

HALL HIGHLIGHTS

New design authority for never-say-die Dornier 328

German company GCT Design Organisation (Hall 4, E11) is here to bask in its new status as the design authority for the Dornier 328 Jet and Turboprop commuterliners.

On the eve of the show GCT and partner company 328 Support Services won EASA approval for the former to assume responsibility for the design and approval of future modifications to the never-say-die aircraft family. 328 Support Services continues as the type certificate-holder.

Created in January by the UK's Corporate Jet Services, 328 Support Services is responsible for support of the worldwide fleet of more than 200

turboprop and jet 328s. Corporate Jet Services also owns executive jet operator Club328.

328 Support Services is based at Oberpfaffenhofen near Munich and supplies Dornier 328 operators with spares and component support, technical and engineering services, maintenance and modification. It also holds an extensive inventory of spares for both the jet and turboprop.

"Our strategy at 328 Support Services is to maintain operator confidence in the long-term operation of the 328," says managing director Wolfgang Walter. "We want to ensure that support is sustainable and promotes the return to

service of aircraft from long-term storage. This new agreement with GCT will greatly help us in achieving these aims."

Reconfigured

The company is now working on the first two of four Dornier 328 Jets previously in service with Delta Connection and newly acquired by Mikado Capital. The first aircraft is at the UK's Southampton Airport, where it is being stripped and painted before returning to Oberpfaffenhofen to be reconfigured as a 19-seat corporate shuttle and operated by Club328 from the end of this month.

Spanish Tigers bite on TEAC data recorders

TEAC Aerospace Technologies (TAT) has signed a multiyear contract with Eurocopter Spain to supply MDR-80 solid state digital mission data recorders to support more than 60 Tiger HAD attack helicopters.

TAT, which specialises in rugged airborne video and mission data recorders, says deliveries will begin with qualification units to be delivered in autumn 2006 followed by production units next year.

TAT's mission data recorders are designed for both combat and training missions to provide vital tactical and flight information for battle commanders and training officers.

Modules

The recorders come with removable, expandable memory modules to handle several gigabytes of digital video plus 1553, HUMS, and Ethernet data recording along with mission data loading.

For the Tiger, the solid state digital MDR-80 will be configured to record three critical video sources of high-resolution digital recording with in-flight playback of any one channel of recorded video stored on solid state removable memory modules. The recorded video will also be used for post-mission debrief and analysis.

"We are pleased to have been chosen by Eurocopter to support the Tiger HAD requirement," says David Husted, president of TAT.

Eaton seals selected for GENx turbofan

Eaton has developed and supplied advanced technology seals for the new General Electric next generation (GENx) turbofan jet engine for medium-capacity, long-range aircraft such as the new Boeing 787 Dreamliner. The Eaton advanced technology seals were specifically designed to address the operational environment in the hot section of the new engine. They were selected for the GENx engine because of Eaton's engine component expertise from the recently acquired Perkin-Elmer Fluid Sciences group, which is now part of Eaton. The advanced GENx engine has a thrust range of from 53,000-75,000lb (235-333kN).

Czech training system on show

AeroVodochody (Hall 3, D17) has on show its L-159B Advanced Training System which comprises the two-seat advanced L-159B jet training aircraft in the static park and a full-mission simulator on its stand.

The simulator has been developed in conjunction with E-COM Simulation and Training Systems, a Czech Republic company that specialises in military and police training solutions, and is available for 'test flights'. It is designed as a full package that can be tailored to meet individual requirements. All necessary manuals, documents, servicing and training are included.

Metalweb introduces cutting-edge waterjet



Spiderman: Derek Webb – MD of metalweb with the spider on display – a great way to demonstrate the high performance of the machine.

Metalweb (Hall 4, E27) has been demonstrating the versatility of its special aluminium waterjet cutting service at the show with a giant spider, intricately made from aluminium.

Managing director Derek Webb says this service is particularly suited for jobs that require either high precision or complex shapes. "With an extensive range of aluminium and other metals already in stock, our waterjet cutting service can provide the aerospace sector with a complete service of hi-tech processed aluminium material with a very close tolerance finish," he says.

