April 2012
10  1st Education and Training Committee  Cobham House
12  Pilot Aptitude Assessment  RAF Cranwell
17  Benevolent Fund Board of Management Meeting  Cobham House
19  Assistants’ Dinner  Cutlers’ Hall
19  1st GP & F Committee Meeting  Cobham House
26  Guild Luncheon Club  RAF Club
26  Cobham Lecture  Royal Aeronautical Society
28  Flyer Show  Sofitel, Heathrow

May 2012
8  1st Technical and Air Safety Committee  Cobham House
10  2nd GP & F Committee Meeting  Cobham House
10  1st Court Meeting  Cutlers’ Hall
24  Livery Dinner  Drapers’ Hall

June 2012
3  Garden Party  Shuttleworth
7  Pilot Aptitude Assessment  RAF Cranwell
12  2nd Technical and Air Safety Committee  Cobham House
13  Environment Committee Meeting  Cobham House
14  3rd GP & F Committee Meeting  Cobham House
14  New Members’ Briefing  Cobham House
25  Election of Sheriffs  Guildhall
26  Trophies and Awards Committee Meeting  Cobham House

July 2012
3  Benevolent Fund Board of Management Meeting Cobham House
10  2nd Education and Training Committee Meeting  Cobham House
12  4th GP & F Committee Meeting  Cobham House
12  2nd Court Meeting  Cutlers’ Hall
tbc  Guild Sunday  St Michael’s Cornhill

guild Diary

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GUILD VISITS PROGRAMME
18 April  Bletchley Park
16 May  Coventry Airport
26 & 29 May  London Air Ambulance
15 June  Windsor Castle
28 June  CFS RAF Cranwell
29 June  Flying Legends Duxford
3 July  MPS Amsterdam

Please see the Flyers accompanying this and previous editions of Guild News or contact Liveryman David Curgenven at guildevents@dcai.co.uk. These flyers can also be downloaded from the Guild website.

Cover Photo: April 2012 sees the 100th anniversary of the establishment of the Royal Flying Corps and the Central Flying School, the latter still in existence today as the oldest military flying school in the world and a Guild affiliated unit. The cover photo shows the BE2 reproduction, G-AWY1, known as the ‘Biggles Biplane’. The original BE2 was first flown in February 1912 and was the world’s first inherently stable aircraft. Unlike other contemporary designs, its ability to fly ‘hands off’ aided pioneer military pilots in establishing the vital role of airborne reconnaissance. The BE2 was widely used by the RFC and CFS before and during the First World War. This aircraft was originally built in the 1970s for a film project and after being badly damaged, was finally restored to flying condition last year by Matthew Boddington and Freeman Stephen Slater, who kindly supplied the photograph.
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GRAND MASTER ATTENDS COURT MEETING AND COURT ELECTION DINNER. The Grand Master, HRH The Prince Andrew, Duke of York, attended the meeting of the Court held in Cutlers’ Hall on 19th January. In addition to the normal business of the Court, which the Grand Master took a great interest in, the Court Election took place. The Master Elect, Air Marshal Cliff Spink, was elected as Master for the following year and Assistant Captain Peter Benn was elected as Warden, with acclaim. The Grand Master also attended the subsequent Court Election Dinner, held in the magnificent Great Hall of Cutlers’ Hall, which proved to be a most enjoyable and convivial occasion.

The annual lunch and AGM of the Guild Golf Society took place on Friday, 20th January when 36 members and partners dined at our usual venue, East Berkshire Golf Club, Crowthorne. Amongst our number, along with Mrs Epton, was The Master - not here as a guest but as an active member of the Society. After a pre-lunch drink an excellent meal was enjoyed in a very convivial atmosphere and in deference to the 16 guests who attended, the AGM was commendably brief, as it always is. Captain Chris Spurrier gave a short report on our activities which included four Society meetings and six other competitions in which our teams had mixed fortunes but great enjoyment. The Secretary reported that we are in sound financial health and Chris Spurrier was re-elected as Captain for his second year - the usual term of office. There was a brief discussion on our continued participation in the Livery Companies’ Prince Arthur Cup but with clear affirmation of the Guild’s support from The Master and two Past Masters we are inspired to continue our quest for the cup we last won in 1976. The final AGM item was to elect a successor to the retiring Secretary, John Mason, who was presented with a bottle of Malt Scotch and made an Honorary Member for his 12 years in office. John thanked the members for their support and their kindness and Danny Hendry was then elected Secretary and, as an Associate Member of the Society, was handed application papers to join the Guild! Though not a pilot he has been involved with aviation and has known our Master for many years. His election was greeted with unanimous approval.

How ever, the outstanding event of the day was undoubtedly the presentation to Capt Doug Evans DFC of a rather special bottle of Malt Scotch in celebration of his 90th birthday on 27th January. Not only is Doug our oldest member but he joined the Guild as an Associate Member in 1944 as a 22-year-old. His 68 years of membership must now be one of the longest. The ovation he received as he accepted the gift from Chris Spurrier was well deserved and a worthy tribute to a most popular and highly respected gentleman.

The Master's presentation to Capt Dieter Harms, who was unable to attend the Trophies and Awards Banquet, at a recent event at the Royal Aeronautical Society.

GUILD CHARITY KART RACING TEAM EVENT 4TH JULY 2012. The Master’s chosen charity for the past year, the Henry Surtees Foundation (HSF) is set to stage a Kart Racing event on the 4th July at Mercedes Benz World at Brooklands. The HSF aims to assist people with accidental brain and physical injuries, and provide education and training in technology, engineering and fitness. The HSF also helps to equip the UK air ambulance helicopters with the necessary equipment to deal with head injuries at the scene of accident. Money raised at the Karting event will go to the HSF.

The race will be run driving Daytona 2-stroke ‘D’ Max Karts provided by HSF in a 2 hour Enduro relay event with each team fielding amateur (non-MSA licenced) drivers, with the race starting at 4pm. The Guild plans to enter a race team from GYM members. Each driver will need to raise the required entry fee and it is proposed that senior members of the Guild will be invited to “adopt a driver” and provide the necessary financial support. A driver entry fee will be £250 and there will be some pre-race practice costs.

The 5 drivers will be seeking sponsorship from 5 or 6 Guild members each making a Guild Racing Sponsorship group of about 30 Air Pilots and Air Navigators. Drivers, Sponsors, and their guests will enjoy entry to the pits and paddock and there will be a complimentary champagne reception with canapés at the conclusion of the event in a splendid motor race centre to be announced.

Retiring Secretary John Mason eagerly accepts his bottle of Malt Scotch.
is a list of the Guild’s current affiliated units, including the Guild member responsible for unit liaison:

- Army Air Corps (Livertyman K Reid)
- 847 Naval Air Squadron (Asst Chris Palmer)
- HMS Illustrious (Office/Clerk)
- Royal Air Force Aerobatic Team (RAFAT) - Red Arrows (Assistant J Robinson)
- 4624 (County of Oxford) Movements Squadron (PM Pooley)
- University of London Air Squadron

**LINKED WITH:**

- Headquarters London Wing Air Training Corps (Warden P Benn)
- Central Flying School (Assistant J Robinson)
- Battle of Britain Memorial Flight (Warden D Pooley)
- 101 Squadron (PM Peacock-Edwards)
- Battle of Britain Memorial Flight (Assistant J Robinson)
- HM S Illustrious (Office/Clerk)
- Army Air Corps (Liveryman K Reid)
- CAF AF (PM Pooley)

**NEWS FROM THE GYM**

- Ludo Forrer, GYM Chairman, writes: The GYM Committee held a busy meeting on 5th January at Elstree Aerodrome, with seven of ten committee members in attendance. Thomas Curtress was welcomed onto the committee to take the new role of Professional Development Officer, focusing on achieving the “Development” objectives of the GYM’s terms of Reference. This role will help in providing support to GYM members in respect of their professional development, through better collation of information and knowledge sharing.

- The Committee have been discussing the development of a structured mentoring scheme and a forum with senior figures in the Guild and hope to be able to report progress in these areas soon.

- Recent events in the GYM calendar have been a very instructive visit to the NATS air traffic control centre at Swanwick, braving the cold on the 4th February, and another well attended and enjoyable “Henshaw Beer Evening” in honour of the great aviator at a London pub on 21st February. The evening drinks followed a fascinating lecture by former British Test Pilot Wg Cdr Clive Rustin at the RAeS. The vast range, originality of design and amazing stories of some of the 160+ aircraft types flown by Wg Cdr Rustin were a gripping topic for the GYM members attending. The GYM also participated in the Inter-Livery Poulters’ Pancake Race on the same day, filling the novelty category position for the Guild, which was great fun.

- **Upcoming GYM events include:**
  - A Guild presence at the Youth in Aviation Event at the Palace of Westminster, hosted by the Air League, on the 14th March, promoting the work of organisations such as the Guild and lobbying for less tax on flying training.
  - The Annual GYM Fly-In, on 20th May at Compton Abbas

Finally, the applications for GYM organised Gliding Scholarships are being invited (until 21st March), so if you know someone who may be interested please encourage them to download the application form and apply!

**GUILD PRESS RELEASE, BURSARIES AND SCHOLARSHIPS.** Guild members may be interested to read the following press release, which was issued in February to highlight this year’s Bursaries and Scholarships programme.

**A MONTH AND COUNTING**

**LAST CALL FOR GUILD OF AIR PILOTS AND AIR NAVIGATORS 2012 BURSARIES AND SCHOLARSHIPS.**

**FINAL DATE FOR APPLICATIONS 21st March.**

Just a month remains for pilots who wish to apply for the Guild of Air Pilots and Air Navigators flying scholarships and bursaries for summer 2012. The awards which include full scholarships for Private Pilots Licence training, Flying Instructor bursaries, gliding and ATPL Ground School scholarships, each year provide unique opportunities for people who would like to become pilots or for those already qualified to further their qualifications.

**PRIVATE PILOTS LICENCE scholarships cover all aspects of training up to a PPL**

- Provided up to 45 hours of flying, these scholarships can take a candidate with little or no experience to completion of their flying licence during the course of the summer. Alternatively the scholarship can be used by someone who is already partially trained to complete their training.

- Several scholarships are available, due to the generosity of external benefactors such as the Thes Cadogan Charitable Trust, Past Master Michael Grayburn and the Guild’s charitable Trusts.

- A number of fixed wing FLIGHT INSTRUCTOR (R) RATING scholarships are available, sponsored by Swire, the Guild of Air Pilots Trust and the Air Safety Trusts. In addition a number of bursaries are available for existing flying instructors to improve their qualifications. These include up to £2,500 for Instrument Rating Instructor training for removal of the ‘no applied instrument’ restriction, up to £1,750 for Aerobatics Instructor training and up to £3,500 towards qualification as a Multi-Engine Instructor.

**GLIDING SCHOLARSHIPS** sponsored by the Guild Young Members’ Group, will assist the successful individuals to achieve their British Gliding Association ‘A’ Certificate (First Solo) and the candidates will be expected to take the Bronze C (theory) examination. The Scholarship covers 5 days of direct training at Lasham Gliding Society in the early part of August 2012, accommodation whilst training and BGA ‘A’ certificate application and examination costs.

**The ATPL GROUND SCHOOL SCHOLARSHIP** sponsored by CATS (Luton), will offer distance learning via online study guides and progress tests over three stages, required to pass the ground examinations in the 14 subjects required for the EASA Air Transport Pilots Licence. Each stage is comprised of approximately 3 months of Distance Learning, based on an average study time of 15 hours per week, accompanied by web based training.

Each year around 500 hopefuls apply for GAPTAN scholarships and bursaries, meaning that potentially one in a hundred applicants for a PPL will be awarded a scholarship. Of the initial applicants a shortlist of around a dozen are selected to be interviewed by a GAPTAN selection panel and the Guild subsequently monitors the progress of those who are successful, through their training.

“It meant the difference between my career as a pilot never getting off the ground and something actually happening in hard times” says Matthew Cash, who won a flying instructor scholarship in 2011 and is now working at Shoreham. “I am now able to move my career forward whilst helping others to master the art of flying. I am eternally grateful!”

“Winning a GAPTAN scholarship meant that I could achieve a dream” said 2011 PPL Scholarship winner Sally Longstaff who trained at Wycombe Air Centre. “It enabled me to gain my licence and take my friends and family flying, explore UK airfields and to help out at my gliding club by learning to aerotow. It has changed my life beyond recognition, both in terms of what I am capable of but also in terms of my confidence and the new friends I have made.”

Further information and application forms can be found on the Guild website at: www.gapan.org/career-matters/bursaries/ and www.gapan.org/career-matters/scholarships/ for details - an application form will be available shortly.
think that it is now fairly well known that because of deadline issues for our excellent 'Guild News' I write this in anticipation of my installation as your Master. I start with heartfelt thanks to Captain Wally Epton, our now Immediate Past Master, for his hard work and leadership during his very successful year as our Master. He has set the bar high for me - as indeed have all of my predecessors - and it will be a challenge for me to meet and maintain these high standards.

The issue of standards gives me a short message as your Master. It is a truism of aviation that we live and work in a 'zero tolerance' arena where individual and corporate lapses in standards can have disastrous consequences, and because of the high visibility of air operations this inevitably brings massive and, more often than not, a very critical press. To the credit of generations of aviators, designers, engineers and regulators the improvement in safety through improved practices and technology has been inexorable, and we now have a well deserved reputation for the integrity of our operations - and I include both civilian and military in this at all levels. But the drop from a lofty perch is a long one and I do believe that we are at a point in the development of aviation where, if we are to maintain our position and reputation, we need to have a quite fundamental look at how we maintain standards. The pressures are immediate and real and have been brought into sharp focus by a world in the grip of severe financial stringency. The inevitable drive for efficiency and economy in such circumstances does carry a huge penalty when the squeeze becomes so severe as to cause fractures in the system. I liken it to the lift curve of an aerofoil as it approaches the stall - I would argue that we are in many areas of aviation at or near the point of stall.

