JUNE 2014
3  Education and Training Committee Meeting Cobham House
12 3rd General Purposes and Finance Committee Meeting Cobham House
24  Election of Sheriffs Guildhall
25  Pilot Aptitude Testing RAF Cranwell

JULY 2014
2  Trophy and Awards Committee Meeting Cobham House
8  Benevolent Fund Board of Trustees Cobham House
8  Technical and Air Safety Committee Meeting Cobham House
10 4th General Purposes and Finance Committee Meeting Cobham House
10 2nd Court Meeting Cutlers' Hall
16  Informal Supper Bakers' Hall
22  Environment Committee Meeting CAA House, Kingsway

AUGUST 2014
14  Pilot Aptitude Testing RAF Cranwell
30  Garden Party Shoreham

SEPTEMBER 2014
2  Environment Committee Meeting Cobham House
9  Education and Training Committee Meeting Cobham House
11  New Member's Briefing Cobham House
18  5th General Purposes and Finance Committee Meeting Cobham House
18  3rd Court Meeting Cobham House
24  Air Pilots Luncheon Club RAF Club
24  Sir Frederick Tynms Lecture Royal Aeronautical Society
29  Election of Lord Mayor Guildhall

VISITS PROGRAMME
Please see the Flyers accompanying this issue of Air Pilot and previous editions of Guild News or contact Liveryman David Curgenven at visits@airpilots.org. These flyers can also be downloaded from the Company's website.
4 July London Biggin Hill Airport
11 July The Flying Legends, IWM Duxford
6 August The Commandant's Parade and Tour of RMA Sandhurst
4 September Stow Maries
19 September Ridgeview Wine Tour, Ladies Visit

Cover: Lesley Oldham, a recent recruit to the Air Pilots Flying Club, and Margarette Barker, wife of Liveryman Peter Barker, preparing to depart White Waltham following the first Flying Club Lunch of 2014. A report on this event can be found on page 21 of this issue. Photo courtesy Peter Barker.
The summer has arrived, the sky is blue and hopefully the wind is light and in line with the runway. The June edition of Air Pilot is here, packed with articles with a varied but entertaining content. With the 100th anniversary of the outbreak of the First World War now only 2 months away you will find a report on the recent Cobham Lecture, where Captain David Rowland described the early weeks of the war experienced by the men of the Royal Flying Corps in France. Upper Freeman Chris Stringer describes the Senior Flying Instructor’s Forum held at the RAF College Cranwell, Freeman Steve Bridgewater outlines what can be found in Red Bull’s Hangar-7, a truly astonishing aviation collection and Liverymen Rick Thomas and John Towell provide an update on the Livery Schools Link Showcase Event held recently in the City. The European Defence Agency’s Helicopter Tactics Course is described by Freeman Rory Cunningham. I felt inspired to write an appreciation of the Folland Gnat after a chilly but fascinating visit to North Weald where the Heritage Aircraft Trust operates three of these exciting little aircraft and the Air Pilots’ Flying Club Freddy Stringer Memorial Lunch is also featured. Finally, our Immediate Past Master His Honour Judge Tudor Owen gives us the lowdown on our new Honoray Chaplain, The Venerable Air Vice Marshal Ray Pentland.

Following my plea for inputs from the Regions this issue does have an input from New Zealand, so come on Australia, Hong Kong and North America, I look forward to some news from you.

Now a short explanation about the header photographer to this editorial. Flying and alcohol should never be mixed, but this occasion in September 2010 marked the end of 50 years flying with the RAF for me, and so I was offered a glass of fizz after my last flight in a Service aircraft (but contractor owned, civil registered and flown in accordance with the ANO). I felt that on this occasion having a drink was justified.

Assistant Tom Eeles
Honorary Editor
News Round Up

HAPPY BIRTHDAY JBR

On Thursday 3rd April a surprise Birthday Lunch took place in the RAF Club to celebrate Assistant and Liveryman John Robinson’s 80th birthday. Organised with great skill by the Master Elect Chris Ford, other Air Pilot attendees were Past Masters Wally Epton, Rick Peacock Edwards, Clive Elton and Peter Bugge, Warden Chris Spurrer, Liverymen Air Marshal Ian Macfadyen, Tom Eeles, Nick Goodwyn, Robin Keegan, Keith Warburton and Peter Owen, and Mrs Ruth Cundy. Clive Mitchell, a colleague from John’s days at Cranwell with the Poachers aerobatic team, was also present. An excellent lunch was had by all, interrupted only by various reminiscences and tall stories concerning John’s past activities, and occasional visits from other senior RAF officers attending the Air Marshals Lunch being held at the same time. The Master Elect unintentionally overcharged attendees for the cost of the event, so all agreed that the surplus was to be donated to the Air Pilots Benevolent Fund.

LUNCHEON CLUB

The 42nd Meeting of the Luncheon Club, being the First of the Air Pilots Luncheon Club, was held at the RAF Club on Wednesday 23rd April 2014. Ninety three Company members and guests attended the day and with it being co-incident with St George’s Day it was marked with St George’s flags in pint beer pots on each table.

The Master, Dorothy Saul-Pooley, was welcomed especially as the first lady Master. The Master Elect, Chris Ford, said grace and in his thanks the Chairman mentioned that Chris was the last student he had sent on his first solo on a Jet Provost on 22nd June 1972. Incidentally all the graces which are originals have been saved and will be published on the Company’s website in due course.

The lunch had a distinct English theme to complement the day with excellent roast beef being served in addition to smoked salmon and chocolate gateau and cream – a real English treat that lived up to the high standards set by the RAF Club.

There was sad news to impart in that one of the stalwarts of the Luncheon Club, Liveryman Wally Brunn, had died and his funeral was held the previous day with several Company members attending.

The title of the talk by our Hon Editor Tom Eeles was to be ‘Flying Canberras in Germany and Malaya during Confrontation - an interesting first tour’. However Canberras somehow got substituted by Buccaneers on the menu adding to the conviviality of the day and the Chairman assured the Company that the source of the error would be found and the culprit duly flogged. However in the ‘esprit de corps’ of St George’s Day and being an Honourable and chivalrous Company it was decided to forego the punishment when the miscreant pleaded mea culpa.

Tom’s talk was truly illustrative of how the RAF operated in the 1960s and 70s and for a first tour an amazing experience. His Squadron, 16, was based at Laarbruch one of the RAF Germany clutch stations and flying the Canberra B(I)8, specifically designed for the low level interdictor role. However the navigator did not have an ejection seat and somehow had to struggle through the narrow entrance door with a chest parachute attached if he had to abandon the aircraft. The Squadron’s main task was in the tactical nuclear role delivering an American weapon from low level using the low altitude bombing system (LABS) usually pulling up into a roll-off-the-top and releasing it so that it was projected forward in the manoeuvre and the aircraft escaped in the opposite direction. A secondary task was that of interdictor operations when the Canberra was fitted with a gun pack in the bomb bay containing four 20 millimetre cannons of World War II vintage. The aircraft could also carry one 1000 lb bomb under each wing. During Tom’s tour the Squadron was detached for interdictor operations in Malaya, as it was then, where it was the only flying unit on Kuantan airfield with very limited facilities and no rules seemed to prevail. The problems of long range navigation on Canberras in the early years came to light for the ferry flights to and from Malaya when only the squadron commander’s aircraft had ADF fitted, map reading and dead reckoning were still alive!

The Master thanked Tom for his most enlightening talk and was pleased to note that speakers were being found from within the Company for such occasions.

On this point the Chairman announced that for the next lunch to be held on 24th September the speaker would be Upper Freeman Joanna Salter and for the Sir Frederick Tynms Lecture in the evening Liveryman Clare Walker so making it a Ladies’ Day. To honour the ladies on this occasion the gentlemen’s dress will be flamboyant with colourful jackets and blazers and appropriate neckwear.

The bank transfer of payment for the luncheons is proving popular with members and making it easier on the admin front so members are encouraged to make this the preferred method.

2014 COBHAM LECTURE

Following the Luncheon Club on 23rd April the 2014 Cobham Lecture was held at the Headquarters of the Royal Aeronautical Society, 2 Hamilton Place. The subject this year was appropriately ‘The Royal Flying Corps at War - the early years’, presented by Captain David Rowland FRAcS FRIN. In addition to a large number of Air Pilots being present, representatives of no fewer than thirty six City Livery Companies also attended. In her introduction, the Master described the role and contribution made by the Cobham family to British aviation and the Company of Air Pilots, noting that 50 years ago Sir Alan Cobham was Master. She introduced the speaker and outlined his career, which began as a co pilot/navigator with BOAC on the VC10 in 1969. He moved on to fly Concorde in 1976,
becoming a Captain and ultimately Concorde fleet manager. He retired from commercial flying in 1999. Since then he has developed his knowledge of the aviation aspects of World War 1, is a past Chairman of the Heart of England Branch of the Western Front Association, a past President of the Royal Aeronautical Society and is a Liveryman of the Honourable Company of Air Pilots. A report on this event can be found on page 7 of this issue.

LIVERY SCHOOLS LINK GLIDING
Assistant John Towell reports that 2013 was a very successful year for the Livery Schools gliding scheme and 171 students experienced a flight in a glider, a record year by some margin (68 students in 2012). Strong support from the Air Pilots has continued to be the backbone of the scheme. The Air Pilots Flying Club joined the scheme in 2013 and Per Caelum have joined in 2014. Both the Flying Club and Per Caelum support the City of London Academy in Islington, a company affiliated school, for 1 day of gliding each.

