

South Gloucestershire



Review of the BAE Systems Aviation Options Report for Filton Airfield

December 2011

South Gloucestershire Council

Filton Airfield

Purpose

1. To report the conclusions of work undertaken in response to the Full Council Question No.3 dated 19th October 2011, in respect of Filton Airfield.

Background

2. In April 2011 BAE Systems Ltd announced its decision to close Filton Airfield at the end of 2012. That decision has significant implications for the District and wider area including the programme for the Council's emerging Core Strategy.
3. The Council has in the period since April 2011 undertaken widespread engagement to listen to the wide ranging views being expressed in response to the closure announcement and to better understand the issues which arise from BAE Systems Ltd decision to close the airfield.
4. The Council is committed to having its Core Strategy 'examined' by an independent Inspector at the earliest reasonable opportunity with view to adoption of the Core Strategy in the summer of 2012 if possible. The consequences of not having an adopted core strategy are far reaching. It is therefore very important that both the position in respect of Filton Airfield and more generally are resolved as quickly as possible.
5. In order to better understand the reasons advanced by BAE Systems Ltd for closing the Airfield, and to explain that decision as part of the engagement process, the Council invited the Company to prepare and publish an Aviation Options Report. This summarises the key information and aviation options considered and which led BAE Systems Ltd to conclude that the Airfield is not thought to be viable or needed.
6. The Aviation Options Report was published by BAE Systems in October 2011 in parallel with the Council's engagement process on airfield related issues. The overall engagement process and feedback received is summarised at Appendix 1. A number of issues were raised with aspects of the aviation and options report. At the Council meeting of 19th October the Leader of the Council was asked that, "given the huge importance of the airfield site, what action would be taken to ensure that the report is independently assessed so that the process can command the confidence of local people".
7. The Leader confirmed that all reasonable steps would be taken to establish whether the report can be considered balanced and factually accurate. Specific checks identified were to:

1. Review planning, transportation, engineering and financial elements of the report.
 2. Review the technical competencies track record and expertise in this field of Mott Macdonald the reports principal authors.
 3. Seek confirmation from Airbus, Rolls Royce and GKN whether they consider that the statements made in the report are correct and accurately reflect the position of those companies.
 4. Work closely with the Local Enterprise Partnership and wider business community to gauge their opinion and thoughts.
 5. Review and consider the feedback and comments that local communities and key interested parties and stakeholders including Bristol City Council have made to the airfield consultation.
 6. Use external expertise where necessary to assist and support in house staff with those reviews.
8. This report provides updates on the steps which have been taken to progress these reviews and the main conclusions reached. Detailed updates are given in subsequent sections of this report. In summary Officers have:
1. Identified technical areas of the Aviation Options Report which have been questioned and have sought to check whether the comments and assumptions made are sound.
 2. Reviewed the technical competence and expertise of Mott MacDonald and other lead consultants.
 3. Written to the principal companies at Filton and a range of other interests to seek confirmation that comments attributable to them are accurate.
 4. Held a workshop with local companies on 26th October at Hollywood Mansion (appendix 2) and have had follow on correspondence with the LEP and other companies.
 5. Reviewed the feedback from consultation and followed up issues and ideas.
 6. Held a Member meeting with Bristol City Council to explore issues and concerns.
 7. Commissioned consultants, York Aviation, to provide specialist input to these reviews. Specifically to advise on the aviation options considered by Mott MacDonald. The York Aviation report is reproduced at Appendix 3 to this report.
 8. Held a planning workshop with all stakeholders including businesses, landowners, community representatives and Members, on 4th November, which looked at implications and opportunities for the area if the Airfield were to be redeveloped. This followed from a previous workshop held on March 3rd which had looked at a vision for the area with the airfield retained.

9. Written to Government and others inviting views on the future of the Airfield.
 10. Reviewed the need for employment land in this part of the North Fringe.
 11. Met with Airbus, at their request to better understand its view of the proposed airfield closure and the long-term direction of the local aerospace sector.
 12. Met with the Concorde Trust and Great Western Air Ambulance service to consider the implications of the proposed airfield closure.
9. This paper aims to draw together the arguments and evidence presented by BAE Systems Ltd for closure of the Airfield and by those, including the Save the Filton Airfield Campaign Group (SFACG), who wish the Airfield to be retained and developed for aviation related activities. This is undertaken in specific response to the Council motion.

Key positions expressed for and against closure of the airfield

10. In summary BAE Systems Ltd argues that:
- The airfield is no longer viable
 - The airfield is no longer needed
 - The needs of existing users of the airfield can be met in other ways
 - Redevelopment would present new opportunities for business and residential development which would benefit the local economy.
11. In summary those opposed to the closure of the Airfield argue that:
- Closure is motivated by short-term financial and commercial considerations;
 - The Council will view it as a relatively easy way of meeting housing targets.
 - Closure would be short sighted and a serious and genuine threat to local economic prosperity.
 - The Airfield is needed.
 - The Airfield is potentially viable.

Consideration of Issues in response to the 19 October Council motion

1) Review of Planning and Legislative Issues

12. Relevant policies for the consideration of Airfield issues are:

National Planning Policy

13. The Department of Transport Future of Air Transport White Paper (December 2003) provides a strategic framework for the development of air transport in the UK for the period to 2030. The White Paper lent general support to the development of Bristol International (Lulsgate) and refers to consideration of a new airport north of Bristol (although not necessarily the Filton site).
14. In its report for the Council York Aviation note that the White Paper notes that “a new airport north of Bristol would be neither economically beneficial nor commercially viable.” However, the White Paper notes that “Filton and Gloucester Airports play an important local role in respect of business aviation, and we fully support the continuation of these roles” (White Paper 2003, Paragraph 10.30).
15. Current national planning policy for transportation is set out in PPG13 (Transportation). Some aspects of the policy were updated by the Coalition Government in January 2011 but references to aviation were unchanged.
16. Paragraph B5 states that Local planning authorities will need to consider:
 1. The growth of regional airports ... Filton is not a regional airport in this context.
 2. The role of small airports and airfields in serving business, recreational, training and emergency services needs. As demand for commercial air transport grows, this general Aviation, may find access to larger airports increasingly restricted. General Aviation operators will therefore have to look to smaller airfields to provide facilities. In formulating their plan policies and proposals, and in determining planning applications, local authorities should take account of the economic, environmental, and social impacts of general aviation on local and regional economies.
17. Paragraph B6 to PPG 13 goes further to state that local planning authorities should:

“consult the Department for Environment, Transport and the Regions’ Airports Policy Division on draft development plan policies and proposals relating to airports and airfields. In

consultation with the Airports Policy Division, local authorities should:

1. Identify and where appropriate protect sites and surface access routes, both existing and potential (including disused sites), which could help to enhance aviation infrastructure serving the regional and local area.
 2. Avoid development at or close to an airport or airfield which is incompatible with any existing or potential aviation operations.
18. Paragraphs B7-B9 set out further guidance for the operational development and support of airports and airfields.
19. In line with the requirement at Annex B to PPG 13 the Council has notified the Airports Policy Division, the Department for Transport and the Department of Environment, Food & Rural Affairs at all stages of the Core Strategy's production, including:
1. Issues & Options, 2008
 2. Pre-Submission Publication Draft, March 2010
 3. Proposed Changes, December 2010
 4. Further Proposed Changes, February 2011
 5. Filton Airfield Position Statement, June 2011
 6. Filton Airfield further consultation, October 2011
20. No comments have been received in response.

Draft National Planning Policy Framework (NPPF)

21. The draft National Planning Policy Framework was published for consultation in July 2011. The draft policy in respect of airports is given at Paragraph 87 which states:
- “When planning for ports, airports and airfields that are not subject to a separate national policy statement, planning policies should consider their growth and role in serving business, leisure, training and emergency services needs. In doing this policies should take account of the Framework as well as the principles set out in the relevant national policy statements and the Government Framework for UK Aviation.”
22. Since the announcement of proposed closure of the airfield and publication of the Aviation Options Review contact has been to Government through BIS. The view expressed has been that the closure of the Airfield is a commercial decision of BAE Systems and is most appropriately dealt with at local level.
23. It follows that if Government is not directly concerned with the closure of the airfield it remains for the Council to address the tests currently set out

at Paragraph B5.2 of PPG13 in respect of General Aviation needs. This is a specialist area of analysis and Officers have sought consultant input to that review.

24. The Government Framework for UK Aviation – is due to be published in March 2012 and adopted in early 2013.

Regional Policy

25. Economic and planning strategies generally seek to consolidate Bristol Airport at Lulsgate as the main airfield for the sub region and do not promote commercial aviation development at Filton.

The South Gloucestershire Local Plan – Adopted January 2006

26. Policy E4 – Safeguarded Employment Areas.
This policy seeks to safeguard strategic employment areas from alternatives forms of development. The whole area “comprising and adjoining the British Aerospace and Rolls Royce Establishments to the west and east of the A38 at Filton” is shown as safeguarded. This includes the eastern part of the Airfield.

The effect of the policy is also to limit development where this would impact on employment activities. For example it seeks to resist development of housing where this might result in residents’ complaints about employment activities.

27. Policy E5 – Filton Airfield Safeguarding
This policy seeks to safeguard the current technical operation of the airfield and carries a general presumption against further development which would prejudice this, such as those which would adversely affect the performance of navigational aids and landing systems.
28. The supporting text also notes that the Council supports the continuation of the authorised operations at the airfield and is concerned to safeguard jobs in the aerospace sector. The assumption at the time of drafting the policy was that the future success of the aerospace sector was dependent on the operation of the airfield. It would follow that if the airfield were no longer operational Policy E5 would effectively cease to apply.
29. Policy T14 – Filton Airfield
This policy states criteria for the assessment of any proposals to develop Filton for passenger or air freight services. It would not apply if the airfield were to continue as existing or were to close but would apply if it were proposed to develop the airfield along commercial lines. In those circumstances the criteria require assessment of impact on residential amenity, the environment and transportation impacts.

South Gloucestershire Core Strategy

30. The submission Core Strategy follows principles established in the South Gloucestershire Local Plan including the presumption from SGLP policy E5 that ‘the long-term operation of the airfield is crucial to the prosperity of the area and will be protected’. (Core Strategy Paragraph 4.13). :
- Policy CS25.3 (Communities of the North Fringe of Bristol Urban Area) effectively reasserts SGLP Policy E5 in stating that “development proposals... will not prejudice the continuing authorised operations of the airfield”.
 - Core Strategy Policy CS12 continues the principles of safeguarding employment land and identifies sites including:
 5. Employment land at Filton Northfield (part of Charlton Hayes)
 6. Land East of A38 Filton Patchway (Principally Rolls Royce, former East Works and North Bristol Business Park)
 7. Land west of A38 (inc Airbus South) (the main Aerospace cluster south of the Hallen Freight railway line but for practical reasons excluding areas within Bristol City Council’s administrative area (e.g Brabazon hangar).
 8. Land west of the A38 (including runway and Royal Mail Depot). As with the SGLP the western end of the runway is not shown as safeguarded for employment purposes. To have included this area in calculations would have significantly distorted actual availability of employment land.
31. The assumption of an integral link between continued operation of the airfield and future success of the aerospace sector is challenged by BAE Systems Limited. Paragraph 1.33 of the Aviation Options Report states:
- “Filton Airfield is no longer an integral and strategic part of the success of the aerospace industry in the region. The closure of the airfield is unopposed by the aerospace industry and industry representatives have confirmed that the closure will neither impact on jobs nor prejudice the ability of the industry to attract new manufacturing , engineering research and design business to the cluster. “
32. The potential implications of closing the airfield on the future of the aerospace sector are a central issue to be addressed in this report, and is considered further by York Aviation.
33. Officers have not identified any permission which would be required to close the Airfield.
1. Parliamentary approval is not required.
 2. Planning permission is not required.

3. Civil Aviation Authority (CAA) approval is not required for closure. However York Aviation note that BAE Systems Ltd would need to liaise with the CAA given that Filton is a licensed aerodrome and that the CAA would need to issue a Notice to Airmen (NOTAM) advising pilots of closure. York Aviation also indicates that runway markings would need to be changed to indicate that the runway is not in use.
 4. The Light Aircraft Association has suggested that the airfield is reserved for aviation use by a planning condition which may have been put in place because the village of Charlton was compulsorily purchased then demolished in the 1950s to extend the runway. The Officers have reviewed the planning history for the site but have found no such condition.
 5. Some assertions have also been made that there is a covenant with the Ministry of Defence which requires its approval for closure. No evidence has been received from the Ministry of Defence to support this.
34. However, planning permission would be required for any material change in operation of the Airfield e.g. to function as a commercial Airport, or to redevelop the site.
 35. The planning issues which would arise from any proposal to further develop the airfield for commercial use were assessed when the planning application for use as a commercial airport was made to Northavon District Council in September 1993 (P93/2321). The subsequent planning appeal was dismissed in March 1996 by the Joint Secretaries of State.
 36. The Aviation Options Report (at Section 6) provides a summary of the issues raised at that time. It concludes (at paragraph 6.13 of the TOR Report) "that these decisions set a clear precedent for any future applications. Filton is not seen as a suitable location for a commercial airport and no circumstances have changed to suggest that a new application now would receive a different result".
 37. The York Aviation report considers the prospects for a commercial airfield within policy at Section 2 of the report and within practical considerations at Table 3.1. It notes the planning presumption against such development in the 2003 White Paper and concludes that the site "does not lend itself to such a scheme". Bristol International Airport, at Lulsgate, has developed to become a significant regional airport and has further potential for growth.
 38. Officers note that when last promoted in the mid 1990s there was clear opposition to the development of Filton as a commercial airport. While a number of respondents to consultation suggest ways and means of improving the viability of Filton Airfield few are suggesting development as a fully commercial airport, which is not being promoted by Save Filton

Airfield Campaign Group (SFACG). However it is one of the options to be appraised as part of this review process.

Transportation Issues

39. The main issue in respect of transportation is whether wings and other large components can reasonably be transported by road and sea, rather than by air, for final assembly.
40. To date it has primarily been wings that have been transported by air from Filton. Other components made, for example, by Rolls Royce and GKN, are already transported by road. This is not a unique situation. The existing Airbus operation at Broughton transports the A380 wings by road to the river Dee for onward transport by sea to France
41. Officers have worked with consultants for Airbus and with the Highways Agency to establish the scale of vehicle movements required to move wings to the Port at Avonmouth or Royal Portbury.
42. Officers are satisfied that they are able to be moved by road.
43. Both the route along the A38 to J16 of the M5 and the route along Hayes Way to J17 of the M5 are acceptable options. The preferred route would be via A38/ J16, However, if the A38/J16 route is unavailable then the Hayes Way /J17 route would be an acceptable alternative.
44. Airbus and the Council would confirm the wing transfer dates and times. The Highways Agency will be informed prior to each wing transfer to confirm that the route is clear of incidents.

Engineering Issues

45. Questions have been raised about the physical space requirements and associated estimates for maintaining and improving the airfield for future operation.
46. The Aviation Options Report does not give specific estimates for future works but notes at paragraph 5.23 that “over the last decade BAE Systems has continued to invest in the airfield despite it remaining operationally unviable. The refurbishment programme to improve the airport facilities and ground equipment alone represents an investment of approximately £7million. The airfield has not been left to run down”.
47. The scale of costs required to maintain and develop the airfield would in large part depend on the model of airport to be provided. For example development for passenger services would have different requirements from a business or general aviation airport. Equally the scale of revenue generated would also be different.

48. The Mott MacDonald report does set out the physical parameters for different forms of operation and indicates how the airfield might be configured to meet those operational models. The Officers have invited York Aviation to assess whether these parameters are in line with industry expectations. In each case there is an overview of whether the scale of works required and operational costs would be likely to be met by revenue generated. Conclusions are set out elsewhere in this report.

Financial issues

49. A summary of annual accounts for the Airfield is given at Appendix 4 of this report.
50. The council has reviewed the financial statements provided for BAE Systems (Aviation Services) Ltd covering a period of the last 10 years. The accounts had been independently audited by KPMG in each year, are deemed in the auditor's opinion to represent a true and fair view. The following should therefore be considered in this light.
51. The profit and loss accounts presented indicate the company has operated at a loss for nine years running 2001 to 2009. In 2010 the company declared a surplus. This surplus was primarily due to increased turnover in that year. Due to commercial confidentiality it has not been possible to ascertain the reason for this increased turnover, whether it was as a result of airfield operations or non-operational activities, and its potential sustainability into future years.
52. The profit and loss accounts for 2001 and 2002 include the accounting treatment associated with the company's decision to cease its aircraft maintenance and conversion activities. This makes comparison in those years difficult.
53. As indicated in the companies accounting policies statement, it is not a requirement for them to meet Financial Reporting Standard FRS8 – Related Party Transactions. As a result of this it is not possible to ascertain the level of inter-group transactions, and any impact this may have on the reported position.
54. For the years 2001 to 2008, the statements of account also detail a breakdown of airfield operations required as part of maintaining permission of the CAA to levy airport charges. This provides a split between operational activities (airport charges – e.g. in respect of landing, parking, taking off of aircraft, plus other operation income – levies charged on fuel sales) and non-operational activities. No details are provided concerning the non-operational activities. This information is replicated in the table below. It can however be seen that the loss on airport operational activities is higher than that recorded in the bottom line of the P&L account, which is then offset by non-operational revenue streams. This additional 'CAA' information is not provided in the 2009 and 2010 accounts.

