



National Assembly for **Wales**
Cynulliad Cenedlaethol **Cymru**

The Aerospace Industry and Air Transport in Wales

Abstract

This paper provides background briefing on the aerospace industry and air transport in Wales.

It considers the aerospace market, including the maintenance, repair and overhaul (MRO) sector, the key players in the aerospace industry in Wales, and skills and training issues faced by the aerospace sector.

It also looks at air transport, airports and policies relating to the development of air transport in Wales.

May 2005



The Aerospace Industry and Air Transport in Wales

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May 2005

Paper number: 05/0641/NC

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Members' Research Service: Research Paper
Gwasanaeth Ymchwil yr Aelodau: Papur Ymchwil



Cynulliad National
Cenedlaethol Assembly for
Cymru Wales

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The Aerospace Industry and Air Transport in Wales

1. Introduction

This paper provides an overview of the aerospace industry in Wales, information on the air transport infrastructure and on legislation affecting air transport in Wales.

The aerospace sector is primarily concerned with the manufacture, maintenance and overhaul of equipment for aircraft and spacecraft. In Wales, there are over 150 companies employing in excess of 20,000 people in this sector, some 17 per cent of the total UK aerospace workforce, and generating sales of around £2 billion¹.

Wales is home to some of the world's largest aerospace organisations, and has companies operating in both the manufacturing, and maintenance, repair and overhaul (MRO) segments, with a significant concentration of both civil and military MRO activity.

The aerospace industry is associated with highly skilled and well-paid employment, and several training and education institutions in Wales provide specialist training and collaborative links with industry. Proposals exist to establish a new aerospace maintenance training academy in North West Wales.

The Welsh Assembly Government has been looking at the potential for developing intra-Wales scheduled air services as part of the development of an integrated and sustainable transport system, with a service from Swansea to Cardiff to RAF Valley on Anglesey being taken forward in principle. The *Transport (Wales) Bill*, currently before Parliament, includes a clause to provide the Assembly with specific powers to give financial assistance in respect of air transport services serving Wales.

¹ Source: Welsh Development Agency



2. Aerospace Market²

Demand in the global civil aviation sector has a long-term growth rate of 4.7% per annum, and it is estimated that at this rate over the next twenty years an additional 16,500 aircraft above 80 seats could be delivered worth some \$1,600 billion in today's money³. The Department of Trade & Industry (DTI) has identified a potential market for 5,000 smaller airliners worth \$90 billion and 11,000 new business jets worth \$170 billion.

In 2002 the UK had 12% of the civil market for aerospace with a 20% share in Airbus and 30% of the world aero engine market.

UK airports handled 217 million passengers in 2004, an increase of 8% on 2003. Traffic at the UK's regional airports grew by 9% to a total of 88 million passengers⁴. The Department for Transport (DfT) predicts that demand for air transport will rise to between 400 and 600 million passenger movements by 2030.

Within Wales the aerospace sector employs over 20,000 in highly skilled jobs. Of these, approximately 9,000 work in the maintenance, repair and overhaul segment. Wales is home to some of the world's largest aerospace organisations and major companies such as British Airways, GE, Nordam and Airbus UK have significant presence in Wales.

² Source: Aerospace Wales Forum, Aerospace maintenance engineering training facility Consultation Document
<http://www.aerospacewalesforum.com/>

³ Source: Society of British Aerospace Companies (SBAC), *UK Aerospace facts & figures 2002*:
<http://www.sbac.co.uk/facts.asp>

⁴ Source: Civil Aviation Authority (CAA), ADU Press Notice Passengers and Air Transport Movements:
<http://www.caa.co.uk/docs/1/ADU%20Airport%20Stats%20Master.pdf>



3. Maintenance, Repair and Overhaul (MRO) Market⁵

The current world market for MRO is in the region of \$34 billion, and the civil market is likely to grow significantly faster than defence with a greater influence on future technology requirements.

MRO activity in the UK employs in the order of 40,000 people, providing over £4 billion in revenue each year. Activity in the UK has suffered in recent years due to a general decline in the aerospace sector as a result of the September 11 disaster, Middle East conflicts and SARS, together with increased competition from Far East and Eastern Europe. The result has been that little investment has been made in MRO in recent years.

Steady growth in the sector is predicted with global volumes returning to pre-2001 levels by 2009. The DfT have established a MRO steering Group to look at the potential losses of UK activity in this sector and actions to address this challenge. The Department of Trade and Industry (DTI) has established an Aerospace Innovation and Growth team to look at all aspects of the sector and agree how to take forward opportunities arising from the existing research, development, manufacturing and engineering capabilities that exist in the UK.

