

Aerospace and Defence Strengths in South East England





Aerospace and Defence: The Global Market Opportunities

Civil Aviation

Demand for air travel is forecast to grow by at least five per cent a year over the next decade, with the major aeroplane manufacturers already reporting record order books and production backlogs (*source: Society of British Aerospace Companies (SBAC), 2007*). The market offers real opportunities for aerospace businesses; for example, the high cost of fuel and ever increasing environmental concerns are demanding new technology solutions, while new infrastructure such as airports and air traffic management systems will be necessary. Low cost carriers are already competing strongly on regional and domestic routes and are likely to be expanding into long haul.

The new economies of Asia are driving the greatest growth in air travel and it is likely involvement in the design and manufacture of the extra aircraft will be sought. This, in turn, is stimulating new global supply chain models and technology transfer.

Defence and Security

Global terrorism and major international conflicts have transformed defence requirements, especially in Europe and the USA. Demand is now for advanced technology solutions, delivered quickly and which are affordable due to rising pressures on defence spending.

The systems being tendered for today must have 'through-life' support solutions on platforms that can be adapted and upgraded to meet emerging threats, while new technologies such as autonomous systems for air, land and sea, are opening up new business opportunities. The financial constraints on governments are also creating opportunities for the transfer of services into the private sector.

Unmanned Aerial Vehicles (UAVs)

There is a growing market for UAVs which is expected to be worth \$13bn by 2014 (*source: Forecast International, 2008*). Most current production technology for UAVs lie within defence applications but there is evidence now of growing demand in the civil sector, not only for Homeland Security applications, but coastal fisheries, agriculture and real time monitoring for weather.

Space

The space market is expected to be worth \$1 trillion by 2020, fuelled mainly by growth in communication and earth-observable technologies (*source: SBAC, 2007*). The drive to expand capacity and capability, coupled with affordability, are demanding innovative solutions to market needs, which also requires the development of new supply chain models linking research and business.



Aerospace and Defence Capabilities in the UK

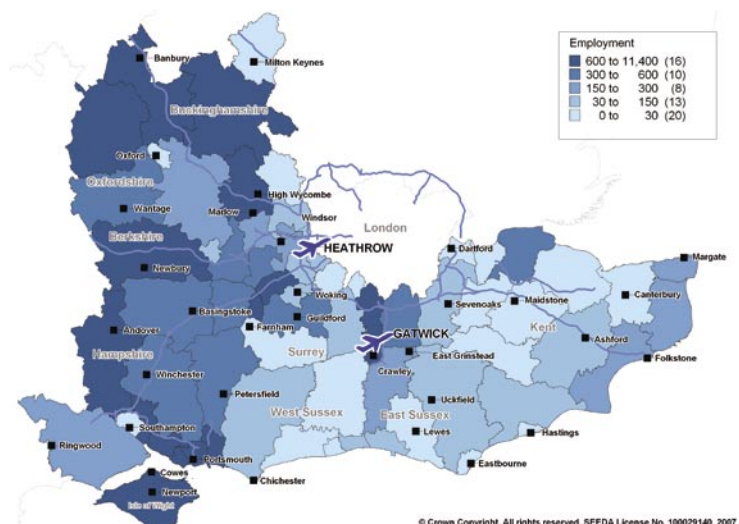
Second only to the US, the UK has a highly developed aerospace and defence sector, with an annual turnover of £20 billion and new orders worth £26 billion (*source: SBAC, 2007*). UK firms are engaged in most major global programmes; for example, 60 per cent of the new A380 Airliner is produced in the UK. As the industry has become global so the UK has become an international leader in systems design and integration, electronic avionics, as well as advanced structure and materials. In addition, because the UK is a major hub for air transport, technologies and systems that have been developed for its airports have been sold world wide.

In space technologies too, the UK is highly regarded internationally for the high quality of its science and engineering capability and is already responsible for seven per cent of world trade (*source: SBAC, 2007*).

