

## Oxford outfit 2d3 offers 'blockbuster' SFX to defence sector

An Oxford-based special effects company is attending Farnborough to demonstrate how it can bring the magic of the movies to the world of defence.

The company, 2d3 (Hall 4, B3), part of Oxford Metrics Group, develops imaging software used to

produce visual effects for blockbusters such as *The Matrix*, *Pirates of the Caribbean* and *Superman Returns*.

It has already signed a number of contracts with defence contractors, including Qinetiq, to use its technology in developing the imaging

capabilities of UAVs. Capabilities in 2d3's software that it believes could help resolve key challenges in UAV imagery include mapping 3D terrain; tracking targets; 3D positioning; zooming in on video and picking out detail from super resolution; and using overlapping

images to create 3D models.

Nick Bolton, Oxford Metrics Group chief executive, says: "Current UAVs cost in the region of \$250,000 to fit out with video equipment, yet the quality of the images captured is on a par with cheap CCTV footage."

## Goodrich cracks open the MOET

Goodrich has announced it is working towards the development of the all-electric aircraft. The company is part of Project MOET (More Open Electrical Technologies) led by Airbus, and is heading the Actuation component of the research.

The actuation work package is one of nine elements of MOET. Benefits of an electric architecture include improvements in environmental impact and reliability, as well as reduced maintenance costs.

Other Goodrich technologies contributing to the evolution of the all-electric aircraft include: electric actuation for extension, retraction and steering of the landing gear system; electro-mechanical braking; the electrical power generation system/Variable Frequency Generators (VGG); and electric engine start-up.

Eric Schulz, president, Actuation Systems, with Goodrich says: "We are preparing for the next generation of aircraft."

# Hollywood in your hand with digEcor

## Brendan Gallagher

Building 12,000-15,000 digEplayer XTs a year would present "no problem", digEcor president Greg Beeston said at the show yesterday. "We have the space, the people and an assured supply of screens, drives and motherboards."

Leading handheld inflight entertainment system supplier digEcor (Hall 4, G11) is here to show off working examples of its new digEplayer XT. A typical load for the XT consists of a dozen full-length Hollywood films, plus games, short programmes and other content.

The new player features an 8in (200mm) high-resolution screen, battery or in-seat power supply, two headphone jacks for shared viewing, thumb controls for games and gambling, a USB port to accommodate game controllers and other devices, a credit-card swipe and wire-



*Dream screen: digEcor director of sales, Ilona Ushinsky, shows off working examples of its new digEplayer XT.*

less content loading. The company is planning to complete an initial production run of fully representative XTs in September in order to have examples ready for that month's World Airline Entertainment Association show in Miami. Full production at digEcor's dedicated facility in Springville, Utah, is due to start in October.

One of the first consignments will go to existing

digEcor customer Aeroflot, which has ordered 750 units. Other early adopters include new customer Pakistan International Airlines (250 units). Several other carriers have placed orders.

The company believes handheld IFE has a broad appeal to air transport operators, from the majors to niche premium-only carriers such as MAXjet. Though the transatlantic specialist has not yet committed to XT, it

continues to build its stock of digEplayers and to broaden its content offering, which currently stands at 20 films.

A number of current and potential customers, including two British airlines, are interested in XT as a gambling device. One whose short average sector times rule out of full-length films, has requested a content package comprising gambling plus children's and short programming.



## Models fit for the executive desk

For something a little different from the standard airshow souvenirs, try Dutch company LUPA outside near the Business Aviation Park and food court.

LUPA, based in Haarlem, offers detailed executive desktop models of everything that flies.

No stranger to airshows with 12 years of attending under its corporate belt, LUPA can point with pride to its models on display in many aircraft manufacturers' chalets.

These models come in kits and snap together. They are available in a range of sizes and prices. They can also be made to order.

## RUAG pulls subsidiaries under common brand

RUAG Aerospace (Hall 1, A21) has integrated a number of Swiss and German subsidiaries, which previously operated under different brand identities, into its operations.

The subsidiaries, which have been operating under the RUAG Aerospace name and RUAG umbrella brand since the beginning of this month, are maintenance companies Aircraft Service Bern Belp at Berne airport, and Sun Aircraft Services at Lugano airport; the HTS engineering and production company in Wallisellen; Mecanex in Nyon; and Derendinger in Plan-les-Ouates, near Geneva.

The two German subsidiaries RUAG Aerospace Structures and RUAG Aerospace Services in Oberpfaffenhofen near Munich have also been integrated into RUAG Aerospace, but will remain legally autonomous entities.

