

RAF COLLEGE CRANWELL

College Journal Extracts



March 2010

First Article - 2009 Royal Review (1)



Painting of the 2009 Royal Review

by Military Artist Mr Anthony Cowland

The annual Royal Review at the Royal Air Force College Cranwell is always a special occasion and this year was particularly memorable as Her Majesty the Queen, in her role as Commandant-in-Chief of the College, visited for the first time since 1995. Consequently, a new painting was commissioned to mark this historic event. The painting depicts Her Majesty and His Royal Highness the Duke of Edinburgh in front of the Royal Air Force College with the Commandant and the Chief of the Air Staff completing Her inspection of the graduating cadets. Art, especially military art, can evoke many thoughts and feelings and this painting by Anthony Cowland is no exception, serving as a tremendous source of inspiration to the cadets; it is a constant reminder of where their allegiance lies and also of the rewards and honour that lies ahead on Graduation Day if they successfully complete their training. It is no coincidence that the painting has been hung in the main corridor opposite the cadets' ante-room.

Anthony Cowland is a well known and respected artist, illustrator and designer and is a past Chairman of the Guild of Aviation Artists. Over the past 15 years he has been heavily involved with painting for the British Forces, undertaking visits to major exercises, peace-keeping zones and theatres of war, often 'roughing it' on location. A graduate of the Brighton School of Art, he spent over a decade in design and architecture, becoming a director in a large London and New York-based architectural and design practice overseeing projects world-wide. Having continuously moonlighted as a painter and illustrator during his design career, he finally turned to full-time illustration and painting in 1989.

The painting in College Hall Officers' Mess with Air Commodore Stevenson, Commandant of the College and Wing Commander (Retired) Dowling, College Secretary.

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Her Majesty The Queen signing the College Visitors Book.
Inset: Page from the visitors book.

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Visit to RAF Cranwell by HM The Queen and HRH The Duke of Edinburgh

Squadron Leader Hall, Officer Commanding C Squadron

On Thursday 28 May, 2009, Royal Air Force College Cranwell had the honour of receiving Her Majesty The Queen, the College's Commandant-in-Chief, accompanied by His Royal Highness The Duke of Edinburgh. Their visit was on the occasion of the Royal Review at the graduation of 147 officers of Initial Officer Training (IOT) Course No 14, Specialist Entrant and Re-Entrant (SERE) Course No 10 and Reserve Officer Initial Training (ROIT) Course No 46. Graduates included cadets from Iraq, Jamaica and Nigeria.

Four to five graduation parades are held each year at Royal Air Force College Cranwell to mark the rite of passage from officer

Chief of the Air Staff and Commandant arriving at the Graduation Parade.



cadet to commissioned officer for each cadet graduating on an IOT, SERE or ROIT course. Each year one of the graduation parades is selected as the Royal Review in order to present The Queen's Medal for the best overall cadet from the last twelve months and other annual prizes. Of note the International Cadet Sword of Honour for the best international cadet during the year was awarded for the first time at the 2009 Royal Review. A number of honoured guests have acted as Reviewing Officer over the years, but the last time Her Majesty The Queen conducted a Royal Review was in 1995.

Before this prestigious event could take place, a significant amount of planning and preparation was required to ensure that the graduating cadets were up to parade standard, but also to prepare the Station and College Hall Officers' Mess (CHOM). In October 2008, before the Assistant Private Secretary to The Queen formally announced that Her Majesty had accepted the Commandant of the RAF College's invitation, a planning team was established. The aim was to ensure that Her Majesty and His Royal Highness had a memorable visit by delivering a Royal Review that would demonstrate the high standards and calibre of the next generation of Royal Air Force officers. The focus for the day was to be The Queen and the cadets.

A planning team was formed of personnel from the Station, the College and the Officer and Aircrew Cadet Training Unit (OACTU). Thus, under the watchful eye of the Project Officer, Group Captain Killen (OACTU), the Commandant's Staff Officer and ADC, Squadron Leader Phythian and Flight Lieutenant Akyildiz, the College's Senior Regiment Instructor, Squadron Leader Capel, and the Officer Commanding Base Support Squadron, Squadron Leader Manvell met each Wednesday. The planning team was extremely well supported by contractor, civilian and military personnel across the Cranwell campus, all working in concert to achieve the aim; that Her Majesty and His Royal Highness, and the cadets and their guests, have a superb day.

Their task was not insignificant and, in addition to the normal preparations for the Graduation Parade, a number of changes would be required in order to choreograph the Royal Review,

host a significant number of high profile guests, and allow time for Her Majesty to meet Station personnel and their families. In order to achieve this, the team needed to maintain close liaison with Buckingham Palace and the civil authorities. CHOM required some refurbishment and additionally a detailed plan was required to allow Her Majesty the opportunity to meet and dine with the newly graduated officers, their families, the staff and guests; in excess of 500 attended the lunch.

Whilst the planning team forged ahead, a number of additional drill periods for cadets were packed into the working day. Warrant Officer Clelland, College Warrant Officer, and his team worked tirelessly to train and prepare the cadets. To their credit, the cadets rose admirably to the challenge. Whilst honour, pride and enthusiasm are always present during the lead up to graduation, the added privilege of graduating in front of our Sovereign raised the bar, and injected some magic into the cadet body. Rarely, have I witnessed cadets practising in the early hours of the morning and late at night on the Parade Square; often at the expense of developing more traditional social skills!

Inevitably a number of additional rehearsals were scheduled and it was inspiring to see the all Royal Air Force College Cranwell cadets and permanent staff working together to the same aim.

To be around the cadets on the morning of the 28 May 2009 was something special. The atmosphere was electric and, as a body, they were full of enthusiasm mixed with a nervous anticipation but ready for the challenge ahead. The cadets, beaming with pride and, dressed immaculately in their uniforms, set about preparing themselves for the Parade. Their flight sergeants, their trusted mentors during the Course, gave them a final inspection to ensure that every cadet was at the highest possible standard and then exchanged a few words of encouragement; all were conscious that College history was about to unfold.

Not only was every cadet walking six inches taller but we were blessed with excellent weather. A wonderful, warm and calm spring day brought the flowers out into full bloom and CHOM, as backdrop to the freshly mown 'Orange', looked magnificent in the sunlight.

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Her Majesty and His Royal Highness arrived by helicopter and were moved to the front of the Dais in the Royal Bentley where they were received by the Commandant of the Royal Air Force College, Air Commodore Stevenson. The Parade Commander, Officer Cadet Jewers, had already brought the Parade to attention and proceeded to give the Royal Salute. Her Majesty was then invited to inspect the front row of the Parade whilst His Royal Highness inspected the second row, and Chief of the Air Staff, Air Chief Marshal Torpy, inspected the third row. At the conclusion of the inspection there was a spectacular fly past from the Red Arrows.

The cadets were immaculately turned out and, after they had been inspected, went on to give an excellent demonstration of drill; high standards, teamwork and esprit de corps paid off! Her Majesty then went on to present the Sword of Honour, the International Sword of Honour and The Queen's Medal to Officer Cadet Shone, Lieutenant Al-Henkawe, of the Iraqi Air Force, and Flying Officer Taudevin respectively.

Silence then fell across the College as Her Majesty addressed the Parade and gave the following speech:

"As your Commandant-in-Chief, I am delighted to be here to today to witness the commissioning of officers into the Royal Air Force, and into the Forces of Iraq, Jamaica, and Nigeria. It is also a special occasion for your families and friends and for the permanent training staff who have prepared

Chief of the Air Staff inspects the Parade.



you for this moment. You have marked that moment in fine style, and I congratulate you on your turnout and ceremonial.

The Royal Air Force has an illustrious history. You, the graduating officers, are now part of that history and inherit the legacy of your forebears. Today, you are embarking on what will be new careers. You have joined a fighting Service and the years ahead will test your resolve in unpredictable situations around the world. However, through the training you have received, and the development of your leadership skills, you have experienced challenges and adversities designed to prepare you for the most demanding of circumstances. I am confident of your ability to meet that charge.

While you must carry out the duties placed upon you by the Royal Air Force, it is equally important that you enjoy life. There will be chances to learn new skills, to travel and to broaden your experience. I hope that you will ensure that you, and those under your command, make the most of these opportunities.

You can be justly proud of your achievements, as – I am sure – are your families and friends who support you and who have gathered to celebrate this occasion with you. I wish you all every happiness and success in your chosen career. My prayers go with you and your families."

The Act of Dedication followed and all three padres from the College said prayers before the Parade Commander roused the cadets and the Parade giving Her Majesty three cheers.

Lieutenant Al-Henkawe, IqAF, receives the International Sword of Honour from Her Majesty.



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'March off the Colour of the College of the Royal Air Force'.

After the Queen's Colour of the Royal Air Force College had been marched off, the cadets formed two ranks and, with the incredibly moving music of 'auld lang syne' reverberating around the College, courtesy of the Band of the Royal Air Force Regiment, the slow march commenced past the Flight Sergeants – now saluting the newly commissioned officers for the first time. As they marched up CHOM stairs, into the Rotunda, and onto the carpet for the first time, four typhoons, from XI Squadron, flew past which signified to the cadets that they had now joined the ranks of 'the few' as commissioned officers in the Royal Air Force. CHOM main doors were closed, the Parade Square fell silent and the audience were treated to a huge roar from within the Rotunda as the newly commissioned officers launched their hats into the air and cheered each other on their success.

After meeting the Parade Executives and joining staff and award winners for photographs, Her Majesty, His Royal Highness, the Chief of the Air Staff and the Commandant joined the newly commissioned officers and their friends and families for some well earned refreshments before going on to take lunch. The Mess staff "pulled all the stops out" and delivered a thoroughly enjoyable meal to over 500 guests.

At the conclusion of lunch Her Majesty and His Royal Highness signed the visitor's book and departed CHOM in company with the Commandant for Queen's Avenue where The Queen planted a lime tree, before meeting an enthusiastic crowd of Station personnel and their families.

In summary, six months of planning, a whole-hearted collegiate approach, and a superb team effort had come to fruition; it had, indeed, been a day to remember for the cadets, for the staff, for the guests and most importantly for Her Majesty The Queen. The newest commissioned officers in the Royal Air Force were left brimming with pride alongside families and friends – that evening the Graduation Ball continued long into the early hours! There is no doubt that all those involved in the planning and the execution of the Royal Review upheld the high standards that the Royal Air Force expects.

On a final note, it is an honour to hold the post of Squadron Commander on an IOT squadron with responsibility for the training and development of so many dynamic and focussed men and women. Their enthusiasm and desire to succeed is infectious. When you have attested them into the Royal Air Force in week one and then watched them grow in competence, confidence and credibility over a 32-week Course, it is a truly unique moment to see your Squadron of cadets slip 'the surly bonds' of Cranwell and march off the Parade Square as commissioned officers. To have had that experience, combined with the honour of meeting Her Majesty, in CHOM Founders' Gallery, and in front of the portrait of Winston Churchill, may, I suspect, be an unsurpassable experience.

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7 - The Parade Commander's View

Her Majesty is escorted by Officer Cadet Jewers, Parade Commander.

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A Flight, the Graduating Squadron, on parade.

Initially it was through rumour that C Squadron realised how special our graduation would be. Speculation over a Royal Graduation became common place, although to start with it was never expected that Her Majesty The Queen would be our Reviewing Officer. It had been almost 15 years since her last visit to RAF Cranwell and everyone at the College set out to make it a Parade to remember. Preparation for the Parade started as early as Term Two, as foot and sword drill were taught and practised to have us ready for graduation. Graduation practice would normally start towards the end of Term Three, but for C Squadron we started in Week 1.

When we began Parade practice, each flight was asked to nominate three or four cadets for the positions of Parade Commander, Adjutant and the four Flight Commanders. The first hurdle for us was to take a Flight around College Hall Officers' Mess (CHOM) Parade Square, carrying out the first part of the march past. This was a nervous moment for some, especially those who had never taken drill before, as it was completed in front of the Squadron as a whole. This process whittled numbers down to a final ten; we would then practise over the coming weeks for a final assessment by the Senior Regiment Instructor (SRI), Squadron Leader Capel. For the assessment we gathered on the tennis courts and, one at a time, positioned ourselves next to the SRI, commanding the other candidates who were three court-widths away. It was our voices that were being examined; those with the correct volume, clarity and pitch would take the top spots on the Parade. It was

The Parade Commander's View - The Queen's Review

Officer Cadet Jewers, Parade Commander, Initial Officer Training Course No 14

tense; time to impress was short. One candidate impressed me – an ex-Serving Army Warrant Officer; however, he stood down before his turn. He felt the younger members of the Squadron deserved the opportunity. This was a noble thing to do, and I personally thanked him, as he was, in most people's eyes, the man for the job. Following the assessment, we walked out onto CHOM Parade Square, where the other members of the Squadron had been practising. Squadron Leader Capel cut straight to the chase and named those whom he felt would perform best for each position. After both jubilation and commiseration the Squadron was reformed into flights and we took our newly assigned posts. Everyone then knew who had the responsibility for each Flight and the Parade. Thankfully, we had learnt the commands required for all positions on Parade, though this didn't prevent initial nerves as we went straight into our first practice. There were mistakes, however, these would be ironed out.

The first event was the Group Captain's check of the Parade, by which point everyone knew it. Its success gave the Squadron a new found air of confidence and the idea of weekend drill practice disappeared. The next rehearsal was with cadets from another squadron playing key figures including Her Majesty, His Royal Highness The Duke of Edinburgh and the Chief of the Air Staff (CAS). This, for me, was when things went wrong; previously I had only practised my opening line inviting Her Majesty to inspect the Parade in front of an empty dais. With human beings in front of me I managed to get a frog in my throat and lost composure. Looking into someone's eyes made speaking more difficult than the whole Parade so far. Following this hiccup I composed myself and started again with no problems.

The Commandant's inspection was next, just a few days before the Graduation. I felt confident in the ability of every one of my fellow cadets on the Parade Square, though it is fair to say some found the drill easier than others. It was clear that the time we spent on the Parade Square and instruction we were given had paid off; both individuals and Flights performed well. However, this was not to be the case for this final check of our performance. Small errors began to creep in whilst the Commandant watched, and there was general feeling that we might have over-rehearsed

and peaked too soon. Yet when we completed another rehearsal everything went well, thankfully. We were back on track!

The day before Graduation was drill-free, allowing time for me to collect my sword which I had ordered especially for the Graduation. It was nice to relax and take time to reflect on the past few weeks; all thoughts were on Graduation and how quickly it had come upon us. That evening my parents had arrived and we went out for dinner in a nearby pub. Most of the Course had the same idea and we met several members of my Squadron.

Graduation Day arrived and I spent the morning relaxing – going over the parade orders just once more – before collecting my parents as they arrived. After leaving them with the other guests in the refreshments tent it was time for me to get ready for the Parade. Putting on my sword brought about the reality that this was no practice and, thankfully, there were no nerves. I was quietly confident that all would go well. The rest of C Squadron formed up on the wings of CHOM; the count down had begun! The Parade Executives, along with the College Parade Staff, gathered in the Rotunda, a few words of luck were said by Wing Commander Cadets, followed by a glass of port to settle any nerves and lubricate our throats. My throat was fine; however, upon returning to the West Wing for my entry onto the Parade Square I began to feel butterflies, it was now just a matter of waiting. The Support Squadron, D Squadron, marched on to the commands of the College Warrant Officer, followed by the Graduating Squadron. It was at this stage I began to feel as though I had the weight of everyone's expectations on my shoulders; the nerves began and before I knew it, it was time to march on.

Marching out in silence, with only the sound of the wind and a few people talking in the crowd, I saw my parents sat on the top tier not far off centre. I took over the Parade from the Parade Adjutant, and it was time to start the drill sequence. I gave the command for the Queen's Colour to be marched on and the Band burst into life. After what seemed an age VIP guests began to arrive and CAS made his way onto the Dais. Before long I saw The Royal Car enter through the main gates of CHOM and drive around the Orange. I bought the Parade to attention and my mind then focussed on the drill commands to come. It was like watching television

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HRH Prince Philip inspecting the Graduating Squadron.

– Her Majesty The Queen and The Duke of Edinburgh stopped in front of me only a few yards away, and once they were positioned on the Dais I gave the Royal Salute. I approached the Dais and invited Her Majesty to inspect the cadets.

We had planned for Her Majesty to inspect the front rank, while The Duke of Edinburgh inspected the middle rank and CAS inspected the rear rank. Her Majesty was brisk yet thorough in inspecting each individual on the front rank, asking what branches cadets would be entering, whilst also commenting on both the number of individuals with medals who had served previously, and the standard of dress. Inspection complete, the Red Arrows flew over and the march past began first in slow time, and then quick time. From my position I could see each row of each Flight and I was impressed to see how accurate and well drilled they were. The march past finished, the Parade advanced in review order, following which head dress was removed and three cheers were given for Her Majesty The Queen. It was an amazing moment hearing the whole Parade cheer in unison. Thereafter, I requested permission from Her Majesty to march off the Queen's Colour and the Parade; the Squadron marched off the Parade Square and into the rotunda of CHOM to Auld Lang Syne, an emotional moment for all.

Once the whole Graduating Squadron was in the Rotunda and had halted, I ordered one final cheer and everyone threw their hats into the air in celebration. It was time to remove our cadet accoutrements and, for the majority, to meet their families. The Parade Executives stayed behind and lined up in Founders' Gallery to be presented to Her Majesty. I was first to be introduced, following which I introduced the other Parade Executives. We then slipped away quietly to see our families before lunch. I was fortunate enough to sit next to The Duke of Edinburgh; he was quick witted and spoke fondly of his time learning to fly. The Royal Party left shortly after lunch leaving us to continue celebrations at the Graduation Ball that evening. It was a fitting end to a very proud and exhilarating day!

'March off the Graduating Officers'



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The Sword Winner's Perspective - The Queen's Review

Officer Cadet Shone, Winner of the Sword of Honour, Initial Officer Training Course No 14

Graduation Dinner, 22 May 2009, after all the festivities of the evening it was time to announce the prizes. When I heard my name called out as the Sword of Honour winner for IOTC 14 I was ecstatic. The celebrations went on until the early morning celebrating the last 29 weeks of IOT with fellow cadets. It wasn't until the next day I realised that having won the Sword of Honour I would be receiving it from none other than Her Majesty The Queen.

Rumour of Her Majesty being our Reviewing Officer stemmed back to the early weeks of IOT. It was the first time Her Majesty was to be the Reviewing Officer for 14 years so it was inevitable that drill practice would feature highly on the timetable. I was one of a lucky three who would receive their prize from Her Majesty. This meant countless extra practice to ensure we performed to our best when receiving our prizes.

Graduation Day arrived and there was a definite buzz about the College. Families began to arrive through the increased security presence and were met by the latest Graduating Officers. Tea and coffee were first on the agenda, with the obligatory photo outside of College Hall with the family. Shortly after this, it was time for our guests to move to the stands and await the arrival of the Parade and, of course, Her Majesty.

The Royal Party leave the Dais to inspect the Parade.



At either side of College Hall, the four flights assembled minus their Flight Commanders. As Number Two Flight Commander, I was assembled with the other Parade Executives in the Rotunda for the traditional pre-parade glass of port. This was certainly a good way to calm the nerves before performing in front of Her Majesty.

At 1030 the Support Squadron marched on followed by the Graduating Squadron. I remember the shiver of pride as we marched on to the famous Parade Square in front of the many friends and family. The Flight Sergeants had their moment, calling us into line and the Queen's Colour was marched on. We waited patiently (without fainting and cracking my head open this time as I did in an earlier practice...) for the arrival of the Chief of the Air Staff, His Royal Highness The Duke of Edinburgh and Her Majesty The Queen.

It wasn't long before the Royal Car pulled up in front of the Dais and we stood, watching in awe as Her Majesty and His Royal Highness stepped out. I don't think there are many things that beat what followed: a Royal Salute to The Queen whilst God Save the Queen was played by the Band of the Royal Air Force Regiment.

Her Majesty inspecting the Parade.



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First Article - 2009 Royal Review (11)



The Red Arrows.

The inspection was soon over, climaxing with a fly past by the Red Arrows. With permission to continue with the Review, we were soon on our way around the Parade Square. Now was the time to perform our best circuit yet with voices ablaze, the 'eyes right' and the 'two from now' commands were the best the Flight Commander's have shouted. The Flights performed brilliantly with perfect straight lines.

Following the Review, the Parade was advanced in Review Order ready for the Prize Giving and the Queen's speech. Now it was my turn to perform in front of my fellow cadets, all our friends and families, a large number of dignitaries, high ranking officers and – of course – the Royal Party. I stowed my parade sword ready to receive the Sword of Honour.

My name was called out by Flight Lieutenant Fisher, my Flight Commander throughout IOT, and I marched towards Her Majesty. When Her Majesty handed the Sword to me I was surprised by how heavy it was in comparison to the parade sword I'd been carrying. After her congratulating me and wishing me all the best, a few obligatory photographs were taken before remembering to take a step back to conduct a sword salute without damaging our Sovereign; not a good career move.

The rest of the Review was spent in awe of what I had just received. Despite this I still had a job to do: three cheers for Her Majesty The Queen, forming two ranks and moving into position for the final march into College Hall. Having received our first salutes from the Flight Sergeants lining the entrance we

were all assembled in the Rotunda, then the emotion of the day finally hit me. I was very proud of everything that we had achieved together over the last 32 weeks and it was topped off perfectly by a Royal Review.

Before moving through to the marquees to meet our families, the Parade Executives were fortunate enough to personally meet Her Majesty, His Royal Highness and the Chief of the Air Staff in the Rotunda. As it was the second time I had spoken to Her Majesty I could now refer to her as Ma'am and she commented on how I now had two swords to handle. Moving to the marquee for a few moments to briefly be congratulated by my family I had to rush off for the formal photograph in front of College Hall. Here all the prize winners gathered for a once in a lifetime photo opportunity with The Queen and The Duke of Edinburgh.

It was now approaching midday and the trumpet was sounded, signalling the move through to the Dining Room. During rehearsals it was planned that, as the winner of the Sword of Honour, I would sit between The Duke of Edinburgh and Air Commodore Stevenson, one place left of the centre spot. However, on moving to the top table I noticed that Air Commodore Stevenson had been swapped with The Queen and I was now sitting next to Her Majesty and Mrs Stevenson.

A story to tell the grandkids that's for sure; or everyone I see (as my fellow junior officers keeping telling me).

Sadly, the day went by far too quickly and the gavel was soon banged by the President of the Mess Committee, indicating time for the Royal Party to leave the top table. The rest of the day was then spent with our families exploring College Hall before moving over to Whittle Hall for the End of Course Review. The day was not yet over however, as of course it was now time for the Graduation Ball; an outstanding night, enjoyed by all who attended.

To summarise, this was a day that I and my fellow Graduating Officers will never forget; etched into our memories for a long time to come. It is difficult to describe in words just how good a day it was. I can certainly say it was the best day of my life, to date.

The Royal Party on the Dais.



Second Article - Combat Ops (1)

Combat Operations: The Asymmetric Advantage of Air Power

Air Chief Marshal Sir Stephen Dalton, Chief of the Air Staff - Extract from the RUSI Lord Trenchard Memorial Lecture 2009

The Royal United Services Institute continues to stimulate debate in the Defence and Security arena. This is a particularly important role at the present time when, arguably, we are approaching a genuinely strategic crossroads in the design of our future Defence Policy and Military requirements. It will be critical that we really raise the absolutely essential focus on our current 'Main Effort' in Afghanistan and take a long hard look at our national security levels of ambition and requirements. If this results in a fundamental revision of our notion of Britain's place in the world then, inevitably, there will be significant implications for the size, shape and structure of our armed forces; but, we should not overlook the significant role that those armed forces are currently playing in defending and promoting the security of this country, our values and our interests, in their broadest sense, as an integral part of our current operations. You will not be surprised to hear that I intend to return to this theme through the rest of this talk. As the relatively new Chief of the Air Staff, one of my real concerns is that while public support for the armed forces is as high as I have ever known it to be, witness the marvellous public turnout in Uxbridge for the Home-coming Parade for 63 Sqn Royal Air Force Regiment last month. Nor should we underplay for a moment the consistently humbling support from the people of Wootton Bassett. However, despite this marvellous moral and physical support, the genuinely informed understanding of the role of the military in contemporary society is worryingly low, and this is particularly challenging for the Royal Air Force. In Afghanistan, for example, without RAF aircrew flying our Chinook, and shortly Merlin as well, support helicopters, and transport aircraft in and through some of the most demanding environmental conditions faced by any military forces anywhere in the world, and in the face of the constant threat of being shot at by the same insurgents who threaten the Land Forces, without those very brave and highly skilled aviators, more often than not, the equally brave and courageous soldiers and marines would not be able to pass the start line. This issue is important; if it's symptomatic of a more general lack of understanding in the public – and a consequent undervaluing – of the absolutely key role that air power plays, in its many guises, in all roles of military and security operations. And this matters, because air power is equally fundamental to success in the full gamut of military operations from

counter-insurgency operations, whether they be historic such as in Malaya in the 1960s, Northern Ireland during the troubles there, or on Operation Herrick today in Afghanistan; effective airpower is essential to all scales of medium or high-end warfighting. Often it has been and will continue to be the advantageous asymmetry that air power has given the UK and our allies that has been the determinant in giving the force or the coalition the battle, nay war winning capability and advantage. Our combat operations over the last two decades demonstrate how air power has consistently evolved; it has been adaptive and it has developed. But where are we today, as the consequence of those lessons from our recent history and what are the drivers that are shaping our current thinking and decision-making? And equally importantly, what defines our immediate future requirements as well as our longer-term insurance premium – well that is, of course, the focus of the forthcoming Strategic Defence Review, a requirement on which all the major political parties agree. Whatever, the resulting conclusions, one thing is certain, and that is that we will want and need to unlock the fullest potential of air and space power in the coming years and deliver affordable and agile capability as part of this country's joint defence and security forces – and that is of course wherever they are deployed, whatever the nature of future operations, whenever they're needed. But to do this effectively and add to our asymmetric advantage over potential adversaries – whether they be state or non-state – we will need to invest significantly in putting 'real meat on the bones' of our National Network Enabled Capability.

Now the themes that go through this – agility, capability, and asymmetric advantage – will run through everything I say today, and they are an integral part of my vision for the Royal Air Force. But for reasons that will become clear, I'm also going to emphasise another characteristic. Amongst other significant anniversaries, 2009 marks Charles Darwin's 200th birthday. You recall that he observed that:

'It is not the strongest of the species that survives, nor the most intelligent. It is the one that is most adaptable to change.' Consequently, I believe that adaptability – in our organisation, people and equipment – is the key to ensuring that the RAF

continues to make the critical air power contribution to the UK's defence mission, as the strategic environment evolves over the coming years.

Recent Operations

So let me turn to what contemporary events show us about military requirements. It's worth reminding ourselves that over the last twenty years, the RAF has been continuously involved in combat operations across the entire spectrum of conflict. We have conducted top-end warfighting against technologically capable opponents – where we have had to fight hard for that critical and fundamental requirement in any military operation – that of control of the air. We have had to find ways to overcome sophisticated, integrated air defence systems – on at least four occasions in that time: during the Gulf War of 1991, in the Balkans in 1995 and again in 1998 and, as recently as six years ago, in the Iraq war of 2003. To use a military term, we have then 'transformed in contact' with our adversaries, to switch to intense counter-insurgency operations in Iraq and Afghanistan. At the other end of the scale, we spent eleven years flying low intensity – but highly cost-effective – air-policing of the no-fly zones over Iraq, interspersed with timely focussed interdiction operations without the need for major long-lead time and costly deployments or reinforcements. At the same time we conducted

The Royal Air Force's Typhoon.



Second Article - Combat Ops (2)

numerous, rapidly arising, humanitarian relief operations such as that in Somalia and Sri Lanka and military interventions, such as Sierra Leone and East Timor. Throughout this period, we have continued to deploy significant force elements to cover permanent commitments, notably the air defence of the United Kingdom, support to the Strategic Deterrent and overseas in the Falkland Islands. So the RAF has been very busy – and continuously over a very long period. But what are the broader implications of this experience?