Aerospace and Defence Capabilities in South East England

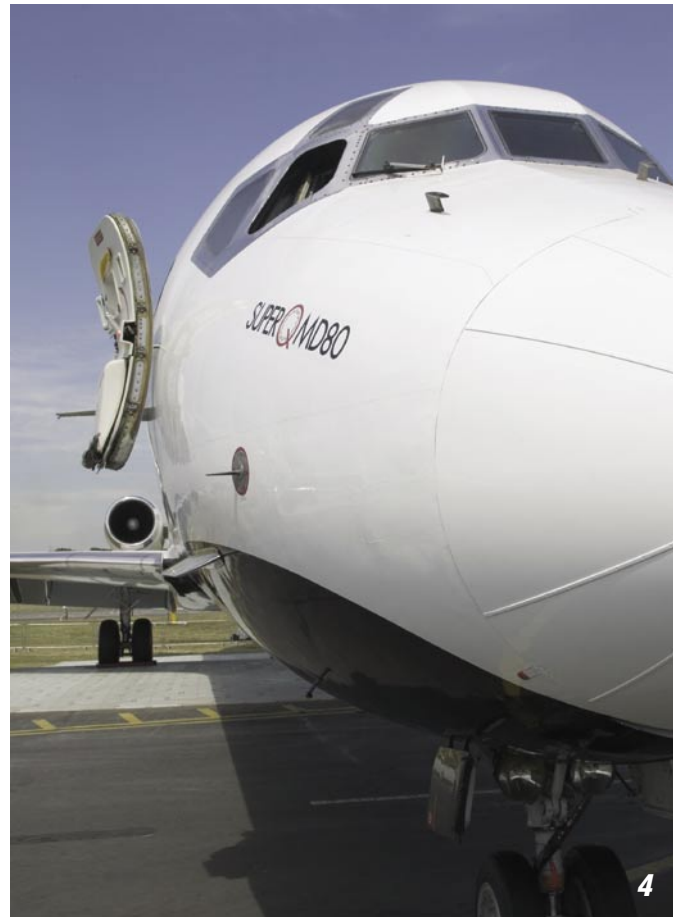
The South East advantage:

- **Access to the Innovation Arc:** Many of the UK's leading universities and research centres span the arc between Oxford and Cambridge providing the South East with easy access to the best of British invention.
- **A highly qualified workforce:** 43,800 people (16% of the UK total), regarded as the highest qualified in the UK, work within the sector in the South East.
- **A modern and sophisticated supply chain:** The aerospace and defence sector supply chain is highly developed and has benefited from massive investment in technology and flexible processes.
- **Airport share:** Home to two of the world's leading airports at Heathrow and Gatwick, the region benefits from an excellent transport infrastructure. They also support specialised clusters of firms providing spares, repairs and maintenance, simulator manufacturing and training, interior design centres, aircraft certification and charter services.
- **Close to Europe:** The proximity of the South East to Europe makes it a natural bridge to the European mainland market.
- **Space connections:** Astrium, the largest space company in the UK, is also located in the region.
- **Strong support:** Farnborough Aerospace Consortium (FAC) is one of the largest aerospace and defence trade associations in Europe, with a global network of partners. It provides business-winning support to all its members especially within specific sector groups focused on major growth opportunities:
 - Space Technology
 - Defence Systems
 - Autonomous Vehicles (UAVs)
 - Homeland Security
 - Maintenance and Repair
 - Civil Aerospace and Airports
 - Environment and Sustainability
- **Research & Development (R&D) Support:** Key cutting edge Government supported collaborative R&D projects are taking place in the region, including NG Composite Wing, Alphasat and Astraera.