### Strategy

The Interlaken-based company says it is part of a strategy to improve visibility in the international aerospace markets, as well as simplifying customer relations and improving efficiency and earning power. The integration raised RUAG Aerospace's employee count to 2,700 people at 14 sites in Switzerland and Germany.

## Rockwell wins EGPWS contract for Boeing 787

Honeywell's (Hall 1, A9) Enhanced Ground Proximity Warning System (EGPWS) has been chosen for the Rockwell Collins' Integrated Surveillance System on Boeing's new 787 aircraft. EGPWS is designed to prevent controlled flight into terrain (CFIT) by providing real-time situational awareness of surrounding terrain and obstacles. The EGPWS includes a terrain database with details of more than 12,000 aircraft, 30,000 runways and 108,000 obstacles higher than 200ft. Steve Pitts, vice president of Honeywell Aerospace Boeing Business Segment, says: "In the past 10 years we know of more than 50 specific incidences where our EGPWS technology diverted commercial aircraft from a CFIT situation."

## Airbus awards CMC biggest supply deal

CMC Electronics (Hall 4, C16a) has been awarded its biggest-ever contract for display products after signing a deal for the development and manufacture of load master control displays for the new Airbus A400M aircraft. CMC will design and produce all of the man-machine interface displays for the A400M's cargo hold area. The contract is for more than 15 different products and two remote control devices for each aircraft. These include levelling indicators, door indicators, camera controls and cargo systems controls.

## Fluid control by Canyon

Canyon Engineering is showing its range of fluid control components on Lee Products' stand (Hall 4, F7) at the show. On display are rotary gear pumps for lubrication and scavenge applications in aircraft engines and transmissions; pumps for avionics cooling, fuel metering and fuel transfer applications; and a range of hand pumps for ram air turbines. The company also designs and manufactures check valves and relief valves, flow controls and spool valves, as well as fuel nozzles and restrictors.



## Mikron's model of excellence

The benefits of using five-axis machining are being demonstrated by machining-specialist Mikron, using a process jointly developed with Delcam (Hall 1, D9).

The demonstration is the machining of a complex model of an aircraft carried out on a Mikron HSM 600U high-speed five-axis machining centre.

The companies say it provides clear evidence of the performance advances that can be achieved.

The model is a complex, prismatic part that was machined in approximately 60min to Ra 0.3µm surface finish and 20 micron (0.02mm) accuracy.

## Eaton shows V-22 components

Eaton Aerospace (Hall 4, F12) will be showcasing a variety of higher-pressure fluid power generation, motion control and fluid health monitoring components and systems during the display of the Bell/Boeing V-22 tiltrotor.

Eaton's Vickers brand hydraulic 5,000psi (345 bar) engine-driven pumps power the primary flight controls and utility functions of the Osprey.

In addition, four 2,360ft<sup>3</sup> (67m<sup>3</sup>) a minute inlet particle separator blowers, a DC electric motor-driven pump, four primary and two back-up power drive units, a rotor positioning actuator motor and a wing stowage/rotation motor, complete the fluid power package.

# Parker's cooling plan is the prime exhibit

One of the star exhibits on the Parker Aerospace (Hall 4, A16) stand is its innovative liquid-cooled avionics chassis.

Based on a combination of the company's engine fuel spray-nozzle technology and a diffusion-bonded macrolaminate labyrinth embedded in the chassis wall, the system is designed to allow microprocessors to run at the very high temperatures resulting from today's huge data throughputs.

"We first applied liquid-cooling technology to a Cray supercomputer," says Mark Czaja, Parker group vice-president for technology and innovation. "In tests we showed the value of

the technology by switching off the cooling – the affected chip burst into flames within 3s."

The drive for liquid cooling in aircraft electronics reflects the move towards more-electric architectures, says Czaja. "In more-electric aircraft, the engines will not provide bleed air, so in time air-cooling will no longer be an option."

### Increasing

The advent of the more-electric aircraft will also be accompanied by increasing use of control and motor-drive electronics that will have to work at exceptionally high temperatures.

Parker's response is based on the use

of two technologies obtained through an acquisition 18 months ago – switched reluctance motors and silicon carbide gate arrays.

"Combining these two technologies will allow us to produce electronics capable of running at very high temperatures without any need for cooling, whether air or liquid," says Czaja. Typical applications will be in flight control and hydraulic systems.

"Our work in this area is now ready for flight demonstration in the next 1-3 years," says Czaja. "I believe we will be ready to offer definitive high-temperature electronics to the airframe manufacturers 5-10 years from now."



## Export control saves lives, says DMA

Export control prevents unnecessary death and destruction, according to the Defence Manufacturers' Association. DMA (Hall 4, E15-16) is promoting the Export Group for Aerospace and Defence (EGAD), which is designed to be the UK's premier special interest group dealing with export control issues.