The first point to make is that the development of military aviation, supported by emerging technology, means that air power has been consistently developing and maturing over the last twenty years in particular, and can now make the critical, precise and designed impact that theorists such as Douhet, Mitchell – and, of course, Lord Trenchard – have envisaged since the dawn of aviation. Western air forces can now deliver precise, proportionate firepower with extremely high levels of assurance, in virtually all weather conditions. This means that in conventional, force-on-force encounters, air power may have primacy in the joint campaign, with the land component effectively ‘fixing’ the enemy to be neutralised from the air. We saw the genesis of this in the Gulf War of 1991, when largely unseen and unreported, the air campaign neutered the fifth largest army in the world and, in so doing, set the conditions for that army to be utterly defeated in a land battle that lasted just 100 hours. This was of course at an absolutely minimal cost in coalition casualties. By the time of the Iraq War of 2003, modern air power was decisive, and, according to a recent RAND study, with over seventy-five per cent of the 20,000 major military engagements being primarily prosecuted by air power. The implications are profound. In the first place, as the then CGS announced, the Army has been able to plan its transformation into a uniform and lighter brigade structure, because of its ‘increased confidence of delivery of effects from the air’.

The resulting breaking up by The Army of its traditional armoured and mechanised brigades is something that we would do well to remember in future discussions about force structures across the whole of defence, because, in essence a cheque has been written that air power must ultimately retain the ability to cash and pay to UK Land Forces on behalf of The Nation. More fundamentally, our adversaries have also recognised the asymmetric advantage of air power – witness the significant effect

that even the overflight or noise of a fast-jet or helicopter has on Taliban fighters as just one example, and this has driven them of course to develop their own asymmetric strategies to try and negate it. In this sense, understanding air power is critical, if we are to understand how – and why – the nature of conflict itself is changing and evolving. While air power has proved to be the dominant force in conventional warfare during recent operations, it has also provided the key enabling capabilities, particularly of course in support of the land component, in irregular and counter-insurgency warfare. The mobility, ISTAR capability and heavy firepower support delivered by air power are absolutely essential, not least in minimising the footprint on the ground. As Colin Gray has put it: ‘Airpower is about mobility and power projection. It is about bringing fire to bear on the enemy, be he far or near; about inserting and extracting friendly troops; about surveillance and reconnaissance, and other forms of intelligence gathering; about supply and its movement.’

However, because our opponents understand the importance of air power, they will contest our control of the air with every possible means at their disposal. In the Balkans and the two Iraq wars, sophisticated air defence systems were employed against us, but even if our enemies lack an air force, they will still use shoulder-launched missiles and small arms to attack our air transport aircraft and helicopters. They will set booby-traps at known landing sites and attempt to mortar or rocket our aircraft on the ground. All of these tactics have been adopted by the Taliban in Afghanistan and, in this context, force protection and the role of the RAF Regiment is as much a part of the battle for control of the air as more familiar and ‘traditional’ capabilities, such as the offensive and defensive counter-air operations that were flown in the two Gulf Wars. If all else fails, the enemy will seek to neutralise our asymmetric advantage by using propaganda to attempt to influence the media, putting pressure on our freedom to exploit air power capabilities to the full; again, this ploy has been used in



ISTAR Operations E3-D Sentry.

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Afghanistan, where one of the most significant challenges that we currently face – particularly as our land forces are so reliant on air support – is to make sure that we can counter the allegations that the majority of civilian casualties are caused by air attack. We all deeply regret innocent civilian casualties in war, but the growing perception that all civilian casualties are caused by air delivered weapons is far from the truth. Where mistakes are made, then lessons must be learned and procedures amended. However, we need to guard against immediately assuming that every allegation is substantive. The allegations are often unfounded, whilst the media will seek to sensationalise all occasions, we have to be far more agile and proactive in demonstrating the discretion and proportionality that is used whenever air weapons are employed. Such decisions are founded on the sensitivity and discipline of the airmen and airwomen involved at every step of the targeting process, and I am always impressed by the quality and resolve of our airmen who are involved in targeting and aviation, often under extreme pressure.

I suggest that this very brief review of our operations over the last twenty years reveals two defining characteristics above all others: first, their variety, and second, their unpredictability. As we have seen, the RAF has operated across the entire spectrum of conflict, transitioning from top-end warfighting to low-intensity air policing and back again, before switching to intense counter-insurgency operations. Few of these operations were envisaged beforehand, and some, such as the 1991 Gulf War, represented real strategic shocks. To my mind, this only reinforces the need for us to continue – within sensible resource constraints – to retain as balanced a force capability as possible, so that we can field relevant capabilities to confront the requirements of today's 'Main Effort' in Afghanistan, yet retain the ability to adapt to the future contingencies that we know will be difficult to predict. This principle is understood across the political domain. The Secretary of State has already announced that he intends to sponsor a full and open discussion on the future defence requirements based on the forthcoming Green Paper and how it identifies the short, medium and long-term potential needs of the UK's foreign and security policies and ambitions.

Equally, the Shadow Secretary of State, Liam Fox recently said: 'of course, the main challenge here is between equipping our forces to succeed in our current conflicts without failing to prepare for any future contingencies', and, although the National Security Strategy

rightly emphasises the primacy of current operations, it also notes the requirement to: 'to invest in a broad range of capabilities for the long term'. This is important, because there is a perception that future wars will only be fought, as Rupert Smith has put it, 'amongst the people', with Western military interventions being limited to failing or failed states, where the opposition will be confined to ill-armed militias, criminal gangs and terrorist groups, and the overriding requirement is for 'boots on the ground' to provide stability and security. A development of this line of thinking of course is Frank Hoffman's conception of 'hybrid warfare', where low-tech terrorist tactics are mixed with higher-tech capabilities, often obtained through a state-sponsor. It has been argued that as these are the wars that are being fought now, they are the only wars likely to be fought by the West in the future and that we should, therefore, dispense with 'irrelevant' high-tech, 'Cold War', equipment. This is a somewhat futile discussion. Although the emphasis may have changed, there is nothing particularly new, or radically different, about the contemporary operating environment; and insurgencies are as old as warfare itself and mixing conventional and unconventional capabilities as 'hybrid warfare' is a strategy that has been adopted across history, from the Boer farmers of the High Veldt in South Africa at the beginning of the last century through to Hizbullah in Southern Lebanon at the beginning of this century.

These sorts of conflicts will undoubtedly continue, and may even proliferate, but highly credible trends analysis and many important strategic thinkers predict that the days of state-on-state conflict are also far from over. Many of the likely future sources of conflict, such as competition for water and energy resources and the impact of climate change, can only be resolved at the level of sovereign states and their interaction within the international system. Russia's willingness to use force on the margins of Europe itself, in Georgia last year, is a good indication that 'conventional' warfare is still very much a fact of international life and of course it's important to remember the four inter-state conflicts I've mentioned that the British armed forces have been involved in over the last twenty years. This demonstrates the essential uncertainty of the strategic environment and reinforces my conviction

to stake the RAF's future on the belief that we will not have to fight a foe with access to high-technology, conventional military capabilities at any time in the foreseeable future. Our recent history suggests that this would be a very dangerous assumption indeed. This leads me directly to the question of legacy, or 'Cold War', weapons systems. I've made it clear why I believe we need an air force with a balance of capabilities, and this may be particularly true as we transition from a period of undisputed American hegemony to a more multi-polar world, where we may have to operate in unfamiliar or unexpected coalitions, and possibly without the same level of access to US combat power that we have assumed and benefited from in the past. But there are some very unhelpful misconceptions about exactly what 'a balanced force' really means. The key is adaptability and, if we get this right, we're not necessarily in an 'either-or' situation, where force elements can only be used for conventional warfighting and not irregular warfare, or indeed, vice versa. The relevance of a piece of equipment is determined by the capability it enables and how adaptable it is to future operational needs, not just by its date of procurement and whether it was planned before or after the fall of the Berlin Wall.

For example, the soldier with a rifle in his hand is a Cold War weapon system whose equipment and training has been adapted to ensure that he is absolutely relevant and capable in current conflicts; equally, multi-role Tornado – which entered service in 1982 as a strike aircraft, optimised for low-level use in Europe against the Warsaw Pact – has been readily adapted for highly



Joint Helicopter Command's AH-64 Apache.

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effective use across the widest spectrum of operations from intense warfighting in Bosnia, Kosovo and Iraq, through low-cost, low-intensity but highly effective deterring, air policing, precise attack and reconnaissance operations over Iraq from 1992-2003, right through to its current counter-insurgency deployment to Afghanistan this year.

This level of adaptability is provided by the Tornado's innate design and configuration concept, which highlights the dangers of relying on more limited, niche capabilities, narrowly configured for one type of warfare. For example, it has been argued that a small, turbo-prop, aircraft would provide a cheap attack capability in Afghanistan. But its utility, and arguably survivability, would be markedly reduced in comparison with fast jets, such as the Tornado and Typhoon, because of increased vulnerability to less sophisticated enemy weapon systems, their reduced speed would limit response across the battlespace, and their more limited weaponry options and payload would reduce the deliverable effect at the precise time and place they were most needed. More importantly though, any such aircraft could not be used in other sorts of conflict with any confidence in their survival, such as when our Tornados and Harriers were called upon to operate against highly effective and integrated air defence systems in the Balkans and Iraq. Our relatively small size means that we simply cannot afford to implement specialised procurement strategies that establish force elements that are appropriate only for one sort of operation; the risk is that we end up equipped to fight the last operation or war and not the next.

Importantly, in this debate, the Typhoon is providing huge and adaptable capability today. As one of the world's leading fighter aircraft, it guarantees our ability to control our own skies; last year, for example, our quick reaction fighter-force was scrambled on just under one hundred occasions to intercept unidentified aircraft entering the UK's airspace including, within recent weeks, renewed incursions by Russian bomber and maritime aircraft. But the Typhoon also has an impressive and expanding, precision ground attack capability that is utterly relevant to current counter-insurgency operations and, just like the Tornado, also has the ability to use its sensors to provide, high resolution, full motion imagery of action on the ground, data-linked to troops in the field, providing a critical, real-time, ISTAR capability as well. The interest that is being shown in Typhoon by other air forces around the world indicates its value: they realise that this

level of capability is essential, when states such as China and Russia are exporting very capable, fifth generation fighter aircraft and sophisticated, 'double-digit' SAMs across the globe, often to states and albeit, indirectly, in the case of shoulder-launched SAMs to non-state organisations representing a tangible threat to future global security and our freedom of movement in potential hotspots in which UK forces may have to operate.

The Strategic Environment

I've spent some time discussing the implications of our recent operational history, and offering some thoughts about how this background highlights some key characteristics and requirements for shaping our future capabilities and force structure. However, defence clearly doesn't exist in a vacuum so let me turn to some of the broader challenges currently facing us. While it's tempting to think that we're living through uniquely difficult and demanding times, this particular occasion today reminds me vividly of the problems that faced Lord Trenchard in 1919 and which were so well captured nearly thirty years later when Air Chief Marshal The Lord Tedder wrote: 'We British are often accused of preparing for the last war, or even the last but one war. The rate of technical development is now so rapid, and the effects of changes in techniques so far reaching, that it may well be fatal to lag behind. For our own security we must think in terms of modern war. The last war is not modern it is out of date!'

We are not in the same parlous situation now, but defence in general is facing some compelling strategic questions and drivers. I would suggest that there are two factors in particular that will have a profound impact in the years ahead: The first is the pressure imposed by our involvement in Afghanistan and the legacy of what – for the RAF at least – was nineteen years of unbroken combat operations in Iraq. Quite rightly, our main effort today is in support of current operations in Afghanistan and this remains our overriding priority and largely drives our contemporary planning and activities. This is a 'war', a comprehensive campaign that we cannot afford to lose: for reasons of our national security that is,

A Tornado from No 13 Squadron.



and because of the potential impact on our national standing and credibility across the globe, not least, because of the implications for the future role and employment of NATO and other coalitions of 'the Willing'.

The consequences of failure for the credibility and reputation of the United Kingdom's armed forces and indeed, on the perceived utility of military force as a lever of national and international power, should also not be underestimated. One of the deeper, and potentially more troubling, implications of our experience in Iraq and Afghanistan is their impact on a generation of the populous that may now be convinced that military operations are prohibitively expensive in every sense: politically, financially and in human terms. The press and public reaction to the casualties suffered during Operation Panther's Claw in July and August this year, and the media focus on Wootton Bassett, and the continuing actual and potential impact of coroners' inquests all illustrate the point amply. But I remain convinced that there will always be occasions when military force is the appropriate tool, if not indeed the only option, to deal with particular crises and that – whatever their preferences and prejudices – future decision-makers will

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No 39 Squadron's Reaper UAV.



have no choice but to use it in certain circumstances. Therefore, it is the duty of all of us involved in defence – and again, I am conscious of the role that RUSI plays here – to engage with opinion formers and decision makers more generally – to help to build their understanding of the military lever, so that they can provide a more compelling explanation to the public of the rationale – and legitimacy – for the use of force when it is appropriate. This is the only way that we can begin to repair the relationship between that familiar Clausewitzian trinity of the government, the people and the military, and re-build the popular consent that will be necessary for future interventions. As the military, we have our part to play in ensuring that we continue to adapt, so that we can provide the most relevant and useful defence and security capability as a policy tool. Here, air power is particularly important, because if – and this is absolutely critical – if and only if we can continue to secure and maintain control of the air whenever and wherever the Government commit the armed forces, we will have the freedom to offer different options to our leaders. In some circumstances, these may include alternatives to the deployment of major land forces,

and the political commitment, and cost in blood and treasure that this will always result. We should not forget, for example, that the air policing of no-fly zones over Iraq by the USAF and RAF, and for part of this time the French Air Force, neutered Saddam's regime as a regional threat for eleven years, without the loss of a single Coalition life, and at the combined relatively low cost of less than a one billion dollars a year. Even where a significant presence is required on the ground, air power can act as a force multiplier to dramatically reduce our exposure within the construct of a joint campaign. General Karl Eikenberry, the Commander Combined Forces Command Afghanistan in 2007, made exactly this point when he wrote: 'Without air and space power, 500 to 600,000 troops would be needed in Afghanistan to achieve the same effects as the 40,000 soldiers, sailors and airmen we have there today. Air and space power provides the asymmetric advantage over

the Taliban such that no matter where they choose to fight, coalition forces can bring to bear overwhelming firepower in a matter of minutes. Moreover, putting 500 to 600,000 troops into the country may achieve the same military effect, but it could have a negative impact on the population; such numbers could appear as an occupying force, rather than a security assistance force. In short, there is no substitute for effective air and space power.'

This last point is of course particularly key. Ideally, the 'boots on the ground' required in counter-insurgency operations will eventually be provided by indigenous suitably trained forces, as these will be more sensitive to local conditions and often more culturally acceptable than foreign forces who may be portrayed and perceived as occupiers or invaders. Air power can be used to provide the supporting, high-end, technological capabilities, such as ISTAR and combat air that are more difficult and take longer for local security forces to develop. The second strategic driver currently challenging defence is, of course, the economic downturn and its social and political consequences. Although there are encouraging signs that the economy may be bottoming-out, the

long-term impact on the national exchequer has been significant and defence spending will have to compete with other government departments in what the shadow chancellor, George Osborne has described as an 'age of austerity'. While I would not wish to second-guess the outcome of any future comprehensive spending review, most analysts predict that whole government spending will have to fall in real terms by about 10% in the six years to 2016/17. Whatever political choices are made in the future, it is clear that defence will need to take account of the consequences of a fiscal squeeze, and this means that some extremely difficult decisions will have to be made.

We now have the opportunity to engage in a debate – which I firmly believe must be as wide-ranging as possible – to define what the United Kingdom's future role in the world should be, what contribution defence should make and what resources the Nation is prepared to commit to delivering this vision. We must also continue to resource the absolutely critical insurance policy – the so-called standing defence tasks – that underpin the first priority of any government, that of protecting its people. Only then can we sensibly determine the size, shape and structure of our forces. RUSI has already made an important contribution in this vital area through the ongoing programme of conferences it is running to address exactly these issues. However, I believe that this discussion is too significant to be confined just to the military, policy-makers, media commentators and academics; it must be held in the wider public too. There will be some critical questions that we cannot afford to shy away from. These range from the future scale, readiness and nature of military forces over the next ten years or so that the nation is prepared to train, deploy and sustain, through the affordability of some of our planned major defence procurements, to our role in multinational operations and the nature of our defence relationships with both the US and Europe. We also need an honest assessment of what constitutes the 'credible military threshold' that is required to give us the level of influence in various forums that we believe is critical to the UK's right to have a seat at the particular international tables.

Imagination and innovation will be needed to maximise the capabilities that can be provided. For example, the radical partnering arrangements with industry that we have adopted to support our aircraft fleets are on track to yield some two billion pounds worth of savings over the next five years. This demonstrates what can be done with a real will to embrace

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change and a genuinely innovative approach, but implementing this degree of revolutionary change has not been simple or easy, either in terms of our people, our processes and our potential ability to respond to unforeseen requirements and as someone once said, 'events, dear boy, events!' This may mean that we have to accept having fewer fleets of aircraft, vehicles and ships and using some of them, such as our larger Air Transport aircraft, in what might academically be judged inefficiently at times. However, the major cost driver in equipment terms is the through-life costs and that means that having fewer individual fleets is much more cost-effective than salami slicing each fleet. I would hope – and expect therefore – that there will be a similar appetite for decisions, some of which will be painful but necessary, across the rest of UK defence, if we are to wring the most out of every last defence pound. Similarly, our Future Strategic Tanker and Transport Aircraft programme is another ground-breaking, world-leading initiative, which aims to deliver affordable capability through a joint military-civilian enterprise that will share spare capacity with the civilian sector, necessitating operation by a mix of service and reservist personnel. Again, there is a whole raft of issues that will need to be addressed as the programme is implemented, but – as I've emphasised already – we must be prepared to continue to adapt, if we are to deliver critical relevant capabilities that otherwise would simply not be affordable. I believe that a truly comprehensive defence review must also consider the wider military contribution to the security of the UK homeland, especially within the context of the National Security Strategy. At this stage, with a nod to Lord Trenchard again, I should point out that it was the threat of air attack, at that time on Great Britain, which ultimately led to the formation of the Royal Air Force as an independent service, following the publication of the Smuts Report some ninety-one years ago. This still remains our *raison d'être* – albeit, no longer exclusively in the UK – and I've already mentioned the activities of our Typhoons on quick reaction alert both in the UK and, later this week, they will be beginning this task in the Falkland Islands. While maintaining the integrity of the United Kingdom's airspace will continue to be our most important task, not least during the London Olympics in 2012, I believe that there are other – and broader – ways in which the RAF can play a meaningful part in homeland security, notwithstanding the cultural, legal, historic and constitutional constraints that will have to be overcome.

The Pre-eminence of Information: the only Certainty of an Uncertain Future

I've made it clear why air power matters to defence, and explained how a capable air force, with a balanced spread of capabilities, is essential in providing the United Kingdom's armed forces with an edge in combat operations not just in war-fighting but across the entire spectrum of operations from deterrence to conflict. I've also highlighted some of the strategic factors that may affect the delivery of this capability. I'd now like to drill down into a little more detail, by offering some thoughts about how we can secure, enhance and exploit this asymmetric advantage that air power can deliver. As I've explained, air power is capable of, and must be prepared to, provide a broad spectrum of military response options to counter potential state and non-state adversaries, who are themselves likely to be equally agile, adaptive and innovative in often unexpected ways. Consequently, we must be able to take advantage of fleeting opportunities, and future combat success will depend almost entirely on our ability to make effective decisions, at pace, in an uncertain and complex environment. Network Enabled Capability – NEC – is by now a far from new concept; in fact, it has almost become a cliché, but I will suggest that it remains the key to securing air power's and our broader military and security advantage in the future.

The provision of accurate and timely information has always been critical to the success of any military activity. Although in itself, this cannot guarantee victory, history suggests that victory is impossible without it. Equally, information overload, where commanders are deluged with information, but starved of real knowledge, must be avoided. We have made some promising progress in both these areas. In Afghanistan, investment in information and communications technologies has enabled air command and control mechanisms to be developed that have permitted us to employ kinetic and non-kinetic effects at a high tempo, and across all levels of the operation. This has allowed us to be much more flexible in the way that we use capabilities so that, for example, what were previously considered to be purely strategic assets, such as NIMROD R1 SIGINT aircraft, have often been employed to support tactical engagements right down to platoon, or even section, level.

However, while these networks have provided situational awareness, the complexity of the situation on the ground, where clan and family allegiances mean that each village may require

a campaign in its own right to secure, means that commanders increasingly require shared situational understanding. Moving from awareness to understanding implies knowledge of motivations, fears and perceptions as much as force dispositions, capabilities and intentions; this cannot be achieved purely through the technical collection of intelligence, but requires a much more comprehensive fusion of information from all sources. I believe that the RAF is uniquely well-placed to take centre-stage in this process, because we have operated in a 4-dimensional battlespace for many decades, where NEC, and information management, have always been a key feature.

This means that our people are steeped in a tradition which promotes an intuitive and instinctive awareness of the importance of information, the potential of networks, and an understanding of their operation. This week is, of course, the anniversary of the Battle of Britain and next year will see the seventieth anniversary of that battle, and of the vindication of Fighter Command's integrated air defence system – itself based on a networked concept dating back to 1917. This critical system of systems remains a classic example of the way that data – from Radio-Direction Finding (radar) stations and Observer Corps posts – was collected, filtered, fused, analysed and disseminated, in this case using a network of land-lines and ground-to-air radio. The result was to enable air command and control and efficient battlespace management through shared situational awareness, providing battle-winning even war turning decision superiority for Dowding and Park – the two principal RAF commanders – and their battle staff. Of course our current Air Defence Ground Environment is a lineal successor of the 1940 system, but has been many times upgraded. During the early stages of Operation Enduring Freedom, the RAF was involved in the first attempt in history to create a truly comprehensive and persistent Intelligence, Surveillance and Reconnaissance (ISR) umbrella, providing an 'unblinking eye' capable of detecting all enemy activity. This was formed by a constellation of overlapping, multispectral, manned and unmanned air and space-based sensors, including our own E3-D, NIMROD R1 and Canberra PR9 reconnaissance aircraft at the time.

The RAF has built on this experience by developing our potential to exploit NEC. As I speak to you today, RAF REAPER unmanned aircraft, while ostensibly engaged in the direct tactical support of land forces using secure data and video links twixt soldier and pilot operator, are also at the same time being cued onto emerging

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threats by wider search assets such as the ASTOR system or NIMROD surveillance aircraft: the analogy here is searchlight to flashlight to spotlight. This sort of integration increases the utility of particular systems and the potential of other systems such as the soon-to-be-introduced Watchkeeper to contribute to this operational level knowledge is significant here.

It is exactly this kind of evolutionary approach that we are developing to meet contemporary challenges, not least in increasing our contribution to the counter-IED battle, which you will be only too aware is a real focus for current work inside and outside Ministry of Defence (MoD). Coalition and RAF air platforms are being increasingly integrated and cross-cued to down-link, process and disseminate vital information including change-detection imagery, Full Motion Video and near-real time radar data on a common bearer for easy access. This shared information is enhancing responsiveness today and has much more promise, so that officers can use this tool not only to respond to what is happening, but also as importantly by involving air-minded individuals in planning, for example, convoy missions.

This illustrates that the importance of NEC for the RAF is not just in the development of enabling networks, or the interconnected application of air power per se – I've described how we've already been operating in this manner for many years now. Rather, it's in the potential that it now provides for us to fully integrate and synchronise our capabilities and activities, at speed, in the Joint environment, with other government departments and agencies and with coalition members to achieve a shared understanding.

With its ability to be stealthy when required, the Joint Combat Aircraft will be able to conduct air-to-air, air-to-ground, close air support and ISTAR missions in passive or heavily defended airspace. The need to deliver air power support to tactical ground assets against a fleeting target will be instantaneously evident and rapidly coordinated, with mission changes to Air Tasking Orders replicated across the joint battle-space and immediately available for visualisation on the Common Operating Picture. The latest imagery, derived from say land-controlled tactical UAVs will be readily available, on and via the air tactical network, to the JCA cockpit and weapons system. This will enable fleeting and constantly moving targets to be found, re-acquired and tracked whilst threats are simultaneously avoided and suppressed. With positive target identification established, this does of course

require a degree of coordination with an efficient joint targeting process for the aircraft to be authorised to engage when the pilot assesses that ROE collateral damage constraints have been mitigated. Follow-up battle damage assessment conducted by airborne sensors will be made available in near-real time for assessment by the command chain.

This sort of scenario is well within the limits of what is pragmatically possible in the near-term future, and illustrates how an evolutionary NEC approach can unlock the true potential of air power to deliver an agile and adaptable asymmetric advantage in combat. However, there is one note of caution that I should sound: as our reliance on networks increases so, clearly, does our susceptibility to both Computer Network Attack (CNA) and Exploitation (CNE). Indeed, in a world where information is becoming a capability in its own right, it could quickly become a critical vulnerability. This threat is dynamic and proliferating, and the RAF is taking it very seriously. Working with the MoD Chief Information Officer and his counterparts in other Government Departments, we are already operating a Computer Network Defence (CND) capability in parallel with the successful delivery of NEC, identifying and addressing threats as early as possible during the capability process. Cyber warfare is a reality today and we must invest appropriately if we are to continue to be able to build and rely on our networks and computer based decision matrices.

Conclusion

I've covered a lot of ground, from the strategic drivers and the context provided by our recent operational experiences right down to some of the tactical detail. Much of this, and the rest of our current thinking about the employment of air power, is encapsulated in the new edition of AP3000 – British Air and Space Doctrine. This substantial new edition will be launched formally here at RUSI in the next few weeks, but it's already available online, at the RAF and the RAF Centre for Air Power Studies websites. This new edition aims to demystify air power by describing it in simple, jargon-free language, explaining its utility in terms of just four key roles: control of the air; air mobility and lift; intelligence and situational awareness; and attack. The emphasis is on how air power can contribute as part of a comprehensive, inter-agency, approach to operations, set within a framework of Joint Action.

While the new edition of AP3000 codifies a change in emphasis, it's apparent to me that the principles that underpin the RAF's delivery of the UK's air power were equally evident in Lord Trenchard's day. We often forget that his vision was for an independent air force, rooted in the concept of expeditionary warfare and the inherent jointness of air operations, stemming from his experience of the Western Front, and that he was very eager to embrace new technology as it emerged. Above all else, he had a deep-seated belief that the RAF's success would depend on its people. In all these respects, as I hope I've made clear, little has changed. The outstanding and highly courageous performance of RAF personnel, particularly those aircrew flying Royal Air Force Support Helicopters such as the Chinook and RAF Hercules aircraft and RAF Regiment Gunners working on the ground to provide the essential force protection specialist capability at the precious and critical airheads, bear witness to this everyday in Afghanistan. If the RAF is to continue to deliver an asymmetric advantage to the United Kingdom's combat and security operations, it needs to continue to be able to 'cash that cheque that Defence has signed it up to' and to be able to deliver the necessary air power in the future. To that end it is vital that the Royal Air Force continues to be capable, cost-effective and adaptable. But it can only do this, if it recruits, trains and retains physically and morally strong men and women with the innate courage and agility to adapt to a dangerous, complex and dynamic environment, especially as the information domain becomes increasingly pervasive.

The tradition established by Trenchard means that the RAF is culturally and technically adept, and that our people are intuitively comfortable working in the 'information space'. This, I believe, will be central to our success in the future, as we prepare to adapt to the new challenges that will face us, including cyber threats.

The last nineteen years of continuous combat operations has seen the RAF transform while 'in contact' with adversaries. Although it may be a smaller air force than the one that I joined, its ability to deliver battle-winning asymmetric combat air power has never been greater. I am proud and deeply honoured to lead an air force that is far more capable, combat-experienced and cost-effective across the whole structure than it has relatively been perhaps at any time in its history and certainly since the end of the Second World War.

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King's College London RAF College Staff.

When we came to the Royal Air Force College in November 2005 to establish a new academic department as well as a broad and critical university-level curriculum for officer cadets, my lecturers and I were motivated by one overriding thought: the Royal Air Force that we had long admired may not be the biggest air force in the world, but it darned well should be the best. And to be the best it needs to be the brightest. With the possibility of further size reductions flowing from the Strategic Defence Review that will almost certainly follow the General Election in 2010, this overriding thought has become something of a mission.