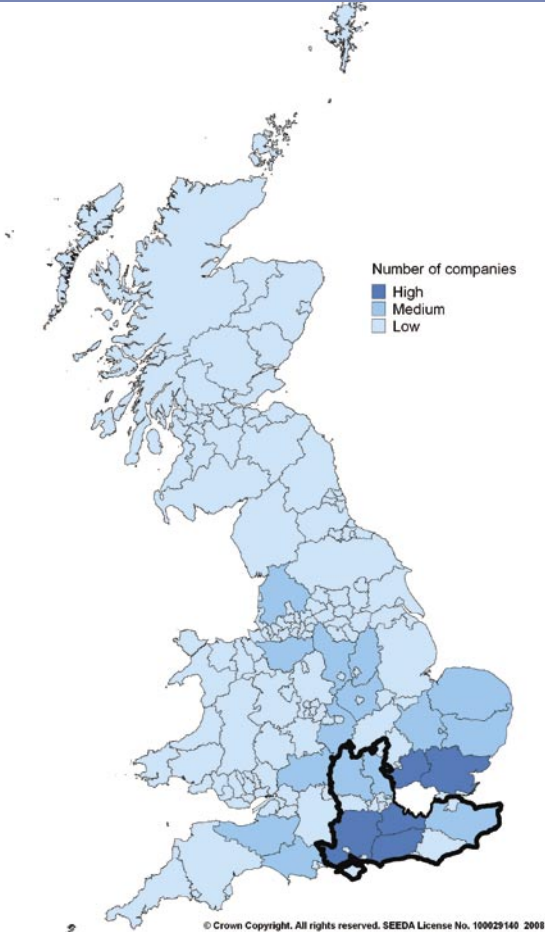


Key Statistics

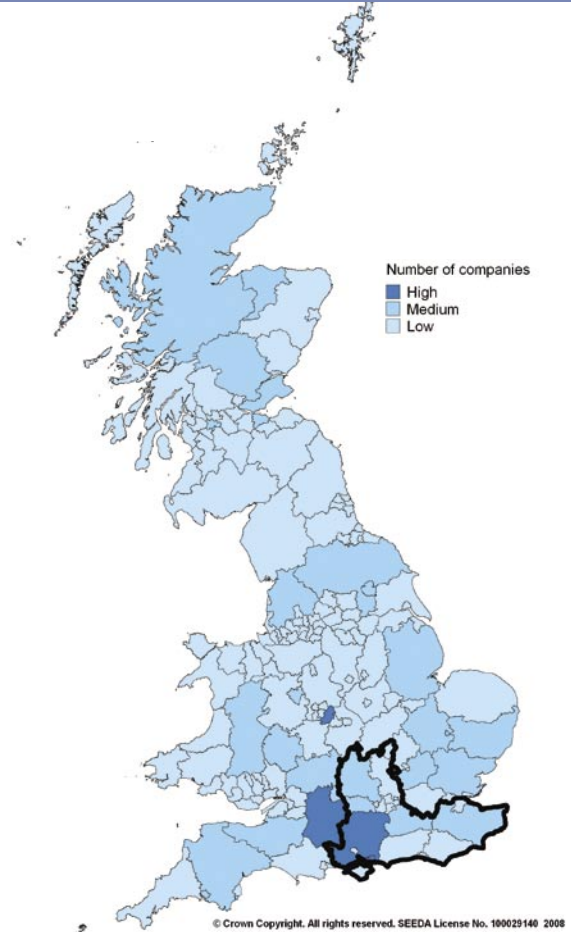
- The UK's aerospace and defence market is the largest in Europe and the UK accounts for 23 per cent of the European market by value (source: *Datamonitor, Aerospace and Defence in the United Kingdom, 2007*).
- There are over 3,400 aerospace and defence companies in the UK and 750 (22 per cent) are based in the South East (source: *Experian SIC Definition, ONS ABI, 2007*).
- Around 271,000 people work in the aerospace and defence sector in the UK and 43,800 (16 per cent) are employed in the South East (source: *Experian SIC Definition, ONS ABI, 2007*).
- The top ten US aerospace and defence companies have operations in the South East or close to the border (source: *Fortune 500, 2008*).
- The region's 24 universities and higher education institutes supply over 74,000 graduates annually, including 5,400 from mathematical sciences and engineering and technology related subjects (source: *HESA, 2007*).