Webb says the spider – apart from being very cool – is a great way to demonstrate the high performance of the machine and echoes the name of the company and the worldwide web.

Metalweb is uniquely placed in the UK to offer precision-cut aluminium parts on the largest sized aluminium material "and can therefore provide savings in both time and money," he adds.

Precision plastics from Dalau

Plastic components specialist Dalau (Hall 2, C34) is making its first Farnborough appearance, following increasing interest in its products from the aerospace industry.

It specialises in the precision machining of plastic components in all engineering plastics, Teflon and other materials. As well as aerospace, the UK-based company, which also has offices in New Hampshire, US and Düsseldorf, Germany, provides components to the electronic and medical industries.

It recently installed a new CFV high-precision five-axis machining centre that allows it to machine parts up to 400mm in diameter,

from five directions simultaneously. Dalau is displaying a series of plastic busts of its founder, David Sage, replicated from a bronze original

using 3D modelling, to demonstrate the fidelity with which its machining equipment can reproduce complex specifications.



Heads we win: David Sage – founder of Dalau.

DRS Technologies comes in for a cool \$45m deal

DRS Technologies (Chalet 27-28), the New Jersey-based military systems and services provider, has just won orders worth nearly \$45 million for specialist containers and vehicles for the US Army.

The company is to supply \$36 million-worth of refrigerated container systems (RCS) for the transport and storage of food and other perishable materials, including medical supplies. An \$8.5 million contract covers the provision of M989A1 Heavy Expanded Mobility Ammunition Trailers (HEMATs), used to transport

Multiple Launch Rocket System pods, artillery ammunition and other ordnance on a variety of road surfaces.

DRS is now developing the refrigerated container, which will measure 8x8x20ft (2.4x2.4x6m) and incorporate an electrically powered 9,000BTU refrigeration unit, a 10kW generator and other ancillary equipment.

The HEMAT order is the latest tranche of a previously awarded contract calling for the supply of more than 580 vehicles over a five-year period up to October 2009.

DSA: brisk business in used market

The Disposal Services Agency (DSA - Hall 4, C7) has come to Farnborough with a cornucopia of aircraft and spares for sale.

Alistair McHardy, air projects and sales, says talks with the Indian government to purchase up to eight BAE Systems Sea Harriers for its air force is moving forward. "Negotiations are going well with India and we are still negotiating a package," says McHardy. "They are non-fliers due to the age of the aircraft and not having a certificate to fly, however, we are also in talks for a separate engine and spares package."

McHardy confirms that DSA is also in negotiations with the Indian government and the Royal Air Force of Oman (RAFO) for possible supply of the UK MoD's old Sepecat Jaguars for use as parts and with other nations for the RAF's Tucano two-seat basic trainer.

"The Tucano is an ideal lead-in aircraft to advanced jet training," he adds.



Alistair McHardy, air projects and sales.

Innovation seals deal for Busak+Shamban

Joe O'Shea

Busak+Shamban (Hall 1, E18) has developed innovative high-pressure seals that have saved vital weight on the massive Airbus A380.

The take-off weight of the A380 with full fuel tanks can be over 500t. To lift this load without increasing weight and size of the hydraulic actuators, Airbus increased the hydraulic pressure from the usual 3,000psi to 5,000psi.

This enables relatively small hydraulic cylinders to generate the larger forces required to retract and extend the undercarriage, and adjust the rudders and flaps.

Experience with high pressure sealing on military jet fly-by-wire flight controls, allowed Busak+Shamban to come up with a solution to meet these pressure parameters while meeting stringent requirements for sealing security, long-term strength, and temperature resistance.



Ringing the changes: Stuart Campton, sales director at Busak+Shamban.

Busak+Shamban has also developed seals for the turbine blades on the Trent 900 engines fitted to the A380. The blades use composite construction materials, and the fibre-reinforced sealing systems provide optimum sealing in a harsh operational

environment. When sealing airfoil surface areas, unique silicone profile seals play a part in airflow optimization of the flaps and fairings.