In Wales, there is a significant concentration of both civil and military MRO activity. The major civil players include British Airways, Raytheon Aircraft Services, General Electric Aircraft Engine Services and Nordam, while the military sector includes DARA (St Athan), DARA Sealand and Babcock Defence Services (RAF Valley). There is also some airline maintenance activity by operators such as Air Wales. Overall the MRO sector in Wales employs some 9,000 people and contributes in the order of £1 billion per year.

⁵ *ibid*

4. Aerospace Industry in Wales

4.1 Aerospace Companies

Over 150 companies, employ in excess of 20,000 people in the aerospace sector in Wales. Some of the major names within the civil and military aerospace industry based in Wales include⁶:

Airbus - manages the production of Airbus aircraft, which takes place at the different sites in Europe including Broughton in North Wales. The extensive redevelopment of Airbus UK's manufacturing facility in Broughton, Flintshire comprises several buildings, which accommodate the equipment required to manufacture the wings for the A380 double deck super jumbo.

Babcock Defence Services - a support services company working primarily with public sector institutions which services Hawk aircraft at RAF Valley, on the Isle of Anglesey.

British Airways Maintenance Cardiff – is the world's only licensed dual bay facility capable of maintaining and overhauling Boeing 747 and 777 aircraft.

British Airways Avionics Engineering – based in Pontyclun in mid-Glamorgan, BAEE serves world-wide airline customers such as - BA, Virgin, Air Tours and Cathay Pacific. Although BAAE continues its close links with British Airways it is also assuming the role of an independent, commercial operation.

British Airways Interiors - refurbishes passenger and flight crew seating and other interior fittings at its facility in Blackwood in Gwent.

Contour Premium Seating Ltd – is part of the Britax group, located in Cwmbran in Gwent, manufacturing a range of business and first class seating, such as the newly launched "flying beds", supplying the majority of the world's major airlines.

DARA (Defence Aviation Repair Agency) - maintain and undertake modification programmes on fixed and rotary wing aircraft for the Royal Air Force, Royal Navy and the Army. DARA has two locations in Wales, Sealand in North East Wales where avionics repairs are carried out, and St Athan where MRO is conducted on fighter jets and VC10's.

GE Engine Aircraft Engine Services - a multi-national company with a one million square foot operation in Nantgarw in South Wales. It is the largest engine maintenance centre in the world. It overhauls Rolls Royce, Pratt & Whitney and GE aircraft engines. It also overhauls and repairs the twin engines of Boeing 777 aircraft.

General Dynamics UK Ltd - is part of General Dynamics Corporation, one of the world's largest defence companies. Based in the USA and with headquarters near Blackwood in South East Wales, General Dynamics UK occupies four locations in the United Kingdom and employs 1,000 skilled staff, 550 of which are in Wales, producing solutions in military communications, battlespace management, mission systems and information management applications.

⁶ Source: Aerospace Wales Forum and Welsh Development Agency (WDA). The Aerospace Wales Forum was established to represent the interests of the industry in Wales and to promote improved performance, innovation and growth.

Information on the aerospace industry in Wales can be found on the Aerospace Wales Forum web-site at:

http://www.aerospacewalesforum.com/home.php?page_id=1

A full list of Members of the Aerospace Wales Forum can be found at:

http://www.aerospacewalesforum.com/home.php?page_id=7

NORDAM Europe Ltd - their Blackwood facility repairs and overhauls jet engine nacelle⁷ systems and engine components, including nose cowls, thrust reversers and turbine sleeves.

Raytheon Aircraft Services Ltd - is based at Broughton and services executive jet aircraft. Facilities are available on site for complex avionics instalments and major modifications. NDT (non-destructive testing) technology is used to assess the airframe and complete engine diagnostics can be undertaken, as well as engine condition trend monitoring and instrument calibration.

Raytheon Systems Ltd - also based at Broughton is responsible for the installation and check out of the mission system on the RAF's new ASTOR programme, the new airborne battlefield surveillance system.

Thales Optics Ltd - a member of the Thales Group and based in St. Asaph in Denbighshire, specialises in the design, development and manufacture of modules and components for the military, aerospace, civil and industrial markets. It employs over 450 people, of whom a high percentage are qualified engineers and a number acknowledged world experts in their specialist area.