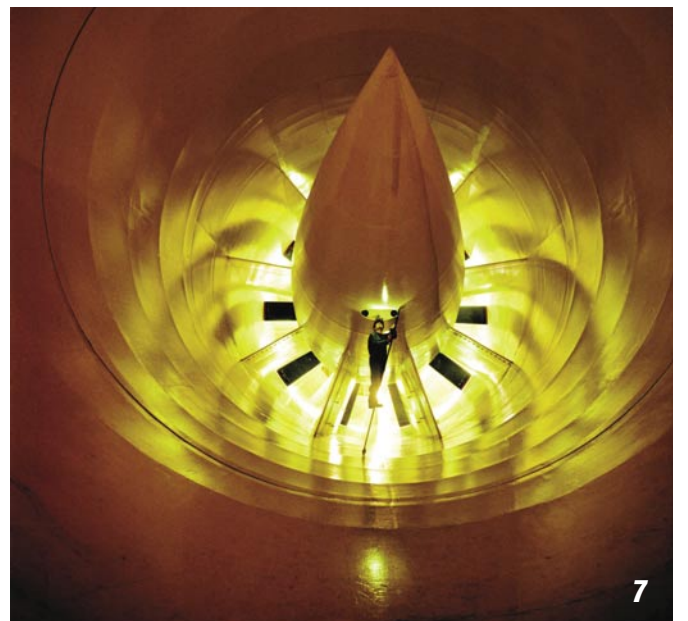
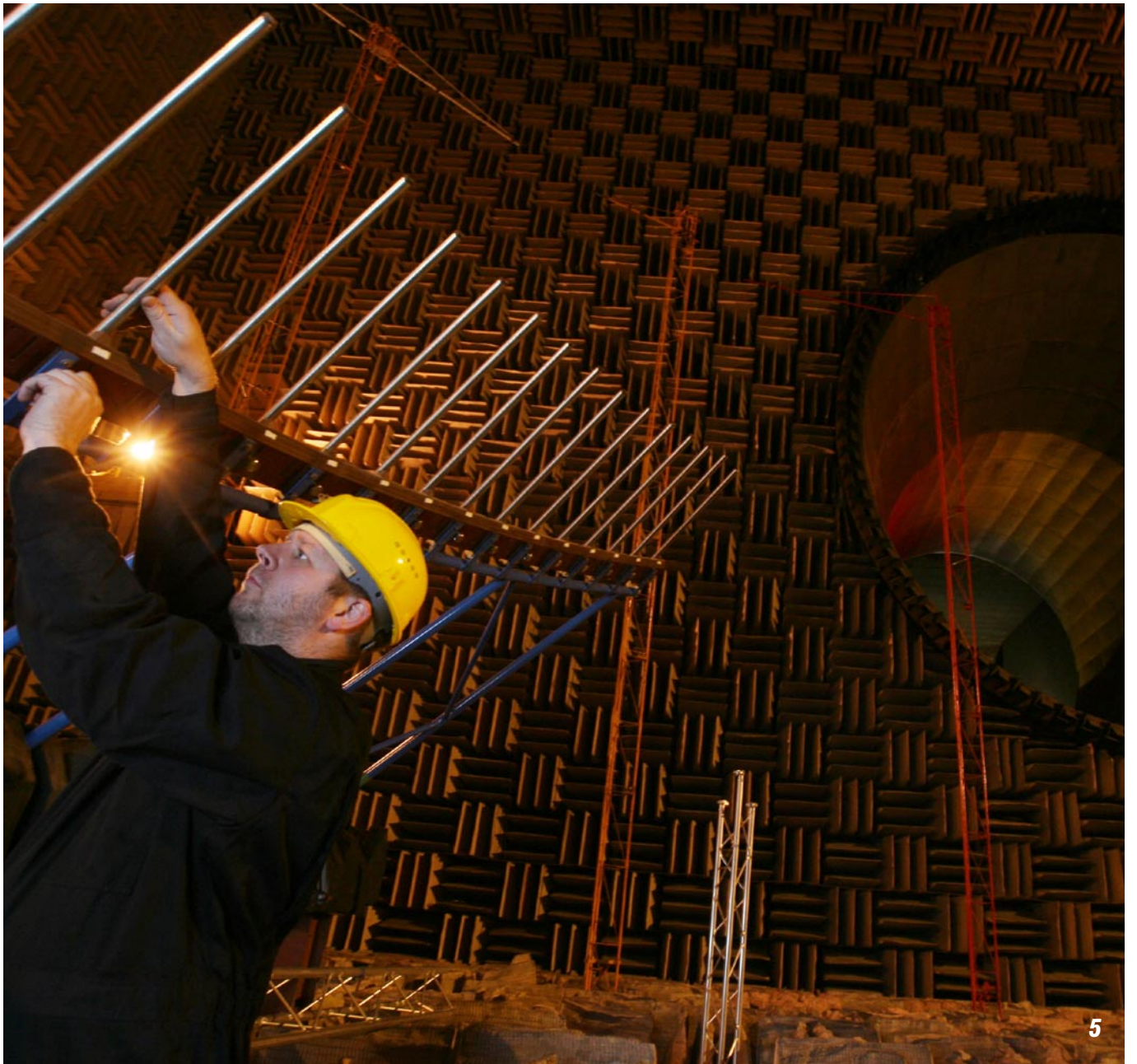


Density of Aerospace Companies in the UK



Density of Defence Companies in the UK





The Aerospace and Defence Presence in South East England

A selection of aerospace and defence companies within the South East region are shown below.