Interpreting this imperative in terms of our own humble role within the RAF, my lecturers and I have worked with course sponsors to design a curriculum and create teaching and learning philosophies aimed at helping the RAF to develop junior officers who are:

- Globally, politically and culturally astute
- Conscious of their society's ethical framework
- Familiar with the RAF's rich history, key concepts and contributions to peace
- Mentally agile
- Capable of critical thinking

As the lecturers and I commenced developing courseware in partnership with RAF trainers we all felt a profound sense of

responsibility to equip our junior officers with the cognitive skill-set necessary to ensure that they will remain safe, credible and effective when they serve on operations. The skill-set needed in Afghanistan, for instance, is different in many ways to that needed in previous generations, when war and conflict were easier to understand and the strategic environment was more predictable and less ambiguous.

We recognised immediately that we now needed to make sense of and explain the nature of current operations and those likely to occur. We needed to identify and implement the types of training and education best able to create well-rounded and physically and intellectually robust junior leaders

who can flourish in or while supporting those operations.

The key word in my previous sentence is "leaders". My lecturers and I naturally understand that we have different imperatives to those found in civilian university programmes. We are not producing writers or journalists or teachers, or even scholars like ourselves. We are producing junior officers, who shortly after commissioning may be leading others in dangerous and confusing environments and situations that are, thankfully, alien to almost all civilians. Our cardinal role, therefore, is to support the development of leadership – in a manner and with concepts consistent with the Mission Command philosophy taught by OACTU's leadership instructors – by enhancing cadets' problem-solving skills, intellectual agility and understanding of strategy, war and ethics.

The Air Power Studies team I oversee — currently comprising thirteen King's College London staff — teaches primarily throughout IOT's first two terms. Our curriculum is consistent with mainstream university courses, both in terms of the intellectual level of tuition and the rigour of assessment. We intend our lectures to convey basic information, provide context and meaning and raise important questions. We try to make lectures as interactive as the class sizes will allow; that is, to be engaging dialogues, not stuffy monologues. Yet the cadets' best learning by far occurs

Air Power Studies and the RAF

Dr Hayward, Dean of the Royal Air Force College

in small-group tutorials (called Syndicate Room Discussions, or SRDs), where we give the cadets opportunities to research, test and debate their ideas in a free and open-minded but structured fashion. With students taking ownership of their own ideas, and exposing them to peer critique from classmates, these SRDs have made a highly positive impact on the way the cadets perceive such issues as truth, objectivity and bias.

We have created an Air Power Studies curriculum that deliberately resembles an advanced staff course in its breath of themes and topics, although it is naturally pitched at a far less sophisticated level. The curriculum unfolds in a logical fashion, with ideas developing from broad to focussed and general to specific. Our teaching philosophy places more emphasis on interpretation and explanation than on narrative and description. In other words, we encourage cadets to value more than just "the facts" about events and actions. We get them to wrestle with ethical considerations, competing cultural and national viewpoints and the complex relationship between cause and effect. During 2008 and 2009 we strengthened our already-credible ethics package in response to officer cadets' needs (as revealed in their course validations) and the guidance and encouragement of the RAF's senior leadership.

My lecturers always look to reward logical and source-based arguments in those areas, as well as evidence of imagination and reflection, when they mark the cadets' tests, exams and essays. Key among the assessment pieces are essay-style exams and, in particular, the Bandar Essay, in which each cadet must research, develop and express an argument in answer to a complex essay question that he or she chooses from a set list. A typical Bandar question might be something like, "Why does the United Kingdom retain nuclear weapons?" Another might be, "How just was NATO's war against Yugoslavia in 1999?"

Our curriculum begins in the first term with a series of lectures and SRDs on the international system that pose weighty questions: Why do States not always manage to get along? Why do they compete as well as cooperate? Why does statecraft not always manage to prevent conflict? Why do States sometimes use war as their means of solving conflicts? What is war's inherent nature?

Third Article - Air Power Studies (2)

Cadets then learn about ideas and assumptions on morality, which they get to critique. How relevant is the Just War doctrine that has evolved for two thousand years? Why should wars be fought for ethical reasons, as opposed to more pragmatic "real" reasons? Why should they be fought ethically, even when perhaps the opponent is fighting unethically? What are the consequences of acting (or being perceived as acting) unfairly or disproportionately?

All these big questions establish a framework for the capstone module on air power and its evolution that commences in IOT's second term. This module generally follows chronology and traces the development of military aviation from the First World War to the so-called War on Terror. Yet it is also taught thematically, and then via case studies, so as to draw out the central questions. In what ways has air power transformed strategy? How sensible were early beliefs that air power should be used primarily against civilians and their will and morale? How effective were attempts to implement such strategies? How just were those attempts? What new ideas have allowed strategists and practitioners to use air power in different ways? How effective have they been in theatre-sized wars since 1945? How successful have they been during the War on Terror? In what ways can air power develop so as to serve the cause of peace in coming decades?

During the third term, all cadets undertake a two-week Basic Air Warfare Course at the RAF's Air Warfare Centre Cranwell. Taught by RAF instructors with recent operational experience as well as some of my academics, this course explains to cadets how on a day-to-day basis they will, as junior officers, be utilising the traditions, theories, concepts and doctrine that they have already learned from my Air Power Studies team. The focus is primarily practical, although the instructors do stress the context and consequences of all tactical activities.

Cadets also benefit from visits to one of Lincolnshire's air museums and a Second World War RAF operations room. Bringing alive the valour and effort of their forebears, which are explained by my staff, these visits strengthen cadets' esprit de corps and help them to comprehend the continuity of service given by generations of RAF officers and airmen. By visiting a modest local RAF cemetery, in Scopwick, they also gain a poignant reminder of the sacrifice that the British Empire's airmen made in their tough fight against tyranny.

Looking back on my first four years at the College I do feel satisfied by the progress that we have made in creating a more effective balance between traditional "informational" training and broad and critical

"transformational" education. The educators that I have the privilege of overseeing have undoubtedly introduced a broader and more challenging academic curriculum than the RAF College has had for some years.

Yet we must not become complacent. Our officer cadets deserve our best efforts to keep our curriculum responsive to their changing or newly emerging needs as well as relevant to the strategic and operational environment in which they will serve. This issue of relevancy is critical to us. We would be failing in our duty of care if we allowed the curriculum to stagnate or to cease to evolve in keeping with the world's ever-changing strategic concepts or experiences.

Cadet reading in CHOM accommodation.



Third Article - Air Power Studies (3)

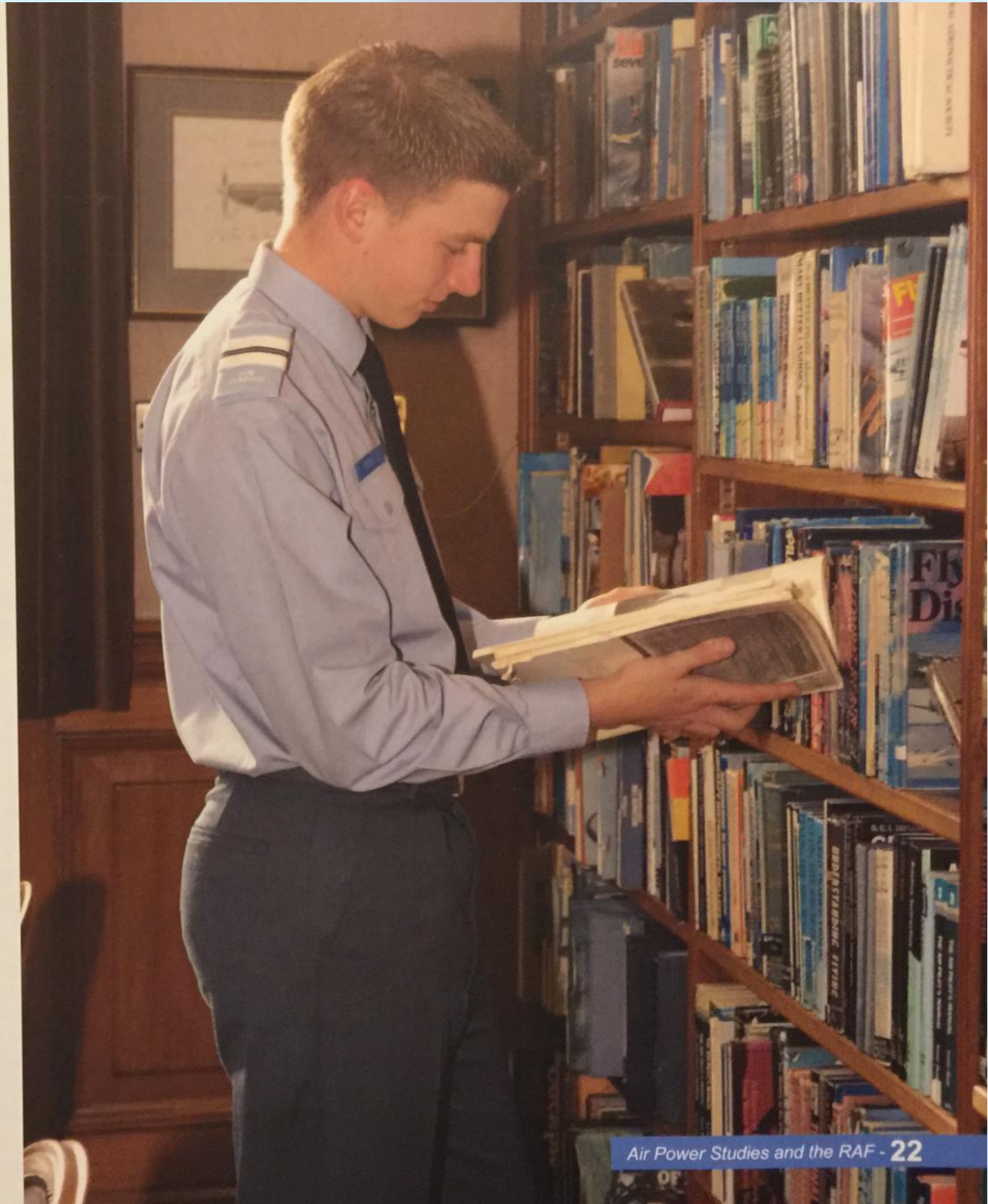
Some of the other challenges confronting me in coming years relate less to IOT and more to my wider responsibilities as Dean and as a Director of the RAF's Centre for Air Power Studies (RAFCAPS). During 2008 my lecturers began introducing small, discrete but carefully focused academic air power studies programmes into various non-commissioned officer courses taught at RAF Halton, which comes under the College's organisational umbrella. This bold RAF initiative has made the RAF perhaps the only air force in the world to extend university-style broad and critical education beyond its corps of officers. The rationale is wise and impossible to challenge: if greater knowledge and comprehension and better problem-solving abilities bring increased safety, credibility and effectiveness, then all RAF personnel deserve them. Personally I think it is a wonderful initiative and — while I am acutely aware of my grave responsibility to devise thoughtfully and introduce gently an effective curriculum pitched at the right experience levels for NCOs — my team and I are proud and excited to be involved. We even now have a lecturer based permanently at Halton.

The UK's first MA degree in Air Power Studies

2009 proved to be an especially busy year for me and two of my lecturers, Drs Andrew Conway and Christian Anrig. We found ourselves devoting a huge amount of time and effort to the creation of the United Kingdom's very first masters degree in air power studies. Created especially for the Royal Air Force, but also open (and of tremendous benefit) to air power-minded civilians, this new MA degree, titled, Air Power in the Modern World, is an interactive King's College London distance-learning programme created especially to address the needs of the modern RAF as it equips its personnel to perform their duties as safely, effectively and credibly as possible in the new strategic arena which is, and might be for some years yet, characterised by counter-insurgency warfare. The RAF responded to the ambiguities and uncertainties of that environment and to the RAF's own diminishing size by providing its personnel with structured education — including the new MA — that significantly develops their strategic understanding, intellectual dexterity and problem-solving abilities. The new degree explores the relationship between integrated and independent air power (what we used to call "tactical" and "strategic" air power) and develops ideas pertaining to the former that are directly relevant to today's operational realities. Any RAF personnel wanting information on the new air power studies MA and the RAF fellowships that fund several places on it should go to: <http://www.kcl.ac.uk/schools/sspp/ws/grad/programmes/wimw/raf/>

The Royal Air Force Centre for Air Power Studies

As well as having responsibility for delivering coherent curricula on various RAF training and educational courses, I have the tremendous privilege of being one of the three directors of the RAF's national think-tank: the Royal Air Force Centre for Air Power Studies (RAF CAPS), which was launched on 23 August 2007 by Air



Third Article - Air Power Studies (4)

Chief Marshal Sir Glenn Torpy KCB CBE DSO ADC BSc (Eng) FRAeS FCGI RAF, who was then the Chief of the Air Staff.

In his speech at the Centre's launch, Sir Glenn acknowledged that the RAF's relationship with academia in recent years had been "patchy" and that the new Centre represented the ability to harness enormous intellectual horsepower by bringing thinkers from various academic institutions together with RAF air power doctrine and concepts specialists. We humbly believe that things are now far less "patchy".

Nominally based here at the College but with constituent parts located elsewhere, the Centre has three units operating synergistically at its core: the Air Power Studies Division of King's College London; the Directorate of Defence Studies (RAF); and the Air Historical Branch (RAF).

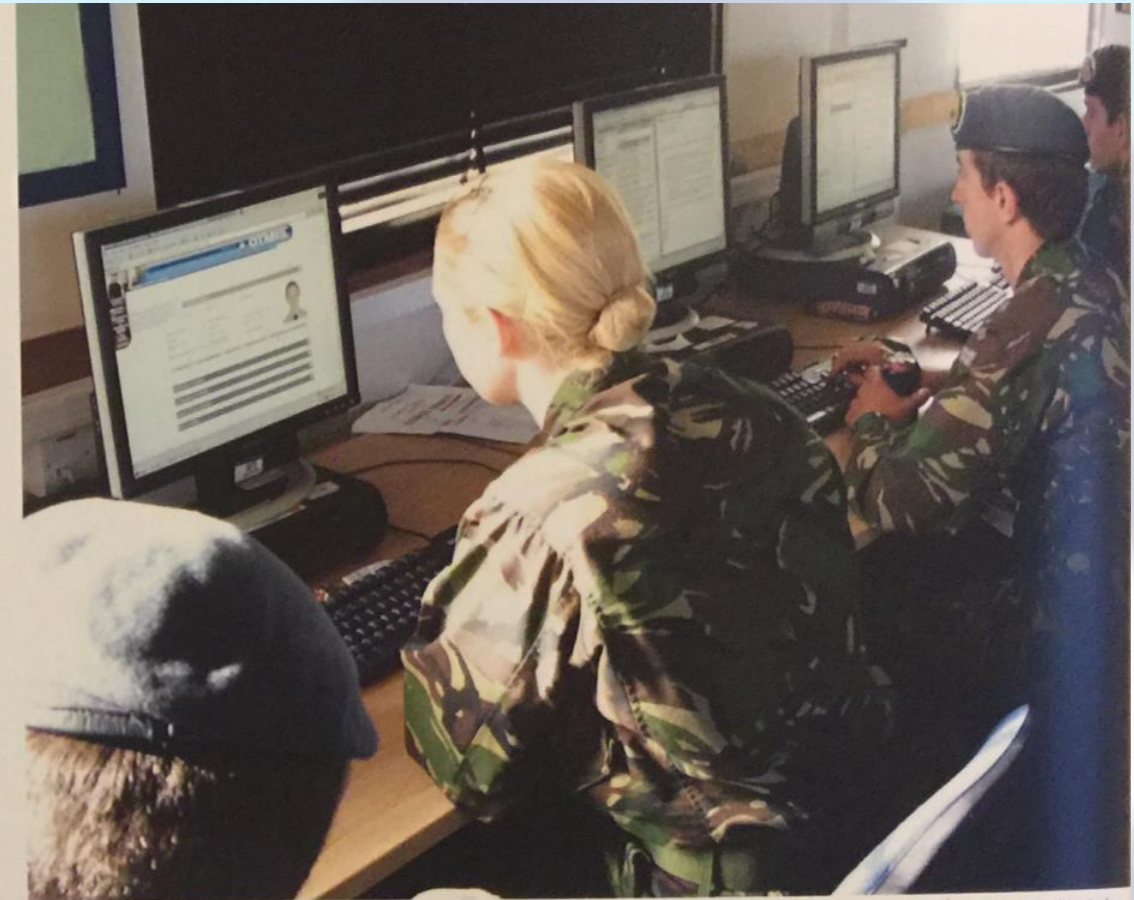
The Centre aspires to strengthen the relationship between academia and the RAF and to utilise the enhanced collaboration to develop and stimulate thinking about air power in both areas, as well as more broadly throughout the United Kingdom. The RAF CAPS is ideally placed to enhance the RAF's current and future operational effectiveness by improving the ability of the Service to apply lessons from the past to both the present and the future.

The Centre aims to:

- Act as the RAF's centre for strategic and conceptual thinking about air power.
- Encourage and promote the study of air power, particularly within the Service and academia, but also throughout the broader intellectual community (including the media and think-tanks).
- Develop a reputation for academic excellence in air power studies in order to become the UK's foremost centre for air power thinking.

Since its launch in 2007, the RAF CAPS has earned a reputation as a leading centre of excellence in the field of air power studies. Its website — <http://www.airpowerstudies.co.uk> — is the first entry to appear on major internet search engines, including Google and Yahoo, for keyword searches including "air power" and "air power studies" and the site is now gaining more than 2,000 "hits" each month.

My fellow RAF CAPS directors and I have tried to make the website as user-friendly and useful as possible. With an aspiration for the website to serve as a "clearing-house" of internationally garnered information on air power ideas, concepts and study, we have created a regularly updated "Calendar of Events," which lists air power conferences, seminars, workshops and lecturers from across the United Kingdom and beyond. Perhaps more importantly, we have made important resources available on the website for free downloading as PDFs. These resources include the RAF's flagship journal, *Air Power Review*, which contains cutting-edge scholarship on air power. The website's free resources also include key doctrine publications, notably the brand-new fourth edition of AP3000: *British Air and Space Power Doctrine*, authored by my fellow director, Group Captain Al Byford, as well as entire downloadable books, such as my own edited collection, *Air Power, Insurgency and the "War on Terror"*. For air power historians we have initiated the online publication of rare historical documents on air power, including WWII campaign narratives produced during and immediately after the war by the Air Historical Branch (AHB). Mr Seb Cox, the Centre's third Director and the Head of the AHB, is the prime architect of this important initiative.



Cadets taking an opportunity to catch up with study.

The RAF CAPS is naturally more than a "virtual" centre. It runs annual conferences and workshops and it publishes in book form the proceedings. It liaises and works collaboratively with similar air power centres in other countries, including France, India and Australia. It also contributes significantly to the RAF's academics engagement strategy. Twice in recent years the RAF CAPS has brought various distinguished academic leaders together with key RAF strategists and policy-makers so that the RAF can have its own ideas critiqued by experts. Throughout 2010 we will continue to assist the RAF's senior leadership with its wider engagement activities.

To summarise, four years ago I elected to transfer to the RAF College from the Joint Services Command and Staff College because, after teaching mid-career and senior officers, I couldn't wait to work again with energetic, idealistic and curious young officers-to-be. I thought that perhaps my lecturers and I could help the RAF to develop a new generation of junior officers who might grow to love knowledge for its own sake and who could think freely and serve Her Majesty responsibly by weighing evidence and forming judgements based on imagination, logic, ethical awareness, the courage of convictions and an appreciation of cause and effect. As it transpired, from the moment my team arrived at the RAF College we have loved interacting with the hundreds of bright and committed young men and women who have joined the RAF in order to serve their Sovereign as officers. Their focus, effort and initiative are quite unlike those of any students we have taught before. We are very fortunate academics indeed.

Fifth Article - Cadet's Perspective on Patton (1)

Analyse the Command and Leadership Strengths and Weaknesses of General George S Patton

Officer Cadet Fulker, B Squadron

Always to be best, and to be distinguished above the rest¹.

Homer, *The Iliad*

There is only one thing, one thing needful: one has only to dare!²

Fyodor Dostoyevsky, *Crime and Punishment*

Patton himself identified the inherent problem in attempting to analyse the command and leadership strengths and weaknesses of an individual: 'Leadership is the thing that wins battles... I have it, but I'll be damned if I can define it.'³ They are difficult characteristics to measure objectively, especially in a man as multi-faceted as Patton. If our assessment is based on results, then few have achieved as much as Patton did in the final years of WWII. If we base it on errors and mistakes, then few have stained their reputation to the extent Patton managed. Opinion amongst contemporaries and scholars run the gamut from the lows of his colleague, Omar Bradley⁴, to seemingly hagiographical biographies that rate him as the quintessence of the attacking field commander.

Near-consensus has been achieved in defining the qualities of exceptional leadership and command; Adair points to "enthusiasm, integrity, toughness or demandingness, fairness, warmth, humanity and humility"⁵ as crucial. Hayward narrows it down even further: 'the only trait possessed by all effective commanders is courage'⁶. Patton could be held up to these ideals to see if he meets them but this would be an endlessly debateable hermeneutic process and would ignore the most important impact a commander can have: how his presence directly affects the results of a war. In considering this it would be most useful to look at his time as a field commander in WWII, with his exploits commanding the Third

Army being particularly indicative. This period was the summation of Patton's career, where he exercised all he had theorised and developed in the preceding decades.

As a man and commander, it has become almost a heuristic maxim to call Patton complicated. He has been considered 'flamboyant'⁷, a 'great showman'⁸, 'volatile'⁹ and at times, a battle-hungry martinet. He installed and upheld strict discipline and order which caused a minority of his troops to detest him, but inspired others to great loyalty for their commander.

John Milton once wrote: 'The mind is its own place, and in itself Can make a Heav'n of Hell, a Hell of Heav'n',¹⁰ this was certainly true of Patton; beneath the supremely confident image he presented of a profanity-spewing 'Old Blood and Guts' lay a man 'haunted by personal demons.'¹¹ However, he also thrived on warfare and revelled in the heat and sting of battle. This has been variously attributed to his desire for glory, belief that destiny was weighing on him, and guilt over the lives lost in his personal quest for a place in history. As a result, he could veer from tremendous enthusiasm and drive, to bouts of severe depression and self-doubt. He would never allow his weaknesses and doubts to be seen by his men though, as he saw himself as a symbol to them and believed it highly beneficial to morale to be frequently visible at the front.

It can then be said that aspects of Patton's personality could weaken his command and leadership, but because the doubting and questioning remained hidden, they concerned no one else and did not lead to mistakes on the battlefield. In fact, consensus seems to be that Patton was such a success at presenting a constant image of boldness and energy that he 'inspired his men to fight harder and his public to adore him more'¹² and that he had 'the ability to establish strong rapport with his troops.'¹³

However, Patton made several errors that were unrelated to his effectiveness as a military tactician or theorist. These errors were due to the distinctive personality traits, such as toughness and aggression, which caused him to be so admired. He was prone to thoughtlessness in speeches, his comments at Knutsford being perhaps the best example of a soldier naïve in political matters. His decision to liberate Hammelburg has been called 'the least defensible decision he ever made.'¹⁴ Patton endangered his own men on a mission to rescue Johnny Waters, his son-in-law, when he had professed to always put them first. It was an angrily received choice that undermined the trust held in him as the 'soldier's leader'.¹⁵

He made two much greater errors prior to this though, that have come to be collectively known as 'the slapping incidents'. Patton habitually visited field hospitals where he would offer words of encouragement to the wounded and present them with medals. He often became very emotional, even tearful, as he walked amongst those who had sacrificed so much for him. He had also been under a great deal of pressure and stress over the wonderfully successful race to Messina. It was in this state that he came across the battle-fatigued Pvt. Kuhl and became so enraged at his perceived cowardice that he repeatedly slapped and berated the man. This was repeated a week later with Pvt. Bennett.

Clearly, Patton's behaviour was grossly unacceptable and scholars have held these incidents to be the greatest indicators of the weaknesses he had as a commander. Forty believes it meant he 'could not in future be trusted'¹⁶ and D'Este claims that he demonstrated that 'his emotional stability was unreliable'.¹⁷ His ambitions for senior command were also considerably hampered; the extent of this though is still debated. The common perception is that the slappings cost Patton command of Overlord. D'Este

1. Homer (1987), p. 134

2. Dostoyevsky (2001), p. 328

3. Patton (1947), p. xiv

4. Although Bradley's opinion of Patton swayed, his autobiography: *A Soldier's Story*, was frequently scathing.

5. Adair (2009) pp. 16-17

6. Hayward (2003), p. 21

7. Macksey (1971), p. 235

8. Whitehouse (1960), p. 303

9. Forty (2000), p. 335

10. Milton (2000), p. 9

11. Axelrod (2006), p. 77

12. Lee Lanning (1997), p. 348

13. Blumenson (1985), p. 105

14. D'Este (1996), p. 717

15. Blumenson (1985) p. 296

16. Forty (1993), p. 118

17. D'Este (1996), p. 550

Fifth Article - Cadet's Perspective on Patton (2)

believes that Patton would have headed Eisenhower's list of candidates but then was only 'willing to tolerate his eccentricities... under the right conditions.'¹⁸ Blumenson agrees that 'because of his character flaws'¹⁹ Eisenhower would not let Patton go higher than an army commander. However, Axelrod disagrees and claims that the decision over command of Overlord was made months before the slappings became public and Bradley was deemed the safer choice: 'the truth is that Eisenhower would never have chosen him for the job.'²⁰

It is undeniable that the slappings point to a great weakness in Patton as a commander and leader. His hubris and his inner struggles led to this irrational, unstable behaviour and destabilised his authority and position. It caused many to lose respect for him, even hate him, and it certainly does not meet Adair's ideals of warmth and humanity in a commander.

However, a lesser commander and leader would have been removed in disgrace had they committed such acts but Patton was retained as Eisenhower considered him 'indispensable to victory'²¹. The fact that Patton survived the slappings proves that he was a field commander with monumental talent.

To judge Patton's strengths as a commander and leader one only has to look at the achievements of the Third Army. From 1 August, 1944 to 8 May, 1945 the Third advanced from Normandy to Austria and captured, killed or wounded 1.5 million Germans and captured or destroyed nearly 6000 German guns and tanks.²² It was Patton's ambition and daring that had a direct impact on these results, without him it is certain the Third Army would not have been so dramatically successful.

It was Patton's innovation in formulating new and punishing armoured tactics; Patton who studied the roads used by William the Conqueror to find 'ground which was always practicable'²³; Patton who ensured that 'air-ground cooperation never worked better'²⁴ due to his close relationship with Weyland and the XIX Tactical Air Command; Patton who spent most of his time at the front, enduring the icy winter with his troops, thus inspiring them

to drive harder; Patton who perceptively theorised that one should 'attack weakness'²⁵ and 'make plans fit the circumstances'²⁶ and executed these theories so they had the maximum impact.

Perhaps his most famous and successful command strategy was relentlessly driving forward: 'attack, attack, attack, and, when in doubt, attack again'.²⁷ The culmination of this was Patton's turning of the Third Army 90 degrees north, marching them through snow and ice and without rest and setting it against a resurgent and reinvigorated enemy. It resulted in the successful and crucial relief of Bastogne and the German breakout being repulsed that effectively ended the Battle of the Bulge. Forty calls this 'a miracle of co-ordination, control and organisation'²⁸ and Axelrod his 'defining moment'²⁹.

It was these successes in preparing and directing the men and units of the Third that led to Patton being acclaimed as the preeminent field commander of WWII; a figure no less than Field Marshal von Rundstedt stated that 'Patton was your best.'³⁰ It was these successes that meant Patton has been placed in the pantheon of the greatest commanders there have ever been. It was these successes and the command and leadership strengths they emanated from that vindicate him as worthy of this consideration despite the weaknesses he displayed.

Perhaps it is most fitting to think of Patton in the Heroic context that was so dear to him. Although probably considered by his critics as 'mad past recovery, but with frequent lucid intervals'³¹, Patton was no quixotic fool, his goal was to be the very best and this is exactly what he became.

Bibliography

- Adair, John (2009), *Effective Leadership* London: Pan Books.
- Axelrod, Alan (2006), *Patton: A Biography*. New York: Palgrave Macmillan.
- Bradley, Omar N. (1951), *A Soldier's Story*. New York: Henry Holt.
- Blumenson, Martin (1985), *Patton: The Man Behind The Legend, 1885-1945*. New York: William Morrow and Company, Inc.
- Cervantes (1993), *Don Quixote. Ware: Wordsworth Editions.*

D'Este, Carlo (1996), *Patton: A Genius For War*. New York: Harper Perennial.

