

Grad Mag

Welcome

"I'm very pleased to introduce the third issue of Grad Mag for this year. It is always very busy during the run up to the summer holiday period, with a number of the major external public and trade shows that BAE Systems provides support to. I'm very glad to see we have features illustrating how graduates play a key role within these events, either as volunteers or, in the case of Farnborough, as 'Super



Richard Hamer
Education Director and Head of Early Career Programmes

Presenters' within the company.

Our work at a previous event – the Big Bang Science and Engineering fair – has won us a Chairman's Awards Bronze nomination. We have also received Bronze awards for our education flagship programme, and we're very happy to announce that we've won an additional Bronze award for the rebrand of the graduate website, recruitment brochures, and Grad Mag itself.

Have a great summer!"

"Welcome to another excellent edition of Grad Mag! This issue covers some excellent examples of activities outside

your day job, such as Farnborough Airshow or charity endeavours such as the Three Peaks Challenge. It is great to also see a spotlight on the MOD Interchange programme – this is just one example of how an external placement can offer you some great learning and development opportunities and a chance to see life from a different perspective.

Make sure you review the placement pages on the



Jo Shields
Sigma and GDF Manager

graduate intranet regularly, not least because the Early Careers HR Advisor and GDF Communications Coordinator roles within my team are now advertised on the Graduate Intranet for a September start!

Plans for the Graduate Conference 2010 are well underway and it looks set to be a fantastic event and I look forward to seeing many of you at the conference in October. In the meantime, please contact me if you have any questions about the GDF or Sigma programmes"

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Thanks to our contributors:

Alex Brackfield
Michael Brennan
Karl Dunn
Sophie Harrison
David Lurie
Matthew Lindsay
James Mair
Martin Moran
Daniel O'Connor
Dan Stroud
Ben Worrall



Site Interchange: Global Combat Systems and Insyte

Corporate Mentors are often involved in mentoring more than one graduate, and will also keep in touch with previous mentees. Earlier this year, a mentor introduced a graduate from Global Combat Systems to one from Insyte. This is what happened.

A group of graduates from Global Combat Systems (GCS) prepared a day of sightseeing for eight graduates from Insyte to the GCS Munitions site at Glascoed in South Wales. After an introduction to the business and the history of the site by Chief Materials Technologist Ron Hollands, the Insyte graduates were treated to a demonstration of what happens when propellant burns. A few kilograms of propellant created a ball of flame around five metres high, the heat of which could be felt by everyone over a hundred metres away.

The graduates were then shown a glimpse of one of the newest Glascoed test rigs, the Static Expulsion Firing Facility. This is used to test expulsion systems used within carrier shells. Mike Rurnfitt, one of the GCS graduates, presented some very impressive high speed camera footage of a payload being expelled from the rig.

The third tour on the itinerary was a walk around the 420 Gallon Mixer facility. This mixer will be used in the production of PBX (Polymer-Bonded Explosive), which will be used in the manufacture of insensitive munitions (those chemically stable that can withstand physical shocks without exploding), and the mixer will be a key facility for the future of the munitions business.

After PBX is mixed in the

420 Gallon Mixer facility it is then used in the High Volume facility to fill shell. There Paul Godwin, Filling Technology Engineer, explained how the multi-million pound, high-tech High Volume facility represents the direction GCS Munitions is taking to bring the manufacturing processes at Glascoed in line with the Lean Production, high throughput, manufacturing environment of today.

Finally, the Insyte graduates were shown the current method of filling shell with explosive. TNT is mixed, filled into empty shell, and then cooled. The graduates marvelled at how "hands on" and simple the current process of filling shell is in contrast to the process demonstrated at the High Volume facility.

A few weeks later, six graduates from Global Combat Systems were invited to see some of the capabilities of Insyte during a tour of the Broad Oak site near Portsmouth. The day commenced as the Glascoed graduates were given an overview of Insyte as a business by Matt Dalton, local graduate. This talk included a glimpse of the business's product portfolio.

The GCS graduates visited the Torpedo final assembly area, where they were given an insight into the manufacture of torpedoes, including Stingray, Spearfish

and Archerfish. Ben Worrall, Global Combat Systems graduate said, "it was particularly interesting for the engineers present to witness the modular construction of torpedoes, especially since the module that houses the explosive is filled at Glascoed by GCS Munitions for many of Insyte's torpedoes. We also really enjoyed seeing the tracking system that was used to follow the items around the shop floor, seeing how cellular manufacture was implemented and looking at the amount of visual management on display – from 5S (sorting, straightening, sweeping, standardising and sustaining) audits to skills matrices."

Across the road the graduates entered a very large paint shop where a radar array was currently undergoing paint stripping and then repainting. This truly demonstrated the immense power of the sea to corrode metal components and the importance of painting them to prevent this happening.

After lunch the contingent travelled across the city to Navy base HMS Collingwood. Here Dave Mould, the Lead for Maritime Training, demonstrated Insyte's training pedigree through the Maritime Composite Training Simulator (MCTS): a very advanced and realistic simulator used for training new crews for piloting various ships. The beauty of the MCTS is that it is fully

configurable to the ship being simulated, therefore it could be used for training a crew for a battleship in the morning and switched to the set-up for a frigate in the afternoon.

Instead of using the physical buttons, lights, and other controls usually present at a terminal on a ship, the MCTS shows these on touch-screen displays instead. You simply press the picture of a button on the screen to "push" the button. This means that different control pads can be swapped in or out and moved around on the screens to match the exact set-up on-board the ship.

The exchange has proved to be very illuminating for the graduates at both business units. The Global Combat Systems graduates identified many useful practices in use at Broad Oak that GCS Munitions are currently beginning to develop and introduce, such as product tracking and visual management, and these are being presented to senior management within GCS Munitions so that they can adopt best practice as early on as possible.

The business awareness and opportunities for transference of best practice that site visits cultivate are definitely worth the time, effort and expense that they require to make them happen. Have you considered a site visit?

