Platform Solutions at Rochester



ELECTRONICS & INTEGRATED SOLUTIONS

www.rochesteravionicarchives.co.uk



BAE Systems is an international company engaged in the development, delivery, and support of advanced defence and aerospace systems in the air, on land, at sea, and in space. The company designs, manufactures, and supports military aircraft, combat vehicles, surface ships, submarines, radar, avionics, communications, electronics, and guided weapon systems. It is a pioneer in technology with a heritage stretching back hundreds of years and is at the forefront of innovation, working to develop the next generation of intelligent defence systems. BAE Systems has major operations across five continents and customers in some 130 countries. The company employs nearly 96,000 people and generates annual sales of approximately £15 billion* through its wholly owned and joint-venture operations.

The Electronics and Integrated Solutions (E&IS) Operating Group of BAE Systems designs, develops and manufactures a wide range of electronic systems and subsystems for both military and commercial applications.

The E&IS Operating Group has more than 17,000 employees working at more than 50 sites in the U.S., U.K. and Israel.

*On a pro forma basis, assuming BAE Systems had owned Armor Holdings for the whole of 2006.

Platform Solutions State of the art

Platform Solutions is a transatlantic business, part of BAE Systems Electronics and Integrated Solutions operating group, serving the defence and aerospace communities with capabilities and products that improve operational safety and enhance mission effectiveness. The business supports a wide range of military and commercial platforms.

Our world-class technology is helping to redefine what an aircraft (and its pilot) can achieve. Our business is built on many years of competency and experience - our history can be traced back to Elliott Brothers who made flight instrumentation - giving us over 90 years of control and mission systems experience. For example, the products we've developed for both rotary and fixed-wing aircraft offer pilots a heightened sense of their surroundings. That greater degree of awareness means they can safely take off and land in extremely low-visibility conditions, including fog, sandstorms, heavy rain and darkness.

Working with our customers and suppliers, we aim to deliver effective systems and a through-life capability to meet the most challenging requirements.

Defence Avionics

Commercial Avionics









Vehicle Systems



Organised for success

Through three distinct business areas, we are capturing and exploiting the potential of our transatlantic capability. Our market-facing business areas brings all of the capabilities of Platform Solutions to bear on the needs of our customers, enabling us to more thoroughly understand the market, harness our customer relationships, and ensure execution of our programmes.

Defence Avionics

UK and Middle East Fixed-Wing Avionics Our UK and Middle East fixed-wing organisation focuses on serving the needs of our defence customers in the UK and Middle East. Even the most capable airframe in the world needs the right systems for it and its crew to perform their mission successfully. Providing missioncritical systems on major platforms, including Typhoon, Tornado, Nimrod and Hawk, we are working to ensure the best platform performance possible.

As well as being a provider of innovative solutions, we also ensure they continue to add value for our customers throughout the life of the platform. We provide a full range of innovative and adaptable support services, ensuring the equipment will be ready for action whenever needed.

US Fixed-Wing Avionics

The US fixed-wing organisation serves the needs of our major US markets around C-17, F-35 and other US platforms such as F-22. Working closely with our key customers, this market area draws capability from across Defence Avionics, in the UK and US, to deliver a reliable solution to our customers' needs.

Rotary-Wing Avionics

Servicing the needs of the rotary-wing market globally, this market area draws together our capabilities and technologies, allowing us to apply them to key rotary wing platforms – such as UH-60, V-22, CH-47 and EH101 – and to grow our footprint and capability in this market area.

International Avionics

Our international avionics market area is a growing business. leveraging a strong presence in Asia. We are working to ensure we deliver real advantages through innovative defence systems, cuttingedge next-generation technologies, and unsurpassed support services, around the world.

Avionics Products

Our Avionics Products team supports our market facing business groups to fully understand the current and emerging needs of our customers. This group is then responsible for designing state of the art, business winning solutions to meet or exceed these needs.

The Avionics Products group is split into four specialist capability areas that operate across all three Defence Avionics sites. This ensures we make full use of our technology across our product range and also ensures we develop long term strategies.

Commercial Avionics Vehicle Systems

Our Commercial Avionics organisation at Rochester provides high-integrity, safetycritical solutions to the commercial aircraft industry on platforms such as the Boeing 777 and Airbus A320. We work closely with the aircraft designs to provide the optimum blend of high-performance, while maintaining outstanding value to the customer.

We pioneered the application of fly-by-wire flight controls to the commercial market, as well as the application of head-up displays to the airline community.

BAE Systems has a strong environmental record and has used its technology to help reduce harmful emissions from road traffic. Vehicle Systems operating out of Johnson City in New York State are a world leader in the design and delivery of Hybrid Electric Drive Systems. Their proven systems are being widely used in New York City, Toronto and other US cities as well as military applications. This technology and knowledge is being passed to Rochester to allow the transfer of the Hybrid Electric Drive Systems into the UK and Europe.

Work is taking place with a leading UK Bus manufacturer to produce a number of Vehicles for the UK market. Other markets are also being reviewed to determine the suitability of the systems for these markets

Defence Avionics is responsible for the design, manufacture and support of electronic and information systems that make the platforms more capable.











story of firsts

The Rochester site in 1962



- 1933 Rochester Airport Site set up by Rochester City Council.
- 1938 Work commenced on building extensions for the Stirling Bomber production line.
- 1948 Work commenced on the remote flight guidance and control systems for the Jindivik and drone variants of the Canberra, Sea Vixen and Meteor.
- 1954 Britain's first supersonic combat aircraft has Elliott's first automatic flight control system.
- 1961 First head-up display developed. Used in the Buccaneer and gave reliable service for 30 years without requiring an update.
- 1967 First digital head-up display developed, setting new standards of accuracy and maintainability.
- 1978 Developed the fly-by-wire quadruplex digital system for the Jaguar.
- 1979 First use of "off the shelf" dissimilar microprocessors in a civil flight critical application.
- 1990 First computer-generated holographic head-up display developed.
- 2001 Awarded the world's first contract for active inceptor systems on the Joint Strike Fighter.
- 2002 Awarded the Queen's Award for Innovation for Helmet-Mounted Displays.
- 2006 Quantum head-up display developed the next-generation of head-up displays.





One factor that has remained constant at Rochester has been the high degree of innovation in avionics. This innovation is achieved through the hard work and dedication of our employees, who work relentlessly to provide our users with the solutions they require, now and into the future.

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