Dostoyevsky, Fyodor (2001), *Crime and Punishment* (New York: Dover Publications, Inc.)

Forty, George (1993), *Tank Commanders* (UK: Firebird Books Ltd.)

Forty, George (2000), *The Reich's Last Gamble* (London: Cassell & Co.)

Hayward, Joel (2003), 'Explaining Command', in Glyn Harper and Joel Hayward eds., *Born to Lead?* (Auckland: Exisle Publishing Limited), pp. 15-26.

Homer (1987), *The Iliad* (London: Penguin Books)

Lanning, Michael Lee (1997), *The 100 Most Influential Military Leaders* (London: Robinson), pp. 345-8.

Macksey, Kenneth (1971), *Tank Warfare* (London: Rupert Hart Davies Ltd.)

Milton, John (2000), *Paradise Lost* (London: Penguin Books)

Patton, Jr., General George S. (1947), *War As I Knew It* (New York: Houghton Mifflin Company)

Whitehouse, Arch (1960), *Tank* (London: Macdonald & Co Ltd.)

General Patton, IWM EA357



18. Ibid. p. 550

19. Blumenson (1985) p. 213

20. Axelrod (2006), p. 121

21. Blumenson (1985), p. 222

22. Patton (1947), p. 331

23. Ibid. p. 92

24. D'Este (1996), p. 637

25. Patton (1947), p. 5

26. Ibid. p. 116

27. Ibid. p. 308

28. Forty (2000), p. 335

29. Axelrod (2006), p. 149

30. Blumenson (1985), p. 296

31. Cervantes (1993), p. 114

Sixth Article - Initial WSO Training (1)

Royal Air Force Initial Weapon System Officer Training

Flight Lieutenant Robinson, Flight Commander 16 (Reserve) Squadron

"Man is not lost"¹

So we still need WSOs, then?

The trend towards single-seat or two-pilot air platforms has been remorseless over the last decade or so, but there are still many vital RAF operational aircraft that count a weapon system officer (navigator, in old money) as part of the crew: for example the E-3D, C-130K and, importantly, the Tornado GR4 and the brand new Nimrod MRA4. So each year some 16 bright young budding 'WSO' students enter the flying training system after graduating from the RAF College. Their first task is to navigate to B Flight, 55 (Reserve) Squadron, for their initial navigation training on the mighty Grob 115E Tutor.

B Flight is located with the other Cranwell Tutor units at the No 1 Elementary Flying Training School site, affectionately known as 'RAF Rauceby Lane'. B Flight shares accommodation with 16 (R) Squadron, one of the RAF's Tutor pilot training outfits, so ab-initio pilots and WSOs start their training together, honing from the outset the 'bantering' skills they'll need when crewed together on the Front Line. The Flight's staff consists of a squadron leader Flight Commander, and three flight lieutenant 'ANIs' – Air

'Hot to trot' in the mighty Grob 115E Tutor.



1. 'Man is Not Lost – The Log of a Pioneer Air Navigator 1933-46', by Gp Capt 'Dickie' Richardson; quoted from the Gospel of St John, Chapter 14 verse 6.

Navigation Instructors. These are all ex-fast jet WSOs, as the course standards assume student WSOs are destined for the GR4 Force.

Let's get airborne!

Not so fast! The 4½-month course begins with Exercise MOORTREK, a 2-week survival exercise which includes five days in the Field practising cross-country navigation, Search and Rescue techniques and living off the land: self-catering is the thing, with chicken, rabbit and squirrel provided 'in the feather'. Four days at the Aviation Medicine Wing, RAF Henlow follows, for flying kit sizing and an introduction to aviation physiology. Then Ground School proper: Five weeks of aerodynamics, principles of flight, meteorology, avionics, flight operations etc and, of great importance, maths and mental arithmetic - without calculators!

Arriving at Rauceby Lane for the 3-month flying phase, the students meet their three flying instructors. These are Qualified Pilot Navigation Instructors - QPNIs. They're experienced pilots: the Tutor has only two seats so there's no room for an ANI. The QPNIs are badged 16 (R) Squadron, and also fly as Qualified Flying Instructors on the pilot training side of the Squadron. The first training sorties take place after a couple of days' lectures and briefs, and when the flying starts, it's fast and furious. Trips 1 and 2 teach students the effects of controls and basic aircraft handling; how to do the Checks, use the radios, depart from and recover back to Cranwell, and fix the aircraft's position, both visually by map-reading, and when in/above cloud through the navigation avionics and Air Traffic radar services. Oh, they're also taught how to look out, find other aircraft and report their position quickly and accurately: "There are two sorts of aircraft; fighters and targets – which sort do you want to be?" Trip 3 includes stalling and spinning, after which the student knows how to monitor the pilot's flying, recognise potentially dangerous situations, and give appropriate warnings and advice on how to recover the aircraft safely.

Seems more challenging than I thought

You ain't seen nothing yet! Trip 4 tests the students' knowledge of Checks and radio calls and procedures; without a sound

The 'Office'.



grounding by this stage, they will not be able to keep up with the increasing workload of the following sorties. It's hard work: it's believed that ab-initio students' IQ drops by 50% when they don their 'bone-domes', and falls a further 50% when they press the radio transmit button. They're also taught emergency handling on Trip 4. That said, the main aim of the sortie is an introduction to basic visual en-route navigation techniques.

A digression: to get from A to B by air seems simple: measure the bearing and distance from A to B, add the Magnetic Variation to the bearing to produce a 'Track' and divide the distance by the speed to produce a 'Time'. Then fly to A, turn onto the 'Track', start the stopwatch, and after the 'Time' you're at your destination. Simple? Not! Wind pushes you off track and changes your ground speed; unless you correct for it you'll get lost. And the wind is rarely as forecast, so you need to use a 'Fix' to monitor your progress, correct your heading and revise your ETA (Estimated Time of Arrival). Moreover, you have to work ahead, as when you get overhead a Fix, or turning point, you can't see it because it's underneath you. Trip 4 demonstrates these points, and teaches a simple (!) set of procedures to get you from A to B in good order, using those mental arithmetic skills for airborne estimations and revisions of headings and ETAs. Ah, the glories of the 1-in-60 Rule and the Rule of 6ths (it's all about Sines) but that's not important right now!

Sixth Article - Initial WSO Training (2)



"We're there. Probably ..."

Got that? What's next?

Now we're into proper navigation routes, flown at 500ft 'minimum separation distance', ie above the ground or obstacles thereon. Initially the fixes and turning points are set, but soon the students are choosing their own routes, based on the knowledge they've developed about what stands out clearly on the ground. They are also taught to collate the pre-flight data on NOTAMS, weather, diversions etc, calculate fuel minima, and carry out the sortie brief. Airborne (on time, naturally) they learn the 'commentary': a continuous briefing of terrain and safety factors such as pylons, airfields, Controlled Air Space and industrial sites. They look out



"Fix is road through lake; right one o'clock, range one. We're 1/4 mile left of track. Pilot, fly to Fix."

for bad weather and obstructions as well as other aircraft, and they call both military and civil airfields as they transit close by. Their Airmanship and capacity develops rapidly. Sortie 7 introduces the Instrument Landing System and the WSO's responsibilities during a bad-weather radar recovery to Base.

Sortie 8 involves a practice diversion to RAF Church Fenton and, without stopping, another navigation route ('navex') back to Cranwell. Sortie 9 does the same thing to Marham, where the student should glimpse his/her ultimate 'office' – the Tornado GR4. Trip 10 goes north, to Leeming usually; landing, re-planning and returning to Cranwell on Trip 11: the routes are chosen over the high ground of the North York Moors and the Pennines to introduce the students to the particular techniques of operating in 'mountainous' terrain. The learning curve is exponential.

At least we can relax on the ground

You're joking! Meanwhile, ground studies proceed in parallel. There are pre-phase briefs and full use is made of a simple computer-based procedures trainer. Students take turns to deliver the Squadron's daily Met and Ops Brief, learning how to interpret weather data and present it to a critical audience. Then there's Aircraft Recognition; budding WSOs are introduced to a comprehensive syllabus of allied and potentially hostile military aircraft, with the daily slide quiz becoming increasingly difficult as the course progresses. There's some opportunity for sport,



Mental Dead Reckoning practice, courtesy of the computer-based trainer.

but flying takes priority; a spell of enforced grounding due to bad weather will see an enthusiastic use of the Gym, and/or planning the post-course Advanced Personal Development Leadership Training expedition. Budget constraints usually result in the APDLT's location being slightly less 'overseas' than first conceived, but it's valued and enjoyable nonetheless.

Go back to the flying

OK. More classroom work prior to Trip 12, the first of three medium-low navexes. By fixing with VOR/DME, the students learn to navigate a medium-level route at around 6-8,000ft, passing through civilian Controlled Air Space under a Radar Service and often in cloud, after which they descend to 500ft above ground and complete a low-level route, with the sortie lasting around 1hr 45mins. Trip 14 is the Final Nav Test, involving a medium-level leg to enter low-level at Diss in Suffolk, and return passing close to Norwich, East Dereham, Swaffam, Peterborough and Bottesford. This is a demanding sortie, but student performances are most impressive, particularly bearing in mind that the syllabus is only 14 sorties, amounting to just 18 flying hours.

Finished. What next?

Next stop for our budding WSOs is 76 (Reserve) Squadron at Linton-on-Ouse, where they fly the Tucano on a mix of medium and low navexes, including targetting, and at speeds nearly double

Sixth Article - Initial WSO Training (3)



"Man is not lost ..."

the Tutor's modest 120 knots. They're streamed after Linton to GR4 (the majority) or Nimrod (a few). Then it's back to Cranwell to learn, inter alia, the use of airborne radar in the Dominie, which is fitted with a nav/attack system that emulates the GR4's: the coveted flying brevet is awarded after this phase. Thereafter the Nimrod WSOs go to the OCU at Kinloss; the GR4 folk shuttle back up the A1 to Leeming for a spell on 100 Squadron's Hawks, for an introduction to high performance flight, formation tactics and air-air combat. Our fast-jet WSOs finally arrive at the GR4 Operational Conversion Unit at Lossiemouth some 2 years and 165 flying hours after starting at Rauceby Lane. Six months and 60 hours at the OCU sees them graduate to their first squadron.

Changes are afoot. The Military Flying Training System initiative is considering alternative training models. Meanwhile, we ANIs and QPNIs of RAF Rauceby Lane will continue to launch young men and women on their WSO careers with enthusiasm, dedication, humour, and much job satisfaction. Our unofficial motto goes on:
"Man is not lost ..."

The Goal: a Tornado GR4 of XV (R) Squadron – the GR4 Operational Conversion Unit at RAF Lossiemouth.



Seventh Article - OACTU View on Leadership (1)

Attributes for RAF Leaders: What Does OACTU Believe is Important?

Flight Lieutenant Artus, Deputy Squadron Commander, Leadership Training Squadron

During the final full term of 2009, in which Initial Officer Training Course 16 (B Squadron) graduated, I surveyed the whole of OACTU by email, asking a simple question: which do you think is the most important attribute of an RAF leader, and, if possible, why?

There are 9 attributes for RAF leaders. These are, alphabetically (as detailed in the charts numerically):

1. Able to handle ambiguity
2. Able to lead tomorrow's recruit
3. Emotionally intelligent
4. Flexible and responsive
5. Mentally agile – physically robust
6. Politically and globally astute
7. Technologically competent
8. Warfighter, Courageous
9. Willing to take risks

On analysing the data I split the responses into staff and cadet subdivisions – main IOTC squadrons and other significant parts (these were DELTA Flight – those undertaking additional leadership and/or officer qualities training, RAD Fit – those undertaking rehabilitation or administratively suspended from main squadrons and SERE, the Specialist Entrant and Re-Entrant course).

Key Comparisons

Staff and Cadets

As can be seen from the charts, the main attributes highlighted are 'Flexible and responsive' and 'Mentally agile – physically robust'. These two accounting for over 54% of all votes cast.

Cadets

Of the cadets, all sub-divisions (other than SERE) voted for 'Flexible and responsive' as their most important (RAD Fit voted it equal highest with 'Able to lead tomorrow's recruit'). In addition, all main IOTC squadrons 'Mentally agile – physically robust' received the second highest number of votes. The differences were:

RAD Fit – 'Able to lead tomorrow's recruit' (equal highest with 33%).

DELTA Fit – Emotionally intelligent (20% but with a small number of responses).

SERE – Emotionally intelligent (equal highest with 50% but with a small number of responses).

Staff

The staff's top two attributes were opposite to that of the cadets with 'Mentally agile – physically robust' receiving the highest number of votes (30%), compared to 'Flexible and responsive' (26%).

What do these results mean?

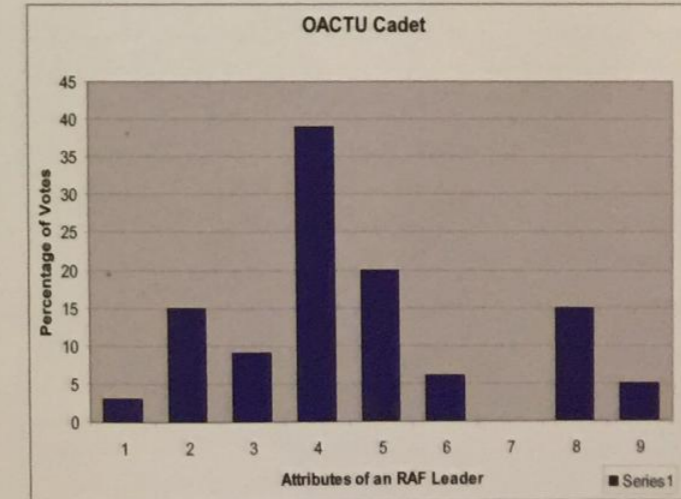
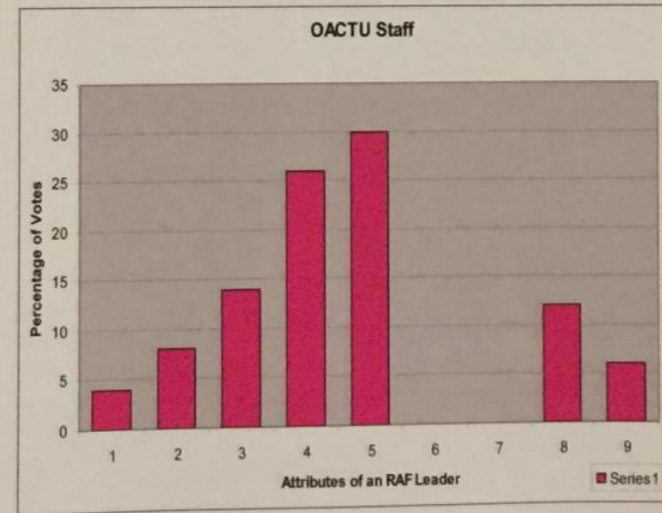
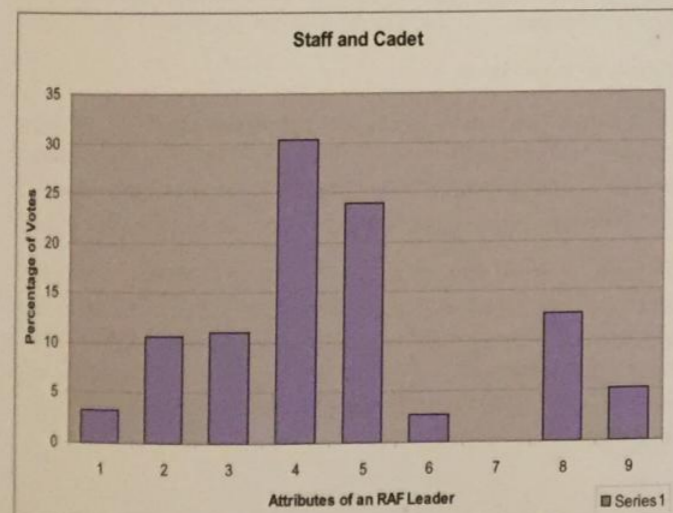
What can be inferred from these results? Why do the main squadron cadets, irrespective of their place within the training system, value certain attributes above the others? Why do staff views differ from that of the cadets?

Why responders value 'Flexible and Responsive'?

The definition of the attribute 'flexible and responsive' is:

"In a world that is now changing faster than ever, where technology is advancing rapidly, the RAF needs leaders who are flexible in approach and able to consider new ways of doing things. RAF leaders must be open minded, responsive to change, constantly looking for the opportunities that change brings and be able to cope with the discomfort that is associated with change."

An immediate question to ask (which is valid for all attributes) is: did the respondents read the RAF definitions prior to making the choice, or did they use their own understandings of the attributes?



Seventh Article - OACTU View on Leadership (2)

My belief is that the majority of respondents used their own understanding of these attributes when making their decisions.

Whatever the answer, I believe the key word is responsive. It would appear logical that the majority of people who actually responded to the survey do value responsiveness and are acting out their values by responding the questionnaire. One way of determining whether this survey does represent the overall feelings of OACTU would be to impose this questionnaire on all members of OACTU, something outside the scope of this study and the power of the author!

Why do staff responders value 'Mentally agile – Physically robust'?

The definition of the attribute 'Mentally agile – physically robust' is:

"Our leaders need to be able to handle complex and multifarious problems and have the creativity and mental agility to move quickly between various concepts. Their thinking must be innovative and their minds receptive. They must be physically robust and able to withstand the strain of operations, so that their mental capacity does not fail them under stress."

What is it in this definition that attracted the most responses from staff and the second highest number from cadets? Is it the balance between the physical and mental capabilities that will seem sufficient to cover all aspects (again, I question whether respondents read the RAF definition)? Is it the statement regarding 'strain of operations' – something that the majority of staff members are acutely aware of – with the majority having arrived at Cranwell straight from operational tours? I believe this is the key aspect. OACTU staff are measuring graduating officers against what their expectations for operations are.

Respondents Comments.

Of the respondents, 18 staff and six cadets provided additional information as to why they had chosen their specific attribute. Some comments are as follows:

Able to handle ambiguity.

"To be able to handle ambiguity, in an ever changing global environment is essential if you want to lead your personnel forward as you become the certainty that they look towards in an uncertain world." Flight Lieutenant Mark Hassall

Able to lead tomorrow's recruit.

"...if that leader is unable to lead their personnel, the end goal of any task will either not happen, be very poor, or turn out to be not cost effective." Flight Sergeant Paul Batsford

"...leading is what we are all about. We must have the other 8 attributes, to varying degrees, to be able to lead; hence my choice." Flight Lieutenant Martin Wyrer

"There are two aspects to this attribute that I feel makes it the most important of the list. Firstly, an officer is always a role model for the new airmen/airwomen entering into the Service. The impression you give them will be hugely influential on their attitude to the RAF as a whole. You, as their first officer could be their last if you don't lead them effectively. Secondly, this attribute focusses on the future. The RAF, and its personnel, is continually changing and the officer needs to keep up with these changes. How you lead now will be different to how you'll need to lead in the future as the demographic changes; particularly as we get smaller." Officer Cadet Richard Morgan

Emotionally Intelligent

"Knowing what makes me tick and understanding my people is fundamental to everything I do as this encompasses confidence and trust." Flight Lieutenant Paul Dodds

"Leadership is not just an intellectual, cognitive process it is also a social, behavioural, spiritual and emotional process. Therefore as leaders we need to know and control our emotions (i.e. have a high degree of self-awareness) before we can lead others. (Philip Massinger in 1624 said – 'He that would govern others, first should be the master of himself'). A lack of self awareness may lead to inappropriate behaviour, the mis-reading of others and/or situations. Self awareness then is the starting point of personal development, which is a pre-requisite for leadership development." Officer Cadet Andrew Mainwaring

Flexible and responsive

"I believe that officers should react to any and everything that is put in their path; additionally, being able to flex away from the normal SOPs is a function of officers, after all if it was just a case of following orders/work instructions etc then anyone could do it." Flight Lieutenant Jim Garriock

"I feel that flexibility has always been the trademark of the British Armed Forces. A leader that can be flexible can often find a solution and a suitable response to a taxing problem or difficult situation." Officer Cadet Gareth Rees

Mentally agile – physically robust

"This can apply to any situation, at any time and in any place. A leader needs to be able to adapt and this attribute is essential if a leader can attain this adaptability." Officer Cadet CJ Hickmott

"[It] is the only attribute that if a leader is strong in both they should be able to lead in the office and in the field; where as the rest are complimentary skills but arguably not essential." Flight Lieutenant Eddie Dunlop

"...because you could find occasions when you could still be effective as an RAF officer if you lacked any of the other attributes. For example, a single seat pilot might not be very good at leading recruits but he could still be an effective pilot. If an RAF officer lacks mental agility and/or physical robustness, I do not see that they could really be effective on operations today. Moreover, a lack of these qualities in the first place is likely to make many of the other attributes unrealistic also." Mr Mark Jewsbury

Warfighter, courageous

"It's the "courageous" bit that stands out for me. Not physical courage, although that is important, but most importantly moral courage. [It is] the willingness to do what's right, no matter how that may be perceived by one's command chain!" Flight Lieutenant 'Sunny' Sardesai

Willing to take risks

"I believe that we can all follow processes as managers, however a leader must have the willingness and understanding to decide when it is appropriate to take risks. If no one takes considered risks then we will never progress." Flight Lieutenant 'Olly' North

"In today's RAF, there is ever more pressure on those in command...to achieve the desired results with ever dwindling resources (manpower, finance, time). Therefore I feel that having the ability to take an assessed risk is vitally important for any leader in today's Air Force in order to meet the Cdrs' intent." Flight Lieutenant Andy Norris

Seventh Article - OACTU View on Leadership (3)

"Firstly a leader must understand the 'rules' within which he/she is operating, only then can they safely decide what risks can reasonably be taken. I think some of the best thinking is done and results achieved when the 'rules' are bent a little, so one has to be willing to take the risk of doing so. Reasonable risk taking by a leader also demonstrates to subordinates that they are encouraged to think differently about their contribution and individuals can all make a contribution without being constrained by conventional thinking."
Officer Cadet Jason Lumley

Summary

There was generally a focus on two attributes – 'Flexible and responsive' and 'Mentally agile – physically robust' (capturing 54% of the total vote).

Overall, the attribute 'Flexible and responsive' was voted for by the largest number of respondents. Whether this is a 'self-fulfilling prophecy' because of the style of this survey is unknown. The cadet vote placed this attribute highest with 35% of the vote.

OACTU staff voted the attribute 'Mentally agile – physically robust' highest with 30% of the vote. The reference to operations in the definition, I believe, is the key. It is that which has determined staff views (the majority having recently returned from operations) and they see this as the benchmark against which graduating officers will have to be judged.



Eighth Article - Curator's View on College Heritage (1)

"Not one fighter will be sent across the Channel."

-2-

9. I must therefore request that as a matter of paramount urgency the Air Ministry will consider and decide what level of strength is to be left to the Fighter Command for the defence of this country, and will assure me that when this level has been reached, not one fighter will be sent across the Channel however urgent and insistent the appeals for help may be.

10. I believe that, if an adequate fighter force is kept in this country, if the fleet remains in being, and if Home Forces are suitably organised to resist invasion, we should be able to carry on the war single handed for some time, if not indefinitely. But, if the Home Defence Force is drained away in desperate attempts to remedy the situation in France, defeat in France will involve the final, complete and irremediable defeat of this country.

I have the honour to be,
Sir,
Your obedient Servant,

F. B. Dowding
Air Chief Marshal,
Air Officer Commanding-in-Chief,
Fighter Command, Royal Air Force.

Curating the College Hall Heritage

Miss Crozier, Royal Air Force College Curator

The Royal Air Force College has a rich and varied collection of historical artefacts ranging from an original Faberge egg through to Air Chief Marshal Lord Dowding's historic letter to the Air Ministry in 1940 advising that if "irredeemable defeat" were to be avoided, "Not one fighter will be sent across the Channel..." to defend France. Amongst the remarkable documents in the archives are the Flight Cadet records of Group Captain Sir Douglas Bader, two original letters written by T E Lawrence; and the proof copy of his "Seven Pillars of Wisdom", with his own handwritten annotations. The extensive paintings collection contains, among others, original oils by Cuthbert Orde of Air Commodore Sir Frank Whittle and Group Captain Sir Douglas Bader. Documents on display include the aforementioned Dowding's letter, rare Battle of Britain combat reports and the original signals stating the commencement and cessation of hostilities 1914-1918.

Numerous medals are displayed in the Rotunda, while the Founders' Gallery houses Marshal of the Royal Air Force Lord Trenchard's Service cap and sword and Air Chief Marshal Longcroft's Service cap, sword and medals. The College has recently been given the ensign which the then Major Hugh Dowding flew on his aircraft over the trenches during the First World War. These, and many other artefacts and documents both on display and in storage, are all gradually deteriorating, some at a much faster rate than others. As is often the case with collections, some of our artefacts have been damaged unwittingly by poor conditions and insufficient care in handling. My job, as the College's first full time curator, is to arrange the correct storage and handling; and, where necessary, conservation methods to prevent any further deterioration. I shall also be on a personal voyage of discovery to see what other gems lie hidden within the College.

There's more to life than dusting cabinets...

It is often said that curators are misunderstood. Common misapprehensions are that we stand around in galleries telling visitors not to touch, or that we spend our working day dusting cabinets. We are thought to be wizened academics sitting in dark, dusty, cobwebbed offices, poring over our books and out of touch with reality. I hope this article will dispel those myths by showing there is much more to the profession than seems at first obvious. As the College Curator, I am responsible for the conservation, display, interpretation and preservation of all old artefacts and documents. My challenges are light, relative humidity, temperature, handling, storage and 'museum pests' (my personal favourite!) all of which play a part in the deterioration of an historical collection. The curator's role is to eliminate as much of these adverse influences on the collection as

Eighth Article - Curator's View on College Heritage (2)

possible. The ideal is to keep the artefacts in the most stable condition possible for their long term preservation. Where ideal conditions cannot be achieved, one has to find a compromise to ensure that the artefacts are stored and displayed whilst allowing access to them.

What I'm going to do and why...

The College Collection is in urgent need of conservation and correct storage – the alternative is to lose the Collection forever. My task will begin with writing the plans and policies which will drive the conservation methods and these will include an Integrated Pest Management Plan, Conservation Programme, and Documentation Procedures. I will also carry out audits on the conservation requirements of artefacts and documents, and will assess the storage requirements. Another important aspect of my job will be to detail the provenance and ownership of the Collection. The reasons for documenting the artefacts are as follows:

- To ascertain the provenance of each item and ensure that misunderstandings over ownership do not occur.
- To know exactly what we have in the Collection, and its location.
- To know the condition of the item, and thus the scope of care and conservation (and budget) required.

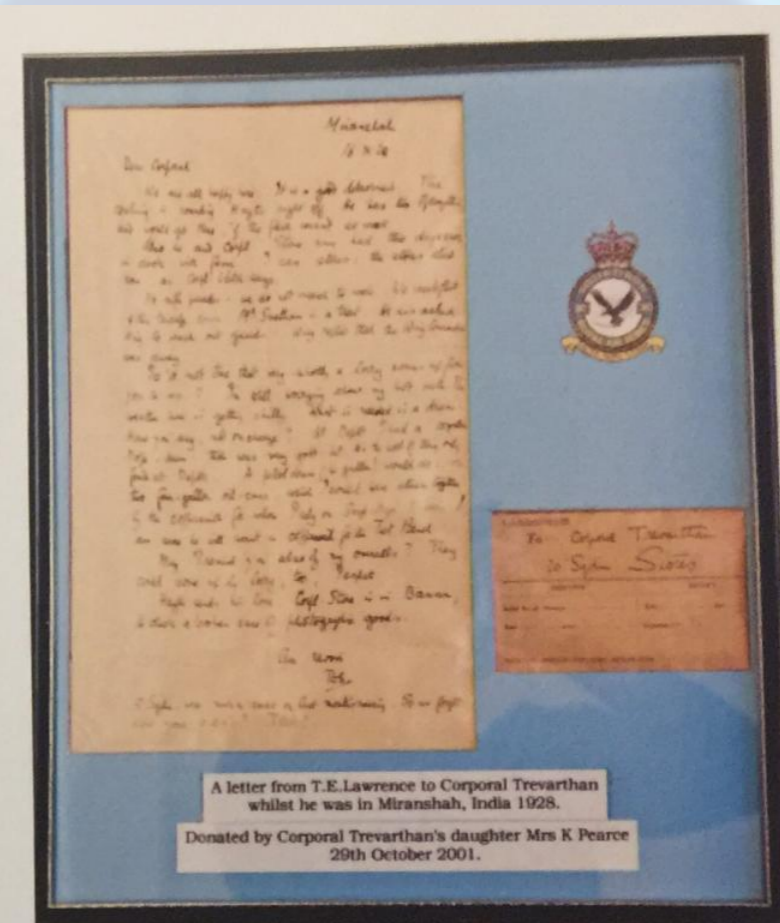
As you know, the job is not complete until the paperwork is done so I also ensure that correct paperwork is completed for all new donations. The College has purchased specialist museum archiving and cataloguing software which will enable the collections to be managed efficiently and which will also carry illustrations along with locations of items. Every artefact and document will be catalogued onto the system with all the supporting information we hold and, in the fullness of time, it will be possible to conduct a search on the storage system for items on any given topic. We shall continue to collect artefacts for the Collection – one of the great pleasures of being a curator is that one never knows what gems may be offered.