Perhaps I over dramatise the problem but if I do it is only to raise an awareness in those who have a direct influence on aviation matters but do not, perhaps, have a depth of experience in the field. We as a Guild however have tremendous experience in every aspect of aviation and I never cease to be impressed with the wisdom of our members who, individually or through our various professional committees, highlight problems, provide guidance and generally try to police the standards of aviation. This strikes back to the very fabric of the Livery Companies where in the earliest days a benchmark was set to ensure that the product was of the highest fidelity. The challenges to the benchmarks in aviation are many and in highlighting a few I only serve to illustrate what I believe are the most critical areas. I came through the Royal Air Force system of training - exactly similar to the IPM (and the Editor!) - starting first as an apprentice at age 16 (the Master left school prematurely! Ed) and then moving to Cranwell for my flying training. The foundation skills that my hardworking - and patient - instructors imbued in me I think have stayed with me throughout my flying career. And it is here that highlights one of my concerns in today's training and I know is shared by many. Despite the advance of technology there are clear, and tragic, recent examples of crew mishandling which has illustrated a basic lack of foundation skills. The reasons for this I am sure are many - but all accidents occur when there is a confluence of factors which conspire to produce an irreversible event. The seeds that produced some events can be found in basic flying training that did not demand a high enough skill level or understanding of the more dynamic aspects of aircraft handling, such as recovery from unusual positions. Indeed these skills do need refreshing as we progress through the increasingly complex aircraft that currently populate all areas of aviation. For example, I started my operational career on the Lightning - an aircraft of outstanding performance - which despite excellent handling qualities had suffered a couple of losses through inadvertent spins during manoeuvre. The solution was to have the pilots do annual spin and departure from manoeuvre in a more benign training aircraft (supervised by a QFI of course!). The training was allied to the known handling characteristics of the operational aircraft and if the statistics are anything to go by - it worked. Today, an airline that I work closely with is about to embark on a short course of upset training using a light aircraft for the flying aspects and the simulator to knit the package together for the commercial aircraft. Such progressive thinking has been stimulated by the many experienced people that we have in the Guild, and our involvement with the CAA has shown how important others regard the expertise and experience of our people.

So we have an important task to perform in promoting standards throughout aviation but equally to encourage others to join a profession that I am sure you would agree has been very good to us and has provided excitement and career satisfaction in equal measure. Some would say that the satisfaction quotient is not what it was but aviation has many faces and I still believe that it remains one of the most rewarding careers for young people to enter - and through the many Guild initiatives, not least the Guild Young Members, we can encourage the continued good health of aviation through the next generation.

Above all our Guild has a social aspect where like minded people can get together and enjoy the company of individuals who have shared the same career adventure. So perhaps I can finish this short message by saying how privileged I am to be Master of your Guild and I hope that in my year I can have the pleasure of meeting as many members as possible and share experiences and stories that are the lifeblood of this wonderful world of aviation.
Editor's Note: This article is reproduced from the October 2010 edition of Guild News, updated to reflect that the Air Marshal is now Master

Cliff Spink is entitled to a full measure of fighter pilot swagger, having risen from Halton apprentice to Air Marshal via the Hunter, Lightning, Phantom and tornado. With hundreds more hours on exotic aircraft like the Hurricane, Spitfire, Mustang, Corsair, Wildcat, Bf 109 and F-86 he stands at the pinnacle of his profession and might easily adopt the hard-to-be-humble demeanour that afflicts some who have achieved so much. But Air Marshal Clifford Rodney Spink CB CB E FCIM FRAeS RAF Rtd carries no such burden. He is not given to immodesty and decries it in others, and he is an indefatigable champion of all aviators down to the meanest PPL and the weekend microlight jockey. He is active on behalf of AOPA, Gapan and countless groups engaged in the promotion of aviation, and he retains a wide-eyed delight in flying aeroplanes of any sort. His political skills, sharpened by years at the top of the RAF, give him insights which are invaluable in the uphill battles we must fight. The going may be hard, but life is easier when we’ve got Cliff Spink on our side.

There’s no room in aviation for arrogance, he says. “Because I fly old planes, I meet a lot of veterans - people who did extraordinary things, in a hostile environment, and they are all very modest. If you ever feel a bit bumptious, think of them. What these people, whose stature is all the greater for their modesty. The really solid chaps, the absolutely professional aviators, don’t use their experience like a mallet.”

Cliff’s 6,500 flying hours include almost 1,400 on the Lightning and about the same on the Phantom, and his total continues to rise on some of the most beautiful and expensive historic warbirds imaginable. ‘Active retirement’ doesn’t quite cover it for Cliff Spink. He is President of the Historic Aircraft Association, President of the Battle of Britain Memorial Flight Association and President of the Royal Observer Corps Association. He holds a display authorisation for jet and piston aircraft and is a Display Authorisation Evaluator for the CAA. He’s Managing Director of Spitfire Ltd, which operates a small fleet of vintage aircraft, Director of an international security consultancy, guest lecturer on aviation safety, acts as an expert witness, he’s a partner in a small firm of Swiss watchmakers and in his spare time he has a wife, a family, a house and a garden to look after. There is not enough room here to cover half of what Cliff Spink does and has done, but in a brief conversation at Duxford we covered some of the salient points.

It is Cliff’s good fortune to work to a glass-fronted office at the Aircraft Restoration Company on the end of the runway at Duxford, from which he gets a world-beating view of every aircraft that comes and goes at that historic heaven. Even after 45 years as a pilot Cliff still allows his gaze to wander to whatever flying thing is passing his window. In the hangar stands a Mk XVI Spitfire which carries his initials CRS - not at his instigation, but on the wishes of the owner, an indulgence which has cost Cliff many beers. His concerns range from the difficulties of enthusing young people about flying to the run-down of our armed forces and the burden of unthinking regulation under which we operate.

“It is essential in aviation that we work within the proper framework, whether that be the checklist for the aircraft, the rules of the airfield, or the ANO,” he says. “But within that, people feel they have to write a rule to ‘protect’ individuals or aircraft operations, and some of these rules are badly thought through and are not always written with the right level of consultation with industry, and sometimes that consultation is after the fact. We need to be embedded in that process to give a level of objectivity to regulation.”

Cliff’s career has been a succession of high points ever since he forsook the farm with a yen to fly the Meteors, Vampires and Mosquitos he saw flying overhead as he hoed weeds in vast fields on the North Downs in Kent. As an ATC cadet he had his first experience flight in a Chipmunk from RAF West Malling at the age of 13; it was everything he hoped it would be. He left school at 16, too young to follow his chosen path of deck officer cadet on a Shell tanker, and was taken on as an apprentice electrical engineer at the No 1 Technical Training School at RAF Halton.

“I’ve always had admiration for such schools and for the apprentice tradition which we quite foolishly abandoned,” he says. “They provided levels of discipline and skill, a depth of understanding and a work ethic which is invaluable - the diminution of apprentice schemes is probably one of the biggest errors we have made nationally.”

At the end of his apprenticeship the Commandant, the Battle of Britain ace Al Deere, called him in. ‘We don’t think you’re going to be much good as an engineer so we’re sending you to be a pilot,’ he was told. At 19, Cliff found himself at Cranwell sitting in a Jet Provost. “We were becoming an all-jet air force and it was reasoned that we should train on jets from the outset,” Cliff says. “I went solo in ten hours and loved every minute of the course. That’s not to say I didn’t experience personal hurdles - I found instrument flying difficult until I flew with a Shackleton pilot who corrected my scan, and once the penny had dropped I had no more trouble.”

Streamed onto fast jets, Cliff applied to go to a University Air Squadron between courses. “There was an element of leg-pulling about us not being real pilots because we couldn’t fly the Chipmunk,” he says, “so I went up to RAF Ouston outside Newcastle to get checked out on it. And this was one of the best moves I made in my career, because whenever there was a gap between courses I could do some flying somewhere, tow gliders, giving air experience flights, where others had to put up with ground jobs, and my wider experience stood me in good stead.”

After the Gnat at RAF Valley Cliff aspired to Hunters - and the Hunter OCU was in his
words ‘magical’ - but was assigned to Lightnings. “It really was a rocket ship,” he says. “You were constantly watching weather, fuel, operating the weapons systems, you had to do it all. Low level at night it could really work you very hard, and it caught some people out.”

After the course at 226 OCU at Coltishall Cliff joined 111 Squadron at Wattisham on the Mk 3 Lightning. “We were upset if we didn’t fly four times a day. We were getting 25 to 28 hours a month, good hours with a lot of recoveries. We flew all over Europe against other NATO forces, taking on F104s in Germany, the Mirage in France, F100s in Denmark. I was selected to go on the Intercept Weapons Instructor Course, and life was very good.

The RAF sent me to RAF Akrotiri on Cyprus, where I joined 56 Squadron on the Lightning Mk 6 as a qualified weapons instructor. ‘The Big A’, we called Akrotiri; there was a transport squadron of Hercules and Argosies, two Vulcan squadrons, a helicopter squadron, and 56 Squadron on Lightnings with a Canberra flight, and it was busy. We flew a lot of intercepts against the Russians and the Egyptians; there was great tension between Israel and Egypt, who fought the Yom Kippur War in 1973, the year I arrived, and it was a very important strategic base.

“The troubles in Cyprus were just starting. There was bitter in-fighting between the Greeks, and some dreadful atrocities, and the Turkish communities were very apprehensive. I intercepted the first Turkish aircraft to come over; I was on Battle Flight and the controller warned me of a group of six aircraft coming in from the north. Our rules of engagement were that we should only shoot second, which gives the other fellow the edge, so I was on my guard. As I took off I was heartened to see my flight commander Henry Ploszek running to his helm and it all looked very basic in there, there’d be a chap looking out in a leather helmet and it all looked very basic in there, and in fact it turned out that it was basic...”

During the Falklands War Cliff was attending the National Defence College Latimer in Buckinghamshire, where he and his colleagues effectively followed the campaign as part of the course. Then, promoted to Wing Commander, he did three years at Rheindahlen, responsible for air defence matters in West Germany, the Inner German Border and the Berlin Air Corridors. “The intelligence associated with that was fascinating - I can’t talk about it even now,” he says. “I flew the Phantom at Wildenrath, but not enough, and I was getting withdrawal symptoms from flying. After hugging my posting officer I was sent to command 74 Squadron flying F4Js at Wattisham, so I found myself back once again on my old stamping ground. I had a wonderful bunch of pilots and naves. At one of the NATO meets we won the Silver Tiger trophy, we won gunnery trophies, the Dacre Trophy and I had to do very little with such a wonderfully talented bunch.”

In 1988 Cliff was promoted to Group Captain and posted to the Falklands as Station Commander Mount Pleasant and Deputy Commander British Forces Falkland Islands. By 1990 he was back at Coningsby retraining on the Tornado, but during his course Iraq invaded Kuwait. “The AOC told me I was going as detachment commander to Dhahran in Saudi Arabia - and just after Christmas that is where I found myself. Two weeks later we re-invaded, and that was an exciting three or four months, some of it rather tense. I did fly into Iraq but the AOC got to hear about it and forbade me to cross the border. Dhahran took 11 Scud hits, and those three months seemed as long as a complete tour. I was one of the last to leave, coming back to Teesside having hitched a lift with the RAF
Regiment. There was a reception for them and I sneaked out at the back thinking I'd have to find my own way home, but the Battle of Britain Memorial Flight Devon arrived to chauffeur me home; just as we got airborne there was a pop behind me and a glass of champagne was put in my hand; all highly illegal and thoroughly enjoyable.

Commanding Coningsby brought Cliff into closer proximity with the BBMF, and he arranged to fly the Hurricane and Spitfire. “I had a lot of hours on the Chipmunk and they gave me two flights in the Harvard, the OC BBMF Paul Day briefed me on the Hurricane’s systems and away I went. I was terrified lest I damage this priceless piece of aviation heritage - in fact I almost turned back because he hadn’t briefed me about how much noise it makes! Had the ground crew looked askance at it I would have shut down, but it turns out they all do that. The Hurricane is a wonderful aircraft, but the Spitfire is something else, graceful inside and out. Everything feels so well balanced, and it really does fly like it looks.”

Flying the Spitfire brought Cliff into contact with Ray Hanna, and he was invited to fly for the Old Flying Machine Company in his spare time. “I flew the Spitfire, Hurricane, Mustang, Corsair, Wildcat, the Bf 109 Black Six, I flew the F-86 and I still do.”

After Coningsby Cliff was promoted to Air Commodore and joined the Royal College of Defence Studies. He then became senior air staff officer at 11 Group, Bentley Priory, and some two years later moved to Northwood as Chief of Staff to 18 Group. Six months later the two Groups were amalgamated and he became the first AOC of 11/18 Group as an Air Vice-Marshal, which he calls “a quite fantastic job... To lead the air defence and maritime forces of the UK was a singular honour, and my NATO ‘hat’ of Commander Allied Air Forces Eastern Atlantic gave the post a wonderful international dimension.” He became Director General Saudi Armed Forces Project in 1998 and was promoted to Air Marshal in 2000. He had been asked by the Chief of the Air Staff if he wanted to be Air Secretary, but he declined on the grounds that he’d never been a strategic manpower planner and felt that were others better qualified. He retired from the RAF in 2003 after more than 40 years service.

The RA F is in his bones and he feels keenly the pressures upon it. It’s now a shadow of the force he joined in 1963, when it comprised some 150,000 personnel spread across the globe. “Now it’s about 42,000,” he says, “and while the capability of individual airframes is much greater, even the most capable airframe can only be in one place at a time.

“We must avoid getting into the situation we were in between the wars when we ran down our capabilities almost to an irrecoverable degree. We cannot now ramp up defence production like we could then. It’s an awfully difficult equation to square - the government has got to shore up the place, because failing to balance the books would mean we’d lose our forces altogether. But it must make sure that the integrity of the system does not fall in pieces, and that we do not lose the vital core competences.

“We live in a geopolitical system that is difficult to predict, and if we again get to the stage of nation against nation - and let’s hope we don’t - we have to be able to back up our political intent. We have to protect our airspace, sea space, land space, and the military must be equipped to do the job. What may make short term financial sense is not attractive when measured against the long-term stakes. I’m concerned at how far they’ve gone already, and it’s posing enormous problems for the Chiefs of Staff. We are reducing our forces to a level inappropriate for our needs, and we are going to have to take risks - but is there any alternative for the government? We will have vulnerabilities in core areas, core skills, but we will have to work with that because we cannot currently do otherwise.”

Has the RA F made a good job of getting where it is today? “Given what was known in the past, what you have today is about the best you could do,” he says. “The crystal ball is cloudy, and long lines of procurem ent leave you in the dark. Procurement processes have not been good, now or in the past, and you’ve had change upon change upon change. We need change, but it became almost an end in itself - if you weren’t undergoing change you were doing something wrong. Things did not get a chance to develop in an evolutionary way. Some of this was forced on the military and some was our own fault, but it almost confused the internal structure, and it certainly confused industry. There was constant meddling, political, bureaucratic and internal. If I can make an analogy with flying an aircraft, you can make adjustments until the controls are a living blur to try to overcome every little departure, but it might be best to ride with it and just make the big corrections - you’ll get where you want to go much more efficiently.”