Support from other Livery Companies has also been growing well in recent years from 2 days in 2012 through 5 days in 2013 to 8 days in 2014 with 5 Livery Companies including the Air Pilots now involved. Livery Companies joining the scheme appreciate being able to support their chosen affiliated schools. By managing the gliding scheme for other Companies the Air Pilots are fostering closer ties and influence within the Livery movement whilst making it possible for many more young people to experience flight. The plan in 2014 is for 20 days of gliding and it is possible that with good weather we will see over 200 students fly.

London Gliding Club (LGC) at Dunstable is a long term supporter and has made available 12 days of flying for 2014 as well as increased the maximum number of students to 12 per day. Lasham Gliding Society joined the scheme in 2013 and for this year will be flying Livery school students on 8 days. By having two sites for gliding we are benefitting from a much needed increase in capacity in the peak months. Both gliding clubs are affiliated to the BGA who have been giving oversight since 2013.

In recent years there has been an aspiration to offer one or more scholarships to deserving students and the first 5 day intensive gliding course for 2 students will take place this summer.
The Master’s Message

DOROTHY SAUL-POOLEY

Last time, I mentioned that one of my aims is to improve and strengthen our links with the City of London. Did you perhaps share my experience as a teenager of having a Father working right in the heart of the City? My first foray into the world of work was in the post room of an investment trust just behind the Bank of England. Do you recall the days over 40 years ago, when there was a strict dress code in the City? The “uniform” was dark suit, usually three-piece, bowler hat, starched detachable collared shirts but for many, striped trousers and tailcoat.

Perhaps you shared my fascination of the open outcry of the Stock Exchange, the Dickensian style of architecture and furnishings, everywhere heavy wood paneling, majestic doorways and high vaulted ceilings? The pageantry of the Lord Mayor’s office and regalia, the pomp of civic ceremonies was all around. Maybe some of you attended some of the City functions or even a Mansion House dinner before you became aware of the City Livery Companies? However, some of you (especially those overseas) may still be mystified by the City and have little comprehension of the governance, structure and traditions. You may not know that there are regular City Briefings held at the Guildhall, which are free of charge to attend and any member of a Livery company is eligible. You will receive refreshments both before and after the discussion and they are informative and friendly. It is a great opportunity to learn more about how the City works and also to meet members from other Livery Companies.

If you are a Liveryman, then you will have gone through the process of the Freedom Ceremony and you will also know that you have the right to attend Guildhall for the annual election of the Sheriffs and then separately, the Lord Mayor. Both are colourful ceremonies full of pageantry and really worth the experience. Those of us who attend Common Hall to cast our votes in these traditional elections generally go on to have lunch either in one of the Livery Halls or back at Cobham House. It would be marvellous for our Honourable Company to increase the number of Liverymen who attend these elections, which rely on the support of the Livery.

We must not forget the Lord Mayor’s Show, a wonderful pageant, in which our Company is normally represented by three members walking with the Modern Livery Companies. The day marks the official installation of the new Lord Mayor and is a great opportunity to bring the family, especially the younger ones, to view the spectacle. The streets of the City will be lined with hundreds of excited people for the carnival-like event.

It is our intention this year to organise a number of City based visits, to enable those who are interested to see some of the workings of the City, and to that end we have a visit to the Bank of England and we hope to visit to the City Police at Wood Street (including the horses and dogs for you animal lovers!). There is also a plan to organise a visit to Tower Bridge to see the “inside” workings and for those aviators with a head for heights (!) a visit up one of the towers, such as the Shard to see a different view of the City.

Our new name is definitely giving us a higher profile in the City and everywhere is extremely positive towards us as a Company. It would be great to forge stronger links with other Companies and to create more opportunities for young people within our own Company to gain wider skills and experience with internships or trainee positions in City organisations; from experience, it is clear that this type of exposure to the City and the knowledge gained is invaluable in the process of applying for permanent jobs later. With this in mind, I am actively exploring a number of leads and will report further in due course.

In my first Master’s message, I indicated that I had met with Andrew Haines, CEO of the CAA, to express some of the concerns arising out of the introduction of EASA Part-FCL. I am pleased to outline some of the positive responses received in two letters from him so far. For many of you who are commercial pilots or military pilots, you may not have been effected especially by the new regulations, or they may appear to you to be a mere annoyance. You perhaps realise that the new licences being issued under Part-FCL consist of a single sheet of paper and should not be cut up to fit inside the diminutive plastic wallet supplied with the licence, as that immediately invalidates it! For the recreational pilots and other GA pilots, the impact is far greater and potentially enormously more expensive than previously.

I am therefore delighted to report that the CAA has agreed that the Scheme of Charges should be reviewed and also that they will look at identifying which Approved Training Organisations (ATOs) have a history of good compliance and safety, with a view to reducing the burden of inspections. Further, the template manuals published to assist Registered Training Facilities (RTFs) transfer to ATO status and the Safety Management System (SMS) process are both being simplified and revised, which should reduce the potential workload for some of the smaller organisations attempting to achieve compliance. Another recent concession is a temporary alleviation in the costs for setting up examiner training courses. It is my intention to continue to press for improvements in the regulations, simplification of the procedures and more proportionate charging schemes. Any further outcomes will be reported to you over the next few months.

Meanwhile, the first few weeks since the AGM have been busy with a huge variety of enjoyable social events, lunches at Mansion House, dinners at various Halls and a number of interesting visits. A highlight amongst these was the enormous pleasure of staying on board our affiliated ship, the aircraft carrier, HMS Illustrious at the beginning of May. I had the pleasure of presenting this year’s Air Safety Trust Award, together with a cheque, to the Flight Deck Directors for their tremendous record of accident-free operations during 2013. Part of this time was a period of deployment to the Disaster Relief Operation in the Philippines, during which they safely executed 1300 deck moves, 330 underslung loads and oversaw the movement of 1500 people ashore, comprising a total of 380 flying hours in two weeks. A truly impressive achievement.

We are very fortunate in our relationships with the many affiliated units both military and civilian and the strength of these relationships is fostered by the visits programme. It is encouraging to see the popularity of these visits, as evidenced by the number which are over-subscribed. I look forward to meeting more of you in the weeks and months to come.
Captain Rowland described that whilst many knew of aces such as Mannock, Ball, Immelman and Richthofen from the second half of World War 1, few could name those who had been involved at the start of hostilities, who in his view were the real heroes. It was his aim to correct this and give due credit to these relatively unknown men. He outlined the formation and structure of the Royal Flying Corps (RFC) in the period leading up to the outbreak of hostilities in August 1914, when it consisted of just four squadrons of unarmed aircraft and a senior Headquarters staff in the field of six officers.

This tiny force was deployed to France in early August, the twenty one mile crossing of the English Channel representing a considerable hazard to the frail and unreliable aircraft. Despite the views expressed by some generals that 'aeroplanes were useless for the purposes of war', and that only the cavalry could provide credible reconnaissance to the army in the field, the RFC were very quickly involved in this activity. The first reconnaissance sortie was flown on 19 August by Joubert and Mapplebeck.

The first gallantry award, the MC, was given to a Sgt Maj Jillings, wounded in action on 22 August. Sadly the same day saw the first two RFC airmen killed in action. Captain Rowland’s audience listened to this fascinating story, which was greeted with acclaim at its conclusion, when the screen showed a Eurofighter Typhoon of No 3 Squadron in service today. No3 Squadron was created at Netheravon in April 1912, fractionally ahead of No.2 Squadron at Farnborough and because of this, the Squadron’s motto to this day can be translated to read ‘The third shall be first’. After a lively question and answer session, the Immediate Past Master, His Honour Judge Tudor Owen, gave the Vote of Thanks and invited all present to join him in a Reception with refreshments.

To say that I followed the lecture with rapt attention is an understatement, not least because in August, Matthew Boddington and I plan to be crossing the Channel in our replica Royal Aircraft Factory BE-2, to recreate the first ever aerial deployment of a fighting force when twelve BE-2 aircraft of No.2 Squadron crossed from Dover to Amiens. We plan to touch down at the same city 100 years to the day from that arrival on 13th August 1914.

Captain Rowland did a splendid job of picturing not just the history, but the atmosphere of those days 100 years ago. For those accustomed to crossing oceans in mere hours, the simple fact is that at the 65 knot cruising speed of a BE-2, the minimum over-water time is going to be at least 20 minutes. Given the reliability of the engines of the era, that is a very long time to hold one’s breath!

David also went on to sum up brilliantly the work done in artillery spotting and the early development of radio communications. While later aces went on to become household names and the inspiration for Biggles, the unsung but perpetually dangerous role of the Royal Flying Corps as ‘the eyes of the Army’ was the real reason why they were there.
This was the 10th anniversary and the 6th Forum held at the RAF College, Cranwell. We have to offer great thanks to the Commandant Gp Capt Jamie Hunter for a relaxed and warm welcome and for providing the excellent facilities of the college, a place oozing with excellence and learning.

The day was led by Sqn Ldr (Rtd) Malcolm Hunt on behalf of the Air Pilots. Various speakers gave presentations on the contemporary issues facing instructors and instructing. Master Dorothy Saul-Pooley outlined her main aims during her year as Master. In particular she outlined her wish to see the Air Pilots continue to develop and support the role of the Flight Instructor. Of special consideration were those instructors who are making instructing a career either full or part-time.

Tricia Nelmes, Chairman of the Scholarships and Bursaries Committee outlined the support available from the Air Pilots. A new award was now in place, the 'Continuous Personal Development Bursary'. Previously awards have been available for specific purposes but this latest funding is available to any instructor who requires help in maintaining or developing their qualifications. The bursary is not prescribed; it is for the applicant to put forward a convincing case for consideration.

Human Factors was the main theme of the day, and for those that may have a dim view of it, two presentations: 'Advanced Debriefing Techniques' by Sqn Ldr Nick Goodwyn and 'Fatigue and Fatigue Management for Instructors', by retired Colonel of the USAF Dr David Stevenson, may well have converted you to its importance in today's world of aviation.

