodrome Traffic Zone (ATZ). The ACP is expected to:

- Protect aircraft completing an approach under Global Navigation Satellite Systems (GNSS) Area Navigation (RNAV) Instrument Flight Rules (IFR) to Runways 08/26 at EIA;
- Protect aircraft completing a radar to ILS approach; and
- Protect aircraft operating within the Visual Circuit at EIA, that routinely need to extend beyond the boundary of the ATZ; and

As EIA lies close to RNAS Yeovilton and the Lyme Bay Danger Area (D012); therefore, consultation with the MOD would be required to establish an opportunity to develop a localised Flexible Use of Airspace (FUA) concept of operations between EIA and the MOD.

The ACP Process is expected to realise the following benefits:

- Provide aircraft on final approach for EIA Runways 08/26 with additional protection, reducing the instance of AIRPROX, TCAS RA, and break-offs;
- Provide protection to aircraft departing EIA from Runways 08/26, and traffic operating in published holding patterns;
- Improve the combined operations of EIA and Cardiff/Bristol with robust coordination, supported by Memorandum of Understandings (MoUs) and Letters of Agreement (LoAs);
- Decrease the number of avoiding action turns and break-offs, thus potentially reducing fuel consumption. These benefits are described in detail in Section 6.2.2, 'Anticipated Level of Fuel Burn/CO2 Emissions'; and
- Development of FUA arrangements with the DAATM regarding usage of D012, potentially enabling General Aviation (GA) traffic to transit with greater ease along the south coast.

The airspace in which EIA seeks to enhance protection to IFR arrivals and departures for Runways 08/26 is shown at Figure 1 below.

Figure Under Development

Figure 1 Proposed Area of CAS Protection

This design shows the minimum airspace considered necessary to achieve the aims outlined above, and which will be manageable by EIA. The desire to protect aircraft operating in and out of EIA is balanced by a realistic view that other aviation stakeholders need not be denied access to, nor be unnecessarily constrained whilst operating within Class D airspace. Access for non-radio equipped aircraft will be provided by prior arrangement with ATC.

Justification

New airspace and coordinated procedures would enhance efficiency, through a reduction in the need for avoiding action, traffic being delayed on the ground or in the air whilst maintaining flight safety for all aviation stakeholders. Initial work on this project has identified the following themes:

Despite advertising the Approach Surveillance Service (APS) capability at EIA General Aviation (GA) operators do not routinely call EIA when flying close to the Airport or its ATZ

Options

Although EIA have decided upon a request for CAS to alleviate the issues they have identified, the Airport has given due consideration to a number of alternative options, which include:

Option 0 – Do Nothing

Whilst the current operations at EIA are safe, there is a heavy reliance on controllers to coordinate acceptable Air Traffic Management (ATM) solutions; which is becoming untenable as traffic densities increase; intervention is required to avert possible incidents. In addition, despite efforts to encourage aircraft to call EIA when flying close to the Airport or its patterns, there are still many instances, evidenced by MOR and AIRPROX, of aircraft not calling and causing concern to controllers and EIA aviators alike.

For these reasons, EIA has rejected the 'Do Nothing' option.

Option 1 – Do Minimal

This option encapsulates two separate work streams:

- Increased liaison with the GA community to encourage pilots to call EIA when flying close to the airport or patterns; and
- Application for an Exeter Frequency Monitoring Code¹.

EIA have worked hard to establish this work stream with a concerted effort to engage with aviation stakeholders. Although this effort has worked well with on-airport operators, it has thus far reaped little benefit from other VFR operators. Aviation traffic continues to operate regularly within the Final Approach Track to runways 08/26 without communicating with ATC, and results in either aircraft breaking off the approach, or in the worst-case scenario an AIRPROX report. For these reasons, the 'Do Minimal' Option has been rejected by EIA.

Option 2 – Introduce Alternate Airspace to the EIA Area

¹ In order to both prevent and mitigate the consequences of airspace infringements, pilots operating close to the peripheries of certain controlled airspace and monitoring the relevant frequency (but not requiring an Air Traffic Service) should select a local SSR conspicuity code and the Mode C pressure-altitude mode (if available) as specified to indicate they are monitoring the promulgated ATC frequency.