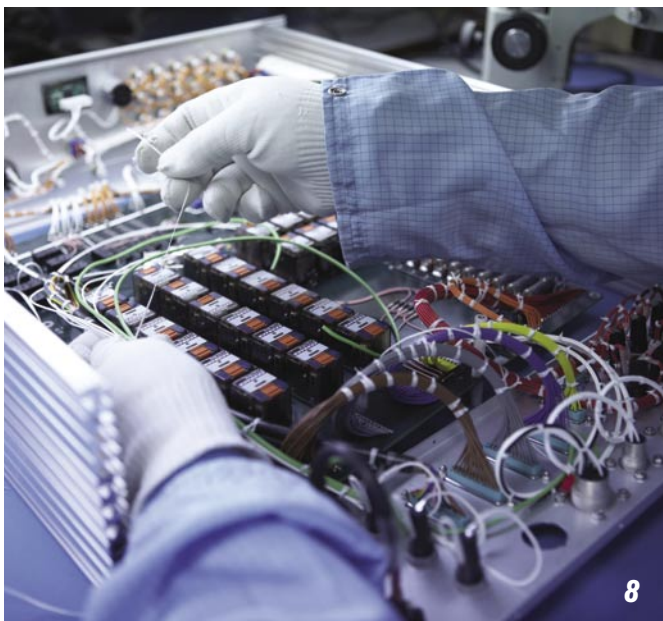
For a more detailed list please go to: www.fac.org.uk

ABSL Space Products	Supplier of lithium-ion batteries and optical hardware for satellites and launch vehicles.	www.abslspaceproducts.com
Adams Aviation Supply Co	Wholesale distributor of aircraft maintenance parts, avionics, instruments and pilots equipment.	www.adamsaviation.com
Aegis Systems	Radio spectrum engineering and frequency management expertise.	www.aegis-systems.co.uk
Aeromet International	Manufacture and production of light alloy castings.	www.aeromet.co.uk
Allyance	A project management company set up to enable customers to get turn-key solutions to large and complex requirements.	www.allyance.co.uk
Alter Technology Group UK	Parts procurement to obsolescence management and long-term storage; technical support, component and reliability testing, failure analysis.	www.altertechnology.com
ATC Lasham	CAA/JAR 145 approved UK maintenance facility.	www.atclasham.co.uk
Atkins Advantage Technical Consulting	Technical consulting, business improvement and software.	www.advantagebusiness.co.uk
B3 Technologies	Design, CNC machining and composites production.	www.b3technologies.com
BAE Systems	BAE Systems is a global company engaged in the development, delivery and support of advanced aerospace and defence systems in the air, on land and at sea.	www.baesystems.com
Baines Simmons	Aviation safety training and consultancy.	www.bainessimmons.com
Barnbrook Systems	Design, development and manufacture of a wide range of electro-mechanical, electro-magnetic and solid state switching devices.	www.barnbrook.co.uk
BAS Aerospace	Manufacturer and stockist of aerospace fasteners. Precision machining.	www.bas-aerospace.com
Beagle Aerospace	Aerospace component manufacturer and commercial airliner structural repair station.	www.beagleaerospace.com
Blake Laphorn Tarlo Lyons	Commercial and legal advice to all sectors of the national and international aerospace industry.	www.blaw.co.uk
Blue Bear Systems Research	R&D company with core skills in rapid prototyping of UAVs.	www.bbsr.co.uk
BMT Reliability Consultants	Engineering consultancy services to reduce risk and improve the reliability, safety and 'through-life' economics of products and processes.	www.bmtrcl.com
BN Group	The UK's only independent civil aircraft manufacturer.	www.britten-norman.com
Bowmill	Manufacturing, assembly, test and material processing subcontractor.	www.bowmill.co.uk