The College Collection is a very mixed bag, and the storage, display and conservation of items will vary according to the type of material and extent of the decay. One of the basic rules of archiving is to replace steel clips of all kinds – paperclips, pins, treasury tags – with brass paperclips. This is because steel rusts into paper, staining it and eventually 'eating' the document. This has recently been done with the document file of Squadron Leader Gayford, one of the pioneers of Long Range Flight. Modern plastic is forbidden in historical archives; instead, we use 'Melynex' plastic, archival material which will protect documents when handled. Within the numerous photographs, slides and negatives stored at the College there are negatives of Sir Frank Whittle which have been irredeemably damaged through poor handling and insufficient conservational knowledge. Several maps and documents have been plasticised under the misapprehension that this was the correct way of preserving them; whereas, in fact, the plastic sleeves generally used have a damaging effect on the contents.

Light is a constant source of curatorial anguish, and the College buildings are particularly light. The documents exhibited here are gradually fading, and will not survive for much longer unless they are replaced by facsimiles and the originals moved to safe storage in the archives. Good examples of this are Dowding's letter, the T E Lawrence letters and the logbook of the only VC winner to graduate from the RAF College, Wing Commander Malcolm VC.

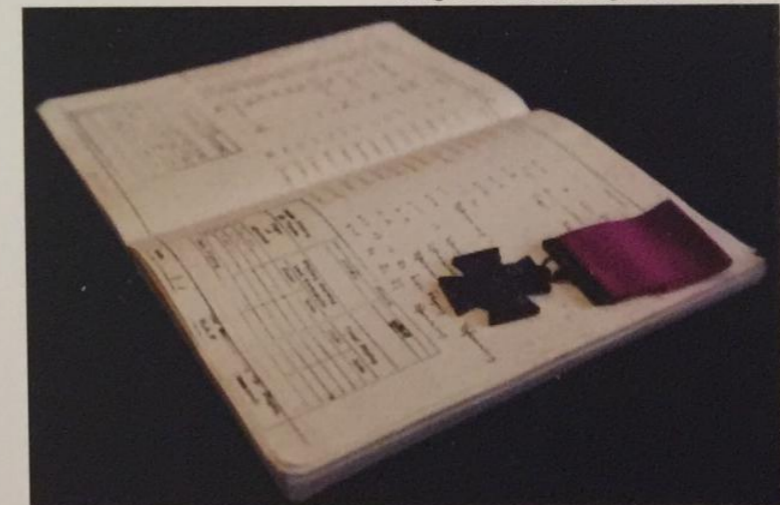
Light has also adversely affected the College's comprehensive collection of photographs depicting prize-winners, graduations and sporting teams. Some are badly faded and have developed cracking due to their location in the very sunny wing corridors. I eventually hope to find duplicate prints of the worst affected to copy and replace those already displayed – before they are lost forever.

Light is also detrimental to textiles and will cause them to fade unless stored in the dark or displayed under ultra-violet light filtering. This is particularly evident with the Trenchard and Longcroft cases displayed in the Founders' Gallery, where their Service caps have faded in the bright light. These caps will require padding with acid free tissue puffs to support their original shape. Generally, textiles have problems not seen so much in other materials. Flat textiles such as flags need to be stored rolled



Letter by T E Lawrence.

Wing Commander Hugh Malcolm's VC.



Eighth Article - Curator's View on College Heritage (3)



Gerald Coulson's painting of the Tirpitz raid

Eighth Article - Curator's View on College Heritage (4)

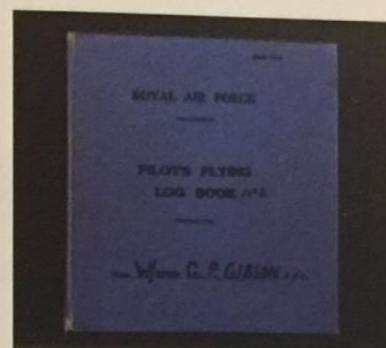


The Longcroft Medals in the Founders' Gallery.

around a tube in acid-free tissue (another staple in the curator's armoury). A major problem in caring for textiles is 'pests'. These fascinating creatures include Carpet Beetle (Woolly Bear), silver fish, clothes moth and wood worm. I plan to write an Integrated Pest Management Plan, but first I will need to determine which of these, or any other creatures, are in evidence; this is done by close inspection of objects and by leaving special traps in dark corners for later analysis. Management of 'thrips' is an immediate issue in Lincolnshire. These microscopic winged creatures invade artworks and stain them; you can see much evidence of them in the photograph and art collection around the College. Although not a problem in themselves, they provide food for more sinister pests and therefore need to be eliminated. This is one of the reasons why good housekeeping in a collection/display is paramount.

Many of the fine artworks in the College are in need of conservation. Of particular note is the Orde oil portrait of Group Captain Douglas Bader located in the dining room. If one looks closely at the bottom corners of the painting, you will see that some sagging has occurred. This is due to a fluctuating relative humidity, which needs to be stabilised if we are to preserve the painting. The majority of the original oils around the College need to be backed with calico then board to protect the canvas from knocks and to keep it clean. Each artwork will have an 'artprotect' sticker attached to monitor its 'personal environment'.

Many artefacts are of a composite form, such as medals and swords. These need to be treated as both metal and textile, each of which has its own requirements for storage, display and conservation; because of this a compromise has to be sought. Swords, for instance, need to be stored and displayed separately from their scabbards as the properties in the leather (being animal



Wing Commander Guy Gibson's log book.



XVI Squadron pennant, flown by Major Dowding during World War One.

based) will eat into the metal, thereby pitting it. When wrapping textile and metal composites for storage, acid free padding has to be used as a buffer between metal and cloth to avoid corrosion damaging the cloth. Medals – such as the Longcroft Bar – are an interesting case too, as their ribbons need to be kept away from the light, yet the medal itself is usually fairly stable in light conditions. There are also issues with pests living in the medal ribbons; these can be clearly seen in Longcroft's DSO on display in the Founders' Gallery.

Peculiar to the Curator's world is the need to determine to what lengths conservation is needed and to define preservation, restoration and conservation. This could be a whole article in itself, but an interesting issue I currently have is the Dowding Pennant, which was recently passed to the College from No16 Squadron and which was flown over the WWI trenches by various Squadron Commanders including Major Hugh Dowding. It is going to be conserved rather than 'restored'. In other words, the Pennant will be stabilised to ensure its long term survival; whilst marks and bullet holes obtained on the Western Front 90 years ago will remain, as they form part of the artefact's history and interest.

Display...? That's putting objects in glass cases, isn't it?

Well yes, but there is a little more to it than that! Having chosen our artefacts, a compromise has to be found in the way we display them for best conservation and aesthetical value. The cabinet interiors are an issue here because they need to be designed and built using conservation grade materials which do not emit harmful vapours.

Have you ever been to a museum and been faced with a 'Book-on-a-wall' and found it totally off-putting? That's why display interpretation needs to be engaging and interesting, bringing the



The Trenchard Case in the Founders' Gallery.

artefact to life with stories of its provenance, its owners and its sometimes murky past.

Well, if, by now, I haven't persuaded you to instantly change your career or wish your life had taken a different path, I am never going to. However, I hope that, to some extent you will now have a greater appreciation of the College's new approach to caring for our wonderful collection. The whole process is extremely worthwhile, because if we fail to address all the issues I have discussed, the collection will be lost forever.

Ninth Article - The Cranwell Whistle

The Cranwell Whistle

Wing Commander (Ret'd) Kevin Dowling, College Secretary

For those of a certain age who follow rugby, the name "Larry" Lamb might bring back some memories. 'Larry' refereed 12 International games, the Varsity Match, five Final England Trials, two County Championship Finals and various games involving the All Blacks, Springboks, Wallabies, Pumas and US Eagles. He also officiated at matches in the (then) Five Nations Championship in France, Ireland, Scotland and Wales – not to mention refereeing other matches in Barbados, Borneo, Canada, Ceylon, Germany, Holland, Malaysia, Morocco and Singapore. 'Larry' is, of course, Air Vice Marshal G C Lamb CB CBE AFC who, as a Group Captain, was Assistant Commandant here at the RAF College between the years 1964 and 1965.

Whilst at the RAF College, Larry was appointed to the RFU County Panel of Referees and, to mark the occasion, he was presented with an Acme 'Thunderer' whistle by the cadets. It was this whistle, known as the Cranwell Whistle, which he used to officiate at all the matches mentioned earlier. In 1967 Larry was appointed to the RFU International Panel of Referees and was the first, and so far the only, RAF officer ever to referee an International rugby match.

Moving swiftly to the present, the RFU interred a Time Capsule on 12 July this year in the pavement in front of Twickenham's South Stand. The capsule contains a selection of rugby items of interest and one of the items is Air Vice Marshal Lamb's 'Cranwell Whistle.' The capsule will be opened to a future generation and the contents revealed in 112 years time on 26 January 2121, the 250th anniversary of the founding of the Rugby Football Union and 201 years after the opening of the RAF College as the first military Air Academy in the world.



Tenth Article - Initial Officer Training (1)

Initial Officer Training: Getting Better or Just Different?

Wing Commander Comfort, Wing Commander Cadets

In the last edition of the Journal, the then Wing Commander Training, Wing Commander Davies, concluded her article entitled, 'Initial Officer Training: It's not like it used to be (Thank Goodness!)' with the following observations:

'There is no doubt that Cranwell is producing a new brand of junior officer through a training regime which is designed to develop a more empowered and emotionally intelligent individual. Many of them may be more free thinking and questioning than their predecessors. By developing in them an understanding of the concept of empowered leadership, based on the principle of mission command, there is now a counter balance to the action centred leadership that was previously the sole focus. The aspiration is for the new junior officer to begin to develop a personal style of leadership which in time will come transformational in nature.'¹

As Wing Commander Davies was reflecting on her tour at the Royal Air Force College, I find myself beginning my tenure as Wing Commander Cadets; however, her article really struck a chord with me as her recollection of her training in 1979 mirrored my own experiences a decade later in 1987. Therefore, I thought that I would build on her premise that Initial Officer Training has moved on significantly in the last half of this decade by demonstrating that it is certainly different and by trying to allay the myth that training has simply become easier, the time old cry that it was 'tougher in my day' that appears to be quoted by every graduate of every Course on consideration of the current Course and undergraduates. I will then move on to see if the training is getting better by considering how well we are preparing our junior officers for operating in an expeditionary and often Joint environment.

Was it really tougher in my day?

As I look at the cadets under my charge, I certainly do not believe that they are having an easier time than I had some 22 years ago. I will justify my assertion against three criteria: endurance, robustness, and effective intelligence.

If you viewed the Initial Officer Training Course (IOTC) of 1987 as something that merely had to be survived in order to graduate, you only had to keep up a façade for 18 weeks. The training serials were very straightforward in as much as the requirements of any lead were clearly articulated, the lead normally had only one correct answer that required as similar a methodology to resolve it as the previous "umpty-ump" serials, and you generally had only one master to please, the all powerful Flight Commander.² Mimic the Flight Commander's style adequately and avoid personality clashes, by being grey if necessary, and it could all be over, successfully, in 18 weeks. Such an approach would be far more difficult today, and not just because the Course is 12 week longer! Officer cadets work with a broad range of directing staff who all contribute to the assessment of a cadet's development; several leadership, management and self-awareness tools are given to the cadets to experiment with, which requires their engagement and application if they are not to embarrass themselves on the various tasks and challenges set before them. And the interactive nature of feedback, action plans and cadet comments on the OACTU Training Management Information System (OTMIS) will often expose those who do not engage with the Course or try to merely 'play-the-game', because they then appear inconsistent or do not enact the words that they have written. The increased length of the Course enables more training and requires dedication and application to succeed also exposing those who would wish to hide behind a façade.

I arrived on IOTC No 104 in June 1987 and my physical preparation had been to check that I could run 1½ miles in less than 11 minutes; I had one practice run, achieved about 10½ minutes and satisfied myself that I would be OK. And I was; my youth (nay immaturity) saw me through, as I could run steadily and my physique facilitated load-carrying. Whilst we no longer attempt marathon distances with pine poles as part of the leadership exercises, nor undertake Leadership Agility Training runs, the physical elements of the Course remain very robust. I have no doubt that my lack of preparation would have led to me struggling against the expectations we set today. The Physical

Education Staff stretch the cadets to their limits and provide a fantastic opportunity for the cadets to demonstrate that they are striving for excellence by improving their often-assessed fitness scores – there is nowhere to hide. Shortfalls in physical fitness are now often compounded because the leadership exercises are more cerebrally challenging; capacity is tested and so those that are exhausted by the physical aspects of the exercises perform less well in the leadership tasks. Finally, whilst the long mileage covered at Otterburn in 1987 was a source of pride, as I think that

Making the most of the cool weather.



1. The Journal of the Royal Air Force College, March 2009, 'Initial Officer Training: It's not like it used to be (Thank Goodness!)' by Wing Commander Davies.
2. Ibid.

Tenth Article - Initial Officer Training (2)



Term Three cadets on Ultimate Challenge.

I coped very well, I also remember having eight to nine hours every evening to recover. Compare that to the six hours respite on Exercise DECISIVE EDGE for personal administration and sleep, and I think that you will see that we still put the physical and mental robustness of the officer cadets to the test.

I cannot remember much of the academics of IOTC No 104, which supports my theory that it was probably a lot of 'learn-and-dump' mentality, well-suited to a recent A-level student who had been reasonably competent. I do remember reciting swathes of the Larousse Encyclopaedia of Modern History in my Bandar Essay, but I never received any feedback and was certainly not going to win any prizes for original thought or analysis. That is certainly not the case now. With the involvement of King's College London for the Air Power Studies element of the Course, cadets find themselves having to produce under-graduate-quality work and analysis in order to progress through the Terms. Failure to understand, assimilate and articulate analysis of the political, military and leadership issues covered by the syllabus are no longer acceptable; today's cadet has to prove their academic and analytical credentials far more than any cadet of the 1980s. Term Three has also introduced a new aspect of effective intelligence: self-control and self-regulation. Cadets in Term Three are given far greater latitude than I remember from my day; this is an opportunity to apply yourself to areas of specific interest or areas that have been identified for further development. However, there is no longer a member of the directing staff constantly looking over your shoulder to make sure you deliver. Cadets have to manage their own time and apply themselves to their studies and personal development. They also have to keep themselves fit and behave in the manner expected of a junior officer; most succeed but occasionally cadets let themselves down and have to complete remedial

training before they graduate. This latitude provides another challenge for today's cadet that did not exist before; they can no longer just do as they are told without necessarily taking responsibility for themselves, which certainly was possible in the past.

Are we preparing our junior officers for operating in an expeditionary environment?

Before I get ahead of myself, I clearly recognise that we are responsible for producing 'generic' junior officers who will graduate to Phase 2 specialist training and then receive theatre-specific pre-deployment training before going on operations. However, we endeavour to give our officer cadets a head start by enlightening them as to the historical, contextual and operational background of ongoing conflicts through Air Power Studies and the Basic Air Warfare Course. We try to remove any misapprehensions about the physical aspects and language of a Deployed Operating Base through exercises DECISIVE EDGE I and II. We also educate and prepare them for the sheer breadth of contribution all staff officers have to make on operations, often outside their immediate specialisation, through a very demanding mission command-oriented period at the Force Development Training Centre, Grantown-on-Spey, and by mentoring in the Command Operations Cell on Exercise DECISIVE EDGE II in a range of SO3, SO2 and SO1 appointments.

The aspects of training highlighted in the previous paragraph were not present during my time at Cranwell. Times have changed significantly. However, I would argue that I was not prepared for the reality of my post-graduation world – the Cold War; the language and execution of National and NATO exercises had to be learned 'on-the-job' and, whilst NATO and North West Europe was quite rightly the primary focus of our training, the expeditionary nature of the Falkland Islands campaign had been completely forgotten or ignored. Therefore, the current training at least attempts to acknowledge and prepare the cadets for the operational world that they will graduate and rapidly deploy into.

What about the reality? Having just returned from six months based in Kuwait, where I was commanding disparate elements across Iraq, Kuwait, the United Arab Emirates and Oman, I was consistently impressed by our youngest junior officers. The maturity, professionalism and operational focus of the majority of junior officers that I encountered was worthy of pride; I must stress that this view was formed before I knew that I was going to be posted to OACTU! All of the attributes that we preach on the Course were present: proactive, adaptable, agile and willing to act. Whilst this was true of most of our officers, the impressive factor was that even those that were relatively inexperienced managed to perform and thrive in the deployed environment. A key element was the ability to deal with ambiguity, to operate without having all the facts to hand and not be paralyzed by gaps in knowledge, and to make decisions confidently, based on the information available at the time and the flexibility to adapt the plans as events unfold. We expect a great deal of our junior officers and the fact that they are so rapidly delivering on deployed operations is testament to their character, their training and their application. We should take some credit for the training element. Notwithstanding the lack of threat of physical harm in the training environment, I am confident that our newly commissioned officers are better prepared, both physically and mentally for the deployed environment.

Conclusion

Whilst it is dangerous to rely on anecdotal evidence, my experiences leave me in no doubt that the IOTC has changed significantly since my encounter with it in the 1980s. It is longer in duration,

Tenth Article - Initial Officer Training (3)

provides the opportunity to learn more leadership, management and self-awareness tools, is more academically testing and robust, and stretches the cadets both physically and mentally in relevant scenarios. Has it changed for the better? The drivers and motivation behind the most recent changes to the Course have been to produce more well-rounded individuals and better prepared individuals for the challenges facing the junior officer of tomorrow. I believe that it has changed for the better and will continue to do so; the development is iterative. I am sure that all of our predecessors at OACTU have strived to improve the Course through their various tenures, and we will continue to try

and improve the Course into the future. Thinking about the requirements of tomorrow, whilst being informed by the past and present, rather than constrained by them, will remain a constant challenge. The reality of current operations requires us to focus on making the Course as relevant as possible, without solely preparing for today's mission at the expense of our ability to respond to the unknown missions of tomorrow. Therefore, we must practise what we preach and demonstrate flexibility and agility in adapting the Course to the Service's future, and at the same time the ambiguous requirements of the modern world.

The College hasn't changed much but the training has.



Eleventh Article - Three Terms of IOT (1)



Officer Cadets trusting their peers.



D Squadron A Flight experience the Low Ropes.

D Squadron A Flight gather for the Flight Leader's meeting.



Eleventh Article - Three Terms of IOT (2)

Term One: Initial Officer Training Course 18

Officer Cadet Weaver, D Squadron

Well, what the Flight Staff say is true: the minutes drag by but the weeks rush by. It seems almost unbelievable that we on D Squadron have made it all the way to the end of Term One already!

It's certainly been hard work from day one – getting used to the constant round of ironing, cleaning, inspections and restrictions hasn't been easy, but we've got there. And, we no longer wear our berets as "bonnets", although, occasionally, we still iron our uniform with a flip-flop – at least according to the Flight Sergeants! We are learning 'spot the officer', and we're getting pretty good.

A locker ready for inspection.



The physical training has been a shock to some people's systems but we are all well on our way to being the toned, super-fit individuals that will win back the Inter-Squadron Games trophy next term! In many cases, PT 'drill' has been even more of a shock to the system than the activity itself – I have to admit I never thought I'd be doing drill 'with a jump' in shorts, t-shirt and trainers. Battle PT and aero runs are my personal favourites, second only to the Corporal PTI's 'warm-up to music'.

Air Power Studies has been gradually introduced this term. I think most of us agree that it has taken a while to get into the swing of it (particularly those of us for whom writing an essay is a distant memory!), but the lectures have been interesting, particularly towards the end of term as we started looking at strategy, tactics and the art of war. The "comfy chair challenge" deserves a mention as a method of increasing the difficulty of an Air Power Studies lecture: take one Term One cadet, subject to an hour or so of hard PT, feed a large and satisfying lunch (including apple crumble and custard), place in a warm, darkened room and present with a comfy armchair in the front row. Is it physically possible to stay awake? Some cadets have proved that it can be done.

Regiment lessons have formed a large and vital part of Term One. It is with the Regiment Training Flight that we learn the Force Protection skills that will prove vital during Ex DECISIVE EDGE, but more importantly as we further our Service careers. Subjects range from First Aid to weapons handling; from setting up a vehicle check point to post-indirect fire (i.e. rockets and mortars) attack recovery. All the Regiment staff have made a big impression, and taught us the value of professionalism, comradeship and a sense of humour, in addition to their Force Protection skills.

Leadership has also played a vital role in our training so far. There have been plenty of theory lessons, backed up with practical exercises (from low ropes to the confidence course). There are also plenty of formal leadership exercises, building up from STATIC to DYNAMIC, through the all new ACTIVE EDGE and finally on to the big one: DECISIVE EDGE. They give all cadets a chance to take the lead and develop their skills through practical experience and peer review. Exercise ACTIVE EDGE has been designed to



D Squadron A Flight review their activities at FDTC Fairbourne.

introduce Force Protection skills in a scenario-based environment so that we have a chance to lead as a Patrol Commander, Combined Incident Commander, Guard Commander and an Adjutant before DECISIVE EDGE. It was certainly a steep learning curve for some (myself included), but I think I speak for everyone when I say we are grateful for having the opportunity to practise this type of exercise in a relatively pressure-free environment.

In summary, Term One has been excellent. It has been difficult, frustrating and downright annoying at times, but it's been challenging, rewarding and exciting in equal measure. The sense of accomplishment in overcoming the hardships we have endured is great, and the reward of extra freedoms in Term Two will be all the sweeter for having lived without daily "Tesco trips" for 10 weeks. Personally, I feel I have increased in confidence and self-discipline immensely, had some really good times, and hopefully made plenty of friends for life.

Eleventh Article - Three Terms of IOT (3)

Term Two: 'Living the Dream' with IOTC 17

Officer Cadet Gray & Officer Cadet Burrows, C Squadron

We were moved into our new accommodation for the second term without much ado. The Mess was a lot closer to Whittle Hall, which meant that our march to work in the morning was a lot shorter. The progression into Term Two saw that we were allowed a little more room to manoeuvre ourselves through an increasingly challenging IOT, and generally life was slightly more civilised but busier. The intermediate term would see our leadership advance and more focus put on academics and personal responsibility.

Then we were off to Exercise MILAID – an exercise which tested our evolving leadership skills in a scenario where we were assisting civil authorities. We questioned farmers about outbreaks of deadly viruses, apprehended drug dealing terrorists, stormed gangster's hideouts – all whilst improving our leadership and followership skills, and testing our physical courage and fitness. The final field exercise was called 'Top Secret': sections of cadets chased each other around a large area, hounding one another for possession of 'rockets' for which points were awarded. There were many restrictions to which penalties were applied. It was not just an exercise of teamwork and fitness, but of clever planning and cunning. But still, the steadfast C Squadron spirit saw all through to the end with a smile on their face and thoughts of a warm meal

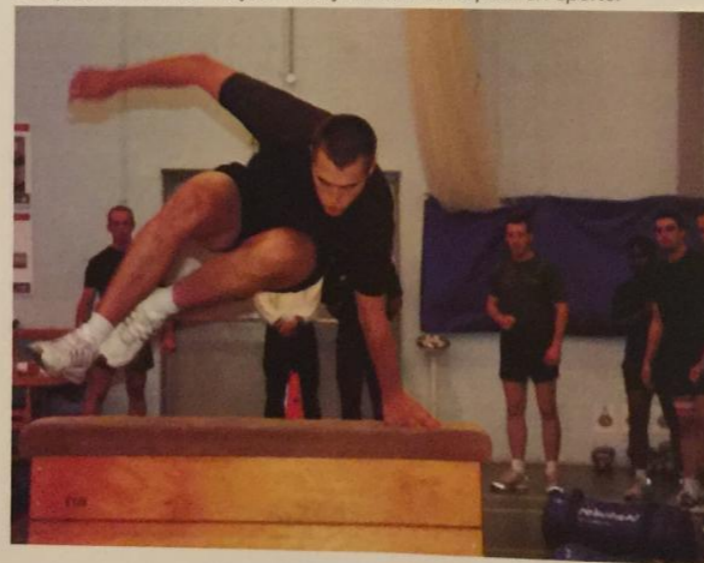
Supporting the civil community on Exercise MILAID.



on their minds. The last night was spent in relative comfort, with all four Flights accommodated in barracks with a practice Dining-In night to round off the Exercise. This was the first introduction to a Dining-In night. Although the setting was far from an Officers' Mess, it was a great experience that has set us up for the more formal occasions in Term Three.

Academics played a far larger part in the second term and for some weeks we were treated to an Air Power Studies (APS) lecture every day. The development in our fitness, both physical and mental, was much improved. We looked at case studies of the Falkland's War – a model for ethics in the battlefield; Kosovo – not; the first Gulf War; Vietnam; and, The Battle of Britain – Our Finest Hour. We were presented a broad overview of war during the lectures and refined our knowledge during seminars, where we discussed, in small groups, the lecture in detail! Through prods and probes from the academic staff we discussed the material in more depth and it was interesting to see people's views and thoughts, often widely ranging, on topics of ethics, justification of going into war, and conduct during conflict. Knowledge of the RAF, the UK Armed Forces, and warfare and defence improved hugely; to such an extent that arguments about the ethics of the combined bomber

C Squadron on their way to victory in the Inter-squadron sports.



offensive were overheard in the bar! Our knowledge was judged formally twice – firstly in the APS exam and secondly in the Bandar Essay. The Bandar, a 1,500 word essay, was for some the first taste of an academic essay, but we all applied ourselves diligently and generally the grades were impressive.

The PEd staff saw us sliding on crash mats, diving on tackle bags, and boxing against each other in the sport-specific circuits. Our physical training intensified with hill-training, sprints and the formidable 'Bleep Test Circuit'. The swimming circuits were ramped up with relays whilst wearing overalls and carrying weights. All sessions were now encouraging teamwork and our abilities to set ourselves personal fitness goals and achieve them. Competitions were held between the flights in cross-country and Battle PT and a personal competition in the Biathlon. Our overall fitness scores all improved on the Initial Officer Training Fitness Assessment, so the hard work paid off!

C Squadron became the organisers and hosts for the Inter-Squadron Games. The pressure was on to compete and win. D Squadron was double the size of us, but our higher fitness levels, sheer determination and grit won us the title. The Games

C Squadron triumph at the Inter-squadron sports.



Eleventh Article - Three Terms of IOT (4)



Eleventh Article - Three Terms of IOT (5)

were concluded by the legendary 'Superstars'. A circuit of intense exercises completed as a team. The winners took the flag and took the trophies. The Sports Committee then presented us with a second afternoon of Inter-Squadron Sports against the Senior Squadron. Naturally we quashed them at most events; overall C Squadron had an excellent win!

The Charities Committee organised many fundraisers for us to take part in throughout the term. This included the Macmillan 10K Run! Everyone ran competitively and most dressed up for the occasion.

The Mid-course Function/Partner's Day denoted the 'half way point' in the Course. Not only was it a night to celebrate, but a chance to hone our officer etiquette and show our partners and loved ones what we really do from day to day. The evening began with a formal Training Reception and ended in an informal party with 'swing band' and a 'top notch' cheese board in CHOM! All enjoyed the evening.