The benefits of introducing several different options of airspace included consideration of Class D Controlled Airspace (CAS). Changing to Class D CAS of the approximate airspace dimensions outlined at Figure 1, would increase the information provided to all aviation stakeholders and would enhance safety, without a disproportionate adverse impact on the GA community in an area recognised as having intense aviation activity.

A Transponder Mandatory Zone (TMZ) alone would not significantly enhance safety levels currently experienced at EIA since there is no requirement for aircraft to contact the airspace agency when entering a TMZ; carriage and operation of a serviceable transponder is the only requirement. Although situational awareness would be increased, there would be no opportunity for EIA to negotiate separation from their IFR traffic and the safety enhancements and efficiencies would be minimal. Combination of a TMZ with a Radio Mandatory Zone (RMZ) would address this concern; however, ATC-issued instructions would not be mandatory. Aircraft do not require a clearance to enter the airspace, but they must ensure that they call the airspace authority prior to entry and provide details of their level and planned route. They should also remain on frequency to facilitate the passing of pertinent traffic information. Should the controller identify a situation that could potentially be hazardous, the controller could suggest an alternative route or level, although the VFR aircraft is not obliged to comply.

This option represents the minimal change to the airspace, whilst achieving an additional layer of safety to all aircraft operating close to EIA or its patterns. However, the TMZ/RMZ combination would not completely address the issue of 'conflicts' with EIA IFR traffic on the extended centreline of runways 08/26 in vulnerable phases of flight.

These changes to airspace were rejected by EIA as individually, they did not fully meet the requirements of significantly enhancing safety whilst causing the minimum disruption to aviation stakeholders.

Consultation

The change proposed by this airspace transformation has the potential to affect aviation stakeholders alone; there are no alterations to instrument flight procedures or foreseen major changes to VFR patterns or operating areas. Osprey intends to run formal consultation with aviation stakeholders alone through the National Air Traffic Management Advisory Committee NATMAC, on-airport operators and local off-base GA operators.

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1 Glossary

Acronym	Meaning
ACAS	Airborne Collision Avoidance System
ACP	Airspace Change Proposal
AEF	Air Experience Flight
AIAA	Area of Intense Aerial Activity
AIP	Aeronautical Information Publication
AOA	Airport Operators Association
AOPA	Aircraft Owners and Pilots Association
ARA	Advisory Radio Area
ATC	Air Traffic Control
ATM	Air Traffic Management
ATS	Air Traffic Service
ATSOCAS	Air Traffic Service Outside Controlled Airspace
ATSU	Air Traffic Service Unit
ATZ	Aerodrome Traffic Zone
BAA	British Airports Association
BABO	British Association of Balloon Operators
BALPA	British Airline Pilots' Association
BATA	British Air Transport Association
BBAC	British Balloon and Airship Club
BBGA	British Business and General Aviation Association
BGA	British Gliding Association
BHA	British Helicopter Association

Acronym	Meaning
BHPA	British Hang Gliding and Paragliding Association
BMAA	British Microlight Aircraft Association
BMFA	British Model Flying Association
BPA	British Parachute Association
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
CAS	Controlled Airspace
CAT	Commercial Air Transport
CCD	Continuous Climb Departures
CDA	Continuous Descent Approaches
CO ₂	Carbon Dioxide
CTA	Control Area (Class D UK Airspace)
CTR	Control Zone (Class D UK Airspace)
DA	Danger Area
DAATM	Defence Airspace and Air Traffic Management
DAP	Directorate of Airspace Policy (erstwhile Directorate in CAA)
DfT	Department for Transport
ELFAA	European Low Fares Airline Association
FAS	Future Airspace Strategy
FJ	Fast Jet
FUA	Flexible Use of Airspace
GA	General Aviation
GAPAN	Guild of Air Pilots and Air Navigators
GASCo	General Aviation Safety Council
GAT	General Air Traffic

