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'It demands a trained eye and genuine artistic skills'

Company-wide news from BAE Systems plc • Issue 5 2009

# BAE SYSTEMS News

## Encouraging the next generation

Schoolchildren, like these pictured here learning about the importance of engineering as part of the BAE Systems Education Roadshow in the UK, are a key focus of the Company as it seeks to address some of the stereotypes that exist about working in engineering or science.

BAE Systems is engaging with young people around the world to encourage them to think about their career choices and then supporting employees' development once they have joined the Company.



Turn to pages 04-05 for full story

## Chief Executive's Message >

## Developing capability across our home markets

In September, in Washington D.C., I hosted the second of my twice-yearly meetings with leaders from across our global Company.

I took the opportunity to discuss our progress in delivering our Company strategy and financial results. As you are all aware, these are testing times and so we also talked about how we are responding to the challenges of the current economic climate.

What is most important is that we deliver on our customer commitments and meet our business plans.

We continue to work with our customers around the world to ensure we deliver strong programme execution and maintain a sustainable long term business. As a result, BAE Systems – with the rest of the defence industry – contributes not only to enhancing defence capability but also to wealth generation and to the economies of the countries in which we operate.

We are seeing the benefits of deployment of our readiness and sustainment capabilities and expertise across our business with recent contract wins for Type 45 in-service support and a ten-year torpedo capability contract.

In our US business, we have announced the combination of Integrated Security Solutions with

Information Solutions, to allow the Electronics, Intelligence & Support Operating Group to leverage the combined capabilities and knowledge in the overall security market. The Company has also received a seven-year information technology services contract from the US Department of the Treasury, becoming its managed service provider for end-to-end products and services.

Our decision to make India our seventh home market (see page 02) with the formation of BAE Systems India led by Guy Griffiths, Group Managing Director, International, underlines our commitment to develop our capabilities in existing and new home markets. India is an emerging growth market and it offers a state of maturity across the various sectors in which we operate.

The Company's response to the Woolf Report continues to progress to plan and the required new and updated policies, are being finalised and will be incorporated into the Operational Framework in January 2010. This is fundamental to our drive for total performance across all of our operations.

The broad geographical spread of our Company, the breadth of capability across our businesses and the technologies underpinning our products and services mean we are well placed to maintain a sustainable business.

I'd like to thank you for your effort to date in support of our strategy and financial results and I look forward to the same commitment and level of achievement as we head towards the year end.

Ian King  
Chief Executive

# BVT secures 15-year partnership with MOD

## Partnering

BVT Surface Fleet (BVT) secured a 15-year partnership with the UK Ministry of Defence in July when it completed the signing of a Terms of Business Agreement (ToBA).

The agreement, signed between BVT, BAE Systems and VT Group, provides a minimum of 15 years exclusivity to BVT for the design, build, integration and aspects of support on specified MOD shipbuilding programmes, including the Future Surface Combatant.

The ToBA also includes a commitment to maintain key industrial capabilities, as outlined by the UK Government's Defence



Above: the agreement covers programmes such as the Queen Elizabeth Class aircraft carriers

Industrial Strategy, and an incentive mechanism for achieving savings and key transformation milestones.

Through the ToBA, the MOD and BVT will transform the delivery of shipbuilding and support to the Royal Navy on a through-life basis, delivering significantly enhanced value for money for the taxpayer and increased shareholder value through improved

efficiency and effectiveness.

The Minister for Defence Equipment & Support, Quentin Davies, said: "This agreement will help BVT to build a world-class, sustainable business, balancing the supply of its services to future MOD demand while the long-term view of our minimum requirements will also help the Company to plan its development of other markets such as exports."

The Minister added: "The guarantee of 15 years' worth of work is especially pleasing to announce in the current economic climate. The contract... will help industry preserve a valuable skills base as the sector restructures to meet our future needs."

BVT Chief Executive Alan

## BAE Systems to acquire VT's shares in BVT

BAE Systems and VT Group have recently signed the agreement which – subject to regulatory and VT shareholder approval – will see BVT Surface Fleet Limited (BVT) become wholly owned by BAE Systems and integrated into the Programmes & Support Operating Group. Completion is expected to take place later this year, when BVT will be renamed BAE Systems Surface Ships.

Johnston said: "Completion of the ToBA and the partnership that it creates with the MOD is a hugely significant event for BVT and the UK maritime sector."

"It will ensure that we can affordably deliver key capability to the Royal Navy in the UK for many years to come, strengthen our competitiveness in the international market and deliver a security

to the shipyards that has not been known for decades."

Trade union convener Jamie Webster said: "Our focus now is for everyone in BVT to strive towards continually improving our performance, ensuring that our reputation is one of distinction, thus making us an attractive option for any future customers home or abroad."

# Competitors beaten off in US Treasury deal

## Customer

The US Department of the Treasury has awarded BAE Systems a contract for managed information technology services with a ceiling of US\$325m over seven years.

BAE Systems, which beat off competition from major enterprise IT companies, will now provide Treasury headquarters and participating

bureaux with engineering, implementation, operations, administration, and maintenance services. The Company will design and deliver these services at a firm, fixed price.

Gene Glazar, President of BAE Systems' Information Solutions group, said: "Treasury is the federal agency at the centre of our economic recovery, and fulfilling that critical mission

demand nothing less than excellence in information technology solutions and support.

"The award demonstrates our capacity to tackle enterprise-level projects for even the largest customers and to serve customers outside the US Department of Defense and Homeland Security areas."

The contract is the successor to the Treasury

Seat Management contract, which BAE Systems held for ten years. Treasury Seat Management was a performance-based services contract to provide daily management and operation of IT infrastructure assets and processes for Treasury headquarters.

Under the new contract, BAE Systems becomes a managed-services provider to the Treasury, providing

end-to-end products and services.

Tom Sechler, Vice-President and General Manager for Civilian Systems & Solutions (CSS), said: "This is BAE Systems' first enterprise-level IT managed services win and it provides us with the onramp for numerous managed-service opportunities across the federal government."



Ian King  
Chief Executive



# New vehicles boost global land initiative

RG35 and GTV demonstrate world potential

**Performance**

BAE Systems continues to develop its worldwide position in combat and tactical vehicles through its global Land initiative.

As part of its activities to develop vehicles that can be used across its home markets and beyond, the Company has launched two new vehicles.

The RG35 mine-protected, multi-purpose fighting vehicle is the latest 6x6 addition to the battle-proven RG range. It combines the high levels of survivability of the RG31 mine-protected vehicle with much of the tactical capability of a modern combat vehicle.

"The RG35 offers unprecedented versatility and will be equally suitable in peace



Above: the new RG35 offers unprecedented versatility

support and conventional operations," said Johan Steyn, Managing Director, BAE Systems Land Systems South Africa, where the RG35 will be manufactured.

"We continuously develop and enhance our vehicles to support our customers' operational needs. The RG35 can carry light and medium turrets and direct and indirect-fire weapons. It can also be configured in all the variants of a fighting unit (ambulance, weapon carriers, command posts and others) and can be customised in various sizes

such as the 4x4 and 6x6."

In order to meet the European emission control regulations on engine design, BAE Systems has also introduced a new Euro V-compliant Global Tactical Vehicle (GTV), the latest addition to the Company's Family of Medium Tactical Vehicles (FMTV).

Linda Hudson, President of BAE Systems Land & Armaments, said: "These two new vehicles demonstrate our expertise in land systems.