Nick's presentation centred on the importance of the correct instructor techniques: do not simply espouse your opinion but involve the student during the post flight de-briefs. The student may well view things differently and so elicit their understanding on what they understood had taken place. The student may have a case; their views, and most important, their understanding must be the starting point of de-briefs if they are to learn and progress.

Dr Stevenson outlined fatigue and questioned our common understanding of it. A full night's sleep was of major importance. Certain of us, pilots and crew, will continue to perform the pre-planned task well even when deprived of sleep but, unaware, will have little capacity to adapt when events develop away from the plan. The circadian cycle - known to many only as jet lag - is a built-in part of our everyday function. Our performance drops off for an unexplained period of time around midday and then recovers but gradually tails off throughout the rest of the day.

Air Commodore (Rtd) Steve Forward, Director of the Airprox Board detailed their work. Steve, having flown the Tornado, Jaguar and Harrier, had followed a fascinating RAF career and amongst many senior posts acted as the Lead for the 2012 Olympics Air Security Plan. Perhaps the comprehensive availability of Radar services is leading to complacency plus an increasing reliability on GPS means eyes are too often in the cockpit. Lookout and good communication remains the surest way of averting a conflict with other traffic.

How to incorporate much of this learning into the teaching is not proving easy. Syd Utting, Chairman of the Flight Instructor Sub Committee outlined the work so far in producing the PPL course lesson plans. It isn't enough to simply teach exercises from the syllabus but each lesson should be a series of building blocks. Each element is a thread that continues throughout the student's training, not simply ticked off and left forgotten as the course moves on.

The lesson plans are now in the final stages and Syd announced that he expected to publish by the end of the summer. Adam Whitehead, CAA Senior Staff Examiner, a member of the sub-committee, emphasised the need for student progress to be competency-based and he outlined a means of monitoring this progress.

Nick Wilcox, rich in EASA knowledge, had the unenviable role of explaining and updating EASA. There were many questions as one would expect. He was able to offer much clarity and an insight to developments as they stand. The three most common words used when discussing EASA appears to be; “if”, “but” and “maybe”. The rumour spread that EASA are intending to drop the 'S' from its title which if true speaks volumes.

After lunch much of the afternoon was presented in the form of a plenary and then opened up to the floor for questions. The panel; David Cockburn, Syd Utting, Adam Whitehead, Nick Goodwyn and Nick Wilcock took to the stage chaired by Malcolm Hunt. The questions ranged from the effectiveness of Human Factors teaching and the HF examination, introduced in 1991, through to the value of overhead joins. Other concerns were expressed on the lack of spin training in the PPL syllabus and perhaps, most concerning, for the instructors that may know little of it. Another major concern was the relevance of the current set of the PPL examinations. An example of the questions quoted from the floor: “The time UTC at a certain place within the Bermuda Triangle is ......... what is the local time”? Another question asks the same of somewhere in Australia. The CAA question setter has failed to realise that the body of UK PPLs that are likely to traverse the Bermuda Triangle are equally likely never to be seen again and that Melbourne is in yet another hemisphere, Oh well or as they would say in EASA land c'est la vie!

The day no less special than the earlier forums remains unique in bringing experience, knowledge and expertise under one roof. Many thanks to Flt Lt Paul Hepburn of the CFS for all his work behind the scenes and we wish him well in his new posting. Thanks must also go to Pooleys Flight Equipment, without their support the day would not happen. Also a special thanks to Air Pilot Publishing who once again added their support this year.

The biennial forum is a stimulating day of learning and remains unique in its achievement. There is no other. The Master conceived the Forum more than a decade ago and the Air Pilots remain central to a truly valuable day of which all Air Pilots can be proud.
Nearly two decades ago Dietrich Mateschitz, the Austrian co-founder of the Red Bull energy drink, achieved a lifelong ambition and enjoyed a back seat ride in a Chance-Vought F4U Corsair. The aeroplane belonged to Sigi Angerer and the two pilots struck up an immediate rapport. Although neither realised it at the time the moment was to become the first of many exciting flying experiences the two would share.

By this time the Red Bull brand was growing in popularity and a small sponsorship deal saw the famous bull logo painted onto the side of Corsair OE-EAS. However, as time passed by the drink became a global phenomenon and Dietrich Mateschitz was able to indulge his passion and create one of the largest and most eclectic collections of classic aircraft on the globe.

HANGAR-7

With the combined collections of Dietrich Mateschitz and Sigi Angerer growing on a regular basis by the late 1990s it soon became obvious that a permanent home was needed. Settling on a site at the picturesque Salzburg Amadeus Mozart Airport, with a backdrop of the snow topped Alps, the Red Bull team commissioned Salzburg architect Volkmar Burgstaller to create a stunning building to display the aeroplanes as well as a variety of racing cars and motorbikes that have also been sponsored by Red Bull.

Dubbed ‘Hangar-7’ the building would be no typical hangar. The owner didn't want a standard square show box - he wanted a structure “where technology, art and entertainment come face to face and naturally complement each other.”

The architect rose to the challenge and construction began in January 2001. The curved, glass structure that emerged from the building plot is like no other hangar. Viewed from the front it resembles the aerofoil section of a wing but viewed from within the visitor feels as though they are within a glass shell. The striking building radiates dynamism and is constructed of 1,200 tonnes of steel and 380 tonnes of special glass. That glass consists of 1,754 individual panes, all of which are different sizes, and provides a view of the impressive mountain panorama.

FLYING BULLS

But what of the aeroplanes displayed within the hangar? Now dubbed the Flying Bulls the collection of aeroplanes on show range from tiny microlights and Piper Cubs through World War Two warbirds to ex-military jets and helicopters. All are maintained in airworthy condition and are highly polished examples of their breed. Perhaps the most striking of all is Douglas DC-6B N996DM, an aeroplane that was built in 1958 and sold to Yugoslavian airline JAT and used by Marshall Josip Tito as his very own ‘Air Force One’.

Tito sold the DC-6 to Zambia's head of state, Kenneth Kaunda, in 1975 and he used the aeroplane as a luxury airliner for many years until she was finally abandoned outside at Lusaka airport.

The aeroplane, along with a second DC-6, was acquired by Chris Schutte but as problems along the Angolan border intensified Schutte was forced to sell the aeroplanes and Red Bull stepped in during March 2000. The aeroplane was ferried to Salzburg in the July and a three year restoration saw the aeroplane returned to her head-of-state glory. Today she is used for air display work as well as incentive days for Red Bull employees.

The aeroplanes on display with Hangar-7 change on a daily basis as this is a truly loving, working collection of aeroplanes. The aeroplanes fly very regularly and are rotated through the maintenance hangar (Hangar-8) at intervals for scheduled work.

HANGAR-8

Hangar-8 is another impressive glass and steel structure but the nature of the work undertaken within its walls mean it is not open to the public. I was privileged to be offered a behind the scenes glimpse at some of the aeroplanes not normally on display. During our visit in March the hangar was full of ‘hustle and bustle’ as aeroplanes were being readied for the coming airshow season. Dominating the hangar was North American B-25J 44-86893 (N6123C) which was having the Number one engine replaced with a zero timed unit in readiness for her appearances at some of the aeroplanes not normally on display.

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Glass, steel, rare aeroplanes, fast cars, exotic plants and mood lighting... it can only be Hangar-7.

(Images by Dr Nia Bridgewater)
ROTOR WARRIORS

Winter 2010/11 also saw a number of the Flying Bulls’ helicopters undergoing deep maintenance, including the menacing Bell TAH-1F ‘Huey Cobra’ attack helicopter (N11FX). This ‘twin-stick’ Huey Cobra was built up from a variety of parts in the USA and as the type remains in service around the world was particularly problematical to export from North America. It finally arrived in Austria in 2005 and is now a regular participant at events in the country.

Sitting next to the Cobra is an even earlier helicopter, a 1966 built Bell 47G Soloy which has been converted to use an Allison 250 turbine engine in place of the original 220hp Lycoming piston engine. D-HEBA came to Europe in 1988 and was used as a crop duster in Germany before being damaged in an accident ten years later. After restoration she was acquired by the Flying Bulls in 2002.

However, for lovers of classic helicopters the real star of the collection is currently tucked away in the corner of Hangar-8. Bristol 171 Sycamore HC.52 HB-RXB joined the collection a few years ago and recently flew again after its Alvis Leonides was restored in the UK. The former Luftwaffe machine is currently painted as an RAF machine and wears the serial ‘XG544’. The Flying Bulls were keen to add the Sycamore to the collection by virtue of its Austrian heritage (it was designed by Vienna born Raoul Hafner and first flew in 1947).

FAMILIAR FLYERS

Over the last few years some of the collection have become a familiar sight at British airshows and Sigi Angerer’s F4U-4 Corsair OE-EAS and the Flying Bulls’ Lockheed P-38L Lightning N25Y have been central to this.

Chance Vought F4U-4 Corsair OE-EAS (Bu 96995) was built in 1945 but was too late to see military service with the US Navy. Although initially sold as surplus and registered N5221V she later found herself in service with the Honduran Air Force, with whom she remained until 1978. Recovered from Honduras in 1979 she was restored to fly in Texas and operated as N5221V in US Navy colours with the tail code ‘BR’. The aeroplane remained in the USA until it was sold to Sigi Angerer in 1990 becoming OE-EAS on the Austrian civilian register. Sigi would later become Chief Pilot for the Flying Bulls and brought his beloved Corsair with him to Salzburg. Today the aeroplane carries very similar colour to those it wore in the USA – although the ‘BR’ tail code has been swapped for ‘RB’ (for Red Bull!) and the famous bull adorns the nose.