2) Professional competence

55. Officers were asked to verify the professional competence of the consultants used by BAE Systems Limited in preparation of the Aviation Options report. Two consultancies were used.
56. Mott MacDonald prepared the Filton Airfield Aviation Options Appraisal. Terence O'Rourke Ltd (TOR) prepared a parallel planning appraisal. Both parts of the report were intended to provide, for public information, an overview of the work undertaken by BAE Systems Limited and its consultants which had led to the decision to close the Airfield. The reports were not intended to provide fully documented evidence as, for example, would have been required in support of a planning application.
57. The report reflected work undertaken over several years but was updated to September 2011 to feed into the Council's public engagement process in respect of the Airfield closure.
58. Mott MacDonald is a multi-disciplinary consultancy employing more than 14,000 staff in 140 countries. It was created in 1989 through the merger of specialist transportation and water engineering consultancies.
59. The main consultants were Chris Whittle and Chris Collins with input from Graham Ruddock.
60. Chris Whittle is a Principal Project Manager specialising in the aviation sector with over 30 years experience including project management, demand forecasting, aviation strategy, economic analysis and business planning. He has been with Mott MacDonald for over 10 years. He previously worked in a number of other consultancies and had 9 years with British Caledonian Airways as cargo marketing and planning manager.
61. Chris Whittle is a senior aviation consultant with 12 years experience specialising in air traffic demand forecasting, data analysis and interpretation, project management and aerodrome safeguarding.
62. Graham Ruddock is a Chartered Engineer and Technical Director Aviation Planning for Mott MacDonald. He is responsible for the master planning, facilities planning, concept planning and detailed design of new airports and existing airport developments. He has over ten years experience with Mott MacDonald and was previously with BAA and at Heathrow Airport Limited .
63. The Officers have had no direct contact with Mott MacDonald in connection with Filton Airfield but on the basis of Mott MacDonald's reputation within the aviation industry and the CVs of key personnel involved in the report the Officers have no reason to doubt the professional competence or integrity of the Filton Airfield Aviation Options Appraisal.

64. The TOR planning appraisal part of the report included input from Peter Brett Associates (Transportation) and Mott MacDonald (Aviation).
65. TOR was formed in 1985 and provides a range of planning and design services with just under 100 staff. The lead consultants for the work with BAE Systems have been Ann Bartaby and Rosie Farquhar.
66. Ann Bartaby is a Director of TOR, a Member of the Royal Town Planning Institute and fellow of the Royal Geographical Society. Ann worked for local authorities (Avon County Council, Kingswood Borough Council and Northavon District Council) between 1980 and 1995 finishing as Planning Policy Manager at Northavon. Ann was with Northavon District Council, and was directly involved in advising the Council, at the time of the 1993 planning application for the development of a commercial airfield at Filton.
67. From 1995 – 2,000 Ann was with TOR before moving to become Planning and Development Director and then Director of Operations for TAG Farnborough Airport Ltd where she worked between 2000 and 2005. There she helped to secure planning permission and implement the change from a military and research and development airfield into a private business airport.
68. In 2005 Ann returned to TOR to become a Director where she has continued to advise a range of clients including Luton and Bournemouth Airports on planning and master planning issues. She has also managed TOR input to BAE Systems in respect of Filton Airfield and for Bristol Zoological Gardens in respect of the proposed National Wildlife Conservation Park at Hollywood Tower.
69. Rosie Farquhar is an associate Director at TOR and Member of the Royal Town Planning Institute. Since 2006 Rosie has been involved in a wide range of airport, commercial, educational and research projects including some work for the Department of Communities and local Government.
70. Officers have had regular contact with both Ann Bartaby and Rosie Farquhar since the BAE Systems announcement to close the Airfield. Officers consider that TOR are a very professional planning consultancy and that Ann Bartaby in particular has very relevant knowledge of airfield and aviation issues which means that she was well placed to oversee preparation of the Aviation Options report.

3) Correspondence with Principal Aerospace companies

71. Officers have written to the principal aerospace companies operating in and around the Airfield seeking confirmation that comments that are attributed to them in the Aviation Options Report are accurate, and also

providing an opportunity to offer any further comment on the implications of closure in respect of positive opportunities presented. The following feedback was received.

72. Airbus

“Thank you for your email of 11 November concerning BAE Systems intention to close Filton Airfield at the end of 2012.

Further to your request we have reviewed the BAE Systems commissioned “Aviation Options Report “ from Terence O’Rourke Ltd and Mott MacDonald with my colleagues and can provide you with the following statements.

Airbus Operation Ltd confirms its position that the public statement referred to in the Aviations Options Report (page 7) is correct and accurately reflects the Airbus position.

In terms of the impact the airfield closure will have on the future activities of Airbus, we have huge commitment to the economic development of Filton, as exemplified by the decision to build the Airbus Aerospace Park which is a multi million pound business park which includes the development of Pegasus House. We have also made considerable investment in state of the art facilities such as the Landing Gear Test Facility for our newest product, the A350XWB. We also remain focused on developing our Engineering Centre of Excellence capability as well as the final assembly of A400M wings. This commitment is not dependant on there being an airfield available for our operations. We continue to develop alternative means to transport our A400M wings and Airbus employees.

However, I should add that we remain cautious of any potential new development and thus neighbours to our Operations activity. We must ensure that any new development and their tenants are ones whose own operation and installations do not restrict normal Engineering and Manufacturing operations of us or our partners, be they 24/7 or as required.

As I stated when we met last week, strategic development around Filton should consider raising the infrastructure to a level that allows us to recruit and retain the highly skilled talent required for our activities. Indeed this means attracting people from outside the region to Filton, not just from other parts of the UK, but internationally. Such infrastructure should consider improved public transport and access routes to and from Filton and surrounding areas, including Bristol Airport e.g. opening a rail station alongside the current airfield, increasing bus services, continuing to improve the traffic flow...etc.

It should also be the aim to improve local retail environment to ensure a high level of services is made available for the many thousands of employees e.g. crèche facilities, delivery/pick-up point for on-line purchases, convenient grocery...etc.

I’d like to end by saying that at Airbus we remain committed to contributing positively to the development of the area and thank you for inviting our input and comment. On behalf of our 4,000 employees I look forward to making further contributions. For your information I’ve copied our public statement below,

Airbus Statement:

BAE Systems, as the landlord of Filton site, decided together with Airbus, as a key customer, that the continued operation of Filton Airfield was unsustainable. It was agreed that it was not financially viable to continue operating the Airfield.

A decision was reached to close the Airfield at the end 2012, thus giving Airbus more than one and a half years to prepare for closure. Various scenarios are now being worked on for alternative ways to move our people and our parts. The future of the Airfield beyond 2012 is entirely at the discretion of the freehold owner, BAE Systems.

Airbus is fully committed to Filton – this is the case now and will remain the case as clearly demonstrated by the recent decision to build a multi million pound business

park at Filton and the continued investment in state of the art facilities such as the A350XWB Landing Gear Test Facility.

We are putting into place a range of mitigation measures to ensure that the closure of the airfield does not affect our business in any significant way.”

Mark Stewart - General Manager and Human Resources Director Airbus UK

73. GKN –

Thank you for your letter asking for GKN's view on the Aviation Options report produced by Terence O'Rourke Ltd and Mott MacDonald. Having reviewed the report I can confirm that the statements made within the report are, to the best of our knowledge, correct and reflect the position of GKN.

GKN does not currently use the airfield and the proposed closure will not affect our strategy for the Filton site. Our only concern would be to ensure that any redevelopment considered does not negatively impact on our existing and future manufacturing operations”

Charles Paterson – General manager GKN Aerospace , Filton.

74. Rolls Royce

“Thanks you for your Email. RR is working with its planning advisers, Messrs Gerald Eve and your planning colleagues on the complex matters surrounding the announcement by BAE Systems to close Filton airfield. They are participating fully in the consultation process with your officers. Like you we remain committed to work with the other key businesses in the area to ensure that the impact on business of any closure of the airfield is minimised.”

Julie Scattergood - Operations Director, Rolls Royce

“The Aviation Options report quotes directly from our response to the Filton Airfield Position Statement in relation to a broad support for redevelopment of the airfield in terms of the benefits that the relaxation of aviation constraints will have on widening the development potential at East Works.

The relevant paragraph is 1.35, where the report states that “Rolls-Royce supported the closure”. This is not an accurate interpretation of our response, where we have said that Rolls-Royce accept the closure and do not object to it. This is picked up further in paragraph 7.17.

Reference is also made in paragraphs 5.8-5.9 to Rolls-Royce's decision to cease using the airfield for its own use as a consideration for closure due to the increased overhead costs borne by BAE Systems. Rolls-Royce have not used the airfield directly for operational purposes for many years, and have no intention of doing so in the future. They have recently invested a considerable amount in their site to the north of Gypsy Patch Lane, which reflects their commitment to remain in Filton regardless of the decision taken over the future of Filton Airfield.”

Alex Vaughan-Jones – Gerald Eve for Rolls Royce

75. Officers conclude from the feedback received from the principal companies that while there are some minor inaccuracies in the Aviation Options report these are not material to a decision on the future of the Airfield. The companies indicate that their future investment is not tied to the use or future retention of the airfield. This is demonstrated in the commitment of airbus to build its multi-million pound business park and the investment by Rolls Royce in their site north of Gypsy Patch Lane. In fact, the Airbus comments in particular reflect a positive future for a re-developed area, which will provide opportunities for smaller companies

to move to the area (comment from business workshop appendix 2). Any redevelopment of the airfield may bring with it the ability to raise the infrastructure to a level that allows them to compete for, recruit and retain highly skilled staff. In this case infrastructure would include high quality public transport including bus services and a local station, improved traffic flow and enhanced retail, cultural and service facilities at Filton close to the proposed Airbus Aerospace Park and the rest of the aerospace cluster.

76. The loss of the air bridge operations would be less convenient than at present but could be off set by improved surface links to other airports, direct rail connections into the heart of the aerospace cluster or by a heliport.
77. There are also concerns that redevelopment could potentially constrain manufacturing and other operations. It would be an issue for detailed master planning to effectively zone and safeguard aerospace related activities and this can be effectively managed through the planning process.

4) Business Workshop and liaison with LEP

78. In addition to the feedback from the principal companies Officers held a workshop for the business community on 26th October at Hollywood mansion. The notes of that meeting are reproduced as Appendix 2 to this report. The key messages from that meeting were that:
 - The closure of the airfield will not significantly impact on the core businesses of Airbus, Rolls and GKN. Mitigation solutions are in place for when the airfield closes;
 - Filton / Patchway will continue to be a major centre of excellence for the aerospace industry following the closure of the airfield. The aerospace industry is continuing to evolve and Filton is central to the ongoing developments and practices within the sector;
 - Bristol International Airport (BIA) is the sub-region's principal commercial airport. Considerable investment is continuing to be made in this facility.
 - A long-term view of development and infrastructure to serve the area is required.
 - The business community consider it is imperative that investment continues to be made in transportation infrastructure – recognising in particular the long term benefits of heavy rail. The potential redevelopment of the airfield offers opportunities to achieve this.
 - Filton / Patchway will continue to be a major centre of high value jobs. It is essential that investment in skills and training is maintained and improved. The potential redevelopment of the airfield offers opportunities to achieve this.
 - The long term legacy and heritage of the aerospace industry at Filton must be championed and secured. The potential redevelopment of the airfield offers opportunities to achieve this.
 - It is important to ensure a comprehensive and co-ordinated master plan approach for any future potential redevelopment of the Airfield

79. Officers have also invited comment from the west of England Local Enterprise Partnership and received the following response:

“Thank you for providing the Local Enterprise Partnership the opportunity to comment on whether the statements made in the Aviation Options Report are correct and accurately reflect the LEP’s position.

I have read through the Aviation Options Report and can confirm that the general comments attributed to the LEP about the Aerospace Industry in the West of England (paragraphs 3.1, 7.1 and 7.2) are accurate quotes from the LEP submission document of September 2010.

In relation to paragraph 7.3, the LEP’s priorities for the aerospace sector are being driven by our Aerospace and Advanced Engineering Sector Group, and are now more focussed than the broad issues described in the bullet points. However, I think that these bullet points fairly reflect the emphasis given by the LEP to the important role that the aerospace industry will play in delivering future economic growth and prosperity in the area and are a fair summary of the issues that were thought to be significant when the original LEP submission was made to government in September 2010.

The other substantive comment attributed to the LEP is at paragraph 7.18. This refers to the letter of 26 July 2011 from Colin Skellett, the Chairman of the LEP (not from me as incorrectly attributed in the report), in response to the Council’s June Position Statement on Filton Airfield. This response was made in the context that BAe Systems had already made the decision to close the Airfield and, if this was the case, then the LEP would support a mixed use development on the site with a substantial proportion of high quality employment uses that build on the strengths of the existing aerospace cluster.

I attach a further copy of the letter for your reference.

As mentioned in the letter, and also in the final paragraph (8.6) in the Aviation Options Report, the LEP would welcome the opportunity to work with the Council, with BAe Systems and with other partners on the future of this key site.”

Peter Jackson Director of the West of England Local Enterprise Partnership

80. It follows that in comments attributed to the LEP and other local companies are broadly accurate and that no major issues have been raised by them in response to the proposed closure of the Airfield or its potential impact on the local economy. Indeed most see a very positive future without the airfield providing qualitative aspects of the local transportation and community infrastructure are improved.

5) Feed back from Engagement Strategy/Consultation

81. The airfield engagement process and key feedback is summarised at Appendix 1. The purpose of the engagement was for the Council to listen to views being expressed by the local communities and stakeholders in response to the BAE Systems announcement to close the airfield. 299 responses were received

82. In summary the key questions asked were.

- **Q1 – Do you accept that the closure of Filton Airfield is the only realistic option?**

215 (Over 70%) of respondents were against the closure of Filton Airfield. Of those who answered 'No' to the closure, the most frequently cited reason given was the concern that closure would result, in the longer term if not before, in the demise of the aerospace industry in the North Fringe with a consequent impact on the wider economic prosperity of the area and the loss of high value skilled jobs.

- A petition with 527 names has also been received calling for the protection of Filton Airfield as a unique asset supporting the local aerospace economy and calling upon South Gloucestershire Council to protect and promote Filton and Patchway as an aerospace world centre of excellence providing high value skilled jobs. A further similar petition has also been opened on the Council's website. This has 139 signatures (as at 22 November 2011).

- **Q2 - If 'No' to Q1, what would you suggest as a way to keep the Airfield viable? Do you have any information to support this?**

The majority of respondents opposed to the closure of the Airfield (with the exception of the petitioners) suggested various ways to keep the Airfield open. Better marketing of the Airfield and a reduction in landing fees and charges were put forward as ways to attract new business. In terms of use of the Airfield, continued operation as a commercial airfield on an expanded scale was the most frequently suggested one.

The Save Filton Airfield Campaign has examined the realistic operation costs and revenues of the Airfield based on aviation industry norms, and has demonstrated that revenues could be substantially increased from landing and hangarage fees by, for example, attracting more business jet operators.

- **Q3 - If 'Yes' to Q1, how do you think the Airfield should be reused/ redeveloped? What would you wish to see included in the redevelopment?**

The suggestions made by respondents were wide ranging, there was no consensus view and some opposing views. While some regard the Airfield site as suitable for housing and/or employment, others take the view that the site provides the opportunity for a 'one-off' form of development. There is, however, a general view that green infrastructure should be both a significant and an integral part of any development.

As already stated under paragraph 13, there was popular support for an aviation museum/heritage centre and also for the helicopters of the air ambulance and police to remain operating from the Airfield site. There was also support for the role that the Airfield played in the Second World War to be recognised.

Bristol City Council

83. The City Council passed a motion at its Full Council meeting on the 6 September 2011.
84. Since that time Bristol Economic Development Officers were represented at the October 26th Business Workshop, Members of the two authorities have meet to discuss Airfield related issues and local Members and Officers of the City Council were invited to the planning workshop held on 4th November.
85. The intention is to continue positive dialogue with the City Council in respect of the Airfield.