Acronym	Meaning
GATCO	Guild of Air Traffic Control Officers
GNSS	Global Navigation Satellite Systems
HCGB	Helicopter Club of Great Britain
ICAO	International Civil Aviation Organisation
IFP	Instrument Flight Procedure
LAA	Light Aircraft Association
LARS	Lower Airspace Radar Service
LoA	Letter of Agreement
MAA	Military Aviation Authority
MOD	Ministry of Defence
MTWA	Maximum Total Weight Authorised
NATMAC	National Air Traffic Management Advisory Committee
NATS	National Air Traffic Services Limited
NM	Nautical Miles
NO ₂	Nitric Dioxide
OAT	Operational (Military) Air Traffic
PANS	Procedures for Air Navigation Services
PIR	Post Implementation Review
PSR	Primary Surveillance Radar
RAF	Royal Air Force
RMZ	Radio Mandatory Zone
RNAV	Area Navigation
SARG	CAA Safety and Airspace Regulation Group
SSR	Secondary Surveillance Radar
TMZ	Transponder (SSR) Mandatory Zone

Acronym	Meaning
UKAB	UK AIRPROX Board
UKFSC	UK Flight Safety Committee
VGS	Volunteer Gliding Squadron

Table 1 Glossary of Terms

2 Introduction

Exeter International Airport (EIA) has identified a requirement for a change to current airspace arrangements to assist Air Traffic Control (ATC) in providing a more informed airspace environment for aircraft operating within the vicinity of EIA, facilitating the passing of accurate Traffic Information. This document outlines the justification for the change together with the evidence of the approach being considered. It also proposes the methodology to provide benefits to, or at the very least minimise the impact for other Airspace users.

2.1 General

The Class G airspace within the vicinity of EIA has become busier in recent years. The increase in General Aviation (GA) conflicts with Airport IFR traffic has become particularly notable. EIA have identified a requirement to change the current airspace arrangements in order to provide enhanced safety to aircraft operating from and within the vicinity of the Airport.

2.2 Purpose and Scope

Osprey Consulting Services Ltd (Osprey) have prepared this document to present the outline justification, consultation method and general intentions of EIA in submitting a request to change the airspace species within its vicinity and to inform the Framework Briefing to be held at SARG on 28th June 2016, in accordance with CAP 725 [Reference 1] Stage 1.

2.3 Document Structure

This document, divided into eight main sections and four annexes, as detailed below:

- Section 1 provides a glossary;
- Section 2, this section, introduces the purpose and scope of the document;
- Section 3 explains the background and justification for a change to the current arrangements;
- Section 4 provides an assessment of potential solutions that have been undertaken or considered, and outlines the current plans;
- Section 5 gives an initial assessment of the impacts of the proposed change on airspace use and other aviation stakeholders;
- Section 6 details the environmental assumptions and details the assessments planned to provide a qualitative assessment of the environmental impacts of the proposed change;
- Section 7 provides details of how the EIA plan to consult with all relevant stakeholders, both aviation and non-aviation; and
- Section 8 provides a list of references used within the document and is followed by Annex A1 containing statistics.

3 Background and Justification

EIA is a busy airport; its users vary widely from the commercial airline market to the training environment for GA.

3.1 Overview

EIA has seen considerable investment and expansion over recent years. It has made a solid customer base for FlyBe clients, and remains home to a flying school. The Airport lies within Class G airspace underneath N864 (base FL65). The Airport is also close to the Yeovilton Area of Intense Aerial Activity (AIAA), Royal Naval Air Station (RNAS) Yeovilton and the Lyme Bay Danger Area (D012).

3.1.1 EIA Air Traffic Control Services

The nature of the traffic operating at EIA has intensified since 2008.

The implementation of an Approach Surveillance Service (APS) has highlighted the significant aviation activity within the EIA area that does not routinely make two-way radio contact with EIA ATC. Previously, controllers provided an Approach Procedural Service (APP). Under APP, the controller aims to maintain standard separation minima between participating aircraft; the controller would have no knowledge of non-participating aircraft within the vicinity of EIA unless the pilot chooses to call and report his position and altitude or level. Under APS, the controller provides advice and separation on all aircraft, participating and non-participating (based on available PSR and SSR information), under a De-confliction Service (DS). In addition, the controller can provide information on all aircraft likely to pass close to participating aircraft under a Traffic Service (TS).