"Based on our experience, we can evolve our existing designs to create vehicles like the GTV or develop new designs, such as the RG35, to meet the needs of customers around the world."

## Protest over US decision on FMTV

The US Department of Defense notified BAE Systems during the summer that it had not been selected for a follow-on contract for the production of vehicles under the Family of Medium Tactical Vehicles programme.

Linda Hudson said: "We delivered a strong proposal, which we believe met the best interests of the business, customer and our shareholders. While this news is disappointing, we are proud of what we have achieved in making the FMTV the medium tactical vehicle of choice for the US Army during the past 17 years."

After a detailed analysis of the information provided by the US Army, before and during the formal competition debrief, the Company believes that the Army did



Above: Linda Hudson, President, Land & Armaments

not properly evaluate the proposals.

"After examining the Army's process, we believe there are strong indications the service did not conduct its evaluation in accordance with the criteria detailed in the Request For Proposal. As a result, we are asking the US Government Accountability Office to re-evaluate the decision, an action we do not take lightly.

"We look forward to an opportunity to continue to work with the Army to ensure they are well positioned to implement a comprehensive wheeled vehicle strategy that serves our nation."

## THESE VEHICLES DEMONSTRATE OUR EXPERTISE IN LAND SYSTEMS

Linda Hudson, President, Land & Armaments



Above: Naresh Chandra (left) and Ravi Bhargava with Dick Olver after their appointment to the India Advisory Board

## Commitment in India marked by special ceremony

**People**

BAE Systems Chairman Dick Olver visited the Company's offices in New Delhi, India, in September and took part in a Hindu ceremony – Puja – to inaugurate the refurbished office, recognise India as the Company's seventh home market and mark the establishment of the India Advisory Board.

India joins Australia, Saudi Arabia, South Africa, Sweden, the UK and the US as a home market: a country in which BAE Systems has a considerable presence and capability, or the clear commitment to develop that "home" presence.

The formation of the India Advisory Board enhances the Company's ability to execute its home market strategy in India, building on the Company's long

and successful history there.

Ravi Bhargava, formerly CEO, and now Chairman, of Maruti Suzuki, and Naresh Chandra, formerly Ambassador of India to the US, Cabinet Secretary, Senior Adviser to the Indian Prime Minister, and Governor of Gujarat, were appointed as external members of the advisory board.

Dick Olver said "We recognise the aspirations and clear intent of the Government of India to develop the country's indigenous defence industry.

"BAE Systems has had a successful 60-year history in India, providing products and support to the armed services.

"BAE Systems India will take this forward to build capability within India as a part of the domestic defence



Above: Dick Olver participates in the Puja ceremony

industry. The ancient ceremony we have just enjoyed marks the start of another chapter in the history of BAE Systems' business in India."

Guy Griffiths, Group Managing Director,

International, also recently visited the offices and met the team in India.

The management of the Indian business – BAE Systems India – will come under Guy's leadership as part of his portfolio.

## Torpedoes contract delivers big savings

**Customer**

The Royal Navy and RAF will save millions of pounds over the next decade on the maintenance and development of their Spearfish and Sting Ray torpedoes thanks to a £369.5m contract signed with BAE Systems.

The Torpedoes Capability Contract (TCC) will cover in-service support for the torpedoes through to 2019 as well as providing the foundation for a proposed upgrade programme for Spearfish, the submarine-launched heavyweight torpedo.

The contract will see BAE Systems and the UK MOD working as "Team Torpedoes", in a partnering approach that will result in cost savings of about 20 per cent over the traditional support approach and result in efficiencies of at least £65m.

The TCC consolidates what were 11 separate contracts into one, leading to significant reductions in transactional activities.

Torpedoes Project Team Leader Captain Jim Johnson said: "This ten-year contract is a radical improvement over legacy arrangements and has significantly reduced costs."

The contract will support about 120 skilled jobs at BAE Systems in Portsmouth, while about a third of the total contract value will go to sub-contractors, sustaining further industry jobs around the UK.

## Making the high seas a safer place

**Innovation and technology**

Enabling innovative technologies to work together is increasingly important in combating new and emerging threats.

An example is a sophisticated new electronic early warning system aimed at combating piracy on the high seas, where every year hundreds of ships around the world are hijacked and held to ransom.

Drawing on technology developed by three BAE Systems businesses, the system can detect, identify and track shipping vessels and behaviours from many miles over the horizon, giving crews the chance to recognise suspicious vessels long before they become a threat, taking evasive action or alerting navies to the danger.

Nick Stoppard, Director of Solutions Development at Strategic Capability Solutions, said: "Piracy is on the rise. Attacks in 2008 were double those of the previous year and there is a clear need for better methods to help com-

## Early warning system to combat piracy

mercial ships identify and evade pirates before an attack occurs.

"Pirates are becoming increasingly bold and highly organised. We have used our expertise to develop a layered system to improve the safety and security of ships and their crew."

BAE Systems is undertaking a feasibility study into the use of this technology with ship owners and specialists from security organisations. The study will include technology, capability, cost and training requirements.

Technology and capability sea trials in partnership with ship owners are expected to take place within the first three months of next year.

The technology is just one example of the work that is being undertaken by BAE Systems as the Company focuses its efforts on supporting global defence and security issues.



Above: the Mk38 Mod 2 system provides enhanced safety and accuracy for a variety of naval vessels

## Why every ship should have a Mk38 gun

On 12 October, 2000, the USS Cole was attacked while refuelling in a Yemeni port by a group of suicide bombers in a small boat.

Seventeen sailors lost their lives, and 39 others were injured in the blast.

A lot has changed since then to improve safety at sea for military personnel.

BAE Systems has played its part through the development of the Mk38 Mod 2 – a stand-alone, minor-calibre gun system with precision accuracy to prevent similar attacks by small, fast, and agile boats. The system has proven to be an effective, cost-efficient solution for a wide range of naval vessels.

Now the 100th Mk38 Mod 2 system has been installed on the USS Cole and recently completed test firings with outstanding results and high

praise from the crew.

"The Mk38 Mod 2 has revolutionised safety for the Navy," said Ben Nies, Mk38 Program Manager for US Combat Systems.

"Navy officers routinely approach me at trade shows with virtually the same message: 'Every naval ship should have a Mk38'."

The Mk38 Mod 2 is a fully stabilised, remote-controlled system that provides superior performance, value, and versatility. Operators command the Mk38 Mod 2 from the Combat Information Center to minimise crew exposure to weather, system recoil, and crossfire risks.

It offers day and night sights as well as a laser range finder for superior accuracy and surveillance to combat possible encounters with smaller boats and other surface threats.



# Confidential ethics advice and support

## Performance

Since the publication of the Woolf Report in May 2008, BAE Systems has attracted considerable attention both within the Company and from external observers about its commitments to responsible business conduct.

The roll-out of the global Code of Conduct continues apace since its launch in January 2009. By the end of August, more than 83,000 employees had been briefed.

When BAE Systems launched the Code in January 2009, managers reminded employees where they could get help and advice if they had a query or concern:

- Speak to your manager
- Speak to an expert
- Call the ethics helpline.

As a result, calls to the helpline have increased as employees seek guidance on queries or report concerns about business conduct they observe.

The Ethics Helpline was established in 2003 and is operated by an external provider called Expolink. Comments are written down by the call centre operative and then passed to an appropriate member of the

## More employees using helpline for guidance

ethics helpline team for further investigation. In the US, calls go through directly to the relevant ethics officer in each business.