C & D Technologies (Celab)	Design and manufacture high reliability power supplies, meeting the most demanding requirements of military and industrial markets.	www.celab.co.uk
Cam Lock (UK)	The world leader in Aircrew N.B.C. masks, covering all types of military aircraft.	www.camlockuk.com
CAPTEC	A global manufacturer of rugged industrial computing systems.	www.captec.co.uk
Chemring Group	The world's leading producer of expendable decoy counter-measures for protecting air, sea and land platforms against guided missile threats.	www.chemring.co.uk
Cobham Advanced Composites	Specialises in the design and manufacture of high performance radomes and structures for airborne, naval and land based platforms.	www.radomes.aero
Coffin Mew	A large regional law firm with aerospace and defence clients.	www.coffinmew.co.uk
Composite Metal Technologies	An advanced materials technology group specialising in the manufacture of Aluminium Matrix Composites (AMCs).	www.cmt-plc.com
Continental DataGraphics	Providers of technical documentation services to the aerospace and defence sectors.	www.cdgl.com
Cranfield Aerospace	Specialised conversion of military and civil aircraft, UAV design, build and certification.	www.cranfieldaerospace.com
Critical Software Technologies	Supports mission critical information systems across diverse markets including aerospace and defence.	www.critical-software.co.uk
D T Media	Innovative simulation and training products focused primarily on the military market.	www.dtmedia.co.uk
DACO Hand Controllers	Human machine interface devices, such as joysticks, grips, control handles, trackerballs and custom input / output devices, primarily for aerospace and defence applications.	www.daco.co.uk
Deutsch UK	Manufacturers of high reliability electro-mechanical components for extreme environments.	www.deutschuk.com
DezineForce	Integrated suite of software tools for optimisation of designs.	www.dezineforce.com
Di-Spark	Consultancy, design, total manufacture and sub-contract machining for one-offs, prototypes, small batches or volume EDM applications.	www.di-spark.co.uk
DiagnoSYS	Diagnostic and test solutions for electronic modules and circuits.	www.diagnosys.com
DMS Technologies	Specialises in the the design, development and manufacture of portable power and battery solutions.	www.dmstech.co.uk
E-T-A Circuit Breakers	Manufactures a wide range of circuit breakers, controls and sub-systems.	www.e-t-a.com
Eaton Aerospace	Hydraulic power generation, fuel systems, propululsion and air management sub-systems, cockpit interface and circuit protection and motion controls.	www.aerospace.eaton.com

Electron Beam Processess	Electronic beam welding, boasting the largest electronic beam welding machine in the western world.	www.ebpglobal.com
Elliot Ward Aviation	Aircraft spares support company.	www.elliottwardaviation.com
Enabling Technologies	Engineering consultancy specialising in advanced composite and metallic structures in aerospace and other high performance product sectors.	www.enablingtechnologies.co.uk
ERA Technology	ERA Technology provides a range of engineering consultancy and design services, primarily in the electronic and electrical engineering arena.	www.era.co.uk
Excalibur Systems UK	High quality, cost effective data bus interfaces, couplers, cables, connectors and integrated solutions.	www.excaliber-systems.co.uk
FanWing	R&D company developing new aircraft technology.	www.fanwing.com
Farnborough Aircraft Corporation	Producer of the Kestrel, a small to medium range prop shaft airplane.	www.facl.net
Farnborough Aircraft Interiors	Interior refurbishment of fixed wing and rotary aircraft.	www.aircraftinteriors.co.uk
GASE Engineering	Sub-contract manufacturing company for machining, sheet fabrication, welding, waterjet cutting and sub-assemblies.	www.gaseaero.com
GE Aviation	Mechanical Structures (SA) are leaders in the design and manufacture of major structures and precision airframe components in metallic, composite and acrylic materials.	www.geaviationsystems.com
General Dynamics	Leading prime contractor and complex systems integrator.	www.generaldynamics.uk.com
GKN	Propulsion systems and special products and aerostructures.	www.gkn.com
Goshawk Aerospace	Stress analysis consultancy to the aerospace industry.	www.goshawkaerospace.co.uk
Harmonic Software	Software development services to military and commercial customers in the embedded market place.	www.harmonicss.co.uk
Hawker Pacific Aerospace	Repair and overhaul of landing gears, their components, and the flap tracks and carriages of most of the major commercial aircraft currently in service today.	www.hawker.com
Heath Tecna	Premium aircraft interior supplier whose integrated approach to the cabin provides innovative solutions for any scenario or requirement.	www.heath-eu.com
High Tech Engineering	Precision engineering company operating from a purpose built facility utilising all the latest technology.	www.high-tech-eng.co.uk
Jetstream Logistics	Specialists in shipping AOG, dangerous goods, oversized product and production line supply.	www.jsluk.com
Jefferson Engineering Services	Manufacturer of ultra-high precision machined components and sub-assemblies.	www.jefferson-engineering.com