EGAD is due to hold a series of workshops on export control issues around the UK. "The extreme severity of the punishments imposed on firms that infringe US export control regulations makes it vital to know whether you are affected," says Brinley Salzmann, DMA exports director.

*DMA's Rebecca Evans takes control of an unusual stand exhibit.*

## AEM emergency transmitters lab

AEM (Hall 1, A12) now has its own in-house test facility for emergency locator transmitters (ELT).

The test equipment is housed in a fully RF (radio frequency) shielded screen room to prevent the broadcast of signals, which could trigger a false alert.

The computer-based diagnostic equipment is able to decode all Cospas-Sarsat protocols and analyse ELT signal transmission characteristics.

Audio modulation tests, G-switch tests, battery tests/replace-ments and dongle testing can all be carried out.

"As live testing of ELTs is now prohibited, AEM has developed capability in response to customer demand," says Andrew Wheeler, AEM operations manager at London Stansted Airport.

"This reflects AEM's commitment to customer service."

## EPI puts A400M through paces

Europrop International (Hall 4, G17) is testing the TP400-D6 engine, destined for the Airbus Military A400M transport, at six dedicated testbeds throughout Europe.

The 10 engines being built and tested for certification by EPI – a consortium of Industria de Turbo Propulsores, MTU Aero Engines, Rolls-Royce and Snecma – are undergoing evaluation indoors and outdoors with propeller.

The first TP400-D6 engine flight test is scheduled for early 2007 on a modified C-130 aircraft.

## Thales training

Thales (Hall 3, C5) has awarded a £19 million (\$35 million) contract to Vega plc for through-life training for the Watchkeeper unmanned air vehicle (UAV) programme.

The contract covers development and delivery of training for both operating and maintenance crew.

Watchkeeper is designed to provide the UK armed forces with an essential Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) capability, based on a tactical UAV system, and will be a key component of the UK's drive for network enabled capability.

# Farnborough – the world's biggest temporary exhibition

Facilities provider De Boer says that it has created the world's largest temporary exhibition site for this year's Farnborough Airshow. Five giant exhibition halls and more than a kilometre of business chalets on-site cover an area of over 90,000m<sup>2</sup> – 30 times bigger than London's Royal Albert Hall.

De Boer's 40-strong construction team arrived on the site in March to get the key areas prepared by mid-June. Since then 6,000 contractors have got the interiors ready for the show's launch. Since the company arrived on site 17 weeks ago more than 3,600 tonnes of temporary structures have been shipped into

Farnborough in a fleet of 200 articulated lorries.

The company has also created two temporary aircraft hangars measuring a total of 1,650 square metres.

"The Farnborough International Airshow is a huge logistical challenge for De Boer and provides the

group's biggest single assignment in the UK," says De Boer sales manager Tom Osborne.

"In just 17 weeks we have created an exhibition area with a floor space that is greater in size than the Millennium Dome, and nearly as large as the new Wembley Stadium."

## HALL HIGHLIGHTS

# Play it again, Adam

If the deafening sound of jets and helicopters overhead all gets too much, tune in to Farnborough Airshow Radio for a lively musical alternative.

The station broadcasts live 24h a day for two weeks around the airshow, offering a mix of music, news and interviews at 106.8FM and online at [www.farnboroughairshowradio.co.uk](http://www.farnboroughairshowradio.co.uk)

Twenty-four people are involved

including 12 presenters and reporters who transmit live broadcasts from all over site.

Station manager Fred Marden says: "This is the biggest event radio station in the UK in terms of the scale of the operation and the amount of broadcasting we do."

The station largely plays chart music for the contractors in the first week, before switching to more news and

interview-based programming for the trade audience. When the public arrives on Saturday, the station plays a mix of music, airshow news and outside broadcasts.

DJ Adam Wilcox, 21, is on air 10am – 1pm each day. He says: "We have got live interviews from the CEO of Boeing to the cleaner, so we cover the wide range of everyone that's here. It's a lot of fun."



**Air guitar: tune in to Adam Wilcox from 10am-1pm.**

## Supply chain mentoring plan launched

Top UK aerospace managers have agreed to mentor smaller companies in a programme to develop and sustain the supply chain in the north-west of England.

Launched by the North West Aerospace Alliance (NWAA) on Monday at Farnborough, the scheme has the backing of BAE Air Systems, Airbus UK and Rolls-Royce. More than 20 senior operational managers from the three primes will start mentoring two days a month from August.

The initiative is part of the NWAA's supply chain excellence programme and mentors will also attend the organisation's regular supply chain workshops.