Grenville Hodge, Director of Internal Audit, and responsible for the helpline, explained: "We've always been clear that what we want is a Company where people feel comfortable raising an ethical matter openly at any time, as they currently do addressing a safety issue.

"Nevertheless, the ethics helpline provides a robust backstop should someone feel uncomfortable raising an issue within the Company."

Callers can choose to remain anonymous but this can hinder progress in resolving complaints. "We prefer callers to identify themselves for two reasons," continued Grenville.

"Firstly it helps ensure calls are legitimate and, secondly, it helps us resolve issues more quickly and close the loop with the caller. I understand that some employees may fear

retaliation if they identify themselves, but the Company is 100 per cent committed to supporting employees that raise issues in good faith."

Once a decision has been made on how to best handle each call, any issues requiring investigation are then passed to the Ethics Review Committee. The Committee is made up of senior business contacts, independent of the local business, who have the authority to address the matter and resolve it in the most appropriate way.

"Because of the confidential and independent nature of the helpline it can take time to provide feedback to employees.

"We hope that all our businesses worldwide have a culture where employees can seek advice from their local line manager, or specialists identified in the Code of Conduct. This is usually the quickest way to get answers to questions people raise," Grenville added.

"We're pleased that the helpline is being used more – it reflects a greater awareness of the standards BAE Systems expects and also demonstrates employees' willingness to address situations where those standards are not met."

# The principles of responsible conduct

The Company's visible commitment to high standards of business conduct, underpinned by an aim to be recognised as a leader in this area across the globe, attracted Joan Dubinsky to the role of Ethics Director for BAE Systems in the US.

Having served as the Chief Ethics Officer with the International Monetary Fund, Joan joined the Company for two reasons.

"I was familiar with the longstanding work undertaken by the US businesses but was impressed by the development of a global, principles-based Code for the entire Company," she explained.

"I was also attracted by the Company's aspiration to become a leader in responsible business conduct and wanted to be part of that."

With more than 25 years of experience in business ethics, Joan has an excellent perspective on BAE Systems' business conduct objectives. She believes the Company's approach is the right one.

"The focus on principles is exactly right. Developing and implementing our



Above: Joan Dubinsky, Ethics Director, BAE Systems, Inc.

common ethical principles requires a level of interpretation and decision-making not found in rules-based ethics programmes," she said. "We encourage employees to use our core values, their own life experiences, and our standards in tackling challenging business situations.

"Simply adopting a rules-based approach may satisfy a regulator but is unlikely to resonate as well within a truly global Company."

Joan added: "The ultimate goal is to factor

responsible business conduct into the Company's fundamental decision-making processes. Over time, all employees will be expected to use their reasoning and judgement skills, to distinguish between what we – as a company – may have a right to do and what is the right thing to do.

"Each of us must be able to recognise, appreciate, and resolve ethical dilemmas as a matter of course in our day-to-day activities."

The other area that interested Joan was the Company's response to the Woolf Report.

"Before I joined I admired the bold steps that BAE Systems took agreeing to act on the Report's findings before its publication – for me that's a real sign of commitment to responsible business conduct," she concluded. "It is clear and obvious that these commitments begin and are sustained by our executive team."

**“EACH OF US MUST BE ABLE TO RECOGNISE, APPRECIATE, AND RESOLVE ETHICAL DILEMMAS AS A MATTER OF COURSE”**

## Spotlight on politicians' visits to US sites >



Above: US House Speaker Nancy Pelosi with employees during her visit to the Ship Repair business in San Francisco

# Product showcase for Speaker

## People

The Speaker of the US House of Representatives, Nancy Pelosi, was briefed on a number of BAE Systems products and capabilities when she visited the San Francisco Ship Repair facility recently.

Senior leaders from BAE Systems, Inc. presented Mrs Pelosi with an overview of the Company and its breadth of activities.

Special focus was given to the Ship Repair business,

BAE Systems' HybriDrive® hybrid electric propulsion system, which powers a number of San Francisco's municipal buses, and the Company's commitment to the FIRST (For Inspiration and Recognition of Science and Technology) Robotics organisation.

Several members of BAE Systems, Inc.'s leadership team, including Dave Herr, President of Support Solutions, Bill Clifford, President of Ship Repair,

Hugh Vanderspek, General Manager of San Francisco Ship Repair, Bob Fitch, Senior Vice-President of Government Relations, and John Miko, Vice-President of Government Relations, briefed Mrs Pelosi on the ship repair and maintenance work performed at the facility and discussed the vision and strategy for the Ship Repair business with her.

Dave Herr said: "I believe, we made a very positive

impression on Speaker Pelosi during her visit.

"The team had a great opportunity to showcase our business and the highly skilled work force in San Francisco – they knocked it out of the park."

Mrs Pelosi also toured the shipyard and spoke with employees, posing for photographs and stopping to sign an autograph. The Ship Repair employees were energised and excited to host her at the facility.

# US Defense Secretary sees F-35 assembly

The US Secretary of Defense, Dr Robert Gates, visited Lockheed Martin's final assembly operation for the F-35 Lightning II at Fort Worth, Texas, on 31 August.

After his tour of the site, Dr Gates expressed optimism for the programme's future, emphasising the F-35's importance to global security.

BAE Systems is a principal subcontractor to Lockheed Martin on the F-35 programme.

Dr Gates walked along parts of the mile-long factory floor, where he stopped to speak with F-35 workers, and saw all three variants of the aircraft in various stages



Above: BAE Systems test pilot Graham Tomlinson explains the helmet-mounted display system to Dr Gates

of assembly.

He also met BAE Systems' lead test pilot on the programme, Graham Tomlinson, who explained the aircraft's helmet-mounted display system to the Defense Secretary.

At a news conference after his tour of the factory, Dr Gates said: "We cannot afford as a nation not to have this plane. I was very impressed by what I saw this morning – by the investments that have been

made in the production line, the robotics and automation.

"I'm heartened by what I've seen ... but especially by the commitment of the people involved in putting this plane together."

# Hunter upgrade for Saudi Navy

## Performance

Saudi Arabian industry has received a boost following the decision to conduct a major ship engineering programme within the Kingdom. The four-year project will entail the refurbishment of the Royal Saudi Navy's three mine hunter ships.

Obsolescence issues and the need to replace on-board electronic systems

have led to the upgrade which is expected to extend the life of the vessels.

The ships – Al Jawf, Al Shaqra and Al Kharj – are based on the Royal Navy Sandown class vessels and were bought in the 1990s. This upgrade will bring them in line with their UK equivalents.

The upgrade is a government-to-government contract with CS&S International acting as the prime contractor.



Left: the four-year project to refurbish the three mine hunters is a boost for Saudi Arabian industry

An informal project team comprising of the Royal Saudi Naval Forces, BAE Systems and BVT Surface Fleet will work together to ensure the work goes smoothly.

CS&S International's Project Director Naval, Stephen Rowe, said: "One of

BAE Systems' prime objectives is to develop engineering in Saudi Arabia and build an industrial capability to support our customers. This development is the first major undertaking of its kind that we have undertaken in the naval sector."



Spotlight on education and skills development >

# Learning for life

**People**

As a global business, BAE Systems is committed to education and skills development in each of its home markets through various education initiatives, at different stages on an individual's career path.

At the heart of these activities is the commitment to ensure that the essential contribution of engineering and science is recognised as important in each of our home markets. That includes addressing some of the stereotypes about engineering and science.