BAE Systems from the MOD: The view from over the fence

As the MOD does not directly manufacture and support assets, going on secondment into industry is highly recommended at some point during our time on the DESG scheme. My first placement was 6 months in the Nuclear Propulsion Integrated Programme Team (NP-IPT) based in Abbey Wood. I wanted to see first-hand the other side of the customer-supplier relationship and I hoped that being in industry would give me the opportunity to experience engineering at the 'sharp end', not only giving me the opportunity to learn by doing but to gain answers about what processes are used, and why. This will allow me to understand the constraints in the MOD when I return at the end of my time in BAE Systems

I have always been fascinated by Submarines, so moving to Barrow-in-Furness seemed like a natural choice to me. It is often said that the Astute Class Submarine programme is the most complex in the world – more so than the space shuttle, and the opportunity to get involved with it is one which is hard to turn down.

The application process was very simple – I applied through my own scheme and my CV was forwarded on to BAE Systems. It wasn't long before I received a response, which identified an opening in the Astute Boat 2 (HMS Ambush) Reactor Team. I spent a day touring the submarine and agreed the finer details of the placement in person whilst on site.

This was my first

Karl Dunn joined BAE Systems Submarine Solutions in March 2010 as a graduate on secondment from the Defence Engineering Science Group (DESG) training scheme run by the Ministry of Defence. Karl reports on his experience.

experience of working in Operations Management and in the two months I have been here so far I have learnt a lot about the effort that is put into building a submarine, especially the reactor compartment. I've been able to get involved in programme development, defect resolution, nuclear inspection and team support. I've even been granted the opportunity to go on board and assist the fitters in our team on several occasions. It has been terrific being able to meet so many different people throughout the business unit.

I have been really fortunate

with training. I've obtained a nuclear passport and been on the 'Submarine Aquaint' course, which tells you all about how a submarine works. These have allowed me to broaden my knowledge.

Before I came on this secondment, I really wanted to answer the question of, "How does the Ministry of Defence differ from Industry?" and I've found that although there are indeed fundamental differences between the two organisations, day to day life is very similar. Both organisations have the same aim and actively work together to achieve targets: I can now



Karl Dunn

appreciate how involved the MOD is, all the way from Concept phase through to the day that a submarine is delivered to the Royal Navy.

Outside of "The Yard", I have been keen to make the most of my time in the Lake District during the summer months. I have been able to meet many of the current graduates within the business unit and get involved in their social activities. I've been involved in weekly football matches, been on a miniature railway, climbed Scafell Pike and I have even tried off-roading.

Time has flown. Working here has helped me develop my knowledge of production and the people involved in the programme. A secondment with our supplier has helped me understand both the technical aspects of the Reactor Compartment on board a submarine, but also the other constraints that need to be considered when building a boat. Similarly, having prior experience of being on the customer side of the fence has allowed me to see what constraints both parties face, and to understand how these impact upon the programme.

I highly recommend both directions of the Interchange Programme – working in the other organisation is so beneficial to graduates both within the MOD and within industry.

For further information on the MOD Graduate Interchange Programme, please visit the external placements page on the Graduate Intranet.

Music to watch horses go by

While the Royal Windsor Tattoo runs each evening, during the day BAE Systems is one of the companies with a major presence at the Royal Windsor Horse Show. A number of graduates were involved in this year's event

When he arrived at Windsor train station, Martin Moran was greeted by a mass of people heading in the same direction, to the Windsor Horse Show with its carnival-esque tents and sideshows. Martin was there along with a number of other graduates to support the BAE Systems marketing department over the 5 days of the event. As the leading defence contractor in the UK, BAE Systems was there to show the public our commitment to the Armed Forces, which was appreciated by the large number of current and ex-

servicemen that stopped by the stand. We also hoped to be able to promote the company to potential recruits, especially those that were interested in the graduate and apprentice programmes. Martin appreciated the opportunity to be involved: "For me, as a graduate, it was an opportunity to meet people in different parts of the business, both at entry and more senior levels, and a chance to learn more about the products that BAE Systems make, particularly those outside of my own Business Unit, which I knew

worryingly little about. We were given a number of information leaflets at a briefing meeting beforehand, providing the basic stats on a number of vehicles – Warrior, Viking and Panther. These vehicles were to be parked outside our stand and proved to be one of the main attractions to entice people closer – who could resist the opportunity to sit in a tank? Or to play with the imaging sensors on board the Panther?"

The stand even caught the eye of a rather special guest (or perhaps host) to Royal Windsor, her Majesty the Queen. She was there to watch a number of her horses that had been entered into events in the paddock across from the BAE Systems location, and she blended in with the crowd with a rather understated headscarf. It was a little hard to not realise who she was though, as she was flanked by top-hatted bodyguards. The Queen briefly looked round our equipment before returning to see her horse win the competition. Grad Mag spoke to a number of other stall holders, discovering that the Queen is very passionate about her horses and attends as many of their competitions as she can.

Another attraction to the stand, especially for the younger attendees at the Horse Show, was Brains, the company mascot and supposed 'Brains' behind all BAE Systems innovations. As those of you that have attended the BAE Systems Education Roadshow will know, Brains is an eight-foot, walking, talking robot that can rapidly "transform" into the ATC's Unmanned Ground

Vehicle, Wildcat. As the picture shows, Brains was very popular, although he looks a little shocked to be hugged by a stranger.

The robot was exceptionally attention grabbing during one of the horse dressage events, when it caught the eye of one of the equine entrants, who clearly saw imminent death and destruction from the "scary robot" and bolted in terror. For the rest of the horse show, we kept Brains away from horses.

We celebrated a successful show with Pimms, chocolate covered strawberries and the best hog roast sandwich in England.

