



Air Pilot

AUG 2017 ISSUE 22





AIR PILOT

THE HONOURABLE
COMPANY OF
AIR PILOTS
incorporating
Air Navigators

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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:
Captain C J Spurrier

CLERK:
Paul J Tacon BA FCIS

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

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Diary

AUGUST 2017

19th	Master's Annual Garden Party	Charlton Park
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SEPTEMBER 2017

13th	Instructors' Working Group	Cobham House
14th	GP&F Committee Court	Cobham House Cutlers' Hall
19th	ACEC	Cobham House
20th	AST/APT	Cobham House
21st	New Members' Briefing	Cobham House
27th	Luncheon Club (Liveryman Andrew Brookes) Tymms Lecture	RAF Club RAeS
29th	Election of Lord Mayor	Guildhall

OCTOBER 2017

11th	Pilot Aptitude Testing	RAF Cranwell
26th	Trophies and Awards Banquet	Guildhall

VISITS PROGRAMME

Please see the flyers accompanying this issue of Air Pilot or contact Liveryman David Curgenven at visits@airpilots.org.
These flyers can also be downloaded from the Company's website.
Please check on the Company website for visits that are to be confirmed.

GOLF CLUB EVENTS

Please check on Company website for latest information

Cover photo: A Merlin from RNAS Culdrose performs the first deck landing on
HMS Queen Elizabeth II (photo courtesy of RNAS Yeovilton)

A message from your Editor...

As I flew down to AeroExpo at Booker in June, I bypassed the Stansted zone, and was listening out on the Approach frequency. The controller gave a zone transit clearance to some GA aircraft from Stapleford. She might have come to regret that decision by the end of her shift. He failed to respond to calls; his readbacks were strewn with errors; all in all he took up far too much of her time, and clogged the frequency.



Once approaching Booker, there were of course promulgated procedures (and slot number callsigns) for the high number of GA arrivals. I was following the approved routing to a downwind join, when a CAP 10 from Sussex flew past me 100 yards away in the opposite direction (for an unapproved deadside join). Moreover, as I followed a microlight (who had an affinity for fast jet-sized circuits) round base leg, and received landing clearance, the same CAP 10 descended and cut onto final in front of me. Dangerous and extremely poor airmanship.

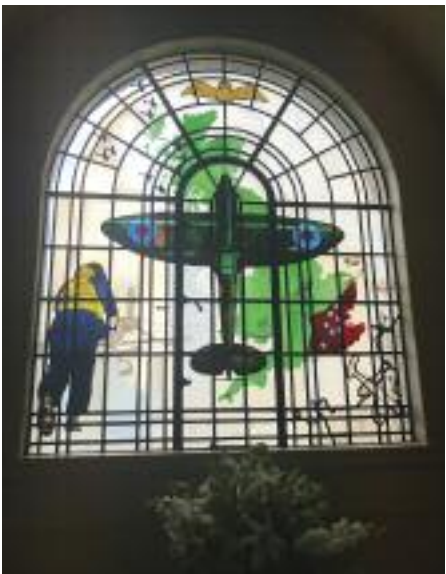
Then, a few minutes ago, my esteemed predecessor in this role phoned me with news from Flying Legends at Duxford, where he is a member of the Flying Display Committee – a microlight pilot busted the Duxford zone when the Reds were mid-display.

Perhaps it is the hot and steamy weather which has caused me to feel giddy, or perhaps I am mildly traumatised by this series of errors from the GA fraternity, but I am beginning to feel sympathy with the CAA as they strive for higher standards in the lighter end of the civil world. We GA pilots really must do better!

Paul Smiddy - Editor

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News Round Up

AMELIA - WHERE ART THOU?

The headline "Dogs' mission to sniff out aviator bones" rather caught my eye, having previously been unaware that our bones smelt any different from those of ground-bound earthlings. But it concealed a welcome article. Another expedition has been despatched to try to find the remains of Amelia Earhart and Fred Noonan, this time on the Pacific island of Nikumaroro. They of course disappeared on July 2 1937 (80 years ago, to the day, as I write this) on a flight from New Guinea to Howland Island. Some bones were found there in 1940, but lost in transit to Fiji. A photo has recently emerged from US archives showing a figure with her back to the camera, alleged to be Earhart, at a dockside (controlled by the Japanese). It would be terrific to be able to close this, one of aviation's greatest mysteries – and opportune for the Japanese Government to release any files it has.

SKYWAY CODE

Apposite in the context of the poor flying mentioned in my editorial, on June 1 the CAA launched a one-stop source of information for GA pilots – Skyway Code. It can be found at www.caa.co.uk/skywaycode

It is designed to provide private pilots with easy, quick access to key information. The new online guide condenses the key information on UK GA flying into 150 pages of information and graphics in an easy to navigate PDF. Areas covered include:

- Pilot responsibilities
- Pre flight checks and flight planning
- Airspace rules and regulations
- Using aerodromes
- Risks and Emergencies
- Flying outside the UK
- Links to useful safety and regulatory resources

The guide includes illustrations throughout and has been limited to key useful info, says the CAA.

BWPA SCHOLARSHIP WINNERS 2017

Assistant Marion Wooldridge reports:

"The British Women Pilots' Association has as one of its main aims the support of practical schemes to support women in aviation, and as a part of this awards various annual Scholarships. It is now very pleased to announce that the winners of its seven 2017 Scholarships as follows;

Abbigale Austin, for the BWPA Flying Start Scholarship 2017, worth £1000 towards a first flying qualification. Abbigale is an artist and animator who, since her first flight, has become passionate about aviation, travels a long distance for her lessons whenever she can afford them, and will be using this award towards completing her PPL in fixed wing flying.

Zoe Mallam, for the BWPA Flying High Scholarship 2017, also worth £1000 for those who already have a flying qualification in any field, to be used towards further qualifications in the same or different types of flying, or further training or experience. Zoe, who at only 17 is already an experienced glider pilot and a Caroline Trust Ambassador raising funds for young people's gliding, plans to use the award towards obtaining a powered aircraft licence with the longer term aim of operating sea planes and vintage aircraft.

Claire Birch, for the BWPA Air Total UK Flying Futures Scholarship 2017, an award of £1000 kindly donated by Air Total UK to a qualified pilot for a project which is realistic, feasible, and well planned as well as being individual, interesting and 'different'. Claire, previously an RAF officer and Tornado F3 fast jet navigator, will use the award towards her detailed and very well



planned project of undertaking a 'round Britain' flight visiting many new airfields as a part of building hours towards a commercial licence. She also plans to spend time en route to meet with schools and girls groups to raise awareness of the opportunities in aviation.

Sue Tuddenham, for the BWPA Saul-Pooley Renewal or Revalidation Scholarship 2017, an award of £500 kindly donated by Past Master Dorothy Saul-Pooley towards the renewal or revalidation of a licence or rating previously held in fixed wing or helicopter flying. Sue, a commercial pilot currently working in the corporate sector as a First Officer flying the Citation C560XL/XLS, plans to use the award towards renewal of her recently expired SEP rating, aiming in future to provide experience flights to young people as a part of the BWPA supported Aviatrix Project.

Sam Cundey, for the BWPA CATS CPL/ATPL (A or H) Scholarship 2017, worth £1599 and kindly donated by CATS to cover their ground school element for a CPL or ATPL (A) or (H). Sam has managed her own livery yard, is a qualified Horse Riding Instructor, and worked as an Ops Manager at Redhill Airfield, where she completed her PPL and developed her love of flying. She is currently undertaking her MEP training and, as she very much enjoys teaching, now plans to complete her commercial licence to become a flying instructor.

Sarah Reed, for one of the two BWPA BGS ATPL (A or H) Scholarships 2017, kindly donated by BGS, each to cover the cost of half their ground school element for an ATPL (A) or (H) (the full course being £2,350). Sarah is a marine biologist currently working for the British Antarctic Survey at Rothera Research station and has diving and yachting qualifications. She also has gliding and fixed wing qualifications, has raced gliders, and now plans to obtain a commercial licence to enable her to fly professionally in remote regions.

Amelie Windel, for one of the two BWPA BGS ATPL (A or H) Scholarships 2017, kindly donated by BGS, each to cover the cost of half their ground school element for an ATPL (A) or (H). Amelie obtained her PPL in Morocco, and converted to a British PPL in 2011. Aerobatics is her passion, and she has already flown in various competitions. She plans to obtain a commercial licence to enable her to instruct professionally, especially in aerobatics, with a focus on being a role model for women in aviation.

With a total of 86 applications this year, many of which were of an outstanding quality, selectors had some very difficult decisions to make. They would very much like to thank all applicants, and

encourage those who did not receive an award this year to look out for the BWPA Scholarship 2018 announcements, and consider applying again.”

AIRFIELDS UNDER THREAT

The list currently includes: Andrewsfield, Blackpool, Bourn, Chalgrove, Deenesthorpe Dunsfold, Elvington, Fair Oaks, Halfpenny Green, Hullavington, Kemble, Long Marston, Manston, North Deenes, Nottingham, Old Sarum, Panshanger, Peterborough /Sibson, Plymouth, Redhill, Wellesbourne, Wycombe Air Park, together with a raft of RAF & MOD sites. Some of these are done deals, some of them are ‘only’ subject to the loss of a runway. Nonetheless the list only seems to increase. Please subscribe to any petition that comes to your attention. I am grateful to AOPA UK for this list, and indeed for their work in safeguarding our fields.

SKI TEAM

The dates for the 2018 Inter Livery Ski Championships are now available: 25-26 January 2018, at Morzine, organised by the Ironmongers, as usual. Sam Rutherford, as captain, is keen to present as strong a team as possible, and

expressions of interest should be sent to him at sam@prepare2go.com.

COLIN HALES

I was very sorry to read recently that Colin Hales had crashed in Japan after an engine failure in his KR2. His round-the-world trip was self-funded and intrepid, with some interesting tales related in the GA magazines. Unfortunately bureaucracy held him up in Japan, and it is thought that the months of inactivity (with an uninhibited engine) may have contributed to the accident. He has broken his back and faces heavy medical bills. A crowdfunding campaign has been started on Justgiving.



DA4a by Associate Peter Hartshorne

ADRIAN NICHOLAS AWARD PRESENTATION, RAFC CRANWELL

Royal Air Force College Cranwell's recent Dining-In Night on 5th May was the occasion of the presentation of the annual Initial Officer Training (IOT) awards.

Liveryman Paul Nicholas had dedicated the Adrian Nicholas Award in memory of

his son, a former RAF officer who was tragically killed in a skydiving incident. It was decided that the trophy be awarded annually to the cadet judged by College staff to have shown outstanding qualities of courage and fortitude in completing IOT. Mr Nicholas was pleased to present the award to 2016's recipient, Fg Off Fiona McWilliam.



FLYING CLUB

The Flying Club had a very well attended lunch at Oaksey Park, organised by Assistant Dacre Watson.





The Master's Message

Captain Chris Spurrier

Yesterday evening Paula and I were sitting in our garden with a glass of wine when a group of young wrens decided to leave their nest. It was an absolute joy to watch as four or five fledglings rushed from trees to flower heads in those first moments of freedom. We couldn't tell exactly how many they were because wrens move very quickly. We did ask them to line up on the edge of the lawn to be counted but they were most disobliging, so we can only guess. It was, though, a reminder that in these times when opening the newspaper can bring on an instant attack of grumpiness, one should enjoy the small delights which come our way. Carpe, as they say, the diem. OK, enough philosophy and nature notes, and back to aviation.

Once again, drones have featured regularly in our newspapers. Firstly, for interfering with flights into Gatwick, and then for delivering presents to prisoners in our jails. There is also anecdotal evidence that an aeroplane recently returned to Brisbane following a presumed birdstrike. On examination, damage to the fan blades indicated that the "bird" had been very solidly constructed. I have touched on this topic before. The DAA assures me that this has at last been recognised as a problem, at least within Europe. EASA have produced a Notice of Proposed Amendment (NPA) which is intended to cover the introduction of European Regulations for unmanned aircraft. These are very detailed and far-reaching proposals which are open for consultation until 17th August, although that date may be extended. The proposal will cover all unmanned aircraft, including models. The documents are lengthy and complex, and can be found at <https://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2017-05>. There is, though, a statement which recognises that current model aircraft operations are safe and these proposals do not seem to seek change for them.

My February message and my Livery Dinner speech both included the threats

from laser pointers. Upper Freeman Air Cdre Dai Whittingham has been addressing this problem, and he tells me that the anti-laser measures that were going through Parliament prior to the General Election were lost as unfinished business when Parliament was formally prorogued. Those measures – which would have made it an offence to use a laser against the person at the controls of any form of transport – were not included in the Queen's Speech covering the next two years of proposed legislation. This has come as a profound disappointment to all those concerned with trying to tackle a threat that has now spilled over from aviation into other modes of travel. I understand that the UK Laser Working Group has approached several Government Departments seeking to have the laser measures included in other legislative proposals that have a place in the current Parliamentary programme. You, the members, could help by writing to your MP recommending they apply for a Private Member's Bill, based on the work that has already been done, for the measures included in the failed Vehicle Technology and Aviation Bill. In the meantime, it remains crucially important that pilots subjected to laser attacks continue to report them.

Another topic of which I spoke at the Livery Dinner was the importance of increased passenger capacity in the South East, which, of course, includes the need for new runways. I was heartened to read in today's newspaper that London business leaders are calling on the Prime Minister to instigate a "pro growth" aviation policy, including a third runway at Heathrow, and expansion at both Gatwick and Stansted. The need for airport expansion near London was first recognised in the late 1940s but the first enquiry was not set up until 1968. There have been many since then and seven, including the most recent, have recommended expansion at Heathrow. It really is time for the government to grasp this nettle.

Earlier this month I was privileged to attend a lunch in honour of Commander Bertie Vigrass. Bertie is now well into his nineties and is still sprightly and sharp as a tack. He began his operational flying in the Swordfish in the Indian Ocean,

initially with leaflet drops on Madagascar. When it was suspected that the Vichy French occupying the island might allow the Japanese to take over, it was decided to occupy their principal garrison but the French put up a stiff resistance. A "paradrop" of "reinforcements" consisting of boiler suits stuffed with sand and other material was mounted from the Swordfish bomb racks, six "paratroops" to each aeroplane. The timely arrival of these new troops convinced the French to withdraw. Bertie continued through the war, serving in all theatres and is proud to say that he fought all the King's enemies. (See the Editor's profile of Bertie in Guild News October 2013, on which the speech was based). After many years with the Fleet Air Arm on a variety of aircraft he finally retired and took over the running of the Fleet Air Arm Officers Association gliding scheme, which he ran with aplomb until last year. Our Benevolent Fund is proud to have supported him in these scholarships and, indeed, we continue to support his successor.

Finally, I have been in discussion with Dame Fiona Woolf, a former Lord Mayor of the City of London and Trustee of the Science Museum, investigating the possibility of a collaboration with them in their work promoting STEM subjects in schools throughout the country and also to assist, where possible, with their aviation exhibits and events. It is very early days yet but if this initiative does get off the ground (sorry) it could hold great benefits for both organisations.

As a footnote, Paula and I were talking to a chap at a recent livery function. His hobby is collecting flintlock pistols, the interest being that an ancestor had fought in a duel. It seems that the ancestor had fancied another chap's wife, so our man engineered a quarrel which, in the mores of the day, required the husband to challenge our man to a duel. Duel duly fought, our chap shot and killed the husband, only to discover that the wife didn't really fancy him at all. The ancestor was disowned by the family and cast into the outer darkness, but the chap to whom we were talking still has the duelling pistols. The moral for us aviators (and, indeed, for anyone who does a bit of wife coveting) is that one should never embark on a course of action unless one is pretty sure of the probable outcome.

From the Desk of the Director Aviation Affairs

Liveryman John Turner

The UK government presented its Transport Investment Strategy to Parliament on 5 July 2017; the word ‘aviation’ occurs 15 times and the document includes the following statements:

“We are also ... developing a new Aviation Strategy that will set out the Government’s vision for the wider aviation sector, including surface access. This will replace the 2013 Aviation Policy Framework and will be subject to a separate consultation process.
Exec Summary Page 9

“... while we currently have the third largest aviation network in the world, London’s airports are filling up fast and will all be full by 2040 unless we take action now, limiting the new international connections we can make.
Para 1.22

“Improvements in connectivity and reliability – especially on routes connecting major industrial hubs to international gateways – can reduce costs and increase trade flows. This is crucial in a world of global supply chains, and given the export value of our world leading professional services, which rely on the reach and quality of our aviation network.
Para 1.24

“With airports offering direct flights to over 370 international destinations, and over 100 commercial ports, the UK is well-placed to meet these needs, but we are in constant competition with other countries to attract global business. The UK’s aviation hub status is already being challenged by major European and Middle Eastern airports which are using their spare capacity to attract new connections.
Para 1.36

Whether or not these statements were prompted by our submission to the UK Airports Commission in May 2013, when we emphasised the importance of increased runway capacity and a fully integrated transport policy, it is gratifying that the government now shares our views on the strategic and economic importance of improved air and integrated land connectivity.

On a recent business trip to the Far East, whilst at 41,000 feet over China and

watching a dramatic sunrise, I was struck (once again) by the enormous disparity between the global nature of today’s commercial aviation activities and the local nature of their regulation. The FAA and EASA have significant regulatory coverage, but there are many other authorities across the world that operate at purely national level. ICAO provides some harmonisation but national deviations remain extensive. While the Boeing 787 I was inside was not aware which regulations applied to it at any particular time, the flight crew must understand and be prepared for all the differences that might arise on their planned route, or on any unplanned diversion and landing at a different country than originally intended. In the interests of rationalisation, a single global regulatory framework is surely overdue.

The same trip also left me suffering the effects of an 8-hour time-zone change plus the challenge of presenting at an important technical conference, which was a salutary reminder of the realities of working long-haul; it also demonstrated how wise I had been to arrange to be driven home from Heathrow on my return! Flight crew fatigue and its degradation on in-flight performance is one of our top concerns and a regular feature of these articles. Even so, we should not forget the risks that fatigued airline flight crew members face each time they drive home after a rotation. The Air Pilots’ Fatigue Working Group is exploring some new avenues for effectively informing government and the regulators on the risks associated with flight crew fatigue, and the potentially catastrophic implications of inadequate legislation and poor practice. This may perhaps lead to an academic paper in support of our present findings and crew reports, and we are already looking to analyse traffic accidents suffered by flight crews with a potential partner to assist in data gathering for the future. An academic/scientific challenge should circumvent any suggestions that we are promoting employment issues, and reinforce that we are speaking out on grounds of safety.

The UK’s recent General Election not

only failed to achieve the result our government had expected; unfortunately it also stopped the highly anticipated important Vehicle Technology and Aviation Bill 2016–17 (that improved protection for all forms of transport from laser attacks) from becoming law. The Bill had been progressing well through the committee stages with cross-party support, so we were dismayed that it was not re-introduced for the new parliamentary session. We are now seeking the support of as many Members of Parliament as possible to have the Bill’s existing draft wording added to other legislation scheduled for this session. It is illogical to abandon legislation that affords immediate safety benefits when it has already been written and debated and supported by all parties. Our UK members should have received details of how they can assist in this by the time this article is published.

Returning to the topic of aviation regulators, some appear to be operating with a shortage of people with practical experience in and understanding of the specialist areas they are required to oversee. So much is obvious by looking at their staff, and by the extent to which they are forced to correct their regulations. London suffered a recent human tragedy with large loss of life where modern cladding applied to an older 27-storey concrete building (a type that previously had an impressive fire safety record) has been deemed responsible for allowing and assisting an isolated fire on the fourth floor to engulf the entire building with dreadful loss of life. Building and fire regulations have been found lacking, either in their substance or in their implementation, and similar cladding is now being removed from many tower blocks across UK. This tragedy was all the worse when it was reported that the residents had warned the authorities repeatedly that their building was unsafe, but these warnings been ignored.

Professional flight crew and their representative bodies and professional groups such as the Air Pilots have been warning repeatedly about the dangers posed by flight crew fatigue, errant operation of drones, and by laser attacks on aircraft: we will continue to do so. We can but hope that aviation regulators establish effective safety barriers to avoid the potential catastrophes that concern us before a serious accident forces them to take action.

The Livery Dinner

By the Editor

The 59th Livery Dinner was held, as usual, at the magnificent Drapers' Hall. Prior to the dinner, six new Liverymen had been clothed: Captain David Bramwell, Elizabeth Walkinshaw, Christine Milner, Wing Commander Baz Dale, Wing Commander Steven Dean, and Howard Wheeldon. In addition seven Master Air Pilot (and Navigator) certificates were presented. Master Chris Spurrier also presented a new certificate of affiliation to the Commanding Officer of HMS Ocean, Capt Rob Pedre.

Once he had replaced his overlooked badge of office, our new Warden, Nick Goodwyn, introduced our guests for the evening. In the context of recent comments by the Duke of Cambridge, (and the findings of the GermanWings tragedy) he urged more work on, and support for, the mental health of the pilot community.

Our guests numbered: Sir Roger Bone, President of the Air League. He is also a trustee at the National Centre for Universities and business, nurturing talent into the workplace. After a long career in the Diplomatic service, he was President of Boeing UK for 9 years.

His Excellency, Air Chief Marshal Sir Stephen Dalton, although a Liveryman and an Assistant to the Court, was in attendance as a guest in his capacity of President of the Royal Aeronautical Society, and also as the Lieutenant Governor of Jersey.

Master of the Worshipful Company of Fan Makers, Marshall Blaker, was one of three guests from other livery companies. Mrs Marsha Rae Ratcliff is the Master Carman. Raised in Montana, she founded "Motto and Motiff" a creative graphic and design company whose

clients have included Boeing, Continental and Northwest Airlines, establishing her credentials in both the transport industry and with aviation. She has also served on the board of the Variety Club of Great Britain.

Representing the Furniture Makers was its Master, Dr Tony Guy Smart, who had enjoyed a long career in the electronics industry.

Air Marshal Sean Reynolds represented the Chief of the Air Staff. Sean is currently Deputy Commander, Capability, and Air Member for Personnel. By trade he has been a support helicopter pilot and QHI. Nick noted that, as President of the RAF Sailing Association, Sean is unique in being the only Admiral in the Air Force!

We were pleased to welcome a number of guests from our affiliated units. Star of the recent TV documentary series on his vessel, Captain Robert Pedre commands HMS Ocean. Apart from at least 10 of Her Majesty's warships, (which Nick reckoned must account for most of the Navy), he has also served on the USS Dwight D Eisenhower. After that comment I doubt Nick will receive his rum ration on his next visit to one of Her Majesty's vessels!

Richard Green is Colonel of the Army Air Corps. Originally commissioned into 1st Battalion The Royal Green Jackets, he trained on the Gazelle, later commanding 672 Sqn AAC. He was appointed Colonel, Army Recruiting, in 2012, and assumed command of the AAC in May 2015.

The University of London Air Squadron was represented by Flt Lt (formerly Air Commodore) Ken McCann, who had previously been our guest when serving

as OC 4 Sqn on the Harrier. More recently, he served as the Air Attaché in Washington DC. He was accompanied by Acting Pilot Officer Lucy Conder, senior student and winner of the Air Pilots' Kyle Tolley award, and who is relinquishing a career in medicine to join the RAF this October.

In introducing our principal guest, Crispin Orr, Chief Accident Investigator of the Air Accident Investigation Branch, our Master outlined the stresses which will be imposed on the profession as a consequence of Brexit. Supremely qualified for his role, Crispin had been a rotary test pilot at ETPS, before heading up the Military Air Accident Investigation Branch.

In his address Crispin pointed out that the very first holder of his current role (Capt George Cockburn RFC) had come from a military background such as his own. He pointed out the increasing complexity of the aerial environment with the proliferation of drones, the development of solar powered air vehicles that will operate for days above the jet-stream, the resurgence of vast airships, and the prospect of non-stop commercial flights from London to "the land of kangaroos", and so on.

Whilst an increasing pain for the piloting community, drones are a new weapon in the AAIB arsenal. Crispin described how they have been pioneering the use of small drones to capture high resolution 3D imagery of complex and sometimes inaccessible accident sites swiftly and safely.

In investigating drone/RPAS accidents, our guest pointed out the absence of pilot testimony, and "it is extremely difficult to get the designers of these RPAS to disclose what the computers have been programmed to do, and they don't always know how the system will react in any given set of circumstances. So it can require extensive analysis of the

The newly clothed Liverymen



Recipients of the Master Air Pilot/Navigator certificates



data to determine what went wrong and what needs to be fixed. We should not be seduced by the manufacturer's claims of reliability, nor those who argue that unmanned systems don't pose any risk to life."

He concluded that "the demise of the human pilot is greatly exaggerated and somewhat premature!" Crispin led us through the painstaking process of establishing how and why human error occurred in piloted accidents. He endorsed the Company's position in "setting the conditions for success for the next generation of aviators, through

training, education, the sharing of knowledge and experience. And critically by perpetuating a just and engaged safety culture throughout the industry that enables us all to identify and learn from the mistakes others have made, so that we don't have to make the same ones ourselves."

Crispin's final point was a lament that lawyers were seeking to obtain sensitive information provided confidentially to the AAIB by pilots and others. He drew comfort from a judgement given last year by the Lord Chief Justice that ring-fenced such information.

He clearly loves his job, and the audience was left in little doubt that the crucial role of the AAIB is in safe hands. As he proposed the traditional toast to the Company, he wished us all "Happy Landings" - "it makes my life easier"!

Judging by the verve with which the stirrup cup was attacked, and at the after-party at the RAF Club, one may conclude that there were very few landings in the following 24 hours by this particular aviation community!

The Master welcomes Col Purbrick



The Master presents the new Certificate of Affiliation to the Captain of HMS Ocean



The assembled diners



GAZETTE

APPROVED BY THE COURT 20 July 2017

ADMISSIONS

As Upper Freeman

Nivedita Jain BHASIN (OS)
Wolfgang Manfred FEHLHABER (OS)
Nicholas James HEARD
John Crispin Morison ORR
Raymond Wilfred OSBORNE
Michael Roger PAUL (NA)
Hilary Constance SURMAN (AUS)
Douglas John WHITFIELD (AUS)
Tilman GABRIEL
Danny RAE
Chetan Julius TAKALKAR (AUS)
Peter Gerald WELLS

As Freeman

Keith Robert CHANDLER

As Associate

Nicholas Paolo ARMAN (AUS)
Samuel CAVE (AUS)
Adrian Peter OLIVER
Sherrill Jane SEMPLE
Adam SWALLOW (AUS)
Vladislav Zoran ZHELEZAROV (AUS)
Matthew James BATEMAN Esq (AUS)
Annabelle DOCKETT
Benjamin Mark TYLER (AUS)

REINSTATEMENTS

As Upper Freeman

Michael BRUCE

Nominated Admission

Emmett Lee WINGFIELD

ACKNOWLEDGED BY THE COURT

20 July 2017

REGRADING

To Livery

Captain Michael David BEECH
Daniel Charles FRANCIS

To Freeman

Anthony James SCHIEMER (AUS)

DECEASED

Graham RICE (AUS)

RESIGNATIONS

David DABBS

Grant DAVIES

Joshua FARLEIGH

Alastair GREENWAY

Garth GUNSTON

Paul HEILBRON

Daniel HENDRY

Iain LAURIE

Cyril LOGAN (OS)

Rogan LUMSDEN (HK)

Richard THOMAS

Jonathon WHALEY

FORFEIT ALL BENEFITS

John HOYTE

Paul HURST

Visit to Bentley Priory - 6th June

By Freeman Sam Waller

On 6th June I finally managed to visit one of the historically significant places I have wanted to visit for quite some time, Bentley Priory Museum which is situated in Stanmore to the North West of London. It tells the story of the location, focussing on the building's pivotal role as Headquarters Fighter Command during the Battle of Britain. Following eight years of fundraising and planning by the Bentley Priory Battle of Britain Trust, the museum was officially opened in 2013 to ensure that the important history of both the Priory and the Battle of Britain were not forgotten. During the period between 10th July and 31st October 1940, nearly 3000 British and Allied aircrew of 15 different nationalities flew and fought together. The museum concentrates on the inspiring stories of 'The One', Commander-in-Chief of Fighter Command, Air Chief Marshal Sir Hugh Dowding; 'The Few', the Battle of Britain aircrew; and 'The Many' who worked tirelessly on the ground to allow Britain's darkest hour also to be her finest hour.

Our group of Air Pilots assembled in the delightful tea room and was split into two groups to be shown around the museum by Sharon and Pauline, our guides. We were first taken to the entrance hall which presents the theme of the Battle of Britain through several elaborate stained glass windows. These depict scenes from the battle including a Hurricane with aircrew and early radar, a Spitfire with 11 Group and its sectors, the Fighter Control Association, the 'Dowding System' and The Royal Observer Corps. The magnificent vaulted ceiling was discovered in 1979 during restoration work at RAF Bentley Priory.

We were then taken through the grand hall to Dowding's office. There is a large lace panel on the wall in the hall which depicts the highlights of London including Guildhall and St Clement Danes church. It represents the poor and rich coming together to fight the enemy, and includes the emblems of our allies including Australia, Canada, and New Zealand, along with ears of wheat representing the harvest and the most decisive day of the Battle of Britain -



15th September 1940.

There is an incredibly well-presented audio-visual film which brings Dowding's office to life. It focuses on the impact of his leadership and the use of leading edge technology during the Battle of Britain. As Commander-in-Chief of Fighter Command, he argued that Fighter Command's role was to protect the nation, opposing the accepted view that these valuable resources should be used to protect France. His famous letter to the Air Ministry on this topic is on the wall next to his portrait outside his office.

The next part of the tour took us to the

The beautiful stained glass windows commemorating the elements that together made the defence successful





Plotters' tools of the trade

Plotters at work

A mocked up Observer Corps station



Rotunda, which represents the Few – the Battle of Britain aircrew. Incredible courage was shown by these men along with mighty stamina. They were up before dawn and prepared before first light to scramble to meet enemy raids. They spent their time between sorties near their aircraft, ready to fly at a moment's notice. Individual stories are told through portraits and medals on the walls. One such individual is Flight Lieutenant E.S. "Sawn-off Lockie" Lock, DSO DFC and Bar. He first flew as a schoolboy when he went on a five-shilling trip with Sir Alan Cobham's air circus. He joined the Royal Air Force Volunteer Reserve in 1939, qualified as a fighter pilot and was posted to 41 Squadron in early August 1940. He was

immediately an ace and shot down eight enemy aircraft in one week. He was awarded his DFC in October 1940 and three weeks later, having destroyed a total of 21 Luftwaffe aircraft, he was awarded a bar to his DFC. Having shot down a further two ME109s, Lock was attacked by another ME109 and was seriously wounded. He remained in hospital for several months under the care of famous surgeon Archibald McIndoe. Recalled to duty in 1941, Lock shot down a further three ME109's, raising his score to 26. However, on 3rd August 1941, he was posted missing after a sortie to France. The wreckage of his Spitfire was never discovered, and Lock was never seen again. He was the highest scoring ace of the Battle of Britain.

An aerial view of the national plot



Our group were then taken to the Filter Room. This room represents the Many and was created on the lower ground floor, before one was built in the 'Ladies Room' adjacent to the Operations Room. Dowding oversaw the development and use of the world's first integrated system of air defence, which became known as the 'Dowding' system. The Filter Room was where information was received about incoming enemy aircraft from a chain of radar stations. This information from the coast of Britain was then assessed to identify the formations of enemy aircraft and their track and passed on to the Operations Room. The Plotter followed the progress of the detections from the radar stations. They placed coloured counters on the map table according to the information received. Plots could change frequently as more information arrived. It was a highly skilled job as they had to distinguish whether information from the various radar stations related to the same plot or an entirely different formation of aircraft. The Filterer had the most difficult job. Radar stations would often send in different information about the same plot of aircraft. The Filterer had to try and find a pattern using their detailed knowledge of the performance, limitations and field of view over the sea. They had to deduce a pattern and assess the most likely scenario as to whether



11 Gp's area of operations (the brown 'shell' symbols are radar stations)



A plotting table showing a raid, with the radius of effectiveness of the radar stations

information related to one plot or more than one as well as the height, range and heading it was flying. The Controller, usually a Squadron Leader, ensured the overall picture compiled by the Filter Room was as accurate as possible and the Teller reported the filtered information to the Operations Room by telephone. The Operations Room was constructed in Bentley Priory's ballroom, and also received information from Observer Corps units which tracked raids as they passed over the coast. This room was the only Ops Room in Fighter Command to track the movement of aircraft over the whole of Britain and therefore had a complete picture of the state of our forces. It was also informed about the availability of all squadrons. As Headquarters Fighter Command, RAF Bentley Priory had strategic command over the Air Raid Warning system, anti-aircraft guns, searchlights and barrage balloons, which were all essential in the country's defence. The Filter and Operations Rooms were both moved to a bunker in the grounds of Bentley Priory in 1940 to protect them, just before the start of the Battle. The 1940s bunker was replaced by a Cold War bunker in the 1980s, and has since been

filled in.

We then proceeded back to the tea room for a lovely afternoon tea and to take stock of what we had just explored and experienced. Luckily there was extra time at the end of the visit to go and walk around by myself, taking in more detail, information about the wider history of the location and visiting a couple of extra rooms that were not on

our tour. I could go on for hours about this subject, and the stories told in the various rooms in the museum but I will leave that for you to discover. It was a superb experience and I would encourage everyone to visit this museum that focuses on one of the most decisive battles in modern British and world history.



The beautifully restored interior



Hallowed ground

'What A Wonderful World'

A Visit to 101 Sqn, RAF Brize Norton

By Liveryman Peter Moxham

Friday, 23rd June 2017 will, I suspect, certainly be a day to remember for the 18 representatives of the Honourable Company who assembled at Brize Norton to enjoy the hospitality of 101 Sqn and witness their exploits on a flight refuelling exercise over various parts of the North Sea. It really was the stuff of dreams! A brilliant day enjoyed by all.

It was an early start, to assemble at RAF Brize Norton car park by 0645 did mean a very early start for some, but it was well worth the effort. I should add our host escort, Flt Lt Jon Hill, also had a long day – meeting us all at the car park and staying with us until we had all left, some 10 hours later having spent the whole day keeping us very much in the picture on every aspect of the operation.

On arrival we were given a briefing on the planned refuelling exercise which was expected to begin with an 0915 start of our mount for the day, Voyager ZZ332, a multi role version of the Airbus A330 used by the RAF in replacement of the popular VC10, which can now only be seen at the RAF Museum Cosford. The briefing took place in Brize's

Departure Lounge, where we were welcomed by the OC of 101 Sqn who made it very clear that the day was a normal one for 101 Sqn, but that they were very pleased to welcome us to see them in action.

We boarded the aircraft, and were handed this mission's briefing sheet. It looked a busy day and was scheduled to include many refuelling tasks of Typhoons, as well as Tornado and C130 aircraft. In the event there were more tasks than originally scheduled, and sitting at the very rear of the aircraft we could witness at very close quarters the actual refuelling process between tanker and receiving aircraft. Unlike modern commercial operations we were able to visit the flight deck and talk with the flight deck crew and witness things from their perspective, and also view the procedures carried out by MSO Clifford Cook ensuring satisfactory fuel transfers.

Throughout the flight we were looked after by Jon who kept us fully up to speed on the action, and were given excellent service by the cabin crew led by Flt Sgt Lorraine McMillan. In addition, Flt Lt



In flight explanations

Shutie as Commander and his number 2, Flt Lt Bartram, gave us a commentary and advised where to look for the next fuel recipients.

On landing we returned to the Squadron offices, and could see the history of 101 Sqn and Jon produced a certificate signed by all those involved in the exercise – a fitting end to an extraordinary day!

Our thanks to all involved, in particular Flt Lt Jon Hill who made the day such a success, and to all those involved in the sortie, not least the crew of the receiving aircraft who became the stars of the video and photographs taken by Company members.

I should not forget all the effort put in by David Curgenvin who ensured the day was such a great success – without his efforts this would have been a very different event.

Typhoons in echelon port arrive at the filling station (note the nearest is a 2 seat trainer)

A Herc trundles up to prod



Thirsty beasts these Typhoons

Visit to RCAF Comox, April 13th

By Liveryman Alistair T Beaton

The West Coast of Canada is often referred to as the 'Wet' Coast of Canada and certainly coastal British Columbia has lived up to its reputation over the past several months. This foul weather has impacted all things aviation, including, unfortunately, our visit to CFB Comox.

At the kind invitation of the Commander of 19 Wing, Royal Canadian Air Force, Col. Michael Atkins, (an Upper Freeman in our North America region), members of this Company and our affiliate, the College of Professional Pilots of Canada, were invited to Canadian Forces Base, Comox, April 13th, to meet members of our affiliated military squadron, the Royal Canadian Air Force Air Demonstration Team - otherwise known as the world famous RCAF Snowbirds. (The RCAF Snowbirds is Canada's equivalent to the

RAF's Red Arrows.)

Each year around mid-April, the RCAF Snowbirds leave their nest and migrate from their home base at RCAF Moosejaw, Saskatchewan, and fly their venerable CT-114 Tudor aircraft to CFB Comox, located on the eastern shoreline of Vancouver Island, about 80 miles WNW of the City of Vancouver. For several weeks following their arrival at Comox, the Snowbirds practice their routines for the upcoming summer airshow season. Our group were not only honoured to meet the members of the Snowbird Air Demonstration team but also to sit in on their Pre-Flight Briefing and later watch them practice. Whilst one might consider the practice a warm-up airshow, airshows in Canada require ministerial approval, thus the term 'airshow' is restricted to the summer air

displays that take place across Canada and the USA.

Unfortunately Col. Atkins was out of town on business during our visit, however, Captain Ryan Carnahan, an Air Combat Systems Officer, was detailed to look after our every need, and I must confess to having very much enjoyed the most welcoming and informative visit that I have ever had to any military establishment.

Attendees met Capt Ryan Carnahan at the Guard House promptly at 07.40 hrs, where we were given our passes. (Sadly, most of our members who had planned to attend this event and arrive at Comox by light aircraft, were grounded at Abbotsford Airport (100 or so miles to the ESE). This was due to very poor weather associated with a passing cold front. Those of us who travelled by road and ferry the previous day, were thankful that we had done so! Our group included Capt Jim Spentzas and his wife Susanna and son Victor. Jim is a captain on the Boeing 737 for Sunwing and previously a F4 Phantom pilot in the Greek Airforce. Susanna is a Flight Attendant with Jazz and they were accompanied by my wife Diane and myself.

The Snowbirds briefing began on time at 0755, and Lt Michele Tremblay of the Royal Canadian Navy did the introductions. Lt Tremblay has been seconded to the Snowbirds as their Public Relations Officer. After the introductions the Briefing Room was declared sterile!

Officer Greg Hume-Powell gave a weather briefing and also briefed on the applicable NOTAMs. The Snowbirds had protected airspace from the surface to 8000' MSL within 10 miles of Comox (CYQQ), except SW of Highway 19. 'Show Centre' was N49.43.06 W124.53.76. The 'Showline' was the Eastern edge of Runway 12/30, which

Vampire with First Nations art work





Possibly the only female RCAF pilot on the Cormorant



Sqn's Area of Operations – about the size of England!

runs parallel to the shoreline. This runway is 10,000' x 200' (concrete) with grass overruns in excess of 2000'. The Control Tower is 90' AGL. The TAF forecast winds of 100/8 at the surface, and 160/12 at 3000'; cloud overcast at 4000' with patchy mist and low ceilings to the west of the airfield. Gusty winds were forecast behind the cold front. Campbell River was designated as the

Somewhat dated cockpit of the Tutor



alternate airport.

Major Patrick Gobell (The Boss) covered the two emergency briefings of the day. The first emergency was a missing fuel cap from the No1 aircraft, discovered during the take-off roll. The action required was for all aircraft to abort the take-off. The second emergency was the observation of a Drone (SADA Intrusion) at 400' over the Airforce beach chalets located just to the north of airport. The action required was to advise the Tower, cancel the show, make a public announcement over the loud speaker system, and order the operator to land the drone immediately, thereafter securing the drone.

At the Briefing it was also noted that each of the 9 aircraft had 2012 lbs of fuel on board and 300 lbs of smoke. It was also decided that in view of the weather and stronger winds than forecast, it would be a low, flat display. The aircraft were to depart on runway 12 in a 5/4Vic formation. This air demonstration would include inverted passes down the display line at 500', the Double Diamond Wedge,

the Twizzle and the Maple Split etc. Each pilot has all of these manoeuvres memorized, not only in great detail but in the sequence required. The tension in the Briefing room could be cut with a knife, as each pilot requires absolute concentration to visualize his control inputs and call responses with exact timing, in coordination with other team members.

After the said Briefing, our group was escorted to the hanger to await the Snowbird aircraft being towed out to the apron. During the wait we were introduced to Capt Jennifer Halliwall. She is the Public Relations Officer for the CF-18 Hornet solo demonstration aircraft. We were kindly invited to have a close up viewing of this amazing aircraft later, after the Snowbird practice. The CF-18 Hornet Demonstrator has been given a unique Maple Leaf paint colour scheme to celebrate Canada's 150th Birthday on July 1, 2017. The diamond shaped segments of the Maple Leaf on the tail fins of this CF-18 aircraft are called gems and represent in colour code,



Lt(RCN) Michele Tremblay, PR Officer, RCAF Air Demonstration Team, The Snowbirds

not only the four founding Provinces in Canadian Confederation, but also all of the other Provinces and Territories of Canada.

After a spectacular smoke check, which shrouded the CT-114 Tutor aircraft in an instant fog for a few seconds, the Snowbirds taxied out and were soon airborne and doing their warm-up, out of sight, to the south of Comox. The weather was very cold and quite windy as the aircraft reappeared to begin their practice. As always the Snowbirds were on top of their game, even although this was just a so-called practice demonstration! The most amazing manoeuvre, in my opinion, was when two aircraft, turning 360 degrees in opposite directions, passed each other within a few feet, without using any ground references, just the Mk1 eyeball! After viewing the CF-18 Hornet and

taking lots of photographs, Lt Carson Choy from 407 Sqn escorted us to the Aurora long range patrol aircraft and associated training facilities, at the Comox Air Base.

407 Sqn was formed at RAF Thorney Island in 1941 and was credited with sinking 150,000 tons of shipping during wartime service. In 1943 this ASW Squadron also sank 4 enemy submarines. Wartime casualties were 42 aircraft and 240 crew. Types of aircraft flown included Hudsons, Wellingtons, Lancasters and Beechcraft, as well as the CP 140M.

The Aurora is powered by 4 Allison turbo-prop engines, generating 4591 shaft HP (25 greater than say a Cessna 172). The aircraft's cruise speed is 405 knots with a range of 4000 nm at 34,000'. The aircraft is manned by 2 pilots, 1 engineer, 3 combat techs and 5 electronics techs. It carries 8 torpedoes,



The author by an Aurora



The Aurora

Magnetic Detection MAD - for Submarine Detection, radar, IR Cameras, acoustic sensors, sonobuoys, flares, smokes etc.

During peacetime this aircraft is used for sovereignty patrols, counter-narcotic work, , drift net enforcement, and patrols to check for illegal immigration. (Editor's note - It is noteworthy that the UK currently lacks any such assets!) One aircraft based in Japan.

After lunch, it was time to visit our other affiliated military Squadron (442). This squadron is responsible of search and rescue, covering an area that is probably 4 times the size of the UK. Major Kirk Bennet was our escort and we were given a very detailed briefing on all aspects of SAR using both the fixed wing DH Buffalo and the Augusta Westland Cormorant Helicopter.



The 150th Birthday CF-18

We were able to visit the hangar, where both the Cormorants and the Buffalos are serviced and kept ready for duty. I believe that these aircraft are on an all year round 30 minute stand-by for operations in some of the remotest and wildest terrain to be found anywhere in the world. These aircraft are also operated on a regular basis out over the stormy waters of the northern Pacific. In addition we had a full briefing on packing appropriate medical supplies for parachute drops, dropping survival gear, and recovery of injured persons requiring the services of 442 Squadron.

On behalf of the Honourable Company, and the College of Professional Pilots of Canada, I would like to thank Col. Michael Atkins, Wing Commander 19th Wing RCAF, Capt Ryan Carnahan, Lt(N) Michele Trembley, Capt Jennifer Halliwell, Lt Carson Choy and Major Kirk Bennet for their most warm welcome, time and effort, in putting together this most informative visit.

The Aurora cockpit



Company Visit to the RN Submarine Museum and the 'Explosion' Museum of Naval Firepower at Gosport

By Upper Freeman Mike Craft

We were met in the reception area by Rob Camp who was to be our guide for the tour of the HMS Alliance submarine. Rob had spent his whole career as a Navy submariner, and made all of us feel extremely welcome. So, after a short introduction and safety briefing, Rob led us out to the submarine.

HMS Alliance was built at the Vickers Shipyard in Barrow-in-Furness and was originally intended for the Pacific conflict of WW2, but by the time she entered service in 1947, WW2 was over and the Cold War was just beginning. Over the next three decades, HMS Alliance operated on covert Cold War missions all over the world, until in 1973 when she was "paid off" at HMS Dolphin in Gosport. For the next 5 years, HMS Alliance was used as a training boat in Gosport, until finally in 1978, she was set up as a museum.

Rob took us first into the forward torpedo room and explained that when in service, this would have been completely full of food as well as torpedoes. Up to 70 crew could be on board at any one time and as the four main messes were not large enough to accommodate all of the crew, extra bunks were fitted in the main passageway as well as on top of the stored torpedoes in the torpedo rooms.

Rob's knowledge of submarines was extensive and he was easily able to answer any questions that we put to him, often expanding his answers by giving real world examples from his own experiences at sea.

HMS Alliance was powered by two supercharged diesel engines, each generating 2000 hp and weighing 30 tons. These were used to charge the 226 lead acid batteries, each of which weighed half a ton and were located

below the main deck. The propellers were driven by two electric motors which were driven either by the batteries or directly by power from the engine generators. When the submarine was submerged below periscope depth, the entire submarine was powered by the batteries alone. When at periscope depth, a long snorkel was raised which allowed the engines to be run to keep the batteries charged. However, when snorkelling the noise level in the engine room was so high that it was only possible for the crew to communicate by hand signals. Preserving power was a major concern for the Captain. When underwater, the submarine could run at a maximum speed of 10kts, but with a range of only 16 miles. If the speed was reduced to 3kts, then the range went up to 90 miles. HMS Alliance holds an unbeaten record for this class of submarine for remaining submerged for a total of three weeks!!

In the control room, Rob gave us an excellent demonstration of how he would have operated the controls to make the submarine dive or surface. Finally, Rob showed us how submariners would have escaped from a damaged submarine. An escape hatch was located in both the forward and aft torpedo stowage compartments together with emergency breathing masks. A canvas trunk was lowered beneath each escape hatch and the compartment was then flooded. In turn, each sailor then took a last breath from the mask and swam under the canvas trunk and up out of the escape hatch. That one breath had to last up to 4 minutes during which time they had to swim up through about 100 feet of water. Rob also pointed out the escape tower building which was still visible at Gosport, where every submariner had to demonstrate a



The Submarine Escape Tower

simulated escape from a submarine every four years and swim up through 100 feet of water to the top of the tower. Once again, Rob's experience and expertise made this an extremely informative and interesting visit which was very much enjoyed by everyone who attended. I think my favourite quote of the day from Rob was that "in a submarine, you have to remember that you need to go up when you want to land". A good reminder that submarines are a very different world from that in which we normally operate, but my sincere thanks to Rob for a most interesting morning.

We then went to the "Explosion" Museum of Naval Firepower where we had lunch and then met up with Brian Russell, our guide for the afternoon.

This museum was located in a giant gunpowder store (Priddy's Hard) which was built between 1756 and 1805. It was vital that the gunpowder was kept dry and cool at all times and so the walls were a massive 8 feet (2.5M) thick and had to be left to dry out for 3 years after construction before any gunpowder could be stored in the magazine. Gunpowder was transported to the magazine by sea from factories in Essex. The barrels were all made of wood and copper to eliminate any risk of an explosion and when full, the magazine held a massive 4500 barrels of gunpowder (about 200 tons). As Brian pointed out to us, HMS Victory alone carried 35 tons of gunpowder plus 120 tons of shot, and the Naval fleet at the time had nearly 5000 guns in total.

Once cordite was introduced during 1893, the Navy stopped using gunpowder as its main propellant, and



the magazine was put to use to store boxes of cordite and shells, rather than barrels of gunpowder. During WW2, Priddy's Hard supplied most of the ordnance that was used during the D-Day Landings. The Falklands campaign in 1982 was the last time that Priddy's Hard supplied weapons to the Royal Navy and it was closed in 1986. It was then turned into a museum in 2001.

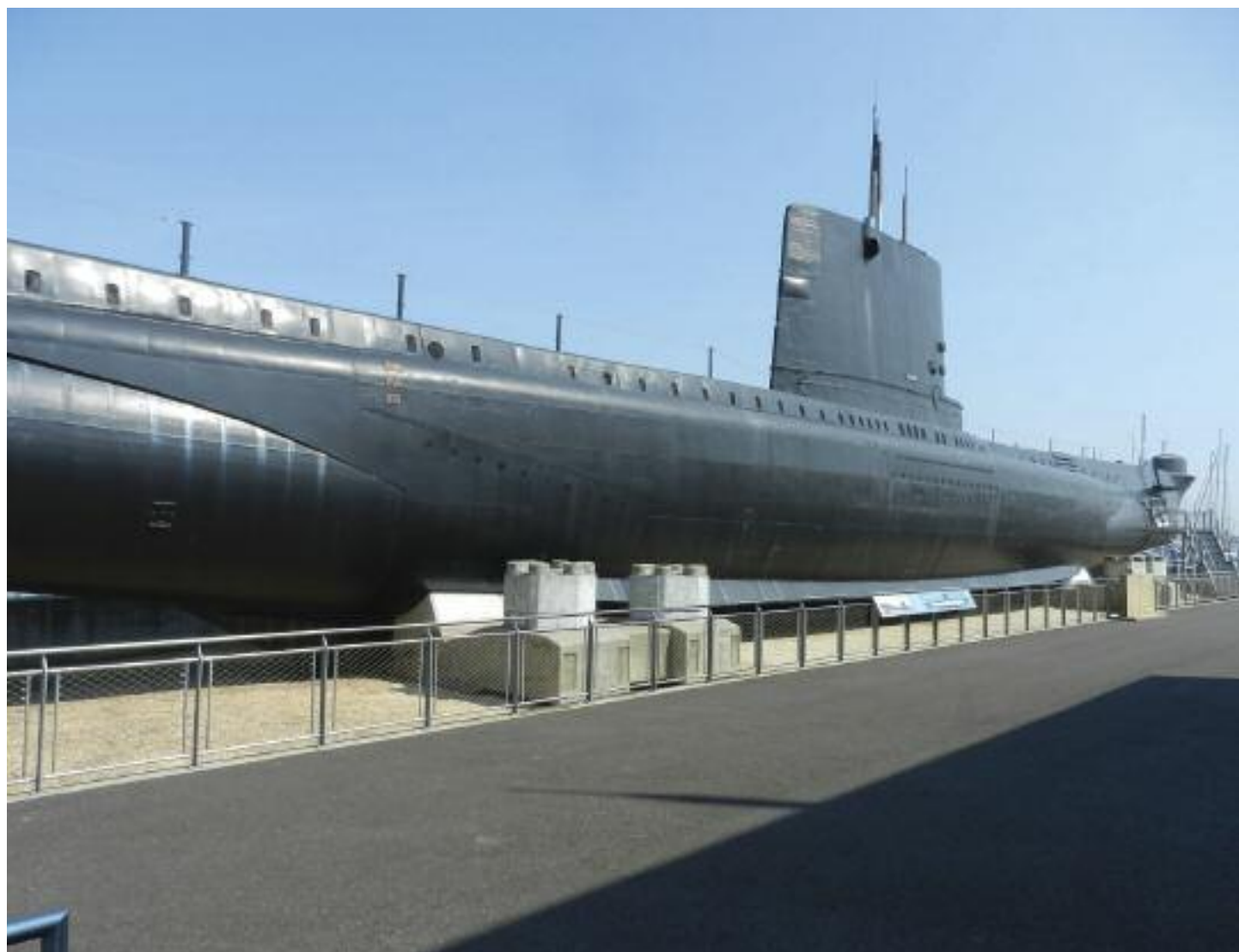
The rest of the museum showed the development of guns from early flintlocks and canons, right up to cruise missiles and atom bombs (there were

At the Ordnance Museum



three of them in the museum – disarmed of course). Once again, Brian was extremely knowledgeable in all aspects of the displays in the museum and we all really enjoyed his informative and interesting presentation.

HMS Alliance



Book Review

Canberra Boys - Andrew Brookes

Grub Street (£20.00)

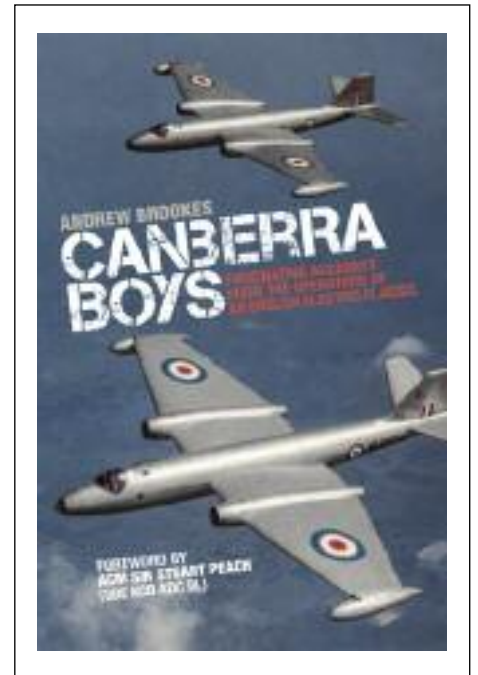
By Liveryman Tom Eeles

The rich vein of 'Boys' tales being mined by the Grub Street publishing house shows no sign of being exhausted. The latest offering from this prolific aviation publisher is 'Canberra Boys, fascinating accounts from the operators of an English Electric classic'. Starting with a foreword by the current Chief of Defence Staff, Air Chief Marshal Sir Stuart Peach, a former Canberra PR7 navigator, the book covers early design work and test flying at English Electric (now BAE Systems), then describes virtually every aspect of the Canberra's service with the RAF, RN, USAF, RAAF, RNZAF, the Indian and Pakistan Air Forces, the Fuerza Aerea Venezolana and the Fuerza Aerea Argentina.

There seems to be nothing the Canberra could not do. After being displayed in dramatic style by Wg Cdr 'Bee' Beaumont at the 1949 Farnborough Air Display the Canberra began its service career as a light bomber in RAF Bomber Command. It soon branched out into other roles, the first being photographic reconnaissance. It collected a number of world records for high speed long distance flights and was the first British aircraft to be built under licence in the USA since the DH9 in 1918. Canberras

were used in the tactical nuclear strike role, they were modified to undertake ground attack, close air support and interdiction, they provided air sampling, target facilities and airborne radar training platforms, they were used to calibrate navigation aids and to carry out electronic warfare training. Their long range and capacious bomb bays made them ideal aircraft for overseas flights to exotic locations, bringing home items not readily available. The Canberra PR9, fitted with secret state of the art reconnaissance equipment, was only retired from service in 2006, 55 years after the aircraft first entered service, an astonishing record.

Andrew Brookes has collected a wide mix of recollections from Canberra aircrew, covering all the diverse roles undertaken by the aircraft, supported by many black and white and colour photographs. The quality of the stories varies somewhat, unsurprisingly given the wide range of contributors and their literary skills. There are many fascinating insights into what is very much a bygone era. I hesitate to find fault; the only factual error I detected was in Chapter 18, Confrontation, when Jeff Jefford states that a rocket attack by 45 Squadron



Canberras on Boxing Day 1964 was 'the last live offensive sortie to be flown by an RAF Canberra.' This is not correct. That honour goes to 16 Squadron, detached to Kuantan in Malaya in 1965. In March, 16 Squadron was tasked to provide three Canberras loaded with full gunpacks of HE 20mm ammunition to undertake an offensive strafing operation over the same area of jungle infiltrated by Indonesian marines in southern Malaya, with Forward Air Control being provided by a Pioneer from Tengah. I know this is true as I was there!

As the CDS says in his foreword, 'this book reflects the worldwide sense of spirit, leadership, and adventure by the men who flew them and I commend it to the general and specialist reader alike.' I can do no better than to endorse this statement.



Brooklands Museum Visit - 19th May

By Liveryman Dr. John McAdam

Brooklands was the cradle of British aviation and our embryonic motor sport industry. Its museum holds a fine collection of vintage aircraft, motor cars and motor cycles, which stands compare with the best.

Expertly organised by Past Master Chris Ford, we were received at 1000hrs and called to attention by Past Master Mike Bannister who gave us all a most hospitable welcome and spoke of the history of the site. He explained how Brooklands, a couple of miles to the south of Weybridge, was the birth place of British aviation and motor sport. It attracted many aviation pioneers before the World War One, and went on to become a leading aircraft design and manufacturing centre throughout the 20th century. A remarkable total of 18,600 new aircraft of nearly 260 aircraft types were manufactured there in its eighty years' life. The genesis of these two industries was created by the local land owner Mr Hugh F. Locke King as early as 1907, who created the first purpose built racing circuit in the world. It is indeed hard to imagine with today's bureaucratic interference that it was built without planning permission, and

was completed without the aid of mechanical diggers in only nine months. This banked oval track, 2.75 miles long by 100 feet wide and banking 30 feet high in places, was the inspiration behind the Indianapolis Motor Speedway in the USA, which held its inaugural race in August 1909.

Prior to World War One, Brooklands attracted many now famous aviation pioneers such as Lord Brabazon and A.V. Roe (granted pilots' licences #1 and #2 respectively). More recently, a significant aviation anniversary was celebrated on 29th June 2012 when 50 years of Vickers aviation was remembered in the company of Angela Newton, the daughter of the late Sir George Edwards. It was half a century since the remarkable VC10 was first flown from the airfield by Captains 'Jock' Bryce, Bill Cairns and Brian Trubshaw. Three months later, with the expert help of museum volunteers, contractors moved the retired British Airways Concorde 40% scale model G-CONC from its home base at Heathrow to its new home as the museum's gate guard. Other memorable aircraft associated with here are of course the Wellington designed by Barnes Wallis.

Concorde in its new position



Concorde

Captain Mike Bannister then divided our party into two manageable groups and my group was taken around by an extremely knowledgeable volunteer guide, Tim Newman. The second group was taken around by Ms Jenny Tye, whose father was also a Concorde pilot. We first visited the vintage Motor Bikes, where to my joy I discovered a brother to my very first motor-bike – a 1936, 350cc Triumph side-valve, ridged frame. The early records on display just amazed me, as in 1912, George E. Stanley broke the one-hour record at Brooklands race track on his 350cc Stanley motorcycle becoming the first ever rider to cover over 60 miles in one hour. The following year in 1913, Percy E. Lambert set a world record at Brooklands covering just yards short of 104 miles in one hour, driving his 4.5 litre side-valve Talbot.

Tim Newman then gave us a highly professional tour of the magnificent motor cars. Historical motoring names such as Count Zborowski with 'Chitty Chitty Bang Bang' vintage 1921, (Monoposto) Bentley Blower Tourer, and Sunbeam Tigress and a Napier-Railton, both driven at 138 mph, are all on display to enjoy. As we toured past a commercial van, we were reminded that it was built by the coach builders Gurney-Notting of which family the now famous actress Penelope Keith is not only a scion, but now also a popular trustee of the Museum.

After lunch our day promised to become more active: we were escorted to a small theatre where unusually we were securely strapped into our very comfortable theatre seats, and prepared for a simulated formation flight with the Red Arrows display team. This

simulated experience is certainly the closest I will ever get to flying with this famous team.

In the same theatre one can sit in relative comfort, and experience driving in the 8-cylinder Napier Railton circa pre-World War One, with its gleaming aluminium bonnet stretching 10 feet before one's eyes; also driving with Mike Hawthorne around the Le Mans circuit in his D type Jaguar. Another racing simulator featured the McLaren MP4-22 of 2007 with a top speed of 215 mph.

Mike Bannister then gave us a history of Concorde's development from inception to operation on its many routes worldwide. This supersonic airliner was a joint venture between Great Britain and France and the first UK meeting took place in 1961 here at the site of the museum. It took all the resources of both nations to design, build and eventually fly this supersonic passenger jet. In all her twenty seven years of service, nearly three million passengers were able to fly on her. On 10th April 2003, British Airways

and Air France issued a joint statement that all Concorde's would make their last passenger flights, and on 24th October three of the British Airways fleet landed one after the other at London's Heathrow Airport. Captain Bannister then explained the history of Brooklands Museum's very own Concorde G-BBDG, and how it came from Filton (Nr. Bristol) to its final resting place within the Weybridge.

G-BBDG was always known as a production aircraft as she was developed from the prototype, and used to complete the majority of certification work specified for airline service. She was never used commercially, but was still flown around the world on marketing missions. After her final landing on Christmas Eve in 1981 she was hangared at Filton, until in 1984 she was bought by BA. In 2003, Delta Golf was offered to Brooklands, and, with financial grants from the lottery commission and private sources, she was divided into various sections for transportation by road from

Filton to the museum. It was here that she was re-assembled following a two year restoration project by local volunteers to her former glory. On 26th July 2006, Concorde G-BBDG was officially opened to the public by HRH Prince Michael of Kent.

Finally, the highlight of our day was experiencing the museum's own unique Concorde simulator (ex-BA); there was huge pleasure in being invited to sit, strapped into the captain's left-hand seat, and taking the controls for a simulated flight around Weybridge. With Captain Mike Bannister sitting firmly in the right-hand seat as my mentor, I took off and flew a couple of circuits which was quite a challenge, and a little different from the Cessna 152 I usually pilot. Mike very kindly gave us all a certificate to commemorate our 15 minute flight – but I suspect my report would read something like “Can do better.”

I must thank Chris Ford, Mike Bannister and all the museum staff for a most entertaining and welcoming.

Concorde Simulator flying



Sim flight deck



Flight ticket office



Vickers Viscount

National Memorial Proposed for Mount Erebus Air Accident

By Rev. Richard Waugh (Regional Chaplain) and Liveryman Captain Allan Boyce

Important initiatives are being taken by New Zealand Region members to plan for a national memorial for the 257 people who died in the 1979 Mt. Erebus air accident of Air New Zealand McDonnell Douglas DC-10 ZK-NZP (Flight TE901). At present there is no public memorial to the Erebus accident where all 257 names are gathered together.

A voluntary advisory group, with Lady June Hillary as Patron (widow of Sir Edmund), is advocating such a national memorial. We believe that the 40th anniversary in 2019 will be an appropriate time for its opening.

New Zealand as a nation continues to be affected by the tragedy and it is a public and pastoral oversight that nothing has yet been done to establish a national memorial for the Mt. Erebus accident victims, especially for the many families involved. The Mt Erebus accident with 257 fatalities – 237 passengers and 20 crew – is New Zealand's worst civil disaster and still the worst aviation accident in the Southern Hemisphere – 18 more souls than the number of people who perished on MH370.

This tragic accident on Mt. Erebus generated an air accident report, a Royal Commission of Inquiry, countless newspapers stories and articles, many books, and television documentaries. The New Zealand Region previously helped organise memorial services for the 20th



Rev. Dr Richard Waugh during the Erebus 25th anniversary service at Auckland's Waikumete Cemetery, sprinkling water, brought from Mt Erebus, over flowers in front of the memorial to 44 victims of the accident, November 2004. (FOTOPRESS/Sandra Teddy via Air New Zealand)

and 25th anniversaries of the accident. As part of their Masters Tour of the Region, Past Masters Captain John Hutchinson and Captain Dick Felix both played a prominent role during those memorial ceremonies.

It is perhaps worth underlining that no advisory group members, including ourselves, have any intention to refer to or discuss the cause(s) of the accident, and that the location for the national memorial and its funding plan has yet to be confirmed. Meanwhile extensive consultations are taking place, especially with the national government. The advisory group comments, "It is now time to put the controversy of the

accident to one side, and focus on a national memorial to those who died; a special place for families and all New Zealanders to gather and remember."

Dr Waugh and the advisory group are in discussion with many Erebus families, the Ministry for Culture & Heritage, and other organisations planning for a memorial on a similar scale and architectural appeal as the recently opened Canterbury Earthquake Victims Memorial.

See: www.erebusnationalmemorial.nz

Rev Dr Richard Waugh can be contacted at rjw@ecw.org.nz



Visit to RAF Marham - 6 July

By the Editor (Photos by the Editor and Alan Jackson)

It has been a little while since our last visit to this Norfolk station. Marham has risen further in importance within the RAF since it was announced it would become the home of the F35B Lightning. We were greeted by our host for the day, WO Mo Howard, the Station Engagement Officer. He gave a brief overview of the units currently on the base, and the programme of infrastructure upgrades for the arrival of the F35B summer next year. He had to bite his enthusiastic tongue to avoid stealing the thunder of colleagues whom we were to meet later in the day! The station's crest features a blue bull, deriving, we were told, from the Cold War era when Marham squadrons used our series of nuclear weapons which all had 'blue' names. He recalled the handover ceremony when the incoming Station Commander, one Greg Bagwell, decided the handshake photo opportunity would be best done in front of a live bull, instead of the more traditional silver bull trophy. Suffice to say, it did not go according to plan!

The 3 Tornado squadrons (IX(B), 12(B), and 31) have now been concentrated on the SE side of the airfield, leaving the SW quadrant for the construction of the new F35B facilities. With 3600 military and civilian staff, 1220 contractors, and 5,000

dependents, Marham is a sizeable community; its wage bill of £105m last year makes it one of Norfolk's biggest employers. Mo also briefed us on the role of 138 Expeditionary Air Wing, and both the Formed and non-Formed Unit personnel that make up its core. He pointed out that No 1 ISR Wing has recently moved to RAF Wyton, leaving behind No 2 ISR Sqn and a HQ Support Unit. Additionally the base hosts 3 Force Protection Wing HQ of the RAF Regt, 93 Expeditionary Armament Squadron, and 2620 (County of Norfolk) RAuxAF Regt Sqn, engaged in operational support. The vanguard from the RN (the Lightning squadrons being jointly manned) has arrived in the shape of a Met flight - described by Mo as "a bundle of fun" - the Met matelots that is.

All three Tornado squadrons have a proud heritage, IX(B) being one of the pioneers of night flying, for example. The airframe has been in service a staggering 35 years at RAF Marham used mostly in the ground reconnaissance, ground attack role. The GR4 was described by Mo as "without doubt our most versatile aircraft". Like the old girl that she is, performance has slipped somewhat below what the salesman might have originally claimed in the showroom, with its mid-life upgrades and additional



equipment, but the latest weaponry makes it a most potent asset. The Raptor pod gives very high definition image collection. The Tornado Force has been at a very high tempo of operations for the last decade or more and has recently been supporting operations in Iraq and Syria.

With a current end of service date of March 2019 for the Tornado, the pressure is on for the Typhoon squadrons to gain qualifications to launch the same suite of weapons. We were given a briefing about the capabilities of the new F35B and its likely initial weaponry fit, as well as the already planned changes and upgrades to these. 617 Sqn will arrive at Marham in the summer of 2018 (squadron pilots will likely deliver their own machines from

A nuclear bomb (inert) - the WE177



In the Museum





The key venerated Black Buck Victor

the US). To the consternation of some traditionalists 48% of aircrew will be dark blue. The inverse will apply to the second Lightning squadron - 809 Sqn (a Royal Navy 'number plate').

The STOVL nature of the F35B means that the secondary runway is being (re-) commissioned on the airfield. Alongside are being constructed three vertical landing pads which will ensure that no precious runway surface is incinerated by the aircraft's lift engine - every landing will be vertical, as the station's role will be to train the pilots to fly off (and indeed land on!) the QE class carriers.

Our first port of call was the Heritage Centre: this was one of the best base RAF museums I have seen, and our guide, Steve Roberts, was one of the most knowledgeable. This was less surprising when he later admitted that in a previous incarnation he had been station WO at Marham! He covered the full gamut of the station's more than a century's history, from its birth as RFC Station Marham, a Home Defence Aerodrome sitting alongside RFC Narborough, to its current status as the largest fast jet base in the UK. There were some fascinating artefacts: from a RFC leather flying coat, through a piece of the Black Buck Victor's cockpit, to a Tornado elevon with 7.62mm bullet hole (courtesy of some lucky Libyan idiot).

At lunch we had a welcome from the station commander, Gp Capt Rich Davies. He was understandably proud of



GR4 on the pan

the very hard work being done by his Tornado squadrons, in support of operations in Iraq and Syria. The Tornado could be said to be in Rich's blood - with all his 27 year operational flying career being on or around the type! His time was at an understandable premium, given he had hosted a visit by the CAS and First Sea Lord the day before our visit and indeed was in the middle of hosting another visit while taking a break to pop in and introduce himself to us.

We were then bussed to 12 Squadron where one of the aircrew showed us over several airframes, and introduced members to the hazards and fun of expeditionary air warfare. The first airframe was "Pinkie", so-called because it is still in its pink desert camouflage scheme (from Op Granby). Such named and non-standard coloured airframes are

all (twin-stick) trainers. The Flt Lt explained how the back seater (a WSO) was invaluable in high-intensity ground attack, and can enable very fast response times when called from standing patrols. He also mentioned how during the Tornado's c. 40 year life most of the evolution in avionics had occurred in the rear cockpit, with the pilot still having largely analogue displays. There was a useful exposition of the type's strengths and weaknesses. Marham has often been quiet when I have flown through its MATZ of late, so it was heart-warming to have our chats frequently broken up by the sounds of Tornados starting up, taxiing, and taking off, with some Typhoons also in the circuit.

We then decamped to 93 Expeditionary Armament Squadron, for a thorough tour of the weaponry by a Sergeant and



Marham can look uncannily like some of our former RAF Germany airfields



The RAF's sole (European) F35b in action at the 2016 RIAT



Ready for action

a very knowledgeable female SAC. The flexibility offered by fusings for the Paveway IV, and the precision of the Brimstone (with a small blast radius guaranteeing little collateral damage), was notable – these are truly 21st century weapons for 21st century intra-urban conflicts.. On the assumption that most Company members pay UK taxes (!), there was a healthy interest in the cost of these weapons, and in their shelf (& air) life.

As our bus trundled round the Southern perimeter track, we had a good view of the construction of the Lightning facilities. I was amused to note this is titled Project Anvil (Operation Anvil was firstly the invasion of Southern France in 1944, and more recently the nuclear tests in Nevada in 1981–2).

After a gander at the two gate guardians opposite station HQ (a Victor and of course a Tornado), and an obligatory group photo, we gave our very grateful thanks to WO Howard for a most interesting visit. For young airmen and aircrew Marham remains well removed from any pulsating nightlife (not for nothing was it known as “El Adem with

grass”). But the Tornado Force is in the vanguard of our offensive effort, and the noise of the (surprisingly small) Turbo-Union RB199 engines is indeed the sound of freedom. The advent of the F35B Lightning will mean that Marham remains one of our most important defence assets for some while.

Thank you as ever to David Curgenven for organising this fascinating day.

See also Tom Eeles’ article “A Short Visit to the Front Line” (in his case IX Sqn) in our April 2017 issue.



The Tornado has a proud history on ops



The Air Pilots group at the end of the visit

Echoes across the Century

By Warden John Towell

Echoes across the Century is a commemoration by London schoolchildren of the 100th anniversary of WW1. Livery Companies organised by Livery Schools Link have been supporting students to gain a greater insight into the human and social effects of conflict. Tapping into the experience of Livery companies, and using art as a medium, history has been brought vividly to life. Each livery company added a different perspective of how the conflict introduced major changes to society and the rapid development of technologies. The learning has particular relevance for today, especially in the areas of arbitration and conflict resolution.

The project grew from an idea by Alison Truphet, which was developed with artist Jane Churchill and Livery Schools Link. The Air Pilots were influential right from the beginning some years ago with Assistant Rick Thomas and Warden John Towell on the team that decided to make an ambitious bid to the Heritage Lottery Fund for funding. We were all delighted and somewhat surprised when the funding was agreed!

Over the last year eleven different Livery Companies have been working with 14 schools and around 240 students. Artist Jane Churchill spent a week at each school working with groups of students. She was supported by representatives

from different Livery companies at each school. The Air Pilots teamed up with the Coachmakers' company, Hampstead School and the RAF Museum at Hendon. On the first day I gave a presentation giving an insight into the role of aircraft in the war including aspects of their operation, the human side of the battles, and how the technology and industry developed. I also gave a brief overview of the aviation industry today, opportunities available and the role of the Air Pilots. Liveryman John Blauth of the Coachmakers' company explained how the aircraft manufacturing industry developed, and how a massive change in society enabled the industry to manufacture aircraft. The RAF Museum hosted us on the second day with a superb tour of the WW1 exhibition guided by Vernon Creek. The schoolchildren had access to a wide range of artefacts and facilities to work on drawings. Jane Churchill coached the students on capturing drawings, images and memories in their sketch books for use when developing their art work over the rest of the week. By Friday the output, learning, and understanding achieved was very impressive. The group of artists then presented their work to the whole school and created an exhibition. Week by week a similar pattern was followed at different schools supported



Artist Jane Churchill meets the Lord Mayor

by different Livery companies. All of the artwork was then combined by Jane Churchill into a major installation to create the highlight of the project with the exhibition in the Guildhall Art Gallery. This was officially opened by the Lord Mayor who spoke very warmly about the project and the positive role of London Livery companies supporting others. The Master and his Lady also attended the presentation ceremony where the students were each awarded certificates. This incredible exhibition was the first time that art work created by children had been displayed in the gallery. It is a testament to the power of Livery Companies working together to support young people in London that

Alison Truphet guiding the Lord Mayor around the exhibition



Hampstead School exhibit



Echoes across the Century has been declared such an outstanding success.

The set design was based around a First World War trench and the walk-through exhibition explored the stories of soldiers, ordinary people supporting the war effort 'behind the scenes', and the grief-stricken families, friends and lovers that were left behind. It provided an immersive 'behind the scenes' experience that gave a fascinating glimpse into what was a very difficult and harsh reality for many. Interwoven throughout the exhibition was the artwork of the schoolchildren aged between six and seventeen. The exhibition featured over 600 objects through which real and imagined tales were told via heritage artefacts and reactive 'response' artworks. The project benefited from a grant of £99,800 from the Heritage Lottery Fund, and was the gallery's first exhibition to operate as a large-scale installation.

Jane Churchill, Curator of Echoes Across the Century said: "This has been a very personal experience for me as I have always had a connection to WW1. My inspiration for the project came from the terribly sad story of my own great great-uncle, and the affect his death had on those he left behind. Working with such wonderful and talented students has been deeply rewarding as they all embraced the project and understood how art could be used to express both history and emotion. They developed independent thinking and confidence, as they worked with me to explore different skills and techniques to bring these stories to life."

The Hampstead exhibit



Hampstead School guided tour of RAF Museum



Jane Churchill and student at RAF Museum



The Master and the Master Coachmaker beside the Hampstead exhibit