This then acts as a springboard to the Company engaging with young people to promote BAE Systems and engineering and science as respected career choices.

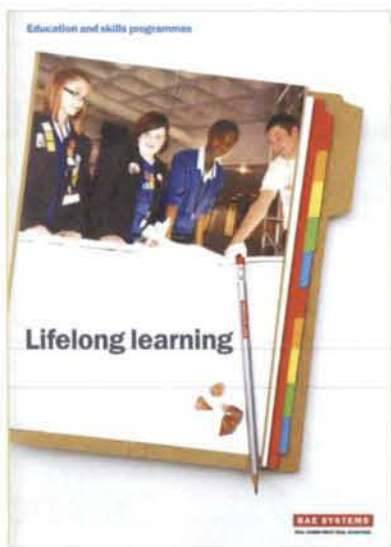
The result – encouraging creativity and innovation in young people, and in the medium to long term, a boost to the pool of engineering talent worldwide.

Curt Gray, Senior Vice-President Human Resources, BAE Systems, Inc., said: "The defence, security and aerospace industry has a big impact on the communities in which it operates. We provide a number of engineering and manufacturing jobs and our sites are often the major employer in the local area.

"At BAE Systems we have recognised the importance of developing a learning and skills approach that not only attracts people to the industry in the first place, but looks to provide engaging employment and transferable skills as people progress through their careers with us."

There are four areas of focus:

- Changing perceptions 5–16 years old
- Inspiring career choices 16–18



Above: a new brochure, *Lifelong learning*, gives a comprehensive overview of BAE Systems' education and skills activities and will be available later this year

- Working with universities 18–21
- The continuous journey 21+

**Changing perceptions**

Wayne Achurch, Director Human Resources, BAE Systems Australia, explained: "One of the main challenges we face is 'perception'. We know that we need to invest in education programmes that will excite young people and draw new talent into the industry. That investment starts with schools and our

businesses throughout the world offer a range of activities for children aged between five and 16.

"In Australia, we sponsor the Concept2Creation programme which encourages under 16s to work together with their teachers and experts from BAE Systems to develop a product or service. It has proved to be extremely popular, and schools have reported an increase in the number of pupils who decide to study physics after taking part in the programme."

**Inspiring career choices**

The next stage is to look to inspire 16 to 18 year olds as they begin to make choices about their education that will define their career options.

In Sweden, BAE Systems offers project placement and internships for students. Schemes like this aim to encourage more young people to continue studying science and technology, while giving young people hands-on experience.

The Company places a great value on apprenticeships, training and work experience in all home markets because they are crucial in building the best workforce for the future.

**Working with universities**

Partnerships with universities help to maintain leading-edge technology capabilities. BAE Systems has links with about 60 universities globally through its university partnerships programme.

One example that has made the headlines around the world is the Micro Autonomous Systems and Technology



Above: students at Ephes Memkeli secondary school in Johannesburg, South Africa, which is supported by BAE Systems encourage young people to consider choosing it as a career

**BY TARGETING YOUNG PEOPLE THROUGHOUT THEIR EDUCATION, WE HOPE TO INSTIL IN THEM AN INTEREST AND ENTHUSIASM FOR SCIENCE AND ENGINEERING**

Curt Gray, Senior Vice-President Human Resources, BAE Systems, Inc.

(MAST) Programme in the US. Working with the US Army Research Laboratory, BAE Systems is leading a team of scientists from the Army, academia and industry that is developing miniature robots that can operate in places too dangerous or inaccessible for humans. The development team includes representatives from the Universities of Michigan, Pennsylvania, Maryland, New Mexico and the University of California at Berkeley.

**The continuous journey**

It is important that this development doesn't stop when someone joins the Company – no matter what their area of expertise.

## From Brough to Bangalore

**Changing perceptions**

BAE Systems is a Corporate Champion in the UK India Education and Research Initiative (UKIERI) and sponsors the "Yorkshire – Bangalore" school programme.

This enables schools in both countries to share ways of learning about science and technology via the BAE Systems Education website and through reciprocal visits.

"India is a popular and exciting topic in our curriculum. The link has enhanced our curriculum greatly, providing us with first hand information about India and friends in a contrasting locality," said Joanna Gilbert, a teacher at Brough Primary School, near the BAE Systems Military Air Solutions site at Brough.



Above: Mustakbal students celebrate their exam success after the presentation ceremony

## Saudis given the tools of business

**Inspiring career choices**

As part of the Saudisation policy of bringing social and economic benefits to the Kingdom of Saudi Arabia, BAE Systems is committed to training local nationals for management, technical and other qualified positions.

Among the training programmes we provide is Mustakbal – a major development programme for future Saudi managers. First introduced in 2002, it was reinvigorated at the start of 2008 and there are currently 24 students taking part.

The programme includes delegates taking either a Diploma in Management or a Certificate in Management quali-

fication from the Chartered Management Institute.

Both courses will provide the Mustakbal students with a greater understanding of business management tools.

A presentation ceremony was held in July for the successful Mustakbal delegates who were presented with their diplomas/certificates by Andy Carr, Vice-President Government to Government Programmes, and Tony McCarthy, Vice-President HR and Business Operations.

Andy Carr said: "This is a very important day for everyone on the course. It is a milestone for your future and another step to achieving your full potential within BAE Systems."

"I joined BAE Systems as an apprentice many years ago and I too benefited from workplace learning. I want you to take the coursework you have successfully completed from the classroom and into the work environment. When you manage to do this you will see big benefits."

## First class in programme achieves first-class results

**Working with universities**

In partnership with Glasgow Caledonian University, the Engineering function of BVT Surface Fleet designed and introduced a four-year programme for detail designers to develop both their academic and vocational skills, as part of the long-term strategy to increase the capability and flexibility of the engineering team.

During the Design Development Programme (DDP), participants undertake a BEng (Hon) degree in mechanical/electrical systems at Glasgow Caledonian on day release, supplemented by a broad range of three-month development placements within the various departments and projects of the function.

The first cohort of nine participants on the DDP began in 2005 and completed their four-year programme in June this year with excellent results. The entire group passed, with four of the team achieving First Class Honours.

In addition, two were awarded prizes from professional institutes IMech(E) and IMarEST for the best final year project.

The DDP demonstrates BVT's commitment to supporting employees' Continuous Development Programme (CPD).

Seven of the first group to complete the programme began their career with a craft apprenticeship within the opera-

tion/production environment of BVT and one came originally from the former BAE Systems Avionics business. To date, all are on the first steps to professional chartership.

Alan Ledgerwood, Lead Engineer at BVT Surface Fleet, said: "The design development programme has given me the opportunity to move into an engineering design role and gain valuable experience as well as a BEng (Hons) degree."

"I would recommend the programme to anyone considering applying as it is an excellent opportunity to gain the toolsets required to become a competent engineer."

Engineering Development Manager, Ginny Stead said: "It is with immense pride and satisfaction to me personally that the employees on this inaugural intake have achieved and excelled in all aspects of the programme. The standards expected were extremely stretching and measured the increase of individual and project capability, competence and academia."

"They have undoubtedly set the benchmark for existing DDP participants and provided BVT with a definitive statement and demonstration of engineering development and commitment."

The programme continues to flourish, with a new intake each year and places for a further six employees in 2009.



Above: schools in India and Yorkshire in the UK team up to share ways of learning





enjoy a lesson. The Company aims to raise the profile of engineering and science in all its home markets and

Ian Grant, HR Director Shared Services, said: "We offer a continuous and joined-up approach to education and learning. Our work with schools and universities helps to prepare people for our apprenticeship and graduate programmes, and our people can continue their professional and skills development through programmes such as Developing You.