The majority of aircraft that arrive at EIA under Instrument Flight Rules (IFR) will make an approach to the main instrument runways 08/26 and controllers at EIA have become aware of an increased number of GA aircraft flying within close proximity of the Airport, and near its approach routes, without contacting EIA ATC. Whilst there is no obligation for aircraft outside the EIA ATZ to contact ATC, controllers and pilots are under extra pressure to ensure that Traffic Information (TI) or avoiding action is provided against non-participating traffic. This often occurs when EIA aircraft are operating at a critical phase of flight. This, coupled with an increase in aircraft fitted with forms of Airborne Collision Avoidance Systems (ACAS), has resulted in an increase in the number of AIRPROX reports, TCAS Resolution Advisory reports (TCAS RAs) and other safety related reportable incidents. Details of which are contained in Annex A1.

EIA wish to safeguard aircraft operating IFR within the vicinity of EIA by establishing Class D Controlled Airspace (CAS) that would deconflict them from VFR air traffic.

3.2 Justification

EIA has also encountered rising numbers of VFR traffic operating near the Airport Aerodrome Traffic Zone (ATZ) leading to a greater need for 'avoiding action' to be taken and delays for arriving and departing IFR traffic. CAS establishment would result in a much-reduced requirement for the IFR traffic to be deconflicted from VFR traffic of 'unknown' intentions, thus reducing track miles and fuel consumption. Initial work on this project has identified the following theme:

- Despite advertising the APS capability at EIA, not all GA operators routinely call EIA when flying close to the Airport or its ATZ.

3.3 Background

3.3.1 Current Airspace at EIA

EIA currently operates within Class G airspace with the protection of a 2.5 Nautical Mile (NM) radius Aerodrome Traffic Zone (ATZ). The size of the ATZ is predicated on the runway length, and is centred on the Airfield Reference Point (ARP) usually the mid-point of the longest runway available. The 2.5 NM radius ATZ at EIA means that aircraft operating within the visual circuit at EIA frequently fly outside of the lateral confines of the ATZ boundary, which might bring them into conflict with other aircraft. A natural pinch point occurs as VFR aircraft cross the extended 08/26 centrelines to access the coastal routes to the south.

3.3.2 Yeovilton AIAA

There is a significant number of airfields within the Yeovilton AIAA, and near EIA, from which both military aircraft and civil light aircraft, helicopters and gliders operate. EIA offer a Lower Airspace Radar Service (LARS) and aircraft are positively encouraged to call EIA if they intend to transit close to the ATZ boundary, or close to the approach or departure lanes. A significant proportion of traffic operating close to the final approach patterns potentially disrupting aircraft in and out of the Airport, without calling EIA ATC. EIA has conducted a survey of aircraft seen to operate in the final approach of runways 08/26.

3.3.3 Flight Safety

The infrastructure and surveillance improvements at EIA have attracted commercial aircraft whilst it continues to be a busy GA training area. The local area is utilised by light aircraft and gliders operating from Dunkeswell and North Hill, with parachuting activities also conducted at Dunkeswell. The density and complexity of air traffic operating at, and close to EIA, has increased significantly; it is likely to remain at a high level, or indeed potentially increase further.

3.3.4 Key Benefits of a New Airspace Design

The issues with the existing airspace arrangements and potential conflicts between IFR airliners approaching or departing runways 08/26 and VFR GA should be addressed. The revised airspace structure for EIA would, as the number of flights:

- Provide aircraft on final approach for EIA Runways 08/26 with additional protection, reducing the instance of AIRPROX, TCAS RA, and break-offs;
- Provide aircraft on radar to ILS approach with additional protection;

- Provide protection to aircraft departing EIA from Runways 08/26, and traffic holding in the current published holding patterns;
- Improve the combined operations of EIA and Cardiff Airport by developing robust coordination procedures, supported by Memorandum of Understandings (MoUs) and Letters of Agreement LoAs that would ensure efficient provision of ATS;
- Decrease the number of avoiding action turns and break-offs, thus potentially reducing fuel consumption. These benefits are described in detail in Section 6.2.2, 'Anticipated Level of Fuel Burn/CO2 Emissions'; and
- Further improve the management of D012 by developing FUA concept with DAATM, potentially enabling GA traffic to transit with greater ease along the south coast.