A map showing the location of aerospace companies and airports in Wales is attached as Annex 1.

4.2 Aerospace Sites⁸

Aerospace Wales – St Athan

Aerospace Wales – St Athan has on-site airside access to a 1,825 metre runway which could be made capable of landing Boeing 747s. Initially a £70 million project of DARA, 500 acres of development land is available with additional land ear-marked for development of an aviation Centre of Excellence on the site and an aerospace business park. A private-sector funded custom-built aircraft maintenance facility has been constructed with 20,000 square metres of support workshops and office facilities, and 45,000 square metres of hangar accommodation. With a roof span of 66 metres and a working height of 14 metres, the hangars have been designed to allow for flexibility and can accommodate up to 48 Tornado size aircraft bays, or a number of alternative larger aircraft if required.

ParcAberporth

ParcAberporth in West Wales was launched on 13 July 2004. It is a venture which aims to attract a cluster of companies working in the Unmanned Aerial Vehicle (UAV) and related sectors to a 50 acre high-tech business park, situated alongside the QinetiQ Missile Testing Range. It includes a business and incubation centre together with research and development facilities.

⁷ Nacelle: A streamlined enclosure for an aircraft engine

⁸ Source: Welsh Development Agency

Hawarden Park

Hawarden Business Park, three miles from Chester city centre, is located next to Hawarden Airport and is adjacent to Airbus's A380 wing manufacturing facility.

The site covers 42 acres and eventually it will provide in excess of 450,000sq ft of commercial floorspace.

4.3 Aerospace Cluster⁹

The Aerospace Cluster has been operational since April 2003 and was formally launched by Andrew Davies (AM), Minister for Economic Development and Transport, in September 2003. It currently has 38 member companies with a combined turnover of £152m and 2,333 employees. Membership is spread across all sizes of companies from 1 to 450 employees.

Companies are involved in a wide variety of activities in the aerospace sector including maintenance & overhaul, support services & equipment supply, component & system manufacturers, spares suppliers, safety, design, testing and training.

Around 24% of the members are looking for their first export order and 7 are currently on the New Exporter programme. In contrast 60% of the remaining members are either active or experienced exporters. The cluster has combined export sales of over £50m and an average export turnover of 35%. Generally, their prime interest is in the USA (over 60% of companies) and pre-2004 EU member states (over 40%).

38% of cluster members are based in South East Wales and 31% are located in South West Wales.

⁹ Source: WalesTrade International:
<http://www.walestrade.com/welshcompanies/cd/aerospace/aerospace.htm>

5. Skills and training Issues

5.1 Future Skills Wales 2000 Sector Report¹⁰

The Future Skills Wales research project produced a report on the Aerospace sector in 2000. This report identified a number of skills related issues including:

Cyclical training patterns: the industry has experienced cyclical patterns in demand that have been reflected in the stop-go training activities of those companies affected.

Impact of lean methodologies: the introduction of the lean model of manufacturing, which focuses on reducing the amount of all the resources used in the various activities of the enterprise, has had implications for the structure of the workforce. The fundamental principle of decision making at the lowest level has resulted in a flattening in middle management and an emphasis on those with technical skills to take more team leadership roles.

Shortage of engineers and engineering graduates: evidence from a survey undertaken in 1998 showed that skills shortages were predominantly in engineering areas. Companies noted a shortage in the quality of engineering graduates, in particular their lack of work experience and apparent weaknesses in communication skills.

Managerial Skills: three key themes to emerge in relation to management skills were:

- developing change management skills;
- developing communication skills;
- developing leadership skills.

IT Skills: a continued shortage of software engineers and technicians, despite the increased number of computer studies trainees and an overall rise in the basic IT skills levels of new entrants. One reason for this is the increasing level of competition from other hi-technology firms.

The report recommended future research to:

- ◆ Identify any 'latent' skill gaps, where a company operates a sub-optimal production strategy to conceal skill deficiencies.
- ◆ Keep sub-regional training provision under review with a view to meeting potential increases in demand, especially considering the prospects for employment growth.
- ◆ Evaluate skills issues around Cardiff International Airport.
- ◆ Examine the extent to which the contraction of the armed forces and industrial and manufacturing base will affect the future supply of appropriately skilled labour.

