

Meggitt Avionics



MEGGITT
smart engineering for
extreme environments

Meggitt Avionics is a team of dedicated, skilled and motivated people.

Our goal is to ensure that our customers receive the products they require when they need them, built to the highest quality and giving unrivalled reliability.

To achieve this, we benchmark our performance and that of our products and product support against the industry's highest standards. Often we set them.

The secret of our market-leading innovation programmes are simple. We develop our people and we invest in our technology.



Flight displays

Intelligent reading for pilots

The effects of sensory overload in extreme conditions is significant. We focus on human factors in the design of our compact flight deck instruments – for navigation, engine, fuel and flight data – aiding assimilation of critical information under stress.

- > Long experience in display ergonomics enables us to present visual complexity with intuitive displays.
- > We optimise performance for specific applications from high brightness at high altitudes, to bespoke symbol sets for civil or military applications.
- > We guarantee outstanding dispatch reliability as our standby displays are reliable, solid state instruments that won't delay the start of a mission.

We offer low technical risk with proven, state-of-the-art systems.



Integrated secondary flight displays

Meggitt's lightweight, compact standby flight instruments provide the data pilots need should the primary flight displays fail. One standard 3ATI unit measures and displays critical flight information – attitude, altitude, airspeed and heading.

iSFD is our third generation secondary flight display – the latest development of a proven system, of which 5,000 have been produced over a decade, for more than 30 different aircraft programmes.

Air data options

The iSFD has an integrated air data module, measuring and processing total and static pressure and providing fully corrected altitude and airspeed. The iSFD also automatically accepts and displays information from architectures with distributed digital air data probes.

Perfect match

The iSFD is fully configurable and can match the primary display, minimising pilot workload when transitioning between systems.

Twin cockpits, limited space

Meggitt's repeater display mirrors the iSFD and presents identical data in front and rear cockpits. Critically, it is used where severe space restrictions dictate the use of a shorter unit.

One part number, multiple configurations

We accommodate a suite of display configurations in a single iSFD unit (and part number) for multiple aircraft types. Multiple configurations enable OEMs and operators to reduce inventory and training costs.

All iSFD features

- > Latest compact, lightweight, future-proof design
- > ITAR-free components for global export
- > Integral air data measurement
- > High level EMC, HIRF and lightning protection
- > High resolution 3ATI AMLCD display (with NVIS option)
- > LED backlight for optimum colour and luminance
- > Repeater option for twin cockpits and limited space
- > Optional angle of attack and vertical speed display



Threat warning indicators

Simplicity under stress

Pilots don't need the extra stress of sensory overload in combat conditions. Our warning displays are tough, reliable and sophisticated, delivering data on threat lethality and vector that is easy to assimilate.

They offer good brightness control at low light levels and are a huge improvement over existing cathode ray tubes that are heavy, power-hungry and limited to monochrome symbology.

Flexible and configurable

Like all Meggitt displays, our threat warning indicator's high contrast, control and superior luminance makes it as readable using night vision technology as it is in bright sunlight. High resolution brings particular clarity to the complex symbols users need to ensure operational and through-life flexibility.

Customised symbols can be user-downloaded into the indicator's threat library using Meggitt's PC-based symbol generation software. This enables classified threat information to be managed by the operator and updated quickly without losing service.

The threat warning indicator's compact, flexible design with numerous bezel control and interface options can be integrated with ease into most electronic warfare systems.

All TWI features

- > High resolution 3ATI AMLCD display
- > NVIS-compatible with LED backlight
- > Multiple bezel control options
- > Various interface choices
- > User-definable threat, annotation, legend libraries
- > Proven, qualified installed base
- > Low maintenance
- > Easy to retrofit
- > Smaller, lighter and more energy-efficient than competing displays



Electronic engine displays

Upgrading fast, military aircraft with intelligent cockpit displays not only reduces pilot workload but enhances aircraft performance and extends service life.

In their trademark high resolution, information-rich yet easy-to-read format, Meggitt's compact electronic engine displays replace and integrate the function of multiple mechanical gauges.

Seeing what's important

We simplify complexity further by showing critical information only. Operating intelligently, our system monitors parameters invisible to the pilot in normal operation.

Cautions and warnings are displayed immediately. During landing, flap position and air brake deployment are shown on pop-ups.

Monitoring performance

Engineers can use the display's recorded data from preceding flights. This enables them to make informed, condition-based maintenance decisions that improve performance, reliability and operating cost.

All EED features

- > High resolution 3ATI AM LCD
- > NVIS compatible with LED backlight
- > Typically replaces multiple electro-mechanical gauges with two reliable 3ATI units
- > Highly intuitive display and functionality
- > Usually covers torque, speed, exhaust gas temperature, pressure and fuel data
- > Flexible display format
- > Data acquisition unit available
- > Displays summary engine and fuel information on a single display in emergency mode



Who we work with



5000 UNITS DELIVERED

Our third generation integrated secondary flight display – iSFD – is the latest development of a proven system that has been in continuous production for more than ten years and certified on over 30 different aircraft programmes. More than 5,000 units have been delivered to date with diverse performance requirements for fixed and rotary wing applications.