"This approach ensures that we strive continually to help people attain the high level of skills that our business needs."

Curt Gray added: "We believe it is vital that we help encourage more young people to consider careers in science and engineering. However, both in the US

and our other home markets, the number of students pursuing studies and careers in science and engineering continues to decline. By targeting young people throughout their education, we hope to instil in them an interest and enthusiasm for these disciplines.

"To support this, we believe that partnerships with government, academia, industry and NGOs are key to addressing the skills gap and future shortages of engineers. As a result, we play a part in addressing global challenges outside our business sector – ensuring that the world's future technology needs can be met is vital and BAE Systems has a big role to play."



Above: apprentice Colin Gray is a participant in a programme that assists young Aboriginal and Torres Strait Islander people through further education, training and employment

## Driven by the desire to learn

### The continuous journey

Colin Gray carries out maintenance for BAE Systems Australia on various state-of-the-art aircraft and aircraft systems, including F-18 Hornets and A27 Hawks.

"I moved to Newcastle, New South Wales from Cairns in Queensland in 2006. I was looking to change career and wanted to work for the low fares airline Jetstar, but there were no vacancies. I sent my CV into BAE Systems and the rest, as they say, is history."

Colin's determination and desire to learn as much as he could about aviation were clear, and he joined the aeroskills mechanical team as an

apprentice. "My apprenticeship not only gives me on-the-job training but I'm also able to study new qualifications to help me progress my career in aviation," added Colin.

His success highlights the benefits of BAE Systems Australia's partnership work with Novaskill and Aboriginal Hostels Limited. Colin is a participant in the Indigenous Youth Mobility Programme (IYMP), which assists young Aboriginal and Torres Strait Islander people to gain a qualification through accessing further education, training and employment which they may not have access to within their home communities.

**MY APPRENTICESHIP NOT ONLY GIVES ME ON-THE-JOB TRAINING BUT I'M ALSO ABLE TO STUDY NEW QUALIFICATIONS TO HELP ME PROGRESS MY CAREER IN AVIATION**

# Programme tests mettle of those who hope to lead

### Emerging Leaders Programme

This year, BAE Systems' emerging leaders from around the world are learning, collaborating, and building leadership skills through the newly designed Emerging Leaders Programme (ELP).

This global programme represents the best practice in mid-career education and demonstrates the Company's commitment to career development and preparing employees for future challenges and leadership assignments.

The course and curriculum were revised and piloted during 2008 (see *BAE Systems News* Issue 4 2008) and included both US and UK-based cohorts for the first time.

While the current 47 participants, selected from a record number of nominations, represent operating groups and lines of business across the global enterprise, the opening two week-long modules bring both cohorts together.

Sessions are conducted by BAE Systems executive sponsors, subject matter experts, global business thinkers, and professional facilitators and developmental coaches.

Curt Gray, Senior Vice-President of Human Resources for BAE Systems, Inc., is the functional sponsor for the Emerging Leaders Programme. For the 2009 course, Lucy Reilly Fitch, Senior Vice-President of Corporate Communications, is the BAE Systems, Inc. programme sponsor. Mark Kane, Managing Director for Air Mission Support and Services, Military Air Solutions, is programme sponsor for the Programmes & Support and International cohort.

### Participants challenged to blend business and leadership skills

Mark Kane said: "The programme is designed to blend competency development with an understanding of the important business processes and disciplines required in leaders of the Company to be successful.

"But what makes this different is the way these skills are developed with colleagues from across the Company and within a global context. The programme is based upon recommendations and experiences from throughout the organisation across our home markets.

"As a result, it sets the standard for



Above: Curt Gray, Senior Vice-President of Human Resources, BAE Systems, Inc., is functional sponsor for the Emerging Leaders Programme

excellence in career development and gives participants the opportunity to not only learn about the global enterprise but to actually experience it first hand."

The three one-week modules that are structured as separate but integrated events that weave together the themes of the programme are:

- Growing & Sustaining the Business
- Serving the Customer
- Leading Others.

The 2009 Emerging Leaders Programme kicked off in late April when both the BAE Systems, Inc. and Programmes & Support and International cohorts convened at the US Combat Systems site in Minneapolis, Minnesota to begin work on the year-long programme.

Participants recently completed Module Two, a global session that was held in London and included discussions with Dick Olver, Chairman BAE Systems, and Nigel Whitehead, Group Managing Director of the Programmes & Support Operating Group.

Module Two focused on "Serving the Customer" and included a visit to a customer site, RAF Marham, where BAE Systems partners onsite with the RAF.

Module Three for both the BAE Systems, Inc. and Programmes & Support and International cohorts will feature the theme of "Leading Others". Participants will hear from a

panel of senior leaders on the topic of leadership and participate in site visits to the Pentagon in Washington D.C. and BVT Surface Fleet in Portsmouth respectively.

### Experiential learning opportunities

Important elements of the Emerging Leaders Programme are the experiential learning opportunities that are strategic high-visibility projects, sponsored by Company leaders and linked to business imperatives that offer benefits across the operating groups and the corporation.

Participants in the Emerging Leaders Programme form into teams, and drawing upon their own experiences and learning gained in the classroom, diagnose the problem that has been identified and recommend solutions and implementation plans.

The study teams work on their assigned projects throughout the course, and present their findings and recommendations to their programme sponsors during the final module.

"Company leaders nominate well

## SKILLS ARE DEVELOPED WITH COLLEAGUES FROM ACROSS THE COMPANY AND WITHIN A GLOBAL CONTEXT

Mark Kane, ELP sponsor for Programmes & Support and International

conceived and highly developed projects for the ELP team to undertake," said Lucy Reilly Fitch, the Inc. Programme sponsor.

"This year there was a record number of 42 projects recommended for study, which reflects the interest and support that leaders attribute to this programme.

"These project proposals tend to become internal consulting assignments that address issues that we are wrestling with in real time, so the fresh perspectives provided by the ELP teams are highly valuable to all of us."

### What graduates of Emerging Leaders Programme say

Doug Donegan, Director of Mission Success at Land & Armaments headquarters in Arlington, Virginia, completed the programme in 2006.

"There were three key lessons that I took away from the programme," Doug said. "First, it clearly demonstrated that the Company is willing to invest in its people and enable them to develop and grow within the organisation.

"Secondly, it provided me with exposure to the many different parts of the business, to many company leaders who participated and hosted visits to their businesses, and even to other parts of the global enterprise. When you're working on a programme at a specific site, you're never going to see and learn that much of the business within a relatively short period of time.

"Finally, the course taught me how to lay out a career plan and showed me what I need to do to reach my full potential, and hopefully I'm still moving along that path."



Above: the 2009 ELP kicked off in April when participants convened at the US Combat Systems site in Minneapolis, Minnesota for their first global session





Above: Tony Smith (right) and Terry Davies show a steady hand in painting the Astute crest

## Brushing up on old skills for new subs

### People

However sophisticated plant and machinery gets, there are some skills that can never be controlled by computer – and one of

those is sign-writing, a specialist art that is still needed, even on the most advanced submarines built for the Royal Navy.

Once a skill more heavily used in shipbuilding, sign-writing is now confined to a handful of jobs, but where it is required only the practiced art of the freehand design painter will do.