6) Consultant input

86. Council recognised that Officers do not have the full range of skills and knowledge necessary to appraise the more technical aspects of the Aviation Options Report.
87. Quotes were sought from a range of consultancies with relevant experience. York Aviation was selected on the basis of its experience, and ability to meet the brief. It has prepared a report for the Council providing an overview commentary on aviation and aerospace issues.
88. Details of the consultant input are summarised at Appendix 3 and conclude that:

Aerospace

- The primary need for the airfield to date has been to support the aerospace industry and in the past it has been viewed as a pre-requisite to the success of that sector. Having reviewed the available information we conclude that the closure of the airfield, if it were to go ahead, would have no significant impact on the future health of the aerospace cluster at Filton. Airbus UK HQ, Rolls Royce, and GKN have recognised centres of excellence at Filton that they are unlikely to wish to jeopardise. Whilst clearly it is not possible for anyone to guarantee what might happen in the longer term in the aerospace (or any other) industry, especially in the light of wider current economic uncertainties, we have seen no evidence to conclude that the closure of the airfield will have a detrimental effect on the existing aerospace activities at Filton, especially given the evidence of public statements by Airbus and other key companies.

Aviation

- Our analysis of the various options as set out in Table 3.1 has identified that there is no realistic prospect of a commercial airport at Filton. With the exception of the GWAA, we have not identified any significant aerospace or aviation need which could not be met through alternative means.
- The current or prospective viability of the airfield is more difficult to establish without further information and analysis, which we accept is in part due to the need of BAE to protect confidentiality. Whilst we consider that further layers of detail could be provided and analysed, we believe that, from our analysis in Table 3.1, this would not fundamentally alter the overall conclusions.
- There are a few market opportunities which could be considered if Filton's runway were to remain operational and these include seeking to meet some of the demand for ad hoc air freight, Business/General Aviation, or MRO activity. However, we recognise that the airfield has some physical constraints in relation to such development and we believe that a certain critical mass is likely to be required to make such activities viable. In all these cases, alternative options are available and likely levels of activity achievable could be handled by infrastructure available elsewhere in the region.
- However, even if the runway were to close we believe there may be potential for continuing helicopter operations at Filton and further consideration might be given to the scope for retaining and facilitating this.
- In the absence of being able to identify a clear need for the Runway to remain open, the question of the airfield's viability remains a commercial judgement for BAE. However, we believe that if the airfield were offered for sale as an active airport and without the associated land on which the aerospace activities are currently located, it would not present an attractive proposition for another potential operator and would be a high risk investment at the very best.
- In our professional opinion, the overall conclusions of the Aviation Options Report are justified and we believe that the Council can consider it, with some

minor exceptions, to be broadly balanced and factually accurate and likely to be reflective of a wider industry view.

Summary in respect of 19 October Council Motion

89. The aim of this report is to set out the work undertaken by Officers in response to the Council motion No. 3 of 19th October and in so doing to establish whether the Aviation Options Report can be considered balanced and factually accurate.
90. In summary, and on the basis of the available information, Officers conclude that:
91. The planning, transportation, engineering and financial elements of the Aviation Options Report are factually accurate.
92. The CVs of the reports authors at Terence O'Rourke and Mott Macdonald have been reviewed and there is no evidence to question their professionalism, competence, experience or credibility. Some criticisms have been made that BAE Systems has not made full financial or marketing information available in the report but that does not detract from integrity of the report authors nor the overall conclusions which can be drawn from the report.
93. Airbus, Rolls Royce and GKN have confirmed that the statements made in their names within the report are generally accurate and accurately reflect the position of those companies.
94. A workshop has been held with the Local Enterprise Partnership and wider business community and the consensus was that the Filton Aerospace sector has a positive future with or without the airfield and that the critical success factors are more closely tied to qualitative aspects of local infrastructure and training than to the future of the airfield.
95. Feedback from consultation has been recorded and key issues with the Aviation Options report and BAE Systems decision to close the airfield have been addressed. Meetings have been held with Members and Officers of Bristol City Council.
96. Independent external expertise, in the form of York Aviation, has been used where necessary to assist and support in house staff with those reviews. York Aviation's report concludes that the key messages and conclusions of the Aviation Options report generally reflect the physical constraints and commercial reality of an airfield operation at Filton.

Conclusions

97. Officers have addressed the 6 steps confirmed as part of the 19 October Council motion, drawing together conclusions outlined in para's 88 to 95 of this report. This work has been supported by the findings of the Independent Aviation Consultants – York Aviation.
98. On the basis of this information, and the conclusions of the work undertaken to review the BAE Aviation Options Report, Officers consider that no further reasonable steps can be taken to respond to the announcement of BAE systems to close Filton Airfield at the end of 2012. The council should plan positively with all relevant stakeholders for redevelopment of the airfield in the context of a masterplan for the Cribbs/Patchway new neighbourhood. As a consequence the wording of relevant policies within the South Gloucestershire Core Strategy should be changed to reflect these changed circumstances.

Recommendation

- 1) That appropriate changes to CS26 and consequential changes to CS12 be undertaken to reflect this position.

Appendix 1

Proposed Closure of Filton Airfield

Summary Report on Feedback from Public Engagement Autumn 2011

Background

1. On 14 April 2011, BAE Systems announced its intention to close Filton Airfield in December 2012. This announcement comes at a time when the planning framework for development in South Gloucestershire over the next 15-20 years is being established through the Core Strategy Development Plan Document. In June 2011, South Gloucestershire Council's initial response was to issue a [Position Statement](#) that set out possible options for how the planned closure of the Airfield could be dealt with in the Core Strategy.
2. The Council received 125 responses to the consultation on the Position Statement, of which about two thirds were from members of the public. A short report summarising the comments made to this consultation is available [here](#). This information was given to the Inspector conducting the Core Strategy Examination.
3. In his [letter of 15th August](#), the Inspector asked the Council to undertake more work to demonstrate how the Airfield, in the event that it comes forward for development, would fit within the Core Strategy's overall strategy for development. He also requested that the Council provides information on the most likely use of the site and the timescale in which development could be brought forward. Separately, our communities also asked the Council to undertake further public engagement to help everyone better understand why the Airfield was closing and how the Council should respond to this.

Public Exhibitions

4. In responding to these requests the Council, in a [letter dated 2nd September](#) to the Inspector, set out a number of actions, one of which was to work closely with key stakeholders and local communities. During October the Council held a series of 3 staffed exhibitions at venues within the vicinity of Filton Airfield (Cribbs Causeway Business Centre, Patchway Locality Hub and BAWA), as well as displaying the exhibition at 4 local libraries (Filton, Patchway, Southmead and Henbury) and Bradley Stoke Leisure Centre. These exhibitions gave feedback on the earlier Position Statement consultation, as well as summarising the reasons put forward by BAE Systems for closing the Airfield.

5. Also available at the staffed exhibitions was a report by BAE Systems summarising the options for the Airfield which have been investigated over recent years, together with a schedule of Frequently Asked Questions responding to a number of key issues and comments made by local people following the closure announcement. The BAE Systems report has been prepared following the Council's request that BAE Systems further explains and justifies its decision to close the Airfield.
6. The [exhibition material](#), [BAE Systems report](#) and the [Frequently Asked Questions](#) were also available to view and download on the Council's website.
7. In providing this further opportunity for the public and organisations to give the Council their views on the future of Filton Airfield, the following questions were posed as a basis for structuring responses:

Q1) Do you accept that the closure of Filton Airfield is the only realistic option? Yes / No

Q2) If No to 1) above, what would you suggest as a way to keep the Airfield viable? Do you have any information to support this?

Q3) If Yes to 1) above, how do you think the Airfield should be reused/redeveloped? What would you wish to see included in the redevelopment?

Summary of Responses

8. 299 responses have been received to the latest public engagement exercise, of which around 85% are from members of the public. The other responses are from parish and town councils, local councillors and political groups, statutory consultees, interest groups, developers and agents. These include Save Filton Airfield Campaign, Light Aircraft Association, South West Defence Industries Alliance, Bristol City Council, Royal Mail Group, Network Rail, Patchway Town Council, ward and parish councillors and South Gloucestershire Labour Group.
9. A petition with 527 names has also been received calling for the protection of Filton Airfield as a unique asset supporting the local aerospace economy and calling upon South Gloucestershire Council to protect and promote Filton and Patchway as an aerospace world centre of excellence providing high value skilled jobs. A further similar petition has also been opened on the Council's website. This has 139 signatures (as at 22 November 2011).
10. **Q1 – Do you accept that the closure of Filton Airfield is the only realistic option?**

	Respondents
No	215
Yes	65
Not specified	19

Over 70% of respondents are against the closure of Filton Airfield. Of those who answered 'No' to the closure, the most frequently cited reason given was the concern that closure would result, in the longer term if not before, in the demise of the aerospace industry in the North Fringe with a consequent impact on the wider economic prosperity of the area and the loss of high value skilled jobs.

11. Other reasons given for answering 'No' are:

Challenging BAE Systems' decision on grounds of:

- Financial position not as perilous as claimed - BAE Systems (Aviation Services Ltd.) made a profit last year
- Justification in their Report is insufficient and biased
- Evidence on alternative options is insufficient and incomplete
- BAE has not actively marketed the airfield
- BAE has purposefully run down the Airfield – high landing fees, evening and weekend closure and turning away business and investment
- Multiple examples worldwide of similar airfields being run profitably
- BAE Systems supported the safeguarding of the airfield in the Core Strategy
- Decision to close is short sighted
- Wrong for BAE to sell the Airfield when it was originally constructed and maintained with public money
- No evidence presented to substantiate the original reason given for closing the Airfield – cost of re-surfacing runway
- BAE Directors have a conflict of interest as they serve on the boards of both the aviation part of the business and the land/property part.

Role and function of Filton Airfield

- Airfield is a unique asset and should be protected for future generations
- Airfield has heritage value
- Airfield is the last general aviation facility in the region – general aviation at Lulsgate is being squeezed out by increased commercial traffic
- Once gone, the Airfield can't be replaced
- The increasing difficulty faced by general aviation in accessing airspace and airfields recognised at European and national level
- Civil aviation is predicted to keep growing
- Closure will prevent aircraft testing by Airbus – A400M has made several visits this year

- Filton is not winning its share of need for increased capacity at Airbus due to uncertainty about the Airfield – a new £400 million A350 wing plant has just opened at Broughton
- The Airfield is well located in relation to rail and motorway network and Avonmouth docks
- Original appeal decision is no longer relevant due to quieter aircraft and change in public opinion towards an airport
- Development of a University Technical College at Harry Stoke suggests there may be a demand for the Airfield in the future
- Noise concerns are exaggerated
- There is demand for use of the Airfield

Challenging South Gloucestershire Council's response to the intended closure

- Undue haste by the Council to accept closure
- Council has accepted BAE's flawed arguments without adequate investigation
- Council should commission an independent report
- Council should work with BAE to keep Airfield open
- Council and West of England LEP should be promoting and supporting the Airfield's continuing use
- Airfield should not be considered an easy opportunity by the Council to fulfil current or future housing quotas
- Council should call on DfT and CAA not to downgrade/cancel BAE's licence as it would be prohibitively expensive for a new owner to apply for a new one
- Opposed to housing on the Airfield due to traffic congestion and inadequate infrastructure

Other Reasons

- Government predict an increased need for airfield capacity
- Closing the Airfield would be contrary to Government policy

12. Various reasons were given by those answering 'Yes' to Question 1, some of which directly oppose reasons given for answering 'No':

Viability/alternative options

- Noise and safety issues due to proximity and density of residential development preclude use of airfield for commercial purposes
- No party will be able to make the airfield viable long term
- Closure inevitable since the proposal to upgrade to a commercial airport was rejected
- Airfield no longer needed as work that required it no longer takes place at Filton
- Opposed to any expansion in activity at the Airfield

Impact on local economy

- No loss of jobs with closure as local industries don't use the Airfield

Redevelopment

- Housing on the Airfield would address the current imbalance between homes and jobs in the North Fringe
- More appropriate to develop this brownfield site than land at north Yate or other greenfield locations

Other

- Closure of the Airfield is a commercial decision for BAE, not a matter for consultation
- MP for the area supports closure

13. **Q2 - If 'No' to Q1, what would you suggest as a way to keep the Airfield viable? Do you have any information to support this?**

The majority of respondents opposed to the closure of the Airfield (with the exception of the petitioners) suggested various ways to keep the Airfield open. Better marketing of the Airfield and a reduction in landing fees and charges were put forward as ways to attract new business. In terms of use of the Airfield, continued operation as a commercial airfield on an expanded scale was the most frequently suggested one. Re-introducing aircraft maintenance and servicing was a popular suggestion, as was allowing freight operators to use the Airfield and tourist/visitor activities, such as air shows. There was strong support from all respondents, including those who accept the closure of the Airfield, for a museum or heritage centre to house Concorde and the Bristol Aero Collection.

14. The Save Filton Airfield Campaign has examined the realistic operation costs and revenues of the Airfield based on aviation industry norms, and has demonstrated that revenues could be substantially increased from landing and hangarage fees by, for example, attracting more business jet operators. An increase in just this one activity, the Campaign suggests, could enable the Airfield to turnover a profit of potentially more than £2 million. Other respondents point to Farnborough, Northolt, Biggin Hill and Oxford as examples of airfields/airports which have grown as business centres in recent years due to the growth in private and business aviation.
15. The suggested ways put forward by respondents to keep the Airfield viable include:

Operation/Ownership of Airfield

- Better promotion/marketing of the Airfield
- Improve competitiveness/reduce prices
- Seek new owners
- Keep air ambulance and police helicopter operations
- Allow Royal Mail to use the Airfield
- Involve/contact aerospace industries
- Operate it like airfields at Kemble, Staverton, etc

- Reduce the size of the Airfield (length/width)
- Improve existing facilities
- Sell part of the Airfield for industrial development
- BAE lease Airfield at peppercorn rent and partnership between Bristol City and South Gloucestershire Councils and the aerospace industry underwrites cost of operation for 5-10 years while airfield is developed. Alternatively mothball Airfield for 10 years
- Run at a loss to keep it for future use
- Exempt Airfield from business rates

Aviation Uses

- Private and light commercial airfield
- Aircraft maintenance/servicing
- Business flights
- Freight air terminal
- Training facility
- Commercial airport
- Long haul flights as Lulsgate runway too short
- Charter/Low cost flights
- Aircraft refurbishment and upgrading
- Aircraft dismantling
- Aircraft testing
- Pleasure flights
- Gliding
- Emergency landings
- Overflow airport for Lulsgate
- Transport of aircraft parts

Other Uses

- Museum/heritage centre for Concorde and Bristol Aero Collection
- Air shows & other visitor attractions
- Rent out runway e.g. drag racing, skid pan training, go-karting
- Use by hobbyists e.g. model aircraft
- Fire training school
- Aviation/ Engineering Centre of Excellence
- Small enterprises/start-up businesses/light industry/high tech
- Aerospace business park
- Aerospace Product Development and Research Facility
- Air university
- Microlight building business
- Film set

16. **Q3 - If 'Yes' to Q1, how do you think the Airfield should be reused/redeveloped? What would you wish to see included in the redevelopment?**

The suggestions made by respondents were wide ranging, there was no consensus view and some opposing views. While some regard the

Airfield site as suitable for housing and/or employment, others take the view that the site provides the opportunity for a 'one-off' form of development. There is, however, a general view that green infrastructure should be both a significant and an integral part of any development.

17. As already stated under paragraph 13, there was popular support for an aviation museum/heritage centre and also for the helicopters of the air ambulance and police to remain operating from the Airfield site. There was also support for the role that the Airfield played in the Second World War to be recognised.
18. The suggestions from respondents for redeveloping the Airfield site included:

Housing

A few respondents were opposed to housing mainly because of the impact on congestion and the local transport infrastructure/road network, including Bristol City Council. Housing was suggested, either on its own or as part of a mixed use development. Specific housing mentioned was:

- Good quality housing
- Social and low cost housing
- Housing should have family sized gardens

19. Employment

Bristol City Council considers that any masterplan for the Airfield should have job creation at its heart. Various types of employment uses were suggested by respondents, including:

- Focus on employment in aerospace and engineering
- Hi-tech businesses
- Small business/enterprise
- Academic/industrial development
- Light industry
- Science park
- Enterprise Area
- Incubator employment

20. Retail and Community facilities/services

Of those who suggested retail, the preference was for local facilities rather than further retail parks. A few respondents suggested community and health facilities and schools, while others want development to have a central focus, local centre or meeting place. Sports, recreation and leisure facilities, including children's play areas were also suggested. Concern that facilities to support any housing are not delayed, as happened with Bradley Stoke.