3.4 Outcomes

The overall outcome of the proposed EIA airspace change will be to enhance safety and improve efficiency of EIA operations. This will be achieved through:

- Design of CAS to protect EIA aircraft on final approach and departure for runways 08/26; and
- Enhanced coordination of procedures between EIA and Cardiff.

The revised airspace arrangements will enhance the safety of all aviation activity flying close to the EIA ATZ or EIA instrument patterns. This will reduce the number of instances where aircraft positioned on final approach have to be broken off due to the presence of unknown traffic operating within the vicinity without making their intentions known to EIA. The procedures would be systematically safe, relying less on individual controller competence and skill, whilst being straightforward in terms of air traffic management.

4 Options Considered

In developing the ACP, EIA have considered several options in order to keep the impact to the local aviation community to a minimum whilst achieving the overall aim of enhancing safety to all aviation users.

4.1 Overview

In developing the plans to resolve the issues contained in Section 3, EIA has considered a variety of options to determine how best to meet the needs of the Airport, as well as other aviation and non-aviation stakeholders.

4.2 Option 0 – Do Nothing

Surveillance at EIA has revealed the increasing nature of aviation activity within the vicinity of the Airport and cumulative incidents have prompted a need to identify mechanisms to enhance safety to all aviation users operating within the vicinity of EIA. EIA has engaged with local aviation operators, both directly and indirectly in order to encourage better communication, and to encourage aircraft to call EIA. Whilst most transit aircraft do contact EIA, there is still a significant number that continue to fly very close to EIA aircraft and patterns without requesting a service from EIA.

The standard operating measures employed by EIA include:

- Provision of a DS, TS or Basic Service (BS) to aircraft that request a service from EIA ATC.

Despite the measures currently employed, notwithstanding the month on month increase in transit figures and aircraft taking advantage of the radar services available, Safety Significant Events continue to occur. This is partly due to aircraft either calling late, (approaching the ATZ boundary) or making incorrect assumptions as to EIA activity. EIA considers that the current mitigations to provide a 'better informed' airspace environment are insufficient; therefore, further options are required by EIA. Option 0 is not considered sufficient to address the concerns presented in Section 3 above.

4.3 Option 1 – Do Minimal

4.3.1 Improved GA Education and Liaison

The Air Traffic Service Manager (ATSM) has been proactive in engaging with local airspace users. These activities have improved the overall operational environment of airspace surrounding EIA and it is intended to continue in their development with the application of an Exeter Frequency Monitoring Code. However, on their own, they are insufficient to resolve the current flight safety concerns and are therefore discounted without the support of additional measures.

4.4 Option 2 – Change the Nature of the Airspace Surrounding the Area

4.4.1 Overview

There are many options available to mandate aircraft to call EIA and provide an ‘informed’ environment thereby improving the situational awareness for controllers and pilots alike. EIA have considered several options in their development of potential solutions. EIA is keen to minimise the impact to the majority of the local aviation stakeholders, whilst ensuring that aircraft operating in and out of EIA have an additional layer of safety.

4.4.2 Controlled Airspace - Class D

One solution would be for EIA to submit a request for a Class D Control Zone (CTR) and associated Control Areas (CTA) to offer protection to aircraft arriving or departing runways 08/28. EIA recognise that full procedures containment for the current RNAV (GNSS) Approaches, allowing Continuous Descent Approaches (CDA), with Class D CAS could produce an adverse effect on GA stakeholders. However, EIA has received full support from on-airport based GA stakeholders and many opportunities are available through Letters of Agreement (LoA) or Memoranda of Understanding (MoU) to mitigate largely any operational effects to local aviation stakeholders.

Figure Under Development

Figure 2 Proposed Area of Class D CAS

Whilst no specific airspace design has been agreed, EIA have suggested an area that would be manageable and would provide the best protection to aircraft arriving and departing runways 08/26 as shown at Figure 2.

4.4.3 Transponder Mandatory Zone (TMZ)

The CAA defines a TMZ as an airspace of defined dimensions whereby the carriage of an operational transponder is mandated [Reference 3]. Whilst this option would enhance situational awareness for the controllers to a degree, many of the aircraft that fly close to EIA already carry a transponder. The real crux of the issue is that EIA ATC cannot communicate with aircraft if they choose not to call EIA ATC of their own volition. In addition, whilst the carriage of a transponder would facilitate the activation of Traffic Collision Avoidance Systems (TCAS) it could add a financial burden on some elements of the GA community and, more importantly, it would not necessarily resolve the issues currently experienced by EIA. Therefore, this option is not considered a viable solution.