¹⁰ Future Skills Wales Aerospace Sector Report, 2000:
<http://www.futureskillswales.com/uploads/documents/27.pdf>

5.2 MRO Training Market¹¹

In 2001 there were a total of 50,000 MRO engineers in the UK, of which 20,000 were military and 30,000 were civilian. Of the civilians, 12,000 engineers were licensed and 18,000 were qualified but unlicensed (as they do not need to sign off an aircraft that will carry passengers. These are engineers engaged on off-line activities such as major overhauls, manufacturing, repair of light aircraft, management project planning, etc).

30% of British licence holders work overseas, possibly for British airlines or international maintenance and repair organisations. Aircraft maintenance is an international activity and if a British airline bases aircraft overseas (such as *easyJet* basing its Airbus' at Geneva) then it may base a team of its in-house engineers there as well.

The 'North Wales Aerospace Academy Feasibility Study'¹² undertook an analysis to forecast and predict the future demand for licensed aerospace engineers. Using predicted growth in aircraft movements, two scenarios were arrived at:

- ◆ LOW forecast UK demand of 14,500 engineers needed by 2010, if their productivity rises each year.
- ◆ HIGH forecast UK demand of 16,300 engineers if their productivity stays static after 2005.

The conclusions of the market analysis undertaken as part of the feasibility study were as follows;

- ◆ The demand and supply gap in the civilian market seems sufficient to justify a new civilian academy in the UK. However, more than one new academy risks saturating the market.
- ◆ A logical place for the new Academy is along the E22 Euroroute, where there is a market in the form of 96 employers that is not served by a local Civil Aviation Authority EASA Part147 training college¹³. The E22 Euroroute includes the A55 and extends from Dublin in Ireland to Sassnitz in Poland. Candidate sites for a new establishment exist in North Wales and England.
- ◆ A location in North West Wales opens up the potential to capture both UK, and Irish markets

¹¹ Source: Aerospace Wales Forum, Aerospace maintenance engineering training facility Consultation Document <http://www.aerospacewalesforum.com/>

¹² Aerospace Wales Forum Ltd-North Wales Aerospace Academy Feasibility Study Apr04-Strategem Ltd. The purpose of the feasibility study was to address the following key issues in order to judge the feasibility of establishing an EASA Part147 approved facility in North Wales:

- ◆ To provide an economic assessment for the establishment of a EASA Part147 approved training facility in North Wales;
- ◆ To provide details on the best location for a potential facility, taking into account the proximity of existing aviation and aerospace facilities and the ability to contribute to overall economic growth and attract further investment;
- ◆ Assess the impact of such a facility related to the established clusters in North and South Wales, e.g. what opportunities are there for synergy with these and other facilities such as RAF Valley and the MoD facilities at Llanbedr and Aberporth?
- ◆ To measure whether the economic impact of such a facility would be complementary to the existing facilities in South Wales and provide access to additional local and regional markets;
- ◆ To provide guidance on the key characteristics, competences and formal qualifications required of the organisation selected to run such a facility;
- ◆ To identify funding sources that can be used to support the creation and subsequent operation of such a facility.

¹³ EASA Part 147 – See Glossary

5.3 North Wales Aerospace Maintenance Academy

Aerospace Wales Forum, in conjunction with WDA and ELWa launched a consultation document proposing the establishment of a new aerospace maintenance training facility, inviting comments and improvements to this proposal, to be received by 21 January 2005.

The proposals have been made to establish the aerospace maintenance training academy at Mona Airfield on Anglesey. The Academy will provide skills support for the maintenance repair and overhaul segment of the aerospace sector.

The proposal calls for a collaborative project between industry and academic institutions both inside and outside Wales.

5.4 Aerospace Training Centres in Wales

Existing training establishments in Wales include¹⁴:

Barry College International Aerospace Training Centre - has the resources and expertise to undertake all aspects of aerospace training including: aerodynamics, aircraft electro-mechanical systems, aircraft industry management, aircraft maintenance, aircraft structural integrity, avionics, industrial studies and common skills, jet aircraft propulsion technology, and procurement and systems. The centre is approved by the Civil Aviation Authority (CAA) as a JAR147¹⁵ facility, making it one of only four proposed aerospace training providers in the UK. As a JAR 147 Approved Maintenance Training Organisation, it provides a single maintenance-training standard throughout Europe for the training and licensing of aircraft engineers and technicians.

Pontypridd College - provides apprentice training for GE Engine Aircraft Engine Services and British Airways Avionics Engineering. Courses offered are BTEC and HNC in Aerospace engineering.