30 DIFFERENT AIRCRAFT PROGRAMMES

The majority of leading aircraft manufacturers worldwide have benefited from the selection and installation of our high quality, dependable solutions.



10 SYSTEM MANUFACTURERS

Today, more than ten electronic warfare system manufacturers fit Meggitt's threat warning indicators to a variety of different aircraft platforms across fast jet, cargo aircraft and helicopters.

Air data measurement

From zero knots to Mach 2+, accurate air data always

Meggitt's air data systems sense, compute and provide data for primary and secondary flight displays, flight control and weapon-aiming systems for fixed and rotary wing aircraft. Altitude, airspeed, Mach number, vertical speed and angle of attack are just some of the parameters provided to aircraft systems.

On military platforms

Meggitt's distributed air data system on the Eurofighter Typhoon is vital for controlled flight of this highly agile and inherently unstable aircraft. Integral multi-function probes align with local airflow, providing the flight control computer with data that is accurate over the full flight envelope, despite extreme temperature cycling, vibration and g forces. Meggitt's distributed air data systems for the C-130J, C-27J and JCA aircraft are TSO-certified and can be adapted to the needs of a wide range of transport aircraft.



On combat helicopters

Below 30 knots, conventional air data systems are notoriously inaccurate. Ours is the only service-proven system capable of providing accurate airspeed down to zero knots, even in reverse and transverse flight. This improves aircrew situational awareness during low-speed manoeuvres and is a key component of the ballistic control system.

Key products and services

- > Low airspeed probes
- > Pressure transducer units
- > Air data computers
- > Integrated multi-function probes



Specialist skills and capabilities

Electro-mechanical sensors and instruments

Manufacturing and repairing traditional mechanical and electro-mechanical instruments is a Meggitt strength. Quite simply, we know how to repair, modify or design instruments in a range of case styles for civil or military applications and prove this constantly.

Instruments include

- > altimeters
- > airspeed indicators
- > anemometers
- > cabin altimeters
- > fatigue meters
- > pressure switches

Pressure vessels

We have the expertise and equipment to design, develop and produce equipment for airborne breathable oxygen. Our supply and distribution systems range from ground-based liquid oxygen trolleys to parachutist life support.

Our compact lightweight regulators supply breathable oxygen for aircrew, compensating for altitude, supply pressure and demand so the right volume and pressure of oxygen is always available. We also produce man-mounted models for parachutists.

Our airborne modular oxygen system (AMOS) holds high-pressure oxygen enabling up to six personnel to breathe at high altitudes in non-pressurised aircraft.

We have a complete through-life support capability. Inspection, testing, cleaning and re-living keep lifecycle costs to a minimum for pressure vessels of any make. We are one of the few UK companies with a certified breathing oxygen vessel cleaning capability, saving customers the cost of replacing contaminated vessels. We clean a wide range of vessel sizes and types for submarines, ships, aircraft and the medical industry.



Capsules

Many avionics systems rely on precision-mechanical capsules to sense pressure. Meggitt designs and manufactures capsule assemblies for these applications and has produced them for a wide range of cockpit instruments, missiles, engine fuel systems, pressure gauges and regulators.

Meggitt Avionics

Customer support

Meggitt Avionics has customer centres in the UK, USA and Singapore providing rapid support worldwide for all our products.

Our newly strengthened and enlarged customer support organisation covers all sectors of the commercial aviation industry, including air transport, regional, business and general aviation aircraft, both fixed and rotary wing.

We understand the specific requirements of military customers well and support a large number of products on military aircraft programmes in the USA and Europe.

With the necessary authority approvals (FAA, CAA and JAA) all products can be repaired economically to original manufacturing standards within short turnaround times.

Strategic AOG stocks are maintained to offer 24/7 cover around the world, giving customers continuous access to repairs and spares – all available for shipment within hours of your call.



Meggitt Avionics



Due to Meggitt Avionics' commitment to continual product improvement, all product and capability specifications are subject to change without notice.

Meggitt Avionics is a Meggitt company. Headquartered in the UK, Meggitt PLC is an international group operating in North America, Europe and Asia. Known for its specialised extreme environment engineering, Meggitt is a world leader in the aerospace, defence and electronics industries.

© Copyright Meggitt Avionics 2009

Meggitt Avionics
7 Whittle Avenue
Fareham
Hampshire
PO15 5SH
UK

Tel: +44 1489 483300
Fax: +44 1489 483416
Email: salesmav@meggitt-avionics.co.uk

www.meggitt.com

MEGGITT
smart engineering for
extreme environments