The most demanding part of Term Two has been Exercise DECISIVE EDGE. All of our hard work so far resulted in the amalgamation of Force Protection and Leadership Skills. Before we could deploy, however, we had to undergo Pre-deployment Training at RAF Barkston Heath. This involved learning how to build sangars, and then learning how to defend them. Fortunately for us, the Regiment Training Flight are going soft and we were able to prepare for our 18 hour work shifts by getting a couple of good nights sleep!

We were finally deployed to Moltovia by Merlin helicopter. After landing, we were rushed straight to our sectors to begin putting up defences. The leads began and we were all positive of passing Ex DECISIVE EDGE first time. IED's became the bane of our lives. The incidents were coming in thick and fast as the Exercise progressed. The lack of sleep and long working hours began to take its toll and slowly, cadets began to fail some leads. The sangars were cold, the guard shifts were tedious, and the Combat Incident Team was

always busy. Morale stayed high nonetheless in the effort to get everyone through their leads successfully. The Exercise ended with some much needed enforced sleep time and a big breakfast provided by the field catering team before receiving our APS and Bandar results (and handing over the DOB to the Dutch Forces). Morale was even higher as we departed from Moltovia.

Just four days after our return to Cranwell, we were ready for End of Term review and ready to see if we had progressed to the next stage – Term Three. No Rest and Recuperation for the wicked...

Throughout Term Two we have all gained a great deal of military experience, developed through Exercises MILAID and DECISIVE EDGE. On a personal level, it has been a journey of self-realisation. Everyone has developed new skills and discovered strengths, grasped opportunities, and gained knowledge and experience. Term Two has been full of assessments and exams. Despite all of this we can all honestly say that, yes, Flight Sergeant Carter, we are 'living the dream'.



Exercise DECISIVE EDGE in progress.

Yes – this is the mighty C!



Eleventh Article - Three Terms of IOT (6)

After the first and second terms of Initial Officer Training (IOT) where cadets are educated and tested in topics such as military skills, academics and leadership training comes Term Three. This term gives officer cadets the opportunity to experience life as an officer in a relatively risk-free environment. As the Senior Squadron, Term Three cadets have the privilege of living in College Hall Officers' Mess (CHOM).

The Carousel is a month-long part of Term Three where the Squadron is broken down into four Expeditionary Air Wings (EAW's) and rotate through different activities. These activities include the Basic Air Warfare Course (BAWC) and visits to various RAF stations. Also included is a visit to Amport House (the Tri-service Armed Forces Chaplaincy Centre) and an expedition undertaken at the Force Development Training Centre (FDTC), Grantown-on-Spey.

The BAWC is a two-week course at the Air Warfare Centre Cranwell which covers topics such as Integrated Air Operations, Rapid Global Mobility, Network Enabled Capability and Information Operations, to name just a few. The Course culminates in a final exercise (Ex HAVESOME) where cadets plan an air operation on the imaginary island of Bawkisle.

Cadets visit stations all across the UK, from Lossiemouth to Marham, and from Coningsby to Valley, learning about different

Harrier Taxi.



aspects of how a station runs. Different departments are visited to get a greater understanding of what it takes to run a station whilst executing operations and exercises across the world.

Amport House is the Tri-Service centre of Chaplaincy; a beautiful Grade 3 listed building with Grade 2 listed gardens. During this time cadets gain invaluable experience in interviewing people who have sensitive issues, which will invariably be a challenge for officers of tomorrow who manage any number of people. Cadets also learn about "Kinforming" and the duties of a Visiting Officer which are undertaken when a Serviceperson is killed.

FDTC Grantown-on-Spey is a week of the Carousel where cadets learn, and have a chance to experiment with, mission command by setting off on an expedition through the beautiful Scottish countryside. The purpose of the mission is to gain as much height and distance as possible over three days using human-powered transport only. The methods available are walking, cycling and canoeing.

In the weeks after the Carousel preparation for the final exercise of IOT begins.

Other places that are visited are the RAF Club, RAF Museum and St Clement Danes (the RAF Church) as well as the Newark Air Museum and No 29(R) Squadron at RAF Coningsby. All of these visits are intended to give officer cadets a broader understanding of RAF history and culture.

From day one of Term Three officer cadets commence preparation for Exercise DECISIVE EDGE II; this is why the Squadron is broken down into EAW's. Each cadet is given a specific functional role from A1 Admin to A6 Comms. The planning takes place to execute air operations in the imaginary 'Zone of Separation' between the two states of Moltovia and Lovitznia. The Exercise is designed to demonstrate the cooperation required between "A functions" in the Combined Operations Centre (COC) environment. Once all of the planning has finished, the Squadron deploys the COC to Deployed Operations Base Syerston and in turn in their EAW's, execute the Operation.

Term Three: B Squadron Almost Graduated

Officer Cadet Kennedy, B Squadron



In the cockpit of a No 29(R) Squadron Typhoon.

Merlin take-off at Ex DECISIVE EDGE.



The final two weeks of Initial Officer Training consists of the final Progress Review Board, and meticulous preparation for the Graduation Parade under the ever watchful eye of the College Warrant Officer.

Twelfth Article - Elementary Flying Training (1)

Elementary Flying Training – Historical Perspectives and Lessons for the Future

Squadron Leader Pallister, SO2 Force Development, HQ 1EFTS

In last year's Journal we looked at the history of the University Air Squadrons (UAS) and how their ground training and personal development syllabus has evolved in recent years. This article takes a different perspective by examining the RAF's approach to Elementary Flying Training (EFT) and how this has affected the flying training provided by the UAS.

No matter how sophisticated aircraft become, one consistent factor is the need to teach the basics to those who have never flown before. In the very earliest days of the Royal Flying Corps this task was fulfilled by civilian flying schools. Officers had to learn to fly at their own expense. Only when they presented their Royal Aero Club aviator's Certificate were they considered for flying duties and they then received a £75 refund (over £3000 in today's money!) towards the cost of their training. This process continued even after the formation of the Central Flying School in 1912 as the primary aim of CFS at that time was not to produce aviators as such, but professional war pilots.

With the support of Dons, many of whom had aviation experience during the 1914-18 war, Lord Trenchard finally convinced the University Authorities to allow the formation of the first two UAS in 1925. Although commanded by regular officers, these squadrons remained civilian in character. Members paid a subscription for the privilege of membership, had no obligations of a Service nature and were not subject to military regulations. Indeed, they wore no uniform other than blazers and ties. Flying training was carried out at nearby RAF units in a variety of aircraft including the Avro 504K, Avro 504N, Avro Tutor, Armstrong-Whitworth Atlas, Bristol Fighter, DH9A, Hawker Hart and Hawker Hind.

On the outbreak of the Second World War no further requirement was foreseen for the UAS and they disbanded in September 1939. However, the War Office retained the Officer Training Corps at the Universities and it soon became clear that they were attracting suitable graduates to the detriment of the RAF. The Air Ministry therefore decided to re-open the original three squadrons and establish a UAS at a number of other universities and colleges. By the end of 1941 there were 23 UAS covering all corners of the country from Aberdeen to Exeter. The war-time UAS gave pre-Service training to potential officers of all branches of the RAFVR.

However, whilst they covered much of the elementary flying ground school subjects (aerodynamics, navigation, meteorology etc) actual flying training was restricted to very occasional flights in Tiger Moth aircraft although a few squadrons were able to get flights in a variety of aircraft at nearby RAF stations. By the end of the war, five squadrons had disbanded following a government decision to suspend university courses for Arts students. Nevertheless, the UAS had contributed some 2500 aircrew to mobilised service in the RAFVR, many of whom were decorated for meritorious service.

By 1947 only 14 of the 23 UAS remained. They were intended to provide flying and ground training for students who wished to prepare for commissioned service in the RAF or Royal Navy, to stimulate serious interest in flying and aeronautical problems and to maintain liaison with the university authorities. Until 1950 the Tiger Moth was used for flying training but these were replaced by Chipmunks later that year. During the summer of 1950 three UAS cadets undertook a full 'wings' course and from this success stemmed a decision to provide certain squadrons with Harvard aircraft so that members who volunteered for service in the RAuxAF could gain the 30 hours on type needed to go on to the full 'wings' course. This initiative was short lived, however, and the aircraft withdrawn but in its place the preliminary Flying Badge (PFB) was introduced. The PFB was awarded to those UAS members who passed the appropriate exams and completed 110-120 hours flying with "high to above average ability". Also, as an experiment, non-flying flights were formed at certain of the universities. These included a Navigator Flight at Cambridge and Fighter Control Flights at Cambridge, Oxford and London. A year later, Technical Flights formed at Nottingham and Southampton, and Airfield Construction Flights at Birmingham and Leeds. For the first time in history, females were able to join the Fighter Control Flights at Oxford and London.

1957 saw another review of UAS establishments. As a result the Navigator and Fighter Control flights were disbanded and the pilot establishment on each squadron reduced by up to 40%. As financial constraints continued to bite, a Service Paper written in 1962 looked critically at the value of the UAS system. It concluded,

inter alia, that the squadrons contributed significantly to the recruitment of officers of all branches but that, importantly, the wastage rate in pilot training of ex-UAS pilots was approximately one third that of their direct entry (DE) counterparts. Such was the saving that the paper concluded that the whole UAS system was virtually self-funding. The unquantifiable bonus was, and still remains, the number of graduates who go on to other careers and take with them an understanding of and empathy with Defence and the RAF in particular.

This contrast between ex-UAS and DE pilots is interesting for, whilst the Army and Navy had maintained some form of EFT, the RAF had not hitherto seen the need and its DE pilots at that time went straight onto the Jet Provost. However, the tradition of civilian provision of EFT had continued throughout the war years and beyond through The Airwork Company. Although the UAS had RAF Qualified Flying Instructors (QFIs), their aircraft were maintained by Airwork who also provided EFT for the Army at Middle Wallop and Royal Navy flying grading at Plymouth airport. With the coming of the Bulldog in the early 70s, elementary flying for RNAS pilots was conducted on a fully Service-manned RNEFT Sqn by RAF and RN QFIs at RAF Topcliffe. This continued until 1993 when the RNEFTS was disbanded and replaced by a tri-Service Joint Elementary Flying Training School (JEFTS) which subsequently moved to RAF Barkston Heath in 1995 to create headroom at Topcliffe for an increasing Tucano task. JEFTS was a fully contractorized operation by Hunting Contract Services but with a number of embedded military QFIs, operating the Slingsby Firefly. This took DE pilots up to the point of streaming for fast jet, multi-engine or rotary training, with UAS cadets completing a similar syllabus on the Bulldog during their studies. As a result of airspace congestion in the Cranwell area, which was slowing down the School's output, the RAF element of JEFTS moved in 1999, with its aircraft, to RAF Church Fenton leaving the Army and Navy together once again at Barkston Heath. However, this set up was still unable to cope with an increasing RAF task so 'Direct Entry Flights' were set up on a number of UAS to utilise spare capacity. In 1999 the Grob Tutor had begun to replace the Bulldog on the UAS under the Light Aircraft Flying Training (LAFT)

Twelfth Article - Elementary Flying Training (2)



From front -
Tiger Moth,
Chipmunk,
Bulldog,
Harvard,
Tutor.

contract with VT Aerospace providing a 'by the hour' service using its own aircraft flown by military QFIs.

With the JEFTS contract due for renewal in 2003, a study into the provision of EFT for the RAF concluded that it would be more cost-effective to train all DE pilots alongside their UAS colleagues. This allowed for the closure of the Church Fenton operation and down-sizing of the JEFTS contract, then held by Babcock Plc, to train only Army and Navy pilots. JEFTS was subsequently renamed the Defence Elementary Flying Training School (DEFTS).

The conduct of all RAF EFT on UAS was not without its difficulties. DE pilots were able to maintain better continuity in training without the added pressure of university studies. Furthermore, the UAS

graduates - having been already streamed for their next phase of training were taken away from flying for the 33 weeks of their Initial Officer Training (IOT). Thus, in a reverse of the fortunes of the 50s and 60s, DEs were now better placed than their UAS counterparts. Following a further study into this inequality it was decided to completely reform EFT within the existing LAFT contact. Three new EFT sqns were formed using aircraft and QFIs withdrawn from the UAS and formal EFT is now undertaken by all (DE and UAS) pilots after completion of IOT. UAS flying was reduced to a minimum but made available to all UAS members and not just those with the potential to be RAF pilots. This move, whilst initially viewed with suspicion, has proved to be popular with the students and the UAS syllabus has subsequently evolved

to allow those with sufficient drive and enthusiasm to gain the coveted PFB during their time on the sqn.

So the wheel has come full circle but the value of EFT is now fully appreciated, especially as light aircraft are so much cheaper to operate than more complex types. Even the most sophisticated simulation cannot replicate the first few hours in the airborne environment that are the key to developing sound airmanship and spatial awareness. And nothing can replace the thrill of that first solo! The next stage of evolution will be the integrated UK Military Flying Training System which has already recognised the value of EFT. Meanwhile, the UAS system continues to fulfil its unique role of bridging the gaps between the Air Training Corps and the RAF, and between Academia and the Military. Long may it continue!

Thirteenth Article - Recollections of IOTC 16 (1)

Personal Recollections of IOT Course 16 Along With Recommendations of How to be Successful

Officer Cadet Babalola, B Squadron, OACTU, Belize Defence Force

My name is Mark Babalola. I represented Belize Defence Force on Initial Officer Training Course 16. This article is my personal recollection of a worthy journey through Initial Officer Training. The aim is to provide potential international and national cadets whose dream is to get commissioned at RAF College Cranwell an insight of what to expect. Furthermore, this article will provide valuable information and recommendations of how to be successful throughout the Course.

On the 16 March 2009, I stepped off British Airways at Heathrow Airport – my destination RAF College Cranwell. This was a dream come true. I had been longing for this Course ever since I became a member of the Belize Defence Force Air Cadet Corp (BDFACC) in the summer of 2006. The retired Brigadier General Lloyd Gillette initiated BDFACC in order to promote aviation interest in Belize. I would not have been here if it had not been for that vision becoming a reality. The College was the first Military Air Force College in the world; this was enough for me to have remained consistent in my goal of coming to the College.

I arrived at Grantham after a long train ride from Heathrow Airport. Once at Grantham, I made a call to my point of contact in order to be picked up. One thing I did not realize was my visit was prepared for in advance; transportation was already on standby

The standards expected for inspection.



for me along with other potential officer cadets who were heading to the College. The administration care of my arrival was handled very diligently.

When I arrived at RAF Cranwell I met my point of contact and the other two international cadets, Al-Harthy and Al-Wahshi, who were from the Oman Air Force. From there on, our induction week started. The induction week comprised of several activities. During that week we got a tour of the Station and met Wing Commander Allport who is the Commanding Officer of the International Training Office. Wing Commander Allport gave us a general overview of what to expect during the Course. In addition, he made us feel welcome to a new community and offered us advice on how to cope with things during the Course. I personally appreciated the honesty portrayed toward us during the initial brief and have maintained communication with Wing Commander Allport throughout my time at Cranwell. The first impression I received made me very comfortable to approach him with any problem.

The induction week was a huge advantage from my perspective. Techniques for getting our kit sorted were shown to us over and over again by our host. There was no excuse to have not understood anything we were shown throughout that week. There were only three of us compared to a hundred plus cadets the

Can you spot the cadets?

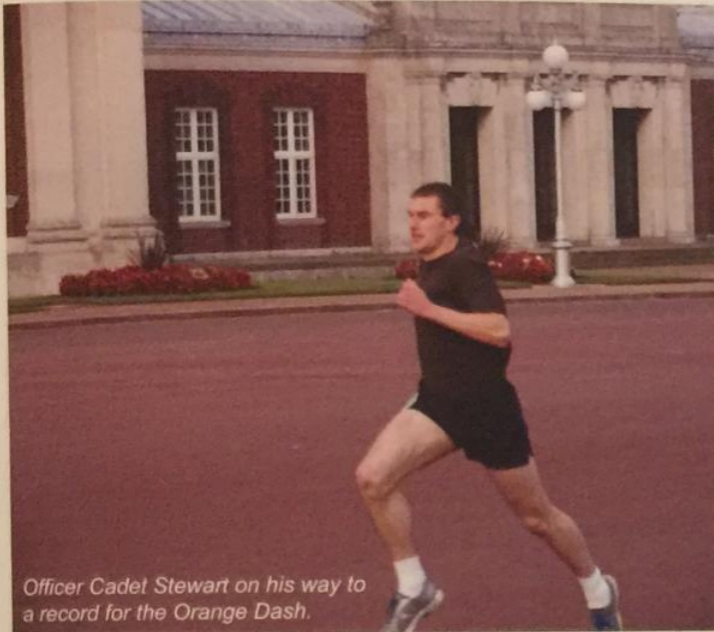


following week when Initial Officer Training Course 16 started. As a result of the techniques shown during our induction week and by our Squadron staff, I managed to avoid restrictions! The other reasons the induction week was an advantage was all the other 'admin' we had an opportunity to sort out – all three of us had collected all our kit and were taken to Grantham to purchase mobile phones, toiletries, stationery and cleaning materials which were essential to get our room up to inspection standards.

Flight staff and cadets.



Thirteenth Article - Recollections of IOTC 16 (2)



Officer Cadet Stewart on his way to a record for the Orange Dash.

On 23 March 2009, IOT 16 under B Squadron started with approximately 130 officer cadets. The Course resulted in forming four flights. Initially, our Squadron Commander was Major Wilkins who was the Army Exchange Officer. He was a very influential Commander who always conveyed the reality about the journey we were all on. He made it clear from the start that the road was not going to be easy but despite that, it was achievable. The Deputy Squadron Commander was Flight Lieutenant Scott. By the end of second term, Flight Lieutenant Scott took over as Squadron Commander and Flight Lieutenant Robson became the Deputy Squadron Commander. The structure is very easy to understand. B Squadron is comprised of one Squadron Commander, one Deputy Squadron Commander, four Flight Commanders and four Deputy Flight Commanders.

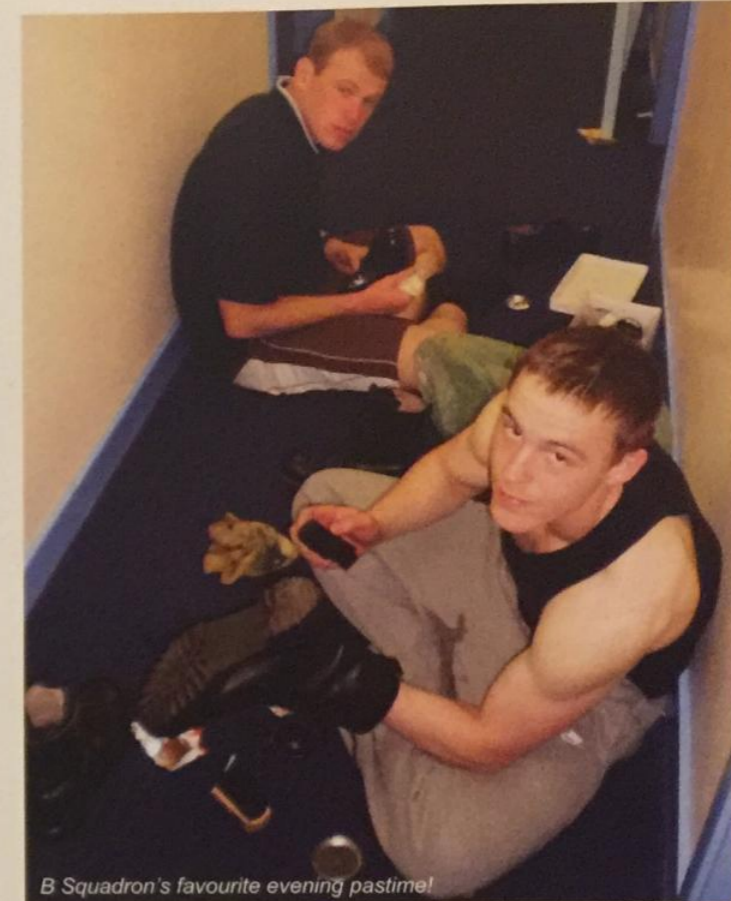
A Flight was "my family to be" for the next 32 weeks. Flight Lieutenant Sheppard and Flight Sergeant Sinclair were my Flight Staff; they nurtured me throughout the Course along with other staff members. I would not have made it through the Course without their support. I must stress that it is very important to keep your Flight Staff informed; doing so will enable them to know where you are struggling and as a result they will be able to help where necessary. My other fellow international cadets went to their respective flights. Officer Cadet Al-Harty went to C Flight and Officer Cadet Al-Wahshi went to D Flight.

I was fortunate to be in A Flight from the start. A Flight won the Squadron's drill competition in Term One. Furthermore, A Flight had Officer Cadet Stewart who was the fastest runner in OACTU. He even managed to set the new record for the Orange Dash at the Inter-Squadron Sports Competition during Term One. Furthermore, he won the Inter-Squadron Sports Cross Country on four occasions. He was the only male on our course to score 300 points on his fitness test. In addition to this, we had Officer Cadet Woodcock who is a member of the Royal Air Force Rugby Team. During the last week in Term Two, he represented the RAF in the International Sevens Tournament held in Denmark. All members of A Flight bonded together very well from the very start.

A lot of cadets found Term One physically and mentally demanding. Our Flight lost two credible cadets due to injury. I was at an advantage due to my Basic Training background. I was used to less sleep, bulling shoes, polishing boots, drill, ironing, block jobs and constant muscle soreness as a result of daily physical education. One thing worth mentioning at this point was how the ex-serving airmen helped a lot of cadets who had no form of military experience. Even though the Flight Sergeants helped with extra lessons, having the ex-serving airmen to aid at any given time made progress easier for a lot of cadets.

During the first five weeks of Term One we spent the bulk of our time with the Regiment Training Flight, Training Support Flight, Leadership Training Squadron and the Physical Education Squadron. Regiment Training Flight is responsible for providing Initial Ground Defence Trg (IGDT) for all IOT cadets, including instruction in First Aid, Weapon Training, CBRN, and Skill at Arms, Recuperation and Live Firing. Training Support Flight instructors were responsible for teaching Land Navigation skills, and for developing the cadets' personal standards regarding their uniforms, equipment and accommodation. All knowledge learned during these periods was put into practice during Fieldcraft Exercises also known as 'Bivvy weekend' at the end of Week 3. The Bivvy weekend was an introduction to the standards expected whenever in the field. In addition to that, we had a chance to practise all the navigation and personal care lessons that we were taught.

By Week 5, we had Ex STATIC which was designed to put all lessons learned in leadership to the test in the OASC Hanger. The rewarding aspect of this exercise was the introduction of Action Plans and group discussion. Each leader had to articulate an



B Squadron's favourite evening pastime!

Action Plan after he completed his lead. The Action Plan was an effective tool to help recognize what had gone wrong, what needs to be improved, and what plan the leader hopes to implement to make things better for future leads. Furthermore, as a result of the group discussion, several things that the leader might have overlooked could be voiced by his followers. This enables the follower to offer the leader advice that can assist in future leads. This technique was used throughout the exercises leading up to Exercise DECISIVE EDGE I. Additionally in Week 5, we had our first Initial Officer Training Fitness Assessment – the IOTFA – which is a 'pass or get re-coursed' assessment. The daily Physical Training sessions had boosted our fitness level.

Force Development Training Centre Fairbourne in Wales during Week 7 introduced me to an important self awareness tool known as Strength Deployment Inventory (SDI). SDI aided my performance throughout my time at Cranwell. The SDI is designed

Thirteenth Article - Recollections of IOTC 16 (3)



The CBRN conga.

to help individuals identify their strengths in relating to their subordinates under two conditions. The conditions are firstly when everything is going well and secondly when they are faced with conflict. SDI can be used so that one's personal strength may be used to improve relationships with others. It is also an inventory for taking stock of motivational values (the basis for how you feel and act in different situations), and I recommend you grasp the understanding at the initial stage because it will help you to be successful in your leads. Having a basic knowledge of how your peers react during different situations will empower you to be able to deal with them effectively.

We concluded Term One with Ex Dynamic II. For the first time, we conducted a 3-day exercise off Cranwell grounds. The most important advice I have is always keep your personal admin squared away. Follow the instruction given by the Regiment Staff at Bivvy Weekend thoroughly, or else you will suffer the consequence at the most crucial time!

Operational Studies are taught in Term One, however the main bulk of the workload is delivered during Term Two. Air Power Studies (APS) are delivered by King's College London staff; Staff Studies are delivered by ex-Service lecturers that are in the RAF Reserves. I must admit that prior to coming to Cranwell I had no sound knowledge of Air Power or the detailed chronology of how the major wars transpired and I now have a sound foundation knowledge. My advice to all potential or present candidates out



A short rest before more activities.

there is put in the maximum effort at all times, avoid distraction during lectures and furthermore, do not hesitate to ask questions. Although I was new to the topics and style of teaching, I did manage to pass all my assessments. Therefore whether you are a foreign cadet or not, there is no excuse to fail!

In Term Two, Officer Cadet Falih from Iraq joined our Course. This resulted in a total of four international cadets. As I mentioned before, the vast majority of the Operational Studies occurs in Term Two. The first weekend after leave, we had Exercise MILAID. I viewed the Exercise as the most exciting exercise compared to all the previous exercises. I do not want to spoil the surprise for you. All I can do is, assure you if you put in the work, you will reap the benefit. Just keep in mind that 'field admin' is very important. You can only be effective if you are healthy!

Term Two was referred to by Flight Sergeant Sinclair as the pressure cooker. If your time is not managed properly, you can be a victim of the system. Whatever you volunteer for or are tasked with, always take time out to organize yourself! You will be surprised how quickly demands are made from all corners. It is up to you to deal with it in an orderly fashion that will suit your schedule. Term Two was indeed a pressure cooker; Flight Sergeant Sinclair was right after all! My Flight lost a total of five people due to failure on Exercise DECISIVE EDGE I (Ex DE I), one due to injury while on Ex DE I, and one more by the end of Term Two due to not meeting the required standard that would



The hazards of exercises.

Ex MILAID - who knows what we will find next



Thirteenth Article - Recollections of IOTC 16 (4)



Officer Cadet Babalola, bottom right, at Granttown-on-Spey.

Amport House.



enable him to progress. The demand is there and as I mentioned earlier, it is up to you, as potential leaders, to be able to deal with ambiguity because at some point in your career, that will arise! Be a team player in everything you do. Help others who are struggling whenever possible, I can guarantee that you are going to need them at some point further down the line!

Term Three flew by pretty quickly. We were all treated as Junior Officers. The daily mentoring and advising had ceased.



Cadets off on another mission.

Everyone was aware of the standard expected therefore there was no excuse for any mistake. "We were all given enough rope to hang ourselves". Basically the only thing stopping you from graduating at this stage is you! The way you present yourself, your actions and most of all, your attitude indicates a lot to the Staff. Weeks 2 to 5 of Term Three were the Carousel phase. The phase consisted of different activities such as Station Visits, Force Development Training at Granttown-on-Spey, Amport House for Care in Leadership training and the Basic Air Warfare Course taught in Trenchard Hall, Cranwell. The entire Squadron was split into four groups for the duration of the Carousel Phase. It seemed odd because it was the only time at this stage in our training that some of us got a chance to work with other members from different Flights. This bonding was necessary because each group consisted of personnel who will be working together in the same Expeditionary Air Wing (EAW) in the Combined Operation Centre (COC) when we deploy to RAF Syerston for Ex DE II in Week 7 of Term Three.

Each group visited selected RAF stations for a familiarization programme. The purpose of the visit was to get a basic understanding of how a Station operates, what life as an Officer in the wider Air Force is like and also to interact with serving personnel either commissioned or non-commissioned. I was overwhelmed with knowledge gained by the end of my group's visit to RAF Wittering. It was a great opportunity to have acquired

such information at first hand. The purpose of the training at Granttown-on-Spey was to practice Mission Command in a risk environment. One cadet was appointed as leader and they had a mission to complete and were able to dissect and disseminate the tasks within the group in order for the optimum performance to be achieved.

The visit to Amport House was very productive. There we undertook the Care in Leadership Course. The Course was geared to empowering us (potential officers) with skills that will help us to look after the wellbeing of our subordinates. We spent a lot of time listening because as an officer, it is a critical skill that will enable a leader to know what his or her subordinates is feeling and how the individual emotional state will affect his or her operational effectiveness. We concluded the Carousel with Basic Air Warfare Course. I truly enjoyed every bit of time I spent over at Trenchard Hall for the duration of the two weeks. I learnt a lot about the capability that the RAF brings to the table. Furthermore, the Estimate tool was reinforced to a comprehensive standard. The knowledge gained completely exceeded my initial expectations.