21. Transport and accessibility

Some respondents made suggestions for improving the local transport infrastructure, including discouraging car use, including:

- Improved road and rail links

- Re-introduce passenger service on Henbury Loop railway line
- Cycle path
- Good public transport system
- Re-opening Filton Bypass with the runway as link road

22. Other development

A number of respondents suggested a concert/exhibition arena. Other suggestions included:

- Park and ride
- Community open space
- Sports stadium
- Campus for Bristol University
- Conference centre
- National Engineering Centre
- Theme park
- Allotments
- Ecopark/renewable energy generation

23. Network Rail state that Filton Airfield offers one of the best opportunities for a rail freight interchange in the South West with its links to the M4 and M5 motorways and to Wales, London, the Midlands and the South West, and could be connected to the rail network with some infrastructure changes. The site could potentially also create thousands of jobs.

24. **Other Comments**

In addition to the comments made on Question 1 – 3, the following comments have been made:

Avon & Somerset Constabulary

Assistant Chief Constable requests Council support for retaining the police air support helicopter service, which is shared by Avon and Somerset and Gloucestershire Constabularies, at Filton Airfield, as it is an ideal location to support both force areas. The national police position is being reviewed and a National Police Air Service (NPAS) is expected to be launched in April 2012. While this may involve relocating to a new base at RAF Colerne, which will also be the base for Wiltshire Constabulary, Avon and Somerset Constabulary is concerned that Colerne's location may present operational challenges in terms of coverage and effectiveness.

Royal Mail Group

The Royal Mail Group does not have sufficient requirement for air traffic to warrant any use being made of Filton Airfield in the future. Critical need to protect the existing Bristol Mail Centre from development that may adversely affect mail services provided from it, as this Centre is of the highest operational importance and likely to increase in importance as the Royal Mail Group's mail handling practices are updated. The Royal Mail Group's operational facilities are inherently busy and noisy, with the majority of mail handling activity usually taking place at anti

social hours. Therefore, residential development should not be permitted close to the Bristol Mail Centre.

With reliance exclusively on road transport for its main mail handling operations, the Royal Mail Group is concerned that development on the Filton Airfield site will put further pressure on the already congested road network in the North Fringe. Any development proposals should, therefore, take account of the Group's requirement to maintain existing levels of vehicular accessibility to the Bristol Mail Centre site and without delays.

Bristol Port Company

Bristol Port is of national strategic importance. Any development must take account of the need for 24hr and 7 days per week freight movements over the existing rail line. Any plans to operate passenger services on the line must ensure the necessary upgrades allow for continuous freight movements.

Forest of Avon Trust

Any future use of the Airfield should make a positive contribution to the objectives of the Forest of Avon, through planting and linking of Green Infrastructure. Expect that the Forest of Avon would be involved in setting a strategic landscape framework for the site/area.

Appendix 2

Filton Airfield Consultation Business Sector Workshop 26th October 2011

Amanda Deeks, Chief Executive of South Gloucestershire Council opened the workshop by welcoming the attendees from the business community, namely, companies from the aerospace sector, the principal landowners around Filton, the Local Enterprise Partnership and other interested stakeholders – attendees are listed at Appendix 1. Amanda explained that the Council had not yet decided how to respond to the planned closure but needs to reach a conclusion by the middle of December to feed into the Core Strategy process. In the interim the council has been consulting widely to understand any implications arising from closure and to consider suggestions on how the airfield and wider area might develop. The aim of the workshop was to provide the business community with an opportunity to raise any issues or concerns and feed in ideas on how the local area and aerospace sector might develop.

A presentation on the background to the planning context and core strategy planning framework was given by Patrick Conroy, South Gloucestershire Council. This was followed by Mike Craddock from BAE systems on the background to the closure of the airfield; and Mike Luton from South Gloucestershire Council on the strategic issues such as the employment land review and the issues for delivery. Copy of the presentation is attached at Appendix 2

Companies were invited to provide their initial response to the airfield closure:

Airbus – No major issues with the airfield closure. While the airfield is currently used to transport wings and shuttle staff, suitable and viable alternatives are available for both. Airbus are fully committed to their Filton site, demonstrated by their investment in the new campus. Airbus do not require new development land but would welcome smaller aerospace companies to locate in Filton. Airbus has had a record year, so the future is very positive. The future is in design and engineering and allied new technologies. The skills base of the Filton workforce to undertake this work is second to none.

GKN – GKN do not have a commercial need for the airfield. Large components are already distributed by road. They operate from Filton and a site at Severnside. However, there are concerns that any future potential development of the airfield must not impact on the manufacturing activity which takes place 24/7 and involves noise and HGV vehicles accessing the site around the clock. The company has growth plans for the future.

Rolls Royce – Rolls Royce do not have a commercial need for the airfield. Any future potential development must not have an impact or disrupt the current manufacturing that takes place nearby. The company has recently invested in their Filton site and supports the current position to safeguard the land south of Gypsy Patch Lane for employment.

Local Enterprise Partnership – The LEP has an aspiration of job creation and is comfortable with the opportunity for a mixed use development on the airfield site as part of any future potential redevelopment. One of the priority sectors for the LEP is aerospace and would want to see the nurturing and growth of the aerospace sector in Filton. The LEP would also be keen to promote the site to investors as being open for business. The West of England is also leading on a major investment programme in transportation infrastructure including the 4 sub-regional major transportation schemes which are with Government worth £250 million and fully supporting the Government's programme to electrify the GWR and introduction of the new Agility Trains by 2015/16.

Port of Bristol – freight line is essential. The Port of Bristol is the only port which has north, south, east and west rail and road lines. The electrification of the Great Western Rail Line opens up opportunities. The freight line must not be disrupted by housing.

Other comments made during the discussion:

- Visiting Bristol can be difficult – clear motorways and faster trains are needed.
- Passenger railway services are needed to assist the movement of employees and young people due to the Technical College in the area and the apprentices working in companies, and ease congestion on the road network.
- Bristol Airport is making more flights available to meet the aerospace industry's requirements.
- Linking Avonmouth and Severnside with Filton by rail would be beneficial.
- There are no significant constraints on the site for development.
- BAE Systems are looking to support Concorde heritage and will make an announcement shortly.
- The Brabazon Hangar is up for sale but there is has been no demand for it. English Heritage has visited the site to review heritage issues.
- The commercial demand for a heliport should be looked into.
- For the aerospace industry, the strength in Filton is the skilled workforce, the location and connectivity.

Overall Position of Business Community – Conclusions from the Workshop

The closure of the airfield will not significantly impact on the core businesses of Airbus, Rolls and GKN. Mitigation solutions are in place for when the airfield closes

Filton / Patchway will continue to be a major centre of excellence for the aerospace industry following the closure of the airfield. The aerospace industry is continuing to evolve and Filton is central to the ongoing developments and practices within the sector

BIA is the sub-region's principal commercial airport. Considerable investment is continuing to be made in this facility.

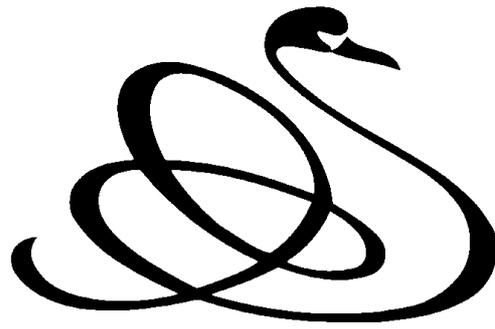
A long-term view of development and infrastructure to serve the area is required.

The business community consider it is imperative that investment continues to be made in transportation infrastructure – recognising in particular the long term benefits of heavy rail. The potential redevelopment of the airfield offers opportunities to achieve this.

Filton / Patchway will continue to be a major centre of high value jobs. It is essential that investment in skills and training is maintained and improved. The potential redevelopment of the airfield offers opportunities to achieve this.

The long term legacy and heritage of the aerospace industry at Filton must be championed and secured. The potential redevelopment of the airfield offers opportunities to achieve this.

It is important to ensure a comprehensive and co-ordinated master plan approach for any future potential redevelopment of the Airfield



York Aviation

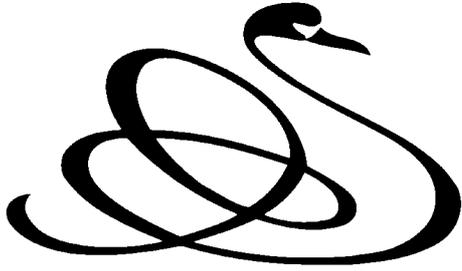


FILTON AIRFIELD

REVIEW OF OPTION APPRAISALS

November 2011





York Aviation

Originated by: Richard Kaberry

Dated: 15 November 2011

Reviewed by: Richard Connelly

Dated: 25 November 2011

FILTON AIRFIELD
REVIEW OF OPTION APPRAISALS

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1 INTRODUCTION

Background

- 1.1 York Aviation LLP was appointed in November 2011 by South Gloucestershire Council to provide specialist support to the Council in its review of the options appraisals undertaken on behalf of BAE Systems by Terence O'Rourke and Mott MacDonald in relation to the future of Filton Airfield.
- 1.2 In April 2011, BAE announced its intention to close Filton Airfield at the end of 2012. To explain the reasoning behind its decision, BAE published an Aviation Options report in October 2011 prepared by Terence O'Rourke and Mott MacDonald, which summarises the alternative aviation options that have been considered and that might justify retaining the Airfield.
- 1.3 The general requirements we have been asked to meet are:
- to provide the Council with an up-to-date industry context for the review;
 - to provide an independent review of the Aviation Options Report prepared by Terence O'Rourke and Mott MacDonald on behalf of BAE Systems as part of the options appraisal process;
 - to take account of written views expressed by interested parties and stakeholders and comment on these as appropriate;
 - to advise the Council on other aviation and aerospace related issues as required.

Structure of the Report

- 1.4 In order to address these matters we have structured this report as follows:
- in **Section 2**, we set out the context of the review by examining Filton's position in relation to:
 - national and regional aviation policy, including the current Government consultation on Developing a Sustainable Framework for UK Aviation;
 - national and regional trends in UK aviation;

- trends in the aerospace industry and Filton's position in relation to this;
 - permissions that would be required if closure went ahead.
- in **Section 3**, we set out the results of our review of the Options Report and specifically we provide:
- an industry view of the parties involved in undertaking the options appraisal to date;
 - key generic issues which we believe are worth highlighting in relation to the review;
 - a summary table examining each option evaluated and our view of the evaluations undertaken so far.
- in **Section 4**, we set out our conclusions.

1.5 The brief from South Gloucestershire Council requires us to take an independent and unbiased view of the Options Report and we have approached this work with no preconceptions and no conflicts of interest. We have tried to provide supporting evidence for our conclusions where possible but where we have made judgements we have done so on the basis of our specialist knowledge and extensive experience of the aviation industry, for which further references can be provided as required.

2 CONTEXT

Introduction

2.1 In this section we provide some context to the review by considering the following issues:

- policy and planning considerations, including any permissions that might be required for closure;
- aviation industry trends;
- aerospace industry trends and Filton's position in this context.

Policy & Planning Considerations

Government Policy

2.2 In December 2003, the Department for Transport published the *Future of Air Transport White Paper*. This document provides a strategic framework for the development of air transport in the UK for the period to 2030. Although the Coalition Government has announced its intention to review its Aviation Strategy, the *Future of Air Transport White Paper* remains the most recent statement of Government policy relevant to airports, and until such time as a new policy is approved, it remains official policy.

2.3 The White Paper highlighted the importance of airports to their local and regional economies:

*"Airports are an important focus for the development of local and regional economies. They attract business and generate employment and open up wider markets. They can provide an important impetus to regeneration and a focus for new commercial and industrial development."*¹

2.4 In respect of the South West of England, the White Paper lent general support to the development of Bristol International (Lulsgate) whilst noting the environmental and surface access constraints it faces. The White Paper also refers to the consideration of a new airport north of Bristol (although this was not necessarily the Filton site).

¹ *The Future of Air Transport*, Department for Transport, Dec 2003, paragraph 4.24, page 49.

“The option of building a new airport north of Bristol was set out in the South West consultation document if development of the existing Bristol (Lulsgate) Airport needed to be constrained, or in the event that new capacity was not provided at South East airports. Based on the decisions set out above, and our conclusions on capacity in the South East, neither of these circumstances arise. The appraisal set out in the consultation document indicates that a new airport north of Bristol would therefore be neither economically beneficial nor commercially viable.

In addition, respondents to the consultation identified a number of problems with the new airport proposal, including the proximity of major industrial complexes and settlements nearby, flood risk, and congestion on key motorway links. These concerns, combined with the cost of building a new airport and the negative impact from closing the existing airport on the economy of south Bristol, resulted in strong opposition to a new airport north of Bristol from a number of important stakeholders in the region.

Taking all of these factors into account, we have concluded that there is no case for supporting a new airport to the north of Bristol in the period of this White Paper.”²

- 2.5 The White Paper notes, however, that Filton, along with other airports in the region, played an important role in respect of business aviation at the time.
- 2.6 The key messages from the Future of Air Transport were reiterated in *The Future of Air Transport Progress Report* published in December 2006. This document gives continued support for the role played by air transport in supporting the UK economy, while again emphasising the need to balance these benefits against the environmental costs of the growth in air transport.
- 2.7 In May 2010, the new Coalition Government announced that it had cancelled the support given by the previous Labour Government to proposals for new runways at Heathrow and Stansted on policy grounds. However, in October 2010, the Secretary of State for Transport reiterated the Government’s support for the role which air transport plays in supporting the national economy:

“I recognise the need for a policy framework which supports economic growth and protects Heathrow’s status as a global hub as well as addressing aviation’s environmental impacts, and it is my intention to develop such a policy framework over the next year or so.”³

² Future of Air Transport White Paper, paragraphs 10.16 to 10.18.

³ Speech by Philip Hammond, the then Secretary of State for Transport, 9 June 2011.

- 2.8 As a starting point for the development of a new aviation policy framework the Coalition Government published, in March 2011, a consultation document entitled 'Developing a Sustainable Framework for UK Aviation: Scoping Document'. The Scoping Document starts from the presumption that *"aviation should be able to grow, but to do so it must be able to play its part in delivering our environmental goals and protecting the quality of life of local communities"*⁴
- 2.9 The Scoping Document notes the significant contribution that aviation and aerospace make to the UK economy and notes that, in the short to medium term, the Government intends to maximize the benefits from existing connections and capacity. It also poses the question:
- "Can we extract more capacity out of the UK's existing airport infrastructure? Can we do this in a way which is environmentally acceptable? To what extent might demand management measures help to achieve this?"*⁵
- 2.10 Whilst this question cannot necessarily be taken as a general presumption in favour of Filton or any other regional airport, it does indicate that the Government may be disposed to consider making better use of existing capacity rather than building new infrastructure, as long as this makes economic sense and meets a specific market need.
- 2.11 The Government has made it clear that, in the long term, it intends to reform the way that planning guidance is administered, and has outlined its intention to centralise all current national planning policies into a single integrated document known as the National Planning Policy Framework (NPPF). The relevant proposals are currently being consulted on. This will outline a variety of economic, environmental and social objectives that will guide local authorities in considering planning applications.

Regional and Local Policy

- 2.12 The future success and vitality of the aerospace sector is of fundamental importance to the local and regional economy and this is reflected in the aims of the West of England Partnership and South Gloucestershire Economic Development Strategy.

⁴ Developing a Sustainable Framework for UK Aviation Scoping Document, Foreword (page 5), DfT, March 2011

⁵ Ibid, paragraph 5.22

2.13 We note that the Council's view to date as reflected in the Draft Core Strategy has been that *"the long-term operation of the airfield is crucial to the prosperity of the area and will be protected"*⁶. This assumption has been questioned and it is one objective of this study to provide an independent industry view of whether the operational Airfield and continued vitality of the local aerospace sector are still mutually dependent. This report will form part of the Council's review.

2.14 Planning Policy Guidance (PPG) notes, and their replacements Planning Policy Statements, are prepared by the Government after public consultation to explain statutory provisions and provide guidance to local authorities and others on planning policy and the operation of the planning system. Whilst it is not within the scope of this report to undertake a detailed analysis of all planning policy guidance that may be relevant to Filton Airfield, we would draw attention to Annex B of PPG13, which sets out how local authorities should consider airfield-related development. PPG13 recommends that local authorities should consult the Department for Transport's (formerly DETR) Airports Policy Division in relation to development plan proposals and policies related to airports:

"6. Local planning authorities should consult DETRs Airports Policy Division on draft development plan policies and proposals relating to airports and airfields. In consultation with DETRs Airports Policy Division, local authorities should:

- 1. identify and where appropriate protect sites and surface access routes, both existing and potential (including disused sites), which could help to enhance aviation infrastructure serving the regional and local area; and*
- 2. avoid development at or close to an airport or airfield which is incompatible with any existing or potential aviation operations."*⁷

Permissions that may be required

2.15 The Airfield currently operates under a planning regime that pre-dates modern Planning Acts. It also operates under Civil Aviation Authority (CAA) regulation. Planning permission would be required for a material change in aviation use of the Airfield or its redevelopment.