The P-38 is the Flying Bulls’ real jewel in the crown. Perhaps one of the most famous ‘warbirds’ ever to fly in private hands N25Y was acquired by Marvin ‘Lefty’ Gardner and Lloyd Nolan in 1964 as a founder aircraft of the Confederate Air Force. It had previously seen service as a Bendix Racer (dubbed ‘Sky Ranger’) and continued to be campaigned at Reno by Lefty and his family as ‘White Lightning’ until an accident following an engine fire in 2001. The aeroplane was subsequently sold to the Flying Bulls in 2005 and Ezell Aviation in Texas completed an epic restoration in record time. After shipping to Europe N25Y, now gleaming in the trademark polished metal livery of the Flying Bulls, finally arrived at Hangar-7 on March 9, 2009.

The Red Bull team commissioned Salzburg architect Volkmar Burgstaller to create a stunning hangar. Hangar-7 consists of 1,754 individual glass panes and 1,200 tonnes of steel.

The one-off Red Bull X2010 designed for Formula One champion Sebastian Vettel. Capable of more than 280mph the car reaches 60mph in 1.4 secs and does 0-120mph in just 2.8 secs.

The Alvis Leonides engine for Bristol Sycamore HB-RXB was restored in the UK before it took to the skies again.
More than Aircraft

What makes the Red Bull collection so unusual is that its focus is not merely aircraft. Displayed alongside the iconic flying machines are examples of Red Bull sponsored racing cars - either NASCAR, Indy Car or Formula One - as well as motorbikes, jet powered flying wings and a whole host of other fascinating 'exhibits'.

The hangar itself is adorned with original artwork, with exhibitions changing on a regular basis, and an amazing array of plant life. The all glass hangar offers the perfect growing conditions for a number of rare plants and dotted around the aeroplanes and racing cars you'll see Olive trees, a Mulberry Weeping Fig, Fern Palm, an Australian Glass Tree and more. It's easy to overlook these beauties of nature, but the effort is well worth while. These, compared to the soothing music played throughout the venue make for an incredibly tranquil setting.

Ikarus

The hangar also boasts a variety of eating and drinking venues to cater for a variety of budgets - all of which offer panoramic views of the hangar and the aeroplanes. The Carpe Diem Lounge-Café offers drinks and coffees as well as snacks such as Currywurst or pasta. Their 'Cake in a Glass' is certainly not to be missed!

Upstairs the 'Mayday Bar' serves cocktails (many of them containing Red Bull...) as well as what is dubbed 'Smart Food'. Brain Food, Mood Food and Beauty Food menus are aimed at “helping you be at your best, feel great and look fantastic”!

Moving upstairs yet further visitors in the evening can experience the 'ThreeSixty Bar' hanging below the ceiling. Open from 7pm (and open until 1am on Friday and Saturday) it offers one of the best views of the aeroplanes.

Finally, for a very special treat, visitors can indulge in a meal at the award winning Ikarus restaurant. The most unusual thing about Ikarus is its chef...who changes on a monthly basis. Usually if a fine dining restaurant frequently changes head chef, it's not likely to show the establishment's quality. Ikarus, on the other hand, revels in the 'guest chef' concept and has attracted some of the world's finest chefs for month long tenures.

The food is not cheap, but conversely this amazing structure and wonderful flying exhibits can be viewed for free every day from 9am until 10pm.

The Douglas DC-6 is now the only airworthy example in Europe. Formerly the personal aircraft of Marshall Tito it is historic in its own right. The cabin on the DC-6 has been overhauled to an incredibly high standard. It is used for corporate flying and Red Bull incentive activities.

How many hangar restaurants have three Michelin stars?

With the ThreeSixty Bar in the ceiling Hangar-7 is like no other aeroplane hangar.
The Livery Schools Link Committee organises a Showcase Event every two years. It is intended to provide an opportunity to show children from City schools a selection of the many professions and trades represented by the City Livery Companies. It is designed for year 9 children as they approach GCSE choices in the hope of capturing their imagination to consider career options which they had perhaps not known or thought about.

This year’s Showcase was the second event and as in 2012 was hosted in the magnificent Apothecaries’ Hall. We are grateful to the Worshipful Society of Apothecaries for their help and generosity in hosting us all. Twenty Seven Companies were represented at the event which was attended by over 400 children and teachers during the day, each school being allocated a one hour slot for their visit.

The Great Hall and other rooms were buzzing throughout the day with most interest being generated by the stalls offering opportunities for the students to have some ‘hands on’ experience. Sharing our room, the Barbers were busy with students trying the skills of tying sutures and taking blood samples whilst the Masons had students using hammers and various chisels to experience the challenges of working with stone. In the Great Hall the Information Technologists stall is always popular offering not only some interesting technology to experience but also initiatives to help children to stay safe and secure while on line.

The Air Pilots stall, organised by Captains John Towlle and Rick Thomas, looked impressive with the banners incorporating our new name. As always it was very popular throughout the day. The children thoroughly enjoyed the chance to try their hand at our aptitude tests on the laptop computers, some coming back for a second attempt, determined to beat their previous score. As always there were one or two ‘naturals’, but many found it very challenging. The new Air Pilots hand-outs were available to students and teachers with details of the careers guidance available on our website together with details of our aptitude testing.

Just before the close David Steward, Chair of the LSL Committee addressed everyone emphasising the role of the LSL Committee acting as a conduit between Livery Companies and City schools. He also described the new LSL database being introduced to act as an information source for those wishing to volunteer, in particular to work with schools and as a source for those seeking or in need of support. The Gliding Days, organised by the Air Pilots on behalf of the LSL were described as a great example of what the LSL can offer. These very popular days were introduced by Captain John Mason and now organised by Captain John Towlle. The scheme has been developed and managed by the Air Pilots and is now supported by 5 other City Livery Companies. In 2013 the scheme provided over 170 children with the opportunity to experience a gliding day.

With the Chairman thanking all those who had worked so hard to make the day a great success, proceedings were closed at 6:00pm.

An interesting postscript to the Showcase is that after the event the students were asked questions which covered various aspects of the day. They were asked to name their favourite stall and on top of the list was the Air Pilots! Some of reasons given why they enjoyed the stall were that the students enjoyed being able to participate, they enjoyed the ‘subject’ or they thought this was what they wanted to do.

The LSL showcase event has attracted excellent feedback and in future it may well take place in a larger venue, perhaps Guildhall and it may well become an annual event.
New Zealand Region

ASSISTANT ALLAN BOYCE

Recently the NZ Region was invited to a dinner hosted by the new Chief of Air Force (CAF) Air Vice Marshal Mike Yardley held at RNZAF Base Ohakea to witness the presentation of the Company Sword given for operational excellence to Sqn Ldr Chris Andrew for his work on the introduction of the NH90 helicopters into the RNZAF. This presentation is planned to be an annual event and the Region’s main opportunity to network with practically all the senior officers of the RNZAF in a social setting.

Several members also took the opportunity while at the base to tour the new purpose built Helicopter Transition Unit, which is part of one of the NZ Region’s affiliated units (488 Wing).

The OC of the unit Wg Cdr Scott Mackenzie gave us an extremely informative tour of the complex and the new A109LTU and NH90 aircraft.

From the desk of the Director Aviation Affairs

LIVERYMAN JOHN TURNER

INTRODUCTION

As well as supporting the UK technical committees and SKYbrary trial, all the Region's executive committees have been updated on our plans to re-shape the professional committees. SKYbrary continues to be a considerable personal commitment for me at the end of each month. Following requests by the UK Technical and Air Safety Committee (TASC) and Education & Training Committee (E&TC) there will be a 'combined cameo' at 14.00 on 22nd July at Aviation House in London when Mark Swan will speak for an hour on his vision for the future of the UK’s Civil Aviation Authority and how he sees his role as its 'chief pilot'. The event is open to all but space is restricted to seventy places so the office will advise booking arrangements by email later.

SKYbrary

We have now a draft Memorandum of Understanding (MOU) from SKYbrary. Once signed, the SKYbrary website will show the Air Pilots' role as a 'Content Controller' and as 'Content Source' for any of our own articles; this could be a further outlet for our Policy Papers. Meanwhile, the trial is in its ninth month. We have reduced the number of articles for review each month; in April and in May we were offered three articles for review which is a much more manageable number than the original six per month.

A further reduction in volunteer numbers means that three articles per month is probably the maximum we can now handle, especially as earlier (now amended) articles are returning for further review adding to the workload. Twenty-two Air Pilots have volunteered as SKYbrary reviewers but pressure of work, limited internet connectivity during relocation, limited breadth of expertise and past performance considerations leaves a core of only fourteen plus me. This number shrinks to ten when considering those with real depth of experience in Commercial Air Transport (CAT), to which most SKYbrary articles relate. This does not compare well with the minimum of nine reviewers needed to cover just three articles each month. I cover for volunteers prevented from reviewing an allocated article so that we meet our monthly commitment. If you have some spare moments and would like to share your expertise with the wider aviation community, please contact me at daa@airpilots.org. If, instead of reviewing, you would like to adopt the 'editor' role in consolidating reviewers' comments into a single response, please let me know too!

The status of articles reviewed by the Air Pilots in the eight months since September 2013 is as follows:

| Articles reviewed by Air Pilots (to end 5 May 2014) | 33 |
| Endorsed | 18 (=55%) |
| Being re-written by SKYbrary | 3 |
| Awaiting SKYbrary internal review | 3 |
| Changed to a SKYbrary 'glossary item' | 1 |
| Amended by SKYbrary and awaiting further Air Pilots review | 3 |
| Awaiting SKYbrary action (comment acceptance/re-writing) | 7 |
| New articles under review in May 2014: | 3 |

Those volunteers in UK and based elsewhere who contribute regularly, sometimes reviewing multiple articles in a month, inject real life experience and knowledge from their many years in aviation into articles provided for the guidance of flight crews. SKYbrary recognizes and values the benefits that these inputs provide.