Ystrad Mynach College - has a programme running for British Airways Interiors Engineering (BAIE) and Nordam Aerospace. Ystrad Mynach College has extended their provision to offer evening aerospace courses.

Deeside College - offers craft mechanic City and Guilds, BTEC and HNC/D in aerospace engineering.

North East Wales Institute - offers higher education courses in areas of Aeronautical Engineering, Aeronautical and Mechanical Engineering, Aeronautical Electronics and Space Technology.

Lufthansa Resource Technical Training (LRRT) – based in Cwmbran in Gwent, is a JAR 147 approved basic training organisation for commercial aviation maintenance staff.

University of Glamorgan - offers higher education courses in Aerospace Engineering.

¹⁴ Source: Aerospace Wales Forum. Further information on the aerospace related activities of Universities and Colleges in Wales can be found at:

http://www.aerospacewalesforum.com/home.php?page_id=13

¹⁵ JAR 147 – See Glossary



University of Wales, Cardiff - has collaborated with Boeing, McDonnell Douglas, BAE SYSTEMS (Airbus) Ltd, BAE SYSTEMS (Operations) Ltd, DERA (now QinetiQ), Matra BAE Dynamics (UK) Ltd and NASA in a range of research projects and teaching schemes.

University of Wales (Swansea) - offers higher education courses in areas of Aerospace Engineering and Aerospace Communications.

University of Wales (Aberystwyth) - offers higher education courses in Space Technology.

6. Air Transport

6.1 Airports in Wales

Cardiff International Airport is owned by Abertis and is the largest airport in Wales. It is situated at Rhoose, 12 miles south-west of Cardiff city centre. Cardiff International Airport handles around 1.9 million passengers a year and was the UK's second fastest growing airport in 2003, with 52% of passengers flying on charter services, 48% on scheduled services, and passengers travelling to 64 regular destinations. Approximately 64% of passengers on the Cardiff – Amsterdam service with KLM are using Schipol to link to world-wide destinations.¹⁶

Swansea Airport is located in the eastern part of the Gower peninsula, which is designated a Site of Special Scientific Interest (SSSI) and Area of Outstanding Natural Beauty (AONB) and is about 10 miles from Swansea city centre.¹⁷

Haverfordwest airport is located on the northern outskirts of Haverfordwest town, close to the village of Withybush. The airport is owned, managed and operated by Pembrokeshire County Council.¹⁸

Hawarden airport is located close to the town Hawarden, 3 miles west of Chester. The site is owned by BAE Systems but a long term tenancy agreement has been signed with Airbus UK, giving rights as the sole operator of the site. The accompanying industrial complex at the airport is an important part of Airbus production. Excluding some specialist services, all Airbus aircraft wings are manufactured and assembled at the site.¹⁹

Caernarfon airport is located about 7 miles south - west from the town centre of Caernarfon. The site is privately owned and is operated and managed by Mr Roy Steptoe (Managing Director, Caernarfon Airworld Ltd.).²⁰

RAF Valley is located 5 miles east of the village of Valley on the western coast of the Isle of Anglesey. The site is an active RAF airfield, with 3 operational runways, but does not have a civil licence. RAF Valley is the primary training base for fighter squadron personnel, is the busiest RAF station in the UK (measured in terms of aircraft movements) and is one of the busiest military airfields in Europe.²¹

RAF Mona comes under the direction of Valley. Mona is an active airfield but is used primarily as a diversion / relief airfield to Valley.²²

¹⁶ Source. Cardiff International Airport web-site:

<http://www.cial.co.uk/default.asp>

The Welsh Assembly Government is considering options for improving transport links to Cardiff International Airport. Options are outlined in a Welsh Assembly Government leaflet, published in January 2005, entitled *Access to Cardiff International Airport* and available at:

<http://www.wales.gov.uk/subitransport/content/leaflet/access-cia-e.pdf>

The Transport Directorate of the Welsh Assembly Government commissioned an independent study to identify improvements to address the current and future traffic problems at Culverhouse Cross and improve access to Cardiff International Airport and Barry. A paper setting out the recommended transport improvements to cater for future transport demand up to 2016 at this location was published in August 2003. Further information on this study can be found at:

<http://www.wales.gov.uk/subitransport/content/transport/a48-a4232-accessstudy-index-e.htm>

¹⁷ Source: *Development of an Air Transport Strategy for Wales* Consultation Document, December 2003:

<http://www.wales.gov.uk/subitransport/content/consultation/airstrat-index-e.htm>

¹⁸ ibid

¹⁹ ibid

²⁰ ibid

²¹ ibid

²² ibid

6.3 Transport Review

On 7 December 2004, Andrew Davies (AM), Minister for Economic Development and Transport, announced an £8 billion, 15-year programme to develop an integrated transport system throughout Wales²⁷. This announcement followed an analysis of existing transport requirements and those needed to deliver a strategic fit between transport objectives and the vision set out in *Wales: A Better Country* and *People, Places, Futures* - the Assembly Government's spatial plan for Wales.