⁶ South Gloucestershire Draft Core Strategy, paragraph 4.13

⁷ PPG 13, Annex 5, paragraph 6.

2.16 Should Filton Airfield eventually be closed, there would be no formal permission required to effect the closure, although in view of PPG13 it would be advisable for South Gloucestershire Council to inform the Department for Transport of BAE's intention. BAE would need to advise and liaise with the CAA, given that Filton is a licensed aerodrome, and the CAA would need to issue a Notice to Airmen (NOTAM) advising pilots of the closure. Runway markings would need to change to indicate that the runway is no longer in use.

Aviation Industry Trends

2.17 We set out in **Table 2.1** the growth rates in passenger throughput at the main UK airports over the past 10 years.

Table 2.1: Percentage Growth/Fall in Passenger Throughput at UK Airports over the period 2000 to 2011			
	Growth rate 2000-2007	Growth rate 2008-2010	Growth Rate Jan-Sep 2010-Jan Sep 2011
(London Airports)			
GATWICK	10.1%	-8.3%	-2.6%
HEATHROW	5.6%	-1.7%	7.6%
LONDON CITY	84.3%	-14.7%	8.8%
LUTON	60.9%	-14.2%	0.0%
STANSTED	100.4%	-16.9%	-4.4%
(Regional Airports)			
ABERDEEN	39.0%	-16.0%	-5.4%
BELFAST CITY (GEORGE BEST)	69.8%	6.6%	13.2%
BELFAST INTERNATIONAL	67.4%	-23.2%	-6.5%
BIRMINGHAM	21.9%	-10.6%	-2.0%
BLACKPOOL	419.6%	-46.4%	-4.3%
BOURNEMOUTH	299.9%	-30.5%	7.9%
BRISTOL	177.0%	-8.1%	2.0%
CARDIFF WALES	39.8%	-29.4%	-10.9%
CITY OF DERRY (EGLINTON)	162.8%	-22.9%	-1.2%
COVENTRY	28031.3%	closed	
DONCASTER SHEFFIELD		-9.5%	18.9%
DURHAM TEES VALLEY	-0.7%	-65.3%	-15.8%
EAST MIDLANDS INTERNATIONAL	142.8%	-26.8%	-2.7%
EDINBURGH	64.5%	-4.4%	2.2%
EXETER	219.4%	-22.6%	2.8%
GLASGOW	26.1%	-19.8%	-5.7%
HUMBERSIDE	5.1%	-33.4%	-13.7%
LEEDS BRADFORD	81.8%	-4.8%	8.7%
LIVERPOOL (JOHN LENNON)	176.2%	-6.0%	6.7%
MANCHESTER	19.3%	-16.1%	-1.9%
MANSTON (KENT INT)	146.2%	121.0%	986.0%
NEWCASTLE	78.8%	-13.4%	-2.7%
NEWQUAY		-33.8%	-21.7%
NORWICH	91.8%	-27.0%	1.0%
PLYMOUTH	-30.9%	-2.4%	to close
PRESTWICK	167.5%	-31.2%	12.8%
SOUTHAMPTON	130.2%	-10.9%	0.1%
Source: CAA Statistics			

2.18 As can be seen, there was strong growth at virtually all UK airports in the pre-recession period to 2007, with most regional airports experiencing double digit growth or greater. However, after the onset of the recession this picture changed dramatically with virtually all UK airports seeing significant falls in traffic in the period from 2008. The strength of recovery is still uncertain as can be seen from the growth rates for the first 9 months of 2011 compared with 2008 and many UK regional airports are still struggling to move back towards growth.

2.19 The key trends and pressures that are being experienced by UK regional airports at the present time might be summarised as follows:

- whereas the majority of UK regional airports used at one time to be owned by local authorities, this trend has now reversed and the vast majority are now at least to some degree privately owned, with the exception of the Manchester Airports Group (the owner of Manchester, East Midlands, Humberside and Bournemouth Airports) which is still 100% local authority owned;
- there has been a clear trend towards an increased commercial focus at UK airports in the last decade, both in terms of airports marketing to airlines for new routes to increase aeronautical revenue and also in terms of generating non-aviation revenue from commercial activities such as retailing and property management to support the viability of the business;
- to some degree this increased commercial focus has been made necessary by the rise of the low fares airlines which are now the predominant target market for regional airports, as holiday charter carriers are very much in decline; the 'low fares revolution' has brought many benefits but has also led to intense downward pressure on airport charges and the consequent need for airports to seek alternative sources of revenue and increased efficiencies;
- low fares airlines can increase passenger throughput dramatically at smaller airports but are also 'footloose' in the sense that they can also withdraw less profitable routes at short notice or if they see a more profitable opportunity elsewhere;
- the significant rises in Air Passenger Duty (APD) have a disproportionate impact on marginal routes at regional airports as the additional cost of air travel resulting from this tax has taken effect.

2.20 The competitive pressures on regional airports in recent times have therefore been intense and, as can be seen from Table 2.1, it is far from clear that there is yet a recovery in the market after the recent recession.

2.21 These pressures on regional airports have led to financial viability problems at a number of regional airports: Coventry Airport was recently closed, before being taken on by another operator; the closure of Plymouth Airport is expected before the end of 2011; and significant falls in traffic experienced at airports such as Durham Tees Valley, Glasgow Prestwick, and Cardiff have led to recent press speculation about their future.

2.22 Such pressures can be intensified where two airports are sited close together and therefore have overlapping catchments leading to competition for traffic. Where two such airports target different markets (e.g. Manchester and Liverpool) there can be scope for growth, but where the target markets are similar (e.g. Newcastle and Durham Tees Valley) it can be difficult for both airports to sustain growth, especially in a declining overall market.

Future Prospects

2.23 The Department for Transport published revised passenger forecasts for UK commercial aviation in August 2011 to inform long term strategic aviation policy and the policy on climate change.

2.24 Whilst industry experts have identified a number of technical problems with these forecasts at a disaggregated level, it is nevertheless still worth noting that the Government is now forecasting average annual air passenger growth of 2% to 2050, which is significantly lower than the 3.7% actual average over the past twenty years. However, the forecasts also suggest that without new runways the three largest London airports will be at capacity by 2030 and that all growth beyond 2040 will have to occur at regional airports.

2.25 No official Government forecasts are published for other aviation sectors. Eurocontrol produces forecasts of Business Aviation movements at a European level and its most recent forecast for this sector is now predicting slower growth than before of just over 6% in 2011/12, followed by growth of around 5% to 2015, falling thereafter to around 4%. However, given that this forecast is for overall movements through European airspace it offers little insight into the market at a national or regional level.

2.26 We have therefore addressed the national and regional prospects for growth in this and other aviation sectors in the analysis set out in Section 3 of this report.

Aerospace Industry Trends

2.27 The aerospace industry is sometimes defined as a sub-sector of the advanced engineering sector, whereas the aviation industry is more generally seen as a sub-sector of the transport industry. Airports are more commonly defined as being part of the aviation (rather than the aerospace) industry. However, there is clearly some overlap between these sectors given that airports, and the international connectivity they offer, can have an impact on investment decisions, in addition to the role that airports can have in attracting MRO companies to their sites.

2.28 The global aerospace industry has witnessed impressive overall growth during the past decade. The European aerospace and defence industries turned in a good performance in 2010, despite the global recession, and proved relatively resilient compared with other manufacturing sectors.

Table: European Aerospace & Defence Industries Key Performance Data 2010	
Turnover (billions) (Military/Civil)	€162.9 (58%/42%)
Direct Employment incl Defence	704,200
Aerospace Employment	500,000
R&D Expenditure (billions)	€13
Exports	61%
Operating Profit Margin	6.8%
Source: Aerospace & Defence Industries of Europe (Sep 2011)	

2.29 The overall prospects for growth in the industry are mainly driven by the market for passenger air travel and the resultant market for commercial aircraft. Both the International Air Transport Association (IATA) and Boeing are both forecasting relatively strong growth in these markets over the next few years, despite the recent recession. The air traffic market globally is expected to grow at an average annual rate of 4.2% during the next 20 years⁸, higher than the forecast global GDP growth rate. Civil aerospace is expected to grow at a faster pace than the defence market.

2.30 The UK aerospace industry is a major player globally, second only to the USA, with around £22 billion of turnover and 100,000 people employed. The UK has a strong 'aerospace presence' in the world, being well-known for its historical aviation legacy, its current contribution to the manufacture of aircraft flying around the world today, and for being home to some major industry players such as BAE and Rolls-Royce.

2.31 The aerospace industry encompasses a wide range of activity, including:

- Manufacturing – of civilian and military aircraft, space vehicles, and missiles, including component manufacture of engines, wings, landing gear, avionics, interior components and other fittings;
- Research & Development – including technological research and design innovation;

⁸ Boeing Current Market Outlook 2010-2029.

- Maintenance, Repair & Overhaul of aircraft and aircraft components (MRO);

2.32 We consider each of these broad areas in turn below.

Manufacturing

2.33 The industry is structured around key 'primes' – the aircraft manufacturers. After a period of consolidation, when Boeing and Airbus dominated the market virtually unchallenged, there are now a number of other prominent aircraft manufacturers such as Embraer (Brazil), Bombardier (Canada), Saab (Sweden) and more recently Comac (China). China is expected to become a significant player in the production of commercial aircraft over the next 10 years in competition with Boeing and Airbus.

2.34 Today, the aerospace industry in the UK is dominated by a number of large British and foreign-owned companies, including

- **BAe Systems** – the UK largest aerospace company and the world's largest defence contractor by sales revenue (and the Pentagon's sixth largest contractor); BAe is headquartered in Farnborough but has several business units around the UK, including Filton;
- **GKN** – is a multinational engineering company and its aerospace subsidiary is a first tier supplier to the global aviation industry; it manufactures complex composite and metallic aero-structures and engine products for both military and civil markets; GKN Aerospace has a presence in the West Country at Filton and a new plant at Severnside as well as in Broughton near Chester;
- **Rolls Royce** – is the world's second largest manufacturer of aircraft engines with major plants in Derby (around 11,000 employees), where Trent aero engines are manufactured and tested, and Filton (3,500 employees), where military aircraft and marine engines are manufactured .
- **EADS (Airbus and Astrium)** – the European Aeronautic Defence & Space company counts Airbus as one of its subsidiaries as well as Astrium, the European leader in space programmes; many components for Airbus aircraft are manufactured in the UK including the A380 wings at Broughton near Chester and the A400M wings at Filton, where Airbus UK is headquartered.

- 2.35 The aerospace supply chain broadly includes the 'primes' referred to above and the original equipment manufacturers (OEMs), Tier 1 suppliers, Tier 2 suppliers and Tier 3 suppliers. Design, manufacturing and final assembly is undertaken by the primes (e.g. Boeing, Airbus) who dominate the market and are relatively few in number because of the barriers to entry into this market due to high costs and investment requirements.
- 2.36 Tier 1 suppliers (e.g. Rolls Royce, BAE, GKN) provide the primes with major aircraft components and systems such as engines, flight control systems, and fuel systems. Tier 2 suppliers manufacture and develop other key components and Tier 3 suppliers provide more basic products and components to vendors that are higher up in the supply chain.
- 2.37 There is an increasing trend towards the primes (e.g. Boeing, Airbus, Bombardier) seeing themselves as 'systems integrators' rather than aircraft manufacturers and this is characterised by the trend towards using a smaller number of specialist Tier 1 component manufacturers who ship their products to another location for final aircraft assembly by the primes. Airbus has operated in this way for a number of years with wings for Airbus aircraft (including for the A400M at Filton) being manufactured in the UK and transported to France for final assembly. In similar fashion, Bombardier uses North American Tier 1 suppliers and undertakes final aircraft assembly in Montreal.
- 2.38 In terms of military aerospace manufacturing, it is worth noting that the Government published its Strategic Defence and Security Review (SDSR) in October 2010. This review is expected to result in an overall cut in defence spending of around 8% in real terms over four years. Among the highest-profile casualties of the budget-driven process are the BAE Systems Harrier GR9, the Nimrod MRA4, the short take-off and vertical landing F-35B, and the Raytheon Systems Sentinel R1 airborne ground surveillance fleet. However, the commitment to buying 22 Airbus Military A400Ms (whose wings are manufactured at Filton) remains.

Research & Development

2.39 ADS, the UK Trade Association for aerospace, has stated recently⁹ that the need for investment in technology to keep the sector riding high in the global market is essential to overcoming both local constraints and wider climate change challenges and must be the paramount message. Money spent on research will be much more valuable than money put into assets as its benefits are much more scalable.

2.40 The technological approaches currently being researched and developed by the aerospace industry to make aviation more sustainable include:

- improvements to existing airframes;
- use of lighter composite materials
- new airframe technology - such as the blended wing body;
- new engine technologies
- development and use of sustainable biofuels and other alternative fuels.

2.41 Airbus plays an important role in this kind of work at Filton where its activities include wing integration, flight physics, structures and systems. Airbus at Filton is also responsible for A400M wing assembly and equipping.

MRO

2.42 An important sub-sector of the UK aerospace industry is Maintenance Repair & Overhaul (MRO). The geographical clusters of MRO activity in the UK are slightly different from aerospace as a whole, with key areas being around Prestwick Airport in Scotland, South Wales (BA Engineering have a maintenance base at Cardiff Airport), and the East of England. Another important cluster is based at Southend Airport.

2.43 A report by the International Consultancy Group Ltd for UKTI in 2008 investigated inward investment in the MRO industry and noted a number of key trends in the industry including:

- the industry is facing strong competition from other regions, especially Eastern Europe, Turkey, and the Far East, where wage rates are lower;

⁹ ADS Response to DfT's Sustainable Aviation Consultation, October 2011.

- the UK MRO industry can still compete, but primarily on quality and speed of turnaround in the hangar; however, there is a continuing issue over the shortage of licensed aircraft engineers;
- investment in new regions of the world is often effected through acquisition or joint venture partnerships;
- European aircraft operators are slightly more inclined to outsource their MRO abroad but only 5% goes to Asia and 7% to North America;
- increased use of composite materials in aircraft manufacture will gradually lead to less intensive maintenance requirements; for example, Boeing estimates that the new 787 will only need to undergo heavy maintenance around once every 12 years, which is twice as long an interval as conventional aluminium frame aircraft;
- in-house work is giving way to more outsourced work to independent third party suppliers; there is also a trend towards integrated service package based solutions for airlines ('power by the hour' is an example of this).

Filton's Position in the Aerospace Sector

- 2.44 The South West has a strong and growing aerospace sector built around some of the larger companies such as Rolls Royce, Airbus, BAE and GKN in Bristol, GE Aviation Systems in Cheltenham, Messier-Dowty in Gloucester, Cobham and Meggitt in Bournemouth, and AugustaWestland and Honeywell in Yeovil. There are also several universities and colleges in the South West with specialisms in aerospace-related research and education.
- 2.45 The largest concentration of high technology aerospace industry is based around Filton Airfield and we understand that 10,000 jobs are supported by the presence of Airbus and GKN and Rolls Royce and others. Filton has a long history of being an important site for UK aviation development, from the establishment of the Bristol Aeroplane Company in 1920, through the development of Concorde, right up to the present day and the manufacture by Airbus of wings for the A400M. The site also hosts one of BAE Systems Advanced Technology Centres and an important software systems development operation for pan-European guided missile company MBDA. This expertise has been key to attracting the MoD's Defence Equipment and Support (DE&S) to nearby Abbey Wood, which has around 8,500 military and civilian staff.

- 2.46 The analysis of the future prospects for the West of England aerospace industry which is contained in Terence O'Rourke's report for BAE (page 35ff), seems to us to be a robust one.
- 2.47 Airbus and Rolls Royce appear to be committed to retaining and developing their presence at Filton. Airbus announced earlier this year the Aerospace Park project which will consolidate more than 2,500 of the company's 4,000 engineering, design, customer support and other employees onto one site¹⁰. A more recent announcement of 200 additional engineering jobs at Filton was made on 24 November 2011¹¹. Rolls Royce has made relatively recent large investments at Filton, with a new factory producing turbines and other civil and military engine components opened in September 2007, and the Defence Aerospace engine assembly facility completed in December 2007. We understand that both companies have stated that they do not oppose the closure of the Airfield.
- 2.48 A key question is whether the closure of the Airfield poses a threat to the aerospace sector at Filton and we address this specifically in Section 3.