ENHANCING OUR PROFESSIONAL COMMITTEES

All the UK technical committees have now discussed the paper 'Enhancing our Professional Committees' endorsed by the Court in March. All the regional executive committee members have also received a copy. North America's response was immediate and enthusiastic, reaffirming the need for change to afford the Air Pilots real influence within the international aviation community. They also offered all support necessary to ensure we move in the...
direction proposed. Hong Kong also responded quickly with a number of their members primed and ready to participate in the new way of working.

On 6th May, the UK technical committee chairmen met to brainstorm and develop 'next steps.' This helped us to understand better the potential organizational arrangements and how transition might be achieved. We concluded that rather than try to 'transition' existing committees singly, we should 'switch' to the new configuration in a single step, at which point the present committees would cease to exist. Clearly, that 'switch' should not take place until the conditions necessary are in place. Therefore, the committees will continue as at present until changeover which will not be before the first quarter of 2015.

I will present a progress report at the July Court.

UK TECHNICAL AND AIR SAFETY COMMITTEE

In March, UK TASC started with a cameo from me on the a test team's thought processes behind the first flight of a new large aircraft type (the Nimrod MRA4), as previously presented to E&TC. Ongoing committee topics included unmanned air systems, the potential confusion implications of the broad spectrum of terms used internationally to describe modern instrument approaches, the threat from lasers, the potential benefits of adopting a Global Positioning System (GPS)-based height reference in place of the present barometric references and Loss Of Control In Flight (LOC-I).

In May, TASC received an illuminating cameo on Unmanned Air Systems (UAS) from the government Defence Science and Technology Laboratory [DSTL]. This suggested that, although there is mounting pressure for UAS to operate in non-segregated airspace, there are still a number of technical hurdles to be overcome. (It also showed how far our armed forces are behind the US in the deployment of UAS.) It was gratifying that DSTL were keen to access our earlier work on UAS 'equivalence'.

In addition to the usual topics, the meeting noted that EASA is implementing regulation to extend the recording time of cockpit voice recorders (CVR) and to extend the operating time of underwater location devices (ULD) installed in long-haul aircraft to 90 days. EASA had started this work in 2013 (NPA 2013–16 refers) but is now accelerating rulemaking so the improvements will be mandatory by 2019. The meeting also addressed consultation material on an Area Navigation One (RNAV 1) mandate for operations in the London Terminal Manoeuvring Area (LTMA) and the Farnborough Airspace Change proposal and agreed responses on each for DAA to submit on behalf of the Air Pilots.

Work was ongoing, under leadership of Chief Executive, UK Flight Safety Committee, on the laser threat. Air Pilots offered support, particularly with a SO8 police department's request for assistance. The chairman also asked members to pass him LOC-I topic areas for future joint working with E&TC.

UK EDUCATION AND TRAINING COMMITTEE (E&TC)

The April E&TC received a highly interesting cameo on Air Tanker from Max Wright of Thales. As the first UK 'dual use' flying set-up it was interesting to hear how the military flight crew training differed from the usual civilian type-rating training; compared to a civilian type conversion, 50% more simulator sessions are provided to bring military pilots up to a level of aircraft familiarity with which they felt comfortable. RAF ETOPS training is also more thorough and includes specific simulator training in addition to the customary civilian classroom instruction.

While discussing 'Enhancing our Professional Committees', committee members noted that it was important that any changes did not make it more difficult for their employers to support continued attendance. Encouragingly, the cameo speaker observed that Thales see the influence their employees have through developing links with external agencies as immensely beneficial, whether or not there were financial qualifiers.

The Instructors Sub-Committee was preparing for the Instructor Forum on 8 April at RAF Cranwell and had awarded one Instrument Rating Bursary to a particularly worthy candidate. Work on Instructor Lesson Plans was paused following some doubts expressed by the Civil Aviation Authority (CAA) specialists which meant the material would be presented at the forum as work in progress, rather than the completed article.

The committee heard encouraging news about Professional Pilot Apprenticeships, progress in which it has been supporting and tracking. There is a real possibility that apprenticeship arrangements will be established for pilots training to become flying instructors. This will change significantly the financial hurdles that aspiring professional pilots face currently.

The chairman also asked members to pass him LOC-I topic areas for a future joint working with TASC.

UK ENVIRONMENT COMMITTEE (ENVC)

Committee members recognized that some members of the Air Pilots did not understand the rationale behind the EnvC. I agreed to re-state the rationale in the developing Terms of Reference for the committees and to seek volunteers from the Regions to assist in the EnvC working groups. For completeness, an extract from that appeal is included here:

“We established an 'Environment Committee' to ensure Air Pilots members know the truth behind the positive and negative environmental aspects associated with aviation. In other words, its role is to educate us. Current members are drawn from UK, AUS and NA Regions and include pilots, university lecturers and aerospace industry representatives.

At present the committee is working on four topics, all of which are open to contributions/involve from any Air Pilots members able to use email/Skype or Facetime. The topics are:

• Operational/procedural Improvements. To investigate how changing operating techniques (use of steep approaches, continuous climb/descent, etc.) can reduce the impact of aviation through reduced emissions, noise, etc.

• Transport environmental budgets. To look at the relative impact of passengers travelling to/from the airport and aircraft departures/arrivals and showing that at some airports (in UK and elsewhere) changing passenger ground travel choices would be more beneficial than any improvement in aircraft design or operation!

• Past achievements. To highlight how much the aviation industry and airlines have already done to reduce our noise and emissions impact. This work is aimed at producing a credit-card sized aid memoire of useful facts for us all to carry and deploy as appropriate when people start to target us as major polluters in today’s world.

• Wind farms - impact on aviation. To produce a factual guide for pilots covering what they should or might find useful to know. Aviation has global environmental impact but any local knowledge or initiative is often hidden from the wider community. As professional and leisure pilots we can learn a lot from this work and be better ambassadors for aviation as a result”

Working Group progress was reviewed which highlighting the need for additional support in the Operational/Procedural Improvements area.

The importance of the Transport Environmental Budgets group was reinforced by an oversees member noting that recent findings that Manchester passengers create as much environmental
By: Freeman R D Cunningham

Very few people will have heard of the European Defence Agency’s Helicopter Tactics Course (EDA HTC) based at RAF Linton on Ouse. The facility is tucked into the corner of a hangar alongside the Volunteer Gliding School and several interesting looking historical aircraft. Yet, despite its low profile, the EDA HTC facility can now boast over 250 graduates over 3 years from a host of European militaries with all future courses fully loaded for the foreseeable future.

The genesis of the HTC was as a result of a 2008 British French initiative to generate tangible capability from a large number of under utilised European military helicopters. The aim was to enable these aircraft and their crews to aid operations in Afghanistan. These aircraft suffered from a poor state of serviceability and, as such, many of the crews lacked the training essential to perform in such hostile conditions. The EDA was given the task of addressing the training and set to researching cost effective synthetic solutions focussed principally on NATO standard tactics and operational procedures.

Initial funding came from 3 nations; the UK, Sweden and Luxembourg. The decision was made to focus the training on Commercial Off The Shelf technologies (COTS) to drive down costs. The UK was selected as the host nation and RAF Linton on Ouse was selected from a small pool owing to the provision of a suitable hangarage and classroom space, excellent accommodation and sporting infrastructures and good transport links. The equipment design targets required fidelities for tactics training and as such the cockpits are generic with limited functionality. Critically the training is whole crew and multi aircraft with two identical helicopter mock ups mounted side by side and operating in the same serious game visual environment. The visual images are provided through dome projectors for the front crew and Virtual Reality Helmet Mounted Displays for the rear crew. The concept was initially validated by a Concept Capability Demonstration (CCD) but after 3 years of back to back courses it is clear that students love the immersive and engaging quality of the technology. Many of them emerge from a 2 hour sortie drenched in sweat talking loudly about the situation they have just faced whilst gesticulating wildly - all good signs of an engaging mission.

The EDA HTC is not a flying skills course but concentrates on the theory and practical aspects of tactical training focusing on judgemental training, decision making and leadership. The course runs for 3 weeks, the first week being devoted to groundschool and the remainder to flying exercises. It is taught entirely in English. Critical to the success of the course has been the experience and credibility of the instructing staff all of whom are ex-UK military - RAF and Army Air Corps - with a blend of Support Helicopter (SH) and Attack Helicopter (AH) experience and a combined flying time of some 25000 hours; the team also includes an ex-RAF Loadmaster with 34 years experience, Loadmaster with 34 years experience and a mixed loadmaster with 34 years experience and a loadmaster with 34 years experience. The flying phase comprises 10 sorties, the first of which is a familiarisation sortie. The crews are then given individual training on Electronic Warfare and Door Gunnery before coming together as a coherent Flight to practice Tactical Formation. After this stage the pace and intensity builds sortie on sortie until after 3 weeks the final sortie sees the crews operating with Attack Helicopters, Fast Jets, Artillery, UAV’s to name but a few players in a fast moving and time-critical mission. Owing to the diverse range of experience, capability and aircraft types the instructors are careful to adjust the pace of the training commensurate with the crews ability to keep up. All of the sorties utilise standard NATO briefing formats and crews are encouraged to use a standard planning tool prior to the mission. Significant time is spent analysing the mock Air Tasking Orders (ATO) and preparing mission briefs allowing the crews to practise multi-national operations for a range of realistic combat related scenarios that include; troop insertion and extraction, defensive and tactical formation flying, convoy escort and medical evacuation tasks, and combat search and rescue missions. Most of the students will eventually meet again at one of several EDA exercise held around Europe every year such as Ex HOT BLADE in Ovar, Portugal.

