SYSTEM DEVELOPMENT AND FLIGHT TEST SOLUTIONS

EASA Part 21 Subpart J DOA

www.gvhaerospace.com
EXTENSIVE FLIGHT TEST EXPERIENCE

OVER 15 YEARS OF HISTORY IN SUPPORTING SYSTEM DEVELOPMENT AND CERTIFICATION FLIGHT TRIALS
SUPPORTING SYSTEMS DEVELOPMENT AND FLIGHT TRIALS SINCE 2000

The airborne environment is harsh, exacting and unforgiving. It exposes every weakness in the design and construction of aeronautical systems. Airborne systems development and flight trials are an integral part of the development process that culminates in the demonstration of airborne system performance, and proving of certification requirements. GVH Aerospace has a long history of supporting system development and flight trials over the past 15 years. Flight test is in our DNA.

We are experts in the test and certification of airborne systems. Our people understand the nexus between engineering design and operations. We combine our strong engineering and certification knowledge with an intimate understanding of flying operations to provide a holistic systems development and flight trial capability to our customers, supporting them to achieve their business objectives in the earliest possible timescales.

We provide a turn key systems development and flight trials solution that include installation of your developmental systems onto our own helicopter testbed, or provide a managed flight test service that allows you to focus on your core business. Whether it is a trial dedicated to gathering systems performance data to support development, or a flight test to support the achievement of airworthiness certification, we provide tailored solutions suited to our customer’s individual requirements and circumstances.

With our own Airbus H135 systems development helicopter testbed and our EASA Part 21 Subpart J Design Organisation Approval, we are uniquely placed to provide the means to certify the development system to either the civil or military standards. Our integrated team of flight test pilots, flight test and design engineers provides you with an unparalleled ability to conduct systems development and certification flight trials in complete confidence your outcome will be achieved simply and cost effectively.
CASE STUDIES

DELIVERING TURN KEY SOLUTIONS TO OUR CUSTOMERS IN THE MOST COST EFFECTIVE MANNER
The UK Government had an urgent requirement to conduct flight trials on a suite of developmental equipment. The trial needed to be conducted within 9 weeks of contract award. GVH Aerospace designed a new cabin layout to accommodate the development system which was not qualified nor certificated for airborne use. The system was certificated for use onboard the H135 systems and trial testbed helicopter. GVH Aerospace provided a turn-key flight test solution including test pilots and trials planning to complete the development and research activity on cost and on schedule.

Enhancing Public Safety and Security

UK Government

Systems Development Trial on H135 Testbed Helicopter

Highlights

The UK Government had an urgent requirement to conduct flight trials on a suite of developmental equipment. The trial needed to be conducted within 9 weeks of contract award. GVH Aerospace designed a new cabin layout to accommodate the development system which was not qualified nor certificated for airborne use. The system was certificated for use onboard the H135 systems and trial testbed helicopter. GVH Aerospace provided a turn-key flight test solution including test pilots and trials planning to complete the development and research activity on cost and on schedule.

Improving Operational Flexibility

Global Helicopter Operator

Airbus H225 Cockpit HMI

Highlights

The global helicopter MRO was contracted to provide a cockpit modification service to convert a North Sea Oil and Gas passenger transport aircraft into one better suited to utility support to the United Nations in austere environments.

GVH Aerospace provided cockpit HMI expertise to the design team to ensure the new cockpit would meet both certification and operational requirements whilst minimising the required engineering changes. Focussed on the efficient delivery of the modification GVH Aerospace flight test CVEs were able to deliver an efficient ground and flight test programmes to suit the customer delivery schedule whilst satisfying EASA STC requirements.
DEDICATED TESTBED HELICOPTER FOR FLIGHT TRIALS ON CALL SYSTEM DEVELOPMENT AND TRIALS HELICOPTER
CIVIL HELICOPTER TESTBED DEDICATED FOR SYSTEMS DEVELOPMENT TRIALS

We understand the challenges of developing and bringing aeronautical systems to market. The airborne environment provides unique challenges to proving and demonstrating system performance. Whatever the system performance is in the laboratory, how the system performs in flight is where it really matters. The challenge of conducting system development flight trials are compounded by the availability of a suitably configured aircraft and the need for specialised data acquisition equipment.