¹⁰ <http://www.bbc.co.uk/news/uk-england-bristol-12862071>

¹¹ <http://www.bbc.co.uk/news/uk-england-bristol-15860984>

3 REVIEW OF AVIATION OPTIONS REPORT

Introduction

- 3.1 In this section we concentrate specifically on the issues considered in the Options Report and various comments on these issues that have been made by various parties. Whilst we do not set out to undertake a line-by-line critique of the issues raised, we make specific observations on the key issues raised and provide a structured review of the options in **Table 3.1** below. We begin with an industry view of the parties that have been involved in the review to date.

Industry View of Contributors to the Options Review

BAE Systems

- 3.2 BAE Systems is the UK's largest defence and security company, with 39,000 employees and around 9,000 UK businesses in its supply chain.
- 3.3 According to a report prepared by Oxford Economics in April 2011, BAE employment is concentrated in three main regions of the UK: the North West, South East and Scotland. The North West accounts for around 45% of BAE total employment, the South East for 24%, and Scotland for 11% of the UK total. In the south, BAE Systems maintains significant facilities at Farnborough, Rochester, Broad Oak, Portsmouth, Filton and Chelmsford.¹²
- 3.4 The observation made by the 'Save Filton Airfield Campaign Group' (SFACG) that BAE is withdrawing from operating airfields is true in so far as the company sold Dunsfold Aerodrome in Surrey in 2002, when Harrier production ceased there, and Woodford Aerodrome near Manchester has been placed on the market by BAE, following the ending of Nimrod production. However, contrary to SFACG's statement in its report¹³, the Woodford site has not yet been sold and the runway there is very unlikely to be retained according to the documentation available on the local authority's website. BAE still operates Warton Aerodrome in Lancashire, where the Eurofighter Typhoon is assembled, and Walney Island in Cumbria, which is used to shuttle staff to BAE's nearby marine business.

¹² Economic Contribution of BAE Systems, Oxford Economics, April 2011.

¹³ A Vision for Filton Airfield, SFACG, page 26.

- 3.5 There is no obligation on BAE to retain Filton as an operational airfield or to sell it to another party as an operational airfield. As far as we can ascertain, BAE's proposal to close the Airfield is a purely commercial one in the face of a lack of demand and does not form part of any wider strategy in relation to airfield operation.

Terence O'Rourke

- 3.6 Terence O'Rourke (TOR) is a long established planning consultancy with a strong track record. TOR also has extensive experience of working on airport-related projects and airport planning-related matters. TOR's Ann Bartaby, who we understand has worked on the Options Report, has personal experience of working in the aviation industry as a Director at Farnborough Airport. We are familiar with TOR's airport-related work and we can attest to their competence in this field.

Mott MacDonald

- 3.7 Mott Macdonald is a long-established engineering and development consultancy with a strong track record in aviation-related consultancy. We are familiar with several airport-related studies that Mott MacDonald has carried out and we can attest to their competence in this field.

Key Questions Raised

- 3.8 We set out below three generic issues that have been raised by various parties in connection with the Options Report and we offer our comments on each.

The Level of Financial and Other Detail Provided

- 3.9 It has been claimed that the Options Report does not always provide detailed evidence in support of some of its analysis. Whilst this may be true to an extent, we feel that this probably reflects the broad objectives of the report, which was to explain, in an accessible form, the rationale for BAE's decisions rather than to provide a detailed business case or financial justification for closure.

- 3.10 Some statements in the report might benefit from further supporting evidence: for example, we feel that the relocation of Air Livery to Manchester is unlikely to have been mainly to reduce ‘dead leg’ flying, given that many of the aircraft painted in Manchester are neither based there, nor operate scheduled services. London Southend retains an Air Livery operation without regular commercial services at the Airport. It seems more likely that the move away from Filton might have been influenced by Manchester Airport’s ability to strike a long term deal with Air Livery. Nevertheless, this in itself is indicative of the intense competition in the MRO market, which we refer to elsewhere in this report, in which Filton would have to operate.
- 3.11 BAE has not disclosed detailed accounts for the various income streams relating to the operation of the Airfield and this would not normally be expected under these circumstances unless BAE wished to formally sell the site as an operational airfield to a third party, to whom some confidential information might be released. However, whilst detailed accounting information might have cast light on the specific reasons for the losses, it is unlikely that it would alter the conclusions that BAE have reached or highlight a clear route to viability.
- 3.12 We believe, therefore, that while some detail might be lacking, this does not necessarily undermine the key conclusions reached in the Options Report and we feel that the provision of further detailed analysis is unlikely to reach a fundamentally different conclusion.

The Extent to which the Airfield has been Marketed

- 3.13 The Options Report sets out (on page 25 of the TOR report and page 19/20 of the Mott MacDonald report) the activities undertaken by BAE to market the Airfield to existing and new users.
- 3.14 It is a little difficult to evaluate how successful these activities were. For example, it is stated that BAE “*worked with a Business Aviation company to provide a fixed based operation at Filton*”. However, it is not clear exactly what was done to try to attract an FBO or why the initiative appears to have been unsuccessful.
- 3.15 We might have expected the marketing efforts to include a greater number of direct approaches to specific potential operators, although some such approaches might have been made confidentially by BAE. We appreciate that it would not be reasonable to expect BAE to disclose what commercial terms it has been prepared to offer to specific customers.

3.16 If the intention had been to offer the Airfield for sale ‘as an airfield’ then it might be expected that BAE would have undertaken a ‘soft market testing’ exercise with some disclosure of key financial data to potential operators. It is not clear from the Options Report whether or how far any such discussion was progressed. However, in the face of the current difficult market and the points that we have noted in Section 2 in relation to the viability of regional airports generally, we believe that a more extensive marketing campaign by BAE is unlikely to have resulted in expressions of interest either for operating from the Airfield or in the acquisition of the site as an operational airfield.

The Potential Impact of Closure of the Airfield on the Filton Aerospace Cluster

3.17 Concern has been expressed in a number of quarters that the potential closure of the Airfield would put the success of the Filton Aerospace Cluster at risk and threaten jobs. The SFACG states that *“the long term viability of aerospace jobs is put at severe risk by the loss of the runway”*¹⁴.

3.18 However, we do not share this view for three main reasons:

- the aerospace cluster at Filton is not showing any signs of weakness; in fact there are indications that it is in fact doing well despite the wider difficulties in the global economy; we have demonstrated earlier in this report that the civil aerospace sector is relatively strong at present and that Airbus at Filton have made two announcements this year about further investment and new jobs at Filton;
- the aerospace work that is undertaken at Filton is not dependent on the availability of an airfield; this has been confirmed by Airbus itself and follows the trend in the industry (which we referred to earlier) for aircraft component manufacture (as well as research and development) to be undertaken at sites other than where final assembly takes place;
- there is evidence from elsewhere in the UK that aerospace clusters of activity can thrive without the presence of an airfield; clearly, an airfield is required for certain types of MRO and for aircraft final assembly, but other types of aerospace activity have no need of a runway, even when it is located (often for historical reasons) near to an airfield; BAE Systems at Rochester, for example, is where it is probably because the airfield at Rochester was once used by its predecessors; BAE Systems and Qinetiq at Farnborough do not have an absolute need for the runway in connection with their activities there; Lancashire accounts for

¹⁴ A Vision for Filton Airfield, SFACG, page 17.

around 19% of Great Britain's total aerospace employment with major local concentrations in the districts of Burnley, Pendle, and Ribble Valley¹⁵ where there are no airfields; and in the South East there is a thriving aerospace cluster around Basildon (Selex Galileo and Gardner Aerospace) and yet no associated airfield; similarly in Hampshire (GKN in Portsmouth, Vector Aerospace at Fleetlands, Meggit and Turbomecca at Fareham) whose cluster is focussed around component manufacture and overhaul.

3.19 It is outside the brief for this report to undertake an economic impact assessment of the aviation activity at Filton, but if such a report were to be commissioned we would expect it to seek to compare the impact of closure of the Airfield with the employment prospects associated with potential land release for other employment-related purposes.

Analysis of Options

3.20 We set out in **Table 3.1** below our analysis of the following options:

- commercial air passenger services;
- commercial air cargo services;
- Business Aviation services;
- General Aviation facilities;
- helicopter facilities;
- MRO facilities;
- aerospace Usage - for components;
- aerospace Usage - as air bridge;
- reduced scale options for a Business and General Aviation airfield.

3.21 Development on airfields for whatever purpose is subject to CAA regulation as set out in CAP 168 (Licensing of Aerodromes) in terms of safeguarding obstacle limitation surfaces around the runway that have to be kept clear. Although Filton has a wider than average runway, these regulations limit the scope for new buildings on the Airfield in proximity to the runway. Another issue at Filton is the Freight Rail Line, which aircraft have to cross at grade to reach the Brabazon Hangar and other facilities to the south of the runway. If the use of the freight rail line were to increase or if it were developed for passenger services, there would be a potential conflict with the ability of aircraft to manoeuvre efficiently to the south of the runway.

3.22 It is within this context that we have undertaken a review of the various options for future development of the Airfield.

¹⁵ Lancashire County Council website.

- 3.23 We have drawn a distinction in our analysis between ‘demand’ and ‘need’, where ‘demand’ is the overall potential market that Filton Airfield might seek to attract and ‘need’ is that portion of the market which could not reasonably be expected to be met through alternative means.
- 3.24 In assessing the Business and General Aviation markets we have been mindful of the broad aims and objectives of the relevant European and UK trade associations for these sectors, including the European Business Aviation Association (EBAA), the British Business and General Aviation Association (BBGA), and the Aircraft Owners & Pilots Association (AOPA). We have also taken into account the views expressed by the Light Aircraft Association (LAA) Bristol Wing.

Table 3.1: Analysis of Options

1. Commercial Air Passenger Services

<p>BAE Systems/Mott Conclusion</p>	<p>i) The previous rejection of planning permission for commercial passenger operations would set a precedent for this being unsuitable; ii) The majority of demand for air services is currently satisfied by Bristol (Lulsgate) Airport, which supports demand from the wider South West region; iii) Bristol Airport has planning permissions in place to continue to provide capacity to around 2020 and has a Master Plan of further development to meet demand after this time; iv) Therefore a commercial airport is unlikely to gain planning approval nor is it likely to be needed to deal with short, medium and long term demand for air services</p>
<p>Physical Requirements e.g. runway length</p>	<p>The current runway would be adequate for a wide range of services. Any reduction in length would probably need to leave 1,800 to 1,900 metres in order to maximise the range of aircraft and airlines that could operate - this is consistent with Mott MacDonald's view. Significant infrastructure would need to be developed, and there is no obvious location for this. In addition to a terminal and aircraft parking (apron) there would be need for car parking, car hire facilities and public transport facilities at the very least, assuming that fuel and support facilities could be accommodated elsewhere on the existing site. If passenger flights also carried freight (as some do) there would also be a need for freight handling facilities on the site.</p>
<p>Demand</p>	<p>The Department for Transport's latest forecasts for UK aviation growth indicate that the Government is anticipating demand for 12 million passengers per annum (mppa) at Bristol Airport by 2030¹⁶, continuing at a flat rate to 2050. The forecast of 12mppa is constrained, however, by the capacity assumed in the Airport's Master Plan, indicating that there may be some unsatisfied demand in the regional system. Cardiff and Exeter Airports will be able to take up some of the demand should there be constraints at Bristol, and indeed Cardiff is forecast by DfT to grow significantly over this timeframe, albeit there may be some concerns over the approach the DfT's forecasting model takes to distributing passengers.</p>
<p>Need</p>	<p>It is likely that Bristol Airport will be well positioned to handle the regional demand in the long term, and there is significant spare runway and terminal capacity at Cardiff to accommodate growth from the South Wales and Avon regions. The DfT estimates that although Bristol Airport will have a runway capacity of 226,000 movements per annum without further development, only 120,000 movements will be required to handle the forecast of 12mppa, suggesting that if terminal and apron constraints can be overcome in the longer term then the runway will be more than adequate to meet the region's demand. The M4 and rail link connections to West London allow rapid access to London Heathrow for services which could not be handled from Bristol including, for example, most long haul services.</p>

¹⁶ UK Aviation Forecasts, Department for Transport, August 2011, Page 149, Table G.2

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Viability	It would be difficult for airlines to viably split their operations across two airports in the same region, which would mean that Filton would struggle to attract sufficient traffic to cover the significant uplift in costs associated with operating as a commercial airport. If there was a case for commercial operations at Filton in the long term, it may mean a prolonged period of operating the Airfield at a loss to secure its potential in 30-40 years time.
Environmental Impacts - noise/traffic etc	Although a commercial airport would be likely to be used by smaller aircraft than those that have recently used the facilities for maintenance, the frequency of flights would increase, generating a greater noise burden. In order to meet the needs of airlines, it is likely that the facility would need to be open from 0600 to 2330 to accommodate commercial flights, imposing noise on the community during the early morning and evening periods. Such a facility would increase traffic in the local area and a combination of road vehicle and aircraft movement increases would lead to a deterioration in air quality in the immediate area.
Conclusions	There are many barriers to developing Filton for commercial operations, not least a planning presumption against such development in the 2003 White Paper and the previously rejected application. In addition, the site does not lend itself well to such a scheme, which would be likely to require significant investment and some land purchase around the boundary. There is unlikely to be sufficient demand in the region to support two airports in Bristol, given the available capacity at Cardiff, Exeter and the plans for growth at Bristol Airport. Splitting any demand may just leave both facilities unviable.
2. Commercial Air Cargo	
BAE Systems/Mott Conclusion	The Options Report drew conclusions based solely on Air Express Hubs (Integrators) and Air Mail Hub: i) The integrators have developed a network in the UK which excludes an air hub in the South West and the region is adequately served through hubs at London and East Midlands; ii) Bristol does not fit the Royal Mail's reduced dependence on air services and therefore neither Filton nor Bristol Airport would be likely to attract such services.

<p>Physical Requirements e.g. runway length</p>	<p>Some freight is carried by passenger aircraft, but we focus here solely on the requirements for specialist freight operations. The runway requirements would be variable depending on the scenario. For an Air Express Hub it would be preferable to secure the longest possible runway, and therefore most likely to require the retention of the existing runway length. For an Air Mail Hub, the runway length could be reduced, but most likely would need to be 1,800-1,900 metres in order to serve the largest types currently employed on Royal Mail contracts. The Mott MacDonald report did not consider the scope for the Airport to serve ad-hoc non-integrator cargo services, but again in order to maximise opportunities it would be necessary to retain the existing runway length. Even this may not be adequate for many air freight aircraft, and would restrict operations to European points. An air freight terminal and apron would need to be provided. The Brabazon Hangar could be adapted for the former, but the apron to the front of this would be unlikely to be adequate as there may be insufficient space for aircraft and vehicles to manoeuvre around each other. This would require further apron development, probably to the north of the site.</p>
<p>Demand</p>	<p>Air freight is extremely reliant on consolidation in order to make it viable. For this reason air freight operations have centred on certain locations nationally, which typically offer the greatest flexibility through runway length and facilities. The network that has been established in the UK is well embedded and there is unlikely to be a role for a further dedicated facility for either mail or (particularly) integrator operations. There may be some role for a hub feeder flight. Whilst mail and express freight is time critical, the nature of the operations tends to leave adequate time each side of an air journey for shipment to and from a hub of around 2-3 hours. For more general freight, the time permitted for transport to a hub tends to increase, and indeed freight may remain at an Airport for more than a day whilst waiting for consolidation onto a flight. As a result there is little need for regional air freight hubs or specialist facilities.</p>
<p>Need</p>	<p>If a hub feeder flight for an integrator were to be provided, this would be likely to be operated by a turboprop or small jet, which could generate two movements per day (normally in the night time period) and so could be accommodated at Bristol Airport with relative ease. The ability to handle ad-hoc air freight services may have presented a way of supplementing the Airfield's income, but would be unlikely in its own right to sustain viability at Filton. Given the runway length available at Bristol Airport, it is unlikely that an operator would prefer Filton over Bristol Airport, as both would have similar capabilities. The likely ad-hoc nature of this business would also mean it is unlikely to be squeezed out of Bristol Airport over time as air freight operations have some flexibility to be scheduled to suit quiet periods of the day.</p>
<p>Viability</p>	<p>Although the ability to support ad hoc air freight services may provide some additional revenue, this would probably be able to do no more than supplement other income streams. The cost of establishing an air freight terminal would be variable depending on the nature of the operation, but would require some investment which may take a long period of time to recoup if there were only limited operations.</p>