These seals offer improved aerodynamics and thus, noise reduction and decreased fuel

consumption. Busak+Shamban also supplies seals for Eurofighter Typhoon, NH 90 helicopter, and aircraft from Airbus, Bombardier and Embraer. Its sealing systems are used within the Trent 500, V2500, BR710 and BR715 engine families.



Check mate: Graham Beall - MD Chess dynamics.

Chess keeps eye on display

Visitors to Chess Dynamics (Hall 4, E15/7) have the chance to see its range of surveillance directors and multi-axis platforms in action.

The company is showing live video coverage of the Farnborough air display using an OCTEC video tracker integrated with its ZETA electronic-optical surveillance system, designed for vehicle mounting.

"As a small, but highly specialised company with complete in-house design and manufacturing capability, and engineering expertise to react faster and more effectively than many larger operations," says managing director Graham Beall.

C-130 avionics upgrades at the double for CMC

CMC Electronics (Hall 4, C16A) has been awarded contracts to perform avionics upgrades to Lockheed Martin C-130 aircraft belonging to both the Dubai Air Wing and the Dutch air force.

CMC is once again teamed with Gulf Aircraft Maintenance Company (GAMCO), the prime contractor for the Dubai Air Wing project.

The company will supply its CMA-900 Flight Management System (FMS) as the core of the upgrade, while GAMCO will be responsible for all Periodic Depot Maintenance (PDM) inspec-

tion requirements, aircraft painting and the installation of the cockpit upgrade systems in full coordination with CMC Electronics.

The Dubai Air Wing configuration is a multi-sensor system based on a dual CMA-900 FMS. This upgrade will allow the Dubai Air Wing's aircraft to meet all P-RNAV (precision area navigation), TCAS and TAWS (Terrain Avoidance Warning System) requirements.

The CMA-900 features a colour, liquid-crystal multi-function display and includes CMC Electronics' GPS sensor. On the second contract,

CMC has teamed with Marshall Aerospace of Cambridge, England, to supply the CMA-9000, for four C-130 aircraft to be upgraded for the Dutch Air Force.

Jean-Pierre Mortreux, CMC president and chief executive, says: "With the CMC Electronics' CMA-9000 FMS already established on military trainer and air transport aircraft, these programmes will enable CMC Electronics further to position itself as the FMS supplier of choice for future and short-timescale C-130 avionics upgrade programmes."



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HALL HIGHLIGHTS

Click 'Aero-Canada' for full sector database online

A new web-based database that offers a complete snapshot of Canadian aerospace capabilities has been developed by Aero-Canada, which is at Farnborough with the Ontario Aerospace Council (Hall 4, C16).

The searchable database at www.aero-canada.ca is designed to provide a single window on Canada's aerospace capabilities. Primes, integrators and those seeking specific expertise can search by industry-standard descriptions of products and services, company or location to determine which companies can best meet their needs.

Aero-Canada is one of 18 companies exhibiting with OAC. They cover engineered parts and components, tooling, design services, training, material testing, navigation and stock distribution.

Ontario economic development minister Joe Cordiano, says aerospace is a prime target for the new Advanced Manufacturing Investment Strategy (AMIS), a C\$500 million (\$440 million) fund set up to provide development loans with the first five years interest-free.

Minco launches flexible friend for engineers...



Flexible: Minco's Steve Niedzielski.

Critical component specialist Minco (Hall 2, C3) has launched a kit for engineers to set out design guidelines, specifications and manufacturing processes for flexible circuitry.

The kit outlines the advantages of flexible circuits – chiefly that they allow for more compact electronic systems – and methods of incorporating them into designs. It also provides samples of the circuits and accompanying technical documents.

At its Farnborough stand, Minco is displaying a kinetic sculpture made from its flexible circuits and other products, to help demonstrate their adaptability.