To date the HTC has hosted students from: Sweden, Germany, Slovenia, Hungary, UK, Austria, Belgium, Czech Republic, training and environmental issues. Our younger members often find it difficult to participate in the current committees but we hope to change that so that all perspectives are captured fully. By producing an internationally-based voice, it also offers us the chance to influence current and future aviation affairs much more effectively than has been the case in the recent past.

Please watch out for further updates. More importantly, please do not be shy in sharing your expertise when we start seeking volunteers.
Portugal, Finland and Norway. Although it started out as a precursor to deployment to Afghanistan, the course has now assumed a more general role, preparing crews for operations in support of joint and multinational operations in any theatre including littoral operations. In addition to running the standard HTC the facility now runs an instructors course every year hosted by the RAF’s Helicopter Tactics Instructor Cadre based at RAF Benson. Of most satisfaction to those of us who run the training is the quality of feedback we receive from graduates. Several attending nations have made the course mandatory pre deployment training and it is encouraging to see all of our future courses loaded with returning nations keen to enhance their own knowledge and feed in their own thoughts to the evolution of helicopter tactics.

The facility at RAF Linton has proven that low cost, high fidelity COTS technology can deliver real results for aviation training and there can be no doubt that with all nations struggling to find sufficient funds for increasingly expensive hardware this technology is here to stay. Recent events in Africa, the Middle East and now Ukraine highlight the diversity of possible challenges that NATO forces may face in the future. The answer to these challenges must include excellence in training and the EDA HTC is continuing to play its part in this vital area.

**Instructor Operator Station IOS**

![Instructor Operator Station IOS](image)

**Mission planning and briefing forms a core part of the course**

![Mission planning and briefing forms a core part of the course](image)

**Instructor Operator Station IOS**

![Instructor Operator Station IOS](image)

**The facility showing both mock ups side by side with rear crew stations.**

![The facility showing both mock ups side by side with rear crew stations.](image)

**Each member of the rear crew operates on Helmet Mounted Displays and has access to a pneumatically enabled door gun.**

![Each member of the rear crew operates on Helmet Mounted Displays and has access to a pneumatically enabled door gun.](image)
# The Air Pilots Flying Club

**PROGRAMME 2014**

**APRIL**

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<tr>
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<th>Event</th>
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<tbody>
<tr>
<td>Sunday 13th</td>
<td>WLAC, White Waltham</td>
<td>'Freddy Stringer Memorial Lunch’</td>
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<tr>
<td>Tuesday 22nd</td>
<td>Cotswold Airport, Kemble</td>
<td>Lunch</td>
</tr>
<tr>
<td>Friday 25th</td>
<td>Le Touquet</td>
<td>'Start of Season Lunch’</td>
</tr>
<tr>
<td>Sunday 27th</td>
<td>WLAC, White Waltham</td>
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**MAY**

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<tr>
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<tr>
<td>Monday 12th - 14th</td>
<td>Paris</td>
<td>Company Visit</td>
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<tr>
<td>Friday 16th</td>
<td>Shobdon</td>
<td>'David Corbett Memorial Lunch’</td>
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<tr>
<td>Tuesday 20th</td>
<td>RAF Brize Norton</td>
<td>Company Visit</td>
</tr>
<tr>
<td>Saturday 24th - 25th</td>
<td>Newquay Cornwall Airport</td>
<td>Classic Air Force (Overnight Stop)</td>
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<td>Wednesday 28th</td>
<td>RAF Benson</td>
<td>Company Visit</td>
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<tr>
<td>Friday 30th</td>
<td>Le Touquet</td>
<td>Lunch</td>
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<tr>
<td>Saturday 31st</td>
<td>Chichester, Goodwood</td>
<td>Joint Visit with the Young Air Pilots</td>
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**JUNE**

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<td>RAF Linton-on-Ouse</td>
<td>Company Visit</td>
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<tr>
<td>Tuesday 3rd</td>
<td>Compton Abbas</td>
<td>Lunch</td>
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<tr>
<td>Wednesday 11th</td>
<td>Oaksey Park</td>
<td>Lunch at The Wheatsheaf</td>
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<td>Thursday 19th - 20th</td>
<td>Buochs, Switzerland</td>
<td>Company Visit to Pilatus</td>
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<td>Wednesday 25th</td>
<td>Stow Maries</td>
<td>Museum Visit</td>
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**JULY**

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<td>Biggin Hill</td>
<td>Company Visit</td>
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<td>Wednesday 8th</td>
<td>Keystone</td>
<td>Lunch at the award winning 'Pheasant'</td>
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<td>Friday 11th</td>
<td>Duxford</td>
<td>Flying Legends Practice Day</td>
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<td>Le Touquet</td>
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**AUGUST**

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<td>WLAC, White Waltham</td>
<td>'Summer Lunch’</td>
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<tr>
<td>Friday 8th</td>
<td>Popham</td>
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<td>Saturday 16th</td>
<td>Sandown</td>
<td>Lunch</td>
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<td>Friday 29th</td>
<td>Le Touquet</td>
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<tr>
<td>Saturday 30th</td>
<td>Shoreham</td>
<td>Company Garden Party</td>
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**SEPTEMBER**

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<td>Frensham</td>
<td>Pub Lunch at 'The Frensham Ponds Hotel’</td>
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<tr>
<td>Tuesday 9th - 12th</td>
<td>Laval, France</td>
<td>'French Leave’</td>
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<td>Friday 26th</td>
<td>Le Touquet</td>
<td>Lunch</td>
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**OCTOBER**

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<tr>
<td>Sunday 5th</td>
<td>WLAC, White Waltham</td>
<td>AGM and Lunch</td>
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<tr>
<td>Tuesday 7th - 8th</td>
<td>East Kirby &amp; RAF Coningsby</td>
<td>Company visit to the BBMF (Overnight stop)</td>
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<td>Friday 10th</td>
<td>Panshanger</td>
<td>Lunch</td>
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<tr>
<td>Sunday 12th</td>
<td>WLAC, White Waltham</td>
<td>'End of the Season’ Lunch</td>
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Sixty years ago, on 11 August 1954, a tiny swept wing jet fighter made its first flight. It was the Folland Fo 139 Midge, powered by a Viper turbo jet. It was the precursor of the definitive version, the Folland Fo141 Gnat, which first flew on 18 July 1955. The Midge and the Gnat were the brainchildren of W E Petter, the Managing Director of Folland Aircraft Ltd. Petter was a very talented designer who started work with Westlands, where he designed the Whirlwind and Welkin twin engine fighters. After the end of World War 2 he moved to English Electric where he designed the Lightning. At Follands he became increasingly concerned with the escalation in cost and size of the emerging generation of jet fighters; his solution was a small, agile fighter that would cost far less to purchase and maintain. In an advertisement in the September 1954 issue of Aeroplane magazine Follands claimed that 'Twenty light fighters, fitted with all essential flying, navigational and armament equipment, can be built for the price of six standard fighters.' As for fire-power, it was claimed that 'The five light fighters produced in the time needed for one standard fighter can bring to bear 10 x 30mm cannon instead of the 4 x 30mm cannon, or 6 x 0.5 in machine guns of the standard fighter'.

The Gnat was powered by a Bristol Siddely Orpheus turbo jet and had a built-in armament of 2 30mm Aden cannons. An order for six Gnats was placed by the Ministry of Supply with a view to using the aircraft to replace the Venom in the day ground attack role but subsequently the RAF did not order it, preferring a ground attack version of the Hunter. Twelve Gnats were delivered to Finland and two to Yugoslavia, but the main order came from India which subsequently involved license production by Hindustan Aircraft Ltd in large numbers. However, in the late 1950s the RAF was seeking to replace its advanced jet trainer, the Vampire T11, with a more modern design suitable as a lead-in to the advanced aircraft it hoped to bring into service in the 1960s, such as the TSR2, Lightning and Hawker's supersonic VSTOL fighter project. In the event only the Lightning made it into service. Follands offered a two seat version of the Gnat fighter and in 1957 an order was placed for a batch of two seaters to be used as advanced trainers. The first one flew in August 1959. The new generation of front line aircraft were to be equipped with an advanced instrument display known as the Integrated Flight Instrument System (IFIS). Given that this system had already been installed in the Hunter T7, with its side-by-side seating favoured by the RAF for flying training, it therefore seemed an odd decision to opt for a trainer with tandem seating and only a partial IFIS installation. Perhaps it was a consolation prize for Follands, who had failed to get the RAF to order the fighter version.

The Gnat T1 entered service with the RAF at CFS in 1962 and at 4 FTS RAF Valley shortly afterwards. In August 1963 your Hon Editor found himself on the second course along with a number of his colleagues recently graduated from the RAF College Cranwell. The Gnat T1 was a tremendous advance on the Vampire T11. It was very small, with a wingspan of just 24 feet and length of 37 feet, its maximum permitted speed was 0.90M below 11,000ft and 500kts above; Pilot's Notes stated that supersonic flight could easily be achieved in a dive and that 'well-contoured airframes in steep dives approach 1.3M.' It also looked terrific after the rather stubby Jet Provost we had flown previously. However, whatever Petter's original concept for simplicity had been, the aircraft was technically complex with much packed into the tiny airframe. Its ailerons and slab tailplane were fully powered but the longitudinal control system was particularly complicated. There were two different mechanisms to govern the gearing between control column and tailplane movement, a cam mechanism and a Q feel mechanism. In addition there was an automatic tailplane datum shift mechanism which compensated for the large Centre of Gravity and trim change that took place when the landing gear travelled. Plenty to go wrong here! Manual reversion in the event of hydraulic failure was available. The slab tailplane would freeze in its last position following hydraulic failure but longitudinal control was achieved by unlocking small elevators from the slab and moving the slab (slowly) through use of a standby electric trimmer. In this condition the automatic datum shift did not work, so plenty of handling challenges here for the student, especially when carrying out a practice forced landing. The Instructor was able to select the hydraulics off by use of a cockpit selector; this was usually done in the middle of your aerobic sequence, with predictable disastrous results. Another innovative feature was the landing gear, the doors functioning as the airbrake when partially extended. Moving the gear
selector lever from up to its first detent gave the airbrake selection, moving it further aft to the next detent selected gear down and turning it through 90 degrees and moving it all the way back selected emergency down. Beware selecting only airbrake in the rush to do your downwind checks!