<p>Environmental Impacts - noise/traffic etc</p>	<p>It is true that air express and mail services would require night time flights, although some of the movements associated with them may commence earlier in the evening, around 2000 to 2100 hours, but most services would depart somewhere between 2200 and midnight, and would need to return to Filton by 0400 to 0500. It is not axiomatic that ad-hoc freight services would lead to a need for night movements as these could potentially be timed to operate during normal hours. However, it would be difficult to attract a based freight operator without the option of night flying as these airlines require the maximum flexibility for operations from a base. Freight aircraft will often take-off close to their maximum weight, which is not always the case with passenger aircraft. As a result, and from a runway of the length available at Filton, this may lead to noisier take-offs than for other operations. Road vehicle movements would undoubtedly increase, although by what extent is dependent upon the nature of operation and would be greater for an integrators' hub, not least because where an integrator has an air hub, they tend also to operate as road hubs too, so much of the freight will never board an aircraft, but instead arrive for sorting by vehicle and depart on another vehicle.</p>
<p>Conclusions</p>	<p>There is limited scope for a credible freight operation in the region beyond the role that can be played by Bristol Airport in supporting ad hoc freight operations. If Filton remained open then this may be a useful source of additional income, providing it covered the initial cost of setting up such a facility, but there would be no need to retain the Airfield in order to protect a regional strategic freight asset.</p>
<p>3. Business Aviation Services</p>	
<p>BAE Systems/Mott Conclusion</p>	<p>Mott MacDonald identifies that Filton has the attributes to be an outstanding Business Aviation facility, but also highlights the lack of demand for this nature of operations from the South West and the focus of Business Aviation towards London and the South East.</p>

<p>Physical Requirements e.g. runway length</p>	<p>In our view, the runway length required for such operations may be overstated. The use of large corporate jets is always likely to be focused on the South East, but the role of regional airports is often to serve aircraft which could adequately operate from a much shorter runway than the 1,700-2,100m highlighted by Mott MacDonald. A runway length of 1,400-1,500 would be likely to be adequate for a wide range of aircraft types, and would provide a longer runway than is available at London City Airport, from which various business jets fly direct to points in Europe, Africa, the Middle East and North America. High quality hangarage would need to be provided, but this could be based on refurbished hangars already on site, such as the listed hangars, providing they were of adequate dimensions. The apron to the front of the Brabazon Hangar would be adequate for a number of business aircraft to be parked on site, or the apron area to the north of the Airfield could be altered to suit such aircraft.</p>
<p>Demand</p>	<p>The number of air taxi and business aviation movements at Bristol Airport is very low: in 2010 this amounted to just 35 movements, according to CAA statistics. However, in the same year there were 4,800 such movements at Bristol Filton, although based on the levels indicated in the Mott MacDonald report, approximately 3,100 can be attributed to the corporate shuttles ('air bridge' flights) of Airbus and BAE Systems, suggesting that demand for other corporate and business services was in the order of 1,700 movements per annum. In 2009, according to Eurocontrol, there was a 14% reduction in Business Aviation activity in Europe¹⁷ and there was no significant return to growth in the sector in 2010. Eurocontrol forecast an initial return to growth of around 6% per annum from 2011-2012 onwards¹⁸ returning in the medium term to around 3-4% per annum. Including the equivalent movements of Bristol Airport and Gloucestershire Airport in 2010, this would suggest that by 2020, demand in the region could be for up to 4,200¹⁹ Air Taxi and Business Aviation movements, a rise of 48% from the 2010 figure of 2,820 (excluding Airbus and BAE). In 2010, Filton's market share of this traffic, among these three airports was 60%, although this would fall if Cotswold (Kemble) Airport was included, for which accurate data is not available. On the whole, those travelling by corporate aircraft or on air taxis tend to use the Airport closest to their origin or destination, and therefore it would suggest that central and northern Bristol is the main attracter for these passengers, given Filton's share of the market and proximity to the City Centre. If Filton were available to handle the same market share in 2020, this could amount to 2,640 movements.</p>

¹⁷ *Business Aviation in Europe, 2009*, Eurocontrol, Page 2

¹⁸ *Business Aviation in Europe 2010*, published February 2011, Eurocontrol

¹⁹ Assumes air taxi and business aviation growth has already returned to the market at a growth rate of 5% in 2011

<p>Demand (cont'd)</p>	<p>We note that the Save Filton Airfield Campaign Group, in its submission to South Gloucestershire Council of October 2011²⁰, believes demand could be much higher, as shown in the Extrapolated Accounts in Appendix D²¹. It is not clear how the Group has established the demand for 'Biz Jets' and we do not believe the figures are credible given our calculations above. Business Aviation usage cannot be stimulated heavily simply through marketing. The nature of these operations means that if demand exists for business aviation travel, it will generally be satisfied, and will be satisfied by the most convenient and appropriate airport, often dictated by the passenger, rather than the aircraft operator. As there are not 12,500 movements in the immediate South West region at present, then it is not clear where this level of demand would come from. As a comparison, London City Airport, adjacent to the City of London and Canary Wharf attracted around 7,300 such movements in 2010. Farnborough Airport, with its niche facilities and proximity to West London and the most affluent of the Home Counties attracted around 25,000 movements. It is therefore unlikely that Bristol and the surrounding area would be able to generate such a level of movements. The assumption that 3 based aircraft could be attracted from Bristol Airport and 5 from Gloucestershire and Cotswold Airports may not be realistic as the choice of aircraft base, particularly for private and corporate aircraft, is also often dictated by proximity to an origin/source, quite often the home location of the main passenger, and it seems likely that those aircraft based at Gloucestershire and Cotswold Airports are in these locations for this very reason. Otherwise it may be reasonable to assume that the operators would already have these aircraft based at Filton.</p>
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²⁰ A Vision for Filton Airfield: Submission to South Gloucestershire Council,

²¹ Ibid, Page 36

<p>Need</p>	<p>We understand that Bristol Airport has already indicated it will be in a position to handle the corporate shuttle associated with Airbus, amounting to 8 movements per weekday. We also understand that the shuttle service to Walney Island will be discontinued. Therefore it is necessary to consider how the remaining demand for business and corporate aviation can be handled in the future. The displacement of 1,700 movements from Filton at the present time is likely to have a noticeable impact on other airfields, equating to roughly 32 movements per day average²², although it is likely that these could be easily accommodated at the region's remaining facilities (Bristol Airport and Gloucestershire Airport). There may, however, be some constraint on demand if this is less than ideal for fast access to Bristol and this may have implications for the wider economy. The extent of this is unknown, although it would seem reasonable to assume that if travellers are required to be in Bristol then that demand will remain, even if the convenience and economic benefit derived through time savings may not be fully realised for local businesses. Indeed, there are a number of other airports nationwide whose only airport option is an equal distance and travelling time from their city centres, yet as the only option, business aviation chooses to use these. Examples would include Newcastle (6.6 miles), Edinburgh (9 miles) and Leeds (10.5 miles). By comparison, Bristol Airport is approximately 8.1 miles from Bristol City Centre and Filton is approximately 4.5 miles²³.</p> <p>In the medium to long term it is not clear to what extent Bristol (Lulsgate) Airport would be able to continue handling such traffic. We understand that the intent of the Airport is not to exclude Business Aviation, and indeed the value of these services will make them a useful supplementary income to the Airport. In the Airport's published Master Plan, the loss of some General and Business Aviation apron to the south of the runway at Bristol for other purposes will be offset by the addition of further apron space in an alternative location. The scale of this parking is likely to be adequate, although it is not clear if hangarage will be made available which will be a pre-requisite for some operators to base aircraft in the area. By 2020 the Airport indicates that it expects to handle around 90,000 Air Transport Movements, increasing to 108,000 per annum in 2030, for a single runway airport, with a full length parallel taxiway. These figures are comfortably within the capability of the runway and this is confirmed in the DfT's own forecast document which assessed the runway movement capacity at 2008 as being 200,000 movements per annum²⁴, far beyond what is expected to be needed in 2030 and beyond. This would suggest plenty of scope for handling Business Aviation activity. However, the Master Plan identifies that in the period 2016 to 2030 (although given the recent planning application, it is likely to be in the later part of this period), the existing General Aviation area may be used for commercial aircraft parking²⁵, and would be needed as part of the site for a second terminal and associated²⁶ commercial apron. This suggests there may be some risks associated with the provision of apron space for Business Aviation in the longer term and it would not be clear where aircraft would operate to as an alternative, particularly as Gloucestershire Airport may be deemed too far from central Bristol for the time sensitive nature of business aviation travellers. However, Bristol Airport's Master Plan clearly recognises a need to expand beyond the current boundary if there is a need for commercial operations to the south side of the site, and therefore it seems likely that some provision would continue to be made for Business Aviation.</p>
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²² 32 movements is the equivalent to 16 arrivals and 16 departures

<p>Viability</p>	<p>Given the scale of possible future activity that we have highlighted above, it is unlikely that Filton would be viable if it were solely operated as a Business Aviation airfield. Based on published charges, Filton compares favourably with Gloucestershire Airport, although it is more expensive than Cotswold Airport. However, the Business Aviation community, particularly those using corporate jet aircraft are significantly less sensitive to charges at airports than General Aviation (and even commercial) activities. The fact that Filton may appear more expensive than some competitors, is likely to be offset by the proximity to the city centre of Bristol. However, even if landing fees were increased to the maximum that the market could bear, it is still unlikely that the facility would be viable purely with Business Aviation as a source of income.</p>
<p>Environmental Impacts - noise/traffic etc</p>	<p>The environmental impacts of Business Aviation are variable depending on the nature and scale of operations. Business Aviation is not the exclusive domain of corporate jets, and indeed many movements in the UK are undertaken by turboprop aircraft, and in some cases, when used by a pilot for attending business activities, even Single Engine Propeller-driven aircraft (SEPs) can be counted as Business Aviation. Jet aircraft clearly have an impact on the local environment, generating both noise and local air quality degradation. By comparison with commercial air transport, these aircraft tend to be quieter than jets, although noisier than regional turboprop aircraft. Corporate jets tend to perform well and are able to climb away from an airport quickly, thus the noise impact reduces more rapidly. Turboprop aircraft such as the Beech King Air currently used on the BAE link to Walney Island are quieter again and also have a good rate of climb. However, smaller propeller driven types used for Business Aviation can cause noise nuisance due to their slower rate of climb and therefore longer time spent closer to the ground.</p>

²³ All distances calculated by theaa.com

²⁴ *UK Aviation Forecasts*, Department for Transport, August 2011, Page 43, Table 2.6

²⁵ *Bristol International Airport Master Plan 2006-2030*, Bristol International Airport, Page 130, Paragraph 12.18 – 12.19

²⁶ *Bristol International Airport Master Plan 2006-2030*, Bristol International Airport, Page 131, Paragraph 12.20

<p>Conclusions</p>	<p>Demand for Business Aviation in the Bristol/South West region is not currently very strong after the corporate shuttles for Airbus and BAE Systems have been taken into account. Filton does currently play a role in serving this sector at present, probably mainly as a result of its proximity to the city centre. Over the period to 2020 demand could grow to around 4,200 movements per annum, some of which will naturally be directed to Gloucestershire and Bristol Airports as users aim to arrive and depart at the most convenient airport to their origin/destination.</p> <p>In the short to medium term, it seems likely that Bristol Airport could easily handle all of the Business Aviation currently using Filton. There are longer term risks as the Airport may need to reallocate land use on site for commercial operations, although the recognition that this will also require further land take suggests that the Airport would provide suitable alternatives, not least because Business Aviation is likely to provide a welcome secondary income for Bristol Airport. There would appear to be no risk of these activities being excluded from the runway as the Airport's Master Plan levels of movements would leave a significant amount of capacity available given the runway length and availability of a full parallel taxiway.</p> <p>In conclusion, the relocation of Business Aviation to local alternatives may not be the perfect solution for some current users of Filton, although it is unlikely to drive demand away. The retention of Filton is unlikely to act as a stimulus for further Business Aviation growth and the current and predicted levels of growth could be handled by the infrastructure available elsewhere in the region.</p>
<p>4. General Aviation Services</p>	
<p>BAE Systems/Mott Conclusion</p>	<p>i) General Aviation flying has undergone a prolonged period of decline in the UK; ii) There are adequate other facilities in the region to serve this market</p>

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<p>Physical Requirements e.g. runway length</p>	<p>The requirements for General Aviation are quite varied, particularly as many General Aviation facilities are unlicensed by the CAA and therefore do not necessarily need to conform to all the same requirements as for commercial or CAA-licensed Business Aviation airports. Runways can be grass or hard surfaced, and typical lengths are in the order of 700 to 1,100m. This would allow part of the site to be closed off at Filton and developed for other uses where appropriate and with regards to safety. This would also allow the runway centreline to be significantly repositioned, freeing up space to the north of the runway for aviation use whilst releasing areas such as that surrounding Apron 3. At 1,000 to 1,100m, the runway would be adequate for a wide range of types, including twin and single engine prop aircraft, but is likely to exclude most large corporate jets, although some of the new generation Very Light Jets (VLJs) could probably be handled.</p>
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<p>Demand</p>	<p>The Mott MacDonald Report points to a decline in General Aviation which is consistent with our understanding of this sector of aviation, driven by increasing costs, particularly fuel prices, which have reduced the levels of light aircraft flying in the UK. The Save Filton Airfield Campaign Group highlights that the Mott MacDonald report may be selective in its approach to covering the change in demand in relation to Filton²⁷ because 2010's movement figures, showing a decline in traffic followed the imposition of weekend restrictions on flying. It is likely that this will have had a significant impact on demand for General Aviation flying as much of this, particularly in relation to aeroclub flying, takes place at weekends. Given the levels of weekend flying we have observed at other UK airfields, it is surprising that the impact has not been greater than expressed in the Mott McDonald report²⁸, although the impact may be greater in 2011, which will be the first full year of such closures. These restrictions will also have had an impact on Business Aviation which includes a proportion of weekend flying associated with leisure trips.</p> <p>However, this cannot deflect from the fact that the sector has been in decline. Whilst total movements at Filton have been very volatile since 2000, the pattern is clearer at other airfields. For example, at Gloucestershire Airport movements went through a small spike in 2004, but overall have shown a consistent pattern of decline over the period since 2000, and an even greater decline against peaks well in excess of 100,000 movements per annum in the late 1980s. Bristol Airport itself has also experienced a consistent fall in this traffic. A small number of airfields have shown growth in General Aviation over the same period, but the numbers are often low and the picture is of a sector which has at best been flat in recent years. Part of the reason for the decline has also been the wholesale move of professional pilot training to overseas locations where fuel prices and the weather are more favourable.</p> <p>As a result, it is difficult to accurately establish what the longer term demand may be. In 2006, the CAA published a Strategic Review of General Aviation. This showed that in the period 1984-2002, there had been an increase in the number of SEPs active in the UK, though most of this growth had occurred in the period to 1990, and then following this the number had remained largely constant²⁹. By comparison, the number of flown hours by pilots had reduced significantly since 1990, showing that although there are still a lot of pilots, they are flying less. Over the same period, 1984-2002, the number of active light twin-engined aircraft and active large twin-engined aircraft had both declined, particularly in the period since the early 1990s³⁰, this trend was repeated in the number of flying hours by pilots.</p> <p>Therefore, in assessing the need for facilities in the region, it seems appropriate to assume no further decline, suggesting around 16,000-17,000 General Aviation movements will be displaced from Filton upon its closure.</p>
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²⁷ *A Vision for Filton Airfield: Submission to South Gloucestershire Council, Save Filton Airfield Group, 24th October 2011*

²⁸ *Technical Appendix: Filton Airfield Aviation Options Report, Mott MacDonald, September 2011, Page 18, Section 5.4*

²⁹ *Strategic Review of General Aviation in the UK, CAA, July 2006, Page 9, Figure 1.4*

³⁰ *Strategic Review of General Aviation in the UK, CAA, July 2006, Page 10, Figure 1.5*