Aerospace and defence applications for Minco's products include thermal sensors and de-icing systems for aircraft wings; heaters and temperature regulation systems for satellite subsystems such as fuel tanks and batteries; rigid-flex circuits in missile control systems; and heating systems for ruggedised equipment such as laptops.

Its systems are used in programmes including Raytheon's Excalibur artillery system and Paveway bombs.

Stein Seals the deal with GE

The UK's Stein Seal (Hall 1, B1) has been selected as sole source for the mainshaft seals on General Electric's GENx engine which will power Boeing's 787 airliner.

Stein Seal was selected by GE to design and manufacture main shaft seals for all three positions in the GENx engine and the company says testing indicates the seals are functioning flawlessly.

As an early member of the GENx team, Stein Seal has assisted with the instrumentation to help GE's engineers better to understand the airflows and conditions around the seals. As part of its international involvement, Stein Seal UK assisted GE's Italian engine partners Avio to install the first seal for its section of the GENx engine.

TAI on target to deliver drone to Turkish armed forces

Ankara-based Tusa Aerospace Industries (TAI) comes to Farnborough ahead of the first deliveries of its improved Turna/G recoverable aerial target system to the Turkish armed forces (Hall 1, B17).

The Turna /G is the latest version of the Turna system, first developed by TAI in 1995, in partnership with the Turkish Ministry of

National Defence. Used as an airborne target to help train air defence system operators, the unmanned Turna /G drone improves on previous versions with the addition of a digital autopilot, including GPS tracking navigation and dual redundant telecomm and telemetry system.

The improvements enable the drone to operate beyond visual range.

Turna /G is used for both firing and non-firing exercises with radar, optically, thermally or manually controlled barrelled anti-aircraft guns and guided missiles. TAI will begin delivery to the Turkish armed forces in August.



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Czech aerospace signs up for e-connectivity

Aerospace e-business platform provider Epicos (Hall 4, D12) has announced a four-year project with the Association of Defence Industry of the Czech Republic (AOP) to integrate 80 of the country's aerospace, defence, dual-use and technology companies into the Epicos and Exostar systems.

Epicos, a Greece-based business-to-business portal for aerospace and defence, provides subscription-based information services and applications to identify and process business

opportunities on procurements, offsets projects and industry co-operation.

The deal will give companies access to Epicos and Exostar services, such as e-sourcing and e-procurement tools for connecting buyers and suppliers; critical business intelligence; promotion to the global aerospace and defence community; and tailored procurements and industrial co-operation services.

The Czech Republic joins Greece, Austria, Lithuania, Chile, Brazil,

Switzerland, Malaysia and Hungary which have adopted similar integration projects.

AOP president Hiri Hynek says: "We are pleased with the approval of the Epicos Project. For the first time our entire industry will have the opportunity to benefit from offsets and international marketing assistance. We are confident that engagement of the Czech companies in to the Epicos/Exostar project will improve the activities of our industry internationally."

Flight Collection updates picture website



The Best of British! An example of the images available.

The Flight Collection, the picture library of *Flight International* magazine, holds one of the largest collections of aviation photography in the world.

The archive dates back to the early part of the last century and is brought up to date with the latest images of the Airbus A380.

At the end of last year, the Flight Collection launched a new website containing many thousands of images both historical and modern to view, order and download.

The library aims to cover all aspects of the industry so in addition to aircraft there are images covering airports, personnel, aircraft parts,

production and maintenance.

The images include straightforward shots, atmospheric and artistic styles

The website is aimed at commercial picture buyers from the world of aviation, design, advertising, books and magazines.

But private customers are welcome to browse and can also purchase prints.



Zhendre plays it cool

High temperatures in the halls mean that one stand in hall 2 has been particularly well-attended over the course of the show. Despite having no staff manning the stand for long periods of time, French company Zhendre (Hall 2, B21) has pulled in the punters by displaying one of its industrial air conditioning units - and leaving it turned on. Even OEM staff have been spotted using the booth for meetings to alleviate the heat on the show floor.



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