Inter-service rivalry exacerbates problems. “The most destructive military man is all dark blue, all light blue or all khaki,” he says. “I see some pretty silly comments from senior officers who’ve lost the overall picture. We need sensible, measured debate, not irrational and damaging internal debate. When I hear people say the RA F should be subsumed into the other services, I say that is rubbish. An independent air force gives us a professional view of air matters; the protection of airspace or the projection of air power is not an adjunct to sea or land imperatives, and to treat it as such is just blindness.”

It’s a long leap down to the concerns of general aviation, but Cliff believes the need for action is equally urgent. “There is insufficient recognition among regulators that we in the industry have the knowledge and the expertise,” he says. “We have enormously well-qualified and experienced individuals in aviation, yet we must go through awful bureaucratic channels which do not add value in terms of safety, or by any other measure. Where the professionalism of an organisation is proven, they should be allowed to get on with it. In engineering, for instance, there are companies that have all the experience, yet they must defer to people who know less than they do - who make stipulations which not only add nothing to safety but make operations difficult, almost impossible, and sometimes arrived at because it’s easier to say ‘no’ than ‘yes’. ”

A rather serious finish, but that is not how I view my career in aviation. It has been - and hopefully will continue to be - the most enormous fun, shared with a great bunch of people.

Cliff Spink, Master and War Bird pilot.
THE GUILD’S ANNUAL GENERAL MEETING,
19th MARCH, 2012

ASSISTANT TOM EELES,
HONORARY EDITOR

The Guild’s 82nd year sees the new Master, Air Marshal Cliff Spink, taking over from Captain Wally Epton, who becomes the Immediate Past Master. The new Master has had a distinguished career as a fighter pilot in the RAF and is well known for his continuing work as a display pilot in the warbird community; his career profile appears on page 7 of this issue. Warden His Honour Judge Tudor Owen becomes Master Elect and Assistant Captain Peter Benn is the newly-elected Warden.

The transition from old Court to new took place on 19th March, with the Master, Master Elect, Immediate Past Master, Wardens, Learned Clerk and Chaplain processing the short distance from Merchant Taylors’ Hall across Cornhill to St Michael’s Church for the Annual Guild Service. Here around a hundred Guild members and their guests had assembled and the Guild’s Honorary Chaplain, Liveryman the Reverend Peter Mullen, conducted the Service in his uniquely inimitable style. A new feature in the Order of Service was the inclusion of the anthem ‘ubi Caritas’, composed for the marriage of His Royal Highness Prince William of Wales, K.G., with Miss Catherine Middleton, and first performed in Westminster Abbey on 29th April 2011.

Afterwards in Merchant Taylors’ Hall, non-members listened to a talk entitled ‘How to Succeed in Business by Failing as an Actor’ by Geoffrey Atkinson OBE whilst Guild members assembled in the Parlour for the Annual General Meeting and swearing-in of the new Court. The Master’s Annual Report, previously distributed with February Guild News and available on the Guild website, recorded another very successful year for the Guild, which he hoped would reflect his approach as a ‘Journeym an Pilot’. The Report focused on all areas of the Guild’s activities, ranging from the Regions, the work of the Committees, the Benevolent Fund, Guild Visits, Promotional Activities, Social, Aviating and Sporting Activities and the Guild Young Members. He concluded his Report with a special word of thanks to the Guild’s office team for the immense amount of work they did behind the scenes with a minimum of fuss and a ready smile, and thanked them personally for the support given to him during his year as Master.

The Guild’s Hon Treasurer, Freeman Nick Goulding, reported that “The Guild’s financial result for the year ended 30th September 2011 was a satisfactory surplus of which 60% had been transferred to the Capital Reserve. Fees, quarterage and Livery fines increased by a little over 6%. Investment income rose by 20%. Although income in the year was 18% lower than the previous year, it should be borne in mind that the income in 2010 had benefited from an additional substantial windfall payment from the Gladys Cobham Trust. Expenditure had reduced in 2011, but this had been due almost entirely to a decrease in the level of donations paid compared with the amount paid in 2010. This was because donations paid in 2010 had been larger than normal due to additional trust income received from the Gladys Cobham Trust in that year.

An unrealised loss arose on the Guild’s investments in 2011 representing a modest 2.5% of their value. After taking this into account, the Guild’s net assets increased over the year by some 2.5%. The financial result for the year can therefore be considered to have been very satisfactory especially given the prevailing economic conditions. Nevertheless, very careful monitoring of income and expenditure against the budget continues so that appropriate action can be taken if it becomes necessary.

The Treasurer indicated that the outlook for 2012 would remain challenging. Overheads charged to the Guild of Air Pilots Trust and the Air Safety Trust were to be reduced slightly to allow these connected charities to enhance their ability to maintain their charitable activities. As a result, the Guild budget for 2012 envisaged a modest surplus in the absence of any special donations from the Gladys Cobham Trust, and before any investment gains or losses.

In conclusion, the Treasurer expressed his grateful thanks to his predecessor, Robin Pick, who had explained the finer detail of the Guild’s finances which enabled a smooth hand-over to be made. He thanked the Clerk and his team for their willing help and
support throughout the year. He also thanked the other members of the General Purposes and Finance Committee for their friendly welcome and thanked the Auditor for his professional assistance.

The results of the Court elections were announced; Sir Robert Wright and John Denyer were elected as new Assistants and Alan Boyce, Colin Cox, Gerald Hackemer and Tom Eeles and Diana Green were re-elected. The new Court was sworn in, the appointments of the Guild Officers were confirmed and the new Master, Air Marshal Cliff Spink, was installed.

After the Annual General Meeting the new Master and the Master’s Lady greeted members at a champagne reception which was followed by the AGM supper. The Honorary Chaplain said the following Grace:

I think our new Master Spink is the right link
To keep our Guild in the pink
He completed many tours
Flying nearly 7000 hours
He kept on flying miles and miles
Even as far as the Falkland Isles
We’re glad he’s back down on the deck
And by heck this will be a great year
Now to our fellowship we repair
All ranks giving thanks. Amen

In his inaugural speech at the AGM supper, the Master remarked that he was still astonished at finding himself in this position, especially given the chequered nature of his junior career - examples being found asleep in the crew room at Cranwell and claiming to be practising his hypoxia drills, and falling through the roof of the Officers’ Mess at RAF Akrotiri. He paid tribute to the work of his predecessor, the Immediate Past Master Wally Epton, commenting that it would be challenging to follow in the footsteps of giants. He noted that the Guild’s reputation was second to none, that as aviators we enjoyed the humour and joy of doing a wonderful job, but that this atmosphere was under threat particularly from financial pressures within the industry. There seemed to be less fun and careers were diminished as a consequence but he felt it was vital to keep the spirit of enjoyment and excellence alive. Noting that aviation was a zero tolerance industry he affirmed that the pursuit of higher standards, particularly in training, would be his aim, whilst not forgetting the General Aviation and display areas of activity. The Master revealed that his choice of Charity for his year was the Jon Egging Trust, which was dedicated to assisting young people. It had been set up before Jon Egging’s tragic death last year when flying with the Red Arrows and was being ably continued by his widow.

He concluded by proposing the Toast to ‘The Guild of Air Pilots and Air Navigators, Root and Branch may it flourish for ever’, which was greeted with acclaim.

Photographs taken at the AGM reception and supper can be viewed and ordered online direct from Gerald Sharp Photography at www.sharpphoto.co.uk.
The Court 2012/2013

GRAND MASTER
HRH The Prince Andrew, Duke of York  KG GCVO

MASTER
Air Marshal C R Spink CB CBE FCIM FRAeS

IMMEDIATE PAST MASTER
Captain O W Epton FRAeS

MASTER ELECT
His Honour Judge T W Owen FRAeS

WARDENS
Mrs D J Pooley LLB (Hons) FRAeS
Squadron Leader C J Ford MBE
Captain P Q Benn

Admissions
As Upper Freeman
Richard Alaster GOWER (AUS)
Squadron Leader Catriona Susan Reid
THOMPSON
David Paul THOMPSON

As Freeman
Dean FOULDS (GYM)
Alexander Geoffrey FOX (GYM)
Daniel HENDRY
Roger Chak Man LEE (HK)
Gary Bruce MARSHALL (HK)
Douglas John SIMM

As Associate
Alexander James BUTTERS (GYM)
Kelly COKE (GYM)
Flight Lieutenant Richard Peter DAVIES (GYM)
Louise IVESON (GYM)
Barnaby James Ross KERR (GYM)
Bogdan NASTASE (GYM)
Jacob Hal NEWBERRY (GYM)
Captain Matthew James SANDBACH (GYM)
Dr Samantha Jane WALLER (GYM)

Reinstatement
As Upper Freeman
Captain Stephen Edward Easton WALLACE (OS)
Captain Rodney Leonard HUTCHINSON (AUS)

As Freeman
Geraldine L BRIERLEY
Keith Roger MILLER

Regrade
To Livery
Anthony Gorman CLINCH
Captain Trond Rudolf LARSEN
Eur Ing James Cameron McKENNA

Acknowledged by the Court 8 March 2012

Resignations
Norman Albert FIELD (AUS)
Eric George FRANKLIN
Leith James GLOWREY
John Charles GRIFFITHS (AUS)
Stephen Vaughan JACKSON (AUS)
David Morris JACOBSON (AUS)
Stephen Joseph PHILLIPS (AUS)
Michael Bryan TOWNSEND
Richard Paul YEOWARD (AUS)

Forfeit All Benefits
Guy Bernard FAULKNER

The Assistants to the Court, 2012/2013 (who were present at the AGM)

The Gazette
APPROVED BY THE COURT ON 8th MARCH 2012

ASSISTANTS
Lieutenant Colonel K D Johnson MASC MEd BSc FRAeS
Captain J B Robinson AFC* FRAeS
Captain D R Watson FRAeS
Squadron Leader J W Davy MRAeS
Commodore C L Palmer CBE BSc FCMI FRAeS RN
Captain C J Spurrier BSc(Eng)
M G F White Esq OBE
R O Whitefield Esq FRAeS
Captain A J Boyce JP BAv MBS(Hons) FRAeS AFRIN
Captain C A Cox FRAeS
J A Denyer Esq CPhys FInstP FRAeS BSc(Hons)
Group Captain T Eeles BA FRAeS
Professor D M Green CBE BScEcon PhDEcon FRSA DUniv DL
G C Hackemer Esq BSc
Air Marshal Sir Rob Wright KBE AFC FRAeS FCMI
Report to the Court following the meeting of the E&TC on 21st February 2012

WARDEN DOROTHY POOLEY

Ten years ago the Instructor Subcommittee was formed under the auspices of the Court of this Guild. I was fortunate to be appointed the first Chairman, having been responsible for putting a paper to the Court outlining some concerns to which I felt the Guild should address some effort. Four years later, after steering the sub-committee through its first two Forums at RAF Cranwell, I relinquished the reins to become Vice-Chairman of the Education and Training Committee. I have also represented the Guild as E&TC delegate to two CAA committees during most of that ten year period (LAASG and GASRGW). Three years later I took the Chair of E&TC and this is my last report to the Court as I handed over the reins to Liveryman Lloyd Watson at the end of the last meeting. His vice Chairman will be Liveryman Nick Goodwyn.

During these last ten years we have done a great deal of work, including producing five position papers, run a total of four Forums jointly with CFS at RAF Cranwell, responded to numerous CAA consultations, overseen the aptitude testing programme and many scholarship and bursary selections. I am also delighted that we have finally been able to produce the first module (on Stalling and Spinning) of the project that I would like to think will form a Standard Syllabus/Training Manual supported by CAA, CFS and the Guild. That will truly fulfil the dream I started with in 2002! The second module on Navigation is almost complete and the third will soon be underway, on Forced Landings.

None of this work would have been possible without all of the current and previous members of this Committee, who voluntarily give their time and effort to support the endeavours of the Guild. It is not for nothing that a Committee is so called, as it really does demand COMMITMENT with a capital C if it is to be effective. I have enjoyed working with all of the members as a Chairman of one sort or another for ten years and on the Committee for over thirteen and a half years now and I hope that they may be able to put up with me sitting in the back row again and occasionally making the odd comment. The thing is, the work is not yet complete and I am not ready to hang up my headset and piece of chalk! It is clear that the full force of the EASA licensing machinery has yet to be felt. The Committee is grappling with the monstrous burden of administrative complexity which is approaching like a tsunami. The vast increase in regulation due to engulf training establishments will make its impact over the transitional period of the next two to three years. Although there is a temporary reprieve for holders of IMC ratings, the fact that there will be at least five types of PPL available is bound to lead to even more misunderstanding, inadvertent breach and confusion. There will be an opportunity for Senior Instructors to gather and discuss the ramifications with representatives from CAA and CFS when the fifth Forum is convened at RAF Cranwell on 9th May.

Further concern was expressed at the recent meeting over the fact that the UK CAA has no mandate after 8th April 2012, to continue oversight of companies not based in Europe who are carrying out training and testing for European licences. This will have catastrophic consequences for corporate and business operators and could affect up to 50% of such operators in Europe. There was further discussion on the topic of Commercial pilot training and issues relating to Loss of Control accidents and in view of the overlap with work previously carried out by the TASC, it was suggested that a joint review of the subject might be beneficial.

It is heartening that we continue to have an influx of highly experienced and enthusiastic new members to replace those who are retiring and joining the Consultants’ list.
The composition of the Board of Management of the Guild of Air Pilots Benevolent Fund (GAPBF) is slightly smaller than last year and is currently:

Captain John Robinson  
Chairman and Trustee

Squadron Leader John Davy  
Treasurer and Trustee

Captain Chris Spurrier  
Secretary and Trustee

Squadron Leader Chris Ford  
Almoner and Trustee

Ron W Bridge, Esq  
Trustee

Group Captain Tom Eeles  
Trustee

Air Marshal Cliff Spink  
Master and Trustee (ex officio), from 19 March 2012

His Honour Judge Tudor Owen  
Master Elect and Trustee (ex officio), from 19 March 2012

Paul Tacon Esq  
Clerk and Trustee (ex officio)

Air Commodore Paul Hughesdon  
Royal Air Force Benevolent Fund (RAF BF)

Captain Robin Keegan  
British Air Line Pilots Association Benevolent Fund (BALPA BF)

During the year Past Master Dick Felix has retired from the Board and sadly Mr Derek Howard-Budd, the SSAFA Forces Help representative, died on New Year’s Day after a short illness; HB had only served on the Board for a year but in that time had made his mark and will be greatly missed. I am pleased to report that our Investment Manager, Mr Andrew Haskins, who attends all the Board meetings, has been admitted as a Freeman of the Guild.