The Gnat seemed always to be short of fuel; it carried only 383 gallons (or 3063 lbs) of AVTUR and used it up very quickly. Despite a complex arrangement of tanks - nine in the fuselage and two in each wing - the system worked pretty well. With its narrow track landing gear it was tricky to handle in a cross wind, especially on a wet runway. The runways at Valley were usually wet and the runway that faced the prevailing westerly wind was too short for the Gnat! With its relatively long heavy fuselage and short wings the Gnat could be prone to suffering from inertia coupling at high rates of roll. To prevent this, control column lateral movement was restricted by airspeed operated switches above 150 kts which meant full aileron deflection could not be achieved. You could sense these switches operating as you came round finals at 150 kts in the form of tapping on the control column. It didn't take long before someone on the Red Arrows discovered that if the fuse controlling these switches was removed very high roll rates could be achieved throughout the whole flight envelope. When Higher Authority heard about this practice an order was issued to conforming to the letter if not the intention of the order.

What was it like to fly? It was a joy to fly from the front seat, despite the small size of the rather snug cockpit. With the long pitot tube sticking out in front of you it was like riding a rocket propelled witch's broomstick. It was exceptionally manoeuvrable and light on the controls, formation flying was a bit twitchy until you got used to it. It was not so nice instructing from the back seat when all you could see in front of you was the back of the student's ejection seat. You hoped for a light crosswind from the right on finals so you could see both the runway and keep an eye on the sector ASI mounted on the left hand side of the rear seat coaming. Landing away from home base needed forethought, as there was no internal starter and an external gas turbine starter was needed, not always available at all airfields. The Gnat suffered from the rough and tumble of flying training and the salt-laden climate of Anglesey. With its complex systems packed into such a small airframe serviceability was not good. A Hunter squadron had already been formed at Valley to make up for the Gnat's poor serviceability, to cater for those pilots too tall to fit in the Gnat's cockpit and to train students from overseas who might have difficulty understanding Gnat flying techniques. By the mid '70s the RAF was looking out for a replacement. This ultimately took the form of the Hawk, which although not quite as slippery as the Gnat was a much superior trainer, the instructor having a superb view, the aircraft having a significantly greater range and much more reliable systems. By 1980 the Hawk had replaced the Gnat both as a trainer and as the mount of the Red Arrows and is still in service today. A number of Gnat airframes were allocated to the ground training schools at Halton and Cosford where they were maintained in a serviceable condition, whilst remaining groundborne.

However, this wasn't the end of Gnat flying. When no longer needed for ground training work the Gnats were sold and proved capable of being returned to airworthy status. Today the Heritage Aircraft Trust, based at North Weald, operates three Gnat T1s on the display circuit. The pilots are a mixture of ex military, military and purely civil and only register but wear RAF colours, one being painted in Red Arrows livery, one in the 4 FTS colour scheme and one in the livery of the Yellowjacks team which preceded the formation of the Red Arrows. The Trust discovered in scrap yards a couple of ex Royal Navy Palouste air starters, originally capable of being carried as an external store. These, mounted on a road trailer, solve the starting problem at away venues. The team display as a three aircraft formation at Air Displays both at home and overseas. Thanks to Freeman Samantha Waller members of The Honourable Company of Air Pilots were invited to North Weald on 27 April to witness the team's final practice session before the 2014 air display season. It was a great pleasure to see and hear the diminutive Gnats flying again, especially as two of the pilots were students of the author's at Cambridge University Air Squadron in the late '90s. The Heritage Aircraft Trust's aim is 'To preserve and protect Gnat and other historic aircraft for the benefit of the public and to demonstrate and display such aircraft at public events and to conserve them as heritage assets.' Further details of the Heritage Aircraft Trust can be found on their website, www.gnadt DISPLAY TEAM.COM

The Editor with his two ex students, Kevin Whyman and Mark Fitzgerald

The Air Pilots' visiors with the Heritage Aircraft Trust pilots and engineers

The Gnats prepare to start up at North Weald

The Gnat in Yellowjacks colours taxiing out
Automation and The Human

Is technology taking over aviation? ...And should we care?

EDITOR’S NOTE. This article is reproduced from the Guild of Air Traffic Control Officer's magazine, TRANSMIT, with the kind permission of the Editor.

Of course, advances in technology and automation reduce the amount of man hours required to complete any given task, writes John Welton, GATCO manager technical and ops. This could impact staff numbers, but if that's the price of a more robust, safer, and more efficient system then those jobs are effectively the price of progress. While no-one wants to see job losses, this process has been the way of the world since the days of the Luddites. But at what point does a more automated, safer, more efficient system actually become less safe? How about when the remaining humans involved are so used to trustworthy automation on such a scale that they can no longer hold all the required fallback information in their memories, or access it quickly enough when needed? This point may well have been reached and surpassed already in the pilot community, as illustrated below; but whereabouts on this path is ATC?

COCKPIT EXPERIENCE

The International Federation of Airline Pilots Associations (IFALPA) has for a long time warned that pilots are becoming less and less involved in flying the aircraft, instead becoming 'system monitors' put in place to make sure everything is running smoothly, and to provide remedies when it's not. This lack of involvement can lead to decisions being tough to make when needed. And decisions are usually needed in compressed timeframes under stress, against these, but they need to fully understand the systems to work around and failures; people remain the best defence technology is susceptible to unpredicted problems for 20 years shows that all ATCOs, with all their practice and training simulations. Now they are being asked to handle a traffic loading that today's airborne devices such as ACAS (automated collision avoidance systems)…' Our pilot colleagues agree: IFALPA's view is: 'The human should, however, always be in control and be regarded as the ultimate safeguard of system safety'

Becoming a system monitor

If this does become reality then the ATCO really is a system monitor. Maybe we'll even need a new job title by then! Imagine for a minute that all aircraft were on routes separated for 90-95% of the flight profile. ATCO input would be, as the project title goes, by exception. So you could potentially use one ATCO (or two, if we manage to hang on to tactical and planner) to cover all the airspace currently worked by, say, Clacton, North Sea, Daventry, LMS, LUS and Dover - below current nightmanning levels during the day. Very tempting if you're the manpower planner. But what happens when the thunderstorms hit and all that ATCOs have done for a few years is watch aircraft fly past? Suddenly there is a need for vectoring and coordination skills that at best are 'rusty'. Worse, what about the people who have validated into the new system; they have never needed to vector live traffic and have only had a little practice at it during their training simulations. Now they are being asked to handle a traffic loading that today's ATCOs, with all their practice and experience, need a team of 20 or more people to manage.

TRANSMIT, with the kind permission of the Editor.

UNRAVEL AUTOMATION

It is easy to see how levels of automation can build up when the 'sun shines,' but it doesn't take a great leap to see how it can all start to unravel on a 'rainy day.' This means more fall-back and contingency practice will be needed to maintain high standards of ATCO competence. More training requires more staff. So maybe automation isn't the magic pill to reduce costs that some see it as, since the extra training required will result in a smaller reduction in staff numbers than initially envisaged. However, making sure this training happens will need a strong
The Honourable Company of Air Pilots Flying Club celebrated their annual ‘Freddy Stringer Memorial Lunch’ at White Waltham Airfield on Sunday, the 13th April in great style. Thirty two active members met in the bar where convivial conversation ensued before sitting down to the usual excellent lunch.

Once seated, the Club President, Peter Davis, bade us all welcome during which he spoke of Freddy Stringer, to whom we owe so much and who served as Master during 1989-90.

Following the President, Dr. John McAdam was invited to recite his Latin grace, which many lunchers will have found reminiscent of those halcyon days in the school refectory!

Before the dessert was served the Master, Ms Dorothy Saul-Pooley, rapped on her wine glass to gain our attention and, raising her glass gave the Loyal Toast, to which we all responded. The Master then spoke eloquently on her ambitions and what she hoped to achieve during her term in office. She pointed out that the last time there had been a Master who was a 'pure' instructor, as opposed to a commercial pilot who also instructed, was Freddy Stringer 25 years ago. She then told the assembled company how Freddy had always been so gentlemanly and supportive of her when she joined the Court in 2001. Chief among her ambitions was to persuade the authorities to reduce the disproportionate administrative burden of the European regulations on smaller training facilities and general aviation, as it does nothing to enhance safety and is likely to lead to many
The Venerable (AVM) Ray Pentland CB QHC BA MTh
A Profile of our new Chaplain

BY HH JUDGE TUDOR OWEN, IMMEDIATE PAST MASTER

One of my roles as a Judge is to chair Mental Health Tribunals which review the cases of patients detained at Broadmoor, the high security psychiatric hospital. We inevitably chat about other things over lunch and when I happened to mention the Guild as it then was, one of my colleagues on that day said her husband was in the Royal Air Force. When I began to extol the merits of membership I learnt that he was a chaplain, not a pilot.