In a Cabinet Statement²⁸ of 7 December 2004, the Minister for Economic Development and Transport stated:

“The Assembly Government recognises that airports and air services have a vital role to play in the development of an integrated and sustainable transport system. Work is in hand to investigate the potential for a Route Development Fund to support new scheduled services, particularly international links from Cardiff International Airport.

In addition, I am keen to exploit the potential of air services within Wales. I have decided to take forward in principle a service from Swansea to Cardiff to RAF Valley on Anglesey. This service would operate on a ‘double daily’ basis, to facilitate day return journeys. It will help to bridge the perceived North – South divide in Wales, providing significant time savings for passengers. There will be other benefits in terms of better business linkages and the improved attractiveness of Wales for inward investors and tourism. Subject to securing a number of approvals and consents, the service would start in 2006.”

6.4 Transport (Wales) Bill²⁹

The Transport (Wales) Bill was introduced on 19 May 2005 and aims to give the Assembly the powers it needs to take forward its integrated transport policies. The Bill includes a specific power to give financial assistance in respect of air services and airport facilities in Wales, where the services or facilities would not otherwise be provided.

Clause 11 provides the Assembly with a specific power to give financial assistance to persons who provide or propose to provide air transport services which start or end at an airport in Wales and to persons who provide or propose to provide airport facilities or services in Wales. The power would be subject to the condition that such assistance may only be given if the services or facilities would not, in the Assembly's view, be provided without that assistance.

²⁷ Information on the Transport Review can be found on the National Assembly for Wales web-site at: <http://www.wales.gov.uk/subitransport/content/review/index-e.htm>

²⁸ Welsh Assembly Government Cabinet Written Statement, *Transport review – Conclusions*, 7 December 2004: <http://www.wales.gov.uk/organicabinet/content/statements/2004/071204-transport-e.doc>

²⁹ The Transport (Wales) Bill was introduced in the House of Commons on 15 December 2004 and is available on the UK Parliament web-site at: <http://bills.ais.co.uk/QZ.asp?title=g>

7. Assembly Business

- ◆ **11 May 2005: Plenary Debate on the Aerospace Industry in Wales:**
http://assembly/rop/ROP/Plenary%20Session/2005/May/rop050511qv7.html#_Toc103678642

Motion for debate: NDM2431 Jane Hutt (Vale of Glamorgan)

To propose that the National Assembly for Wales:
Notes the Welsh Assembly Government's commitment and effort in developing and maintaining the aerospace industry in Wales

- ◆ **9 February 2005: Economic Development and Transport Committee (EDT2 03-05): Transport needs and policy for Wales**

Wales 2040 - A Vision for Transport - A Summary View by the Wales Transport Strategy Group:

<http://www.wales.gov.uk/assemblydata/N000000000000000000000000028176.pdf>

This paper noted that:

- Better air links will be most justified where they help economic development.
 - The importance of Wales' ports and airports in the longer term future remains an open question. There is potential for expansion in use of Cardiff International Airport, but even the most ambitious plans are expected to have limited impact on the overall transport market.
- ◆ **21 September 2004: Cabinet Statement on the Defence Aviation Repair Agency (DARA), St Athan by Andrew Davies (AM), Minister for Economic Development and Transport:**
<http://www.google.co.uk/url?sa=U&start=2&q=http://www.wales.gov.uk/organicabinet/content/statements/2004/210904-dara-e.doc&e=9901>

This statement follows an announcement by the Ministry of Defence regarding the transfer of work from the Defence Aviation Repair Agency facility at St Athan in the Vale of Glamorgan to Royal Air Force Marham in Norfolk.