One such job is preparing the side screens fitted to the gangway rails for the

submarine's commissioning ceremony and when the boat docks in ports around the world – each Astute class submarine requires four of them.

Step in Tony Smith and Terry Davies, who are both time-served painters with extensive sign-writing experience and some 70 years' service between them at Submarine Solutions' shipyard at Barrow-in-Furness in the UK.

The reason much of the

design has to be hand painted is because it is applied directly onto a canvas base, which is then weatherproofed using multiple coats and oiling to keep it supple so that the paint does not crack.

Hand painting has proved over the years best able to withstand the weather proofing, and for Tony – currently working on Astute defect rectification – and Terry – now with painting con-

tractor Chieftain/Barrier – it was a welcome return to old skills.

The four screens for first of class Astute took them about six weeks, including delays due to damp atmosphere. Now they are looking to paint the screens for second boat Ambush early, to keep their hand in pending the arrival for painting of the draft boards, which show the depth of the hull in the water.

# Thinking in the box delivers big benefits

### Partnering

BAE Systems is one of a select number of industry providers actively helping the UK Ministry of Defence to define Contractor Logistics Support (CLS) requirements for its future logistics information services (IS).

The working team, known as the Green Box, includes representatives from BAE Systems, Rolls-Royce, AgustaWestland and General Dynamics – all of whom provide CLS services to the MOD.

In contributing to the definition of the CLS information requirements, the Green Box team will help the MOD and industry to make better decisions and reduce the cost of supporting the MOD's air, land and sea platforms. The Green Box will help reduce costs and increase efficiency for all the parties involved.

The activity is being led in the MOD's Defence Equipment & Support (DE&S) organisation by Brigadier Alan Clacher, Head of Future Logistic Information Services, and sponsored by Air Vice-Marshal Matt Wiles, Director, Joint Support Chain.

Brigadier Clacher said: "I have been hugely impressed by the work of both the industry and MOD teams within the Green Box."

"It is a truly collaborative way of working that will shape the future information

architecture supporting defence logistics and will deliver significant benefit to both industry and MOD by optimising our joint investment in logistic information capability."

BAE Systems' involvement in the Green Box will help to establish the Company's through-life role with the MOD.

BAE Systems business units are represented in the Green Box team by Logistics and Information Services (L&IS). L&IS will be working with capability leads in each business unit to capture

common CLS requirements across project teams, translating them into information requirements and, via the Green Box

team, ensuring that they are taken into account when scoping the MOD's future IS architecture.

For more information please visit the Future Logistics Information Services (FLIS) site on connectus, accessible via Know-how, Business Improvement, Logistics and Information Services.

**IT IS TRULY A COLLABORATIVE WAY OF WORKING ... AND WILL DELIVER SIGNIFICANT BENEFITS!**

Brigadier Alan Clacher, UK MOD



# Camouflage raises art of painting by numbers

### Innovation and technology

Taking "painting by numbers" to a new level, camouflage painting (CAMO) requires specific skills, sets industry-leading practices and safety standards and provides customer value.

Painter Josh Sawyer has been with BAE Systems, Inc. for five years. "I love what I do," he said. "It's a great feeling – our military fights for us, and we help protect them."

Josh trained at a technical school and transferred his car-painting skills to CAMO painting military vehicles.

He initially planned to open his own car body shop, but is glad he filled the job opening. Honing his skills at BAE Systems with on-the-job training, Josh said: "I was born to do this job. It's nice to be part of a company that does what we do."

The paint operation typically uses the "Woodland" camouflage pattern, with the colours green, black and brown. The actual pattern for the paint template or stencil – adopted to increase production capacity – is approved by the US Department of Defense and serves as a guide for the



## Manual process gives Company competitive edge

painters to follow. Typically in three parts – roof, hood, back – the stencils outline very specific measurements for the pattern, as well as reference points for the painting process:

1 – The truck arrives at BAE Systems, and additional armour/kits are added

2 – With green as a base colour, the vehicle paint then bakes for an hour

3 – The painter tapes the canvas stencil to the vehicle and applies talcum powder to exposed parts, designating where certain colours



Above: Josh Sawyer applying a stencil to guide the CAMO painting, and left, a completed CAMO painting of the M1114 HMMWV

begin and end and serving as a guide

4 – The painter, using a specific paint gun, then manually traces in the appropriate colour.

"CAMO painting requires a greater level of sophistication than painting solid colour vehicles," said Matt Flory, Paint Manager, BAE Systems, Cincinnati, Ohio. "It demands

a trained eye and genuine artistic skills."

CAMO comprises less than 10 per cent of the entire paint operation, and offers our customers "one stop shop" capabilities in colour, flexibility and accelerated time frames.

Some of our competitors' paint operations are robotic automated systems that require long changeover times.

"Our competitive edge is our nimble, manual process that allows us to quickly adjust to customer needs.

Also, we're able to oversee and maintain an extremely high level of quality with our own in-house operation," said Matt.

Offering further value to our customers, the operation recently implemented a switch – throughout the entire supply chain – from a silica-based to a polymeric bead-based CARC Topcoat (Chemical Agent Resistant Coating).

The polymeric bead provides better durability and increases weatherability of the overall paint finish. Working with the Army Research Laboratory which creates all the paint specifications, BAE Systems led the industry in initiating this change to a higher-performing, more environmentally friendly coating.

An additional environmental and safety benefit is eliminating known carcinogens, such as hexavalent chromium, found in silica-based paint.

"We've made the entire process safer here and throughout the entire supply chain, and now offer our customers a higher-end product, as well," added Matt.

## Secure email gets UK MOD approval

### Innovation and technology

The UK Ministry of Defence has approved BAE Systems' secure email system – the first in the country to win such an accolade.

The system – Secure MIME (multipart internet message extension) – allows encrypted emails to be sent to and from BAE Systems, its customers, industry partners and suppliers.

It has the added advantage of allowing a legally binding "digital signature" to be added to a document that is sent electronically to a customer or partner.

Justin Pitt, Head of Identity Management, said: "We are the first UK company to receive the UK MOD's approval for a UK restricted mail system which does not require expensive solutions such as private wires or hardware encryption devices."

"Parts of the Company, including Insite and Land & Armaments, are using it to send restricted communications to UK and overseas businesses."

He added: "It's important in our business to be able to send sensitive commercial information in such a way that the person you are sending it to is the only person who can decrypt it."

"The digital signature is also important – like an inked signature on a piece of paper. It's a means of tying the sender individually to the document, and assuring him or her that the document has not been changed since they signed it."

"The recipient can also be satisfied that they have a legally binding signature, now enshrined in European Union law."

There's an added bonus – in time savings. Justin added: "Digital signatures can be used for legal documents such as life-cycle management artefacts or, potentially, for contract documents."

"And they can be used to ease the process of collecting signatures in minutes by electronic means, rather than hours or days when the documents have to be transported by hand or courier."

**WE'VE MADE THE ENTIRE PROCESS SAFER HERE AND THROUGHOUT THE ENTIRE SUPPLY CHAIN!**

Matt Flory, Paint Manager



# New body armour will protect police

BAE Systems meets tough new standards to save more lives

## Customer

BAE Systems is one of the first manufacturers of body armour to meet tough new US testing standards that we believe will provide the law-enforcement community with a higher level of performance against a wider range of threats.

Body armour has saved the lives of more than 3,000 police officers in the US alone since it came into widespread use some 30 years ago.

However, the fatal shooting of Officer Edward Limbacher in Pennsylvania in 2003, when his Zylon body armour failed to stop 0.40 calibre bullets, highlighted the need for new standards of armour that could defend against the more powerful weapons officers now face.