Over the year the Board has dealt with seven new cases, one from Zimbabwe, and seven on-going cases, one in New Zealand. Grateful assistance was received from SSAFA, the RAF BF, British Airways Benefit and Welfare Trust and the BALPA BF in bringing the cases to satisfactory conclusions thus proving the efficacy of the close collaboration with these organisations.

When writing a corresponding article for the Guild News this time last year, the Board of Management was content with the way that the Fund had recovered from the dip in the value of its assets and was happy to continue with its budget with the exception that the grant to Flying Scholarships for the Disabled was halved. However as most people are aware in the middle of the year the financial markets took a severe tumble due to a combination of a credit crisis, serious debt situation within the Eurozone, banks being overstretched and having to be bailed out by their governments and a stagnation of growth in the Western World. The consequence was a marked decrease in the value of the GAPBF’s portfolio, although this could have been worse if it had not been for the Financial Manager’s astute work with the investments. By the time the fall happened the Fund was already committed to grants for three private pilot licence flying scholarships and two flying instructor scholarships. An Executive Committee meeting was convened to review the situation and agreed that it was necessary to kerb any unnecessary expenditure in order to retain the primary objective of the Fund which is the relief of poverty of persons who have been professionally engaged in aviation and their dependants. This meant that the future funding for flying scholarships would have to cease until the portfolio value had regained sufficient strength to re-establish them. It was also agreed that a minimum value for the portfolio should be set below which it was not desirous to fall so that it remained viable for investing; this was approved by the main Board with the rider that this value should be increased by 3% annually to compensate for inflation.

The Board is concerned that very few Guild members donate to the GAPBF. Research has revealed that only six members donate regularly to the Fund making up about 0.7% of its value and 0.6% of last year’s income. For the past three to four years efforts have been made to get more members contributing, but to little or no avail. It is planned to have a fresh appeal in the Spring when it is hoped to attract more donating members.

During the current year the GAPBF will continue to make grants to the Inner London Schools gliding scheme which is administered by Captain John Mason and to the Ray Jeffs Gliding Scholarship scheme administered by Commander Bertie Vigrass; both these gentlemen are Liverymen of the Guild.

Following a Charity Commission consultation the Investment Manager was asked to review the Fund’s investment policies with regard to its charitable aims and responsibilities. In his opinion the Fund is well administered and the Trustees are clear about what they are doing and can justify that they are using its resources in its best interests. He noted that the Trustees have decided that their aim is to achieve the best financial return and to achieve this they have appointed a discretionary manager who has been given a clear mandate aimed at financial return within a medium risk parameter. The Trustees review portfolio performance every quarter directly with the Manager. In line with the Charity Commission’s guidance, an Investment Policy Statement was approved.

GAPBF members may have noticed from the Guild’s Annual Accounts that between a quarter and a third of income is received annually from the Gladys Cobham Trust (GCT). It was the intention of the founder, Sir Alan Cobham, that the income from the Trust should be used for the running of the Guild and was not set up as a charity. The Trust has a finite duration, and on its cessation, all its assets will be transferred to the GAPBF as this was the most tax-efficient method of ensuring that the capital remained largely free of tax liabilities; the Fund was at that time the only registered charitable body that was part of the Guild. A full explanation of the GCT and the GAPBF is given in the History of the Guild from 1965 to 2004. Concerns have been raised that there was no formal structure for the GAPBF to pass on funds to the Guild after it had received the assets of the GCT and following considerable discussion it was agreed that the Trustees should provide a statement that they, and future Trustees, have a moral obligation to continue the annual flow of funding to GAPAN.

The Guild’s website gives a full explanation of the GAPBF and its history and the GAPBF Annual Reports and Financial Statements can be seen on the Charity Commission’s home page of its website by entering the Charity No 212952 or ‘The Guild of Air Pilots Benevolent Fund’ in ‘Search for Charity’ and selecting the side bar ‘View Accounts’.

The Trustees are mindful of the reduction in financial resources that have led to the cessation of grants to fund flying scholarships but recognise that their main priority is the relief of poverty for professional pilots and navigators and their dependants. Hopefully this situation will improve in the not-too-distant future and the GAPBF will be able to return to its previous ways.
It was almost inevitable that with the successful implementation of first GPWS and then its enhanced offspring, EGPWS, controlled flight into terrain would lose its top spot as the major cause of fatal accidents to the worldwide commercial jet fleet. Sadly, something had to take its place and, as the figure shows, the major cause of fatalities in Civil Air Transport today is Loss of Control in flight (LOC-I). All accidents are regrettable, but to fly a fully serviceable aircraft under control into terrain would seem to leave the crew particularly devoid of excuses. To lose control in flight somehow seems if anything worse; the crew’s main task is to remain in control, not to achieve this when there is a way to do so is deplorable.

Examination of the possible circumstances in which loss of control occurs is not recent. Back in 2005 The Guild’s Technical and Air Safety committee, TASC, convened a study group under Capt Gil Gray to examine ‘Pilot Handling of Highly Automated Aircraft’ and the resulting Study paper is at http://www.gapan.org/aviation-matters/guild-policy-and-comment/study-papers/. As you might expect it emphasised a continued review of pilot selection methods and the skills they select for as well as improved training in the use of automatics. One section covered defensive strategies on the principle that ‘just because the crew may lose the plot, they shouldn’t lose the aircraft too’.

In 2009 the UK CAA decided to revisit each area of accident causation and convened task forces for each of what they defined as their ‘significant seven’ safety risks. The TASC supplied delegates to all but one of these including the one looking at loss of control. The subsequent Task Force report made 10 recommendations on training and monitoring and called for the development of Safety Performance Indicators to monitor progress in reducing the incidence of LOC-I precursors. The Task Force reports were presented at the CAA’s Safety Conference in October 2010 to which TASC representatives were invited. The TASC thought that while the TF’s conclusions were hard to disagree with, they lacked insight into the causes of the difficulties crews were having; for instance, there is no point in mandating extra training unless you have a very clear idea of exactly what that training is meant to address. Two recent accidents in particular, the Colgan Air DHC8-400 in Buffalo, and the loss of the Air France A330 in the South Atlantic, seem to result from an extraordinary lack of basic aviation knowledge on the part of crews trained and qualified in accordance with regulatory requirements. Conversely two accidents, the Hudson River A320 ditching, and the B777 fuel starvation accident at Heathrow were examples of the exact opposite. This suggests that we must look well beyond type conversion training right back to initial training for the origins of these events. Happily the CAA has reached similar conclusions, and has decided that the underlying causes of loss of control should be re-visited in an Action Group. The Guild is pleased to have been invited to participate and will contribute vigorously.

Having already kept this subject under close review for seven years, the TASC has further refined its position and is prepared to challenge conventional wisdom where it thinks it necessary, and asks:

- Is training too repetitious and predictable thereby creating learned, as opposed to thoughtful, responses?
- Is simulation beyond the stall justified or should the emphasis be on avoidance?
- Are SOPs becoming both too prescriptive and too restrictive?
- Are attempts to de-risk the operation through the use of automation self-defeating?
- Are the ‘manual skills’ required to operate Fly by Wire aircraft the same as those learned in basic training?
- Is the knowledge base sufficient to support the safe operation of complex aircraft?

The answers to these questions will form the basis of the solutions. The Guild, impartial and highly experienced, is in a unique position to contribute to these debates.
REGIONS
AUSTRALIA REGION

AUSTRALIA, ADS-B, AND AIDS

FREEMAN BRIAN HANANN

This article is one of two - a brief ‘low-tech’ overview of proposed Australian changes concerning ADS-B (part 1) and navigational aids (part 2), and impact on general aviation.

Some geography, political and airspace comment assists. The map of Australia is north up. Our population bulk exists in the ‘J-curve’ - the red area down the East coast and around the corner. Extensive mining occurs in remote areas particularly upper west Australia, often ‘fly in, fly out’ worker rotation. Red map areas are radar coverage at 5000 feet. Green circles are 5000 feet ADS-B surveillance gains. Altitude increases coverage - green ADS-B circles overlap at 20,000 feet.

Low level Australian airspace is mostly lowest criterion - Class G - because surveillance lacks for Class E. Most airfields are un-towered without Unicom. Radio is mandated at airfields where large jets operate but transponders are voluntary in Class G below 10,000 feet, so outside the majors (only 28 towered airports) scheduled public transport separates from light aircraft by radio calls. In 2008 Avalon airport nearby a capital city operated non-towered in Class G moving a million passengers annually in Airbus A320 (hourly daylight movements), plus training in Boeing 737, 747 and 767, plus transiting and navaid training aircraft.

Why such questionable operations? Outside the J-curve and capitals, Australia is lightly populated - human and aircraft. Australia adopted the concept of ‘user pays’ so ‘affordable safety’ prevails. Neither airlines nor government will fund control towers therefore safety in regional Australia is ‘Safety’ trusting low traffic volumes. Is it ‘safe’? - The regulator has just issued yet another warning after ‘continuing reports of break downs in separation and near miss incidents in airspace at non-towered aerodromes.’ Traffic is so hectic in Western Australia the industry Australian Strategic Air Traffic Management Group (ASTRA) was told in November 2011 ‘we may have to accept a shorter timeframe [for ADS-B] given the need to move quickly on existing airspace congestion impact on air transport to and from mining destinations.’

Our regulator (CASA) and air navigation services provider (Airservices) are separate, Airservices operating as a government enterprise charging for navigation services and paying dividends to government.

Australian moves to ADS-B and navaid reductions fit ICAO desire for incorporating technology advances in communications, navigation and surveillance into the air traffic management scheme. Similar thoughts exist in Europe (SESAR) and the USA (NextGen).

In 1998 Airservices embarked on research and development to better understand ADS-B and safety, operational and economic benefits in overcoming radar coverage deficiencies in remote areas. Today we have ADS-B opening regional Australia to cost-effective surveillance via every ten lower maintenance ADS-B ground stations commissioned for the cost of one enroute radar.

In 2007 government authorities published a visionary paper ‘JCP - Transition to Satellite Technology for Navigation and Surveillance’, after a decade of ASTRA work. It proposed mandated outfitting of ADS-B OUT, from 2012-2014, most general aviation aircraft (below 5700 kg) via cross-subsidy achieved by not replacing enroute radars. Despite a successful earlier trial (2001) ADS-B technology and understanding was immature, general aviation had insufficient guarantee of subsidy versus costs, the government was reluctant to subsidise - so radar replacement proceeded.

Surveillance

Simplest surveillance is our Mk1 eyeball and ‘see and be seen’ - legacy of aircraft flying at highway speeds - now often radio assisted. The opposite is separation of aircraft in capital city and enroute airspace which Airservices does by 19 radars. Limitations of un-alerted ‘see and be seen’ include miniscule fast closing target size, and head in cockpit due workload and instruments scan. ADS-B will improve alerting, however, we have already seen fatal analogous consequences of GPS dependency. Because not all aircraft will be equipped with transponders or ADS-B OUT it is vital to treat ADS-B IN as well as TCAS (aircraft traffic collision and avoidance systems) and other Traffic Avoidance Systems as not omniscient; rather, adjunts to alerted ‘see and be seen’.

Our radars are generally PSR (primary, detects hulls) and MSSR (secondary surveillance, communicating with aircraft transponders). Radar (and TCAS) interrogates at 1030 MHz with aircraft response at 1090 MHz. Ignoring primary radar, surveillance is ‘cooperative’ - radar ‘pings’ aircraft transponders which respond. Simplest response is Mode A (4 digit code identifying aircraft or flight category) then Mode C (altitude) added, or Mode S enabling selective radar polling and detailed information.

Another surveillance method is multilateration and Australia has a wide-area system operating (WAMLAT) but still requiring expensive ground structure.

Europe and the US are moving to ADS-B, for different reasons to Australia. Great Britain, a fraction our size, is radar covered. In parts of Europe (smaller than Australia), aircraft may be simultaneously observed by seven of 200 radars. In the contiguous USA, quarter bigger than Australia, around a third has radar to 1000ft altitude. The USA has about 300 radars, ten times Australia’s control towers, a general aviation fleet 17 times larger, and no ‘user pays’ (although as I
write USA considers eliminating funding 120 towers serving ‘only general aviation’ and floats a $100 fee for air traffic service use by turbine aircraft.)

ADS-B

ADS-B is an extension of transponder operation, providing more detailed and precise information without interrogation by radar (or aircraft TCAS outside radar cover). ADS-B is: Automatic (transmits unprompted) Dependent (needs GPS input for position and velocity data) Surveillance (by others) Broadcast (to equipped aircraft and ground stations).

ADS-B OUT works by adding positional and velocity information to aircraft Mode S transponder squits, sent automatically currently generate positional data with sufficient accuracy and integrity for ATC without interrogation. Only GPS can separation purposes. The output can be displayed for air traffic controllers and received by nearby ADS-B IN equipped aircraft.

ADS-B IN is the reception of ADS-B OUT by others, independent of ground stations, giving pilots situational awareness of equipped traffic. ADS-B IN information can be provided on multi-function displays, panel GPS and some handheld GPS or PDA, including aural alerting. Current emphases, and Australian mandates, concentrate on ADS-B OUT as standards are still fluid for ADS-B IN.

The Eurocontrol CASCADE program and Airbus set a milestone for ADS-B IN on 7 February 2012. An A330-300 of Swiss International Airlines, equipped with a certified Airborne Traffic Situational Awareness (ATSAW) system from Airbus flew Zurich to Montreal. ATSAW uses ADS-B IN, generated by ADS-B OUT signals of proximate traffic, for a real-time picture of the surrounding traffic during all phases of flight. It gives ability to move more frequently to a more efficient altitude when operating outside ground surveillance coverage. ATSAW also supports visual separation on approach and traffic situational awareness on airport surfaces. In the picture shown the display is integrated with the navigation display, but ADS-B IN can also be displayed on a Class 3 electronic flight bag screen.

Not requiring a third party (ATC) likewise makes voluntary ADS-B attractive for Australia’s ‘outback’ beyond coverage once both ADS-B OUT and ADS-B IN become affordable through technology push and competition. Where ADS-B ground stations have coverage, ATC will be available as required. ADS-B also extends the mantle of safety for search and rescue of a downed aircraft as tracking history within ADS-B coverage can be reviewed via ATC screen records. Affordable units already exist to allow flying schools or others to receive ADS-B information on a computer and monitor local aviation (particularly student) activity.

ADS-B OUT can be used for ground vehicles at airports and in the ultimate perhaps wristwatch units for skydivers and certainly lightweight low power units for gliders or historical aircraft that cannot power a transponder.