Some months later, when I represented our Company at the annual service commemorating the formation of the RAF, I discovered that Christine's husband was rather more than 'a chaplain' - he was Chaplain-in-Chief of the Royal Air Force. Sermons on formal/ceremonial occasions tend to be formulaic and uninspiring, Ray Pentland's wasn't in that mould, and I listened intently to every word.

I was equally impressed later in my Master's year when I represented the Company at the annual Service of Thanksgiving at Westminster Abbey on Battle of Britain Sunday. An idea began to form. 

Preaching at Westminster Abbey

The Venerable Raymond Jackson Pentland, known to all as Ray, is a friendly approachable man with a ready smile and a good sense of humour. He was brought up in Renfrewshire on the south bank of the River Clyde where it expands into the Firth.

He was educated at Cowdenkowes High School Greenock, Langside College Glasgow, the Salvation Army Officer Training College, St John's College Nottingham and Oxford University.

SOUP, SOAP, AND SALVATION

William Booth, a former Methodist minister, formed the Salvation Army amongst the Victorian slums of London's East End. He believed churches should offer practical help to the poor and destitute as well as preaching the Gospel to them, a mission summed up as 'Soup, Soap, and Salvation.'

That work continues to this day, adapted to modern needs, and after graduating as a Salvation Army officer Ray served for seven years in a number of challenging inner city locations.

In 1986, he left to become a priest in the Church of England.

FROM NONCONFORMISM TO THE ESTABLISHED CHURCH

While visiting friends in Oxford Ray attended St Aldate's, the well known student Church. During a lively communion service with over 1,000 in the congregation he felt he had come home. “It was as if God had tapped me on the shoulder and said 'This is your spiritual home'."

Within a few months he had been selected for ordination and the Pentland's were on their way to Nottingham.

St John's College is a Church of England theological college. Founded in 1863, its motto taken from 1 Corinthians is "Woe to me if I do not preach the gospel."

No-one could accuse Ray of failing to do that. He is a powerful and thought-provoking preacher who delivers well-crafted sermons which blend biblical exposition with practical application, always interspersed with humour.

Ray was ordained in 1988 and, while serving his curacy, was ‘wined and dined’ by the RAF Chaplains Branch and was eventually persuaded to join them.

During a College summer break he spent a month with the Royal Navy and, although he expected to enjoy the experience, he was also convinced that he would write a paper on 'these nasty military people'.

"How wrong was I!", says Ray. "Within days I had warmed to the people and the opportunities for ministry and mission. This was brought home while on exercise at Dartmouth. Talking with a young WRNS officer about her forthcoming marriage, she spoke of the Chaplain who would be conducting her wedding. He had been in Belfast with her Royal Marine fiancé in some very dark moments and they wanted him with them in their
At that moment a seed was planted that was to grow into an understanding of Chaplaincy being all about being alongside people. We often speak within the Church of incarnational ministry and here it was in action. The rest is history.

After completing the Specialist Entrant Course at RAF College Cranwell in 1990 Ray was commissioned into the Chaplains Branch, joining the team at Cranwell. During this period he was detached to RAF Swinderby, RAF Newton and eventually the Gulf.

ICE-POPS IN THE DESERT

"I gave out ice-pops in the desert in the first Gulf War", says Ray, "following a tradition dating back to the First World War, and one of my heroes, Army Padre Geoffrey Studdert-Kennedy who was nicknamed 'Woodbine Willie' by soldiers on the Western Front.

His mantra was 'You go out with a smile on your face and a pack of cigarettes in your kit bag. You hand them out. Sometimes you pray with the boys, but you always pray for them'. I think that sums it up very well.

Ray found the work fulfilling. It was what he had hoped it would be - living among those with whom he worked, sometimes laughing with them, and experiencing and sharing the same challenges in war and peace.

During a tour at the fast jet training station RAF Valley, convinced that this was where his ministry and service was to be, Ray accepted the offer to transfer from a short service to a permanent commission.

This was followed by tours at RAF Valley, Germany (which included an operational tour with the Army in Bosnia), RAF Cosford (including a deployment to the Gulf), Senior Chaplain RAF Brize Norton, Chaplaincy Services Training & Development Officer and Senior RAF Chaplain at the Armed Forces Chaplaincy Centre.

During the course of his various appointments he served with units on exercises and operations in Canada, Norway, Cyprus, Slovenia, the Falklands, Bosnia, Croatia and the Gulf Region.

He also gained his MTh (Master of Theology) at Oxford University, having undertaken research into military ethics and Values Education. He continues to write and lecture widely on those subjects.

In 2006 Ray was appointed Principal Anglican Chaplain and of the RAF and an Archdeacon.

In the same year, he was made an Honorary Chaplain to the Queen (QHC) - members of the clergy who, through long and distinguished service, are appointed to minister to the Monarch. They wear a red cassock and a badge bearing the Royal Cypher and a Crown.

He was selected to be Chaplain-in-Chief of the Royal Air Force in 2009 and, in the 2013 New Year’s Honours, was made a Companion of the Order of the Bath (CB).

RAY and CHRISTINE WITH THEIR CHILDREN ADAM (ACTOR JACKSON PENTLAND) AND ELIZABETH, A FULL-TIME MUM

MINISTRARE NON MINISTRARI

The motto of the RAF Chaplains’ Branch is 'Ministrare Non Ministrari' (To serve, not to be served) and they serve all, regardless of rank or religious background. Wherever there are RAF personnel there will be a Chaplain with them, on bases at home, overseas and in areas of conflict. (Chaplains never carry weapons, even in theatre).

"The Chaplaincy serves the RAF through Prayer, Presence and Proclamation", says Ray. "We minister to people of faith and people who have no faith. If you are living amongst people whose lives may be on the line, who are a long way from home, you are in the midst of that facing the same issues as they are.

"I never cease to be amazed at the young men and women of today’s Royal Air Force and the sacrifices they make, which were evident in the deserts of Iraq and more recently in the mountains of Afghanistan. Aircrew and support personnel still lay their lives on the line."

"The sound of crew rooms on the front line today are not so very different from the Nissen huts of the Second World War. The humour and the banter still remain, young men and women serving their country. The times are different, but the values, the spirit, and the comradeship are the same.

"There are still families who sit and wait, children waiting for Mummy or Daddy to come home. And there are still families to be supported in their darkest hour."

Ray and Christine, a Consultant in Child
Bereavement, came as my guests to the Royal Charter Banquet. I have to confess that my reason for inviting them went beyond enjoying their company. Knowing that Ray was about to retire from the RAF, I had a secondary motive and was pleased, and cautiously optimistic, when they both said they felt 'at home' with our Company. I was even more pleased when the Court invited Ray to become one of our Honorary Chaplains - and delighted when he accepted.

Ray agreed to be the guest preacher at our Annual Service, and also to give a talk on the work of the Chaplains' Branch to guests while members attended the AGM. It's a measure of the man that he honoured both commitments despite having undergone surgery which affected his vocal chords and not having spoken publicly for some weeks.

Not only was his sermon very well received but the guests were so fascinated by Ray's talk and his answers to their questions that they didn't want to stop. Being told by the Master's Lady that the AGM had concluded didn't work. It was only when Ruth Cundy invited them, in her inimitable style, to come through to the pre-dinner Reception that they eventually joined us.

One of the questions was how Service Chaplains reconcile the commandment to not to kill with serving alongside armed forces in areas of conflict. I asked Ray the same question for the purpose of this article.

"As a young Chaplain in the desert not far from Iraq I asked a Sergeant in the RAF Regiment how he felt about the fact that I was not armed. He looked at me, as if to say "What a silly question", and said "Padre, you are here to remind us that when we have to do horrible things in nasty circumstances that there is something better out there, that there is something bigger - that God loves us.' That for me is a good place to start.

"Of course I can give ethical and theological perspectives to such a debate but for me it begins with the responsibility to be a messenger of care and good news. "No one would ever pretend that war is a good thing, but it happens. If our people are sent to engage in conflict the Church must be there alongside them. Not blessing the war or conflict but ministering to those who are required to undertake this duty."

Where does Ray stand on a currently controversial issue in the Church of England, the appointment of women Bishops?

"Women Bishops were inevitable the day we accepted women Priests", says Ray. "As a member of General Synod I have been through the debates for the last ten years and I look forward to the first appointments, hopefully by the end of year."

Ray retires from the RAF in July. When he looks back upon his 24 years service, what will he remember most?

"The great sense of privilege of being alongside our service men and women", says Ray. "Of living among them as a Priest and Minister of the Gospel. It has been great and I wouldn't have missed it."

Ray is delighted to have been invited to be an Honorary Chaplain to the Air Pilots. "We have lived with the unique fellowship of the Air for almost 25 years", says Ray "and, as we all know, those who fly and love flying are a very special breed!"

"Thank you for your welcome. Christine and I immediately felt at home among you and we look forward to getting to know you in the months ahead."

Court Assistant Sir Stephen Dalton, former Chief of the Air Staff, says: "Ray Pentland is a thoroughly modern Archdeacon. He writes and delivers his incisive sermons from an iPad and no matter the occasion he captures the theme, poignancy and the thoughts of his congregation to a tee. He is also an excellent listener and advisor. Critically, he knows when to tell a good joke and when to be reflective and patient. "He has spent nearly a quarter of a century in the Royal Air Force and throughout that time his wise ministry and direct yet thoughtful advice has served both the Service and, more importantly, his 'flock' extremely well.

Any organisation which can count Ray amongst its members or officers is very fortunate indeed!"

William Cowper, the 18th Century poet and hymnodist, wrote that 'God moves in a mysterious way.' Perhaps it was just by chance that Christine and I worked together that day at Broadmoor. Or perhaps it wasn't.