That new standard, called NIJ Standard-0101.06 (NIJ-06), was announced by the US National Institute of Justice (NIJ) last year. The NIJ is a component office of the US Department of Justice.

BAE Systems Products Group (which goes to market as Safariland) designs and manufactures NIJ-06 compliant body armour and was one of the first companies to meet the requirements of the new standard.

The new standard establishes minimum



Above: Products Group has used advanced technologies and materials to develop body armour that will provide improved ballistic protection

performance requirements and test methods for the ballistic resistance of personal body armour.

It must now be able to defend against increased velocities of ammunition calibres to better reflect current street threats and law enforcement duty weapons.

In addition, the standard adds environmental conditioning tests including a 30-minute water submerge and a 72,000 cycle tumble test that helps simulate the wear on armour usage over the course of five years.

These new performance

requirements are critical components to improving this life-protecting equipment.

Products Group President Scott O'Brien said the business had used its most advanced technologies, including proprietary designs and leading-edge materials, to develop body armour models that provided improved ballistic protection to law enforcement officers.

"We are very pleased by our R&D team's continued success at developing, testing and releasing NIJ-06-

compliant body armour models," he said.

"This expansion of our body armour product line further positions us as an industry leader. Most importantly, it illustrates our commitment to saving the lives of those who protect us."

Products Group currently has six ballistic vests approved under the new NIJ-06 standard.

The new body armour sees Products Group continuing its tradition of excellence in protecting law enforcement officers.

The business was recently restructured to incorporate all of its previously independent operating brands under the Safariland name.

**THIS ... ILLUSTRATES OUR COMMITMENT TO SAVING THE LIVES OF THOSE WHO PROTECT US**

Scott O'Brien, Products Group President



Above: the remote sighting system will give door gunners on Lynx helicopters greater capabilities

## Royal Navy first with new helmet displays

### Innovation and technology

Royal Navy helicopter crews will be the first to fly with a new generation of helmet-mounted displays developed by BAE Systems.

The UK MOD has placed the first order for 12 remote sighting systems incorporating BAE Systems' Q-Sight™ display, for its Lynx Mk8 helicopters.

The Q-Sight display is a key element of the Gunner's Remote Sighting System (GRSS), a system that allows the image from a machine gun-mounted thermal weapon sight to be displayed remotely on a see-through display mounted on the weapon operator's helmet.

"Q-Sight makes aviators more effective in many situations, including

degraded visual environments such as brown-out conditions," said Jim Garceau, Vice-President of Defence Avionics for BAE Systems.

"Its lightweight design increases pilot comfort, and its wide field of view enables pilots to keep their heads up and eyes out of the cockpit while performing their missions. Q-Sight also provides important capabilities to other crew members, including door gunners and loadmasters."

The system is compatible with standard night-vision goggles and, unlike other technologies, enables users to seamlessly switch between goggles and the thermal sight to acquire, track, and engage targets.

Combining Q-Sight and the thermal sight will

significantly improve effectiveness and accuracy of shots on target.

The 12 GRSS will be delivered to the MOD by May 2010. Deployment of the equipment will be worldwide and provide a significant capability enhancement for maritime force protection, counter-piracy, and counter-narcotics operations.

Using patented technology to move light via holographic waveguides, the Q-Sight system displays a video image on a transparent screen approximately the thickness of a credit card. This technology eliminates the need for complex intermediate lenses.

The system is lighter, simpler, performs better, and costs less than conventional helmet-mounted displays.

## Australia delivers final vessel to New Zealand



Above: the inshore patrol vessel HMNZS Taupo

### Performance

BAE Systems Australia's Project Protector team has delivered the fourth and final Lake Class inshore patrol vessel, HMNZS Taupo, to the New Zealand Ministry of Defence.

The Royal New Zealand Navy (RNZN) has previously accepted sister ships HMNZS Rotoiti, HMNZS Hawea and HMNZS Pukaki.

The event was marked with the signing of delivery certificates by the Hon Heather Roy, Associate Minister for Defence, Rear Admiral Tony Parr, New Zealand Chief of Navy, and Eamon Sweeney, BAE Systems Project Protector Programme Manager.

The delivery of a vessel is the pinnacle moment that brings together thousands of hours associated with the design, construction, verification and acceptance, logistics documentation and numerous other milestones.

In keeping with tradition, a ceremonial bell rope was made by David Morse, Surface Treatment and Insulation Supervisor with in the Maritime Business Unit, and was presented to the Commanding Officer of the vessel, Lieutenant Commander Jonathan Clarkson.

Delivery of HMNZS Taupo is also a poignant time for BAE Systems as this event effectively brings to an end an era of ship building and

company presence in New Zealand and particularly Whangarei.

The facility in Whangarei was originally established to build modules for the ANZAC Ship Project in 1994 and employed more than 200 people during its peak period.

HMNZS Taupo is the third RNZN vessel to carry the name. Taupo's predecessors served the RNZN with honours and BAE Systems was presented with a framed portrait of the original Loch Class Taupo purchased from the Royal Navy after the Second World War, and decommissioned in January 1953. The portrait will be displayed at the BAE Systems shipyard in Williamstown.

## Business start-ups scheme success

### Partnering

A "business incubator" hosted by BAE Systems to help innovative new companies grow by offering them funding, facilities and other support has proved a runaway success.

The Medway Innovation Centre situated at the Electronics, Intelligence & Support Platform Solutions site in Rochester, UK, has so far incubated about 30 businesses and only two have failed.

The most successful business has grown its turnover from zero to more than £1m in just two years.

Andy Start, Managing Director and Vice-President of Platform Solutions, said BAE Systems' relationship with the Medway Innovation Centre was mutually beneficial.

"We are a global defence, security and aerospace company that takes innovative products to market. The centre helps support small businesses to take emerg-

### Company hosts 'incubator' to aid entrepreneurs

ing technologies into demonstrable concepts. With a common interest and desire, BAE Systems is proud to house the centre."

Many of the entrepreneurs at the centre, which is known as The Base, are ex-service people, who are drawing on their skills and experience to launch their business.

One such firm is Corporate & Executive Solutions (C&ES), which provides strategic level security risk consultancy and business continuity services to a range of global industries.

Chief Executive Officer Jim Castle started the busi-

ness after a military career as an officer and a spell with government, and he chose The Base due to its secure facilities, support with security clearances and its homeland security and resilience theme.

With support from The Base, C&ES recently won a large consultancy contract from the European Air Traffic Management Agency.

"The Base has provided a firm foundation for our growing European and international operations," he said.

The Base is currently deepening its links with service charities and organisations to ensure service personnel and law enforcement officers contemplating retirement know it's a place where they can base their fledgling business and be with like-minded individuals.

**THE BASE HAS PROVIDED A FIRM FOUNDATION FOR OUR GROWING INTERNATIONAL OPERATIONS**

Jim Castle, Chief Executive, Corporate & Executive Solutions

## HybriDrive to power 500 buses for Seattle

BAE Systems will provide propulsion systems for up to 500 hybrid electric buses recently ordered for Seattle in the US.

The Company will supply its HybriDrive® propulsion system to Daimler Buses North America, which received an order from King County Metro Transit for 500 Orion VII hybrid buses with an option for 200 additional units. The base, first-year order is for 93 hybrid units.