Of the three standards, Australia chose 1090ES, international standard for use at all altitudes; the others are UAT and VDL-4. Both alternatives allow more data transfer but, in the absence of a need for uplink cockpit data, 1090ES satisfies Australian needs. The USA mandates from 2020 either UAT or 1090ES below Flight Level 180 and 1090ES above that. UAT allows uplink data within ground station range - incentive to USA owners to fit ADS- B. By 11 February 2012, USA had 51 terminal areas able to receive ‘FIS-B’ on UAT. FIS-B or ‘Flight Information System - Broadcast’ provides weather, NOTAM, and airspace information. Because UAT uses 978 MHz it also offers relief from saturation of the radar response frequency (1090 MHz), a concern in some USA areas.

For congested airports and routes ADS-B allows reduced separation standards extended beyond radar coverage. ADS-B OUT (GPS) data delivers superior positional accuracy compared to decreasing radar accuracy over long distances. ADS-B can also improve traffic flow at ‘non-radar’ airports.

Radar must remain in ‘strategic’ locations. Transponders and ADS-B can be switched off but primary radar detects ‘non-cooperative’ aircraft. Radar also backs up ADS-B during (rare) GPS constellation outages that render ADS-B ‘navigationally deprived’. Some pessimists argue that GPS is not a guaranteed resource - another article could be written to canvass that topic! Current mode 1090ES transponders provide ‘conventional’ Mode A/C or Mode S, for satellite outage or receiver failure. Within radar this allows surveillance and management by ATC as today and outside radar still triggers TCAS in equipped aircraft.

Why not UAT in Australia? First is the cost and complexity of dual systems. Second, UAT at 978 MHz, and 1090ES at 1090 MHz, don’t ‘handshake’ so ground repeaters (and being within repeater range) are needed for airliners to see aircraft fitted with UAT or vice versa. Radar receives at 1090 MHz so the Australian 1090ES ADS-B choice allows congruence with existing radar (and TCAS) operations. Third, Australia lacks market size to profitably establish third-party in-cockpit services needing UAT bandwidth.

RTCA, the standards authority, envisage cheaper (lower power / integrity) ADS-B OUT units for air to air applications (alerting nearby ADS-B IN and aircraft
Australia has not pursued a November 2009 AOPA paper to ASTRA suggesting benefits of voluntary fitment for airspace Class G operations. FLARM has been suggested as a cheaper alternative. FLARM is a system originally designed for gliders but outside the 1090MHz used by ADS-B and radar, therefore invisible to both.

The low cost ADS-B concept moved forward at the ICAO TSG meeting held in January 2012 when USA FAA presented a ‘Proposal for Low Power Surveillance Equipment (LPSE) for Excepted Aircraft’. 'Excepted' aircraft are where transponder carriage is currently exempted, and the paper arises from a safety report recommending exemption removal, following a (non-fat al) collision between a glider and Hawker 800XP at 16,000 feet in 2006. The proposal envisages a 1090ES ADS-B OUT unit capable of simple aircraft fitting and battery power, with three classes - the third including ADS-B IN. The FAA paper includes detailed standards changes, so USA will be an early mover in LPSE emergence; Europe has also canvassed the potential (LAST/LPST); hopefully Australia follows.

Who gains, who pays?

ADS-B OUT provides enhanced extended surveillance - but at what cost / benefit? Visual flight rules (VFR) pilots generally need neither ground-based surveillance nor separation during across-country cruise or at quiet airfields. VFR transponder code 1200 is ‘greed’ on ATC screens accordingly. Radar will continue to be used in capital city airspace, so ADS-B fitment is no significant benefit to most general aviation. An avionics technician has to fit the equipment, certification is needed by CASA regulation, and new wiring plus antenna cabling and antenna may be required. My estimate in a basic GA aircraft today is around $20,000 (for older airline Boeing or Airbus multiply by ten), which may stretch private owner funds for GA aircraft valued under $100,000.

CASA stated in 2009 ‘Aviation benefits related to ADS-B OUT technology are very difficult to estimate, there is considerable cost shifting to aircraft operators as a result of transition to satellite-based technologies, and the financial situation of airspace users in the GA category needs to be addressed’. My estimate of the costs to equip the Australian GA fleet is a maximum $157 million, minimum $70 million, with little chance now of owner costs 'being addressed'.

The first two CASA discussion papers ignored finances, seeking to ‘enhance safety’ - but safety undefined in risk management terms. Aviation safety is not absolute, rather balances costs against risk being low as reasonably practicable. Should government expect general aviation to fund airline safety and Airservices profit given 98 per cent of Airservices revenue is airline originated? ADS-B opponents also argue that airline TCAS already sees aircraft with current Mode A/C transponders. Who then is guaranteed a benefit? Airservices saves radar installation and maintenance (more government dividend) and airlines save airways costs and fuel, and gain safety benefits. Unlike the USA, our general aviation population is too small for political and negotiating clout so even though CASA has tried to find balance in its third discussion paper, the government may well proceed without concern for the impact of the cost impost on the viability of GA.

Australian Timeline

CASA proposes the following dates for ADS-B OUT mandated fit, having issued one discussion paper, revised dates after industry feedback, issued a revised discussion paper canvassing points where agreement was not available, and issued a third paper as this article goes to editing:• Above Flight Level 290 - 12 December 2013. Set in stone.
• Aircraft undertaking IFR flight on the Australian register before 1 January 2014 - 2 February 2017.
• Aircraft undertaking IFR flight placed on the Australian register before 1 January 2014 - 6 February 2014. Industry agreed; CASA is proceeding to Notice of Proposed Rulemaking (NPRM).
• Airspace classes A, B, C, D and E - all aircraft by 1 January 2020. Exemptions are intended for aircraft that cannot power a transponder, to be reviewed when lower power Mode S and ADS-B OUT equipment exists.

CASA is open to further industry input on this proposal.

Industry agreed; CASA is proceeding to NPRM.

The 2011 discussion paper moves the VFR mandate out to 1 January 2020 and drops any ADS-B OUT requirement in Class G - and particularly removes initial proposed ADS-B veils for 20 nm at regional locations where airlines operate. The alternative may be Class E veils to force fitment of ADS-B OUT from 2020 for aircraft desiring to transit or land at specified regional locations. The 2020 date is consistent with the USA timeline allowing more equipment development and competitive pricing than the earlier CASA proposal. It also removes the risk of moving ahead early where equipment may become obsolete sooner due to changing regulatory standards. The IFR mandate for ADS-B from early 2017 allows overseas administrations to examine our experience in airborne and ATC results, which will drive further development of terrestrial based ADS-B. Already one overseas concept proposal exists for space-based ADS-B for oceanic coverage. Without being too futuristic, ADS-B may also be a catalyst for ICAO to consider changing the existing Class A to G airspace structure to a simpler paradigm, and for a review of the role of ATC once increased separation responsibility transfers to the cockpit.

This article draws on articles by Brian published in Australian Flying Magazine, which he acknowledges.
We were flying south west at 1,000 feet towards Victoria, having shortly before got airborne from the Fraser River which serves as the runway for the float-planes of Harbour Air, the biggest float-plane airline in the World; arguably, the most reliable and safest as well. Conveniently, the float-plane base is just south of Vancouver International Airport and there is a free passenger shuttle between the two.

I was in the right hand seat of a DHC-3 Turbo Otter and I noted that there were no controls on my side since that seat is designated as a normal passenger seat when needed. The Chief Pilot of Harbour Air, Captain Art Booth, had authorised some free tickets for me to fly on a couple of routes in order to have a look at the operation as a whole.

The Captain on this day was a charming young man by the name of Reg Morisset and he personified the safe and professional approach which the company has striven for over the years in order to bring float-plane operations up to the same standards of safety and reliability as the normal scheduled airlines. An extraordinary achievement bearing in mind the safety record the industry had experienced during the early years.

The company was founded in 1982 by two bush pilots, Greg McDougall and Cliff Oakley, who both realised that if the new company was to succeed they had to offer something radical in terms of safety and reliability. They would charge more than any other operator and this extra revenue would be used to ensure a higher level of maintenance and pilot standards and professionalism. The strategy was outstandingly successful and today the airline (as it is now) has a fleet of 45 float-planes comprising Twin Otter, single engine Turbo Otter and Beaver, this last fleet of 15 aircraft somewhat scattered around the network.

Harbour Air expanded rapidly, largely through a series of acquisitions (the single engine division of Air BC in 1986, Cooper Air in 2003 and West Coast Air in 2010), but with this expansion came new responsibilities and together with the original concept of safety and maintenance, the company took the necessary steps to formalise its operations and take it forward.

Peter Evans joined Harbour Air as Chief Pilot in 1986 and moved in to management the following year; he became Company President in 2007. Working with Greg McDougall, these two men adopted the mantra of professionalism and “doing the right thing” which has raised the profile of the company with both the public and local competitors.

For instance, Harbour Air was the first float-plane company to have uniforms for all staff. Minimum requirements were set for the employment and promotion of pilots; to be even considered as a pilot, a candidate must have at least 1,000 hours as P1 on float-planes and 1,500 hours minimum overall. While most pilots are Captains due to the single pilot operation, those copilots on the Twin Otter will not be promoted to Captain within the company unless they have those vital 1,000 hours P1 (P1 u/s does not count); in practice, this means that they must leave the company to fly float-planes on their own up in the logging camps or fishing companies and while they may come back to Harbour Air, the job is not guaranteed.

Captain Booth has also ensured that company SOPs are followed and pilots undergo regular check rides as in any other airline. Flight planning is straightforward: full tanks for every departure from either of the two Vancouver terminals. All flying is under V FR and in the event of fog a flight may depart so long as there are clear patches of water for landing.

Back on our flight to Victoria, Reg and I chatted about the job itself; hard work it would seem. He was on his 5th sector of the day with another three to come and while most sectors average 35 minutes in length, the radio traffic can be intense with 11 frequency changes on this sector alone. That said the work is routine particularly in good weather, though there are more challenging days in winter.

We coasted in over the islands approaching the town of Victoria with a long descending downwind right hand circuit, a call to check the water was clear.
and a nicely executed curved approach to the harbour. (Not unlike the old HKG IGS, I thought.)

A cup of coffee and then the return flight back to Vancouver; did he have a wish to join the major airlines? Reg gave it a couple of seconds thought and simply replied in the negative. Float-plane flying was in his blood and he could not see any reason to move from a way of life he loved; he saw himself as part of the culture of British Columbia.

We landed back on the Fraser River and as we taxied to the riverside terminal (which, incidentally, also houses the Beaver Bar Restaurant where both passengers, their friends and other regular airport workers can and do congregate) Reg kept an eye out for floating logs and debris which he would then report to the terminal from where a boat would be sent out to clear it. A bit like reporting debris on 28L, I suppose.

Peter Evans came out to meet our arrival; he knew each of the loaders and handlers by name; he introduced me to one in particular who was being mentored by the company and whose plan was to learn to fly float-planes and after his time in the wilderness getting his P1 time he hoped to come back to Harbour Air as a pilot. Perfectly achievable, said Peter.

Perhaps this attitude as much as anything else summarises an outstanding airline.

Peter is a member of the North American Branch of the Guild; he was offered the Livery in 2010 and he plans to be clothed at the Trophies and Awards Dinner in November.
Group of 15 Guild members including the Master were greeted at Trafalgar Gate in Portsmouth by Sub Lieutenant James Hume. We were then driven to the ship and welcomed aboard HMS Illustrious by Commander Nigel May on behalf of Captain Martin Connell. Commander May apologised for the short notice given for the visit but an opportunity to host the Guild before the ship sailed was not to be missed! Commander May also apologised that Captain Connell was not present to greet us as he was visiting Northwood for his briefings before sailing. It was hoped that he would be able to spend some time with us on his return.

Commander May, who is Commander Air, or “Wings”, recognised the close affiliation between HMS Illustrious and the Guild, and hoped that our ties would be strengthened. He then gave an interesting and informative presentation covering the history of Illustrious, the role the ship was to play in the future and how she would be replaced. In October 2010 Illustrious had been part way through an eighteen month £40m refit in Rosyth, near Edinburgh, when the government published SDSR, the Strategic Defence and Security Review. This review was to look at what defence capabilities Britain wanted in 2020. It also needed to address overspend in the MOD procurement budget and the government commitment to reduce the budget deficit. Under SDSR the Harrier force was withdrawn and sold in 2011. HMS Ark Royal was decommissioned early, and either HMS Ocean or HMS Illustrious, whichever was least capable as a helicopter carrier, was to be decommissioned. It was later announced that HMS Ocean was the most suitable ship for the Landing Platform Helicopter (LPH) role. As Ocean was due for refit HMS Illustrious will serve until 2014 when Ocean is back in service. Illustrious and her company are currently being put through their paces in preparation for returning to the front line. With the Harriers now sold the task is to serve as a springboard for helicopter assault operations.

There have been five Royal Navy ships to bear the name HMS Illustrious. There is a long and distinguished history and the present crew are understandably very proud of their heritage and their ship. The ship’s motto is “Vox Non Incerta” which translates as "No Uncertain Voice" and the ships badge is of three trumpets. The first HMS Illustrious was a 74-gun third rate, and launched at Buckler’s Hard in 1789. She had two engagements against the French Navy, at Toulon in 1793 and at Genoa where she suffered severe damage and won a battle honour. While returning home in tow for repairs she ran aground due to an extremely violent storm. Shortly afterwards she was set ablaze and abandoned. The second HMS Illustrious was launched at Rotherhithe in 1803 and was like her predecessor a 74-gun third rate. She was involved in battles off the Basque Roads, in which she won a battle honour, and off Java in Indonesia. In 1854 she became a training ship and continued as one until she was broken up in 1868 in Portsmouth. The third HMS Illustrious was a Majestic-class battleship, launched in 1896 and scrapped in 1920. Like all pre-dreadnoughts, the Majestics were effectively made obsolete by the introduction of Dreadnought in 1906, and by the beginning of World War I, they were the oldest and least effective battleships in service in the Royal Navy. She served as guard ship along the British coast 1914-1915, then as a disarmed ammunition ship 1916-1919. The fourth HMS Illustrious was an Illustrious-class aircraft carrier built by Vickers-Armstrongs at Barrow-in-Furness, launched in 1939, and commissioned on 16 April 1940. She displaced 28,000 tons and carried up to 57 aircraft, including about 35 in her armoured hangar. She was nicknamed “Lusty” by the men who served in her, a nickname proudly used by the crew of Illustrious to this day. On 11 November 1940, she became the first carrier in history to launch a major strike against an enemy fleet in a daring attack against the Italian fleet at Taranto. Twenty-one aircraft based on Illustrious attacked the Italian fleet at night. The Italians were caught off-guard, and one battleship was sunk and two were heavily damaged. The battle of Taranto is one of Britain’s most famous sea battles and the annual re-enactment invariably leads to a headache! On 10 January 1941, while escorting a convoy east of Sicily, Illustrious was attacked by Axis Savoia-Marchetti SM.79 and Junkers JU 87 bombers. She was hit by six bombs and suffered extensive damage; her sick bay and ward room were destroyed, and
among those killed was the England rugby player W. G. E. Luddington. The Admirals Dining Room, in which we were listening to the presentation, proudly displays the ships bell which was badly damaged by cannon shells from a JU 87. The present HMS Illustrious was the second of the three Invincible class aircraft carriers. She was laid down at Swan Hunter on the River Tyne in 1976 and launched in 1978. As the ship neared the end of its fitting out period, the Falklands War broke out. As a consequence, work on Illustrious was expedited. The war was won before Illustrious could be finished, but she did perform a useful service in the aftermath. Until the RA F airfield on the Falkland Islands was repaired, an aircraft carrier was required on station to protect the area from possible Argentine attack. Invincible had been on station for many months when Illustrious arrived to its relief. Illustrious was needed so quickly that the ship was commissioned whilst underway. After the RA F airfield was repaired, Illustrious returned to the UK for a full shakedown cruise and workup period, with a formal commissioning on 20 March 1983. The Invincible-class aircraft carriers were conceived in the early 70’s, originally as anti-submarine warfare helicopter carriers to sit in the Iceland - Faroe gap. After the cold war the role changed to Expeditionary Strike Carrier and now the role has changed again to Landing Platform Helicopter. Several types of helicopter from all three services will make use of Illustrious. The Royal Navy has 1 task group and Illustrious will be part of that group or could operate independently.

Illustrious is 209.6 metres long, 31.9m wide and weighs 22,500 tonnes. She can carry up to 1200 personnel with an air group aboard. The four RR Olympus gas turbines enable a speed of 30 knots. Defensive systems include Goalkeeper which is a close-in weapon system for defence against incoming missiles and ballistic shells. The system consists of a 30mm Gatling Gun and an advanced radar which detects incoming fire, determines its trajectory, and aims and fires the gun. The capability of the landing platform helicopter role can be defined as FIND, LIFT, and STRIKE. Sea King operates in the Surveillance mode, several types of helicopter can be used for Lift and the Apache for Strike. As the Apache comes out of Afghanistan it is likely to be used more at sea but there is work to be done to marinate them. Illustrious will soon be taking part in a large exercise with the Marines in Norway involving 13,000 people. In April and May another exercise will be undertaken off the coast of Scotland with 45 Commando. In these manoeuvres Illustrious will operate as part of an amphibious task force and will provide command and control for the group projecting force ashore. Other roles include supporting special forces operations, defence diplomacy, humanitarian assistance and peace support operations. The most recent peace support operation by Illustrious was in 2006 in Lebanon where Chinooks evacuated British citizens in an operation carried out under threat. A quote from a Brigadier “We are entirely reliant on the carrier - we will definitely need big carriers in the future”

HMS Ocean is a similar size to Illustrious but it was built specifically for the Marines. It has bigger gangways with less obstacles at the bulkheads to make it easier for fully kitted marines to move around. It carries four landing craft to put troops ashore by surface manoeuvre. There is also deck space for hold vehicles and ramps to disembark them. It carries a smaller crew than Illustrious, has more economical diesel engines and greater range but a lower top speed.

The Queen Elizabeth, the first of the new 65,000 tonne QE class carriers, is already part-built in Rosyth with launch due in 2016. As part of SDSR the UK switched from the short take off and vertical landing (STOVL) JSF to the larger catapult launched F35 C-model carrier variant. It is likely that the second QE class ship, Prince of Wales, will be the first to be fitted with the electro-magnetic aircraft launch system and advanced arresting gear for “cat and trap” operations. Using the same technology developed for the US Navy’s next generation carrier, the Gerald R Ford, this will enable the carrier to support flying trials soon after becoming available. It has not been decided when Queen Elizabeth will be fitted with the launch and arresting system and this will be a major engineering task. She will enter service with no fixed wing aircraft in the LPH role. The QE class will be impressive ships with 12 acres of deployable UK territory! Changes brought about by SDSR and the transition to the QE class carriers have created many challenges for the people involved. One quote was “The greatest single factor is the people” Career management for the Harrier crews has been difficult. The RN faces a major challenge in regaining the skills required to resume “big deck” carrier operations - it is 40 years since the retirement of Ark Royal with its Buccaneers and Phantoms. This need will be fulfilled partly under the terms of a statement of intent recently signed between the service and its US counterpart. Fleet Air Arm and RA F pilots will train for carrier operations with the US Navy. Some crews for the JSF will be pulled back from the Typhoon. Whilst it has been a difficult period for existing staff, those joining now could look to an exciting future. Other skills to be learned include providing trained air traffic controllers, landing signal officers, deck crew and weapons handling personnel, plus the engineers to support high tempo operations at sea. A new airborne early warning capability will be needed for the new carriers with the retirement of the Sea King 7 in March 2016.

We were then entertained to lunch in the Wardroom before a very interesting guided tour of the ship with several hosting officers explaining points of interest. The hangar was a very large space with no aircraft present but must be crowded when aircraft are aboard along with boxes of spare parts and maintenance is being performed. There are massive jacks for raising and lowering the deck lifts and we travelled up to the flight deck on one of the lifts. From there we went up to the hydrography and meteorology office where Lt Cdr Iain Ritchie explained some of the capabilities of the ship. Balloon sonde and direct satellite links provide information which is used to create a comprehensive meteorology service. They are able to measure the depths, the tides and currents of the water and map the sea bed topography and morphology producing beach and harbour surveys. As we climbed up towards the tower we spent a few moments on “Goofers Deck” where spectators would get an excellent view down to the flight deck when flying operations are being undertaken. Up in the bridge the view was panoramic and the Captain’s chair made by Rolls Royce impressed. Commander Air Cdr Nigel May and Flyco Lt Cdr Pete Hayward explained how the crew worked together during air operations. The Tower Flight Control positioned on the port side behind the bridge had an excellent view of aircraft operations on the flight deck. Moving down to the Ops room SATCO Lt Cdr Andy Anderson, Fly3 Lt Hollie Carter and Fly2 Lt Tim Greeves discussed some of the aspects of the control of air operations. We then visited HQ1 where fire, flood and damage control operations are managed. Finally we were shown the rooms where the engineers managed the ships engines and other systems and the impressive engine room. The four RR Olympus 25,000 shp engines are each enclosed in fire proof boxing. Each pair of engines drives a propeller through a massive reversing gearbox. Each engine can consume up to 6 tonnes of fuel per hour but the ship can cruise with some engines shut down. The relatively high fuel consumption requires regular refuelling of the ship at sea. Illustrious carries 2 spare Olympus engines which can be changed within 3 days or can be used for engine changes for other ships in the fleet. More modern ships use diesel electric power
plants and variable pitch propeller blades which do not need a reversing gearbox. The ship has 8 diesel generators with a capacity of 1.5MW, sufficient to power a small town. There is the ability to isolate electrical systems and provide very good redundancy in the event of battle damage. After the tour we returned to the Admirals Dining Room for a welcome cup of tea. Cdr Nigel May presented the Master with a framed photograph of the Guild group on the deck of HMS Illustrious. Captain Martin Connell welcomed the Guild on his return from Northwood and hoped that we would be able to continue developing our affiliation. His briefing at Northwood had been interesting as the potential areas of operation are widespread and could involve any part of the world! The Master thanked Captain Connell and his crew for the excellent visit and reminded everyone that affiliation brought the Guild and HMS Illustrious closer together in the way that family members share in the lives of each other. Affiliation represented the bond that existed between the Guild and the ship’s company. The Master highlighted the Guild Flight Safety Award that is normally awarded every year to a member of the Illustrious crew, but because “Lusty” had been non-operational for 2 years, no award had been made during 2011. The Master suggested that HMS Illustrious might want to make up for lost ground by selecting 2 worthy recipients for 2011 and 2012 since the ship had been at sea since last July. Captain Connell responded saying that he certainly had 2 individuals in mind and would be pleased to present them for receipt of the awards, and hope this could be done in April when they were at sea.
Timely Award for Master Air Pilot

BY LIVERTYMAN LINDA FULTON

Nobody could have been more astonished. Livertyman Douglas Evans was celebrating his 90th birthday with Guild friends at the RAF Club when the Master, Captain Wally Epton, presented him with a Master Air Pilot Certificate (MAP). It was a moment Doug will never forget.

Until recently the Master had assumed Doug was already an MAP holder. For Doug is one of the Guild’s longest serving members, having joined in 1944 aged 22 and took the Livery in 1968. His aviation career spanned some 40 years: he saw wartime service with the RAF gaining a DFC, participated in the Berlin Airlift and spent 34 years in civil aviation. He totals 16,200 hours in his log book, of which 1,850 were military and 14,350 civil flying hours.

When the MAP omission came to light the Guild acted quickly and the award had the express approval of the Grand Master. The Master told Doug at the lunch in February: “I am pleased and proud to announce that this master pilot, of all master pilots, is to be recognised. By instructions of the Grand Master, His Royal Highness Prince Charles is to present Doug with his MAP in recognition that he has been one for many years already, but will now have a certificate to prove it.”

There were more surprises, too: Doug was given a copy of his original Guild membership form, a copy of the book aircraft ruled the world, and two synoptic charts - one for the date and place of his birth and the other relating to one of his wartime sorties.

Ever a true Welshman with an engaging, melodic lilt to his voice, Doug - ‘Taffy’ to some - had a gentle upbringging at the sleepy coastal town of Goodwick, South Wales. The youngest of five children, he was especially close to his brother John, who was nearest to him in age. Music played a big part in Doug’s formative years. He played the cornet in the Goodwick Brass Band and the piano accordion in a five-piece dance band known as “Reg Duggan and His Four Aces”. Until quite recently Doug sang with the Weybridge Male Voice Choir and Gemini Chorale, near to where he lived with his first wife, Dorothy.

After leaving school he and John (who also joined the RAF and flew the Halifax) began working for their uncle who ran a builders merchants in Swansea, where Doug learned how to roof with slates and tiles. But for the onset of war, Doug might still be fiddling on the roof. There was a family tradition of going to sea - both his father and grandfather were Master Mariners - and Doug fully intended to follow in their footsteps. But he changed his mind, inspired he thinks by stories of the WWI flying ace Captain Albert Ball VC; that, and being an avid reader of Aeroplane magazine. Aged 18, he plucked up courage to enter the local RAF recruiting office and join the RAF Volunteer Reserve.

Initially his RAF training was as a flight mechanic airframe and flight rigger at RAF St Athan, before selection for aircrew training the following year. His flying training took place under the US Army Air Corps’ Arnold Scheme. Seemingly, the perils of a rough Atlantic crossing during a worrying period of intense U-boat activity were considered a better bet for pilot training than coping with chilly British weather and threats over UK skies from the Luftwaffe. Doug honed his elementary flying skills in Canada on the Stearmann (Boeing) PT-17 biplane, the Vultee BT-13A low-wing monoplane and the twin-engined Beechcraft AT-10. Co-incidentally, Doug’s brother John was also there undergoing flying training. On returning to the UK in 1943, Doug was posted to No. 10 (B) Squadron at RAF Melbourne, Yorkshire, where he flew Whitley aircraft before converting to the Halifax.

The four-engined Halifax entered front-line service with Bomber Command in early 1941. Operational experiences revealed the need for some serious modification and re-design to improve the aircraft’s overall performance and handling qualities. Changes were steadily incorporated resulting in the Halifax Mk II and the later Mk III, the aircraft sharing a leading role in Bomber Command’s operations through to the end of hostilities in 1945. It was to prove a popular aeroplane among ground and flight crews.

In 1944, when Doug turned 22, the RAF reached its highest manpower peak of 1,185,833 serving personnel. It was the year of the infamous ‘Great Escape’, when RAF prisoners held at the Stalag Luft III PoW camp at Sagan, Poland, staged a mass breakout. The year of Operation Jericho and the RAF Mosquito attack on Amiens Prison in a bid to release French resistance workers held by the Germans. Bomber Command Sergeant Pilot Evans - Doug later accepted a commission and was promoted to the rank of Flight Lieutenant - was literally in the thick of it and could quite realistically have expected not to survive the conflict.

From September 1943 to May 1944 Doug flew 32 missions with 10 Squadron. His first sortie was a bombing raid to Mannheim, and his last mine-laying in Cuxhaven Harbour, Lower Saxony. “We had to be very adaptable in our task”, Doug recalls, “and learned how to handle bad news of colleagues. Flights could be very long, and I never used the very rudimentary auto-pilot, flying all the way with no height locks. Even over the UK you were in danger of being jumped by an enemy fighter.”

Early days in post war civil aviation.
One foray in particular stands out. Over Mannheim in November 1943, having released his bombs at 15,000ft, Doug’s Halifax was caught in the beam of an attack from FW.190 fighters. While his gunners returned fire, Doug put his aircraft into a tight corkscrew turn, eventually levelling-off at 5,000ft. The aircraft was slightly damaged but none of the crew was injured.

As was customary, Doug always flew with the same six air crewmen. Having endured so much together, and survived, the seven remained firm friends post-war. Some regularly attended 10 Squadron Association reunions, which still take place at the kind invitation of 10 Squadron, currently based at RAF Brize Norton.

Doug and his sole-remaining crewmember, Les Duncan, continue to attend the annual Armistice Day Service at the squadron’s memorial at a now derelict RAF Melbourne. Placed at the entrance to their WWII airfield, the memorial marks 10 Squadron’s illustrious wartime record: of 300 missions accomplished 128 seven-man Halifax bombers were lost.

How fitting that part of the Bomber Command Memorial under construction in London’s Green Park is using sections of melted down aluminium from a Halifax bomber shot down over Belgium in May 1944 killing eight people. On 28th June, when the memorial is unveiled by the Queen, the nation will formally salute the 55,573 aircrew who lost their lives. Doug hopes to be there to honour fallen comrades.

Of his war-time experiences Doug is clear: “I don’t like to think too often of the survived along with my crew. We did what airmen of Bomber Command who died. I their responsibilities to the best of their ability.”

Doug’s “sustained and difficult period of operational flying”, as detailed in his citation, was deservedly recognised by the award of the Distinguished Flying Cross. Aircraft types flown were the Viking, Dakota DC3, Viscount, Trident and, his favourite, the TriStar L1011. Doug remembers the aircraft affectionately: “Of all the aircraft I have flown since leaving the RAF, it was the TriStar I loved the most. BEA led the world in the development of Autoland and all weather operations and I am particularly proud of the part the TriStar played along with the Trident.”

Doug went on to become a Training Captain and ultimately Flight Manager of the TriStar Fleet before retiring in 1977 from what had, by then, become British Airways. A spell of part-time flying followed with Gulf Air and British Island Airways/Air UK before Doug finally retired from flying in 1980. So what prompted a 22-year old to join the Guild - he joined first as a Temporary Associate Member, attracting a fee of one guinea a year. He might have first heard of the Guild’s role in protecting the aeroplane – the R101 airship accident in 1930, as he was aware of the R101 airship accident in which the Master, Deputy Master and others perished. However, he learned much more of the Guild and its reputation from reading their advertisements in Aeroplane magazine. He felt it important, as new joiners do today, to network among the flying fraternity and to keep aware of aviation developments. During the war, of course, there was little Guild activity for members and certainly no publication to read. “What interested me in particular was the Guild’s role in protecting the profession”. Doug recalls: “Its aims and principles remain the same as they were when I joined, although today the Guild has added a social programme, which I always enjoy.”

The Master in 1944 was the Marquess of Londonderry, assisted by two Deputy Masters, Wing Commander R H Stocken and Air-Vice Marshal Donald C T Bennett. In 67 years as a Guild member Doug has seen three Grand Masters and 58 Masters. Doug also held Guild offices: as an Assistant to the Court for three years from 1975-78, and a member of the Trophies Committee, which included Master Air Pilot (MAP) selection. The Guild was based then at 30 Eccleston Street and the redoubtable Wilf Rossiter was Learned Clerk (1973-85). Doug worked closely with his friend the distinguished air safety expert Hugh Gordon-Burge, in whose name an award is given annually. On the committees, he recalls, were Brian Powell, Captain Charles Owens (Master 1975-6), Captain Eric ‘Winkle’Brown RN, Air Marshal Sir Dennis Crowley-Milling (Master 1992-3) and Arthur Thorning (Master 2000-01).

Has Doug ever wished he had pursued a different career from flying, such as music? He is adamant: “Definitely no. Flying was the right career for me. I have been happy and aviation has been kind to me. I have loved every minute. I have brought great privileges and experiences, pleasures and friends. I would not have changed it for any other way of life.”

In addition to his Guild membership, Doug belongs to the RAF Association, the Bomber Command Association, 10 Squadron Association and is a member of the Royal Aeronautical Society. Doug and his second wife, Maud - who was a WAAC during the war - are enjoying retirement at their home near Leatherhead, Surrey.
On Saturday February 4th this year, eight GAPAN Young Members embarked upon a journey to investigate the inner workings of the NATS Control Centre at Swanwick, Hampshire. Amongst us were a variety of aviators including PPL holders, First Officers and those awaiting that elusive first airline job. Though from different backgrounds, we were united in a common purpose: to attain a greater understanding of our professional colleagues at Air Traffic Control, the systems they use along with the challenges they face. Braving sub-zero temperatures, not even the threat of ten centimetres of snowfall that day would deter us!

Operational in 2002, Swanwick is an impressive, purpose-built facility, hosting the En-Route section of NATS for Wales and Southern England (replacing the units at West Drayton). This then grew to include London Terminal Control with responsibility for London airspace, some of the busiest in Europe in 2007. The remainder of the UK airspace is controlled by another NATS facility at Prestwick which also presides over Shanwick Oceanic airspace.

On arrival, we were met by Dr Anthony Smoker, Manager Safety Performance and Improvement at NATS Swanwick Centre, who would be our host for the day. After a quick coffee, Dr Smoker gave a presentation explaining the structure of NATS as a company, followed by the organisational structure of UK airspace both past and present. This provided great context and meaning for a lot of things that we as pilots take for granted on a day-to-day basis. Dr Smoker spoke of the current status of UK airspace in relation to the rest of Europe, alluding to the likely changes through schemes such as SESAR (Single European Sky ATM Research).

One of the principal points taken from this discussion was just how focused NATS are regarding development in the areas of safety and efficiency. This is achieved through airline consultation, reporting and joint exercises such as TRUCE (Training for Unusual Circumstances and Emergencies).

Next, we moved to a room which included the viewing gallery for the Area Control room. Owing to supervision of some newly qualified Air Traffic Controllers, the Area Control room was off limits for our visit. As we were about to discover, Air Traffic Control (ATC) is difficult enough without distraction from the likes of us! A spacious and sterile environment, the control room was full of banks of computers organised by geographical sector, with the supervision and management desks taking centre stage. Whilst here, we were also shown a video which perfectly demonstrated the complexity/changeability of the task at hand. Despite regular pausing of the video and commentary from Dr Smoker, it was difficult to keep up with the situation as it unfolded. This filled us with some trepidation, as after lunch, we’d be trying our hand in the ATC simulator.

Lunch provided the opportunity for the GAPAN Young Members to find out a little more about each other, as well as ask Dr Smoker some informal questions. It re-emphasises just how small our industry is, with several of us having crossed paths in one way or another in the past.

The moment arrived and the fact that it was a simulator was of little comfort to us. After an explanation, we took turns in the hot seats, attempting to guide aircraft safely through a sector in Western England/Wales. From the viewing gallery, it had all looked so easy and relaxed, but now it had become frenetic. However, with careful guidance and use of the plethora of information presented to us, we even began to develop a faint resemblance of proactivity and composure. The simulator being set to ‘easy’ probably helped too.

We were lucky to experience iFACTS (Interim Future Area Control Tools Support), an advanced toolkit for controllers providing trajectory based information to assist in reducing workload and forecasting potential conflicts. Though still in the implementation phase, this is set to be a useful addition to improve traffic flow and enhance safety.

As is commonplace in the industry, we emerged from the simulator with some relief, having avoided any major disasters. Most importantly, we had fostered a newfound sense of empathy and understanding of the difficulty/stress involved in ATC.

To conclude, we were offered the opportunity to ask any further questions, of which there were many! The answers to our barrage of questions were enlightening and again reinforced just how receptive NATS are to promoting mutual understanding. It is important to remember that the theory of CRM (Crew Resource Management) is not confined to the Flight Deck and Air Traffic Controllers are faced by the same human factors we are as pilots. Without ATC, aviation in its current form would not be possible.

With a wonderful day had by all, we are exceptionally grateful to NATS and Dr Anthony Smoker for their time and hospitality during our visit and to Claudine Miles of GAPAN Young Members for helping make it possible.
TECH NOTES, DECEMBER AND FEBRUARY

EDITOR’S NOTE: Because of a gremlin in the Editor’s IT suite the December Tech Notes failed to make it into the February issue. They are reproduced here, along with February’s Tech Notes.

JOIN THE TECHNICAL & AIR SAFETY COMMITTEE (TASC) Are you a current commercial pilot who could give half a day every other month to attend the Guild office and contribute to the important work of the TASC. In between meetings the rest of the Committee’s work is conducted by email. Please respond to the office.

PILOT TRAINING Two airlines and one FTO have training schemes for ab-initio pilots. Firstly BA advised that they would act as ‘guarantors’ of last resort for up to £84,000 for a bond to train with either CTC, Flight Training Europe (Jerez) or Oxford Aviation Academy. Should the trainee pass the course and be employed by BA, the Bond is paid off by BA over 7 years in addition to the normal salary. Shortly after this innovative financial proposal, FLYBE announced ‘semi sponsorship’ for MPL training. Details of all two programmes may be found on the relevant websites.

NATMAC NOMINEE The Guild is looking for a member to volunteer to act as its nominee on the National Air Traffic Advisory Committee (NATMAC). This committee meets twice a year in April and October at CAA House, Kingsway, London. This appointment is a sub-committee of the Technical and Air-Safety Committee (TASC) which meets at the Guild on a bi-monthly basis.

NATMAC meetings are large with, perhaps, 40 organisations, including MOD, NATS and DfT, being represented; there is now a Green representative and one from the UAS/UAV world. In the Chair is Ret’d Air Cdr Mark Swan, Director of Airspace Policy and fellow Liverman. His deputies include two ex-RAF Group Captains. Most meetings include presentations by DAP staff; there is plenty of time for questions of which many tend to be from the BGA, the BHA, and the BMAA. AOPA is also represented and together with the GAPAN nominee can provide a robust lobby for General Aviation. Details of the activities of the committee together with various papers can be found on at: http://www.caa.co.uk/default.aspx?catid = 7&pagetype = 90&pageid = 10181. Names to the office please.

FREE OLYMPICS VFR CHART A detailed 1:500,000 VFR chart of the restrictions for the 2012 Olympics will be given away to those who purchase a new 1:500,000 VFR chart for South East England - due to be published 8 MARCH 2012. Copies will be available for a free download as an A3 pdf from www.airspacesafety.com/olympics in Spring 2012.

EASA LICENCE DELAY The CAA now intends to commence issuing new licences and medical certificates from 1 JULY 2012, following the decision to give national aviation authorities across the EU more preparation time.

IMC RATING EASA committee FCL008 has completed its review of non commercial instrument ratings and EASA has published details of how it plans to licence pilots to fly in IMC. The entry-level qualification, the En Route IR (EIR), will permit IMC in the cruise only. A way will be found to ‘grandfather’ UK pilots IMC Ratings, but after a date to be announced, no further IMC Ratings will be granted.

1st UK LPV APPROACH APPROVED Alderney is first airfield in UK AIP with an LPV approach which is essentially a GPS approach with vertical guidance meaning lower minima can be applied. There are over 2,500 such approaches in the US (where they now outnumber ILS approaches) and over 40 elsewhere in Europe. In order to fly the approach aircraft will need to be fitted with a WAAS GPS that is approved for IFR approaches. For an aircraft registered in an EASA state that will mean getting an STC, while N registered aircraft with an approach approved WAAS GPS fitted under an AML will probably be legal with no extra paperwork or expense required.

NATS MILESTONE On 26 November the last paper flight strip was used in the Area Control room at Swanwick, as the interim Future Area Control Tools Support (iFACTS) system became fully operational on all Swanwick sectors. iFACTS is a controller support tool that reduces controller workload in planning and maintaining safe separation, allowing more flights to be handled with improved safety, but without a corresponding increase in staffing. It is unique in that it introduces both electronic flight progress strips and a set of medium-term conflict detection tools for the tactical controller.

TECH NOTES FEB 2012

GPS and LIGHTSQUARED Followers of this ‘battle’ by LightSquared to use frequencies adjacent to those used by GPS may well be encouraged to read of what may be the death knell for nascent L-band broadband provider LightSquared. Nine US Federal agencies that have analysed the potential interference to GPS receivers agree that the system cannot coexist with GPS operations.* Based on testing and analysis, there appear to be no practical solutions or mitigations that would permit the LightSquared broadband service, as proposed, to operate in the next few months or years without significantly interfering with GPS.


CHIRP NOMINEE The current Gapan Nominee to the Air Transport Board of the Confidential Human Incident Reporting Programme steps down shortly. The Board meets generally at the AAIB (nr Farnborough) or in central London four afternoons a year. Members who wish to be considered should email the office. Brief details re the purpose of CHIRP may be found at http://www.chirp.co.uk/information-about.asp

BEWARE ITALY Anyone planning to take a private aircraft or helicopter should be most careful not to exceed a stay of 48 hours otherwise they become victims of a new luxury tax on GA. http://www.corporatejetinvestor.com/articles/Italy_business-jet-tax-897. AOPA are trying to fight this but in the meantime be careful. The tax rate is on a sliding scale from €1.5 per kg up to 1000kg, rising to 7.55 p/kg over 10,000kg and DOUBLE for helicopters.

IR RULE CHANGES It would appear that the CAA has discretely changed the rules on IR currency which impacts severely on military pilots. Previously military IR renewals counted for the civil equivalent, now that is no longer the case. Additionally the holder of a non UK IR who was able to count an ICAO compliant renewal to maintain a UK IR may no longer do so.

EASA CHANGES TO PILOT LICENSING RULES. The CAA has just published a Quick Guide to the coming changes to pilot licensing rules at http://www.caa.co.uk/docs/620/Revised%20March%202012CA4459 EASA quickguide e mailer.pdf
Management of change in any context is challenging, and there are substantial changes evident either in proposal or already in implementation in the wide remit of the Technical and Air Safety Committee. The Committee believes changes are also necessary in some areas to address safety concerns where discussions are at an early stage. The Guild has the benefit of great expertise among its membership along with an independent position from which to contribute and advise. This has been effectively used in recent months by TASC membership participation in the various discussions, and several conferences, hopefully to ensure that those making change decisions in the industry are presented with the widest and most informed knowledge base.

Captain Norton has drafted and guided a lengthy discussion on UAVs (RPV/RPAS - Remotely Piloted Vehicles or Airborne Systems or Aircraft) to achieve a generally agreed position in the committee. It details a view of the operational risk assessments for the various classes of aircraft (CAT, military & GA) which underscores the paper and conclusions. In essence, these show that the risk of collision may be higher than assumed, particularly in non-segregated airspace. UAVs is a rapidly developing and changing field of operations and the paper addresses some undoubtedly contentious conclusions. There is however no TASC apology offered for provoking such discussions as a secure risk assessment of these operations is essential, given their potential scope over time. The study paper will initially seek the UK CAA response once the Court has agreed the publication process.

More than one visit by the CAA Director Airspace Policy to a TASC meeting has ensured understanding and constructive discussion of the proposed UK Transition Altitude change now in early stages of implementation consultation. This subject has been discussed for many years in technical debate and while a high level TA has always had merits, the implementation process has been the obstacle. Now there is a commitment to proceed, the management of the changes becomes the dominant debate and a very obvious challenge.

Vulnerability of Global Navigation Satellite Systems (GNSS) has focused until recently on satellite signal security but commercial proposals, initially in the USA, to provide a wholesale, nationwide 4G-LTE wireless broadband network integrated with satellite coverage introduced a rapidly expanded potential for interference with the GPS operation signals. Following some extensive research, it has become clear in recent days that the two systems cannot co-exist and a clear intent has been expressed to defend the signal integrity of GPS.

Perhaps our most time consuming work has focused on the Loss of Manual Flying Skills debate and the development of a constructive process by which the Guild can take the debate forward. Initially raised as a priority by UK CAA as one of the seven issues highlighted by the Safety Conference, and further identified by a number of incidents and accidents worldwide, the debate focuses on changes evident in aircraft operating policy, training at all levels of skill and some educational and cultural aspects of the younger pilot community. The Guild has already exchanged working documents with the CAA, aiming to identify and clarify attributable causes before making any attempt to develop solutions. This input has secured acknowledgement that resolution of the issues is urgent and needs a proactive leadership of the discussions.

GUILD OF AIR PILOTS AND AIR NAVIGATORS with THE ROYAL AIR FORCE CENTRAL FLYING SCHOOL

SENIOR FLYING INSTRUCTORS FORUM 2012 RAF Cranwell

On Wednesday 9th May 2012, the Guild’s Education and Training Committee and Instructor Committee will be presenting its Fifth Forum for CFIs and Senior Career Instructors under the auspices of the Central Flying School, by kind permission of the Commandant of the Royal Air Force College, Cranwell

The forums in 2004, 2006, 2008 and 2010 attracted keen interest and were over-subscribed. This will be a superb opportunity to attend an informative and interesting event with your peers and, at the same time, to catch a glimpse inside the oldest flying training organisation in the world.

The speakers at the Forum include well-respected career instructors and examiners who are members of the Guild’s Instructor Committee; in addition we are privileged to have guest speakers from the CAA - FCL and Staff Examiners, NATS, Major FTOs and The Central Flying School. You will have the chance to listen to and question this highly skilled and experienced group on many subjects that are rarely (if ever) covered in instructor courses and seminars.

If you would like to attend the Forum registration details can be obtained from Phil Mathews, email phil@cotswoldaeroclub.com.
The receipt of an invitation from Lieutenant Commander Debdash Bhattacharya, Commanding Officer of HMS Gannet to visit the Search And Rescue Royal Navy helicopter flight based at Prestwick Airport and enjoy a Burns Night Supper, at first glance seemed to be possibly a journey too far, especially as the invitation was received towards the end of the Master’s Tour of the Regions, when the Master and his Lady were in Australia and beginning to feel travel fatigued. When it became clear that the invitation was to include the presentation of a Master Rear-Crew Certificate to a retiring member of the SAR flight, and the Burns Supper was to be a truly Scottish evening, the journey distance became insignificant, and the visit was definitely on.

Flying British Airways London Heathrow from T5 to Glasgow was a pleasure and by mid-afternoon on a grey February Friday, following a short rental car drive, the SAR Flight and a tour of the unit. The Sea King is a big helicopter and the “HU” designation probably ought to be “HT” because it is a “Huge Truck” of an aeroplane and magnificently suited to the rescue role. As they walked around the HU-MK5 on readiness outside the hangar, the Master and his Lady were dwarfed by the 73ft length and the 62ft span rotor towering 16ft above the ground. They were amazed by its vast cabin and, with the 600lb winch, it was obvious why it is still the helicopter of choice for rescuing casualties at sea and in the mountains around Prestwick and further afield. HMS Gannet covers one of the largest areas within the UK stretching from Ben Nevis in the north, to the Isle of Man and the Lake District, east to Edinburgh and the Borders, west to Northern Ireland and even further west for over 200 miles into the Atlantic. HMS Gannet’s patch covers approximately 98,000 square miles of territory wet and dry and it has been the busiest of all UK SAR units for the past decade.

During the visit Lt Cdr Bhattacharya pointed out that already in 2012 they had responded to over 40 emergency call outs and carried out over 30 rescues in hazardous situations. The rescue helicopter is scrambled at least once every day and sometimes twice to respond to emergency services requiring helicopter assistance. Of the 8 military SAR units based around the UK, HMS Gannet flies about 20% of all the rescue missions. HMS Gannet has been consistently one of the top two busiest SAR bases in the UK. The crews can be expected to be called to a variety of tasks at any time day or night, 365 days a year and in all weathers. They cover Air-Sea, and Mountain Rescue as well as Major Accident Response. The rescue helicopter is always on 15 minute alert status by day and 45 minutes readiness by night controlled by the RAF Kinloss Aeronautical Rescue Coordination Centre. Being part of the Royal Navy they are also expected to support their ships and submarines with fleet training at HM Naval Base Faslane.

The unit is housed in spacious accommodation and hangars that are the legacy of a very large USAF base set up in 1953 on the Monkton side of the original airport by the USAF Military Air Transport Service (MATS). The USAF base closed in 1966 but left some excellent facilities in place for the Navy to use. They even left the old MATS VIP passenger terminal that was famously used by Elvis Presley on his way home following his national service in Germany with the US Army. The people of Monkton still talk about this event with probably more excitement than the regular international golf matches which are played at nearby Royal Troon Golf Course.

In the evening the Master and Lady were entertained at the Piersland House Hotel in Troon to a magnificent Burns Supper by the officers and guests of HMS Gannet. The hotel had originally been the private home of the Johnnie Walker whisky family and provided a beautiful period setting for the supper. The swirling kilts, the strains of the bagpipes and the eloquent recitations of Robbie Burn’s poems provided an almost indescribable atmosphere of enchanting quality. The Selkirk Grace, followed by the Address to a Haggis complete with ceremonial sword to slash it open, followed by an account of the Baird to his Immortal Memory and a Toast to the Lassies rounded off with a thrillingly enacted Holy Willie’s Prayer all added to the excitement of the evening. Even the 3 waiters pouring the wine and whisky provided some magnificent operatic renditions that rivalled Domingo, Carreras, and Pavarotti.

The Master spoke on behalf of the guests and was proud to present to retiring Petty Officer Marcus Wigfull a Guild Master Rear-Crew Certificate number 1067.

All Master Certificates whether they be for Pilots, Navigators or Rear-Crew are numbered sequentially. Whilst Petty Officer Wigfull was only the third Rear Crewman to receive this new category of Master Aircrew recognition since its inception, his certificate was numbered accordingly as the one thousand and sixty-seventh, and it was given in recognition of his dedication to the service of others as a search and rescue winch-man, paramedic, diver and mountain rescuer of over 17 years service and 4,000 hours of flying in helicopters. Petty Officer Wigfull had previously received a Queen’s Commendation for Bravery in the Air, and as a master of his craft was moving on into civilian helicopter SAR flying as an instructor and advisor. He was a undoubtably a well deserving recipient of the Master Rear-Crew award.

It was a magnificent and worthwhile visit to a highly skilled and respected helicopter unit of the Royal Navy which made the distance of travelling to Scotland for the Master and his Lady seem insignificant compared with the delight of having enjoyed the splendid hospitality extended to them by the Commanding Officer and his team at HMS Gannet. The singing of Auld Lang Syne at the end of the evening and the end of the visit, seemed very apt indeed and the acquaintances made at HMS Gannet will nair be forgot.
On 13th April 1912, a Royal Warrant was signed by King George V to establish a new branch of the armed forces, the Royal Flying Corps. It marked a turning point in moving British aviation from the pastime of thrill-seeking adventurers, to becoming a legitimate aerial fighting force.

Despite being labeled by General Sir William Nicholson, Chief of the Imperial General Staff, as "a useless and expensive fad advocated by a few individuals whose ideas are unworthy of attention", even before the RFC was born pioneer pilots had already made their mark with military strategists.

Ironically given the events of last year, what really focused the more forward thinking military minds was a campaign in Libya. In August 1911, nine aeroplanes and 11 pilots were mobilised by Italy, the colonial power in the region, to fend off attacks from Turkey.

The aircraft performed tactical reconnaissance, artillery observation and bombing by night and day. The positive results were reported across Europe by war correspondents and a sub-committee of the British Imperial Defence Staff was duly formed to recommend a policy for the future of British military flying.

The first steps saw the School of Ballooning, originally formed in 1888, expanded into the Air Battalion of the Royal Engineers to make use of heavier-than-air craft. The initial establishment was 14 officers and 150 other ranks. Officers could be selected from any branch of the service whereas other ranks were selected from the Sappers.

The battalion, which in 1912 formed the nucleus of the fledgling Royal Flying Corps comprised two companies and a headquarters located at Farnborough. No. 1 Company was equipped with airships, under the command of Captain Edward Maitland. It ultimately became No. 1 Squadron RFC.

No. 2 Company was equipped with aeroplanes, located at Larkhill on the Salisbury Plain, commanded by Captain John Fulton, a mechanical engineer from the Royal Field Artillery. He was an early enthusiast and had attended the world's first air show at Reims in 1909 before earning pilots certificate number 27, on 15 November 1910. The Defence Staff sub-committee recommended that a flying corps be formed and that it consist of a naval wing, a military wing, a central flying school and an aircraft factory, the Royal Aircraft Factory at Farnborough. No 2 Company became No. II (AC) Squadron of the new Corps and thus now approaches its century of continuous history, as the oldest aeroplane squadron in the RAF.

The RFC was placed under the responsibility of Brigadier-General David Henderson, the Director of Military Training, with separate branches for the Army and the Navy. Major Frederick Sykes commanded the Military Wing and Commander C R Samson commanded the Naval Wing.

All three were active pilots, having earned their brevets during 1911, but Henderson's achievement was particularly noteworthy. He learned to fly at the age of 49, making him at the time, probably the oldest qualified pilot in the world.

The Royal Navy however, had different priorities to that of the Army and wished to retain greater control over its aircraft. It formally separated its branch and renamed it the Royal Naval Air Service in 1914, although the combined Central Flying School was retained.

One of the most far-sighted developments was the creation of the Central Flying School, the world’s first flying school dedicated to military flying. Established at Upavon on Salisbury Plain on 12 May 1912, the school did not teach any ab-initio flying skills.

In order to be accepted for flying an officer was expected to gain their pilots certificate at a civilian school at their own expense, normally costing about £75. The role of the Central Flying School was to develop and train the newly qualified aviators in using the aeroplane as a military tool.

The first Commandant of the CFS, Captain Godfrey Paine RN, was posted from the command of the destroyer HMS Actaeon and before taking up his new job, had to first learn to fly on a Shorts biplane at Eastchurch.

Paine graduated from straight-line hops to complete the compulsory Royal Aero Club requirement of two observed solo flights each of three miles, figure-of eight turns above the aerodrome and glide approaches to stop within 50 feet of a chosen spot. He arrived at Upavon to take up his command with a brand-new pilot’s certificate, less than a week old.

Under Paine’s command at CFS, discipline was paramount and the flying regime deliberately unadventurous. One early graduate of the school, Louis Strange, explained that straight flight, stability and not getting lost too often were the prime requirements of a military pilot. “Stunting” was specifically forbidden.

Strange incurred the wrath of Commandant Paine, when the fuel tank of his Bleriot split in flight, spraying him with fuel. Strange shut off the engine and side-slipping to keep the fuel spray away from him, safely arrived back on the aerodrome. However that was just the start of his troubles.

“I naturally did not worry about the fact that I had landed close to the edge of the tarmac, one thing we had been told never to do” wrote Strange. “The other was side-slipping.”

“Capt. Paine, who was on the tarmac, came along to see what was the matter. Instead of receiving a pat on the back for bringing myself and the machine safely down, I had to listen to a wonderful flow of language in which the profanity of land, sea and air was beautifully mingled.
“As the Commandant was a master of his art, I rather enjoyed listening to the rich variety of his lurid vocabulary. At last however, he gave me a chance to offer my explanation and as the state of my clothing, soaked with petrol, substantiated my tale he calmed down and was quite nice to me, which was as it should be.”

Strange and Paine were of course, just two of the personalities who graduated from the pioneer days of the CFS and RFC to make their mark on British aviation history. Perhaps the most notable emanated from a letter from former Grenadier Guards Captain Eustace B Loraine to his former commanding officer in Nigeria, Colonel Hugh Trenchard.

“You’ve no idea what you’re missing ... Come and see men like ants crawling.”

At first sight, Trenchard was not the ideal pilot material. He might more easily have been the model for General Melchett in Rowan Atkinson’s Blackadder Goes Forth. Brusque, old-school and not least 6 foot 3 inches tall, a challenge for the underpowered machines of the era, he was also just a few weeks short of his 40th birthday, the age limit for recruitment to the School.

Typically undaunted Trenchard enrolled at Tommy Sopwith’s flying school at Brooklands and emerged with his pilot’s ticket, gained in 1 hour 4 minutes flying time spread over 13 inclement days.

“He would never have made a good pilot, but he was a model pupil” Sopwith once said. “Out at dawn, helping push the machines out every morning.”

By the time Trenchard had arrived at Upavon however, his inspiration was dead.

Eustace Loraine and his observer, Staff Sergeant R.H.V. Wilson lost their lives in the RFC’s first fatal crash. On 5 July 1912 near Stonehenge, their Nieuport monoplane dived into the ground while, according to contemporary records, “executing a steeply banked turn”. Later in the day an order was issued which stated “Flying will continue this evening as usual”, thus beginning a tradition.

Trenchard went on to become Geoffrey Paine’s second in command at CFS, before commanding the Royal Flying Corps in France during World War I and then serving as the Royal Air Force’s first Chief of the Air Staff. Proof if it were ever needed that the events of a spring 100 years ago made history.
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<td>Sunday 22nd</td>
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<tr>
<th>JULY</th>
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<tbody>
<tr>
<td>Tuesday 3rd</td>
<td>Amsterdam</td>
<td>Guild Visit for Multi Pilot Simulations</td>
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<tr>
<td>Tuesday 10th</td>
<td>Old Warden</td>
<td>Shuttleworth Collection</td>
</tr>
<tr>
<td>Wednesday 18th</td>
<td>Compton Abbas</td>
<td>Lunch</td>
</tr>
<tr>
<td>Friday 27th</td>
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<th>AUGUST</th>
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<tbody>
<tr>
<td>Sunday 12th</td>
<td>WLAC, White Waltham</td>
<td>Summer Lunch</td>
</tr>
<tr>
<td>Wednesday 22nd</td>
<td>Kemble</td>
<td>Lunch</td>
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<tr>
<td>Friday 31st</td>
<td>Le Touquet</td>
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<tr>
<th>SEPTEMBER</th>
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<tbody>
<tr>
<td>Thursday 6th</td>
<td>TBC</td>
<td>“French Leave”</td>
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<tr>
<td>Friday 14th</td>
<td>Duxford</td>
<td>IWM Museum</td>
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<tr>
<td>Saturday 22nd</td>
<td>Old Buckenham</td>
<td>Lunch</td>
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<tr>
<td>Friday 28th</td>
<td>Le Touquet</td>
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<tbody>
<tr>
<td>Thursday 4th</td>
<td>Old Sarum</td>
<td>Lunch</td>
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<tr>
<th>NOVEMBER</th>
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<tbody>
<tr>
<td>Sunday 18th</td>
<td>WLAC, White Waltham</td>
<td>AGM</td>
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<tr>
<td>Sunday 18th</td>
<td>WLAC, White Waltham</td>
<td>“End of the Season” Lunch</td>
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