4.4.4 Radio Mandatory Zone/TMZ Combined

A combined RMZ and TMZ would enhance situational awareness, but would not provide ‘mandatory’ control of the air traffic environment; the airspace would remain Class G. This option would potentially require a larger size of airspace since there would be no guarantee of coordination being agreed. Controllers would need more airspace to execute their plans. Therefore, this option was not considered suitable to address the full range of issues experienced at EIA and has therefore been discounted as a viable option.

4.5 Work to Date

EIA initially intended to submit a request for a changed airspace construct in 2007. Preliminary work commenced with on-airport operators, but the project stalled due to the following global financial downturn. Subsequent meetings have taken place on the Airport in 2016, which has garnered full support from the on-airport operators, both commercial and general. Osprey will design the airspace in conjunction with EIA and on-airport operators.

A collaborative approach to the airspace change presents an ideal opportunity to develop permanent solutions that will endure at the Airport, whilst enhancing the overall safety of aircraft within its air traffic management environment.

5 Potential Impact on Airspace Users

Any change to airspace classification will have an effect on those that use the airspace. Some of those effects will be positive, some less so. It is important to engage with all airspace users to identify the effects of a proposed change, mitigate them as far as possible and develop an equitable solution that meets the requirement identified and offers the best solution for all stakeholders.

5.1 Overview

This Section will explore the anticipated effects of the proposed airspace change across the range of airspace users, from those based at adjacent civil aerodromes and military airfields, to those transiting the Yeovilton AIAA. If the change is approved, it will allow IFR traffic to employ techniques on approach to and on departure from the Airport to reduce fuel usage and noise emissions. It is planned that the CAS design will be sympathetic to the existing operations of General Aviation (GA) VFR traffic at local aerodromes and that traditional routes will remain unchanged.

Aircraft not fitted with radios will also be able to fly within the CAS provided they have prearranged this with EIA ATC. Otherwise, non-radio aircraft may need to amend their routes to avoid the airspace. The area of the CAS will be the smallest possible to achieve the desired outcome in order to minimise any such impact. In addition, as part of its on-going stakeholder consultation, EIA would like to discuss more effective use of the arrangements for and use of airspace surrounding D012 (Lyme Bay) with the MOD. EIA aims to continue to involve local airspace users, through established relationships to further develop 'user-friendly' transit procedures by developing clear Visual Reporting Points (VRPs) and routes, to ensure they are fit for purpose for airspace users and, in particular, the GA community.

5.2 Impact of Adjacent Aerodromes

5.2.1 RNAS Yeovilton

The requirements of the commercial organisation must dovetail with that of the MOD unit where training of pilots for maritime and littoral operations are essential. It is the intention to consult informally with MOD, through MAUWG, and the Defence Airspace and Air Traffic Management (DAATM) Team, as soon as the preliminary designs are available.

5.3 Impact of General Aviation Operations

5.3.1 The Gliding Community

EIA acknowledges the large volume of glider operations within the area and recognises that the potential combined effects of CAS for EIA would have an impact on their operations. EIA aims to reduce the level of impact to these operations to the minimal practicable. Robust LoAs, to enable ops to continue at Dunkeswell and

North Hill Aerodromes will be established between EIA and the operators. In addition, EIA intends to work with the BGA to ameliorate as far as practicable the concerns from the Gliding Community and develop strategies to accommodate large-scale gliding events in the area.

5.4 Effect on Military Operations

EIA intend to consult the MOD through MAUWG and DAATM with regard to RNAS Yeovilton and D012 operations.