The King County buses will be equipped with BAE Systems' lithium-ion energy storage system, which offers longer life than other battery technologies and reduces vehicle weight for improved fuel economy and lower emissions.

HybriDrive technology currently powers more than 2,000 buses in cities across North America and the UK. So far, they have saved nearly five million gallons of fuel, and prevented more than 50,000 tons of carbon emissions.



# Military precision keeps cyclists on track

## Innovation and technology

Military technology developed by BAE Systems in the UK will help to give British racing cyclists an extra edge in training.

The Company has installed a sophisticated performance monitoring system at the Manchester Velodrome to help cyclists prepare for the Olympic and Paralympic Games as well as World and European Championships.

The laser-timing technology, based on a battlespace identification system, is a brand new approach to monitoring performance in cycling, improving on previous break-beam systems which are unable to differentiate between individual athletes.

It is the latest development

## BAE Systems engineers provide wheel advantage

to stem from BAE Systems' £1.5m technology partnership with UK Sport.

Up to 30 cyclists will be able to train at the same time with the system, which uses a laser to read a personalised code from a retroreflective tag attached to each bike.

Installed at multiple points around the track, the system gives recordings for each cyclist with millisecond accuracy.

**THIS NEW TECHNOLOGY WILL ALLOW US TO TRAIN HARDER AND MORE AS A TEAM**

Jamie Staff, Olympic gold medallist

Jamie Staff, Beijing Olympic gold medallist, said: "This technology is a major step forward in training for us and will provide more accurate data to hone performances for future events."

"In sprinting, it is vital that we have the most accurate system available – this technology will allow us to train harder and more as a team."

James Baker, Technology and Engineering Services Director for BAE Systems, added: "We are proud to have the opportunity to harness the skills of our engineers in the UK to support the British athletes as

they prepare for success on the world stage.

"Our partnership with UK Sport offers an ideal opportunity for us to showcase the importance of engineering and how it can make a difference to everyone's lives. With this work we hope that more young people will consider a career in engineering."

Dr Scott Drawer, Head of Research and Innovation for UK Sport, said: "At this crucial time for British sport, it is fantastic to be able to tap into BAE Systems' expertise in innovation to support us in delivering performance solutions to our athletes."

Under the five-year partnership with UK Sport, launched in January 2008, UK engineers are also helping to develop new technologies for several other sports.



Above: the British cycling pursuit team is among those that will benefit from the BAE Systems technology

## Keeping it in the family

### People

As children, Jessica, Daniel, and Lauren Pantages were encouraged to pursue their individual interests and to forge their own paths.

They were told that hard work and determination would lead them wherever they wanted to go. So, it wasn't unexpected when the siblings' interests led to very disparate careers in different regions of the United States.

The surprise came later, when all three wound up working at BAE Systems.

Jessica Pantages was the trendsetter. She joined BAE Systems Land & Armaments in 2007 as the Director of Public Relations in Arlington, Virginia. It wasn't long before she was extolling her new responsibilities and how much she enjoyed the organisation. Apparently, Daniel was an excellent listener.

After graduating from the University of Wisconsin-Madison, Daniel and his wife moved to Minnesota. In October 2008, Daniel joined US Combat Systems in Minneapolis as a contracts representative. He cited his sister's enthusiasm with the organisation as a significant influence in his decision to apply.

"I had no idea that Dan had applied," said Jessica.

"He had a lot of options with a lot of companies. It reconfirmed my belief in BAE Systems that my brother saw its promise, too."

They weren't alone. After obtaining her



Above: Jessica Pantages

Master's Degree from the University of Illinois-Urbana-Champaign, Lauren joined her siblings as a BAE Systems employee in May 2009. As a consultant for the Company's newest acquisition, Detica, in Arlington, Virginia, Lauren sees her sister more than she has in years – even if their paths are unlikely to cross in the workplace anytime soon.

"I love that we have our own skill sets and careers," said Lauren. "But it would be great if we ever have the opportunity to work together. Each of us understands and solves problems in such unique ways. I think we complement each other extremely well."

Jessica mentioned that she has a newfound closeness with her brother and sister that only comes from working within the same organisation.

But staying in contact with one another has become slightly more complicated.

Jessica is now on a two-year assignment in London, as Chief of Staff for Charlotte Lambkin, Group Communications Director.

**IT RECONFIRMED MY BELIEF IN BAE SYSTEMS THAT MY BROTHER SAW ITS PROMISE, TOO**

# Changes to improve Charity Challenge

### People

BAE Systems Charity Challenge recently underwent a global review and fundamental changes have now been agreed to improve the programme.

The aims of the corporate review were to recognise the views of employees, meet the interests of the business and provide the most appropriate support to the partner charities.

A team of representatives from Australia, the UK and the US carried out the initial analysis, consulting internal and external stakeholders and benchmarking with other large multi-national organisations.

A number of recommendations were made and presented to the Company's Giving Committee, chaired by Chief Executive Ian King, and the changes were agreed.

"Two areas of focus were the length of the campaign and the partner charity selection process. Previous campaigns lasted 18 months but, starting from the next campaign, this will be increased to two years in order to give the partner charities more time to build relationships with Company sites. The current campaign with our partner charities – Sue Ryder Care in the UK, America Supports You in the US and The Leukaemia

Foundation in Australia – will finish on 15 December. The new campaign will start in January 2010 and finish in December 2011.

It has also been decided that the selection criteria for future partners will align with the Company Giving strategy, focusing on three main areas: Armed Forces, Education and Health.

In the UK, it has been confirmed that partner charity selection will be carried out at a site level and that all partner charities must link into the theme of Armed Forces. Australia and the US are in the process of determining at what level the charity or charities will be selected within their chosen theme. Other home markets will be encouraged to join the Charity Challenge scheme in 2010.

The Company will continue to provide matched funding (up to a total of £1.3m/\$US2.1m/A\$2.5m) for fundraising and volunteering activities for our partner charities.

As a result, Charity Challenge will provide real benefits to all those involved with the selected charities, particularly in the local communities around our sites.

## Campaigns will be extended to two years



Above: employees from San Diego collected food for Operation Homefront's food bank

## Food drive for military families in San Diego

El&S employees in San Diego, California worked together over two weeks in August to collect canned and dry food goods for local military families.

The support from the site was overwhelming with generous employees turning up with bags full of goods.

They collected almost 500lb of non-perishable food products, which were donated to Operation Homefront's food

**FROM THE FIRST DAY, THE COLLECTION BOXES WERE OVERFLOWING**

Rosemary Wilson, Community Relations

bank in San Diego.

Rosemary Wilson, from Community Relations, said: "It might be surprising to learn that military personnel need assistance to put food on the table, but they

do. Often, a junior enlisted family needs a little bit of extra help at the end of the month, and Operation Homefront provides that boost with groceries for their family.

"From the very first day of the food drive, many of the collection boxes throughout the campus were overflowing with donations. The outpouring of support by our employees for Operation Noble Cause was overwhelming."

## Lighting Australia's night

The Australian partner charity, the Leukaemia Foundation, again ran its popular Light the Night event in September, but this year events took place across the country.

The aim of the fun evening stroll is to raise money and to remember, celebrate and give hope to people living with blood cancers, such as leukaemia, lymphoma and myeloma. Last year in

Adelaide, 40 BAE Systems employees and their families got involved for the first time. It was a huge success so the charity has now taken the event nationwide and more BAE Systems sites have been able to get involved.

Sites are still counting up the hours and how much they raised but it's expected to be another successful partnership.



Above: Light the Night events took place across Australia