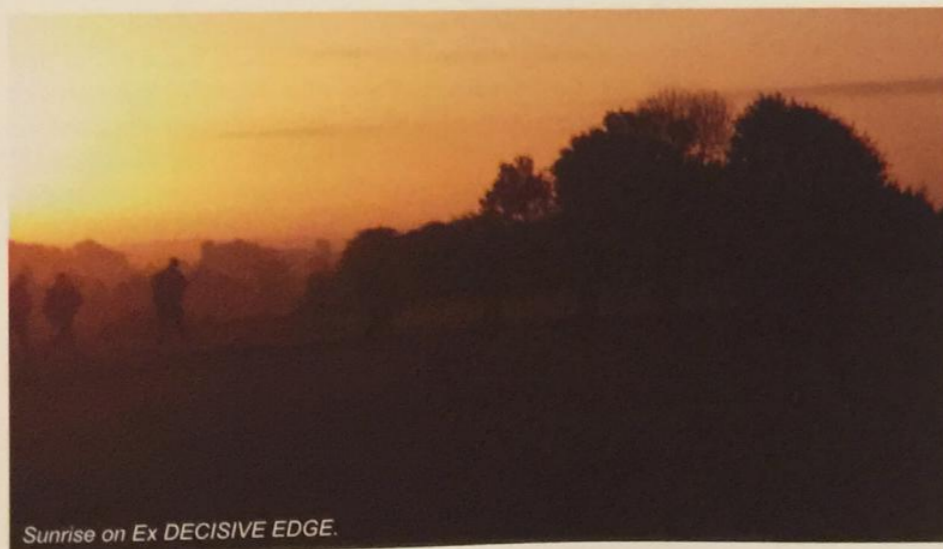
The next big challenge ahead was Ex DE II. What makes it more challenging was the fact that Term Three was responsible for the planning. Everyone had a role in the COC. Due to that role, there was a lot of planning sessions. I thought the operational studies were demanding in terms of personal allocated hours of reviewing

Thirteenth Article - Recollections of IOTC 16 (5)

documents, however I found out otherwise. Term Three took me out of my comfort zone in terms of applying knowledge gained through my personal study. Even though mentors were available, large amounts of information had to be personally acquired and digested. Only through solid preparation can one be productive in the COC. B Squadron was known to execute good exercises and, as a result, everyone worked hard to maintain the standard of the Squadron. I fully enjoyed every bit of time I spent in the COC.

I have been blessed throughout my time at the RAF College. The weather could not have been better; all the exercises had good weather despite a few showers every once in a while and the personal kit provided was excellent. It is worth noting to make proper use of the layering system. There will be times especially in the night while on exercise when it will be very cold. That is when the layering system is very important and necessary in order to be protected. Only through proper maintenance will you be able to carry out your duties appropriately and concisely. It pays to be a team player no matter what situation you find yourself in. There will be times when you feel a bit down, I recommend you talk to your peers. There will always be someone who will be able to help you out directly or indirectly. Honesty is the best policy; that said, do not hesitate to seek assistance, whenever necessary.

Graduation is a couple days away and I cannot wait to be a commissioned officer. I have a long road ahead and I know for sure that I will be an effective leader who can be looked up to by others for inspiration. The training here at Cranwell has laid a solid foundation in my career and my intent is to maintain what has been instilled in me, and continue to grow. I hope by reading this concise article, you now have a better idea of what to look forward to. I would like to conclude with one of my famous phrases "Life is what you make of it, if you put in the work, most definitely will you reap the benefits. Opportunities exist, therefore, it is up to you as an individual to grab what you want and make the most of it!"



Sunrise on Ex DECISIVE EDGE.



Waiting to deploy on Ex DECISIVE EDGE.

Fourteenth Article - A Sqn SERE Short Courses (1)



Fourteenth Article - A Sqn SERE Short Courses (2)

A Squadron Short Courses

Officer Cadet Wroe, Specialist Entrant and Re-entrant Course, A Squadron

The Specialist Entrant and Re-entrant (SERE) course is the major commissioned element of A Squadron. Each course is 11 weeks in duration and starts during the OACTU leave period. Following the same outline as our main squadron counterparts the frenetic pace leaves no room for error and time is precious. Following arrival and attestation the training focuses on the development of cadets from being highly competent civilian professionals, into capable military individuals. The OACTU Fitness Assessment (OFA) is the first hurdle – held on day one – and failure results in being removed from course and placed on RAD Flight. The cadet will then undertake a period of intense physical training prior to returning to a later course, when their fitness has met the required standard. Officer cadets are in uniform from day two, and the arduous task of getting everything up to the required standard is helped by the careful guidance of the Flight Sergeant – there is no room for the feint hearted! Aided by organisational skills from previous life experiences and employment, we manage the stressful situations with self-discipline and plenty of immoral humour, often provided by the doctors, nurses and padres. By the end of Week 1 the weapon handling test has been passed, we have met the required standards of the OFA, know every inch of the Parade Square and have turned our bedrooms into a special place that glistens everywhere you look – something a mother would be proud of, yet where the Flight Sergeant will always find 'areas for improvement'.

Following introductions to leadership theory and practical lessons, Airpower studies, a smattering of first aid, CBRN, more drill and definitely more Physical Education we undertake a weekend of freedom away from the College to undergo Practical Leadership Training in the Peak District. We discover where our strengths and weaknesses lie, learn to trust each other, and accept that working alongside the staff is not all that bad. Arriving back late on the Saturday, the evening is then spent preparing for the 'Bivvy' night, where more military skills are taught and then put in to practice with gourmet food *al fresco* and a night under the stars.

The exercise in Week 5 is Exercise Military Aid to the Civil Authorities, often shortened to Exercise MILAID, with scenarios to test the mettle of all. Previous counselling and analytical skills

come to the fore in enabling us to show what we are made of. However, the staff members still have the ability to 'help' rational professionals with years of leading medical and community-based teams become nervous amateurs. Long days on the training area cement all the previous teaching and allow for last minute alterations to varying styles that will all come to fruition in no more than two weeks at Exercise DECISIVE EDGE (DE). Harsh words aimed right between the eyes leave no room for mistakes and this is just from our peers during the post-lead review. This peer feedback is an essential element of the Course following on from the trust exercises; the criticism is constructive but often a difficult pill to swallow. As professionals we accept that the feedback is not personal and look at the perceptions of others to try and prevent reoccurrences in the all-encompassing leadership assessment that is DE.

A week of military field skills allows individuals the opportunity to practice and hone their Force Protection skills prior to deployment on Ex DE. Before all of this happens there is the one and only Ultimate Challenge – this means physical exertion, mental awareness and the guile to beat the main squadron! A whole morning of heavy battle PT culminates in the finishing run around the Orange showing how far we have come and how far we can push ourselves when we need to.

Ex DE is the main leadership exercise that tests individuals in all that they have learnt on course to date. Punishing days consisting of long shifts offer an insight in to the roles and responsibilities on an austere Deployed Operating Base (DOB). Success on our tested leads allows SERE cadets to be 'fast tracked' to Term Three and the Combined Operations Centre (COC); this is the heart of where the operation is run from. Undertaking the roles of an SO2 or SO3 we have our first insight into staff appointments, where our actions affect the troops on the ground and how the leads of others are played out. Liaisons with Host Nation forces and on-the-spot decisions show how the accumulation of training has enabled us as individuals to become military focussed, making the most of our military training as well as the abilities accumulated in our previous lives.

Post-Ex DE, the final two weeks focus on Graduation starting on the Tuesday of Week 9 when the results of the review board

are released indicating whether we have passed or are being re-coursed for further training. The popping of champagne corks delivers the confirmation for Graduation and the start of the drill phase in preparation for Graduation Parade. A formal Dining-In night sees us dined in to the RAF – this provides an opportunity to announce prize winners. For SERE the awards are the Daedalus and Chapman trophies.

On Graduation Day emotions run high as the culmination of all the hard work, training and effort from both students and staff comes to fruition. Standing on the Parade Ground, impeccably dressed we all feel the hairs raise on the back of our necks several times over, whether it be the flypast, first salute from the Flight Sergeants or the cheer as the doors close behind you; we have made it through Initial Officer Training and are ever closer to going on to do what we were trained to do out of uniform. The final and most poignant moment of the course is the Graduation Ball, and is highlighted at midnight when, gathered in the Rotunda of College Hall, the names of the Graduating Officers are read from the scroll. Everyone cheering everyone!

Learning a range of military skills; improvements in dress, bearing and deportment; greater self-control, confidence and conduct; improved teamwork, leadership and management – all are skills that we have developed, getting us ready for the next step. We remain professionals and are now, in addition, military professionals. The condensed nature of the Course has made us realise that we have achieved more than we believed we were capable of. Learning quickly we overcame the problems and enjoyed working with our main squadron counterparts proving we were just as capable and on occasions going beyond 'just capable' to dispel any myths that we were inadequate because our course was shorter. Although shorter, we have covered the important elements in our military training. That said we know we still have so much to learn, yet are confident in our abilities to deal with the experiences we are yet to undertake.

We have now taken the first steps in a long journey of development and learning from the foundations and history of the RAF to its future as equals to our main squadron counterparts striding forward together as professionals.

Fifteenth Article - RAF Cranwell Senior Appointments (1)

Royal Air Force College Senior Appointments

Commandant Royal Air Force College & Director of Recruitment and Initial Training (Royal Air Force)

Air Commodore Stevenson graduated from officer training in 1982, before conducting his flying training in the USA on the T-37 and T-38 and then on Hawk aircraft in the UK. After conversion to the Harrier, he conducted flying and staff tours in the UK, Germany, Italy and the Netherlands, as well as staff college in Spain. Milestones during his tour as Officer Commanding 3 (Fighter) Squadron included relocating the Squadron from RAF Laarbruch, Germany to RAF Cottesmore, several periods of operational deployment to the Balkans region, and deployment aboard HMS ILLUSTRIOUS in 2000, where he led the first operational sortie of the newly formed Joint Force Harrier over Sierra Leone.



Air Commodore A D Stevenson
OBE ADC FRAeS RAF

After a spell in the Directorate of Air Operations in the MOD, Stevenson was posted in 2002 to RHQ AFNORTH as Principal Staff Officer to CINCNORTH (now renamed COM JFC Brunssum), during which time NATO assumed responsibility for the International Security Assistance Force (ISAF) mission in Afghanistan, and the NATO Response Force was formed. He became Station Commander of RAF Wittering in February 2005, where his principal focus was to create a single hub for RAF expeditionary logistics capabilities and to oversee the revised command arrangements for Joint Force Harrier. A short tour at HQ 1 Group as Air Commodore Operations and Force Development, beginning November 2006, was followed by deployment to Afghanistan in June 2007 as Commander Kandahar Airfield where, on behalf of NATO, he established the provision of all support and force protection requirements for over 10,000 personnel and 120 aircraft based there. In March 2008, he took up post as Commandant RAF College Cranwell & Director of Recruitment and Initial Training (RAF).

Together with his Danish wife, Charlotte, they have 2 children, Liam (1996) and Olivia (2000). His interests include golf, motorcycles, photography and reading history.



Group Captain P Cunningham
BSc RAF

Chief of Staff & Deputy Commandant Royal Air Force College Cranwell

Group Captain Paul Cunningham was commissioned as a pilot into the RAF as an Acting Pilot Officer on 1 September 1974. As a RAF University Cadet he was a member of Bristol University Air Squadron and graduated from Bath University in 1977 with an honours degree in Aeronautical Engineering.

Following flying training at RAF College Cranwell, and RAF Shawbury, his first tour was on Search and Rescue Sea Kings with 'C' Flight 202 Squadron at RAF Coltishall. After the invasion of the Falkland Islands in April 1982, he was detached to Ascension Island to assist with the logistic support of the UK Task Force before moving onto Navy Point (Port Stanley) in August of that year. Following a further tour on Sea Kings,

this time at RAF Brawdy, he was posted to RAF Shawbury in 1985 to train as a Qualified Helicopter Instructor, serving first on the basic helicopter training squadron and then with the Central Flying School (Helicopters), before promotion resulted in a change of role with a posting to No 230 Squadron (Puma) at RAF Gutersloh as a Support Helicopter Flight Commander.

The first taste of staff work came in 1990 with a posting to HQ Northern Ireland in Lisburn as the Air Liaison Officer, which led 'naturally' to selection for the Army Command and Staff Course at Camberley in 1992. On graduation from Staff College he was posted to Headquarters 1 Group for 2 months before being appointed 2IC of the Support Helicopter Force HQ at RAF Benson. This was followed promptly in October 1993 by a posting to the Plans Branch, Headquarters Strike Command, where he was responsible for Support Helicopter and RAF Regiment issues, including the basing of units on withdrawal from Cyprus and Germany and the Restructuring of the Support Helicopter Force. On promotion to Wing Commander in 1996, he took up an appointment in the Directorate of Air Staff in the Ministry of Defence until he was appointed as Officer Commanding Operations Wing, RAF Aldergrove in December 1997.

On returning from Northern Ireland in February 2000, he took up another staff position in the Ministry of Defence before being seconded in 2002 to Headquarters Personnel and Training Command as a member of the Airmen Aircrew Sustainability Study and the Aircrew Structures Review Team. Following the successful completion of these studies, he was promoted to Group Captain in 2003 and returned to the Ministry of Defence as the Assistant Director responsible for UK Policy on NATO. He was appointed Station Commander at RAF Shawbury from 2005 to 2007 before assuming his current role as Chief of Staff and Deputy Commandant at the RAF College Cranwell in January 2008.

Group Captain Cunningham's wife Kathy is a secondary school teacher and they have 2 children: Alan, who is a doctor at Sunderland Royal Hospital, and Laura, who is studying for a Masters Degree in Chiropractic at Bournemouth University. Away from work, his interests include computing and motor mechanics - including building a sports car from scratch and the 'rolling restoration' of a 42 year old Morris Traveller. He attempts to keep fit with hill walking, especially in the Lake District, and frequent exercise.

Group Captain Officers and Aircrew Selection Centre

Group Captain Tom McWilliams was commissioned into the Royal Air Force in 1973. He transferred to the General Duties (Navigator) branch in 1977, completing navigator training in 1978. His first operational tour was with No 7 Squadron flying the Canberra from St Mawgan. He then converted to the Buccaneer Strike/Attack aircraft in 1982 and served with No 16 Squadron at Laarbruch in Germany. On returning to the UK in 1983 he took up instructional duties at the Royal Air Force School of Navigation at Finningley.



Group Captain T P McWilliams
FRIN RAF

Fifteenth Article - RAF Cranwell Senior Appointments (2)

Back to Germany in 1988 as an exchange officer with the Luftwaffe at JaboG 49, Furstenfeldbruck, he was promoted to the rank of Squadron Leader. Returning to the UK in 1990 he assumed the post of National Senior Navigator at the Tornado Operational Conversion Unit, Cottesmore. On completion of this tour in 1993, he travelled once more to Germany to ICAOC 4, Meßstetten, as Chief of Offensive Current Operations. From Meßstetten he was chosen to complete Advanced Staff Training at the Royal Air Force College Bracknell; graduating from the College in 1996.

Post Staff College, a shortened tour at HQ AFNORTHWEST, High Wycombe, saw him promoted to the rank of Wing Commander in 1997 and transferred to the Air Warfare Centre at Waddington as a member of the operational doctrine team. On completion of this tour in 2000, he took command of the Navigator and Airmen Aircrew School, RAF Cranwell; maintaining command of the unit when it was reformed as No 55(R) Squadron in 2001. He relinquished command of 55(R) Squadron in 2003 on promotion to Group Captain and moved back to Germany as the UK Liaison Officer to Headquarters United States European Command in Stuttgart. He left European Command in 2006 to take up his current position of Group Captain Officer & Aircrew Selection Centre.

Tom is married to Elizabeth (Liz) and they have 2 girls, Kirsten (Manchester University) and Katy (Stamford High School). Away from the office, interests include hill-walking, running, skiing, woodwork, house renovation, computing and cooking.



Group Captain G J Bruce
MBE MA FCIPD RAF

Group Captain Inspectorate of Recruiting (Royal Air Force)

Group Captain Gordon Bruce joined the Service in 1987 and spent the early part of his career in a range of posts in the UK and Germany. Staff appointments during that time included Headquarters 2 Group and MoD. On graduation from No5 Advanced Command and Staff Course he became OC Admin Wing at RAF Lyneham. There followed a tour in the Personnel Management Agency, where he was responsible for the career management of all ground branch squadron leaders, after which he was appointed as the Personal Staff Officer to CinCPTC. The Group Captain commanded RAF Brampton Wyton Henlow before becoming the Group Captain Recruiting (RAF) in May 2008.

Group Captain Officer & Aircrew Cadet Training Unit

Group Captain Martin Killen graduated from St Andrews University in 1980 with a Bachelor of Science Degree in Physics and Mathematics. After flying training, he served in a number of Royal Air Force squadrons in the air defence role and in training. He has commanded at flight and squadron level and has accumulated over 4500 hours on Phantom F4K and F4M, Hawk, and T-38 aircraft. Gp Capt Killen was a Qualified Flying Instructor (QFI) on the F4 and the Hawk, and was an Instructor Pilot on the T-38. He served as Sqn QFI on 56(Fighter) Sqn and 74(Fighter) Sqn, and as OC 1435 (F4) Flight in the Falkland Islands. His last flying appointment was as Wing Commander Central Flying School where he was responsible for assessing flying instructional standards in the Royal Navy, the British Army, the RAF, and foreign and commonwealth



Group Captain M F Killen
BSc RAF

air arms by invitation. Staff appointments have included Personal Staff Officer to AOC TG, a tour on the Air Staff in the Ministry of Defence, and Head of Air Component and Division Director at the Joint Services Command and Staff College at the Defence Academy of the UK. His most recent appointment was RAF Advisor to Cdr Air University and Air War College Faculty Member at Maxwell AFB, Alabama. Gp Capt Killen holds a Masters Degree in Strategic Studies from the Air University graduating with academic distinction.

His interests include riding, downhill skiing, fencing, scrambling and reading military history. He is accompanied by his wife Sheila, and children Matthew (1996) and Anna (1999).

Dean of the Royal Air Force College

Dr Joel Hayward taught strategy and operational art at the Joint Services Command and Staff College before becoming, in November 2005, the Head of the new Air Power Studies Division created by the Royal Air Force and King's College London. He and his team of academics are based at the historic and prestigious Royal Air Force College, Cranwell, of which he was appointed the Dean in April 2007. Four months later he was also appointed a Director of the Royal Air Force Centre for Air Power Studies (RAF CAPS). Dr Hayward is additionally a member of the CAS Air Power Workshop, a small working group of scholars and other theorists convened by the Chief of Air Staff, Royal Air Force. He is also the academic lead, and air power conceptual designer, of King's new MA, Air Power in the Modern World (subject to validation), as well as a member of the Editorial Advisory Board of both the World War II Quarterly and the Air Power Review.

A former Senior Lecturer in Defence and Strategic Studies at the Centre for Defence Studies in New Zealand, his birth country, Dr Hayward has taught in, or lectured to, many officer cadet colleges and command and staff colleges around the world. He continues to teach or advise on air power matters at military academies and colleges throughout Europe and beyond and is a regular speaker at air power conferences. He holds fellowships from the USAF and the Federal Government of Germany.

He has written or edited eight books and dozens of peer-reviewed academic articles, as well as countless newspaper pieces. While retaining his primary focus on air power, Dr Hayward has a wide-ranging intellectual curiosity and nowadays gains greatest pleasure from researching and writing on the ethics of air power and the complex relationship between air power and ecology. Some of his works have been translated into German, Russian, Portuguese, Spanish and Serbian.

Dr Hayward is currently under contract with Cambridge University Press to author a pioneering new study, An Ecological History of War: The Environment Consequences of Warfare from Antiquity to the Present.

In May 2007 three of Dr Hayward's earlier articles on German strategy and operational art were considered sufficiently meritorious to be republished by eminent English historian Professor Jeremy Black in a volume of "seminal articles" on the Second World War.

Unusually for a social scientist, he is also active in the literary arts. He has had much poetry and fiction published, including a book of short stories and a book of poetry. Both garnered excellent reviews.



Dr Joel Hayward
ZDAF BA MA (Hons) PhD

Fifteenth Article - RAF Cranwell Senior Appointments (3)

Officer Commanding No1 Elementary Flying Training School

Group Captain Lee began his flying career on the University of Wales Air Sqn whilst studying for a Bachelor's degree in Marine Biology and Oceanography at Bangor University in North Wales. After completing flying training he was posted to No 201 Sqn RAF Kinloss flying the Nimrod MR2. Catching the closing years of the Cold War, he was able to hone his anti-submarine warfare skill frequently on Soviet nuclear and conventional submarines. During Gulf War 1 the Nimrod switched to an anti-surface role and Flt Lt Lee was the pilot in command of the first Nimrod to patrol the Persian Gulf.

A CFS tour followed with a posting to the Tucano at RAF Cranwell, where Flt Lt Lee became an A2 flight commander and the Unit Test Pilot. Returning to the front line Flt Lt Lee flew as a captain and AAR pilot on No 206 Sqn RAF Kinloss on the Nimrod, before being promoted into a flight commander position on No 120 Sqn, where he became an Aircrew Checking Officer and IRE.

A ground posting finally arrived with a posting to No 3 Group at Northwood in the post of SO2 Nimrod. A place on ACSC, an MA and promotion followed and in 2003 Wg Cdr Lee was appointed Commanding Officer of No 32 (The Royal) Sqn at RAF Northolt where, although specialising in the BAe 125, he was also able to fly the BAe 146 and Twin Squirrel helicopter.

Following this Wg Cdr Lee was posted to the Directorate of Air Resources and Plans in MOD, before being promoted into the role of Gp Capt Air RP. Gp Capt Lee assumed the post of OC No 1 EFTS on 22 Oct 09.

Gp Capt Lee is married to Alison, a dentist and has 2 children, Jonathon 12, and Susannah 10. They live in their own house in Amersham. Hobbies include motorcycling, classic cars, sailing (dinghy and offshore) and skiing.



Group Captain D J F Lee
BSc MA RAF

Royal Air Force Cranwell Senior Appointments

Officer Commanding Royal Air Force Cranwell & No 3 Flying Training School

Group Captain Nigel Wharmby joined the RAF in 1980 under the University Cadetship scheme and graduated from Manchester University with a First Class Honours degree in Mechanical Engineering in 1981. Initial Officer Training and Basic Flying Training were completed at RAF Cranwell, prior to fast jet training at RAF Valley and tactical weapons training at RAF Chivenor in 1982 and 1983 respectively. Selected to fly the Harrier, Gp Capt Wharmby completed conversion training on 233 OCU at RAF Wittering in 1984, from where he was posted to 3(F) Sqn at RAF Gutersloh in Germany. A 3 year tour on 3(F) Sqn was followed by a tour as a Qualified Weapons Instructor on the Hawk at RAF Brawdy before return



Group Captain N E Wharmby
OBE MA BSc RAF

posting to the Harrier Force on promotion to Squadron Leader in 1991. After a 3 month detachment to Belize as the Harrier Flight Commander, Gp Capt Wharmby converted to the night attack Harrier GR7, rejoining 3(F) Sqn in 1993 at RAF Laarbruch in Germany as a Flight Commander and the Sqn Executive Officer. After a further 3½ year tour, Gp Capt Wharmby assumed the role of OC Harrier Plans, also at RAF Laarbruch, responsible for the planning, preparation and coordination of Harrier deployed exercises and operations. During his time in Germany, Gp Capt Wharmby saw operational service with the Harrier Force over Iraq and the Balkans.

Selected for Advanced Staff College, Gp Capt Wharmby graduated from the first Joint course at JSCSC Bracknell with an MA in Defence Studies in 1998. He was then posted to RAF Cottesmore as OC Operations Wing, in which role he was responsible for planning and overseeing the Station's transition from Tri-national Tornado Training Establishment to the operational home of the Harrier Force on its relocation from Germany. During this tour, Gp Capt Wharmby was forced to eject from a Harrier following a catastrophic engine failure from which he sustained critical spinal injuries. One year later, however, following major spinal surgery, Gp Capt Wharmby regained his former aircrew medical category and completed a further 18 months flying Harriers before moving to the Directorate of Defence Policy Planning, MOD in 2002. Gp Capt Wharmby was selected for promotion to Gp Capt in April 2004 and assumed command of Basrah Air Station in Iraq for a 7 month operational tour of duty, after which he returned to the MOD as an Assistant Director in the Directorate of Joint Capability. After 2 years in London, Gp Capt Wharmby was selected to be Station Commander RAF Cranwell, taking up his current post on 1 February 2008, having first completed the multi-engine Qualified Flying Instructor course on the King Air.

Commandant Air Cadet Organisation

Air Commodore Ian Stewart left school in 1976 as a Cadet Warrant Officer having been awarded the Duke of Edinburgh Silver Award, a basic gliding certificate and a flying scholarship. He went on to study Aeronautical and Astronautical Engineering at Southampton University as an Acting Pilot Officer with an RAF University Cadetship. Having completed Officer Training at RAF Cranwell in 1980 he remained to complete basic flying training before moving on to RAF Valley for advanced training. He was selected to become an instructor and after completing Central Flying School training at RAF Leeming, he was posted to RAF Linton-on-Ouse in 1983 as a Qualified Flying Instructor where he flew over 1000 hours on the Jet Provost basic trainer. In 1986 he converted to the Phantom FGR2 and served on 92 Squadron, RAF Wildenrath in Germany, as the Squadron Qualified Flying Instructor. He moved back to 228 Operational Conversion Unit at RAF Leuchars in 1989 before converting to fly the Tornado F3. In 1992 he moved from Leuchars to RAF Coningsby and joined the Tornado F3 Operational Conversion Unit 56 (R) Squadron as a flight commander. In 1994 he joined the staff at 11 Group Headquarters at RAF Bentley Priory, serving on the Air Defence training desk. At the end of 1996 he completed the Joint Service Defence College course at Greenwich. He then commanded the Flying Training Development Wing at RAF Halton where he was responsible for devising a training strategy for fast jet pilots. In 1999 he served in the Defence Crisis Management Centre in MOD as a Kosovo briefing officer and completed a



Air Commodore I R W Stewart
BSc RAF

Fifteenth Article - RAF Cranwell Senior Appointments (4)

short tour within the former Directorate of Public Relations(RAF). From April 2000 to October 2002 he was the Officer Commanding 56 (R) Squadron at RAF Coningsby. After achieving over 1000 flying hours on the Tornado F3 he joined the UK Permanent Joint Headquarters at Northwood as the J5 Plans SO1 Deployable Liaison Officer and was a member of the Operation TELIC planning staff responsible for the UK's contribution to Coalition operations in Iraq. In 2003 he was posted to Ramstein Air Base, Germany, where he served as the A3 Division Head and United Kingdom Senior National Representative within the NATO Component Command-Air Headquarters. In early 2004 he served as Assistant Chief of Staff (Air) within the International Security Assistance Force in Kabul, Afghanistan, and was awarded the NATO Meritorious Service Medal in 2006 for services to NATO. His last assignment was as the head of the Officer and Aircrew Cadet Training Unit at RAF Cranwell from 2006 until May 2008. Air Commodore Stewart is the Chairman of the 56 Squadron Association and the Chair of Trustees of the RAF Cranwell Kidzone Childcare Centre. He has been married to Rosemary since 1981 and they have 3 children; Chris, Mike and James. His interests include skiing, foreign travel and singing.

Commandant Central Flying School.

Group Captain Simon Blake joined the Royal Air Force in March 1981. Following the usual Fast Jet training route, he took the slightly longer than usual method of getting to the front-line, via a tour flying Canberras in the ECM trg role with No 360 Sqn and a tour as a QFI at No 4 FTS at RAF Valley. Following Jaguar training, he arrived on No 6 Sqn at RAF Coltishall in Oct 1991 to commence a long association with the Jaguar Force. An extended tour saw him promoted to become a Flt Cdr, and subsequently the ExecO on No41(F) Sqn.