8. Key Documents and Further Information

- ◆ **Transport (Wales) Bill, introduced 19 May 2005:**
<http://www.publications.parliament.uk/pa/cm200506/cmbills/004/2006004.htm>
- ◆ **Welsh Assembly Government, *Transport Review*, 7 December 2004:**
<http://www.wales.gov.uk/subitransport/content/review/index-e.htm>
- ◆ **Welsh Assembly Government, *Intra-Wales Scheduled Air Services: A Consultation Document*, March 2004:**
<http://www.wales.gov.uk/subitransport/content/consultation/airstrat-index-e.htm>
- ◆ **Cardiff International Airport (CIA): *Report of the study group*, 20 July 2003:**
<http://www.wales.gov.uk/subitradeindustry/content/cia-study-group-rep-e.pdf>
- ◆ **Department for Transport Consultation: *The future development of air transport in the UK (Wales)*, July 2002:**
http://www.dft.gov.uk/stellent/groups/dft_aviation/documents/page/dft_aviation_506896.hcsp
- ◆ **Future Skill Wales 2000, *Aerospace Sector Report*, August 2000:**
<http://www.futureskillswales.com/uploads/documents/27.pdf>
- ◆ **Aerospace Wales Forum:** <http://www.aerospacewalesforum.com/>

The Aerospace Wales Forum was formally launched at RAF St Athan in March 2002. The forum's aims are to become the voice of the industry in Wales; to promote the industry at home and abroad; to support companies in improving their performance; to encourage innovation; to facilitate appropriate skills development and to attract other companies to set up in Wales.

9. Glossary of Terms³⁰

Joint Aviation Requirements (JAR)

Historically, the Joint Aviation Requirements (JAR) were the requirements set by the Joint Aviation Authorities (JAA) to ensure that EU Member States attain a high and consistent standard of safety in commercial air transport.

JAR dealt with:

- ◆ Aircraft design and manufacture
- ◆ Aircraft operation and maintenance
- ◆ Licensing of aviation personnel

The functions of the JAA in relation to JAR were to:

- ◆ Develop and adopt JAR in the fields of aircraft design and manufacture, aircraft operations and maintenance, and the licensing of aviation personnel
- ◆ Develop administrative and technical procedures for the implementation of JAR.
- ◆ Implement JAR in a co-ordinated and uniform manner.

European Aviation Safety Agency (EASA)

Since 28th September 2003, the statutory role the JAA played in being an aviation safety authority within the EU, has been taken by the European Aviation Safety Agency (EASA).

From the point of view of the maintenance of civil aircraft in the UK, the change is a legal technicality. EASA has adopted the work of JAA in certification and standards and is expanding it. Within the EU, the standards are correctly known as 'EASA XYZ' etc. Outside the EU but still within the JAA membership, the standards are correctly known as 'JAR XYZ' etc.