5.5 Mitigation Measures to Eliminate or Minimise Disruption to other Aviators

The following activities are planned to eliminate or minimise disruption to other aviation stakeholders:

- It would facilitate local aviators if EIA consider publishing easily identifiable VRPs, CAS crossing routes and local operating areas that are likely to be accommodated within EIA CAS. This will also assist in the handling of non-radio aircraft wishing to enter the CTR and CTAs;
- The current guide to airspace surrounding EIA will be updated and widely distributed to incorporate details of routes, frequencies and procedures to be undertaken to facilitate the safest, and most efficient options for operating in the Yeovilton AIAA in the vicinity of EIA and RNAS Yeovilton;
- Engagement programmes will continue with local GA operators;
- All existing MoUs and LoAs will require review and amendment following any change in airspace use. New agreements will be developed with other aerodromes in close proximity to the proposed airspace; potential options include glider boxes for Dunkeswell and/or North Hill; and
- Better coordination with Plymouth Military (D012) will aim to facilitate flexible use of this airspace, potentially allowing more aircraft to fly through during inactivity or coordinated procedures.

6 Environmental Assumptions

EIA seeks to be a good neighbour and minimise the potential adverse impacts of noise pollution, fuel burn and local air quality whenever possible. This ACP aims to reduce these effects where possible, or at the very least provide neutral change.

6.1 Overview

This section explores how the proposed changes may have an overall effect on the environment in terms of noise pollution, fuel burn and local air quality. Whilst at this stage it is not clear what level of environmental assessments will be required, this document assumes that they will be broadly similar to those required for a request for CAS. Quantitative assessments will be challenging as the predictability of routing of aircraft under a DS within Class G airspace will be difficult to determine.

6.2 Environmental Implications

6.2.1 Impact of Noise/Fuel Burn/ CO₂ Emissions

The noise impact immediately after implementation is not expected to be different from the pre-implementation situation. Procedures to allow the Airport the opportunity to routinely employ Continuous Descent Approach (CDA) and Continuous Climb Departure (CCD) profiles. This would assist IFR commercial pilots to reduce airliner fuel consumption and noise footprint in comparison to the current utilisation of 'stepped' profiles to avoid 'unknown' traffic, in the current surrounding Class G airspace. Furthermore, CAS establishment would result in a much-reduced requirement for the IFR traffic to be deconflicted from VFR traffic of 'unknown' intentions, thus reducing track miles and fuel consumption.,

The implementation of Class D CAS would not obstruct traditional routes that are utilised by VFR traffic near the Airport; the routes would remain unchanged, and EIA management of the CAS would ensure that co-existence between the varying flight operations is maintained. VFR traffic will be encouraged to operate as normal within and around any new CAS; CAS entry and transit clearances would be provided as appropriate.

6.2.2 Anticipated Effect on Local Air Quality

CAP 725, Appendix B, Annex 8 identifies that local air quality at ground level remains largely unaffected by aircraft emissions that take place above 3,000 ft agl, because dispersion reduces concentration levels for these emissions. Therefore, local air quality will be unaffected.

6.3 Economic Benefit

The requirement for the establishment of CAS at EIA is to apply an additional layer of safety to existing operations; thus no economic factor for or against the proposal has

been considered. However, some peripheral economic benefit will accrue to aircraft operators, principally in reduced delay and fuel burn. Efficient use of the airspace and reducing the incidences of avoiding unknown traffic at the critical stages of flight will help to realise these positive benefits. Such benefits may be difficult to quantify with precision, as they would accrue only to those flights that may have otherwise suffered avoiding action, extended routing or ground delay arising from random unknown traffic affecting individual flights. The additional protection provided by CAS may be attractive to commercial operators operating within the South-West, which could provide employment opportunities within the region. However, it must be stressed that this is not the motive for the ACP.

7 Consultation Plan

EIA has well-established processes to engage with its neighbours in the local community, with local airspace users and, through UK-wide forums, with broader aviation stakeholders. In its consultation on the proposed change, the Airspace Change team will capitalise on these good relationships and augment them where necessary to ensure that views from across the full geographical coverage of those affected by the proposed change are taken into account.

7.1 Overview

The proposed changes to the EIA airspace will potentially affect a broad cross-section of aviation stakeholders. Consultation is an integral part of any ACP and extensive and effective engagement is recognised as a key contributor to its eventual success. Comprehensive preparation is vital to ensure that all stakeholders have been identified, that they are engaged in the airspace change process and that their views and concerns are taken into account in the development of the proposal.