Kembrey Wiring Systems	Design, development and manufacture of aerospace and defence electrical interconnection systems.	www.kembrey.co.uk
Long & Marshall	Sub contract CNC precision machinists, mechanical and electro mechanical assembly.	www.longmar.com
Lyncolec	High technology printed circuit board manufacturer.	www.lyncolec.co.uk
Metal Improvement Company	Shot peening, laser peening, peen forming, heat treating and precision coatings.	www.metalimprovement.com
Nicholson McLaren Aviation	Design, develop, build and rebuild piston engines.	www.nicholsonmclaren.com
Paint Services Group	Aerospace and defence coatings and paint shop ancillaries.	www.paintservices.com
Portsmouth Aviation	Defence equipment design and manufacturing company.	www.portsmouthaviation.co.uk
QinetiQ Group	One of the world's leading aviation and defence technology companies.	www.Qinetiq.com
Rockwell Collins UK	Aviation electronics and communications solutions to both commercial and Government customers.	www.rockwellcollins.com
Silicon Valley Group	Air Traffic Management (ATM) and airports environment.	www.silicon-valley.co.uk
St Bernard Composites	Design and manufacture advanced composite and metal bonded structures.	www.stbernard.co.uk
Supercraft	Multi discipline subcontract supplier to aerospace and defense industries.	www.supercraft.co.uk
Surrey Satellite Technology	World leaders in small satellite technology. With design, assembly, integration, launch, commission and an in-orbit operations experience covering 23 small satellite missions.	www.sstl.co.uk
Thales Missile Electronics	Europe's largest supplier of electronic subsystems for missiles and munitions.	www.thales-tme.co.uk
Warrior (Aero-Marine)	UAV and light aircraft technologies, with special knowledge and capability relating to amphibious aircraft and seaplanes.	www.centaurseaplane.com





Helping To Establish and Grow Your Business in the South East

The South East England Development Agency (SEEDA), as the Regional Development Agency for the South East, is responsible for the sustainable economic development and regeneration for the region.

The region has a highly effective network to help companies become quickly established and succeed in the region. SEEDA, UK Trade & Investment (UKTI) and Farnborough Aerospace Consortium (FAC) work in partnership to save you valuable management time and money. A dedicated client manager will understand your key business drivers and tailor support around your needs. Your manager will:

- Provide you with bespoke market research and local area information
- Provide practical advice on setting up a business in the UK
- Source commercial property for current and future needs and residential accommodation
- Arrange and accompany you on a personal familiarisation visit to the region
- Introduce you to professional service providers such as accountants, lawyers, bankers, recruitment and marketing specialists
- Provide access to world class research taking place in the region including Government funded collaborative R&D projects
- Advise you on immigration, housing, education and relocation
- Introduce you to business networks
- Identify suitable subcontractors, utility providers, component and service suppliers
- Provide advice on trading in profitable overseas markets
- Once your business is established, continue to provide you with support – helping you to anticipate business needs and address any issues that may affect your future growth

SEEDA has a network of representatives based in eight countries around the world.

For further information, please visit the website at:



www.investsoutheastengland.co.uk/contactus



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Photography

Front cover	Courtesy of FAC	Image 6	Courtesy of SSTL
Image 1	Courtesy of Surrey Satellite Technology Limited (SSTL)	Image 7	Courtesy of QinetiQ (5 metre, pressurised, low speed wind tunnel in Farnborough, Hampshire)
Image 2	Courtesy of Thales UK	Image 8	Courtesy of SSTL
Image 3	Courtesy of FAC	Image 9	Courtesy of Thales UK
Image 4	Courtesy of FAC	Image 10	Courtesy of FAC
Image 5	Courtesy of QinetiQ (noise test facility in Farnborough, Hampshire)		



Printed on 9lives 80 silk stock in England.

9lives 80 is produced with 80% recovered fibre comprising 10% packaging waste, 10% best white waste, 60% de-inked waste fibre and 20% virgin TCF fibre sourced from sustainable forests.