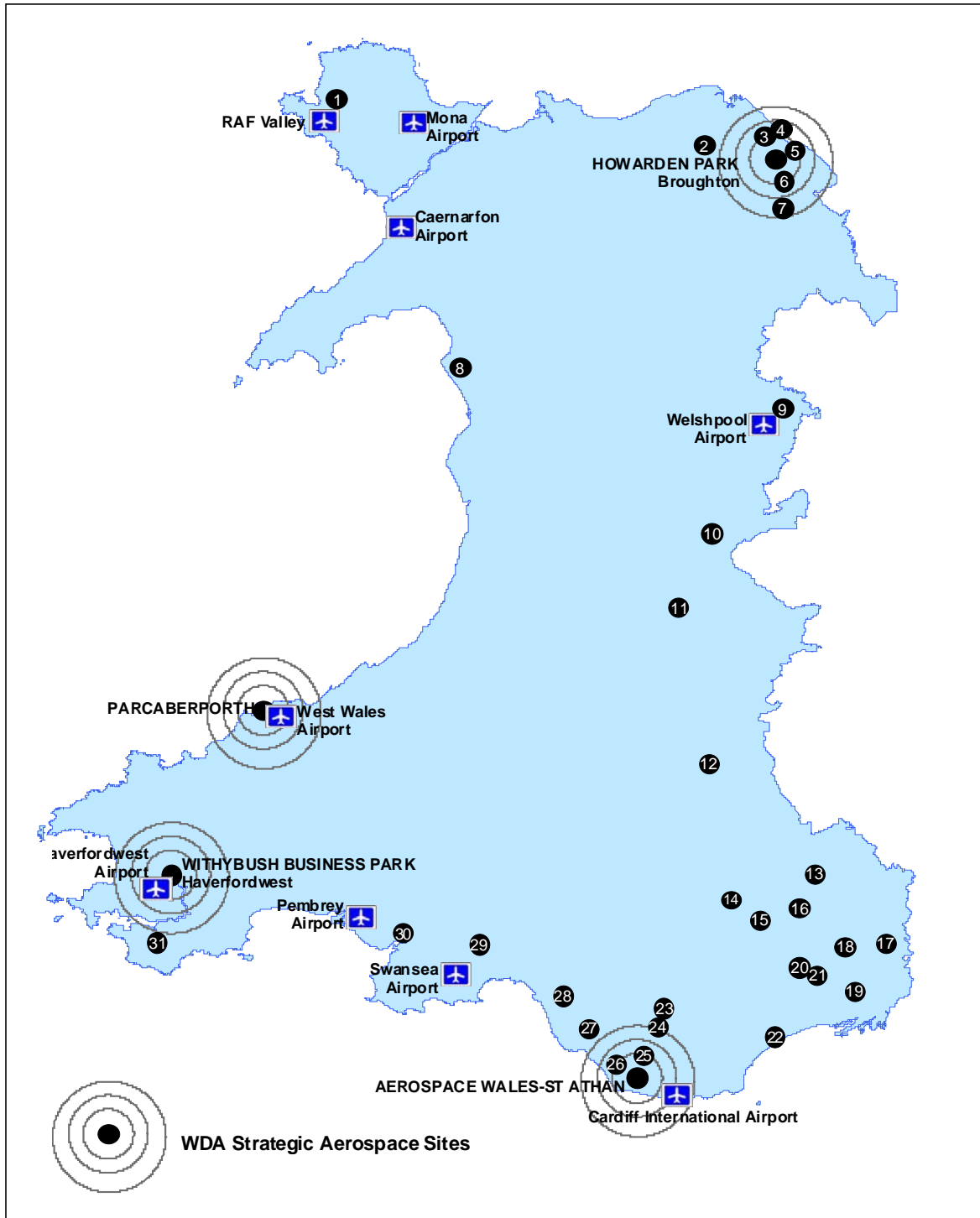
- ◆ *EASA Part66 certification* (Previously JAR 66) is a statutory requirement for maintenance engineers of passenger carrying aircraft.
- ◆ *EASA Part 147 site* (Previously JAR 147) is a special training site approved by the Civil Aviation Authority, which has significant advantages in teaching EASA PART 66.

EASA Part 145 (Previously JAR145) relates to employers and facilities engaged in maintaining and certifying aircraft. Any facility carrying out commercial maintenance activity must be EASA Part145 certified.

³⁰ Source: Aerospace Wales Forum, Aerospace maintenance engineering training facility Consultation Document
<http://www.aerospacewalesforum.com/>



Annex 1. Map of aerospace companies and airports in Wales



Source: Welsh Development Agency



Companies

1. Anglesey	Babcock Defence Services
2. St.Asaph	Thales UK
3. Queensferry	RD Precision
4. Deeside	Precision Polymer Applications DARA Sealand
5. Broughton	Airbus UK Metal Improvement Company Raytheon Aircraft Services Unipart Logistics
6. Hawarden	Electroimpact
7. Wrexham	Magellan Aerospace Fabrications/Metal Treatments Tritech Precision Products Cytec
8. Llanbedr	Llanbedr Runway
9. Welshpool	Flowform
10. Newtown	Trellerborg
11. Rhayader	Compact Orbital Gears
12. Brecon	Winslow Adaptics
13. Blaenavon	Doncasters Blaenavon
14. Mountain Ash	Aeroresponse
15. Abercynon	Total Engine Support A B Connectors
16. Blackwood	BA Interiors Engineering NORDAM Europe General Dynamics
17. Usk	BAE Systems
18. Cwmbran	Contour Premium Aircraft Seating Lufthansa Resource Technical Training
19. Newport	EADS Defence and Security Systems Flying Service Engineering & Equipment
20. Nantgarw	GE Aircraft Engine Services
21. Cwmfelinfach	Penny and Giles Controls
22. Cardiff	Poeton
23. Llantrisant	Prematec
24. Pontyclun	BA Avionic Engineering
25. Cowbridge	IAA Europe
26. St. Athan	DARA
27. Bridgend	Irvin GQ Spectrum Technologies Aircraft Maintenance Support Services
28. Maesteg	Gardner Aerospace
29. Swansea	Planeweighs
30. Llanelli	Overhall Aerospace Limited
31. Pembroke	United Aerospace

Source: Welsh Development Agency