7.2 Consultation Methods

In developing a comprehensive understanding of stakeholders' needs, concerns and the potential impact of an airspace change, establishing an effective relationship is essential. This is achieved best through face-to-face meetings. Consequently, prior to the preparation of the Consultation Document, EIA and Osprey intend to conduct meetings with the aviation stakeholder Focus Groups. It is essential that stakeholders are fully aware of the proposal, and that they have an opportunity to contribute to it if necessary, before they are invited to make formal comment.

The Consultation Document will provide full details of the proposed change, the rationale behind it, the perceived impact the change is likely to have and the measures that EIA has taken to mitigate those impacts. It will incorporate all feedback already received from on-airport aviation stakeholders, to demonstrate that the change has not been developed in isolation, and that EIA has considered the views of all aviation communities. The potential options considered to mitigate the issues raised in the change process will be detailed, to explain why and how the proposed structure has been developed.

The EIA website will establish a dedicated web page and email address for the consultation. In order to capture the whole spectrum of the UK aviation community, details of the consultation will be promulgated to the National Air Traffic Management Advisory Committee (NATMAC).

- A press release will be released to local media at the commencement of consultation to ensure that it is transparent that consultation is underway, irrespective of whether environmental stakeholders are included in the

consultation or not. Details should be posted on the airport website and also circulated to the local press.

Meticulous records of all issues raised in response to the Consultation Document, reminder letters/emails and receipt of responses will be made throughout the 12-week consultation period. The Airspace Change Team, in conjunction with EIA personnel will consider any objections received and address these objections in a final proposal. Where an objection is received without an explanation of the basis for the objection, the ACP team will contact the consultee for further detail in order to provide an informed response. The Airspace Change team will use the Consultation Record Sheet provided in CAP 725 Appendix 3.

Analysis of all responses will be conducted to identify any key themes that emerge; all objections or suggestions from consultees will be taken into account and, if discounted, justifications provided. On closure of the Consultation phase, a Consultation Feedback Report will be produced that addresses key themes and concerns and how EIA will incorporate those concerns into the proposal. The Consultation Feedback Report will be published on-line.

7.2.1 Aviation Stakeholders

Prior to the posting of the document on the EIA website, a programme of local aviation stakeholder meetings will be held to provide details of the proposed changes. When the proposed airspace design has been finalised, at the start of consultation it will be posted on-line and all aviation stakeholders groups will be contacted by letter or email, giving them a broad justification for the proposal and directing them to the website. A dedicated e-mail address for responses will be provided and the Consultation Document will be provided individually on request.

7.3 Consultation Programme

Local aviation stakeholders will be engaged at an early stage during the design process. The Project Plan provides approximately three months for the consultation process, allowing additional days for public holidays or prime holiday periods, when stakeholders may not be available to submit comments. This allows the minimum of twelve weeks required for formal consultation, and provides scope for any unforeseen delays at the start, or significant issues that arise during the process.

8 References

Reference	Name	Origin
1	CAP 725 CAA Guidance on the Application of the Airspace Change Process Issue 4.1 dated 15 th March 2016	CAA
2	UKIAIP NATS AIS – UK Aerodrome Specific – EGTE http://www.nats-uk.ead-it.com/public/index.php%3Foption=com_content&task=blogcategory&id=65&Itemid=114.html	CAA
3	CAA (2009) <i>Policy For Transponder Mandatory Zones (TMZs)</i> CAA TMZ Policy Statement (Accessed 10 th June 2016)	CAA
4	CAA (August 2013) <i>Policy for Radio Mandatory Zones (RMZ)</i> CAA RMZ Policy Statement (Accessed 10 th June 2016)	CAA

Table 2 Table of References

A1 Statistics

Final Approach and Climb-Out Incursions:

- Five reports in the last 4 months.

AIRPROX Reports:

- Four AIRPROXES relating to unknown aircraft reported in the last 18 months, two of which reported in the last 3 months.

IFR Traffic 1st March 2016 – 31st July 2016:

- Total of 80 extended routings recorded; and
- 789 extra track miles flown.

CDAs:

- From 1st January – 31st July 2016 EIA have been averaging 45 %.

Movement Totals January - July	
2013	17,608
2014	18,026
2015	18,499
2016	23,197

Instrument Approaches January - July	
2013	4978
2014	5012
2015	5268
2016	5804