<p>Need</p>	<p>Unlike most other regions in the UK, there are very few airfields in the region surrounding Bristol and South Gloucestershire. As a result there are only three realistic options for the displacement of General Aviation - Bristol Airport, Gloucestershire Airport and Cotswold Airport. The latter two airports are situated much further from Bristol; however, during previous studies in the General Aviation sector we have established that pilots are often willing to travel for up to an hour if the airfield has good facilities, which is the case at both of these airports.</p> <p>There may be some scope for moving some services to Bristol Airport, although this may only be a short to medium term solution as we understand that whilst the Airport is keen to retain Business Aviation in the longer term, the same may not be true of General Aviation as the Airport gets busier. Although, as previously highlighted, there will be plenty of runway capacity at the Airport into the future, the nature of General Aviation activity, such as circuit flying and training activity, is not always complementary to the operations of a commercial airport. This may mean that ultimately there is a need for all of the General Aviation activities to be accommodated at Gloucestershire and/or Cotswold Airports. Combined, there would be more than enough runway capacity at both facilities to handle this, albeit this may not be the preferred position of the pilot community in Bristol.</p>
<p>Viability</p>	<p>Income levels associated with General Aviation are typically quite low and as a result, even a large volume of such traffic may not make an airport viable, particularly where there are high overheads to maintain large runways, such as that at Filton. While some maintenance costs might be reduced if the runway was shortened, other fixed costs are likely to remain and the capital costs of conversion would have to be factored in. This issue is also addressed in Table 9. In comparison with Cotswold and Gloucestershire Airports, the charges at Filton are relatively high for smaller aircraft such as Single Engine Props (SEP's) at around 1 tonne of weight, although for aircraft just over this weight, Filton's charges are competitive with those of its neighbours.</p>
<p>Environmental Impacts - noise/traffic etc</p>	<p>Although the aircraft are less noisy, they tend to generate more nuisance to local residents due to slower climbs, lower flying heights and more inclination to undertake circuits and training close to the Airfield. By comparison, commercial aircraft tend to climb quickly and clear an airport location quickly. There would be little or no need for flying at unsociable times.</p> <p>The relocation of activities to other airports in the region may lead to increased road journey distances by car, which may have small environmental penalties.</p>
<p>Conclusions</p>	<p>There appears to be little need to secure Filton for General Aviation, despite the lack of a large number of alternatives in the area. Both Gloucestershire and Cotswold have significant runway capacity to handle the movements which will be displaced from the closure of Filton. Bristol Airport may provide some overflow capacity in the short to medium term, but these activities are unlikely to be compatible with the commercial activities in the medium to long term.</p>

5. Helicopter Facilities	
BAE Systems/Mott Conclusion	<p>BAE Systems has made a commitment to explore options for the retention of helicopter facilities which could support the Great Western Air Ambulance (GWAA).</p> <p>Likely to be low demand for wider access to a heliport by other operators.</p>
Physical Requirements e.g. runway length	<p>This would not require a full length runway, but instead a designated safe area (the Final Approach and Take-Off Area or FATO), which could be a large square, with dimensions as described by Mott MacDonald, in the region of 150-300 square metres. To support the air ambulance it would be necessary to provide a hangar and operations building. If further helicopters are to be supported, either private aircraft or the police helicopter they may also require hangars (and an operations building for the police).</p>
Demand	<p>Demand has been consistent at Filton in recent years and appears to be almost exclusively related to the GWAA. If a heliport was provided it may attract some additional movements from other operators, although the lack of such movements at present at Filton would suggest there is little demand for this.</p>
Need	<p>Cotswold, Gloucestershire and Bristol Airports all offer facilities for helicopter operations. The preference of GWAA to be based at Filton is likely to be because of the central nature of the location within the region it serves. The nature of operations associated with air ambulances, and their requirement to take-off with great flexibility means that these activities are often incompatible with commercial airports, suggesting that Bristol Airport itself would not be an ideal base for the aircraft, although there are other examples where this does appear to work, such as at Leeds/Bradford Airport.</p>
Viability	<p>If a dedicated facility was provided for the GWAA it must be assumed that they would cover the full cost, albeit if the facility were available for other aircraft operators then they would need to contribute. The costs of operation would be relatively low compared with maintaining a full runway.</p>
Environmental Impacts - noise/traffic etc	<p>Helicopter operations are relatively noisy when compared with fix wing aircraft. The vast open space at Filton presently means that the noise will dissipate more easily than if a heliport is located in the middle of a development area. It would certainly be unlikely to be acceptable for a heliport to be in close proximity to housing development, particularly as the GWAA are likely to require some degree of 24-hour operations.</p>
Conclusions	<p>This would be a relatively easy facility to provide to retain the GWAA in their optimal location.</p>
6. Maintenance/Repair/Overhaul (MRO) Facilities	

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BAE Systems/Mott Conclusion	<p>i) Most global Maintenance is moving to locations with cheaper labour costs, especially overseas.</p> <p>ii) Where carriers have their own facilities in the UK they tend to be close to or at bases to reduce costs;</p>
Physical Requirements e.g. runway length	<p>Variable, but less onerous than for commercial operations because aircraft arrive and depart empty of passengers and with less fuel, so they can use shorter runways. Current runway length at Filton is more than adequate for a fairly large scale MRO operation similar to that seen at Southend where the runway is much shorter (around 1600 metres) and yet accommodates empty aircraft up to Boeing 757 size. The Brabazon Hangar is of a scale that would be adequate for a significant scale of maintenance facilities. It should also be noted that some MRO activities (e.g. component overhaul) do not require a runway as engines and components can be transported by road.</p>
Demand	<p>Could be slightly greater potential than that identified by Mott MacDonald, including the recent announcement that British Airways is looking for new facilities in South Wales with St Athan³¹ (which enjoys Enterprise Zone status) highly likely to be the new facility. The geographical clusters of MRO activity in the UK are slightly different from aerospace as a whole, with key areas being around Prestwick Airport in Scotland, South Wales (BA Engineering have a maintenance base at Cardiff Airport), and the East of England (Norwich and Southend Airports). It is unclear whether other leading independent UK MRO companies were approached (e.g. ATC Lasham, Inflight, Marshall Aerospace) and whether there might be any interest in additional UK capacity from these quarters. However, the main point that Mott MacDonald makes about the intensity of competition from overseas heavy maintenance facilities is entirely correct. It is also correct to say that where air carriers have their own MRO facilities (as opposed to those of independent MRO operators) these tend to be at airports where the airlines have bases (e.g. Thomas Cook at Manchester or Monarch at Luton). A further point, not mentioned by Mott MacDonald, is the shortage of suitably qualified aircraft engineers. This has led some MRO suppliers to get involved with setting up training academies at some airports (e.g. ATC Lasham at Southend or Marshall Aerospace at Doncaster) to address this shortage.</p>
Need	<p>Because MRO is such a global industry and aircraft can be maintained at a wide number of locations it is difficult to say that there is a specific need for such facilities in any one specific geographical location. There would be a need for some basic 'line maintenance' (i.e. support provided to aircraft on the ground during operations including short overnight checks etc.) at airports which have a certain scale of regular scheduled services, but clearly this does not apply to Filton.</p>
Viability	<p>Generally a valuable type of operation for an airport in terms of both landing fees and property rentals, depending on the scale of the activity and the extent to which it might be supported by other revenue streams.</p>

³¹ <http://www.walesonline.co.uk/business-in-wales/business-news/2011/11/15/british-airways-considers-new-facility-at-st-athan-site-91466-29776616/>

Environmental Impacts - noise/traffic etc	Some impact from aircraft being flown in and out for maintenance and there may well be a need to make the airport available at weekends for this. Some aircraft likely to be large, although generally aircraft that are empty of passengers and freight have better take-off performance and rate of climb which could reduce the noise impact. If the MRO operator had a need to undertake engine test runs this could have a significant noise impact unless specialised facilities (an engine test bay) were provided.
Conclusions	There could be some potential for MRO operations at Filton as the former presence of Air Livery suggests, although a relatively large scale of MRO commitment to Filton may be required to sustain a viable operation. The MRO market is a very difficult one to break into for an airport that doesn't have a based commercial carrier and relies solely on independent MRO operators. Relatively high labour costs and skill shortages increase these competitive challenges. Aside from these considerations, there is no local need for an MRO operation at Filton.
7. Aerospace Usage for Components	
BAE Systems/Mott Conclusion	Not specifically addressed by Mott MacDonald in wider terms, although reference is made (Page 8) to the intention of Airbus to export assembled wings to Avonmouth by road and then by sea using a specially designed vessel.
Physical Requirements e.g. runway length	The runway length is sufficient for the operation of the Beluga aircraft to transport aircraft components for Airbus such as the A400M wings to final assembly lines in Europe and would be sufficient for similar short haul operations by other cargo aircraft. Payloads might be restricted, however, if heavy components were required to transported over longer ranges.
Demand	There is an existing demand for transportation of wings manufactured at Filton for the A400M by Airbus, but we understand that Airbus are able to transport the wings by road to Avonmouth and then by sea. This is similar to the operation at Airbus' Broughton plant near Chester where A380 wings are transported by road to the River Dee for onward transport by sea to France. BAE has confirmed that it has no need for manufacturing related flights from Filton.
Need	In the light of Airbus' view that the transportation of wings and other components (such as landing gear assemblies) can be transported by road rather than by air, there is no need for the runway to remain operational to support Airbus' operations at Filton. Transportation of other aircraft components by air is only likely to be required if large scale components were to be manufactured at Filton for which there is no clear need at present. Other forms of smaller scale aerospace component manufacture are unlikely to require transportation by air.
Viability	The availability of the runway to transport aircraft components is unlikely to be a significant factor in terms the viability of the Airfield as the number of aircraft movements associated with this activity would be quite low.

Environmental Impacts - noise/traffic etc	Given that the number of aircraft movements associated with component transportation would be relatively low, the environmental impact is not likely to be very significant, although the use of large transport aircraft (other than the Beluga) could generate significant noise on take-off.
Conclusions	There is no current or likely demand identified for transportation of aerospace components by air other than for the A400M wings by Airbus and this demand, according to Airbus, can be adequately met in an alternative way using road transport.
8. Aerospace Usage for 'Air Bridge' Flights	
BAE Systems/Mott Conclusion	The TOR report states that " <i>Airbus has confirmed its services could move to Bristol Airport...without disruption to its business</i> ". Mott MacDonald state that the Airport Manager at Bristol Lulsgate has indicated that the airport can accommodate the air bridge service from 2012.
Physical Requirements e.g. runway length	The air bridge is operated by Embraer 145 aircraft and Beech King Air turboprop. The runway length at Filton is more than adequate of this type of operation and could operate from a shorter runway, although the Embraer aircraft is likely to require a minimum of 1,800 metres.
Demand	Hitherto, the air bridge services have been used only for transportation of Airbus and BAE staff between company locations in the UK and Europe. We are not aware of any other aerospace companies in the UK that have similar dedicated corporate air shuttle services (although the Ford motor company has its own aircraft that operates between Stansted and European destinations).
Need	Airbus considers that it can continue its air bridge flights from Bristol Lulsgate and BAE has confirmed that its air bridge flights do not form an essential part of the operation of its business.
Viability	BAE's view that the Airfield has been unviable hitherto with the air bridge operation in place indicates that these services are not a significant factor in the overall viability of the Airfield. There appears to be no demand for an increase in the number of these kind of movements if the runway were to remain open.
Environmental Impacts - noise/traffic etc	The environmental impact of the air bridge services is unlikely to increase if the runway remained open as there is no apparent demand for an increase in these kind of operations from the existing operators.
Conclusions	There appears to be no overriding need to retain the existing air bridge operations for Airbus or BAE and there is no apparent need from any other aerospace operator for a similar kind of operation. The existing aerospace activity at Filton is unlikely to be threatened by the loss of these services.

9. Reduced Scale Airfield	
BAE Systems/Mott Conclusion	Mott MacDonald considered options of reducing the runway length but noted that this would have a significant cost implication in itself in terms of changing markings, ground lighting and nav aids. A shorter runway could accommodate Business and General Aviation and potentially some types of MRO operation and would release land for either airport or other development. However, there is insufficient demand to make this option realistic.
Physical Requirements e.g. runway length	Any shortening of the runway to less than 1300 metres would probably rule out Business Aviation operations of any scale and certainly would rule out landing larger aircraft for maintenance purposes. Most General Aviation could be accommodated with 800 metres as suggested by LAA Bristol, but the one-off capital costs of shortening (and narrowing) the runway would be substantial and would be likely to be recouped through higher landings fees.
Demand	The question of demand for a shorter runway is no different from the demand analysis we have set out for the Business Aviation and General Aviation sectors earlier in this Table.
Need	Similarly the question of need in relation to Business Aviation and General Aviation is dealt with under the earlier sections of this Table.
Viability	A shorter runway is unlikely to have a significant impact on viability. As noted by Mott MacDonald there would initially be an additional cost implication of re-configuring the runway and its associated services. Thereafter the fixed costs of operating the Airfield would remain largely unchanged, unless only ad hoc General Aviation remained and air traffic control could be withdrawn completely. However, as we have already noted, the income from this activity alone is unlikely to be sufficient to maintain viability.
Environmental Impacts - noise/traffic etc	As noted earlier, if the shorter runway option meant that only General Aviation could make use of the Airfield, the environmental impact might deteriorate in some respects if more noise nuisance to local residents was generated by lower flying heights and more circuits and training close to the Airfield.
Conclusions	A shorter runway is feasible and would potentially release some land for other development, but it is unlikely to make a difference to viability and there is no strong need case.

4 CONCLUSIONS

4.1 In this report we have:

- reviewed general trends in aviation and associated policy as it might impact on Filton;
- reviewed general trends in aerospace and the role of the Airfield in that context;
- considered the impact of closure on the aerospace sector at Filton;
- reviewed planning and other permissions required for change at Filton;
- considered the competence of TOR and Mott MacDonald who prepared the Options Report;
- prepared a table of potential aviation uses to re-assess whether there is a market demand or a fundamental need for the Airfield;
- considered whether there are any significant areas where we would disagree with TOR/Mott MacDonald's statements or conclusions;
- considered whether the SFACG approach and Light Aircraft Association proposals for a shorter runway might offer a viable and workable solution.

Aerospace

4.2 The primary need for the Airfield to date has been to support the aerospace industry and in the past it has been viewed as a pre-requisite to the success of that sector. Having reviewed the available information we conclude that the closure of the Airfield, if it were to go ahead, would have no significant impact on the future health of the aerospace cluster at Filton. Airbus UK HQ, Rolls Royce, and GKN have recognised centres of excellence at Filton that they are unlikely to wish to jeopardise. Whilst clearly it is not possible for anyone to guarantee what might happen in the longer term in the aerospace (or any other) industry, especially in the light of wider current economic uncertainties, we have no seen no evidence to conclude that the closure of the Airfield will have a detrimental effect on the existing aerospace activities at Filton, especially given the evidence of public statements by Airbus and other key companies.

Aviation

- 4.3 Our analysis of the various options as set out in Table 3.1 has identified that there is no realistic prospect of a commercial airport at Filton. With the exception of the GWAA, we have not identified any significant aerospace or aviation need which could not be met through alternative means.
- 4.4 The current or prospective viability of the Airfield is more difficult to establish without further information and analysis, which we accept is in part due to the need of BAE to protect confidentiality. Whilst we consider that further layers of detail could be provided and analysed, we believe that, from our analysis in Table 3.1, this would not fundamentally alter the overall conclusions.
- 4.5 There are a few market opportunities which could be considered if Filton's runway were to remain operational and these include seeking to meet some of the demand for ad hoc air freight, Business/General Aviation, or MRO activity. However, we recognise that the Airfield has some physical constraints in relation to such development and we believe that a certain critical mass is likely to be required to make such activities viable. In all these cases, alternative options are available and likely levels of activity achievable could be handled by infrastructure available elsewhere in the region.
- 4.6 However, even if the runway were to close we believe there may be potential for continuing helicopter operations at Filton and further consideration might be given to the scope for retaining and facilitating this.
- 4.7 In the absence of being able to identify a clear need for the Runway to remain open, the question of the Airfield's viability remains a commercial judgement for BAE. However, we believe that if the Airfield were offered for sale as an active airport and without the associated land on which the aerospace activities are currently located, it would not present an attractive proposition for another potential operator and would be a high risk investment at the very best.
- 4.8 In our professional opinion, the overall conclusions of the Aviation Options Report are justified and we believe that the Council can consider it, with some minor exceptions, to be broadly balanced and factually accurate and likely to be reflective of a wider industry view.

Appendix 4

BAE Systems Limited - Filton Airfield Summary of Accounts

£000s	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
<i>Airport Operational Activities</i>										
Airport charges – revenue	n/a	n/a	1476	1752	1597	1383	1163	940	807	749
Airport charges – costs	n/a	n/a	-4449	-3765	-3501	-3505	-3160	-2896	-2430	-2425
Other operational income	n/a	n/a	144	183	169	224	143	123	140	172
Net – Operational Loss	n/a	n/a	-2829	-1830	-1735	-1898	-1854	-1833	-1483	-1504
<i>Non Operational Activities</i>										
Revenue	n/a	n/a	1330	1330	1330	1330	1500	1270	1198	1198
Costs	n/a	n/a	-88	-88	-133	-108	-164	-162	-368	-399
Net – Non-operational	n/a	n/a	1242	1242	1197	1222	1336	1108	830	799
Total Net Loss	n/a	n/a	-1587	-588	-538	-676	-518	-725	-653	-705
Reported Profit/(Loss) provided in Profit & Loss Account	1294	-710	-1587	-588	-538	-676	-518	-725	-12117	-13522