Group Captain Simon Blake
OBE MA RAF

During this period at Coltishall, Blake saw operational service in both Iraq (OP WARDEN) and Bosnia (OP DENY FLIGHT, DELIBERATE GUARD) in support of the respective No-Fly Zones imposed in both theatres. Achieving some 180 operational sorties, his most notable achievement was to deploy in support of the Harrier Force in Aug-Sep 95 during Op DELIBERATE FORCE; Blake flew one of 2 Jaguar providing airborne laser designation (TIALD) support to the Harriers of No IV(AC) Sqn. He subsequently led the return of the Jaguar Force to the Bosnian theatre, vice the Harrier Force, in early 1997.

A tour in the Aircraft Programmes and Airworthiness division of the Directorate of Air Operations followed where Blake was responsible for associated issues with the Jaguar, Canberra and Hawk fleets. He successfully completed No 4 ACSC, the first at the then new JSCSC at Shrivenham, during 2000-1, gaining an MA in Defence Studies. Promotion and a relatively short tour as SO1 during 2000-1, followed by a final tour at Coltishall, this time as OC Jaguar/Canberra/Recce at HQ No 1 Gp was followed by a final tour at Coltishall, this time as OC Operations Wg from Oct 2004 to Apr 2006, the last four months of which saw him act as the Stn Cdr and effectively supervise the closure of Coltishall as a flying station. This was followed by a tour in Iraq as Det Cdr at Balad AB. He was promoted to Group Captain in December 2006 to assume the post of DACOS A3 Ops at HQ Air Command. On 1 Oct 2009, he assumed his current post as Commandant of the Central Flying School.

During his career, Blake has amassed almost 4000hrs, deployed widely on both operations and exercises, and been awarded the MBE and OBE. He is married to Sarah, a serving officer and they live in their own house in Norfolk. His interests include renovating and maintaining his garden and social golf.

Officer Commanding Royal Air Force Leadership Centre

Group Captain John Jupp was educated at Lancing College in Sussex and joined the Royal Air Force in 1979 as a pilot on completion of his degree in Philosophy and Mathematics at Kings College, London University. After officer training at RAF College Cranwell and pilot training at RAF Church Fenton and RAF Valley he was posted to the Tactical Weapons Unit at RAF Chivenor. From RAF Chivenor, Group Captain Jupp was sent to fly the F4 Phantom in the Air Defence role from RAF Coningsby in Lincolnshire. In 1985 he was posted to RAF Leuchars in Fife after a short, operational tour with 23 Squadron in the Falkland Islands. Whilst at RAF Leuchars, Group Captain Jupp became an Instrument Rating Examiner and a Qualified Weapons Instructor. In 1988 he moved to 74 Squadron at RAF Wattisham in Suffolk for a further tour on the Phantom before promotion and a posting to the Inspectorate of Flight Safety investigating aircraft accidents, including those in the first Gulf War. He returned to flying in 1992, converting to the Tornado F3 and commanding the Weapons Flight on 111(F) Squadron at RAF Leuchars; a tour which included flying in the Bosnian war. This was followed by Staff College with the Royal Navy at the RN College, Greenwich, culminating in a MA in Defence Studies and a short stint with Operational Requirements in the MOD with responsibility for Eurofighter avionics development. On promotion to Wing Commander, he was posted to Headquarters 11/18 Group at RAF Bentley Priory in charge of operations. In January 2000, he took command of 111(F) Squadron leading them through several visits to Saudi Arabia to police the No Fly Zone over southern Iraq. On completion of that tour he was awarded the OBE and posted to the Operations Branch at Headquarters Strike Command where he led a small staff coordinating the deployment and recovery of all RAF operations including the second Gulf War. He was promoted to Group Captain in September 2003 and appointed to lead the newly formed RAF Leadership Development Team which later became the RAF Leadership Centre (RAFLC). In October 2007 he became DACOS Generic Education and Training Centre, an amalgamation of the RAF LC, Force Development Support Group, Air Warfare Training Management Team and Generic Training.



Group Captain John Jupp
OBE MA BA RAF

Group Captain John Jupp is married to Miss Belinda Gillespie and they have four daughters.

Sixteenth Article - 2009 Prizewinners (1)

Royal Air Force Cranwell - Prizewinners 2009

Initial Officer Training Annual Awards

The Queen's Medal

The Queen's Medal is awarded to the RAF officer who, during Initial Officer Training, proved to be the most outstanding cadet of the year.

Flying Officer D J Taudevin

The International Sword of Honour

The International Sword of Honour is awarded to the International officer who, during Initial Officer Training, proved to be the most outstanding International cadet of the year.

Lieutenant M S Al-Henkawe IqAF

The Ecole De L'Air Trophy

The Ecole De L'Air Trophy is awarded to the RAF officer who, during Initial Officer Training, produced the most distinguished performance of the year in academic studies.

Flying Officer K Strickland

The Prince Bandar Trophy

The Prince Bandar Trophy is awarded to the RAF officer who, during Initial Officer Training, submitted the best essay of the year on a Defence-related topic.

Flying Officer V N Thorpe

The John Constable Memorial Trophy

The John Constable Memorial Trophy is awarded to the RAF officer, under the age of 21 at entry to the RAF College, who, during Initial Officer Training, demonstrated the greatest potential for further development by producing the best overall performance in both leadership and professional studies during the year.

Pilot Officer T F Wallington

Initial Officer Training Course Awards

The Sword of Honour

Awarded to the cadet who has demonstrated outstanding ability, leadership and other officer qualities and potential for further development.

IOTC No 13	Officer Cadet G A Turnbull
IOTC No 14	Officer Cadet C B Shone
IOTC No 15	Officer Cadet C D Thompson
IOTC No 16	Officer Cadet F J Bullen

The Hennessy Trophy and Phillip Sassoon Memorial Prize

Awarded to the RAF cadet who, during initial officer training, has proved to be the best all-round cadet, other than the Sword of Honour winner.

IOTC No 13	Officer Cadet D J Clarke
IOTC No 14	Officer Cadet M S E Jewers
IOTC No 15	Officer Cadet A J Staincliffe
IOTC No 16	Officer Cadet A K McEwen

The MacRobert Prize

Awarded to the cadet who, during initial officer training, in the opinion of his peers, has made the greatest contribution to the Course.

IOTC No 13	Officer Cadet J A Iago
IOTC No 14	Officer Cadet C R D Wood
IOTC No 15	Officer Cadet J S Elliot
IOTC No 16	Officer Cadet I D Matthews

The King's College London Trophy

Awarded to the cadet who, during Initial Officer Training, has demonstrated consistent academic excellence.

IOTC No 13	Officer Cadet L S J McGeever
IOTC No 14	Officer Cadet F M Bell
IOTC No 15	Officer Cadet C D Thompson
IOTC No 16	Officer Cadet A M Fulker

The BAE Systems Trophy

Awarded to the RAF or International cadet who has attained the highest marks for professional studies on the Course:

IOTC No 13	Officer Cadet T D Stokes
IOTC No 14	Officer Cadet L M R Williams
IOTC No 15	Officer Cadet A J Tyler
IOTC No 16	Officer Cadet S D Cannon

The Overseas Students' Prize

Awarded to the International cadet who, during Initial Officer Training, has attained the highest marks for professional studies on the course.

IOTC No 13	Not awarded
IOTC No 14	Officer Cadet A O O Nanakali IqAF
IOTC No 15	Officer Cadet B A D H B Kithsiri SLAF
IOTC No 16	Officer Cadet M A Babalola BDF

Sixteenth Article - 2009 Prizewinners (2)

The Group Captain Williams Memorial Trophy

Awarded to the RAF cadet who, during Initial Officer Training, has shown the greatest improvement.

IOTC No 13	Officer Cadet C S Hall
IOTC No 14	Officer Cadet C Loughlin
IOTC No 15	Officer Cadet C J Stafford
IOTC No 16	Officer Cadet P W Little

The Sarah Moland Memorial Prize

Awarded to the RAF cadet who, during Initial Officer Training, has demonstrated outstanding qualities of courage and fortitude.

IOTC No 13	Officer Cadet M E Eager
SERE No 10	Officer Cadet K James
IOTC No 15	Officer Cadet E N Long
IOTC No 16	Officer Cadet D I Metcalfe

The Longcroft Trophy

Awarded to the cadet who, during Initial Officer Training, has contributed most to sport.

IOTC No 13	Officer Cadet J A Lago
IOTC No 14	Officer Cadet M J Byrne
IOTC No 15	Officer Cadet A J McNab
IOTC No 16	Officer Cadet A M Clayton

The RAF Club Prize

Awarded to the RAF cadet who, in the eyes of the Directing Staff has, throughout the Course, shown grit and unwavering perseverance, meeting every challenge with enthusiasm.

IOTC No 13	Officer Cadet D W A Rice
IOTC No 14	Officer Cadet A Milligan
IOTC No 15	Officer Cadet K D Evans
IOTC No 16	Officer Cadet C J F Welch

Special Entrant and Re-entrant Course Awards

The Daedalus Trophy

Awarded to the student who, during training on the Specialist Entrant and Re-Entrant Course, has proved to be the best all-round cadet.

SERE No 10	Officer Cadet T M Bennett Britton
SERE No 10A	Officer Cadet H D Trudgeon
SERE No 11	Officer Cadet S L R Ball

The Chapman Trophy

Awarded to the Specialist Entrant and Re-Entrant Course officer cadet who, by showing strength of character, has succeeded despite adversity and who has inspired others on the Course to reach the exacting standards required to graduate.

SERE No 10	Officer Cadet A L Dyer
SERE No 10A	Officer Cadet S A Homer
SERE No 11	Officer Cadet S J Shaw

Non-Commissioned Aircrew Initial Training Course Awards

The Air Gunners' Association Trophy

Awarded to the cadet who, during NCA Initial Training, attained the highest overall academic performance.

238 NCAITC	Sergeant S Dodd
239 NCAITC	Sergeant K A Simpson-Purkiss
240 NCAITC	Sergeant J R Ainsworth
241 NCAITC	Not awarded

The Butler Trophy

Awarded to the cadet who, during NCA Initial Training, has demonstrated outstanding Team Support.

238 NCAITC	Sergeant P D Storey
239 NCAITC	Sergeant R T E Myers
240 NCAITC	Sergeant J J Bradley
241 NCAITC	Not awarded

The Bowering Trophy

Awarded to the cadet who, during NCA Initial Training, has demonstrated the greatest determination, effort and enthusiasm in physical education

238 NCAITC	Sergeant D Tabreham
239 NCAITC	Sergeant S J Stubberfield
240 NCAITC	Sergeant A B Harrison
241 NCAITC	Not awarded

The Training Trophy

Awarded to the cadet who, during NCA Initial Training, has demonstrated the greatest improvement.

238 NCAITC	Sergeant S M Lowther
239 NCAITC	Not awarded
240 NCAITC	Not awarded
241 NCAITC	Not awarded

Sixteenth Article - 2009 Prizewinners (3)

The Training Poignard

Awarded to the cadet who, during NCA Initial Training, has achieved the best overall performance in Leadership and SNCO qualities.

238 NCAITC	Not awarded
239 NCAITC	Not awarded
240 NCAITC	Not awarded
241 NCAITC	Not awarded

Defence College of Logistics and Personnel Administration Annual Award

The Chartered Management Institute Prize

Awarded to the student on the Intermediate Logistics Management Course, who achieves the highest standard in professional studies and who demonstrates good management potential.

No 50 ILMC	Not awarded
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Air Warfare Centre Cranwell

The Andrew Humphrey Memorial Gold Medal

Awarded to the Aerosystems Course member who is assessed by the staff as having achieved the highest overall standard throughout the Course and made the greatest personal impact upon the overall success of the Course. The award takes into account both academic and personal qualities.

No 41 Aerosystems Course	Flight Lieutenant N Andrews
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The Aries Trophy

Awarded to the Aerosystems Course member who, in the view of the staff, submits the best personal project.

No 41 Aerosystems Course	Flight Lieutenant C Burt RAAF
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The Edinburgh Trophy

Awarded to the Aerosystems Course member who is assessed by the staff as having achieved the highest overall standard in the computer and communications related subjects on the course.

No 41 Aerosystems Course	Flight Lieutenant D Goodey
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The Royal Institute of Navigation Trophy

Awarded to the Aerosystems Course member who is assessed by the staff as having achieved the highest overall standard in the navigation-related subjects of the Course.

No 41 Aerosystems Course	Flight Lieutenant C Burt RAAF
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QinetiQ Trophy

Awarded to the Aerosystems Course member who is assessed by the staff as having contributed the most in the Flight Trials module of the course.

No 41 Aerosystems Course	Flight Lieutenant C Burt RAAF
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SELEX Trophy

Awarded to the Aerosystems Course member who has achieved the best overall standard in the Sensors module.

No 41 Aerosystems Course	Flight Lieutenant C Burt RAAF
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Old Crows' Award

Awarded to the student who has submitted the best Electronic Warfare project.

No 41 Aerosystems Course	Squadron Leader P Richley
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No 1 Elementary Flying Training School

The R M Groves Trophy Memorial Prize for 2009

Awarded annually to the best all round RAF graduate from Elementary Flying Training.

Winner	Flying Officer N A Dearden
Runners-up	Flying Officer J A R Ballantine
	Flying Officer N Critchell

The Michael Hill Memorial Prize for 2009

Awarded annually to the Royal Air Force graduate from Elementary Flying Training with the best proficiency in applied flying.

Winner	Flying Officer J E C Pearce
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The Bryan Memorial Trophy

Awarded to the Royal Air Force student who has delivered the best performance during Groundschool.

EFT 125	Second Lieutenant Abdullah Al-Qarni
EFT 126	Flying Officer T G Seabrook
EFT 127	Flying Officer D Green
EFT 128	Flying Officer J Pearce & Flying Officer T Riedl (joint award)
EFT 129	Flying Officer R W C Campbell
EFT 130	Flying Officer L J Cooper
EFT 131	Flying Officer T E McLean
EFT 132	Flying Officer J Stansfield
EFT 133	Acting Pilot Officer D R Wild
EFT 134	Flying Officer C Edmondson
EFT 135	Flying Officer K A Potts
EFT 136	Flying Officer D H Ross

The VT Aerospace Trophy

Awarded to the Royal Air Force student who has displayed the best performance in the air.

EFT 125	Flying Officer O Suckling
EFT 126	Flying Officer J A R Ballantine
EFT 127	Flying Officer J Whitlock

Sixteenth Article - 2009 Prizewinners (4)

EFT 128	Flying Officer J E C Pearce
EFT 129	Flying Officer R W C Campbell
EFT 130	Acting Pilot Officer P J D Dudley
EFT 131	Flying Officer S E Cook
EFT 132	Flying Officer S T Moore
EFT 133	Acting Pilot Officer D R Wild
EFT 134	Flying Officer A P Linham
EFT 135	Flying Officer A H Ellis
EFT 136	Flying Officer D H Ross

The Dickson Trophy

Awarded to the Royal Air Force student who gives the best overall performance in the air and on the ground.

EFT 125	Second Lieutenant Abdullah Al-Qarni
EFT 126	Flying Officer J A R Ballantine
EFT 127	Flying Officer N A Dearden
EFT 128	Acting Pilot Officer K Parry
EFT 129	Flying Officer J P Stevens
EFT 130	Flying Officer N Critchell
EFT 131	Acting Pilot Officer G D Hopkinson
EFT 132	Flying Officer T J L Loucaides
EFT 133	Flying Officer S J Ashworth
EFT 134	Flying Officer S K Merritt
EFT 135	Flying Officer K A Potts
EFT 136	Flying Officer D H Ross

The Midshipman Simon Trophy

Awarded to Royal Navy student with the best results in Groundschool.

EFT 124	Midshipman A Cross RN
EFT 125	Course cancelled
EFT 126 and 127	Sub Lieutenant A Wells RN
EFT 128 and 129	Midshipman A Lovell-Smith RN
EFT 130	Course cancelled
EFT 131 and 132	Sub Lieutenant N Grimmer RN
EFT 133 and 134	Sub Lieutenant M Gilmore RN
EFT 135 and 136	Midshipman J Mason RN
EFT 137, 138 and 139	Sub Lieutenant D Starsmore RN

The Hargreaves Trophy

Awarded to the Royal Navy student with the best overall results in flying.

EFT 124	Midshipman O Pocock RN
EFT 125	Course cancelled
EFT 126 and 127	Sub Lieutenant A Wells RN

EFT 128 and 129	Midshipman A Lovell-Smith RN
EFT 130	Course cancelled
EFT 131 and 132	Second Lieutenant R Cullingford RN
EFT 133 and 134	Sub Lieutenant R Wallace RN
EFT 135 and 136	Midshipman J Mason RN
EFT 137, 138 and 139	Sub Lieutenant D Starsmore RN

The British Aerospace Trophy

Awarded to the best overall Royal Navy student.

EFT 124	Midshipman O Pocock RN
EFT 125	Course cancelled
EFT 126 and 127	Sub Lieutenant A Wells RN
EFT 128 and 129	Midshipman A Lovell-Smith RN
EFT 130	Course cancelled
EFT 131 and 132	Sub Lieutenant N Grimmer RN
EFT 133 and 134	Sub Lieutenant R Wallace RN
EFT 135 and 136	Midshipman J Mason RN
EFT 137, 138 and 139	Sub Lieutenant D Starsmore RN

The CO's Trophy

Awarded to the Royal Navy student displaying the best fortitude, character and individuality during EFT and 'The man you would wish to have on your Squadron'.

EFT 124	Captain R Moore RM
EFT 125	Course cancelled
EFT 126 and 127	Lieutenant J Neave RN
EFT 128 and 129	Sub Lieutenant R Knight RN
EFT 130	Course cancelled
EFT 131 and 132	Sub Lieutenant G Weal RN
EFT 133 and 134	Sub Lieutenant M Gilmore RN
EFT 135 and 136	Lieutenant R Beaumont RN
EFT 137	Not awarded
EFT 137, 138 and 139	Lieutenant P Straker RN

The Martin Trophy

Awarded to the Army student who demonstrated the highest skill and ability in aircraft piloting.

EFT 119 (Short)	Course cancelled
EFT 120 (Short)	Course cancelled
EFT 121 (Short)	Second Lieutenant P Wilson AAC
EFT 122 (Short)	Staff Sergeant L Longworth R SIGNALS
EFT 123 (Short)	Second Lieutenant C Lucas AAC
EFT 124 (Short)	Second Lieutenant R Jones AAC
EFT 125 (Short)	Corporal D Tye PARA
EFT 126 (Short)	Sergeant L Smith AAC

Sixteenth Article - 2009 Prizewinners (5)

EFT 127 (Short)	Second Lieutenant S Blackmore AAC
EFT 128 (Short)	Corporal S Otter RE
EFT 129 (Short)	Second Lieutenant T Tyrrell AAC

The Chief Groundschool Instructor's Cup

Awarded to the Army student who achieved the best overall Groundschool result.

EFT 119 (Short)	Course cancelled
EFT 120 (Short)	Course cancelled
EFT 121 (Short)	Staff Sergeant R Kettle AAC
EFT 122 (Short)	Captain P Whatnell RE
EFT 123 (Short)	Not awarded
EFT 124 (Short)	Corporal N Sullivan REME
EFT 125 (Short)	Captain B Butler RLC
EFT 126 (Short)	Sergeant J Simpson REME
EFT 127 (Short)	Second Lieutenant J Marshall AAC
EFT 128 (Short)	Bombardier A Thomas RA
EFT 129 (Short)	Captain R Archer RE

The Horsa Trophy

Awarded to the Army student who has demonstrated the greatest determination and courage.

EFT 119 (Short)	Course cancelled
EFT 120 (Short)	Course cancelled
EFT 121 (Short)	Second Lieutenant P Wilson AAC, Staff Sergeant R Kettle AAC & Sergeant D Urwin AAC
EFT 122 (Short)	Lieutenant H Wales HCR
EFT 123 (Short)	Lieutenant S Cook RLS
EFT 124 (Short)	Corporal D Tysoe REME
EFT 125 (Short)	Second Lieutenant R Durling AAC
EFT 126 (Short)	Sergeant J Simpson REME
EFT 127 (Short)	Second Lieutenant J Marshall AAC
EFT 128 (Short)	Sergeant J Foley R SIGNALS & Corporal S Otter RE
EFT 129 (Short)	Captain R Archer RE

No 3 Flying Training School

The No 3 Flying Training School Sword of Merit

Awarded to the student, at each graduation, who has produced the best overall performance during training, irrespective of whether they are an officer or senior non-commissioned officer; however, grades of high average or above average must have been achieved both on the ground and in the air.

Not Awarded

No 45 (Reserve) Squadron

The Serco Trophy

Awarded to the student pilot who gains the highest overall marks in Ground School studies on the multi-engine training course, providing the student achieves an above average Ground School assessment.

No 188 MEAFT	Flight Lieutenant S P Coates
No 189 MEAFT	Flight Lieutenant A J Mackay
No 190 MEAFT	Flying Officer A J Carter
No 191 MEAFT	Flying Officer L M Yates
No 192 MEAFT	Flight Lieutenant M Bridge

The Glen Trophy

Awarded to the student pilot who gains the highest overall marks for flying, provided that the student has achieved a high average assessment.

No 188 MEAFT	Flight Lieutenant S P Coates
No 189 MEAFT	Flight Lieutenant A J Mackay
No 190 MEAFT	Flying Officer A J Carter
No 191 MEAFT	Pilot Officer A S Peel
No 192 MEAFT	Lieutenant Arzhang Zebari

The Radley Trophy

Awarded to the student pilot who gains the highest overall standard in academic studies, flying and officer qualities, provided that the student has achieved an overall high average assessment.

No 188 MEAFT	Flying Officer C Lofthouse
No 189 MEAFT	Flight Lieutenant M Amery-Behr
No 192 MEAFT	Flying Officer J Marquet-Horwood

Dacosta Trophy

The Dacosta Trophy is awarded, at the discretion of the Officer Commanding No 45 (R) Squadron, to the student who has shown the best overall improvement during the course.

No 186 MEAFT	Flying Officer J T Turner
No 188 MEAFT	Flight Lieutenant A J E Bacon
No 189 MEAFT	Lieutenant Mohammed-Jabar
No 191 MEAFT	Pilot Officer A S Peel
No 192 MEAFT	Lieutenant Arzhang Zebari

No 55 (Reserve) Squadron

The Navigation Cup

Awarded to the best graduate on each fast-jet Weapons Systems Officers' Course, provided that the student has achieved at least a high average assessment overall.

No 506 WSO	Flying Officer S T Rutherford
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Sixteenth Article - 2009 Prizewinners (6)

The Air Navigation School Leadership Trophy

Awarded to the Weapons Systems Officer Student who, during training at No 3 Flying Training School, has demonstrated outstanding leadership qualities.

Not Awarded

The Ardian Trophy

Awarded to the Weapons Systems Officer graduate who has displayed the highest overall standard of airmanship throughout the course, provided that a high average assessment has been achieved, or to the student who has shown significant improvement during training at No 3 Flying Training School.

No 506 WSO Flight Lieutenant S Haley

The Sutton Sword

Awarded to the Weapons Systems Officer who achieved the highest standard in navigation, academic subjects and personal qualities, provided the student has achieved a high average assessment.

Not Awarded

The Above Water Sensors Studies Trophy

Awarded to the student Weapons Systems Operator (Electronic Warfare) who achieves the highest marks during professional training, provided that an above average grade has been achieved during the academic, synthetic and flying phases of the Course.

No 12 WSOp Sergeant I Cooper

The Reynolds Trophy

The Reynolds Trophy is an award, which was presented by Squadron Leader Keith Reynolds who served as Officer Commanding Air Engineer Squadron (1982-4). It is awarded to a student weapon systems operator who has made the most significant progress while undergoing training at 3 FTS.

No 13 WSOp Sergeant T R Buxton

The Hamilton Trophy

Awarded to the Weapon Systems Operator student who achieves the highest overall standards in the academic, synthetic and flying phases of professional training, provided an above average overall assessment has been achieved.

Not Awarded

The George Holderness Memorial Prize

Awarded annually to the student SNCO who has displayed the highest standards throughout training, both in professional studies and personal qualities. The recipient is selected from all weapon system operators who have graduated during a 12-month period.

Not Awarded

The Leadership Trophy

Awarded to a student Weapon Systems Operator who, during training at 3 FTS, has demonstrated outstanding qualities of leadership.

Not Awarded

The Townsend Trophy

Awarded to the best overall Weapon Systems Operator who has undergone both generic and specialist training at 3 FTS.

No 11 WSOp Sergeant M Davies
No 12 WSOp Sergeant L McDonald
No 13 WSOp Sergeant N Scally

The Canham Memorial Trophy

Awarded to the best Weapon Systems Officer graduate on each multi-engine air navigation course, provided the student has achieved a high average assessment.

Not Awarded

Royal Air Force Central Flying School, Cranwell

Wright Jubilee Trophy

Awarded annually to the overall winner of the Aerobatics Competition for instructors from No 22 (Training) Group.

Flight Lieutenant M Barker

Trenchard Memorial Prize

Awarded annually (previously triennially) for outstanding contributions to the art of flying instruction.

Not awarded

Gross Trophy

Awarded on each Cental Flying School course to the student who has achieved the highest marks in groundschool.

420 Course Lieutenant Hudson RN
421 Course Flight Lieutenantt Oakley
422 Course Flight Lieutenant Bullivant
423 Course Flight Lieutenant Watson

Sixteenth Article - 2009 Prizewinners (7)

The Bulldog Trophy

Awarded on each Central Flying School course to the Tutor Qualified Flying Instructor who has achieved the highest average marks and assessments.

420 Course	Wing Commander Binns
421 Course	Wing Commander Bullement
422 Course	Wing Commander Rawnsey
423 Course	Flight Lieutenant Grogan

The Bulldog Cup

Awarded on each Central Flying School course to the student who was judged to give the best aerobatic display on the Tutor.

420 Course	Not awarded
421 Course	Flight Lieutenant Wise
422 Course	WO2 Kildea AAC
423 Course	Lieutenant Commander Allison

The Hopewell Trophy

Awarded on each Central Flying School course to the Tucano student who has achieved the highest assessments, during the flying phase, for flying ability and instructional technique.

420 Course	Not awarded
421 Course	Not awarded
422 Course	Flight Lieutenant Lord
423 Course	Lieutenant Commander Semple

The Clarkson Trophy

Awarded on each Central Flying School course to the best Tucano aerobatic pilot.

420 Course	Not awarded
421 Course	Not awarded
422 Course	Flying Officer Hayes
423 Course	Flight Lieutenant Taylor

The Hawk Trophy

Awarded on each Central Flying School course to the best Hawk instructor.

420 Course	Flight Lieutenant Macgillivray
421 Course	Lieutenant Issitt RN
422 Course	Flight Lieutenant Taylor
423 Course	Flight Lieutenant Watson

The Indian Air Force Trophy

Awarded periodically on Central Flying School courses for effort and determination.

420 Course	Not awarded
421 Course	Not awarded
422 Course	Flight Lieutenant Bloom
423 Course	Not awarded

The CFS Trophy

Awarded periodically, when merited, on Central Flying School courses to the best all round student.

420 Course	Not awarded
421 Course	Lieutenant Issitt RN
422 Course	Flight Lieutenant Lord
423 Course	Flight Lieutenant Grogan

Air Cadet Organisation Annual Awards

Lees Trophy

Awarded annually to the Squadron which is judged to be the best in the Corps in overall achievement and efficiency during the year of assessment, having regard to its size, location and facilities.

610 (City of Chester) Squadron

Morris Trophy

Awarded annually to the squadron which is judged to be the 2nd best in the Air Training Corps.

1211 (Swadlincote) Squadron

Dacre Sword

Awarded annually to the best male cadet, based on all-round performance.

CWO Gethin Davies, 499 (Port Talbot) Squadron

Dacre Brooch

Awarded annually to the best female cadet, based on all-round performance.

CWO Charlotte Hunt, 2409 (Halton) Squadron

Ganderton Sword

Awarded annually to the officer who, on the recommendation of the Adult Training Facility Directing Staff, has performed best in all aspects during the Officers' Initial Course.

Pilot Officer William Price, 216 (Redditch) Squadron

Shackleton Trophy

Awarded annually to the Air Cadet Training Corps Region, Wing or Squadron which mounts the most successful, imaginative and adventurous expedition.

344 (Fulham) Squadron