We provide our own Airbus H135T1 helicopter, dedicated to supporting systems development, demonstration and certification flight trials. Combining single pilot IFR capability with a cabin that can be rapidly reconfigured into a flat floor for mounting your developmental systems, and a step mount that can be used to mount external test systems, our testbed helicopter, G-NSYS, provides a flexible and affordable means for you to conduct your developmental trials.

Our innovative flight test instrumentation system can be configured to acquire test data from different sources, and provide an independent source of flight dynamics information. We can offer you a tailored systems and trials solution that is scalable to your requirements, from a turn key flight trials solution complete with data analysis and reporting, to a solution involving your own trials personnel operating the equipment to maintain your business security needs.

Combining our flight test heritage with our EASA Part 21 Subpart J design approvals, we can take your new designs and concepts from drawing board and bench testing to proven airborne technologies, including EASA certification of your technology. Our systems based approach is proven across a multitude of complex aerospace projects, and provides certainty to your planning and development process.
SYSTEMS DEVELOPMENT AND FLIGHT TEST EXPERTISE

COMBINING OVER 50 YEARS OF SYSTEMS DEVELOPMENT AND FLIGHT TEST EXPERTISE TO HELP DELIVER OUTCOMES
PROVIDING THE DEPTH OF TEST AND SYSTEM DEVELOPMENT EXPERTISE

When you are trying to deliver and develop complex airborne systems where deep technical understanding of system verification and testing is required, our highly qualified and experienced team of professionals can provide you with the confidence and expertise to successfully complete the flight proving phase. We are experts in the delivery of efficient and effective flight test and research in the fixed and rotary wing domains with over 50 years of cumulative experience across a wide range of projects often delivered against tight time scales in a wide range of challenging environments. Our team combines engineering design expertise with flight test and operational expertise, ensuring that your requirements can be realistically achieved and then validated through the practical and measured application of flight test.

With a team of professionals trained in some of the most demanding flight test schools, backed by years of experience, we pride ourselves in helping reduce the risks in your projects and providing a fuss-free path towards system certification. Whether it is a new Flight Management System, a new sensor turret or a revolutionary synthetic vision system, we have the expertise to help bring the system development flight trial outcomes you seek.
TAILORED AND TURN KEY SOLUTIONS FOR YOUR NEEDS

WORKING WITH YOU HAND-IN-GLOVE TO ACHIEVE YOUR DESIRED OUTCOMES
WORKING WITH YOU TO ACHIEVE THE BEST OUTCOMES

We will deliver your flight trials project requirements through our proven and mature methodologies. In all cases we will provide a delivery team structure geared towards your project goals, with the partitioning of project management and airborne trials delivery responsibilities based on:

- Exceeding the aviation safety requirements of both the regulatory authorities and customer.
- Meeting the specific customer trial need, specifically, providing test pilot, aerospace design and operator consultancy to the project.
- Providing dedicated, persistent and focused project management oversight of the project to ensure effective communication with the customer is maintained.

We will work with you to systematically evaluate the design of your development system, understanding its technologies and stepping through all the civil certification requirements to ensure the successful integration and certification of your development system onto our civil testbed helicopter. We will work hand in glove with you to ensure that the data you require will be acquired to support your development and certification needs. Our EASA licensed flight test crew will systematically plan the trials for success, so you can focus on achieving your business objectives.

Whether it is a turn-key certification project leading to a Supplemental Type Certificate and a validated design that you can immediately market, or a system development trial to provide data for further development, our objective will be to deliver a cost effective and efficient flight trial for you.