Although volunteering for additional work may not be the ideal way for many people to spend your time, these kinds of events can actually be quite fun. It was a good break from the office - a chance to show support for and learn about the company, to make contacts in new parts of the business and best of all it was an excuse to spend time in the glorious sunshine. Stretch assignments are always pushed within the graduate community and these events are probably some of the more exciting and stress-free. If you want to develop your presentation or communication skills, events such as these would be a great stage to begin to do that. Next thing you know, you could find yourself interacting with people at various levels, from kids who just want to see cool robots, to hard-core army guys that have tested the equipment in theatre and have suggestions about the next model.

Maybe you'll even meet the Queen!

My First Tattoo



When I first heard the phrase "Windsor Tattoo" I was wondering what ink marks on the body had to do with the military, but the kind of tattoo that you may have on your back bears no resemblance to the event that was held recently.

In this case, tattoo is short for "military tattoo", which according to Wikipedia – accurate enough for writing this article – is a military drum performance, dating back to the 17th Century. That's a long time ago – only a few employees were around back then.

The Windsor Castle Royal Tattoo is one of a number in the UK: we're all more familiar with the Edinburgh Tattoo and the Royal International Air Tattoo, but the Windsor Tattoo is the newest child to the family: launched in 2008, this year's tattoo was only the third to be run at the castle, but was striking nonetheless.

Unlike some other tattoos, Windsor is a tri-service event, showcasing not only the army, navy and air force, but also providing an international aspect with members of the

Dutch armed forces, as well as all four of the regions that make up the United Kingdom.

Utterly unsure of what to expect from the event, I was rather surprised at both the size of the sandpit on which the tattoo was to take part, but also the size of the orchestra and choir. This surprise turned to pure pleasure when they choir started to sing Carl Orff's O Fortuna – which you'd recognise, even if you don't know the name – and I had to bite back the urge to join in.

The event began, and was interspersed with, a theatrical performance about a UN ambassador who is kidnapped by insurgents featuring the firing of a lot of blanks, driving around in tanks, cars, trucks, a couple of fake deaths, and a lot of fun and waving as the ambassador was rescued

near the end.

Massed groups of marching and some impeccably dressed bands provided an amazing sight (top left), although who was to expect the Irish regiments to start Irish dancing on a podium in the centre of the field? The sheer coordination of all the separate groups was astounding, and when I managed to tear my attention away from taking photos every few seconds to think about how difficult it would be to choreograph such a sheer mass of individuals I couldn't hold back how impressed I felt.

They don't even stop there though. Why show off incredible levels of coordination for people, when you can demonstrate it with horses? Whether the lines of horses or the riding around the field at high speed, the sight was breathtaking, but nothing prepared me for the music crescendoing to the sight of St George's Cross, the Saltire, Y Ddraig Goch and the Ulster Banner being hauled around the field on horseback, followed with a glorious peak

as the Union Jack was paraded out to the massed crowd (bottom right).

Yet one thing will stick in my head above all else from the event – that of the field guns. No – I'm not talking about the field gun competition (top middle) but rather the moment at which 4 field guns were pointed towards our seats at the end of the field and shot off one at a time (top right), culminating with a simultaneous four-shot which left my ears ringing for much of the rest of the show.



Brains proves very popular with children

Mentoring and Me

Mentors are an integral tool for supporting graduates within the GDF. Alex Brackfield, Human Resources (HR) graduate within the Early Careers HR team at Head Office, discusses the importance of having mentors and his experiences of them whilst on the scheme.

When I was asked to write this article I decided to do some research into what a mentor should be and during my inevitable browsing of Wikipedia I found that the word "mentor" actually comes from the Greek story of the Odyssey. Mentor was the goddess Athena disguised as an old man who was asked by Odysseus to look after his son whilst he was away fighting the Trojan wars. He chose Mentor because of his wisdom and experience and he knew that he would encourage his son to develop in the right way.

That's what I think you should expect from your mentor (whether business, functional or corporate) when you join the GDF: not a Greek god in disguise, but an individual with experience of working within BAE Systems who is able to advise you on how to generate and then achieve your personal goals, as well as guiding you with your career development.

This has been my experience of mentors whilst on the scheme. In fact my relationships with mentors have been so positive that I now have three! I know, this sounds greedy, but what I have learnt is not only that a

mentor is an excellent sounding board for advice and guidance: they are also a useful way to source placements and potential exit roles.

As an Insyte HR grad I was given permission to try and find a placement outside my business unit, but I found myself stuck when I realised I had few external networks outside Insyte. I approached my HR Director (HRD) and asked if he could recommend another HRD within BAE Systems who might be a good mentor. He gave me a name and I sent off an email asking if they would be prepared to mentor me. He said yes, and I was surprised that he'd agreed so easily. He didn't have anything to gain, did he?

When we met and discussed what we both expected from this, I came to understand that becoming a mentor is actually beneficial for managers as well. The experience for them in developing someone is invaluable for their own career progression and their mentees will inevitably be part of their network in the future. As a result of approaching this HRD I have not only gained an invaluable and unbiased opinion of how I should

progress my career but I also used his network to source a placement within Global Combat Systems, working closely with Sweden. I even received the opportunity to spend some time in Stockholm!

Since then I have approached two other managers I have worked for whilst on the scheme and have asked them to mentor me. They've both said yes. While they say two heads are better than one, in my case, I've been lucky to prove that three heads are better than two. When you think of the organisation we work in and the huge ranges of different individuals, cultures and experiences, it must be a good thing to get the opinions and advice of as many people as possible.

My advice to all graduates on all the schemes within BAE Systems is to take the opportunities you are given and use your mentors as much as possible. Agree with your mentor what you each want from the relationship and how formal or informal you want it to be. I drop my mentors an email or set up an informal one-to-one on a Friday if I want to discuss something. I have even had a mentor meeting in the Starbucks on the

Farnborough site! As long as you come out of the meeting feeling you have moved closer to where you want to be, then it doesn't matter where you hold the meeting, or even what format it takes.

Never be afraid to ask a senior manager if they would be your mentor. 90 percent of the time they will say yes and the worst they can ever say is no. There will always be opportunities within BAE Systems for personal development and career development and a lot of the time you will get these opportunities as the result of developing a strong network.

If you ever have the chance to mentor anyone – such as a student at a local university, or even one of your peers, remember it is as helpful to be a mentor as it is to be a mentee. You may have knowledge in an area, even at the start of your career, which a colleague doesn't have. Informal mentoring provides you a chance to share knowledge, and it is worth giving it a shot.

If you want more advice on mentoring you can find guidelines for both mentors and mentees on the graduate intranet, and in the forthcoming GDF Handbook.

Spotlight on social

Newcastle and region >

Newcastle is one of the biggest cities that BAE Systems has a presence in and as such, along with Glasgow provides an area of incredible variety to the graduates of Global Combat Systems and the other business units with a presence there. Daniel O'Connor reports on life on the Tyne...

Within the UK, Newcastle-upon-Tyne has a reputation for having a very active nightlife. The reputation is deserved as the city rarely disappoints, but for those graduates who want to avoid wandering the Bigg Market during the early hours of the morning, there is much else on offer.

Monday nights have seen the return of a graduate football session at which graduates and former graduates battle it out on seven-a-side pitches for weekly bragging rights. The night has been so successful that there have been discussions around putting together a competitive full complement team together.

Sport is important in Newcastle. Both this city and neighbour Gateshead have pumped a lot of funding into sport in the last decade, leaving us with plenty of local facilities available for minimum costs. Racquet sports are particularly popular as after-work activities, with a lot of us so-called sprightly and spring-legged graduates taking on the veteran staff... only to be beaten convincingly.

A small number of Newcastle based graduates have been involved with the Global Combat Systems 'Three Peaks' event in Shropshire earlier in the year. I can see your eyebrows raising at the quote marks

around Three Peaks, but this event in Shropshire was just a trial before the real event later on in the year. We're even considering a coast-to-coast hike. Or perhaps we should all do the Great North Run, to raise money for charity? We could all do it dressed as tanks...

For those who like to keep calories where they belong – in our stomachs – there is a wealth of Art and Culture. The Laing Art Gallery and Baltic Centre host a number of exhibitions and events throughout the year, with the Turner vs. Martin exhibition at the Laing a recent highlight. Any local will gladly describe Newcastle's illustrious history upon inquiry; pointing out which pub Ant and Dec own and the karaoke venue Cheryl Cole sang at as a kid. They'll even explain the origin of the term 'Geordie', the true explanation of which seems to have long been lost in history.

With summer now upon us, festivals and concerts seem to spring up on the banks of the Tyne on a whim. For those graduates who miss their past life as a student there are always events hosted by the universities. A great example is the University Ale festival that is held every year, which is remarkably devoid of students for a festival hosted in a students' union.

For a city Newcastle is

compact. The nearby beaches at Tynemouth and South Shields (which are only half an hour away) offer a refreshing change on sunnier weekends and Friday afternoons. Whilst the beaches are a common summer afternoon attraction, it should be stressed that the North Sea which lines the coast is not. As with all bodies of water that border Scandinavia, all year round it remains cold enough to make even toe-dipping perilous. But this has not put off the brave members of Tynemouth's solid surf community and Newcastle graduates from braving its freezing tides. Surfing (or mostly just talking about surfing as the sea is regularly quiet) is a popular social activity.

There are many graduates based in Newcastle and whilst the graduates retain a loose community alongside many of the former grads at lunchtime, for the past year graduates (including myself) have proven highly unreliable at organising 'Graduate' events. Instead, standard practice for all graduates has become a rather

finely worked process of negotiating one's entry onto another group outing only to bring everyone else with them. Popular choices have been the Engineering Tank Systems and Procurement nights out. Even the IT department's social events have fallen victim to graduate gate-crashing.

So all that in Newcastle, and not even much space left to discuss the nightlife. It is hard to escape the allure of a night out in Newcastle, and it really does cater to all tastes. Particular favourites of mine are the many small live music venues that litter the town, of which many have become regular venues for the newest cohort of GDF starters. Newcastle also has a wealth of both old fashioned pubs and avant-garde bar-club hybrids, all with their own character and full of friendly locals.

Many people ask me if Newcastle's nightlife is really as good as people say it is, and I always tell them that whatever stories and tall tales you have heard about Newcastle, they are more than likely true!



A view down the Tyne

Sigma: My Journey

From Barrow to London via Warton and Melbourne, it has been an interesting five years since I joined BAE Systems. It was always my plan to join a global company and after returning to the UK having spent some time teaching overseas, I was looking for companies that would offer lots of different opportunities to stretch myself and develop.

A friend from university was working for BAE Systems, and he recommended I apply and although I felt overwhelmed by the scope of the opportunities on the company website, I eventually was able to make my application to Project Management, which I thought would help me avoid pigeon-holing myself too early in my career. I was offered a position on the GDF in Submarine Solutions in Barrow-in-Furness, and my first year with the company was great: so much opportunity to take on responsibility as long as the individual is willing to grasp it.

I spent a year at Submarines, mostly on the Astute Class programme, and it was a real eye opener to industry and vastly different from my previous job in a city centre office within a professional services environment. Suddenly I was on a shipyard and I knew absolutely nothing about submarines or ship-building. I was totally out of my comfort zone!

I then moved to Military Air Solutions (MAS) for 9 months, for an out-of-business unit placement, as I wanted to see more of the company, and although I was working out of function I was still managing a project so that I could hone my



Michael Brennan was on the GDF before he joined the Sigma scheme. He reports on his journey for Grad Mag.

Project Management skills. While I was doing this, I got involved with promoting BAE Systems at recruitment fairs and I learned about the Sigma Leadership Programme.

Sigma caught my eye immediately, and I started to research more about it: it seemed to offer all of the things I love about the GDF but would allow me greater flexibility to see even more of the company as it is funded by head office rather than by each business unit. After an application form, some online tests, a telephone interview and a two day assessment centre (which was intense) I was offered a position.

I decided to stay at MAS for my first role on the programme. I had been there 9 months, but due to the size of the business, I felt like I had only really scratched the surface. I searched hard for my first role, which was much easier coming from the GDF rather than straight from university. I was really looking forward to proving myself and wanted to work in a delivery

environment with an emphasis on people management.

I took on an operational management position within the Typhoon programme, taking responsibility for the Flying Operations element of the business on a day-to-day basis.

This involved managing five supervisors (across day and night shift), along with approximately 35 craftsmen in an environment which prepares aircraft for engine ground running and flight test activities, before trading and handover to the customer. Reporting directly to the Head of Typhoon Flying, my responsibilities as an operational manager crossed all elements of the business where I took a lead role in the areas of Safety, Quality, Cost, Delivery and People.

After this hands-on delivery role, I wanted to work in a commercial role, and I thought it was time for me to experience part of the international aspect of the business. I believe it's important that a Project

Manager has a good appreciation of the commercial side of a project and a large driver for choosing BAE Systems and the Sigma programme was to see a global business.

With that in mind, I moved to Melbourne in Australia, where I worked on international prospects taking a commercial perspective. I took responsibility for the development of the necessary suite of Commercial Management Plans, including Import & Export Control and Intellectual Property (IP) Management. Working on IP was extremely rewarding and I worked with both the Engineering function and the Commonwealth of Australia to design and agree on a process for managing Intellectual Property on the Nulka program.

Eventually I returned to London to my current role, which will be my last on the Sigma programme. I recently joined Detica where I have been working again within Project Management and although returning to what has become my home function, the learning curve has, as is true for my whole time at BAE Systems, remained steep. I now have a new set of customers and products to learn about, and have shifted from managing parts of large projects that have extremely long lifecycles, to managing multiple projects with much shorter lifecycles. It is a challenge, but that's what keeps it interesting!

There are currently vacancies on the Sigma Programme. Please contact jo.shields@baesystems.com for further information

FLDP: Life as a Finance Industrial Placement

Have I enjoyed my time here so far? It has been an excellent introduction to working life at BAE Systems and to the finance function. When I began my placement, the Brough site was full flow in a difficult phase of transition, with a measurable impact on Finance as many new work packages came in to fill gaps in workload. Because of all this change, such as the conclusion of our production Hawk output and move to integrated services, Brough became an especially interesting place to work.

Brough is a small village in Humberside around ten miles west of Hull. Once upon a time the site employed 3-4,000 employees, but the working population has now dropped to around 1,300. In the past, we built the Hawk Advanced Jet Trainer (AJT) here and then flew it to Warton for testing, but due to a downturn in the Hawk AJT order book we now predominately manufacture parts for aircraft such as Typhoon, Nimrod and Hawk for internal supply and spares. We also have a world class structural and dynamic test facility: we are currently testing Typhoon and F-35 lightning airframes.

There are two Industrial Placements within Finance at Brough, and another six who are on the GDF scheme itself, and although this isn't a huge number it certainly keeps my calendar busy. Charity Challenge keeps social interaction high within the site; already this year, there has been a fashion show, fitness classes, skydiving and plenty of redecoration. This year, all

James Mair has spent the last year as a Finance Industrial Placement (IP) in Brough. We asked him to report on his experiences as an IP within the Finance function.

the Charity Challenge participants have been rewarded with a trip to the KC Stadium (Kingston Communications sponsor the Hull City football and rugby clubs) where we sampled the hospitality facilities during a rugby league match. This wasn't the first time I'd been in the KC Stadium though

Within two weeks of starting my placement I was in the stadium enjoying premiership football in the company box. I've had plenty of other opportunities to socialise too: Thursday nights at the Pozition

Nightclub in Hull are legendary within the local population. We usually meet in a local pub called the Red Hawk, and that's our meeting place and source of food.

Hull also boasts the first 'fully digital cinema' in Europe, and we spend a lot of time going there. Every month, Ed Leggott (one of the GDF Industrial Placements) brings in a load of brownies for our pleasure. Ed really is a dab hand at making chocolate brownies, and it keeps the local gym in business as we all trek off the day after Brownie



Thursday to try and work off all the additional calories.

It's not all fun and games. Being an Industrial Placement at BAE Systems comes with high expectations – just as high as if you were on the Graduate Development Framework or the Finance Leadership Development Programme. With only one year as an IP to make your mark, you really have to hit the ground running, even from day one. Support from line management and the graduate management team has been instrumental to my performance this year: it has kept my motivation levels high. Being invited to all the FLDP community events, such as the FLDP workshop and conference, has also helped my future aspirations to soar, and I'll be recommending the scheme to all future industrial placement students once I get back to university.

By the time this article is released I will have left the company after my year is up, and hopefully I will have gained a place on the FLDP scheme for after I graduate. Regardless of whether I do or not, I'll still be recommending the scheme to my final year peers. It's been said that some graduates have overly high expectations when they leave university – but if you have high expectations joining the FLDP you have a good chance of having your expectations met. It's a terrific scheme.

For further information on the FLDP scheme, contact the FLDP manager Steve Robinson at steve.robinson8@baesystems.com

The Three Peaks Challenge



Teams achieve their goal

Throughout June, 26 teams of Graduates were hard at work tackling the national Three Peaks Challenge.

Do you know about the Three Peaks Challenge? It's about climbing the three tallest mountains in Scotland, England and Wales. It's about Ben Nevis at 1344m, Scafell Pike at 978m and Snowdon at 1085m. It's about 24 hours, starting from the base of Ben Nevis and ending at the foot of Snowdon. It's also about

teamwork.

You could even be a purist, and argue that to officially complete the Challenge that you have to start touching the water at Loch Linnhe and end touching the water at Caernarfon, but whether you agree or not, the challenge is physical and mentally demanding: a staggering 26

miles walked in less than 14 hours, with 10 hours of driving to break it up. Don't forget – you're not going to be getting much sleep either.

At the end of 2009, four current grads started to organise this year's event. They were Daniel Stroud (Platform Solutions), Mark Holroyd (Global Combat Systems), Mark Walsh (Submarine Solutions), Bhavesh Patel (Detica) and ex-graduate Ben Sharples (Saudi Arabia). They had a goal to beat the 2009 target of £20,000 raised: while in 2009 ninety graduates undertook the challenge, by early March 2010 there were already 180 signups, mostly consisting of graduate challengers.

All participants were asked for a £20 admin fee which covered their breakfast and accommodation for the get together the night before in Scotland. Alastair Imrie, Global HR Director, was kind enough to fund T-shirts for all

the participants, and with some help from James Hayward from Charity Challenge and a rather rough MS Paint design, we managed to get 200 T-shirts printed and delivered within just three weeks: just in time.

The main aim of the event has been to raise as much money as possible for the chosen CC charities. All the teams have done really well. By the middle of June, teams had raised over £15,000 (over £19,000 including gift aid) with more still to come. One team in particular deserve special credit: Team 6 (Mark Holroyd, James Starley, Jamie McDonald and Nick Brown) had already raised close to £1800 before doing the challenge, and the expected total is now between £35,000 and £40,000 with matched funding still to come.

The Three Peaks challenge has been... a challenge... and well done to everyone who successfully completed it.

"24 hours is a long time"

The weather is relatively good and there is a clear sky.

About half way up Ben Nevis, the path cuts across a small plateau and then zigzags up the side of the mountain to the top.

Thankfully the early morning mist has now lifted and the teams are able to enjoy the view. After the zigzags the path flattens and pockets of snow can be seen. The final approach to the summit is across the horseshoe shaped plateau, after following a number of stone cairns marking the path. Either side of this path are steep drops into the valley below, and these partially

masked by the snow all around. We step carefully.

Following a quick photo at the top, teams begin the walk back down the mountain and back to their waiting transport. At this stage the group of thirteen teams has begun to spread out with team 12 taking the lead overall.

After reaching the bottom, the teams quickly load up the waiting vehicles and head off to the next mountain, Scafell Pike, the lowest of the three at 978m. This is the longer of the 2 drives at approximately 6 hours, but takes in some wonderful views of the

Scottish highlands and Lake District.

Teams start to arrive at Scafell Pike in the early evening and begin the toughest section of the whole Three Peaks Challenge. The bottom half of Scafell Pike is especially steep and on very rocky terrain, but thankfully the sun has passed its highest point and there is some cloud around. By this stage the gap between the first and last team is around 3 hours but spirits are high in all teams.

As the last team leaves Scafell Pike the sun has begun to come down, and it is onto the road for the late evening/night drive to Wales. At this point most walkers try to get some sleep where they can.

Teams begin to arrive and climb Snowdon in the early hours of Sunday morning. Torches are now the name of the game. Someone very helpfully has put a glow stick onto the fence beside the start of the path to show teams where to go. The Snowdon path follows the railway line and as such is relatively easy to walk. A combination of adrenaline, sugar and mental strength is now pushing the teams on towards the finish.

The first team finishes a little after 03:00 with a steady stream of teams after that. At the end of the day there are a lot of sore and stiff legs but thankfully no major injuries. We've done it, and now we can sleep.

Super Presenters

In Spring 2010, a competition opened at BAE Systems to find the top 10 public speakers within BAE Systems, to create a pool of speakers for events. The first: Farnborough International Airshow.

"Imagine you're on a Submarine... What's the last thing you want in the hull? The answers is holes, but typically there can be up to 300 holes on a submarine..."

The sound echoes out across the room as five speakers simultaneously read out the script that they have to perform at Farnborough Airshow.

Ten speakers were selected in total at the end of the Super Presenters competition and these were split into two groups. The five chosen for the "Bridge" area in the centre of the BAE Systems exhibition area were prepped to speak mostly about products, but off in the corner of the room five speakers, selected for their exuberance and high energy when speaking, were rehearsing in the new BAE Systems Innovation Theatre – the "Home of Innovation".

1,200 words: it doesn't sound like a lot, but it is a lot more when you realise it is basically a giant soliloquy. One of the speakers were heard to joke, "Hamlet seems easy when you've been learning this script".

Two of the speakers selected are existing graduates. Paul Terry, Project Management graduate from Platform Solutions, and David Lurie (Grad Mag's editor) were both selected from tough competition, but each were panicking the days before the first rehearsal, at which all presenters had been told to be 'off-book' and 'word-perfect'.

Paul sent an email along the lines of "have you learnt it?" to David the day before they were due to rehearse in Farnborough. David's reply was succinct, "No. Help."

After two days of rehearsals, none of the speakers were yet off script for both halves of the script, and the presenters had moved from their initial perspective of, "Five days? That's far too long" to "Do you reckon they could delay the airshow by a week?"

There was a small problem for ex-graduate Hayley Beer, now a Business Development Executive in Group Business Development, who was also one of the five selected for the Innovation Theatre. Hayley and David were asked to present for a private presentation to Alan Garwood, Group Business Development Director for the entire company: one of the most senior executives in BAE

Systems. Due to occur on the Tuesday prior to the last 3 days of rehearsals, this meant Hayley and David needed to be off script well before anyone else.

Hayley threw herself on the grenade (ed. You can't even imagine how grateful I am to her) by volunteering to learn the "half" of the script with double the word-count of the other half, meaning that by the end of two days of rehearsals David was off-script for his third while Hayley was close to memorising her two-thirds. Unfortunately, this left the two with the issue that neither of them were at all familiar with the other half of the script, unlike the other three presenters, who were more familiar with the whole script and could play either as Presenter One or Presenter Two.

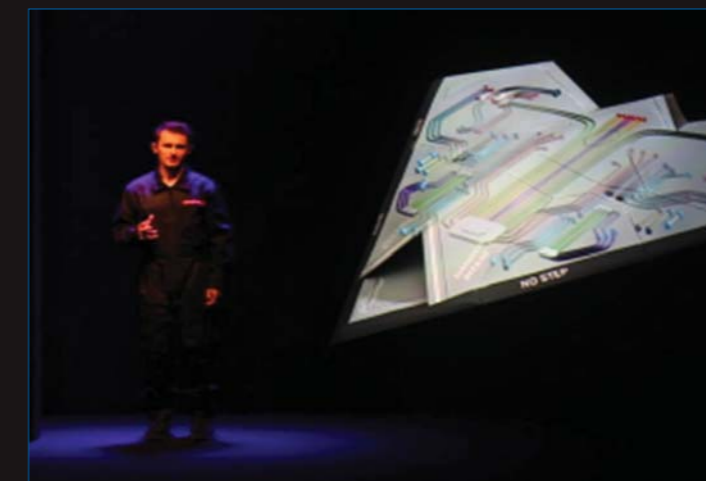
The visuals for the presentation are incredible. Based around 3D images projected on an angled glass frame in two dimensions, unless you know EXACTLY what you're looking for all you can see is three dimensional soldiers, tanks, submarines, UAVs and much more hanging

in mid-air. The soundtrack and music is powerful, and the entire presentation is visually very exciting to watch: and luckily, as there are five presenters taking turn for a two-handed presentation, everyone gets a chance to watch each other perform.

Paul Terry said, "Having the opportunity to present at the Farnborough International Airshow is fantastic but the real fun started when I got to see how the presentation would look. A three-dimensional submarine rising in front of me and having to hail a full size three-dimensional bus were two things I never thought I would do on stage. I just hope the delegates are as excited by all the new technology as I and the rest of the presenters are. It will be tough but I think the enjoyment factor will far outweigh that."

The only thing the presenters are now worried about is their costumes, having now all been fitted for bright orange jumpsuits. Four of them are worried, while David was heard to eagerly say, "Hey, now I've got something to wear for Halloween. Awesome!"

David Lurie was last seen just after sending Grad Mag off to the designers, walking around in circles at the Farnborough site Starbucks muttering "Looking at a specific example, the Airborne Wide Area Persistent Surveillance System, or AWAPPS" over and over again, with a crazed look in his eyes. Paul Terry has gone into hiding, wearing his bright orange jumpsuit. Hayley is praying she remembers her lines in front of her boss's boss's boss's boss. Claire Entwistle and Andrew French have asked not to be named.



Super Presenters in the Innovation Theatre

RAF Fairford hosts the Royal International Air Tattoo

On the 17th and 18th July, RAF Fairford in Gloucester played host to the 2010 Royal International Air Tattoo (RIAT). RIAT is the world's largest military airshow, attracting over 170,000 visitors and displaying over 300 aircraft. With a history running back to 1971, RIAT is particularly well supported by enthusiasts, industry and the public and this year was no exception.

BAE Systems, as the headline sponsor, provided not only an impressive visual presence, with banners, advertisements and branding around the show site (the control tower was almost red!) but also provided a welcoming show stand with attractions for both the older and younger generations.

In celebration of 70 years since the Battle of Britain,

there were informative heritage poster boards as well as some excellent models of past aircraft, but by far the most popular attraction was "Brains", the interactive Artificial Intelligence Robot. Brains is a 3D robot, animated on an enormous plasma screen TV that children (and adults!) can talk to via a microphone. When Brains talks, he also moves, dances,

flies and performs tricks to keep the audience entertained.

Through the wonders of modern technology he also manages to dig out facts about the child's school, teachers and other details, amazing the audience and leaving many of them wondering how he knows so much! Every now and again, Brains would take on a real world form and wander around the crowd, shaking hands and posing for photos.

After visitors had spent some time in the enclosed indoor part of the stand, they could wander next door to an open sided stand where the ATC were exhibiting the Wildcat, an autonomous vehicle with an on board suite of sensors, actuators and processors that the ATC use for testing systems of autonomy.

The event provided an excellent opportunity for young and old to meet BAE Systems in a welcoming and fun environment and aimed to stimulate children's interest in STEM subjects (Science, Technology, Engineering and Maths). It took a considerable effort from both the organising team to design, build, man and dismantle the stand as well as from the volunteers.

The weekend entailed two very long days of working in the sun, greeting and looking after visitors as well as filling and handing out the 2500 goodie bags that were greatly received by the public! The bags contained a combination of small BAE branded goodies and information about early careers opportunities within the business.

By far the biggest attraction this year was the F22-Raptor's flight; an air display that was hotly anticipated by the crowd and one that delivered the impressive aerobatics that everyone was hoping for. Giving a combination of high speed flying, incredible turning capability and tricks that many had never seen before, as well as a flyby with bomb doors open, the Raptor had the entire crowd on its feet. The crowd's interest was roused again by displays carried out by Vulcan, Typhoon and the Red Arrows. The poignancy of this year's 70 years anniversary of the Battle of Britain was marked by a display of Hurricanes and a Messerschmitt Bf109 as well as a display featuring a Typhoon and a Spitfire.

On the ground, Lockheed Martin had the Bloodhound SCC World land speed record car demonstrator which is looking to break 1000mph over land also there were a number of performances from motocross bikes performing aerial stunts.

The event was a resounding success, due in part to the enthusiasm of the team and the flexibility and dedication of all those BAE Systems staff involved. It was great to see graduates and apprentices mixing well to deliver a great environment for visitors to come and meet BAE Systems. This was reflected by the stream of hundreds of visitors, young and old and even the Red Arrows themselves, who couldn't resist the opportunity to come and meet Brains.



Red Arrows Fly Overhead

Talking to Brains and Looking at Planes

Futures Day at Farnborough International Air Show is an educational programme aimed at encouraging children and students in pursuing a career in Aerospace, Defence and Security.

Futures Day is a single day event (Friday 23rd July). The BAE Systems portion of this event continued to run through Saturday 24th and Sunday 25th July.) and our Futures Day stand was situated in the main BAE Systems FIVE building and incorporated modern and exciting technology in the form of the 'Brains' character, and an 'interactive information' table. Careers advice was also delivered in a more traditional one on one basis from a selection of the company's graduates and apprentices.

Brains the robot represents the creative and innovative element of BAE Systems, attracting an audience who had the opportunity to pick up a microphone and communicate intelligently with the simulated on screen character.

James I'Anson, the corporate communications graduate who organised the event said, "a popular question I was asked was 'how does it work?!' Some people seemed quite taken aback by how clever it was. The children seemed to think it was marvellous, especially when Brains seemed to know things about them."

Next to the hundred inch screen which displayed Brains was the interactive table; a large touch screen desk which was utilised by members of the public to find out information about the various products that

BAE Systems manufactures and designs.

"There were lots of children gathered around using the table, but many of the adults commented that they learnt something new too," said Sophie Harrison, one of the graduates manning the stand.

The stand was stocked with a range of brochures and information on the various routes of entry into a career with BAE Systems, as well as goody bags galore depicting the much loved Brains character. Mel Yates, also manning the stand said, "I spoke to a number of school and college leavers who came to the Airshow to find out more about early careers and I answered lots of questions on the apprenticeship schemes. I also spoke with many parents



The Brains Trust: Engage and BAE Systems

about our work with the schools ambassadors scheme and how BAE Systems is actively involved in science, engineering, technology and maths within education and local schools. The Futures Day area certainly had the "wow" factor and generated a lot of interest from children and adults alike about our products and our work."

BAE Systems' Skills 2020

strategy outlines the importance of developing its people as well as making sure there is a pool of talent available to contribute towards the engineering industry in the future. The apprentice programme has recently been rated as 'Outstanding' by educational regulatory body OFSTED.

Events such as Futures Day give young people an understanding of who BAE Systems are, and what it is we do, as well as getting them excited about science. It also gives graduates and apprentices the rare opportunity to interact directly with the public and share with them the successes and enjoyment they have experienced so far in their career.

The event was part of an on-going drive to promote awareness about careers within BAE Systems and all involved had a fantastic time taking part and agreed that it was a resounding success.

"Over the weekend I spoke to many people who were not only impressed with our technology and capabilities but also really impressed by the calibre of our staff in attendance. All the stand manners did a terrific job in representing our brand and it was a pleasure to walk around and meet so many people excited and passionate about working for BAE Systems. I am sure the public left with a positive perception of us and hopefully we inspired a few young minds to want to come and work for us in the future."

Michael Tennyson, Communications Manager

An interview with...



Richard Hamer

So what are you responsible for?

As Education Director I face outwards to schools, colleges and universities. As Head of Early Careers I face internally for our apprentice and graduate programmes and with our skills activities find myself engaged both with internal and external audiences.

And day to day – what do you generally do?

It's very varied! One day I might be providing a response to the government on a particular issue, or helping support an OFSTED inspection. I might even be writing speeches for senior directors. The job requires me to work proactively to coordinate and set strategy, but is also reactive responding to external policy and events.

What's the greatest challenge you've faced at work, and how did you get over it?

My greatest challenge was when I had to develop a programme in six months to engage a million young people over an 18 month period. The Chief Executive at BT made a bold commitment to engage young people throughout the country as part of BT's millennial programme. It was an intense time.

What career path did you follow to get where you are now?

I studied History and Economic History at University, and I liked policy and analysis and decided I wanted to work in HR, with a particular interest in employee relations and employee development. I got a job on the graduate HR scheme at the Central Electricity Generating Board (later National Power) which then had over 50,000 employees. My first role was in their early careers department working on graduate and apprentice development, and I really enjoyed that. After a period there I spent three years in the employee relations team. I got involved in a wide range of HR policy issues, briefing to support national pay bargaining discussions and disciplinary cases that appeared at national level, but I wanted to have a more hands on role and when an opportunity arose in employee relations in BT, supporting its London payphone and networks divisions, I took it. As my boss

said, it was all "In boxes, Up Poles and Down Holes". I've never forgotten that phrase.

After a couple of years in this role an exciting new post came up in their new corporate responsibility team, with a brief to coordinate higher education strategy and pull together all the different strands of HR, engineering, sales and research's engagement with academia. Then I took over the schools programme, which was even larger and included support for economic regeneration and the arts. We had a big budget but the impact was diluted by being split to support many small projects, so my first challenge was to focus on fewer things, and do each of them better. I must have done a good job, as I was asked to manage the charities and communities programmes that BT was involved with – at the time BT gave 0.5% of the company's UK profit to the community. Then after 18 months the millennial programme came up, and I've already mentioned that.

I was headhunted in 2004 to BAE Systems, and the rest is recent history

What advice would you give graduates?

Play to your strengths. Do things that you enjoy. Respond to the opportunities that come up – if you see something and think "that's something I'd like to do" then go for it! That's what I've tried to do and I've had a lot of fun on the way.

What aspects of your job do you find most challenging/most enjoy?

I like diversity – being able to

do lots of different things. My job has evolved considerably over my six years at BAE Systems, and every year has produced new challenges which keep the job exciting.

Who is/was the person you most admire?

Winston Churchill. In 1940, when he became PM, morale was low, the world was collapsing around us, but he brought hope, brought the Americans on board and helped pave the way towards victory. I love that wonderful quote of his about Dunkirk: "it's not the beginning of the end; it's the end of the beginning". He was an optimist – I believe you have to be.

Did you always intend to follow the career path you have chosen?

When I was young – at school – I didn't have a clue what I wanted to do. I knew I loved history, politics and reading. I pursued my enthusiasm and then started to think about it in 2nd year of university and decided to pursue a career in HR. Since then it's pretty much gone according to plan.

If you were an animal, what animal would you be?

What a question!
A bumblebee perhaps. They're industrious, purposeful and they're great team players!

NEXT ISSUE

The next issue will be released in October - deadline for articles is the 17th September. Please submit articles to graduate.comms@baesystems.com in an unformatted .doc with photos at a minimum of 1600x1200 resolution in separate jpeg files.