Areas of business the mentors will focus on include leadership, strategic planning, skills, project management and effective buying policies.

If successful, the project is designed to be rolled out to other UK regions with prominent aerospace and defence sectors.

### Close is just fine for Crane systems

Crane Aerospace and Electronics (Hall 4, G20) has been selected to provide the proximity sensing equipment for the Airbus A380 freighter door system. The system, which consists of proximity sensors, sensor targets and associated electronics, will be used to monitor the position of the freighter's numerous doors. Crane president Greg Ward says: "This contract win is an extension of the successful application of our technology on the A380 passenger aircraft."

### Eaton appoints STA for Asia-Pacific

Eaton Aerospace (Hall 4, F12) has appointed a Singapore Technologies Aerospace subsidiary as its authorised service centre for the Asia-Pacific region. Under the agreement, ST Aerospace Systems will provide repair and overhaul services for Eaton's products, including hydraulic pumps and motors used on a wide range of Airbus and Boeing aircraft. The deal is for three years, with an option to renew for an additional three years.



## Meet Oliver, the face of Lasham history

If you happened to spot a familiar face in Hall 1 yesterday, the chances are it was British TV and film actor Oliver Tobias. Tobias was on site for a special mission – to introduce the film *An Airfield* in England, which tells the history of Lasham airfield located just a few miles from Farnborough.

The 40-minute documentary, which has taken a year to produce, charts the airfield's progress through the war years right up to 2006. The film was commissioned by the airfield's owner, ATC Lasham, who can be found at Hall 1, B22. The company is celebrating recent successes. Next month ATC's Lasham base will be undertaking C- and D-checks on 19 Boeing 737-300 aircraft operated by the low-cost carrier Norwegian. The checks will take place over a 15-month period.

In addition to its work for Norwegian, ATC will carry out a D-check for the government of Niger's Boeing 737-200, plus a C4-check on a Sun Express B757, including the installation of winglets – the first such installation to be completed in Europe.

ATC's capability has been enhanced with the acquisition of a new maintenance facility in St Athan, South Wales, in November 2005. St Athan was acquired to cover the temporary loss of one of ATC's four bays at the Lasham facility – currently undergoing modification to enable Lasham to expand its Boeing 757 activity. Following modification, the Lasham facility will be able to accommodate either the 757 or 737 NG aircraft.

## STA signs five year deal

Singapore-based ST Aerospace Systems (STA Systems) has signed a five-year supply and maintenance support agreement with Hamilton Sundstrand (Hall 4, F13).

The deal covers Hamilton Sundstrand OEM spares for operators of the Airbus 300/310/320, and Boeing B737/747/757/767/777, DC-9/10, MD-11 and Fokker 50 world-wide. The parts include integrated drive generators, constant speed drives, pneumatic valves, air starters, air cycle machines and generators.

Mike Dumais, vice-president of customer service, says Hamilton Sundstrand's customers will benefit from having OEM-backed support. "This agreement allows us to expand our business in the Singapore market," says Dumais.

## Rockwell Collins' new image unveiled

Rockwell Collins is sporting a new look and a new identity over at its exhibit at Stand F10 in Hall 4. The company is unveiling its new logo at Farnborough with the strap line "building trust every day".

Clay Jones, Rockwell Collins chairman, president and CEO, says the new identity was designed to reflect innovation and trustworthiness, while still reflecting the heritage of the company.

"In five years Rockwell Collins has successfully established itself as a strong,

growing, independent aerospace and defence company," says Jones. "We are expanding our positions into adjacent market segments, successfully executing for our customers and establishing a record of strong financial performance.

"I am very pleased with what we've accomplished to date, and the company is well positioned to continue its success well into the future." It has been five years since the business separated from its former parent corporation, Rockwell International.

**ASIAN AEROSPACE**  
INTERNATIONAL EXPO AND CONGRESS

Hong Kong, Asia's world city  
3 – 6 September 2007

Asia's Premier Aerospace Exhibition  
...now at the heart of the world's  
fastest-growing aviation market

Exhibit at this unique B2B quality forum  
and meet Asia-Pacific's commercial  
aviation community

COME AND SEE US  
IN CHALET A19 AT  
FARNBOROUGH  
INTERNATIONAL

For enquiries, please contact the organizing office at Tel: (852) 2824 0330 Fax: (852) 2824 0246  
Email: [annie.ma@reedexpo.com.hk](mailto:annie.ma@reedexpo.com.hk) or your local Reed sales office. For details, please log on to [www.asianaerospace.com](http://www.asianaerospace.com)

Organised by:

Venue:

Supported by:

Media Partner:

