AIR PILOT
THE HONOURABLE COMPANY OF AIR PILOTS
incorporating
Air Navigators

PATRON:
His Royal Highness
The Prince Philip
Duke of Edinburgh KG KT

GRAND MASTER:
His Royal Highness
The Prince Andrew
Duke of York KG GCVO

MASTER:
Squadron Leader Chris J Ford MBE

CLERK:
Paul J Tacon BA FCIS

Incorporated by Royal Charter.
A Livery Company of the City of London.

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JUNE 2015
17 3rd General Purposes and Finance Committee Meeting Cobham House
24 Election of Sheriffs Guildhall

JULY 2015
5 Garden Party North Moreton
9 Trophies and Awards Committee Meeting Cobham House
15 Benevolent Fund Board of Trustees Cobham House
16 4th General Purposes and Finance Committee Meeting Cobham House
16 2nd Court Meeting Cutlers' Hall
22 Informal Supper Cutlers' Hall

SEPTEMBER 2015
17 5th General Purposes and Finance Committee Meeting Cobham House
17 3rd Court Meeting Cobham House
22 Luncheon Club RAF Club
22 Sir Frederick Tymms Lecture Royal Aeronautical Society
24 New Members Briefing Cobham House
29 Election of Lord Mayor Guildhall

OCTOBER 2015
15 6th General Purposes and Finance Committee Meeting Cobham House
22 Benevolent Fund Board of Trustees Meeting Cobham House
29 Trophies and Awards Banquet Guildhall

VISITS PROGRAMME
Please see the Flyers accompanying this issue of Air Pilot or contact Liveryman David
Curgeven at visits@airpilots.org.
These flyers can also be downloaded from the Company's website.
June 26th Biggin Hill
June tbc Piaggio
July 1st RAF Northolt
July 5th Garden Party, Mellluish Farm, North Moreton Airstrip
July 10th Flying Legends Practice Day, Duxford
July 14th Ladies Visit, London Air Ambulance
July 22nd Summer Supper, Cutlers' Hall
Please check on Company website for visits that are to be confirmed.

FLYING CLUB EVENTS
The Company Flying Club has an extensive series of events, including visits, lunches,
picnics, BBQs and social gatherings throughout June, July and August. Please check on
Company website diary for details, which are too numerous to list here.

GOLF CLUB EVENTS
June 18th Captain's Day (Open Event) Hartley Wintney GC
July 3rd Newson Smith Cup (Team Event) East Berks GC
July 23rd Ray Jeff's Cup (Team Event) Hartley Wintney GC

Cover photo: An idyllic view of sunset at the water section of Male Airport in the
Maldive Islands. See page 14 of this issue for a fascinating description of commercial
floatplane operations in this tropical paradise
A message from your Editor...

Have you ever had your email hacked? The editorial email, teeleseeditor@hotmail.com was hacked recently and it proved impossible to recover it. Therefore I have set up a new email address of teeleseeditor@yahoo.com, hopefully protected by a more complex password that even I cannot remember. However, my preferred channel of communication for items to be used in Air Pilot is editor@airpilots.org. Please use this as the primary way of contacting me.

I write this editorial just a few days before the General Election. Turbulence, something we experience on a regular basis in the air, is about to affect most of the population of this country including both civil, military and general aviation pilots and navigators. In this issue turbulent times in a different era of aviation are well described in two articles about flying in the first World War, written by Past Master Arthur Thorning and Liveryman Stephen Slater. They describe the exploits of two aviators, one from the RNAS, the other from the RFC, who won VCs in the early days of that war when military aviation was in its infancy and civil aviation had not yet begun. Risk assessment had also never been thought of! Liveryman Air Marshal Phil Sturley provides something of a gentler nature with his description of gliding in Chile, Chris Chown makes us envious with his experience as a commercial float-plane pilot in the Maldives Islands and the last flights of the RAF’s Dominies, once used as navigator and rear crew trainers, is reproduced courtesy of Peter March. From the Australian Region we have a wonderful tribute to the life in military and civil aviation of Liveryman Captain Graham James Rice who has been a member of the Company for over sixty years; can anyone out there beat that? Additionally there are reports on visits to the Heathrow Tower and Flight Safety International at Farnborough. My grateful thanks go to all contributors without whose labours this would be a very thin publication.

As the summer attracts us all away from our desks and into the air, may I make a plea for more inputs? I will be working on the August issue as you read this - and the inbox is almost empty!

Liveryman Tom Eeles
Honorary Editor
LUNCHEON CLUB

The Luncheon Club met on 30th April in the RAF Club. One hundred and twenty five members and their guests, an all-time record, sat down to an excellent meal and were entertained afterwards by Air Commodore Norman Bonner who talked about his experiences as a navigator flying in Handley Page Victor in the V Bomber Force in the 1960s. In particular, his stories of the Blue Steel supersonic rocket-propelled stand-off weapon were quite fascinating, the weapon potentially posing more of a threat to its operators than its potential targets.

Today, with the only nuclear weapons in the British armoury being Trident missiles fielded by the Royal Navy, it is hard to imagine the RAF’s large strategic and tactical nuclear capability that was available in the 1960s. The Master gave a vote of thanks for this fascinating story.

COBHAM LECTURE.

Later the same day the 2015 Cobham Lecture took place in the Headquarters of the Royal Aeronautical Society, 4 Hamilton Place. The subject was ‘The Life of Alex Henshaw’ and the speaker was Liveryman Tony Edwards, who was introduced to the audience by the Master, who also explained the involvement of Sir Michael Cobham and the Cobham family with the Honourable Company. He also gave a warm welcome to Lady Cobham who was in the audience. In addition to the Company members Masters and Clerks from 33 other City Livery Companies were also present. Tony Edwards delivered a fascinating story of a very impressive individual, using live footage filmed with Alex Henshaw before he died in 2007 as well as contemporary newsreel film and photographs. Alex Henshaw came from a privileged background and became an expert air racing pilot in the 1930s. His record flight from London to Cape Town and back in his Mew Gull in 1939 was only recently broken. Turned away by the RAF on the outbreak of WWII he joined Vickers Supermarine as a production test pilot, based for most of the war years at the Castle Bromwich factory near Birmingham, where he tested virtually every Spitfire produced by this vast factory, achieving a huge number of flying hours in Spitfires. He also tested Lancasters and apparently succeeded in performing barrel rolls in them.

Inevitably accidents occurred and despite a very hairy bale out and some forced landings he survived the war unscathed. After the war he never flew a Spitfire again, and after working in South Africa ultimately retired back to England. His service in the war was only recognised by the award of an MBE, which the speaker considered an entirely inadequate recognition for his contribution to the war effort; attempts to gain him a knighthood in the latter years of his life were sadly unsuccessful. His great strength of character was very evident in the video footage taken by the speaker of Alex Henshaw in his home describing his experiences. The audience greeted this intriguing description of aviation in an era now almost forgotten with acclaim and the Immediate Past Master, Dorothy Saul-Pooley, gave a heartfelt vote of thanks. A reception was held afterwards on the terrace of 4 Hamilton Place.

MASTERS’ LADIES LUNCHEON ON BOARD HQS WELLINGTON

Sue Jones writes that some of you may recall that I wrote an article last year on my visit to HQS Wellington, the Headquarters of the Master Mariners. This fascinating ship is situated at Temple Stairs, by Waterloo Bridge, and was originally a patrol ship based in New Zealand. During WWII she became an escort ship and was involved in several rescue missions of survivors from sunken vessels. When the war ended she was transferred to the Reserve Fleet and was laid up at Milford Haven for disposal but, fortunately, in 1947, she was bought by the Master Mariners and converted into their Livery Hall. She has been berthed at Temple Stairs since 1948.

I returned on 8 April for the Masters' Ladies Lunch and tour which was hosted by Mrs Maureen Judah, the Master Mariner’s Lady. As last year it proved to be a fascinating visit with a tour of the ship. Our guide was Captain Robin Batt who was the font of all knowledge about the ship and its history. One of the key things that I had perhaps not quite appreciated last year was the incredible amount of work that the Master Mariners do to educate the younger generation about our navies, both merchant and military, as well as maritime business and history. The enthusiasm with which members of the Company spoke about providing this
invaluable education and training to school children was evident throughout our visit.

The Company is very lucky to have Wellington as their Livery Hall and it is a unique venue. The Master Mariner and his Consort have the use of a cabin on board which must make life so much easier when attending functions in London. No late train journeys home or costly hotel bills! There is always a member of the Company on board - which is just as well from a security perspective given the number of beautiful items on display - models of sailing and cargo ships as well as furniture and paintings of members of the Royal Family. Indeed a Buckingham Palace official visits once a year to ensure that one painting, which is owned by HQS Wellington, is still there! The subject of the painting is of a young Edward, Prince of Wales who later became Duke of Windsor.

After a welcome cup of coffee and the tour we were invited on deck for a champagne reception, followed by a delicious lunch of roasted Mediterranean vegetables, Halibut and lemon tartlet in the dining room, which also doubles up as the Company's Court Room. Some of us remarked that the Wellington reminded us of Dr Who's Tardis. It looks so much narrower from the outside, yet inside it seems vast!

I have had 2 very memorable visits to Wellington and have thoroughly enjoyed my few hours exploring the ship and sampling the excellent cuisine. If you wish to view the ship online, Google 'HQS Wellington - Square Meal' and it will take you on a virtual tour. However if you ever get the chance to visit it, I would thoroughly recommend it.

LIVERY DINNER

The Company's 2015 livery Dinner was held at the Drapers' Hall on 28th May. At a Court Meeting before the event 4 new Liverymen were clothed and 4 Master Air Pilot certificates were presented. The Guest of Honour was Chief of Air Staff, Air Chief Marshal Sir Andrew Pulford KCB CBE ADC RAF and the newly elected Warden Malcolm White welcomed the guests. The Master and the Guest of Honour also spoke. The event took place too close to the publication date of this issue for a full report to be included; there will be one in the August issue.

80TH BIRTHDAY PARTY, PAST MASTER CLIVE ELTON

Congratulations to Past Master Clive Elton who recently celebrated his 80th birthday. A lunch was held at the RAF Club to celebrate this event. Past Master Elton was joined by fifteen colleagues from the Company when proceedings were commenced by drinking his health with the Company's label champagne. Clive has been a member of the Company for almost 50 years and was Master in the period 1993 to 1994. He has given a considerable amount of his time to the Education and Training Committee, including being Chairman, and in particular was the founder of the very successful pilot aptitude test programme that is operated using the facilities at the RAF Officer and Aircrew Selection Centre at the RAF College Cranwell. Clive is a well-respected member of the Company and a great supporter of all its activities.

Liveryman Phil Sturley soaring over the Andes in Chile. He describes this experience on page 16
The Master’s Message

SQUADRON LEADER CHRISTOPHER FORD

Dare we say “the summer is here”? For the past few months the weather has been set fair for aviation; the grass strips are dry and the skies an inviting blue! I would like to think that those of you who can have taken full advantage of this spell of fine weather to dust off the cobwebs, revalidate licences and hone your flying skills. Over the winter months we should have ensured the old maps were replaced with the new versions, updated the GPS downloads and amended the Pooley’s Guide! From the ground upward good weather always attracts flyers; the balloonists will rise early and launch before the thermals start building, when the gliders start to get airborne in the search of good lift. The para/hang gliders will search for the ridges with updraughts. All these aviators have just as much right to the airspace as those with powered flight and they deserve respect. I am aware of a few recent incidents of both light aircraft and helicopters transiting through winch-launched glider sites and along ridges annotated as active for para/hang gliders.

All too often the UKAB reviews incidents of light aircraft joining the circuit at various airfields with little regard for the rules of the air. I would like to think that we could all play a part in making flight safer by ensuring we impart our knowledge and skills to other club pilots who, for whatever reason, may not be as experienced as we are. Do you share your planning techniques, your top tips for navigation and your knowledge of meteorology with younger and less experienced pilots who may not have had the advantage of receiving the solid grounding that many of us have received?

Talking of sharing experiences… it is amazing what can be achieved with a little help! Our small band of volunteers adds airmanship insights from their experience that improves the value of SKYbrary articles and makes them much more pilot-friendly. Much of the motivation for this is in ‘giving something back’ - to educate our successors to better understand and share the benefits of our experience. Sometimes we are asked to review an article which needs a particular specialist knowledge and when that happens the DAA takes even more care than usual to assign the articles appropriately. However, that does not mean you need to be an aerodynamics expert or trained test pilot to contribute to our SKYbrary review process. It is simply your knowledge of flying and your experiences, which could make all the difference. So please don’t be shy in coming forward to share your knowledge and views. If you have a little time spare, whether sitting at home or by the pool whilst down route, please consider adding your name to the SKYbrary reviewer list; ‘Your DAA needs YOU!’ and he can be contacted at daa@airpilots.org.

More importantly; I urge you to read the enclosed letter I have written to all Company Members regarding the new structure of the Professional Committees that will be implemented on the 1st July 2015. The letter has also been distributed by e-mail to all. I trust that there will be a good response and we will be able to improve our status in the Industry as a result of the new initiative.

I am delighted to report that our first two Higher Apprentices, who were awarded apprenticeships to train as Flight Instructors under the City Livery Apprenticeship Scheme, have now completed the Flight Instructor course at Shoreham Airport. Andy Burnham and Steve Pearson had been employed for six months on the Ops Desk at Flying Time Aviation, an integrated ATP L school, before undertaking the FI course part-time at Pooleys Flying Instructor School. Andy passed his final Assessment of Competence in March and Steve passed his in April. Both students had to complete the gruelling assessment with the Immediate Past Master who is a Flight Instructor Examiner based at Shoreham for over 15 years. They have both now commenced part-time flight instruction and they hope that this will develop to full-time flying very quickly. We are very proud to see the apprenticeship scheme operating so effectively within our profession and look forward to further candidates undertaking similar work-place training.

In my last message I referred to a long flight I took part in over the Dhofar region of Oman. On returning to the UK from the Oman in 1976 I was posted to the Hercules base at RAF Lyneham. After my co-pilot’s tour on 30 Sqn and the Special Forces (SF) Flight of 47 Sqn I gained my Captiancy on LXX Sqn. During 1982 I achieved many hours flying south of Ascension Island. Initially I had been involved in short-range (1000 miles from the Island) resupply drops to the Fleet as it sailed south. I also assisted with SF ops as an augmentee pilot on flights into the exclusion zone before returning to the UK to be trained in Air to Air refueling.

My first sortie in command from Ascension to Port Stanley was a major responsibility. I was tasked with an operational refuel for the first time. The aircraft was loaded to its maximum ‘war time’ weight with freight and maximum fuel (the aircraft had been modified to carry 2 internal long range fuel tanks). The take-off and climb to cruising altitude of 16,000ft took 30 minutes. Four hours later, having eventually cruise-climbed to 18-19,000ft we were overtaken by a Victor Tanker descending and maintaining 230kts. Our aircraft could not, at heavy weights, maintain level flight during the refueling procedure so this ‘toboggan’ enabled us to accelerate, catch the tanker, formate on it to get our bearings and then move into position astern. Contact was achieved and fuel started flowing at between 16-18,000ft and the descent continued whilst taking on fuel. The whole procedure took about 20 minutes until the tanks were full and we had reached the end of the refueling bracket. We were now down at 2-4,000 ft above the sea and the whole climb process started again. At 9 hours airborne a second Victor appeared and the procedure repeated. We were then alone and heading southbound to Port Stanley with an ETA of another 4 hours. The weather was regularly broadcast on HF and we heard the situation deteriorate to a low cloud base and strong northerly winds. During the first few months of our operations in the South Atlantic the only diversion for Port Stanley was Ascension Island! The RAF had installed a a Precision Approach Radar (PAR) to the westerly runway at Port Stanley so all
would be fine. I had not seen the short, AM2 matting covered, runway before and had little idea of what to expect. We did though have a detailed map of the eastern edge of the Falkland Islands, which indicated no high ground close to the airfield. By the time we arrived, the weather was well below limits but having just flown for 3800 miles and 13 hours we were not prepared to turn round and divert back to Ascension Island without at least a go! Progressively reducing the height bug on the Radar Altimeter for each approach we eventually, after the 4th attempt, allowed discretion to get the better of our valour and overshot for the final time still never having seen the runway. It was with heavy hearts we cruise-climbed back up to 18,000 ft. for the 11 hour transit back to Ascension. Those waiting for the mail to arrive and those looking forward to a return to the UK were fed up, but later thanked us for trying and reported that on the 4th attempt they had seen the undercarriage popping out from the cloud as we overshoot! This was not to be the last long-range sortie or approach in poor weather in which I was involved. However it did school me in the disciplines of very careful fuel planning, a need to ensure the terrain was safe, the nav equipment fully operational and the crew up to the task and able to achieve the objective. Above all it taught me to respect the Safety Altitude. Perhaps we were using CRM before it became the norm!

The first few months of my tenure as Master certainly seem to have 'flown by' at a hectic pace. My desire to keep a balance between our professional and social activities is often hard to achieve for the social events far exceed the meetings, committees or visits to Industry. Whilst it was a disappointment to me that we were unable to get a group together to visit BAE Systems at Warton I fully understand that trips to the north are far harder to co-ordinate and take up more of members’ time. Sue and I have had the pleasure of seeing many of you over the past 3 months and we both look forward to meeting more of as the summer unfolds.

GAZETTE
APPROVED BY THE COURT 14 MAY 2015

ACKNOWLEDGED BY THE COURT
14 MAY 2015

REGRADE
To Livery
David Ian FIDLER (OS)
Peter Anthony HOLSTEIN (AUS)
Ray Linley MIDDLETON (HK)

REINSTATEMENT
To Upper Freeman
Squadron Leader (ret'd) Jeffrey Philip TRAPPETT (AUS)

DECEASED
Sir Maurice FLANAGAN
Neville GRADY (AUS)
George GRAY
Patrick MASTERS
Richard MUMMERY
Dan THOMAS

RESIGNATIONS
Peter ACKERLEY
Nigel BEST (HK)
Rodney BRACEFIELD (NZ)
Robin COX
Shaun DAVIS (HK)
Ruth DOWNEY
Sidney EDWARDS
Edward HUNKIN (NZ)
Andrew McWILLIAM (NZ)
Patrick ROOFE
Karl SMYE
Timothy STEELE (NZ)
Emma SINOOTT (NZ)

FORFEIT ALL BENEFITS
Thomas BALDOCK
Simon BARA
Dean FOULDS
Sarah GANGOLI
James HAMMETT
Rhydian HARRIS
Barnaby KERR
Iain LAWRENCE
Andrew MILLER
Mark MURPHY
Mark NELSON

REMEMBERED
Matthew PLUMRIDGE
Christopher RADFORD
Roger SAWYER
Gabriella SOMERVILLE
Christopher STATHAM
Eric SWAFFER
Visit to Flight Safety International at Farnborough

ASSISTANT RICHIE PIPER

Flight Safety International are celebrating their 10th anniversary at Farnborough and kindly welcomed the Air Pilots as the first visitors as part of these celebrations. Freeman Graham Powell had organised a strong team which was led by the Master, who was on his 14th official visit of the week. The visit was further enhanced by the good offices of Past Master Wally Epton who had arranged with TAG Aviation to look after those members who wished to fly in for the visit, including courtesy transport from the East Apron.

Flight Safety’s purpose built facility follows their well proven design and is arranged to provide a very comfortable and well equipped learning environment, which continues to be updated with the latest technology. Even the drinks machines show a video of the construction of a simulator cab as your coffee is prepared!

Paul Hewitt, Flight Safety London-Farnborough Centre Manager, who is also a Liveryman of the Company, provided a warm welcome and briefing for the visit. This included an explanation of the long connection with the Company, including the first visit to the site 10 years ago. One visitor even thought he was wearing the same trousers when the visit photo was inspected later! One thing that was immediately clear was that a lot of people had made themselves available to conduct multiple tours in a number of small groups. This would include the classrooms, Graphical Flight Simulators (GFS) and technical support areas as well as a number of Full Motion Simulators (FMS).

Flight Safety’s prime purpose is flight training rather than simulator provision. The simulator is perhaps the ultimate training tool and close relationships with the aircraft manufacturers mean that actual cockpit equipment is used in building the simulator. This, together with full certification by CAA, EASA and FAA, mean “zero flight time” ratings can achieved. It is interesting to note some components receive much greater wear due the higher number of cycles performed in the training rather than live flying environment, a key example being the gear retraction lever.

The training programmes use interactive classrooms for initial system and procedure training, with computer screens providing flat cockpit representations for both students and tutors. Once the basics have been mastered, the next stage is the GFS which provides the next level of realism by the use of a much larger number of computer screens mounted on a frame to represent the physical layout of the
Students can further develop normal and emergency procedures with a greater element of “muscle memory” being developed.

In today’s highly sophisticated and automated flying environment, it was sobering to hear that in the helicopter GFS, if all systems fail including the backups and crew have to resort to the standby instruments, it is typically 20 seconds before the aircraft is lost. A sobering thought before moving onto the FMS.

There are three large halls containing the simulators, many with 36 inch motion and some with 60 inch motion. Changes in technology have led to a move to electrical movement rather than the traditional hydraulics, resulting in only 10% of the power being required to run the machines. This was perhaps the part that most people looked forward to and our hosts provided a generous amount of time and number of simulators including the Sikorsky 92, Cessna Bravo and Hawker 750. With a group on board it was not safe to have the full motion running as not everyone could be strapped in. However the quality of graphics together with sound was pretty convincing although fortunately the crashes were not! Where the group was small enough, the full motion could be enabled. Naturally those in the monitoring positions were shown how to lower the cloudbase for those flying the approaches!

The objective is to have the simulators operating as much as possible and target is from 04:00 to 24:00 each day, leaving only 4 hours for the engineering team to carry out maintenance and repairs, and even this window can be eaten into with 01:00 finishes. The technicians have their maintenance office and workshop next door to the massive server room. Here simulator schedules, planned maintenance and fault trends can be analysed to ensure maximum availability. An interesting human factors point arose where the status and work whiteboard had lights above the column for each simulator to show it was running. In the pilot world we are conditioned to see red as bad; as the running light was red perhaps technicians see that as bad as they can’t work on it!

Our host kindly provided an extensive buffet lunch which was greatly appreciated by all. This was followed by the Master, Chris Ford, expressing our thanks for such an enlightening visit with a such generous of amount simulator time. The Master presented a new Company shield as update to that which had been presented on a previous visit to reflect the Company’s change in status as well as title. Our thanks go to all at Flight Safety, especially Gillian Carmichael who worked together with Graham Powell and Wally Epton organising the visit.

TAG Aviation also took time to assure the flying community that whatever the outcome of the controlled airspace consultation for Farnborough, there would be no reduction of the Low Altitude Radar Service (LARS) they provide.
Company visit to Heathrow Control Tower

LIVERYMAN ALAN JACKSON

On 17 March, again thanks to David Curgenven, a group of twelve Air Pilots, led by our newly installed Master, met at Heathrow Terminal 3 for a visit to Heathrow’s control tower. Our NATS host for the day, Nadine D’Austin, shepherded us through security, and up to our briefing by Ady Dolan. Ady has been a controller at Heathrow for fifteen years, and took us through the salient statistics for the airport. Richard Piper detailed many of these in his article on the Guild visit in the June 2013 issue of Guild News, so they are not repeated here. Heathrow was pretty much full then, and remains so today; and the stats and procedures remain much the same.

One interesting change will be the impending switch to time-based separation of approaching aircraft; this will result in shorter distances between aircraft where there is a strong headwind, and longer distances where occasionally there is a tailwind.

In addition to taking us through the ATC facts, Ady gave us an excellent feeling for what the switch from old tower to new in April 2007 had been like. The decision was made to switch over a single night. This sounded like the sort of challenge which might easily have gone horribly wrong! In fact an immense training programme made sure that it did not. A purpose-built 360° simulator was set up at a cost of two million pounds, exactly replicating the new tower's layout. In this each controller trained for a minimum of fifty hours. In the event the transition was smooth, with the only concession to the change being some flow control for a day or two afterwards. So smooth was the transition that a number of airlines enquired after the event when the change was to take place.

We were given an interesting insight into some of the difficulties faced by Heathrow controllers. The 1992 Treaty on Open Skies, which came into force in 2002, gives treaty signatories the right to conduct unarmed aerial surveillance flights on seventy-two hours' notice over the territory of other state parties. From time to time other treaty states have found it necessary to conduct these flights within the London TMA, with predictable consequences for Heathrow traffic! In terms of air traffic movements, we noted from one of Ady's slides that in 2010 Heathrow with its two runways had handled more flights than Schiphol with its six runways or Dallas (Fort Worth) with seven. Ady also commented on the increasing number of Airbus A380 movements, now thirty-six daily. Whilst from a controller’s perspective their airborne performance is good, their ground manoeuvring is slow; each A380 movement is seen by NATS as consuming capacity equivalent to two runway slots.

Heathrow tower’s considerable height is still insufficient to provide a direct view of all manoeuvring areas, even the tails of smaller types being invisible to the east of Terminal 1. That said, on occasions it is too high; a cloud-base below the 'Cab' (the operating level of the tower, at 275 feet) leaves controllers with no visibility,
but may exceed the decision height for arriving aircraft. In these circumstances separation of arrivals is increased. The tower was built by bringing the Cab onto the site, and then jacking it up to insert the next pre-fabricated sections of the tower in succession until the full height was achieved.

We were interested to hear that evacuation of the tower is rehearsed regularly - unsurprisingly, at night. Aircraft in the approach would be advised by broadcast to land visually if possible, but otherwise to climb straight ahead and revert to their previous frequency. Meanwhile control would pass as speedily as possible to a virtual control facility located at an undisclosed location a few miles from Heathrow. Short of the need for evacuation, a technical failure seems unlikely to interrupt operations. The tower has the IT backup and stand-by power facilities that you would expect; so far reliability has been high, and automatic fail-over to back-up systems has not as yet been triggered.

After this very interesting presentation we were joined by Steve Lambert, described by Ady as ‘perhaps the most experienced air traffic controller on the planet!’ We then visited the gallery, which is close to the top of the tower, in two groups. For operational reasons it was not possible on this occasion to visit the working levels, which are immediately above the gallery. We were however able to see screens showing the same information as those in use above; and of course to enjoy the superlative view.

Our thanks again to David, to NATS, and to our hosts on the day; Nadine D’Austin (ably assisted by a colleague acting as ‘whipper-in’), together with controllers Ady Dolan and Steve Lambert, for a very absorbing visit.
LIVERYMAN JOHN HOWIE

Liveryman Captain Graham James Rice DFC MAP, was born at Woburn Sands in the UK, on 8 August 1922.

In his mid teens, he injured his leg and was attended by the Duchess of Bedford, Mary Russell. She became interested in flying at the age of 63 and had her own aeroplane, a DH 60 Moth. She asked Graham what he wanted to do after finishing school and he replied that he wanted to fly. With that, she bundled him into her Rolls Royce and took him to the airfield to show him her aeroplane. Graham said he really enjoyed it but was frustrated that he couldn’t get into the cockpit due to his leg being bandaged up. Three weeks later, she was flying her Moth Major and never returned. The aircraft crashed into the North Sea and her body was never recovered.

When war broke out, Graham immediately enlisted into the RAFVR at the age of seventeen. Initially he was rejected on medical ground as he had lost a number of teeth during a rather rough rugby game, and at that time, RAF pilot applicants were not permitted to wear dentures. However, four days later, this restriction was lifted and Graham joined the RAFVR, training as a pilot.

After graduation, Graham was posted to a Spitfire OTU, but was then diverted to fly the Blenheim, which was used as a night fighter. Graham was posted to the first Night Fighter unit near Yorkshire. He remembers one evening during his training when he was flying night circuits and he was advised that there was a German raid approaching and for all the aircraft to disperse. He headed off over the North Sea when suddenly a line of tracer narrowly missed his aircraft, then all went quiet. He wasn’t sure if this was his first taste of action, as he couldn’t verify if the attacker was German or British!! He returned to base a little shaken but unscathed.

He was then posted to Middle Wallop to fly the first of the Beaufighters, again as a night fighter. When asked about the Beaufighter OTU, he laughed and said in those early days, someone gave you the take-off, cruise and landing speeds and that was it. The same happened when Graham had to ferry some Boston bombers to an airfield used by French squadrons. He said that was interesting because it was the first aircraft he had flown with a nose gear. He said the weather was atrocious for the ferry, the runway was slippery and he managed to stop the aeroplane just as it ran into a hedge at the end of the runway, but fortunately no damage. However, his Commanding Officer damaged the undercarriage of his aeroplane when he skidded off the runway!

He was then attached to a unit experimenting with the Havoc (converted Boston Bombers), which had a 2.7 million-candela searchlight in the nose. It also had an early airborne radar fitted. The Havoc would take off with a Hurricane on each wing (the wing had formation lights fitted) be guided by ground radar to the general area, then the airborne radar would be used to close in on the enemy and when within range, the searchlight was illuminated and the Hurricanes would then attack. On one of his early flights, he flew up through thick cloud and when he broke out of the cloud at 14,000ft, there was no sign of the Hurricanes! He said the theory sounded good, but the experiment was not very successful. Interestingly Winston Churchill thought it was a great idea.

In 1942 he was “rested” from operations and was posted to 54 OTU at Charter Hall in Scotland as a flying instructor. There were a lot of Beaufighter training accidents at the OTU due to the massive swing on take-off caused by the powerful engines. The base Group Captain managed to get six Beaufort bombers modified with dual controls. Initial training would be carried out on the Beaufort, which dramatically reduced the accident rate before converting onto the
Beaufighter and Mosquito.

He was then posted to 151 Squadron at Middle Wallop, tasked with defending London and the South Coast.

Graham also spent some time with 10 Group working with Coastal Command protecting aircraft flying in to the Bay of Biscay on anti shipping and submarine operations. He was based at Predannack.

One night he was scrambled to intercept some German intruders, and on return, the airfield was closed due to fog. Graham was aware of how the fog moved up the coast so at 0200 and low on fuel, he flew directly to Exeter where the conditions were marginal but he managed to land. The following morning he was invited to join a group photograph with some of the officers (from the three Polish Spitfire Squadron based there) with the Duke of Kent who was visiting the base. Sadly, three months later the Duke was killed in an accident in Scotland.

In November 1943 Graham volunteered for 141 Squadron, which was a part of 100 Group. This Group was tasked to give direct support to night bombing by attacking enemy night-fighter aircraft in the air or on the ground and to employ airborne and radio counter-measures equipment to deceive or jam enemy radio navigational aids, radar systems and certain wireless signals.

Generally, the night fighters would depart about an hour after the main bomber stream, catch up with them and then fly on their flanks and above them – Graham said there is no way he would want to be down amongst the bomber stream - aeroplanes everywhere! He said that he visited Hamburg and Berlin a few times.

The following April, Graham was promoted to the rank of Squadron Leader and was appointed the A Flight Commander.

He also did a few flights up to the Baltic Sea to intercept German mine laying aircraft.

In 1945 he was seconded to Transport Command in Cairo and was involved with pilot training.

During his service career he shot down six aircraft and damaged several more. He was awarded the Distinguished Flying Cross for his exploits.

In 1946 Graham joined British European Airways, who at that stage had 310 pilots.

His first aircraft was the DC3 and approximately eighteen months later he was promoted to Captain on the Rapide. He later flew the Viscount, BAC 111 and the Trident. He remained with BEA, which became British Airways until he had to retire at age 55 in 1977. During this time he was a Base Training Captain on the BAC 111 and also a Flight Manager Operations. Apart from London, he spent quite considerable time at Jersey and Manchester.

In 1979 he moved to Victoria Point in Queensland, Australia where he still lives. Despite being 92, Graham and Diana enjoy a very busy and active life.

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The Maldives is a north-south orientated island nation situated in the Indian Ocean, with the 2.2 square mile capital, Male', located about 4° or circa 240 miles north of the equator. The approximately 1,200 islands of the Maldives make up only 1% of the country by area; water forms an incredible 99%. The average elevation of 1.5 metres makes the Maldives the lowest country in the world.

This somewhat unique combination of topographical make-up and its popularity as an unspoilt, inimitable holiday destination has meant that a seaplane operation is an essential service in the Maldives.

Trans Maldivian Airways (TMA) provides this service using the very popular twin-engine Pratt & Whitney Canada PT6A-powered 15-seat De Havilland DHC-6 Twin Otter, of which there are 45 all fitted with Wipline 13000 floats, to carry the almost 1 million passengers per year; TMA is both the world's largest seaplane operator and largest Twin Otter operator. The majority of the 120,000 flights a year (or nearly 300 flights per day) transport guests and resort staff to and from Ibrahim Nasir International Airport, adjacent to the capital Male', to the approximately 60 resorts served by the airline; additional services are offered in the form of photo flights, charters, and Medevac flights.

The daily operation is run from the TMA seaplane base next to the international airport, which is a short bus ride from the main airport terminal. The seaplane operation is a Day-VFR multi-crew (two flight-deck crew, and one cabin crew) operation which runs throughout the year; the first flights of the day usually depart around 6.00 am, and aircraft have to be back on the water at the very latest by a “grounding” time, which is typically between 6 and 6.30 pm. This operational arrangement means that flight crews can undertake a duty time that covers the complete daily flying programme, and can typically operate around 14 sectors a day, with a regulatory maximum of eight hours flying in one day. Flight crew are usually notified of their report time and schedule the evening before the next day's operation; however due to weather, passenger changes, new charter requests, late international flights, and a plethora of other factors, this schedule is liable to change - several times! The sector lengths vary from as short as three minutes to as long as over one hour, and each round trip that departs Male' can range from a “there-and-back”, to a trip consisting of a number stops for guest drop-offs and pick-ups around the islands. The number of sectors flown in a day combined with the short sector lengths can make for very busy days flying up and down the atolls of the Maldives!

Once check-in for a particular flight is closed, the trip is “released” for departure from Male', notification of which is received by the crew via a text message sent by the dispatch team, that includes the basic flight details; a paper Day-VFR operational flight plan is then collected from Dispatch. This release then enables a fuel figure to be passed to the fuellers, and loading of baggage to be completed. Once fuelled, and with bags onboard and crew present at the aircraft, the passengers are escorted to the aircraft for boarding. With doors closed (or almost closed, as the cabin crew has to “jump” back onto the float and into the aircraft once undocked!), the cabin crew member and captain coordinate the unfastening of the ropes during the engine start and undocking procedure. A VFR departure clearance is obtained, and off we go!

The airport at Male’, which is radar controlled using a combination of approach and tower facilities, has specific demarcated water runways in the lagoon located to the east of the main 18/36 orientated paved runway; the islands however do not, and it is up to the flight crew to determine the most appropriate
area and direction in which to land based on the wind, water conditions, tide, sun, and other considerations. Most resort islands have either a fixed jetty platform at the island, or a floating platform located close to the island for docking the seaplane, from which passengers disembark onto a speedboat or local “dhoni” boat to reach the island. When disembarking and collecting passengers at outstations, (very!) short turnaround times, in the region of ten minutes, are normal - times that low-cost carriers would be proud of!

Some charter flights and Medevac flights are often flown to islands which do not typically have a seaplane service, and so an absence of a docking platform necessitates a “beaching”, which involves reversing the seaplane onto the beach and using ropes to secure the floats either to stakes bought for the purpose of beaching, or to any suitable pole or tree available on the beach - sometimes improvisation is required in seaplane flying!

The length and number of sectors flown each day, the variation in scenarios met with different places flown to, and the operation of the seaplane, are amongst the aspects of the operation that makes for a uniquely interesting flying experience!

More information can be found by searching “Maldives Water Aerodrome Documentary” on YouTube.
Phil Sturley is a former fast jet pilot in the RAF, who now owns his own high performance glider, and is an instructor with over 2500 hours gliding and all 3 Diamonds in the sport.

I first became hooked on gliding in the Andes when I had the privilege to take part in the gliding exchange between RAF glider pilots and Chilean Air Force pilots which has been going on for 20 years, and I have revisited this gliding paradise many times since.

Modern gliders are very sophisticated machines. A typical 18 meter span glider such as my ASH26E has a glide angle of over 50 to 1, circles in thermals at about 100kph and can run the ridges at well over 200kph. It is very comfortable, and equipped with GPS flight computer, moving map, FLARM collision avoidance, and precise variometers to detect and exploit the best lift. In the mountains, all the main forms of lift are available to gliders: ridge lift due to wind and rising air against the rock face, thermal lift where large bubbles of air rise from the ground, and mountain wave formed at altitude downwind of large ridges. In the Andes, all these types of lift are available in abundance, and used in combination enable daily flights of over 5 hours, and distances of over 500km. This year a flight of over 1100 km was achieved in under 10 hours, but this is exceptional. Also, it is possible to explore areas inaccessible to SEP type aircraft due to the lack of landable terrain, while a glider can simply follow the valleys down to lower ground.

Chile really is an amazing country - a long strip of land some 4300km long, averaging just 175km wide, with the Andes mountain range on the east and the Pacific Ocean to the west - boasting the driest place on Earth in the north and...
the wettest place in the south. The population is approx 18 million, a third of whom live in the capital, Santiago in the Central Valley. There are very few gliding clubs in Chile, but the largest is the one I visit at Vitacura airfield on the north side of Santiago. This is the most unusual site I have operated from, with a river and motorway on one edge and surrounded by the suburban sprawl of the big city.

The Andes form a formidable mountain range, running the length of the country, and including large numbers of volcanoes, glaciers and high mountains up to the 22800ft Mt Aconcagua, just over the border in Argentina, which is the highest mountain in the southern and western hemispheres.

A typical sortie is to launch onto the local hill, Manquehue (higher than any mountain in the UK) which by 1400 hours has a reliable thermal to 6000ft which allows a run north by ridge and thermals to Las Lagunas, where a climb above 12000ft on oxygen allows entry to the high mountains along the Chile /Argentine border, marked by high peaks and volcanoes. A decision is then made whether to go 200km to the north to the copper mine at Pelambres, passing ridges and mountains oozing with minerals, or to cross the Junchal glacier into the spectacular Olivares valley to the south and fly a tour of the glaciers and volcanoes to Tinguiririca some 200 km to the south of base using a mix of thermal, ridge lift and mountain wave up to 23000ft. On a good day, you can do both! One of the delights is to share thermals with Condors, who are natural experts at finding the best lift, and have often helped me on my way. They are quite placid, and with their 10ft wingspan and economy of effort seem to view us pilots with an air of superiority. This type of flying is great fun, and I find that it uses every aspect of airmanship and flying skill that I have experienced in my long flying career. My most lasting impression of Chile, however, is the people who are extremely hospitable, with a strong historical bond to the UK. Vitacura Gliding Club welcomes visitors, so for more information on this soaring paradise, visit the website at www.planeadores.cl.

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**Warneford VC**
The first British pilot to destroy a Zeppelin airship, one hundred years ago in June 1915

**PAST MASTER ARTHUR THORNING**

Reginald Alexander John Warneford, VC (15 October 1891 – 17 June 1915) was a Royal Naval Air Service (RNAS) Flight Sub-Lieutenant who received the Victoria Cross, the highest and most prestigious award for gallantry in the face of the enemy that can be awarded to British and Commonwealth forces. His life of fame was brief – within 10 days of his victory over the Zeppelin, he died in a flying accident.

Warneford was born in Darjeeling, India, the son of an engineer on the Indian Railways and known to his family as ‘Rex’. He was brought to England as a small boy and educated at King Edward VI School, Stratford-upon-Avon but when his family returned to India he continued his education at the English College, Simla. He then joined the British-India Steam Navigation Company. At the time of the outbreak of World War I, he was in Canada awaiting return to India. Instead, he sailed then to Great Britain, joining the Army but soon transferred to the Royal Navy Air Service for pilot training.

Warneford’s flying training took place at Hendon and then Upavon, completed on 25 February 1915. During the course of training, the Commander of Naval Air Stations was quoted as saying: "This youngster will either do big things or kill himself." Warneford’s flying instructor at the time noted his skills as a pilot but had to make special arrangements to ensure that his perceived over-confidence and lack of discipline did not bar him from attaining a commission.

Warneford was initially posted to 2 Wing on the Isle of Sheppey in Kent but was quickly (7 May 1915) posted to an
operational unit with 1 Wing at Veurne on the Belgian coast. Over the next few weeks, Warneford was involved in attacks on German troops and guns, as well as actions against enemy aircraft. His aggressiveness and effectiveness led to his being given his own aircraft and a roving commission. On 17 May 1915, Warneford encountered Zeppelin airship LZ 39 setting out on a raid over the UK. He attacked LZ 39 with machine gun fire but the airship was able to ascend out of range by jettisoning ballast.

On 7 June 1915 at Ghent, Belgium, Warneford, flying a Morane-Saulnier Type L, attacked the German airship LZ 39. His report of this action speaks for itself:

I left Furnes (Veurne) at 1:00 am on 7th June 1915 on Morane No. 3253 under orders to look for Zeppelins and attack the Berchem St Agathe Airship Shed with six 20 lb bombs.

On arriving at Dixmude at 1:15 am, I observed a Zeppelin apparently over Ostend and proceeded in chase of the same. I arrived at close quarters a few miles past Bruges at 1:50 am and the Airship opened heavy maxim fire, so I retreated to gain height and the Airship turned and followed me.

At 2:15 am it stopped firing and 2:25 am I came behind, but well above the Zeppelin; height then 11,000 feet, and switched off my engine to descend on top of him. When close above him at 7,000 feet altitude I dropped my bombs, and, whilst releasing the last, there was an explosion which lifted my machine and turned it over. The aeroplane was out of control for a short period, went into a nose dive, but control was regained. I then saw the Zeppelin was on the ground in flames.

The joint on my petrol pipe and pump from the back tank was broken and at about 2:40 am I was forced to land in enemy territory to repair my pump. I made preparations to set the machine on fire, but was not observed, so was able to effect a repair of the aircraft and after considerable difficulty in starting my engine single handed, was able to take off and head in a South Westerly direction.

I tried several times to find my whereabouts but was unable to do so, so I eventually landed and discovered I was at Cape Gris Nez, where I was given petrol by French soldiers. When the weather cleared I was able to proceed and arrived back at my Aerodrome about 10:30 am.

On the same day as Reginald Warneford wrote his report, 8th June 1915, he received a telegram from King George V conferring the Victoria Cross on him. The official publication of the award was made in the 'London Gazette' on 11 June::

Over Ghent, Belgium, 7 June 1915, Flight Sub-Lieutenant Reginald Alexander John Warneford, Royal Navy (1 Squadron, Royal Naval Air Service ). For most conspicuous bravery on the 7th June 1915, when he attacked and, single-handed, completely destroyed a Zeppelin in mid-air.

This brilliant achievement was accomplished after chasing the Zeppelin from the coast of Flanders to Ghent, where he succeeded in dropping his bombs on to it from a height of only one or two hundred feet. One of these bombs caused a terrific explosion which set the Zeppelin on fire from end to end, but at the same time overturned his Aeroplane and stopped the engine.

In spite of this he succeeded in landing safely in hostile country, and after 15 minutes started his engine and returned to his base without damage.

Instead of returning to England Warneford travelled to Paris to be awarded the Legion of Honour and whilst there agreed to take up an American journalist for a flight over the city.

At the end of the flight at 2,000 feet Warneford banked to start his landing approach, or so it seemed to those on the ground. Suddenly the plane began to go into a spin, dived steeply, then pulled out flinging up its tail which snapped off and caught the propeller, shearing part of it away. At 700 feet the aeroplane started to roll and turned upside down throwing Warneford and the journalist out as they were not strapped in.

The journalist was killed instantly and Reginald Warneford died later in the British Military Hospital in the Trianon Palace Hotel at Versailles.

The Government decided that he should be buried at Brompton Cemetery, London on 21 June 1915 in a ceremony attended by thousands of mourners and a Royal Navy Guard of Honour. The threat to the British population from the German airships was a cause of great concern. The cost of the monument was subscribed by readers of the Daily Express newspaper - it was restored in 2009 to repair the ravages of pollution in London. Pathé Newsreel footage of the funeral can be found on the web. His Victoria Cross is displayed at the Fleet Air Arm Museum near Yeovil, Somerset.
Perhaps overshadowed by centennial commemorations surrounding Gallipoli, spring 2015 marked the anniversary of the first-ever award of Britain’s highest honour for gallantry to an airman. On May 22, 1915, William Rhodes-Moorhouse of No 2 Sqn RFC was posthumously awarded the Victoria Cross for “most conspicuous bravery”.

Twenty seven-year-old Rhodes-Moorhouse earned the decoration for a low-level bombing raid on enemy troop and munitions trains on April 26th 1914, at the strategically vital railway junction at Courtrai in Belgium. The single 112-lb bomb dropped from his BE-2 aircraft disrupted movements to such an extent that his mission was described by British commander Field Marshal Sir John French, as “the most important bomb dropped during the war so far”.

The low level of his attack had meant that Rhodes-Moorhouse was subjected to withering ground fire. Despite being mortally wounded, he returned to base at Merville where he insisted on providing his combat report as his wounds were dressed in the squadron office, before being transferred to a medical station, where the following day he died.

SO, WHO WAS WILLIAM RHODES-MOORHOUSE?

The son of New Zealand parents, Rhodes-Moorhouse was born in London in 1887. He was educated at Harrow and Trinity College, Cambridge, but neglected his studies because of his passion for engineering, racing motorcycles and cars, and subsequently aeroplanes. By 1911, Rhodes-Moorhouse was one of Britain’s new generation of pioneer pilots, attracting large crowds when he flew a Blériot from a field near Huntingdon in Cambridgeshire, then he assisted in demonstrations in the United States, before in 1912, making a record-setting cross-channel flight.

In August 1914, although he had not flown for nearly two years, Rhodes-Moorhouse volunteered for the Royal Flying Corps and on March 21, 1915, was posted to 2 Squadron at Merville in France, carrying out reconnaissance, artillery spotting and light bombing missions with BE-2 aircraft. On April 22, 1915, the Germans unleashed their first gas attack on the Western Front in the battle of Ypres and on April 26, the RFC was ordered to bomb the enemy’s railway network to prevent reinforcements and supplies reaching the front lines.

In the earliest days of bombing sighting was merely by eye and for his attack on the railway junction at Courtrai, despite having been instructed to release the bomb from just below cloud level he elected to descend to just 300 feet to ensure a direct hit. In addition to placing him within range of dense rifle and machine-gun ground fire, he was so low that when it exploded, fragments from his own bomb ripped through the wings and tailplane of the BE-2 aircraft.

Rhodes-Moorhouse limped back to Merville, where he was reported to have narrowly cleared a hedge, but switched off the engine and made a perfect landing. Two officers lifted him from the battered aircraft, which had 95 bullet and shrapnel holes. He was taken to a nearby office, where he insisted on filing his report while his wounds were tended.

Rhodes-Moorhouse was then moved to a casualty clearing station, where it soon became apparent that he was dying. Rhodes-Moorhouse showed his flight commander, Lt. Maurice Blake, a photograph of his wife and son, and asked him to write to them and to his mother. After a short doze, he said: “It’s strange dying, Blake, old boy - unlike anything one has ever done before, like one’s first solo flight.” At 2.25pm, with a recently delivered letter from his wife on his pillow and Maurice Blake at his side, Rhodes-Moorhouse died.

Rhodes-Moorhouse’s award, for “most conspicuous bravery”, was announced on May 22, 1915, less than a month after his death. At his own request, Rhodes-Moorhouse’s body was returned to Britain where he was given a funeral with full military honours. He is buried close to his family estate at Parnham near Beaminster in Devon. Interred alongside him is his son, who was four months old at the time of his father’s death. Willie Rhodes-Moorhouse became a Battle of Britain pilot and served from May 1940, at Merville, France, where his father had been killed in action 25 years earlier. After claiming 12 combat victories and being awarded the DFC, his Hurricane was shot down over Kent on September 6, 1940.

Britain’s First Aerial VC

LIVERYMAN STEPHEN SLATER

LOW LEVEL ATTACK

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REMEMBERING RHODES MOOREHOUSE

In late April commemorative stones were laid both in London and the family estate in Beaminster, which along with a special commemorative weekend at another former home at Spratton in Northamptonshire, to mark the centenary of Rhodes-Moorehouse's heroic action. In addition, this summer, the Biggles Biplane BE-2 replica operated by myself and Matthew Boddington will play its part, carrying the tailcode 687 of his original aircraft at air displays across the UK, as well as flying to France to take part in an air display at Lille as well as overflying the places where Rhodes-Moorhouse flew in 1915.
On Friday 20 February 2015 Past Master Wally Epton made the last ever flight by an HS125 Series-2 Dominie T1 when he took the black and white–painted N19UK (formerly XS739) from Cotswold Airport/Kemble to Humberside Airport. This was just over 50 years since XS709, the first of these RAF jet navigation trainers, made its maiden flight on 30 December 1964. N19UK was preceded by a similar aircraft, N19CQ (XS712), both destined for an active ground training role with the BAE Systems Aircraft Maintenance Academy just established at the airport. Delivered to the RAF between August 1965 and June 1966, the 20 Hawarden-built Dominies (XS709-714, XS726-739) saw service with No 1 Air Navigation School at RAF Stradishall until 1970; No 6 Flying Training School at RAF Finningley (1970-95) and No 3 FTS/No 55 (R) Sqn at RAF College Cranwell for the last 16 years. Half a dozen were also flown by the College of Air Warfare at RAF Manby. In 1975 the Dominies underwent a major cabin layout change to accommodate practical air signaller and air engineer flight training previously provided on Vickers Varsities that were retired from RAF service that same year. Between 1993 and 1996 eleven of the Dominies were given a further major upgrade to equip them for the still wider role of providing flight training for weapon systems officers and operators, through to 2012. This was cut short in the autumn of 2010 by the Strategic Defence and Security Review (SDSR) announcing that the Dominie would be retired from service as soon as the current course had been completed. With graduation of these students at Cranwell on 19 January 2011 there was a final flypast by six of No 55 (R) Sqn’s nine Dominies the following day, bringing an end to nearly 45 years RAF service.

Of these last airworthy aircraft, XS709 (the ‘prototype’) flew to Cosford for the RAF Museum, XS713 went to the Fire section at RAF Shawbury, XS727 stayed at Cranwell on display and the remaining six (XS712, 728, 730, 731, 737 and 739) were acquired by Executive Jet Support (EJS), the company owned by Simon Browse, who facilitated their purchase from the MoD. The Dominies were put onto the FAA ‘N’ register and flown to Kemble in May 2011 by Wally Epton former RAF Dominie Squadron Commander along with Phil Woodley also ex-Dominie Squadron, both very experienced HS125 pilots. (See Guild News August 2011).

EJS had anticipated sale of the Dominies to the USA, but this was not to be. In 2012 two of the aircraft (N19CQ/XS712 and N19UK/XS739) were hangared at Kemble and maintained by C2 Aviation for another possible US customer. In Autumn 2014 these two Dominies were purchased by Resource Group’s Aviation Technical Training business (LR TT Ltd) at Kemble for the new Aircraft Maintenance Academy that the company is establishing at Humberside Airport. The fuselage of a third Dominie (N19XY/XS731) was transported to a company at Marlborough, Wilts in December 2014. The three un-sold Dominies (N19CU/XS728, N19EK/XS737 and N19UG/XS730) remain at Kemble. Two are to be used to provide spares to enable the Humberside aircraft to fulfil their ground training functions whilst one will be utilised to train Resource Group apprentices for their various airline clients.

After careful preparation by the team at C2 Aviation to meet the FAA’s requirements for a single, VFR ferry flight, the two Dominies were ready to go on 19 February. Unfortunately the weather wasn’t - heavy rain and low cloud precluded the flight. Friday 20 February was much improved and Wally Epton with co-pilot Richard Lloyd flew...
N19CQ to Humberside and returned to Kemble to make the final Dominie flight in N19UK. This aircraft (XS739) had been the last of the 20 Dominies delivered to the RAF on 1 June 1966 and was the penultimate Dominie to land back at Cranwell after the final RAF flight on 20 January 2011.

I was pleased to have been invited to join Wally and Richard as a supernumerary crew member on this last flight and it was by a strange coincidence that XS739 was the first Dominie that I had flown in, at Stradishall in October 1966. The cockpit and cabin was superficially very little different from when it made its last flight at Cranwell on 20 January 2011, although only the basic avionics were 'live'. After an 'on-time' start at 14.30, Wally taxied out to Kemble's runway 26, completed the necessary pre-takeoff checks, powered up the lightly loaded Dominie and we were quickly airborne. He flew a 'confidence circuit' for a visual check from the ground before setting course north-east towards Humberside. Flying at 4,000ft with good 20 km visibility Richard was able to pinpoint our position accurately as we routed to Leicester, Rutland Water, Newark and west of Scampton, until the coastline of the Humber Estuary came into view.

Ending this 40-minute, 150-mile last flight from Kemble Wally touched down at Humberside to bring the HS Dominie T1's flying career to an end. David Talbot, Head of the BAE Systems Aircraft Maintenance Academy received N19UK after it had joined N19CQ and four Hawks in Hangar 9, the academy's temporary home. The aircraft will move into the new £5 million R J Mitchell Aircraft Maintenance Academy when it is completed in the autumn. 60 apprentices a year will be trained at the academy with a one year full-time training course followed by one year work placement, leading to a NVQ in aviation maintenance. Individuals will go on to full time employment servicing the RAF's fast jets (Hawk, Tornado and Typhoon) and international contracts. Although XS739 will not add to its 19,465 flying hours, it will continue to have an important training role both inside the hangar and on the flight line.

Take off from Kemble

Wally Epton at the controls

Hostile Environment Awareness Training (HEAT) Courses for Mission Aviation Fellowship

OLIVER NUNN, MISSION AVIATION FELLOWSHIP

Editor's Note: Company members may be aware that the Air Pilots Trust and the Air Safety Trust jointly support the Mission Aviation Fellowship (MAF) and its operations, particularly the enhancing of safety or training activities. This article illustrates the tangible result of their charitable donations. Since 1995 the Company has donated a total of £43,999 to MAF; in 2014 £7,820 was donated to fund HEAT courses in the Africa Region.

The MAF began its work in uncharted territory 70 years ago, it now covers 25 countries and is still pioneering and helping the world's remotest communities. It deploys a fleet of over 130 light aircraft to bring practical help and hope to thousands of remote communities in jungles, deserts, swamps and mountain regions. Through partnership, diligent planning and technical expertise MAF makes the inaccessible accessible and with that comes hope. MAF's flying is a lifeline, not a luxury.

The HEAT courses have been going ahead successfully, with individuals being released to attend as operational requirements have allowed. The courses are designed to prepare and equip the staff for the challenges of working in remote, insecure locations. Sadly, many of the places where MAF operates are subject to lawlessness, banditry, and even full-blown military conflict. Because of this, it is essential that staff members are properly trained to avoid, defuse, or escape dangerous and hostile situations.

So far, a total of seven pilots and other remotely based MAF staff members have attended the HEAT courses, and benefited from this very important training. The feedback from attendees has
been very positive, with one Uganda-based pilot quoted as saying:
"The day spent on first aid and major trauma field dressing was useful and I learnt a lot. The day of simulated exercises was good from the point of knowing the appropriate way to react and act, and having an awareness of the types of power dynamics that occur. Overall I found the course very useful."

One Kenya-based MAF staff member described the training as:
"...a good reminder of the actual dangers I would most likely encounter....and most importantly, how to respond to them. Things like how to help the injured, how to react to crossfire or a thrown grenade, how to recognise mine fields, how to protect yourself from artillery, etc. The most effective part was the practical application through an afternoon simulation, and later an all-day simulation. As a team we had to determine what the best course of action would be for the safety of everyone. It included everything from aggressive roadblock soldiers to getting caught in cross-fire, to being kidnapped by rebels."

The lessons learnt from the HEAT course have already been put into practice by one staff member, whose role as a roving communications officer sometimes places her in particularly vulnerable situations. In one incident, whilst visiting Renk, in the far north of South Sudan, she was caught in the middle of an artillery exchange between Government and Opposition forces. She reports:
"For me, it was the closest I've ever been to continuous shelling. The HEAT course training kept running through my head - the safest position to be in (you can hear the mortar before it hits), staying out of view of soldiers, keeping a low profile, staying away from windows and glass, etc, etc. I'm grateful that MAF was able to send me to the training as both a reminder of how to behave and training on how to stay safe during a security incident."

In a second incident in East Africa, the same staff member was detained by airport security staff at an airport:
"I was recording an interview with a MAF passenger while we stood in the long, slow security line to get into the waiting area. Unfortunately, the two airport security men checking passports and tickets pulled me out of line. I was loudly accused of recording them and other various accusations, then escorted to the Security Office to be interrogated. The most important action I took, and something taught in the training, was to remain perfectly calm through the entire incident, without arguing or raising my voice. I believe that the situation was greatly diffused by doing this."

The skills and techniques learned during the HEAT courses are already helping MAF's staff to stay safe in potentially dangerous and challenging situations. A further eleven pilots from MAF's programmes in Chad, Kenya, South Sudan and Uganda are due to attend these courses during 2015 - training that has only been made possible by the generosity of the Honourable Company of Air Pilots. Please accept MAF's sincerest thanks for the Company's ongoing support and partnership with us.

MAF recruits skilled pilots, aircraft engineers and management professionals for its overseas programmes; more information is available at: www.maf-uk.org/get-involved/work-with-us
From the desk of the Director Aviation Affairs

LIVERYMAN JOHN TURNER

INTRODUCTION

As you will see from elsewhere in this edition, we are changing the way we do some things. Nonetheless, some things remain exactly the same, including our objectives, which are to:

1. establish and maintain the highest standards of air safety through the promotion of good airmanship
2. maintain a liaison with all Authorities connected with licensing, training and legislation affecting pilot or navigator whether private, professional, civil or military.
3. constitute a body of experienced airmen available for advice and consultation and to facilitate the exchange of information
4. assist air pilots and air navigators in need through the Benevolent Fund
5. promote the Company as an active Livery Company of the City of London

SKYBRARY

By the beginning of June our members will have completed over 200 separate reviews of SKYbrary articles, including re-reviews of articles we refused to endorse originally until SKYbrary brought them to a suitable minor way but occasionally quite majorly, all the articles we have endorsed by adding airmanship and other advice based on our reviewers' experiences. This goes some way towards progressing objectives 1, 3 and 5 above. To achieve this, 27 of our members have devoted varying amounts of their time with the articles they review reflecting their aviation background and their availability; some have completed just a single review while others have been able to complete fourteen or more. Having said that, this is not a contest but rather an opportunity for us to give something back to others in the aviation community. It can be challenging sometimes but it is also stimulating to tackle topics in areas where we take the extent of our knowledge for granted but where our comments/amendments need to be clear and concise while still conveying those important airmanship and experience messages. We have a number of working CAT pilots and instructors within our group, including representatives from North America and Hong Kong. (Where are you Australia and New Zealand?) Recently we established a core of rotary wing experience within the group and have reviewed four helicopter-specific articles so lack of fixed wing experience is no longer barrier to participation!

I anticipate our SKYbrary reviews will quickly interleave with our new structure for professional work (see below) as future articles pose questions of what is and is not best practice; we might even see working groups form specifically to address some topics and articles. Five new reviewers, who will no doubt also play a part in the new committee structure, have joined the group since March but there will always be room for more.

We do everything by email and you can review articles wherever/whenever you have time and a laptop/iPad. If you'd like to take part, let me know at daa@airpilots.org

UK PROFESSIONAL COMMITTEES

UK Environment (EnvC), Education & Training (E&TC) and Technical & Air Safety (TASC) Committees are reaching the end of their lives but their issues remain topical. EnvC has working groups on “Air Pilots' Good Neighbors Initiative” (to investigate best practice in keeping the local community on-side with airports & aircraft and share best practice across the membership) and “Transport Environmental Budgets” (to show the real environmental impacts of travel by road, rail and air and to help members understand whether an environmental report is correct or deliberately miss-leading) that will remain active and be subsumed within the new structure, as will management of E&TC activities such as scholarships and bursaries and the UK-specific Flying Instructors Sub-Group.

The penultimate TASC considered the implications of the Germanwings accident that illustrated once again how aviation issues (in this case flight deck door procedures and the release of medical information) can vary in different parts of the world. Without going into specifics of this accident, I continue to believe that if something is being done in more than one way, then one of those ways will be more effective/safer than the other and everyone should implement the better way. There will always be an exception where local conditions require a different approach but those exceptions should only exist where they are clearly justified; justifiable exceptions apart, regulations, SOPs (standard operating procedures), crew training and practice should all be done the ‘better way’. We anticipate that the reorganization will help us bring new influence and energy to tackling topics such as these as well as (e.g.) geo-referenced height and heading and LOC-I.

NEW PROFESSIONAL WORKING STRUCTURE

We have explained to all the UK committees the process involved in reaching an approved new structure for the Company's professional work (as endorsed at the February Court meeting) and confirmed that the new system will be operational from 1 September; the Learned Clerk also emailed all UK committee members, ex-officio members and consultant members, outlining the new structure and providing the terms of reference under which it will operate. We told those who would be most quickly affected first and now this issue of Air Pilot gives everyone all the information.

The benefits have already started. On hearing about the plan to re-structure our professional activities to include a more international element, the UK Laser Working Group, comprising several UK military, government (health and transport) and police representatives, asked for the Air Pilots to be represented specifically to provide the Group with an opportunity for international engagement. The group has been re-instated following possible eye damage to two pilots, one flying into Heathrow. I attended in April and an initial outcome will be a survey of members (using SurveyMonkey) to see whether laser attacks on aircraft/aircrew are more frequent than official reports suggest.

I have had expressions of interest already from members wishing be part of the future working group; I have received suggested topics for the new working groups too. This evolution will allow you, whether you live or work close to, or on the other side of the world from, London (or anywhere in between) to participate towards the objectives I listed at the start of this article. As DAA, I look forward to being completely over-worked in ensuring that you can play the fullest part that you are able under the new arrangements. I look forward to hearing from you soon through my email address daa@airpilots.org.